Savage040-060_eng

László Török

Savage040-060_eng ii

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Savage040-060_eng

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Chapter 1

Savage040-060_eng

1.1 Savage040-060 Main Menu

Savage-videodriver for 040-060 Amigas

For ShapeShifter Macintosh Emulator

Version 2.41

What's this?

The driver's description

Requirements

Required hard & software

What's the MMU?

Technical description of the MMU

Tech stuff

Tech stuff about the driver

Configuring

How to configure the driver under ShapeShifter

Refresh rate

Setting the refresh rate

VBLANK vs. Normal

VBLANK vs normal refresh

Testresults 68060/60Mhz 68060/60Mhz testresults

Testresults 68040/40Mhz 68040/40Mhz testresults

Testresults 68040/25Mhz 68040/25Mhz testresults

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```
Opps! I have problems!
    Click here if you have problems with this driver
Used things
    Used hard & software
Author
    Who did it?
Support sites
    Where you find the new versions of this driver
To do...
    Things to do...
History
    Differences between the versions
Thanks
    The author wishes to thank ...
Copyright&Registration
    Registration & Copyright
```

If this version is a demo version, then please read the "Read_me_First" file!

1.2 Required hard&software...

```
Requires:

Kickstart 3.0+ (for the 4bit modes too!!)

an AGA Amiga for 15bit/8bit and ECS/OCS for 4bit

A turbo/processorcard/processor which contains 68040 or 68060

Tested (and works) with:
Blizzard A1240ERC
Blizzard A1260
Cyberstorm MK II (68040/40)
A4000/6840-25 (standard Commodore CPU card)

ShapShifter3.2 or newer... (Tested only under 3.5/3.6/3.7)

MUCH Fast memory...
```

1.3 What's diz?

Sadly the ShapeShifter's internal MMU driver is a bit slow, and the other non MMU \leftrightarrow based drivers slow down the emulation speed, when none (or few) pixels changed since the \leftrightarrow last

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```
refresh.

So i developed this driver , because with the help of MMU only these lines need to complete be freshen, which changed since the last refresh. Because this is detected by hardware-way, you able to try ShapeShifter with refresh rate 1 ! (without big slowdown!!)

1.4 Technical description of the MMU

Lets start with the name:

MMU = Memory Management Unit
```

But the AmigaOS (yet) doesn't support the memory handling wit MMU, so the MMU is doesn't need to be in an Amiga.

(example: write protection, cache inhibit, showing the memory changes, others)

As you can see its mission to do some things with the memory handling.

Only some applications use it, where its really need: enforcer, VMM, cpu fastrom option, all UNIX and the LINUX, because almost unable to emulate it via software. (i can say UNABLE to emulate it via software way)

As you can see the MMU is a memory handling unit, so unable to do other thing to $\ \hookleftarrow$ do

(example:chunky->planar conversion) Because many people think it from the option $\ \ \hookrightarrow$ of the

ShapeShifter called "MMU refresh", how the MMU make the refresh, but its DON'T \leftrightarrow TRUE!

The 68060 after the boot from the 68060.library turn on the mmu, and this driver \leftrightarrow try to

use the default 68060's MMU config. (The 68040 makes similar, but use the 68040.library)

to show how there was a difference in this page, and if yes, then we need only $\ensuremath{\hookleftarrow}$ convert

this chunk.

Ok that's all about MMU. If you interested by other technical information about $\ \hookleftarrow$ this

driver then take a look to

Technical description

1.5 The technical description of the Driver (only for experts :)

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```
As i said it at the MMU part, this driver does not other, only convert the changed parts of the display (which displayed by the MMU) from chunky to \leftrightarrow simple Amiga planar mode.

This driver works only when the used processor/processordcard uses the following \leftrightarrow MMU configuratuion:

RootPageTable 16 Megabyte
LevelA PageTable 256 Kbyte
LevelB PageTable 4 Kbyte

(so if you dont understand it, simply if your processorcard uses other \leftrightarrow MMU configuration this driver will dont work;)
```

1.6 What is the difference between the VBLANK and the non VBLANK drivers?

