

**rtgmaster\_user**

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# Chapter 1

## rtgmaster\_user

### 1.1 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

User Documentation

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### 1.2 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

In the past, there have been some reports of rtgmaster not running on AGA-only systems, which gave some confusion. I want to solve the confusion now. Actually, there were several (now solved) problems.

- Early versions of rtgmaster took too much ramlib-space, so that rtgmaster did not run when tools like MCP were active. I fixed this bug with rtgmaster V24.

Now rtgmaster runs parallel with MCP (Apparently especially many AGA users use MCP...)

- rtgmaster had a serious bug in the Library Init Code, that made it crash

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on some (mostly: AGA-)Systems. This was fixed with rtgmaster V25. On all other systems it ran just fine.

- rtgmaster V25/V26 had a small bug, making it crash on AGA-only-Systems, fixed in rtgmaster V27. (Well, before V27 i did not too much testing on AGA-Only Systems. I changed this now)

There is one more thing to discuss:

rtgmaster seriously needs a CORRECT installed AmigaDOS. When you install your system using the Workbench 3.x Installation disks, somewhere in your startup-sequence there will be a

```
IF EXISTS DEVS:Monitors
```

```
IF EXISTS DEVS:Monitors/VGAOnly
```

```
DEVS:Monitors/VGAOnly
```

```
EndIF
```

```
C>List >NIL: DEVS:Monitors/~(#?.info|VGAOnly) TO T:M LFORMAT "DEVS:Monitors/%s"
```

```
Execute T:M
```

```
EndIF
```

or a

```
IF EXISTS DEVS:Monitors
```

```
C>List >NIL: DEVS:Monitors/~(#?.info|VGAOnly) TO T:M LFORMAT "DEVS:Monitors/%s"
```

```
Execute T:M
```

```
EndIF
```

created. These strange lines install the Screenmodes to the system. If they are not present, rtgmaster won't run. Actually, this is not a bug. A correct installed Workbench HAS this two lines in the startup-sequence !!! (They have to be called before the IPREFS command).

If these lines are not present on your startup-sequence, please add them. BTW, a GFX Board will not work without these lines (anyways, what software one uses), because of that such problems only appeared on AGA-Systems. On GFX Board Systems those lines are present by default.

But well... they are installed by the Installer program on your Workbench Disks, so they should be there. Also install a monitor-Driver !!! (PAL or NTSC, for example...)

### 1.3 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Announcement: rtgmaster.library goes PPC !!!

Soon there will be a rtgmaster.library which will work on both,

68k Amigas (the usual ones) and PPC Amigas using the PowerUP PowerPC

Boards created by Phase 5 :)

I chose to use the WarpUP Software from Haage&Partner to access the PPC Board, as currently there are no other alternatives, if you want to code a game. There was much discussion on the Usenet "which is faster, WarpUP or ppc.library". I can tell you, due to knowledge of the Hardware and Software, that WarpUP wins the price. Even more: I doubt a PPC Game could be created with ppc.library (nothing against Phase 5, they do great hardware : ) ).

The reasons why i chose WarpUP in detail:

- Faster Contextswitches
- Bugfree Cache Engine
- Fat Binary (The concept of rtgmasterPPC needs both Fat Binary and Mixed Binary !!!)
- A nice developpement tool available (StormC PowerUP)
- PPC Native Multitasking
- It seems that game-firms will choose to use this software, and after all rtgmaster has to support what the game-coders use
- Nice PPC Assembler available
- Nice PPC Assembler coder available (many thx to Sam Jordan of H&P !!!!) who is willing to help with the PPC ASM Copy-Functions, as is have not yet learned PPC ASM ...
- Last but not least: The nice developper support by Haage&Partner :)

I am currently in the process of converting rtgmaster to StormC, also already starting to do PPC Native parts (partially C, partially ASM).

As to the usage it will look like that:

- We have functions that still will be 68k (The Screenmode-Requester, for example).
- We have functions that exist in two versions, for example, we have now CopyRtgBlit and CopyRtgBlitPPC. The first of them should only be called in a 68k program, the second should only be called in a PPC program.

BTW: To find out which CPU is present (68k or PPC) coders can simply use a nice function of the powerpc.library... if the powerpc.library does not open at all, it is not present => 68k.

