

**CyberAVI**

<b>COLLABORATORS</b>
----------------------

	<i>TITLE :</i> CyberAVI		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		July 20, 2024	

<b>REVISION HISTORY</b>
-------------------------

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1</b>	<b>CyberAVI</b>	<b>1</b>
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 . . . . .	7
1.13	disclaimer . . . . .	7

## Chapter 1

# CyberAVI

### 1.1 main

CyberAVI 1.3  
Copyright ©1996 by Thore Böckelmann

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 to 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 planed 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)

- AmigaOS 3.1
- 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 to easy to use with screen depth  $\geq 8$  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)	16/24/32 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...

My worst problem is to support the Intel Indeo codec. Intel charges \$5000 (in

---

words: five thousand US-Dollar) for a licence to their source code. So it seems to be impossible that Indeo is ever supported :(

## 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. If none is given a file requester will pop up to let you choose one or more animations.

**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 64K per buffer. `asyncio.library` allocates `_two_` buffers of the given size! The maximum value possible is 1048576 which would mean a buffer of 1GB of memory! If you specify an invalid size (e.g. negative values) the default value of 64K will be used.

NOTE: This value is interpreted as the given amount of blocks of 1024 bytes. So a value of 50 means 51200 bytes and NOT 50 bytes!!

**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:

Snail mail:

Thore Böckelmann  
Stephanusstraße 82  
D-33098 Paderborn  
Germany

Tel: +49-5251-730837

Thore Böckelmann

---



Entgelhof 11  
D-32278 Kirchlengern      Tel: +49-5744-1309 and +49-5744-1323  
Germany

EMail:  
tboeckel@uni-paderborn.de (Thore Boeckelmann)  
tboeckel@guardian.infox.com (Thore Boeckelmann)

FidoNet: 2:2432/230.15  
AmigaNet: 39:170/410.15

## 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 incompatibiliy  
                  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)
- V1.3:  
10-Jun-96      - added support for 32bit RGB animations  
                  - raised default buffer size for asynchronous reading to 64K  
                  - many people complained that CyberAVI did not correctly open  
                  its screen. I hope this is fixed now.
-

- 14-Jun-96    - fixed a bug in RLE8 decoding. Thanks to Steve Cutting for his really \_BIG\_ RLE8 animation to find this bug.
- 16-Jun-96    - seems I have found a bug in MainActors AVI saver. MA saves a buffersize of 0 instead of the correct value. This lead to crashes before.
  - improved sound support. I hope it listens better now.

## 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.

---