```
As you can detect, here are two different versions from the drivers:
(from the version 2.4)
simply version
and VBLANK version (the filename ending with the VBLANK string)
What is the difference?
In the non-VBLANK driver you able to set the refresh rate (by using the \leftrightarrow
   ShapeShifter's
Refresh Rate option), but the VBLANK drivers get the refresh rate from the \leftrightarrow
   screen
(example 50 times refresh per second on PAL mode) which gives you MUCH \leftrightarrow
   smoother afx
              (no flickering mouse pointer, smoother scrolling in games
operations.
   like in
Warcraft) Ofcourse the qfx speed is a bit slower (because of the higher refresh \leftrightarrow
   rate),
but this only noticable by the test programs (because almost all testprograms \leftrightarrow
    draw
single pixel lines, and this driver convert at least 32 pixels by one conversion) \leftarrow
   , but
in the most case the smoother effect is better. (simply try DOOM or \leftrightarrow
   Warcraft on
Pal-Lace screen at refresh rate 1 with normal driver, and after with the \leftrightarrow
   VBLANK
driver... the VBLANK driver gives better and smoother results)
```

1.7 Configuring the drivers under ShapeShifter

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Simply copy the drivers to the directory called "Video Drivers \hookleftarrow ", because that is the

default searching path of the external video drivers.

What is the difference between the normal and the VBLANK drivers? Press

here

to see!

1x1 drivers:

From version 2.1 not limited the resolution of the $1x1 \ 4/8/15$ bit drivers, and from version 2.4 you able to set the resolution in all modes up to 1024x1024!

The 15bit driver is usable, when the MACINTOSH display memory requirement is $\ensuremath{\hookleftarrow}$ smaller

than 2048kb. The memory requirement of the display is easy to calculate: \leftarrow simply

multiple the display width with the display height and multiply it with 2.

Example:

 $640 \times 480 \times 2 = 614400$, which is smaller than 2097152, so usable.

The 8bit driver is usable, when the MACINTOSH display memory requirement is \hookleftarrow smaller

than 1024kb. The memory requirement of the display is easy to calculate: $\ \ \ \ \ \$ simply

multiple the display width with the display height.

Example:

640x480=307200, which is smaller than 1048576, so usable.

The 4bit driver is usable, when the MACINTOSH display memory is smaller than \hookleftarrow 512kb,

which is equal in resolutions with the 8 bit driver, because similar 4bit $\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,$ resolution

needs half of the memory as in the 8bit mode. (i think this is logical..) The memory requirements of the 4bit mode can calculate at the followings: \leftarrow multiply the

display widht with the display height, after divide it by 2.

Example:

640x480/2=153600, which is smaller than 524288, so usable.

!IMPORTANT!:

Thats, how the resoultion is able free to set, not means, how you can use any $\star \hookleftarrow \mathtt{stupid} \star$

resolution, and it will works! I maked this option because many people asked \leftarrow for it.

(i dont able to make guarantee using not recommented resolutions, because its $\ensuremath{\hookleftarrow}$ a MAC

side problem, not the driver's problem!)

Recommented and legal MAC resolutions are the nexts: (whichs usable) 512×384

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640x480 832x624 (Because i dont know, how the MAC's support the 800x600 mode, \leftarrow because a PowerMAC 7100 is support only this resolution) in the 8/15 mode you not able to use to use resolution 800x600 (like \leftrightarrow Note: Super72 etc.), because of the hardware limitation of the AGA chipset. (because every \leftrightarrow line of every bitplane must be quad-longword aligned, this requires for the full 32 bit \leftrightarrow Chipram access - this is the maximum bandwith mode of the AGA) So in 8/15 bit modes use a width which is dividable with 64. (so please use 768x600 or 832x600 instead of 800x600) Note:of course a workaround is possible, but hard to do (because of the \leftrightarrow continous bitplane memory allocation, and requires MUCH memory, like the 2x2 driver) 2x2 driver: Savage040-060 2x2 here the resolution is 640x480 but it will be converted to 320x240 - like the Xanth-driver. Recommented for games, \leftrightarrow and for full screen animations. Memory requirements: The first turn off the largest free block option, and set by manual the memory \leftrightarrow size. The driver's memory requirements: (the 8bit and 4bit modes are examples) Savage040-060_8bit (640x480) 856 kb (640x480 = 300kb+256kb MMU page fix+300kb \leftrightarrow dbuff) (640x480 = 150kb+256kb+150kb)Savage040-060_4bit (640x480) 556 kb 2326 kb (4096x480 = 1920kb + 256kb + 150kb)Savage040-060_2x2_8bit Savage_640x480_15bit 1488 kb $(640x480 = 600kb+256kb+600kb+32kb \leftrightarrow$ ham8convtab) Savage040-060_8bit (512x384) 640 kb (512x384 = 192kb+256kb+192kb) $Savage040-060_4bit (512x384) 448 kb (640x480 = 300kb+256kb+300kb)$ Sadly (you can see it ...) for the easier handling the MMU page all driver's need \leftrightarrow more memory than other ways.... I think you discovered it, how the 2x2 mode in the resolution 640x480 need MORE $\,\leftrightarrow\,$ memory, but it have a simply answer. For the higher speed every line need to be 4kb. (\hookleftarrow because the pagesize of the mmu is 4kb too) (sorry for it but in the 68040/68060.library the default pagesize is set to 4kb \leftrightarrow , and

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```
its too big for my routines, and because i want to make the highest speed i 
    maked it
so. sorry again...)

So simply sub these values from the maximal memory and write it to the mac memory. 
    (if
the mac videoram, or other buffer located in the chip memory the driver will 
    open a
requester and quit. So sub a little bit more if you want sure to start it!)

But these values are the most bigger values, and its able to start them at 
    smaller
memory. (about 100-200kb smaller)

At last the
    setting the refresh
    is coming.
```