I hope to release the first version with PPC Support as soon as possible.

Well, it is quite some work. I not only have to convert the main-library, but also all sublibraries... The rtgCGX.library will probably appear first PPC Native, then the rtgP96.library, then the rtgAMI.library. I probably won't do a PPC Version of the rtgEGS.library (unless i get at least mails from ten different people who have EGS and a PowerUP Board :) "Plan to buy one" does not count...). Ah, and of course there will also be a PowerPC Native c2p algorithm :)

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## 1.4 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

If you own a Cybervision 64 (not 3D !!!) and some programs that use rtgmaster have a garbagy screen, here is the explanation for it :

The Cybervision 64 internally looks a bit different as to other Amiga GFX Boards. There is a certain small thing, that coders have to do to make GFX Board Code running also on the Cybervision64 (this maybe takes 3 minutes coding times !!!) Some people have not included this to their code. If you know of a program that behaves like that, please give me the email of the coder. I can explain to him, what he has to do to make his program run on the CV64. This is also explained inside the Developer Archives of rtgmaster.

## 1.5 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Welcome to the rtgmaster.library.

There are a lot of Graphics Systems on the Amiga. There is OCS. There is ECS, there is AGA. There are a lot of Amiga Graphics Board Standards, the most famous of them being CyberGraphX.

The problem of the Amiga in the last years was, that the hardware was ahead of the software, especially as to games. There was powerful hardware to be found, but nobody used it. The guys who created games and demos still stuck with AGA, the guys who created the Boards did not know anything about Games.

RtgMaster is a link between the different systems, but it is more than this.

RtgMaster is a system specifically dedicated to game/demo-coding on GFX Boards. The System includes high-speed GFX Board Support, and also partially ECS/AGA Backward-Compatibility. The system runs parallel with any existing WB Emulation. So you can use it, anyways, if you have installed CyberGraphX, Picasso96, EGS or what else. And it is even more. For developpers there exists special support, so that they can order a rtgmaster driver or rtgmaster adaption of their game, if they do not want to bother with the GFX Board Coding part themselves. What does this mean for you, the user ? Simply install the rtgmaster libraries and enjoy playing the next generation of Amiga Games. To install it, simply run the installer script. This will install rtgmaster.library to your system, also some sublibraries, for the different display systems.

The following projects support rtgmaster (some of them are still unfinished).

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Note, that not all of them support the Original Picasso II Software, as the rtgmaster driver for this WB Emulation is not fully done. This is due to limitations of the Picasso II Software. Under CyberGraphX, a Picasso II works fine, though.

Before you start i suggest you read the sections about supported software and about Amiga GFX Boards, to find out, if your favourite game has a rtgmaster driver (probably no, up to now) and if your GFX Board is supported (mostly yes). There are three rtgmaster archives: rtgmaster\_user.lha contains the stuff for users, rtgmaster\_dev.lha is the developer archive.

## 1.6 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Name Firm or Group Genre

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Genetic Species Vulcan Software DOOM-Clone

Genetic Species is a very fast-running DOOM-Clone that supports GFX Boards through rtgmaster.library and AGA through native AGA code. There is an old demo on Aminet, that does not yet support GFX Boards. A new Demo should soon appear.

For more information about this game, i suggest having a look at the new Screenshots on the homepage of Vulcan Software.

3D Games Creator Vulcan Software AB3D II Clone

Cold Blood is a yet to appear DOOM-style game that will blow AB3DII away. It supports GFX Boards through rtgmaster, AGA through native AGA code. Note: The game will not be released, but a 3D Construction Kit based on the Engine will be released.

WheelsOnFire Proximity 3D Racing Game

Up to now rtgmaster support of this game is not yet done, but i am in talks with the authors. A Demo of this game is on Aminet (only for AGA). The authors currently enhance the 3D Voxel Engine to a higher resolution, and in this process probably rtgmaster-Support will be added, to support GFX Boards. AGA will as always be done through native AGA code.

Note: The coder now decided not to use rtgmaster, but he decided to use rtgmaster in his next project.

Phoenix ??? Privateer Clone

GFX Board Support for Phoenix is still being considered, but if it arrives, it will probably be through rtgmaster. AGA Support is native AGA, as always. Privateer is a PC Space Game similar to Wing Commander. Phoenix is a Clone

of it. The game has still to arrive. Probably end of the year, as i heard...

