SoftCinema

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SoftCinema

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Chapter 1

SoftCinema

1.1 SoftCinema

```
SoftCinema V0.8a
Copyright ©1999-2000 by Total Vision Inc.
http://jota.wi.tuniv.szczecin.pl/~bjsebo/
e-mail:noe@webnet.pl
```

Movie/animation player for the Amiga with PowerPC processor.

Currently supported formats:

QuickTime Movie (QT/MOV)
Video for Windows (AVI)

History

```
Introduction
What the hell is that?

Features
Who requested fountain?

Requirements
Do I need a pc?

Instalation
Where I should put it?

Usage
Keyboard not found. Press F1 to continue.

Registration
Money, Money, Money, must be funny, In a rich man's world...

Authors
Someone is still developing for Amiga?
```

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What has been.

MUQ

FAQ.

1.2 Introduction

 ${\tt SoftCinema\ is\ a\ Movie/Animation\ player\ for\ Amiga\ computer\ equiped\ with\ PowerPC\ processor.\ This\ program\ is\ SHAREWARE,\ which\ means,\ that\ you\ should$

register

it to take adventage of all options. It is also early version. If you decide to register, I will get proof, that my work has sense, and I will get motivation for future improvements.

Unregistered version plays only first 30s of animation. But it is enough to see what it can do for you.

I would like to thanks all the people who has already registered SoftCinema and who has send me bug reports, or suggestions.

1.3 Features

This is an early version. It means that only a bit of things I am planning to implement is actually implemented.

Program can be started from both CLI and Workbench.

Animation can be played in window opened on public screen, or on full screen (full screen is available for AGA only right now).

This program uses AGA, or a graphics card under CyberGFX control.

SoftCinema can also play audio tracks, using AHI.

Actually following movie formats are supported:

QuickTime Movie (.qt, .mov))
Video for Windows (.avi)

Actually supported codecs (compression formats)

QT Video

Apple Video (RPZA) 16 bit
Radius Cinepak (CVID) 8/16/24/32 bit
CCITT H.263 (H263) 24 bit
Intel Indeo 3.1 (IV31) 24 bit