1.8 Setting

```
Because this driver uses MMU, you should first try it with refresh rate 1.
(At the 15bit mode too!!)
This are recommended when changes an area of size about 320x256/frame, and ← requires
much CPU power at same time:little screen games, emulators (Hi Louise!), ← image
manipulators. Or simply requires much CPU power: like ray-tracers, DTP programs.

But when you can use so program what makes many screen manipulation (ex:games) ← then you
should try refresh 2.
For games with biilig scrolling areas (like Warcraft) i recomment you the ← VBLANK
version of the drivers. (these give MUCH more smoother scrolling)
```

1.9 Test results 68040/40Mhz

```
Testmachine:
A1200-68040/40 (Blizzard 1240T/ERC) 2MB Chip + 16 MB Fast (my machine)
C=1942 Multisync
200 MB DeviceDisk under ShapeShifter

Software: Hungarian MAC System 7.5, ShapeShifter 3.7

8bit tests:
The resolution was 640x480 8bit, and the used screenmode was Pal-HiresLace.

Testprograms: Speedometer 4.0 (Color Quickdraw/CPU), Offscreen Toys boost (FPS), Symantec System info (Display test)
```

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1.0=Mac Quadra 605 (68040/25Mhz) 8bit mode 100% in the Display test is a Mac Quadra 700/8bit mode (68040/25 Mhz)

Note to all tests: Higher Value = Faster Performance

Same as above, but the screenmode is Multiscan: Productivity (640x480) - 61Hz

4bit tests:

The resolution was 640x480 4bit, and the used screenmode was Pal-HiresLace.

Testprograms: Speedometer 4.0 (Color Quickdraw/CPU), Offscreen Toys boost (FPS), Symantec System info (Display test)

1.0=Mac Quadra 605 (68040/25Mhz) 8bit mode 100% in the Display test is a Mac Quadra 700/8bit mode (68040/25 Mhz)

Note to all tests: Higher Value = Faster Performance

Savage TurboEVD Driver: Version: 2.41 Refresh rate: Color Quickdraw: 0.900 0.916 CPU: 1.482 1.487 FPS: 121 118 Display test: 77.3 87.6

Same as above, but the screenmode is Multiscan: Productivity (640x480) - 61Hz

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FPS: 114 112 Display test: 73.8 84.3

15bit tests:

The resolution was 640x480 15bit, and the used screenmode was Pal-HiresLace.

