

CyberAVI

COLLABORATORS

	<i>TITLE :</i> CyberAVI		
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REVISION HISTORY

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Contents

1	CyberAVI	1
1.1	main	1
1.2	background	1
1.3	requirements	2
1.4	encoding	2
1.5	shell	3
1.6	workbench	4
1.7	xanim	4
1.8	credits	5
1.9	distribution	5
1.10	contact	5
1.11	history	6
1.12	bugs	6
1.13	disclaimer	7

Chapter 1

CyberAVI

1.1 main

CyberAVI 1.2a

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CyberAVI is a fast AVI animation player for 020+ machines with AmigaOS 3.0 or higher and a graphic card with CyberGraphX.

Background

Requirements

Supported encodings

Shell parameters

Workbench parameters

XAnim

Credits

Distribution

Contact info

History

Bugs

Disclaimer

1.2 background

The main reason why CyberAVI was developed was because all existing animation

players for AVI files were either far too slow or didn't support my graphic card in the way I wanted. All ports of XAnim supported just a very few file formats and were "optimized" for the original Amiga graphic chipset.

So I planned to write such software myself. Because I own a CyberVision64 graphic card it was so easy to support the different file types with display depth >8 bits. Until now I don't plan to support AGA in any way. Sorry...

CyberAVI was developed on:

- A4000/030 (yes, just an MC68EC030 at 25MHz)
- OS3.1
- 2MB ChipRAM
- 16MB FastRAM
- FastLaneZ3 SCSI host (disk capacity about 1.3GB)
- CyberVision64 with 4MB graphic memory
- Philips 17B 17" monitor

1.3 requirements

minimum hardware requirements:

- Amiga with AmigaOS 3.0 (V39)
- MC68020
- a graphic card (eg. CyberVision64, Picasso II, Retina, etc)
- 2MB of FastRAM

software requirements

- CyberGraphX 2.16 (maybe it will work with earlier versions, I didn't test that)
- asyncio.library V37

recommended hardware requirements:

- Amiga with AmigaOS 3.1 (V40)
- MC68040 25MHz

Sorry, but there is no support for ECS/AGA. CyberGraphX is far too easy to use with screen depth >=8 bit, so I didn't implement any dithering routines. Maybe AGA will be supported in later versions (but do not expect this!).

1.4 encoding

CyberAVI's implementation of AVI codecs is based on the source code to Mark

Podlipec's

XAnim

program. I will add more codecs as I need them and get any animations to test them.

Supported codecs until now:

Video:

Microsoft Video 1 (CRAM) 8/16 bit

Radius CinePak	(CVID)	24 bit
Microsoft RGB	(RGB)	16/24 bit
Microsoft RLE8	(RLE8)	8 bit
IBM Ultimotion	(ULTI)	16 bit

Audio:

PCM 8 bit

Sorry, but audio support is still very bad and listens awfully...

1.5 shell

The command template for CyberAVI is...

```
FILES/M,FRAMESPERSEC=FPS/K/N,DELAY/K/N,BUFFERSIZE=BUF/K/N,
SOUND/S,LOOP/S,SCREENMODEREQ=SMR/S,FORCE24/S,DEBUG/S
```

FILES One or more AVI files you want to view.

FRAMESPERSEC Forces the playback speed to the given frame rate. If you don't specify the value and CyberAVI is unable to find a frame rate set in the animation, a default value of 15 fps will be used.

DELAY CyberAVI will wait the given amount of seconds before displaying the first frame. This is very useful if you have a slow synchronizing monitor, so you don't miss a few frames at beginning of the animation. Default value is 1 second.

BUFFERSIZE Sets the buffersize for asynchronous reading. Default value is 32K per buffer. `asyncio.library` allocates `_two_` buffers of the given size!

SOUND Enables sound playback. If audio codec is unknown sound playback will be switched off.

LOOP Enables looping of the animation when it finishes. The default is to exit at the animations end.

SCREENMODEREQ Enables screenmode requester. If the screen is to be opened for playback you can choose a screenmode here.

FORCE24 Forces 16 animations to be displayed on a 24 bit screen. This may increase playback speed a bit.
NOTE: This option only works for 16 bit animations.
For 8 bit animations this option will be ignored!!
For 24 bit animations this option is (of course) senseless.

DEBUG Enables debug mode. When switching debug mode on CyberAVI

will print much stuff to the output window describing the work being done.

CyberAVI will terminate either if the animation was played to the end, or if CTRL-C or a mousebutton is pressed while playing.

CTRL-C will quit CyberAVI totally, pressing a mousebutton will just stop playing the current animation and start the next one (if there is one).