AB3D II peabrain@usa.net AB3D II GFX Board Port

Well, just that... :) Will be released as public domain, but you will need a full version of the game (commercial) to use the new executable.

Currently in Beta-Testing.

Boulderdaesh geit@DVZ-102.fh-muenster.de Boulderdash Game

Well, just that :)

There are some more projects in progress, mostly Shareware stuff. It even might be possible, that there will appear a rtgmaster driver for one of the AmigaDOS Clones AROS or p-OS in the future, but this is yet to be decided.

PowerPC-enhanced versions of rtgmaster are already planned.

## 1.7 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

To get information about supported WB Emulations please click on the links.

[CyberGraphX](#)

[CyberGraphX 3](#)

[Probench 3](#)

[EGS](#)

[Picasso II Native](#)

[Picasso96](#)

[Retina WB Emu](#)

[Graffiti](#)

[ECS/AGA](#)

[Other hardware](#)

## 1.8 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

CyberGraphX 2

CyberGraphX 2 is probably the most used WB Emulation for Amiga GFX Boards.

It is one of the best WB Emulations out there, but it lacks specific support for games. rtgmaster fills that gap. rtgmaster runs together with all CyberGraphX Boards that run NON-SEGMENTED. You might wonder what that limitation is about. The Commodore A2410 Board for example is a segmented Board. Segmented Boards lack the feature of Direct Access. Most Game Authors use Direct Access in their Games, so supporting those Boards would make no sense. Direct Access is much faster

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than all other methods, anyways. It might be possible that the Domino Board is also segmented. I do not know this, so i can't tell you, if rtgmaster supports the Domino or not. All other CyberGraphX Boards i know of are non-segmented. CyberGraphX 2 Support needs libs:rtgmaster.library, libs:rtg/rtgCGX.library and your CyberGraphX 2 Software installed. Installation is done by the Installers of RtgMaster and of CyberGraphX.

## 1.9 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

CyberGraphX 3

CyberGraphX 3 is the most recent version of CyberGraphX, but up to now it does not support any other boards than the Cybervision 64 and the Cybervision/3D.

RtgMaster always supports all NON-SEGMENTED CyberGraphX 3 Boards.

It is one of the best WB Emulations out there, but it lacks specific support for games. rtgmaster fills that gap.

You might wonder what that limitation about NON-SEGMENTED is about.

The Commodore A2410 Board for example is a segmented Board. Segmented Boards lack the feature of Direct Access. Most Game Authors use Direct Access in their Games, so supporting those Boards would make no sense. Direct Access is much faster than all other methods, anyways.

CyberGraphX 3 Support needs libs:rtgmaster.library, libs:rtg/rtgCGX.library and your CyberGraphX 3 Software installed. Installation is done by the Installers of RtgMaster and of CyberGraphX.

## 1.10 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Probench 3

Probench is probably one of the first WB Emulations that exist at all. It is only used by the Boards Domino, Merlin and Merlin II, so it is quite an exote. Starting with Probench 3, there is some sort of partially-working CyberGraphX Emulation. RtgMaster runs together with Probench 3, if you have at least the Upgrade Package 7 running. Earlier versions might work or not, but probably not. I do not know, if rtgmaster runs together with the Domino, as the Domino might still be a segmented GFX Board. Segmented Boards are old technology, that is not compatible with the way most games are coded. Because of that rtgmaster does not support them. If the Domino runs in Non-Segmented Mode, rtgmaster will support it, of course.

rtgmaster does not run with Probench 2 or earlier.

Probench 3 Support needs libs:rtgmaster.library, libs:rtg/rtgCGX.library and your Probench 3 Software installed. Installation is done by the installers of RtgMaster and of Probench.

## 1.11 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

EGS

EGS was a quite popular WB Emulation at its time. To tell the truth, the whole rtgmaster project started with EGS. rtgmaster needs at least EGS System 6, the most current version done by Viona Development is EGS System 7. EGS was dropped by Viona later, and someone else took it up, releasing a new version called EGS Plus. I never really tested rtgmaster with EGS Plus. I do not know if it works.