Testprogram: Speedometer 4.0 (Color Quickdraw/CPU) 1.0=Mac Quadra 605 (68040/25Mhz) 15bit mode

Note to all tests: Higher Value = Faster Performance

Driver: Savage Version: 2.41 Refresh rate: ______ Color Quickdraw: 0.297 1.473

Same as above, but the screenmode is Multiscan: Productivity (640x480) - 61Hz

Driver: Savage 2.41 Version: Refresh rate: Color Quickdraw: 0.235 CPU: 1.451

Note: No testresults for TurboEVD in 15bit mode, because only Savage support the $\ensuremath{\hookleftarrow}$ 15

bit mode.

1.10 Test results 68040/25Mhz

Testmachine A4000 (standard CPU card) + C=1950 Multisync Monitor Tests done by Alessandro Gerelli (thanx man!)

Testprogram: Symantec System Info

100 = Mac Quadra 700/8bit mode (68040/25 Mhz) - Higher Value = Faster Performance

640x480 Multiscan (8bit)

CPU FPU Video 2.41 70.1 84.1 11.8 2.41 Vblank 69.8 83.6 7.83

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```
2.3 70.2 84.1
                  12.0
2.3
Vblank 71.0 85.0 7.72
768x576 Super72 (8bit)
      CPU FPU Video
2.41 69.6 83.5 9.51
2.41
Vblank 69.1 82.8
                   7.37
And these test are the same but with Kickstart _3.1_
640x480 Multiscan (8bit)
      CPU FPU Video
2.41
     70.2 84.1
                  12.0
2.41
Vblank 69.8 83.7 7.69
(nothing noticeable faster with kick 3.1)
640x480 Multiscan (4bit)
      CPU
           FPU
                  Video
2.2
     70.9
            84.9
                   31.4
2.3
      70.9 84.9
                   31.3
2.41
      70.8 84.9 31.8
640x480 Multiscan (15bit)
      CPU FPU Video
2.2 70.2 84.2
                   3.87
```

3.79

1.11 Test results 68060/60Mhz

70.2 84.1

2.41

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Testmachine: A1200-68060/60 Mhz (YEES! 60 MHZ!) 2meg Chip+16meg Fast (Dark/CDi's Machine)

Software:Mac System7.5 (hungarian) 80 meg hd - ShapeShifter 3.6 (macintosh rom was everywhere in the fast memory - so the faster speed was ← everywhere)

Note:only Savage and TurboEVD testvalues here, becoz all other (AGABoost, \leftarrow AGAEVD)

videodrivers are MUCH more slower... (because Savage and TurboEVD uses MMU)

Note: sorry only the older Savage version (2.2) testresults are here... (because dont have time to go my friend for the testresults... sorry)

8bit tests:

The resolution was everywhere 640x480 8bit, and the used screenmode was Pal- \leftarrow HiresLace.

Testprogram: Speedometer 4.0

1.0=Mac Quadra 605 (68040/25Mhz) 8bit mode - Higher Value = Faster Performance

 Driver:
 Savage
 Savage
 TurboEVD
 TurboEVD

 Version:
 2.2
 2.2
 34.1
 34.1

 Refresh rate:
 1
 2
 1
 2

 Color Quickdraw:
 0.920
 1.109
 0.889
 1.054

Testprogram: OffScreen Toys (Boost) 1.3

All values in FPS (Frame per Second) - Higher Value = Faster Performance

 Driver:
 Savage
 Savage
 TurboEVD
 TurboEVD

 Version:
 2.2
 2.2
 34.1
 34.1

 Refresh rate:
 1
 2
 1
 2

 Frame per Second:
 135
 151
 124
 142

Testprogram: Symantec System Info

100 = Mac Quadra 700/8bit mode (68040/25 Mhz) - Higher Value = Faster Performance

 Driver:
 Savage
 Savage
 TurboEVD
 TurboEVD

 Version:
 2.2
 2.2
 34.1
 34.1

 Refresh rate:
 1
 2
 1
 2

 Display test:
 53.5
 69.8
 48.8
 62.9

4bit tests:

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The resolution was everywhere 640×480 4bit, and the used screenmode was Pal- \leftrightarrow HiresLace.

Testprogram: Speedometer 4.0

1.0=Mac Quadra 605 (68040/25Mhz) 4bit mode - Higher Value = Faster Performance

Testprogram: OffScreen Toys (Boost) 1.3

All values in FPS (Frames per Second) - Higher Value = Faster Performance

Testprogram: Symantec System Info

100 = Mac Quadra 700/8bit mode (68040/25 Mhz) - Higher Value = Faster Performance

Driver: Savage TurboEVD
Version: 2.2 34.1
Refresh rate: 1 1
Display test: 123 126