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```
Intel Indeo 3.2 (IV32) 24 bit
             !
                 Intel Raw YUV (YVU9) 24 bit
             !
                 Intel Indeo 4.1 (IV41)
                                         24 bit
             !
                 Intel Indeo 5.0
                                  (IV50)
                                          24 bit
                 Microsoft Video 1 (MSVC/CRAM/WHAM) 8/16 bit
 Apple Graphics
                  (SMC )
                          8 bit
                 (RLE )
 Apple Animation
                          8/16 bit
 Photo JPEG (JPEG)
                      8/24 bit
               (MJPA) 8/24 bit
 Motion JPEG A
 Motion JPEG B (MJPB) 8/24 bit
QT Audio
 Uncompressed PCM (raw ) MONO/STEREO 8/16 bit
 Uncompressed signed PCM (TWOS) MONO/STEREO 8/16/32 bit
 IMA ADPCM 4:1 (IMA4) MONO/STEREO 16 bit
AVI Video
 Radius Cinepak
                  (CVID) 8/16/24/32 bit
 CCITT H.263 (H263) 24 bit
 Intel Indeo 3.1 (IV31)
                          24 bit
                 Intel Indeo 3.2
                                (IV32)
                                         24 bit
                 Intel Raw YUV (YVU9) 24 bit
             !
                 Intel Indeo 4.1
                                  (IV41)
                                         24 bit
                 Intel Indeo 5.0
                                  (IV50)
                                           24 bit
                 Microsoft Video 1 (MSVC/CRAM/WHAM) 8/16 bit
 Photo JPEG
               (JPEG)
                      8/24 bit
 Rainbow Runner JPEG (DMB1) 8/24 bit
AVI Audio
            (0x0001) MONO/STEREO 8/16 bit
 WAVE PCM
 Microsoft ADPCM (0x0002) MONO/STEREO 16 bit
           (0x0006) MONO/STEREO 16 bit
 DVI/IMA ADPCM (0x0011) MONO/STEREO 16 bit
Those are codecs, which I could test (I got movies compressed
with those codecs) If you got movie which can not be played
or is played wrong, please contact
             . Please do not send me
files without confirm !!!
```

1.4 Requirements

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Hardware:

Amiga with PowerPC board.

AGA Chipset or graphics card running under CyberGFX control.

8 MB of memory.

Software:

AmigaOS 3.0+
CGFX v3+ (if you got graphics card).
PowerUP v46+ or ppc.lib emulation for WarpOS.

(SC requires latest emulation library, which is 0.7b)
AHI v4+ for sound.
If you are using AGA, I suggest to install FBlit
(available on aminet).

1.5 Instalation

Simple copy all files from this archive to any place on your HD.

If you are still using AGA chipset, I suggest you to install FBlit. You can find this program on any aminet site. But do not add SoftCinema to the list of programs in FBlit prefs program. SoftCinema is automagically using FBlit features, if FBlit is installed pn your system. As you will see, FBlit will make SoftCinema to run almost twice faster.

ATTENTION! I do not take any responsibility for damages caused by FBlit. Please contact FBlit author in this case.

You should also download codec libraries for XAnim (compiled for LinuxPPC) and after decrunching place it in codecs/directory. You can get those libraries from any XAnim mirror site, for example:

http://xanim.resnet.gatech.edu/linuxELFppc.html http://xanim.va.pubnix.com/linuxELFppc.html

You will need tar and gzip programs (from GeekGadgets) or untgz program from Aminet, or any similiar program to decrunch those files.

Tested libraries:

name: Intel YVU9 and Indeo 3.2 Decompression for AVI and Quicktime archive: vid_iv32_2.1_linuxELFppc.tgz file after decrunching: vid_iv32_2.1_linuxELFppc.xa

name: Intel Indeo 4.1 Decompression for AVI and Quicktime
archive: vid_iv41_1.1_linuxELFppc.tgz
file after decrunching: vid_iv41_1.1_linuxELFppc.xa

name: Intel Indeo 5.0 Decompression for AVI and Quicktime
archive: vid_iv50_1.0_linuxELFppc.tgz
file after decrunching: vid_iv50_1.0_linuxELFppc.xa

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Following libraries also works with SoftCinema:

CCITT H.263 Video Decompression for AVI Radius Cinepak Video Decompression for AVI and Quicktime

But the same codecs are implemented internally, so there is no need to use them. I repeat, DO NOT INSTALL THIS TWO FILES, IF INTERNAL CINEPAK AND H263 CODECS WORKS FINE.

However, if you encounter any problems with movie compressed with this 2 codecs, install those libraries, and see what will happen (copy it to codecs directory, it will replace internal codec). Please also inform

me

about yours problems.

Other libraries available on XAnim home page were not tested, because I don't have any movies using those compressions. If you got movies that are compressed with those codecs, please contact

me

.

You have to know, that author of XAnim does not allow to use those codecs with other programs than XAnim, and that this is illegal. I have decided to use this codecs because there is no other way to support them (their authors does not releases their sources). If you think that this is inmoral, simple do not install those codecs. You have been warned. Choice is up to you.

1.6 Usage

SoftCinema can be started from both CLI and Workbench.

Starting SoftCinema from CLI:

Template:

FILE, GRAY/S, COLOR/S, DITHER/S, FULLSCREEN/S, HAM8/S, HAM8DITHER/S, FULLRATE/S, NOAUDIO/S, NOVIDEO/S, DIRECTGFX/S, VERBOSE/S

Description:

FILE/A

File name (with full path) of movie to play. If no filename is specified, ASL requester will popup.

FULLSCREEN/S

Play animation on own screen. Right now it works only on AGA. Default off (animation in window on public screen, usually WorkBench).

GRAY/S, COLOR/S, DITHER/S, HAM8/S, HAM8DITHER/S
Those parametters are for AGA only, and describes how should

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be the hi- true- color mode emulated. Only one of those switches can be used at one time. Default is GREY. Last two parameters are only for FULLSCREEN mode.

NOAUDIO/S

If file contains audio track, it will not be played. By default sound is enabled.

NOVIDEO/S

If file contains video track, it wont be shown, If there is audio track available, you will hear sound.

FULLRATE/S

This switch will cause movie to be played at full rate available on your hardware (limited only by CPU power, and graphics chipset). All frames will be displayed (no frames will be skipped, in other words). By default frame rate is taken from stream.

DIRECTGFX/S

If this parametter will be specified, a fast direct video access routines will be used, instead of WritePixelArray(). But it may be dangerous. Please let me know, when you encounter any problems with this options. Also note that only the following pixel formats are supported right now:

PIXFMT_RGB15 PIXFMT_RGB16 PIXFMT_ARGB24

When SoftCinema prints:
Unsupported pixel format: x

Then your screen uses different pixel format, that this 3 listed above. I will add another conversion routines later, if there will be any interest in this...

VERBOSE/S

This switch will cause that additional information will be printed in ${\tt CLI.}$

Starting SoftCinema from WorkBench:

Just double-click on SoftCinema icon.

Available tooltypes:

FILE=file name GRAY

COLOR

DITHER

FULLSCREEN

BMAH

HAM8DITHER

FULLRATE

NOAUDIO

NOVIDEO

DIRECTGFX

VERBOSE

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Their meaning is the same as the CLI parammetters.

After running SoftCinema, window or screen will be opened. On bottom border you will see some gadgets for program control.