If someone knows, tell me, i do no longer own a EGS Board.

rtgmaster.library supports the following EGS Boards (not all of them tested, some of them might be segmented Boards, and rtgmaster never works with segmented Boards) :

Piccolo

Piccolo SD64

EGS Spectrum

Rainbow 3

Rainbow 2

EGS 110 from GVP

bsc Graffity (do not confuse with Graffiti, this is something else)

You might wonder, why rtgmaster does not support segmented Boards like the A2410.

This is because those Boards lack a special feature needed for game programming.

Segmented Boards are only the very old boards, anyways.

I heard somewhere, that the old Board Visiona also used EGS. rtgmaster might run on it or not. If someone still uses this Board, please contact me.

Under EGS it is possible, that the mousepointer of an rtgmaster application starts looking strange. Don't worry. This is normal, because of an unfinished part in the driver. Asides from that, rtgmaster runs fine under EGS.

EGS Support needs libs:rtgmaster.library, libs:rtg/rtgEGS.library and your EGS Software insralled. Installation is done by the Installers of RtgMaster and EGS.

## 1.12 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Picasso II Native WB Emulation

The Picasso II Native WB Emulation is one of the first WB Emulations. It is only available on the Picasso II and the Picasso II+ Boards. There is limited rtgmaster Support for this WB Emulation, limited only, because this WB Emulation does not support all rtgmaster features. Especially the Keyboard-Functions of rtgmaster are not supported. So probably most Software won't support this sublibrary.

Please consider updating to CyberGraphX or Picasso96. These WB Emulations have full rtgmaster Support.

Picasso II Native Support needs libs:rtgmaster.library, libs:rtg/rtgPICA.library and your Picasso II/II+ Native Software installed. Installation is done by the installers of RtgMaster and of the Picasso Software.

### 1.13 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Picasso96

Picasso96 is a new WB Emulation standard. With the exception of the Cybervision/3D nearly all Boards have a Picasso96 Driver. And a CV/3D Driver is currently in developpement.

Until just recently, Picasso96 did not have the feature called "Doublebuffering". In one of the latest Picasso96 versions this was fixed. If you have the latest version, install rtgP96.library instead of rtgCGX.library, then finally Doublebuffering will work on your system. If you do not have the latest version, exchange rtgP96.library by rtgCGX.library manually. Don't install both at a time, or you will get all Screenmodes twice, and Screenmode Save will bring strange results. I really recommend updating to the latest Picasso96 version, as soon games might appear, that won't run without Doublebuffering. The Doublebuffering of P96 is more efficient than that of CGX, BTW...

Picasso96 Support needs libs:rtgmaster.library, libs:rtg/rtgP96.library (or rtgCGX.library for older Picasso96 versions) and your Picasso96 Software installed. Installation is done by the Installers of RtgMaster and of Picasso96.

### 1.14 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

The Retina WB Emulation

The Retina WB Emulation was used by the Boards Retina BLT Z3, Retina Z2 and by the DraCo. There are now CyberGraphX Drivers for Retina BLT Z3 and the DraCo, though. Retina WB Emulation is not supported by rtgmaster. If someone wants to do support for it, i could give him developper docs to support it, though. (A new rtgmaster sublibrary had to be created, this takes about 1 week of coding, maybe less. Myself i can't do it, as i do not have a Retina that would be needed for testing). rtgmaster in no way supports the Retina Z2, as the Retina Z2 is a segmented Board. Segmented Boards miss some features needed for Game programming. They are quite old boards, anyways.

## 1.15 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

The Graffiti

There is not yet Graffiti Support for rtgmaster. It is planned, though. My problem is, i do not have a Graffiti, and it would also not run on my system, as i do not have a 15 kHz monitor (i use 15 kHz modes through a internal flickerfixer). If someone wants to help with the Graffiti Support, please contact me.

## 1.16 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Other Hardware

There are some other very old Boards. For example the Opalvision or the Firecracker. RtgMaster does not support them. Most of these Boards not even have a real WB Emulation, only some special drivers for some programs. A RtgMaster Driver might be possible for some of those Boards, so if you have such a Board and would be interesting in doing a driver, please contact me. Most of those Boards probably are segmented Boards, though, and segmented Boards miss some feature needed for fast Amiga GFX Board Games. In the future there will be some new Boards not yet listed here, that WILL be supported. There will be a special version of the Picasso IV that will run through PCI on a special Turbo-Board that ships with a PCI slot. This is one of the next Boards that will be supported. As this Board probably uses Picasso96, there won't be a problem, probably. Also, after Phase 5 announced a CAIPIRINHA Board for the Cyberstorm PPC, there might be CAIPIRINHA Support for rtgmaster in the future. But as i do not know much about CAIPIRINHA yet, i can't tell.