(wow... TurboEVD 2% Faster than Savage2.2 in 4 bit mode ;)

15 bit tests:

Testprogram: Speedometer 4.0

1.0=Mac Quadra 605 (68040/25Mhz) 15bit mode - Higher Value = Faster Performance

Driver: Savage
Version: 2.2
Refresh rate: 2
----Color Quickdraw: 0.697

Testprogram: OffScreen Toys (Boost) 1.3

All values in FPS (Frame per Second) Higher Value = Faster Performance

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Driver: Savage
Version: 2.2
Refresh rate: 2
----Frame per Second: -

Note: Offscreen toys NOT run in 15 bit mode...;)

Testprogram: Symantec System Info

100 = Mac Quadra 700/8bit mode (68040/25 Mhz) Higher Value = Faster Performance

Driver: Savage
Version: 2.2
Refresh rate: 2
---Display test: 19.3

1.12 Problems...

Problem: Some pixels seems to be converted wrongly and some some $\ \hookleftarrow$ old pointer

phases on the screen

Solution: Please turn on the MMU refresh in the ShapeShifter/Graphics

Problem: This driver wont start, i get only a message:

"The Selected Macintosh Display etc..."

Solution: If you use the demo version, please select the 4/8/15 bit mode, and the

resolution 512x384.

In registered version the driver configuration described in the \leftrightarrow

configuring

part.

Problem: I got a message: "The Delta buffer or the Macintosh video memory located \leftarrow

in

the chip memory"

Solution: Please turn off the largest free block option in the ShapeShifter memory

options and select the memory as described

here

Problem: The driver simply crash on my machine!

Solutions for 040:

-Make sure, how your CPU uses the MMU with page size 4kb.

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```
(if your CPU/CPUCard have extra programs to control it please set it to \leftarrow
               4kh)
          -If you CPU uses other program than setpatch to utilize your CPU, please \leftrightarrow
              try to
           set the MMU pagesize to 4kb.
          -If your CPUCard uses only the setpatch (and you dont get any program/ \leftrightarrow
             disk
           with your card) to detect 68040, please check the followings:
             - have you the 68040.library installed in libs: ?
               if not, simply copy it from your Workbench disk
             - your setpatch is started during the boot sequence?
               if not, please put in the Startup-Sequence
             - your setpatch is able to load the 68040.library?
               if not, please upgrade (look Aminet for setpatch)
Solutions for 060:
          - Please copy the 68040.library and the 68060.library to libs:
          (you got its with yout CPUcard)
          - Please upgrade your Setpatch if needed. (when not load the 68040. \leftarrow
             library)
Problem: The driver works correctly, but the MAC uses funny colors.
          (green/blue colors... not b/w and not standard MAC colors)
Solution: You have pirated/damaged keyfile for ShapeShifter
          Please register the ShapeShifter!
1.13 About the author
                If you have any problems, suggestion, bug reports then write to:
(send the registration fee here )
snail mail:
                        László Török (pH03N1x/CDi)
                        H-8900 Zalaegerszeg
                        Cserfa 31.
                        Hungary
phone:
                        +36 92 310 396 (after 18:00 CET)
E-Mail : phoenix@master.fok.hu <- preferred</pre>
                                (i think equal with the previous..)
        phoenix@fok.hu
or:
       torokl@alpha.dfmk.hu
or:
                                 <- work
I think now i have an account on the
                Dark Millennium BBS
                 So you can
reach me under user name: phoenix (Thanks Dark!)
```