1.6 workbench

Sorry, Workbench startup is not supported upto now...

1.7 xanim

The AVI codecs that CyberAVI supports are based on the source code to Mark Podlipec's XAnim program. XAnim supports a number of other AVI video codecs, as well as QuickTime files.

The key differences between CyberAVI and XAnim for AVI files are...

- o XAnim is more powerful and more general than CyberAVI.
- o CyberAVI requires a CyberGraphX compatible graphic card.
It will not work on a standard Amiga with just ECS or AGA chipset.

A gzip compressed archive of Mark Podlipec's XAnim can be obtained from:

<http://www.portal.com/~podlipec/home.html> "The XAnim Home Page"

```
/*
 * xanim.c
 *
 * Copyright (C) 1990,1991,1992,1993,1994,1995,1996 by Mark Podlipec.
 * All rights reserved.
 *
 * This software may be freely copied, modified and redistributed without
 * fee for non-commercial purposes provided that this copyright notice is
 * preserved intact on all copies and modified copies.
 *
 * There is no warranty or other guarantee of fitness of this software.
 * It is provided solely "as is". The author(s) disclaim(s) all
 * responsibility and liability with respect to this software's usage
 * or its effect upon hardware or computer systems.
 */
```

1.8 credits

CyberAVI is written by Thore Böckelmann using Amiga Oberon 3.10 and GCC 2.7.0

Thanks to Joachim Greve for his CD-ROM with CRAM AVI animations.

Thanks to Stefan Nobis for his CD-ROM with Ultimotion AVI animations.

Thanks to Thomas Wenzel for his animations with RGB and RLE compression.

The XAnim program is written by Mark Podlipec. XAnim6 on the Amiga is a port by Terje Pedersen. XAnim is ©1990-1996 by Mark Podlipec.

asyncio.library was written by Martin Taillefer, Magnus Holmgren and Olaf Barthel

The following copyright applies to all Ultimotion segments of the code:
"Copyright International Business Machines Corporation 1994, All rights reserved. This product uses Ultimotion(tm) IBM video technology."

1.9 distribution

CyberAVI is Copyright ©1996 by Thore Böckelmann.

CyberAVI may be freely distributed as long as the following conditions are met:

- all files have to be kept together
- no file may be modified or crunched/packed
- the only official way to distribute this demo packed is the original .lha archive

1.10 contact

My addresses:

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1.11 history

V1.0:

17-May-96 - first release on Aminet

V1.1:

19-May-96 - corrected version string
now it should look like "CyberAVI Vx.x (date)"
- timer checking implemented
now playback speed should be the same on MC68030 and MC68060
- added user adjustable playback speed
- added startup delay
- added user adjustable buffersize for asynchronous I/O.

26-May-96 - added support for RGB and RLE compression
- small speed improvements

28-May-96 - playback may now be aborted by pressing any mousebutton
- reduced CVID memory usage a lot by decreasing maximum allowed
strip count from 16 to 4. This may lead to incompatibility
with some animations, but I never saw any animation with more
than one strip. Please report your experiences with this.

V1.2:

31-May-96 - fixed a bug that caused "memory header to located" gurus
- again some small speed improvements

2-Jun-96 - added screenmode requester option
- added file requester
if CyberAVI is called without a filename a requester will pop
up for selection

5-Jun-96 - fixed a bug that caused crashes, when CyberAVI was called with
non-AVI-files (released as V1.2a)

1.12 bugs

Known bugs:

- Memory usage increases when playing more than one animation at a time.
To avoid this just start CyberAVI with only one animation at a time.
- playback speed is limited to 5000 fps maximum. This is not a real bug, but
you should know it. I think 5000 fps is fast enough ;)

If you should find any additional bugs or if you have any suggestions please

contact me

.

I hope there are no Enforcer or Mungwall hits in CyberAVI. Unfortunately I have no chance to test this myself (why did C= use an MC68EC030 without MMU instead of an MC68030 with MMU??).

If you should find some hits, please report them to
me

.

1.13 disclaimer

No warranty, either express or implied, is made with respect to the fitness or merchantability of CyberAVI.

Thore Böckelmann (referred to as "the author"), reserves the right to not develop any future versions of CyberAVI.

The author will try to make a good faith attempt at correcting any problems if any are discovered, but is in no way required, nor bound to correct them.

The author neither assumes nor accepts any responsibility for the use or misuse of these programs. He will also not be held liable for damages or any compensation beyond the original registration fee due to loss of profit or any other damages arising out of the use, or inability to use this program.

The author will not be liable for any damage arising from the failure of this program to perform as described, or any destruction of other programs or data residing on a system attempting to run the programs.

The user of this program uses it at his or her own risk.