## 1.17 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

ECS/AGA

rtgmaster supports also ECS/AGA. The problem is only, that the fastest possible function of rtgmaster, CopyRtgPixelFormat, won't run on ECS/AGA, as it assumes a chunky display. Only the slower function CallRtgC2P will support it. But with some minutes work, a rtgmaster program runs on ECS/AGA with no problems. Most rtgmaster programs feature native AGA Support, that is probably faster, though. About the ECS Support there is a special problem. If a rtgmaster program uses 256 colors, it principally runs on ECS, but 192 of the colors are simply ignored and get Black. So the result might look strange on ECS.

ECS/AGA support needs libs:rtgmaster.library and libs:rtg/rtgAMI.library (installed by the rtgmaster installation script). Also it needs a monitor driver like PAL or NTSC in the devs:monitors directory. Without this you won't get any ECS/AGA Screenmodes.

## 1.18 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

To use rtgmaster.library, simply start an executable using rtgmaster.library.

You can then choose a Screenmode. If you save it, it will be saved to the local Directory, and the next time you start a rtgmaster program from this directory, the Screenmode-Requester will only popup, if you press SHIFT while starting the program. If you have any problems using rtgmaster, please check out the section about Amiga GFX Boards, to check out, if your GFX Board Software is installed correctly.

## 1.19 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Benchmarks and Demos

Provided demos are in the Demos Directory.

These are :

flame

Flame is a Plasma effect. It runs on all Systems. It is coded nearly completely in C (the main-Plasma-Loop is in ASM).

flamme

Flamme is another Plasma Effect. It runs on all Systems, but it has to be started from the Shell. It does not work from Workbench. It is coded in ASM.

Mandel

Mandel is a Mandelbrot set. It runs on GFX Board Systems. It is coded in C.

Moon

Moon is a Voxel-Graphics landscape. It runs only on systems with FPU.

It needs a Screenmode of 320x200 or 320x240 to run. It is coded nearly completely in C, so do not expect it to be fast.

Mywolf

Mywolf is a Wolf3D style texturemapping engine. It runs on all Systems.

It is coded completely in C. The only current rtgmaster c2p with that this demo runs is GD. As it is the only c2p, that currently supports c2p'ing "not-Full-Screen".

There are some more demos in the developer archive. But those are mostly not that impressive.

Benchmarks :

Flame

Flamme

Moon

Mywolf

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## 1.20 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Benchmarks of Flame

Machine GFX System 320x200 160x120

```
=====
A4000/030+Cybervision CyberGraphX 24 fps 30 fps
A4000/030 AGA 10 fps 10 fps
A2000/030+Picasso II Picasso WB-Emu 15 fps 24 fps
A4000/040+PiccoloSD64 EGS 34 fps 63 fps
A4000/040+PiccoloSD64 CyberGraphX 34 fps 63 fps
A4000/040 AGA (020opt.c2p) 14 fps 16 fps
A4000/060+Cybervision CyberGraphX 69 fps 136 fps
A4000/060+Retina Z3 CyberGraphX 50 fps 118 fps
A4000/060 AGA 29 fps 31 fps
A4000/040 AGA (040opt.c2p) 18 fps 22 fps
A3000/030+Piccolo EGS 22 fps 30 fps
A3000/030+Piccolo CyberGraphX 22 fps 30 fps
A4000/040+Cybervision CyberGraphX 35 fps 77 fps
A2000/040+Picasso(33MHz) CyberGraphX 19 fps 50 fps
A2000/030+SD64 CyberGraphX 17 fps 26 fps
A2000/060+SD64 CyberGraphX 26 fps 77 fps
A4000/040/40MHz+Cyberv. CyberGraphX 60 fps 105 fps
68030 25 MHz+RetinaZ3 CyberGraphX 21 fps
A1200/030 50 MHz AGA 11 fps 19 fps
A2000/030 50 MHz+Picasso Picasso WB Emu 21 fps
A4000/040 25 MHz+Ret.Z3 CyberGraphX 29 fps
A4000/040 40 MHz+Ret.Z3 CyberGraphX 34 fps 90 fps
A3000T 25 MHz + SD64 CyberGraphX 22 fps
A4000/030 25 MHz + Merlin II Probench3.0 21 fps
A4000/060 50 MHz + Merlin II Probench3.0 51 fps
A3000/040 25 MHz ECS 64 colors 19 fps 23 fps
A4000/040 40 MHz+CV/3D CyberGraphX 3 37 fps 80 fps
A2000/030 25 MHz+Domino Picasso96 18 fps
```