iRC (not so often..) : pH03N1x@iRC (#magyar, #amiga or #amigahu channels)

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```
U can check my homepage at (a bit old): http://www.fok.hu/~phoenix (maybe dont work, becoz the home volume is fucked up...)

As u can see my english knowledge is very limited, and my german is MUCH better... (ich denke so...;)
```

1.14 The support sites

```
You able to find the new demo versions of this driver on the following sites: Aminet: \mbox{misc/emu} subdirectory
```

and

Dark Millennium BBS: (CDi WHQ/Crimson Jihad Distro)

phone: +36 93 320 679

HW: A1200-68060/60 18 meg ram 1.7GHD 8xCD-ROM 28.8k

open: every day: 22.00-06.00 (CET)

2.00 (20.07.96) First version for 060

Sysop: Dark/CDi

1.15 Revision history

```
2.1
                 Works on 68040 too (the 2.0 is worked too, but i got many \leftrightarrow
   questions, so
                 i added the 040 to its name)
                 Better memory allocation (all important address now on 32 bit \leftrightarrow
                     address)
                 At least 5% faster drivers (1x1 4/8 bit only)
                 1x1 8/4 bit modes free resolution selection (up to 832x624)
                 No more 2 minutes time limit in the demo version, only resolution \,\,\hookleftarrow
                     limit
                  (8bit and 512x384)
                 New version string handling (very important;)
                  (released only for beta testing)
2.2 (01.12.96)
                New c2p for 1x1 8 bit modes (now again Savage is the fastest \leftrightarrow
   driver for
                 040/060 and for Savage030 030 too ;) thanx the new c2p to: EFT/ \leftrightarrow
                 and Zak/The Forcers Team (and i speeded it up again ;)
                 30-40% speed increase in the 1x1 8bit mode (now Savage2.2 at least \leftrightarrow
                      10%
                 faster than TurboEVD)
                 Some optimizations in all the other drivers (little speed up)
2.3
                 Single file version (4/8/15) bit drivers in one file)
```

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```
Free resolution selection in 15bit mode
Faster 15bit drivers (about 5-10%)
All 1x1 modes can handle up to the resolution 1024x1024
(released only for testing)

2.4 (21.04.97) VBLANK Versions - MUCH more smoother refresh, and no more windoze this
like

pointer moving on mac side
(released only for testing)

2.41 (25.04.97) About 5-10% faster 4bit drivers
Major speed increase in the 2x2 driver (up to 25%!)
New demo concept: 4/8/15 bit 512x384 normal, and 640x480 8 bit the VBLANK
versions
```

1.16 To do list:

24 bit version (for 030 is ready, dont so hard work to do it for 040-060 too) 256 color -> 64 Color (like AGABoost) for faster 8bit in multiscan modes.

1.17 Used hard & software

```
Hardware:
To version 2.2:
A1200-68060/60 (Blizzard1260) 2MB Chip + 16 MB Fast <- Dark Milennium server ;)
(68030/50 - my machine)
From version 2.3:
A1200-68040/40 (Blizzard 1240T/ERC) 2MB Chip + 16 MB Fast (my machine)
1084s monitor... i changed it to a C=1942 MultiSync (its important...:)
2x80watt audio.... (its MUCH important...:)
Techincs RS-TR 333 Tapedeck
An oldie VIDEOTON RA 6363 Stereo Receiver
Sony MDR CD-250 HeadPhone
Some oldie bullshit coming next...:)
Version 2.0 is developed on CDi meeting (14.07.96-21.07.96 BalatonMária)
Most important peoples:
Toxin/CDi (american section)
Dæ®k/CDi&C^J (the very tall dude)
DarkSide/CDi (kübli colourer)
CaveM@N/CDi (the foundator of the logical coder section)
G®æ$$/CDi (Slamtilt tester/graphician)
Flex/Frame18 & CDi (who heared the CDs & kübli tracer)
Józsi/CDi (arrghh... pC section.... & transporter )
```