```
[+----][>][^]
```

Slider is used for movie seeking. Right arror gadget is used to play/pause movie. Up arrow gadget is used for new movie selection (EJECT) Close gadget closes window.

If you running SoftCinema with FULLSCREEN option you can open/close control pane using right mouse button.

Program can be also controled via keyboard:

SPACE - PLAY/STOP ENTER - EJECT ESC - EXIT - - zoom out + - zoom in

As usual, for PPC programs, you should set stack to at least 100Kb. SoftCinema is not that stack hungry, like the "famous" fastest PPC program;), and does not requires Megabytes of stack.

In case of error a message will be shown (also if movie format can not be recognized). Some errors are only shown as a number - it will be changed soon.

1.7 Registration

Registration fee is 15\$, 15EU, 30DM or equal amount in other currency. If you live in Poland you should read polish guide – there is special offer for people from Poland.

If you want to register, you should fill register form (register_form.eng) and send it to

me

via email, or printed

in envelope. Please include all information about yourself - those informations will be used only for users evidence.

The only way to pay for SoftCinema is sending money in envelope.

After I will receive your money, I will send you personal key file via email. Please make a copy of this key, and of course do not redistribute it.

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1.8 Authors

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SoftCinema was made by:

Jacek Cybularczyk (noe@webnet.pl)

ul. P.Jasienicy 4/7
70-492 Szczecin
POLSKA

Testing, english docs translation, and other help:
Sebastian Jëdruszkiewicz (bjsebo@jota.wi.tuniv.szczecin.pl)
All icons comes from GlowIcons (c)1998 by Matt Chaput.

Maybe someone will draw some icons for me?

1.9 History
```

09.06.1999 Every saga has a beginning... 10.07.1999 First frame :-) was decoded... QuickTime Cinepak GRAY, saved on disk. 18.09.1999 V0.5 First public release... 26.09.1999 VO.6 Fixed PCM stereo playing. Implemented frame skipping. Fixed AVI indexing (microsoft? Buuuuu...) Fixed QT audio track recognizing. Added Microsoft Video 1 (MSVC/CRAM/WHAM) codec, 16 bit version only. Unregistered version now playing 30 seconds of movie. 15.11.1999 V0.7 Added GUI (Amiga type for now). Added Microsoft ADPCM audio codec (for AVI). Added Microsoft Video 1 8-bit (MSVC/CRAM/WHAM) codec. Added Apple Graphics (SMC) video codec (for QT). Added Apple Animation 8/16-bit (RLE) video codec (for QT). Added IMA4 stereo decompression (now working :-) Added FBlit internal support. Added ToolTypes and Workbench startup. Minor fixes in QT parser. Speedup some functions. All is more stable. 23.12.1999 V0.8 Added Photo JPEG video codec.

Added Motion JPEG A video codec.

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Added Motion JPEG B video codec.
Added Rainbow Runner video codec.
Added a-LAW audio codec.
Added DVI/IMA ADPCM audio codec.
Fast direct CGFX video access routines.
Scalable output on AGA machines.
Keyboard control.
Asynchronous disc reading.
Some other changes, and bugfixes.

10.01.2000 V0.8a Mostly small bugfixes.

SC will now work correct under WOS ppc.lib emul.

1.10 Most usual questions

First of all: Please read documentation!! A lot of questions $\ \ \ \ \$ shows,

that their authors have not readed guide. I am not writting the guide for myself.

1. Q: When will new Venus Art demo be available?

A: ??? Oh, yes Venus Art. Venus Art is a past. That is why we changed name to Total Vision. No more demos. End. Finito. Ende. Fin. Kaniec filma.

2. Q: I havent downloaded codecs from XAnim home page, and movies compressed with Intel Indeo 5 does not works. Is it MCP fault?

A: No, it is your fault. You have not readed docs. Please read $% \left(1\right) =\left(1\right) +\left(1\right) +\left($

This

3. Q: I've got 060 and I think that this CPU should be enough fast for playing movies. Will SoftCinema be available for 68k processors?

A: I did not planned such a version. And I am still not planing doing that. There are already available players for 68k. Besides that SoftCinema is optimized on algorithm level for PPC.

4. Q: Why are you supporting this fu..ink powerup system? What about WarpOS version? WOS is the future. And WOS is better in everything.

A: Because we dont want to spent hundred \$ for StormC? Wos version will be available one day, when I get rid of more importants problems. Right now it is working under emulation, so I dont see a problem here.

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5. Q: Why this program is so slow? 603@200 is faster than 040@25 by a factor of 11, so ciname should be faster that Moodiv by a factor of 11.

A: Sure. maybe 111? Benchmarks are good to show pC users that you got a fast CPU, this has nothing to do with real speed.

Remember about the fact, that all system is running on 68k, so all system call (and this is done a couple of times per animation frame) is causing a big slowdown. SoftCinema recompiled for LinuxPPC is twice as fast as Amiga version (running on the same computer). Besides, current Amiga architecture (slow memory, slow graphics cards - usually slow gfx memory access, no L@ caches) do not allow to use all PPC speed. We will wait for p5 G3/G4 cards, then we will know more. And you have to know that we got MCP750 and Altivec dokumentation already;))

6. Q: Because for windows, linux and mac movie players are available for free (distributed with system), I think that SoftCinema should be also available for free...

A: Sure, I also want all programs to be available for free. Question should be send to actual OS producers (H&P) not to me.

And one more. This ${\tt Q}$ was asked only once, but it made me laugh so here is the answer ;)

Q: Is there a possibility to buy a license for using XAnim codecs?

A: Sure. Why dont you write this by yourself? All you guys can do is cut & paste some code from XAnim.

I had to write XAnim DLL's loader by myself (Xanim is using standard linux kernel functions to load and use shared libraries), so you can do it also (if you are good enough).