Note: These are the result of the OLD version of flame. The new version from V24 is faster on GFX Boards !!!

## 1.21 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Benchmarks of Flamme

Machine GFX System 320x200

=====

A4000/040 40 Mhz CV/3D CyberGraphX 3 74 fps

A4000/040 40 MHz SD64 CyberGraphX 102 fps

A4000/040 40 MHz AGA 23 fps

A4000/040 40 MHz AGA (040opt. c2p) 40 fps

A2000/030 25 MHz Domino Picasso96 23 fps

## 1.22 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Benchmarks of Moon

Machine GFX System 320x200

=====

A4000/040 40 Mhz CV/3D CyberGraphX 3 8 fps

A4000/040 40 MHz AGA 6 fps

A4000/040 40 MHz AGA (040opt. c2p) 8 fps

A2000/030 25 MHz Domino Picasso96 1 fps

## 1.23 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Benchmarks of Mywolf

Machine GFX System 240x200

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A4000/040 40 Mhz CV/3D CyberGraphX 3 36 fps

A4000/040 40 MHz AGA 21 fps

A2000/030 25 MHz Domino Picasso96 9 fps

## 1.24 Rtgmaster.library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

The History of rtgmaster.library

Version Changes

V0.1 First Alpha release (that one with the famous

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Screenmode requester that contained more Bugs than functions :) )

V1.0 First Beta Version with the new Screenmode requester. Only worked with rtgCGX.library.

V2.0 First official Aminet release of rtgmaster.library

Bug in V1.0 about it only loading rtgCGX.library is fixed in V2.0, many bugfixes, new implemented stuff and complete rework of the Autodocs !!!

c2p Support, new Screenmodereqeuster...

V3.0 Some Bugs fixed...

V4.0 First version with TCP/IP Support

V5.0 First version with TCP/IP Support with "One Server - Multiple Clients"

V6.0 A Major Speed enhancement for the function

RunServer. Do not use V5.0 for TCP/IP, use

V6.0... it is really MUCH faster (i threw out a LOT of Forbid()/Permit() Stuff, as the programmers of AmiTCP explained me by email, how to do this stuff without a single Forbid() :)

V7.0 First version with UDP Support

RunServer does not run with UDP yet, though...

V8.0 UDP Support finished

V9.0 Finally not-fixed-resolution c2p works (gd and gdecs c2p are provided), due to a bugfix.

V10.0 Text/Font Support added, "Automatic ECS Support" added (every AGA c2p supports ECS, too...)

V11.0 Expanded features of CopyRtgPixelFormat

V11 did not run on some systems with Cybergraphics.library

V40.92 ... V12.0 fixed that, though...

V12.0 Added RDCMP for Input Handling

V13.0 Fixed "RtgBlit will crash under EGS with Minterm

0xc0 and willdo strange things when blitting to

Buffer 2" Bug

Removed d6/d7 Parameters of CopyRtgPixelFormat (this time it is final !!!), Recompiling/Assemblong needed,sorry...

Fixed Installer Script and some minor Bugs

OffX/OffY parameters of CopyRtgPixelFormat

implemented for rtgCGX.library and rtgEGS.library.

Sadly, rtgPICA.library still crashes for unimplemented calls (for example RDCMP is not yet implemented for Picasso II, only for the other three sublibs, but the rtgPICA.library is currently in question anyways, as some stuff is NOT POSSIBLE using that WB Emulation !!!) BTW, does someone know how to access the VGA Registers of some boards (information about SD64 and CV64 !!!) ? I really would like a Mode X Support to rtgmaster, if this is possible...