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```
And me: pH03N1x/CDi
Used things on the meeting:
        30 piece of luncheon meat
        15 piece of egg
        12 kg of bread
        40 Liter Cola/Fanta etc.
        Milk, Paprika, Tomato
        20 kg peach (from the nearest peachtree)
        Some alcohol.... (hukkkk...)
Trash: around 30kg trash
        2 telefoncards
        1 rentabike (smashed by Flex... -3000Ft 8()
        210 MegHd partition (Darkside's DH1: virus sux)
        Many Worms+Dogfight party (5 hours of continous Dogfight)
        Looking houndreds demos
        Girl hunting
        Toilette Debugger V1.0
        Mosquito killer V1.0 (one by Flex .. ) ;)
        Arabian terrorists on the beach of Balaton;)
        Theorical SW/HW developing (memory protection & very nice computer design)
        Making an unfinished AVI player (no sound)
Best sayings:
-"Darkside are you sleeping?" - at 2 AM.
-...
-When are we going to bike again? (after Flex had an accident...)
-Who drinked my Coke?
-At the evening it was full!
-This all stored MPEG anim !
-How can i slowing down the MPEG-player? (on 060)
-U fool!
-Darkside open the tap!
-There is a spider! Who has a matchbox? (around 3km far from the meeting place)
-U Sucker!
-Jump jump! - And a german people:
-Alles Klar?
-Fingomcsing!
Others:
Ehh!, Kübli
IIIIIIIIIII VEEEEEEEEERYYYYYYYY HAAAAAAAATTTTTTEEEE THHHHHHHHHEEEEEEEEE
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(I (pH03N1x) have to heard it about 100 times - Flex arrrrgghh) Software: Shapeshifter-ExeternalVideodriver manual level2 by Christian Bauer (A very good & usable manual & driverspecification \leftarrow description) Asm-one 1.29 .. Around 4 new bugs detected... MMU Expert 1.32 by F.Bürgel... (oldie but goldie! (from 1991)) HippoPlayer 2.39 need some zax for developing... D68k 2.0.7 The best resourcer on Amiga (i think better than resource $\,\leftarrow$ 6.0) (FULL MMU, FPU, 68000-68060 support!) MPEGA.040FPU by Stéphane TAVENARD (to enjoy the MP3 files on Amiga) This file checked with the MacWrite Spelling checker... (From Shape...) 19 Guru (reported by MCP gurureport) (from MMU config error to corrupt memory list \hookleftarrow

1.18 The author wishes to thanks:

The author wishes to thanks:

Christian Bauer For the World's best Macintosh emulator, and the

awesome external videodriver concept

K-P Koljonen for Hippoplayer

freememen and some illegal instruction so Amiga rulez...;)

Psycho@master.fok.hu for the account, and for the free HDD(almost \leftrightarrow

unusable ;)

Pawel Hernik for AGA-EVD, and for the c2p routine (and 4bit c2p \leftarrow

too)

and for the 15bit->ham8 conversion routines (this \leftrightarrow

is a

very fast&good routine!)