V14.0 Fixed the "Crash on some system with smr\_PlanarSupport or smr\_ProgramUsesC2P =0" bug

Fixed the Screen Depth Bug with 16 Bit Piccolo SD64 Screens

libs:rtgc2p is now default for c2p algorithms

SrcWidth/SrcHeight of CopyRtgPixelFormat removed again, and

THIS TIME the function CopyRtgPixelFormat will stay as it is

As many people use rtgmaster to convert some PC stuff to Amiga,

i included the asmconv program, that converts Intel ASM to

Motorola ASM.

V15.0 Changed rtgCGX.library, so that it runs on both CyberGraphX 2 and CyberGraphX 3 (for Cybervision/3D Support). Still, rtgmaster.library won't run with cgxsystem.library versions smaller than 41.1 (41.0 had a serious bug in the LockBitmapTagList call). rtgPICA.library now no longer crashes, if a pointer, text or RDCMP function was called. It does not do anything, nevertheless. rtgCGX.library MIGHT run with Picasso96 Software, maybe not, i do not know, up to now, but will test, as soon as possible (maybe someone can tell me ?) Removed rtggadgets sources, added RtgGadTools.library (which replaces the rtggadgets sources).

V16.0 Added flickerfree DBuffering to rtgCGX.library (only does its job for CyberGraphX 3, for CyberGraphX 2 it is ignored, as CGX 2 can't REALLY do Flickerfree buffering currently). Added support for mp\_sigbit to all sublibs with exception of rtgPICA.library (yet to do), added gamecoderhelp for game coders in goodies directory.

V17.0 Fixed bug concerning new V16.0 features of RtgInitRDCMP

Updated Autodocs&Includes. Best: Do not use V16.0 anymore, as programs might use the new feature.

V20.0 Complete rework of the Package to make it more professional, split into User, Driver and Developer Archive

V21.0 Update of rtgCGX.library (bug in 15/16/24 Bit modes fixed)

Completely new Installer script, as it seems that the "Installer Example"

lha from some BBS that i used to do the first installer scripts used copyrighted material. I removed the old installer scripts completely.

Thanks to Robert C. Reiswig for reporting. (I also offered him to alternatively overtake the developpement of the scripts, but he did not answer to my mail, so i had to think of something new... so i took a whole afternoon to rewrite the scripts from the beginning...

BTW, these new Scripts now finally WORK !!!)

V22.0 Some internal changes, mainly. Added note about CV64 problems and of how to fix them. Added workaround for Doublebuffering problems under CyberGraphX 3 V55. Note: Doublebuffering function might change again in a new version released in some weeks. For the end-user that won't make a difference, though.

V23.0 Under OS3.0 SwitchScreens will now run 2000% faster than with the old version (only of ECS/AGA sublibrary). Also, there are some bugs fixed, especially the bugs concerning rtgmaster and MCP. The fixed version of rtgEGS.library is still not tested, so anyone who still has installed EGS, please test and email me, if it runs. rtgPICA.library still does not work with MCP, but as nearly nobody uses this sublibrary anymore, anyways, i moved this sublibrary to the new Goodies directory. Install it on your own risk.

V24.0 A lot of internal updates, among others it now runs without setpatch or devs:monitors drivers running. Removed rtgmaster\_driv.lha as it was not very useful at all, and also buggy. Speedup in flame demo.

V25.0 Internal version (also was given to some people on the net).

Fixed a serious problem with the library init of some of the libs.

Actually this bug was in since day one, and i did not notice, as this bug only appeared on very few Amigas (not on mine). Well, now it is fixed.

V26.0 A lot of minor Bugfixes concerning rtgAMI.library (for example concerning FillRtgRect). Added rtgP96.library (Nearly the same like rtgCGX.library, but supports Picasso96 Style Doublebuffering... use this lib only with Picasso96, and do not install rtgCGX.library and rtgP96.library at the same time, else you will get all Screenmodes twice, and Save Screenmode will give strange effects. Also you need a quite new version of Picasso96, older versions did not support Doublebuffering). Fixed "PAL Modes appear twice" Bug. rtgmaster no longer crashes, if a .info file is inside libs:rtg.

V27.0 Finally fixed it, so that it runs on ALL AGA-only systems, also. Added info about past AGA-only problems (mostly the problem is a incorrect startup-sequence or a missing monitor-driver). Added info about upcoming rtgmaster with additional PPC Support (of course it also runs on a 68k Amiga !!! Fat Binary !!!)

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## 1.25 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

Some basic notes :

the original rtg.library was developed on an idea of John Hendrikx. He later gave developpement to me and i made the rtgmaster.library out of it. Most work (main library, rtgCGX.library, rtgEGS.library, rtgAMI.library, Docs) was done by myself, Steffen P. Haeuser.

- The rtgPICA.library and the rtggad.library were done by Hans-Joerg Frieden
- Some of the examples were done by Hans-Joerg&Thomas Frieden
- The Moon Example was done by Olaf Asholz
- The Screenmode Requester was done by Wolfram Schenk
- The x0 to x0 ASM converter was done by Nikolaus Mausz

The original installer scripts were done based on some "installer examples" found on different BBS systems. I was notified some weeks ago, that those "examples" in fact used copyrighted work of Robert C. Reiswig. I offered Robert to overtake the developpement of the rtgmaster installer script and to notify him in the docs. As he did not answer to my mail after over a week, i simply rewrote the installer scripts without using those infamous examples. If i had known at the beginning, that those "examples" used Copyrighted material, i would never have used them. The Uploader of the Examples Archive did not say anything about that.

Authors and Copyright

This section is mainly interesting for Developers, but i also include it to the user archive.

User Information

rtgmaster.library is done by Steffen P. Häuser (that's me). Some of the sublibraries are done by other persons. I take no guarantee that it works on your system. Also i don't take guarantee that it not damages your system (don't be upset, this is only a standard disclaimer ... of course this software should work on your system, and it won't damage it... but to keep trouble away i included this standard disclaimer.

Basic Developer License

Developpers can include any part of this archive to their programs, as long as the part they include is still functional. They should read the stuff below, and do like it says. Principially, rtgmaster.library is for free, but i would appreciate some good will to give me at least a free copy of the program using it. Exact informations for different sorts of software are listed below.

Freeware/PD Developers

I would appreciate being mentioned in the Credits or Docs of your program.

Asides from that you can use rtgmaster.library for free.

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#### Shareware Developer

I would appreciate being mentioned in the Credits or Docs of your program.

I would appreciate a free copy of your program, if this is ok for you.

Asides from that you can use rtgmaster.library for free.

#### Commercial Developer

I would appreciate being mentioned in the Credits/Docs and a free version of your program (if this is OK for you/your publisher). I also would appreciate some extra-bucks from your publisher, if this is OK for him. If it is not okay for him, a free game will be ok also. Give my email to your publisher, so that i can clear things up with him. My Email is MagicSN@Birdland.es.bawue.de.

#### Developer - Extra Support

If you are a Developer of a Commercial Game, want it to run on a GFX Board, but do not want to have to bother with writing the GFX Board Part of the Code yourselves, i can do this for you. Simply mail your specifications for the needed functions to MagicSN@Birdland.es.bawue.de and i will do the job for you. In this case, we should definitely speak about a free Game and some extra Bucks. Maybe \$100 or something like that. But well, this is open to discussion. But think about it, \$100 definitely will come in with the sales for the GFX Board Version. Of course will be cheaper for Shareware programs.

Well, if your publisher does not want to pay me, i probably will make the GFX Board Version anyways, but then he is a skinflint !!!

My Address, if email is not possible :

Steffen P. Haeuser

Limburgstr. 127

73265 Dettingen/Teck

Germany

Tel. 07021-51787

Co-Sysop of Birdland BBS (07021-861920/862428/862429 and some other numbers)

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## 1.26 RtgMaster Library V27.0

The RtgMaster Library for GFX Board Using Demos/Games

c2p Algorithms

The rtgmaster c2p format is currently not optimal. It probably will change in the future, but that should not bother the user. It is only to the user to know, that the ECS/AGA Support currently is not speed-optimal, because of this problems. But luckily most rtgmaster-using programs also support native AGA Support.

Currently there are this c2p :

040 : 040 optimized, needs a 040/060 to run. Only runs in 320x200.

GD : 020 optimized. Runs in all resolution. Currently the only

rtgmaster c2p that supports c2p'ing stuff smaller than

Fullscreen.

Chunky4 : 030 optimized. On 040 and above, this c2p is the slowest one,

but on 030 it is the fastest one. Only supports 320x200.

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