Peter McGavin for the fastest c2p routines on Amiga

Chris Brenner for FastECS

Michael 'Xanth' Spenner for the 2x2 version idea

Dennis Arketyd for the Agaboost driver

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Aki Laukkanen
                                 for the TurboEVD driver (yeahh.. it was faster \leftrightarrow
   than
                                  Savage2.1 but now try to beat the Savage060 2.2 1 \leftarrow
                                  8bit performance ;)
                                  for the NEW 040-060 optimized c2p (but i speeded \leftarrow
EFT/Impulse
   it up
                                 about 20%;)
and
Zak/Forcers Team
Thanx to my beta testers:
68060/60Mhz
                                 Na most nem hagytalak ki a beta tesztelők közül :)
(A1200/Blizzard1260)
                                 Hehehe... azértse írom ezt ide angolul... ←
   pukkaggyanak
                                 meg! :)
Zsolt Sipos (Dark/CDi)
68040/25Mhz (Amiga4000)
Alessandro Gerelli
                                 Yeeaahh! thax for the AVId beta testing too!
(a.gerelli@agonet.it)
                                 Now i included your testresults...:)
68060/50 Mhz
                                 Thank for the critism and for the VBLANK driver \,\leftarrow\,
   idea!
(A1200/Blizzard1260)
Árpád Miklós (Alan)
(alan@elender.hu)
68040/40Mhz
                                  Sorry i missed your config in the old docs...
(A4000/Cyberstorm MKII)
Roland Lewis
(Roland_Lewis@o14amiga.demon.co.uk)
68040/40Mhz
                                 Yeah... thanx for help to get i a 040/40 to!
(A1200/Blizzard1240/40)
Csaba Imre
AND: ALL REGISTERED USERES!
Other greetinx:
        Shamen/CDi, Flex/Frame18, Anorganic/Promise, Pogi/Crimson Jihad
        Hanzi/???, Chexum, Gizmo/Frame18, ZAK/The Forcers TEAM, Louise/????,
        Goa/CDi/Faculty, EFT/Impulse, Soldier/Impulse, Chris/Power Team,
        Magic/Amiga Only, Unreal/Faculty
                                          A ShapeShifter maniac...;) (like me...)
        Louise/????
        All members of Amiga Only
                                          <- The best Hungarian Amiga-user mag
        Grass/CDi, Basq/Tsi Alive, Trajic/Shock!, Hamster/???, Dada, Dab/Promise \leftrightarrow
pC:
   РC
Last, but not at least: the Developers of the Amiga and AmigaOS (yes this is a \leftrightarrow
OS -okay, have some bugs- , but really fun to develop under it!!)
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Fuck to all pC-owners who's think how Amiga is a game-machine...

1.19 Legal mush

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The registration fee is 15DM or 10$USD, (or an equal amount in \leftrightarrow
                    other currency).
If you want to register both my Savage videodriver (030 or the 040/60 version) and \leftrightarrow
then the registration fee is 20-25 DM or 15\$USD! (or equal in other curr.)
(instead of 30DM and 20 US$)
Note: AVId is a fast AVI player for AGA/020+ based Amigas click
                here
                  for more info!
Note2: i accept your own programs/keyfiles for 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 uuencoded.
(registration is also possible in snail-mail too, but please add an answer \,\,\hookleftarrow\,
   envelope to
your mail and an errorfree 3.5 DD disk too)
(the postal money transfer is working too, so use it if you like better ;)
The updates are free, when you have E-Mail address!
If you registered please DO NOT spread your version!
Amiga and the AmigOS is registered trademark of Gateway2000 (huh... i need \leftrightarrow
   correct it
in every docs... its to booooooring :((((()
Macintosh is registered trademark of Apple computer INC.
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1.20 AVId - the AVIplayer for Amiga

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Radius CinePak (CVID) 24 bit Supported audio: PCM mono 8 bit PCM mono/stereo 16 bit Features: Async I/O FULL in Assembly language coded decrunchers (at moment more than 93kb of Source $\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,\,$ code) Fast c2p 256 color for 8 bit AVIs 256 gray/HAM8 for 16/24 bit AVIs18bit mode for 24 bit AVIs (bugfree ham8) FAAAASSSSSTTT Playback! (Timer based frame skipping method - like on pC) The demo version is will play the first 400 frames of the animation, and will be $\,\,\leftarrow\,\,$ there no 18bit support. The Full version registration fee is 15DM/10US\$ (like Savage)