

# **WhichAmiga**

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**COLLABORATORS**

	<i>TITLE :</i> WhichAmiga		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

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# Chapter 1

## WhichAmiga

### 1.1 WhichAmiga Guide

10-May-1999

Documentation for

WhichAmiga 1.3.3

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Composed by Harry "Piru" Sintonen

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Introduction What is WhichAmiga?

Package What's included?

About Some words about WhichAmiga.

Features !!

Requirements What is required.

Installation How can I do it?

Usage Really?

Important notes Please read.

Future Things to do...

License FreeWare!

Disclaimer "It's not my fault!"

History What has happened.

### 1.2 What is WhichAmiga anyway?

#### INTRODUCTION

WhichAmiga is yet another ShowConfig like tool, except it's highly sophisticated and is capable of determining which Amiga model you're running.

See WhichAmiga package [features](#) and [requirements](#) .

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## 1.3 About WhichAmiga

ABOUT WhichAmiga

WhichAmiga package software and documentation are Copyright © 1995-1999 PitPlane Productions. All Rights Reserved.

WhichAmiga package is FreeWare. See [license](#) .

If you have any suggestions or remarks about this program, or if you find any bugs, please let me know.

Probably the best way to reach me is IRC:

IRC: Piru (#AmigaFIN, #amycoders, #amiga)

Write to the following address (for [bug-reports](#) , comments etc.):

e-Mail: [sintonen@st.jyu.fi](mailto:sintonen@st.jyu.fi)

([sintonen@silmu.st.jyu.fi](mailto:sintonen@silmu.st.jyu.fi))

WWW: <http://www.jyu.fi/~sintonen/>

<http://www.jyu.fi/~sintonen/AmigaPrograms.html>

Latest beta release of WhichAmiga

should be found here.

SnailMail: [Harry Sintonen](#)

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Finland - Europe

## 1.4 Hmm

GREAT!!

Hmm... I think I'm above average programmer... I use mostly AmigaE and Assembler (DevPac) in my programmes. Sometimes I also use C and C++. I'm also quite good ARExx/CLI script writer. I love CygnusEd. I really hate GoldED!! What else? That's about it... :)

Oh, my Amiga's configuration?

Well, it's a good old A1200 put into 200W mini tower case, 3.1 GB and 2.6 GB IDE hard disks, 20x IDE CD-ROM (with selfmade idefix hardware), 4.3 GB and 2.1 GB SCSI hard disks. Blizzard PPC Power Board equipped with 240 MHz 603e and 50 MHz 68060, and two 32 MB 60ns SIMMs (total 64 MB fast), 10Mbit PCMCIA ethernet (\$80 PC-card + PCMCIA reset hack), Micronik scandoubler for AGA, BlizzardVision PPC 8 MB graphics card (Permedia 2), JUSTer® loudspeakers and finally SALORA Multigraph 445G 21" monitor. Quite ok system, no? :-)

And of course good old A500 (in 1001 pieces nowadays), few external drives and other stuff in my closet. ;)

## 1.5 Features

FEATURES

- This package is free! (see [license](#) )

- WhichAmiga is 100% assembler!

- Recognizes following Amiga models: Amiga 1000, old Amiga 500, Amiga 500, Amiga 500+, Amiga 600, Amiga 1200, Amiga 1400, Amiga 2000, Amiga 2000+, Amiga 2500, Amiga 3000, Amiga 3000UX, Amiga 3000 Tower, Amiga 4000, Amiga 4000 Tower, CD<sup>32</sup>, CDTV and MacroSystems' DraCo (Amiga-clone). They aren't all tested, though... ;)

- Amiga 1500(+) isn't really separate Amiga model, it's Amiga 2000(+) with two floppy drives. Amiga 1500(+) were sold in GB.
- Recognizes UAE emulated Amiga.
- Recognizes following CPU models: 68000, 68010, 68EC020, 68020, 68EC030, 68030, 68EC040, 68LC040, 68040, 68EC060, 68LC060 and 68060.
- Calculates clock frequency for 68k CPU. Should now always work on 040 and 060 (1.3.x).
- Recognizes following PowerPC CPU models: 602, 603, 604, 603e, 603p and 604e. Also shows PowerPC processor clock speed, revision and bus clock speed.
- Recognizes following FPU models: 68881, 68882, 68040 internal and 68060 internal.
- Recognizes following MMU models: 68851, 68030 internal, 68040 internal and 68060 internal.
- Recognizes following custom chips (both PAL and NTSC): OCS Agnus, Fat Agnus, Fatter Agnus (1MB), Super Agnus (2MB), AGA Alice (rev 0-2/3-4), OCS Denise, ECS Denise, AGA Lisa, AAA Lisa, Paula 8364, Akiko, Ramsey, Gary and Gayle. Chips' revision information is displayed if available.
- Correctly recognizes old Denise 8362 (that has no valid DeniseID/LisaID register) and Agnus 8361/8367 (buggy blitter wait) chips.
- Recognizes following graphics boards: 1600-GX, A2410, Altais Card, Blackbox, CyberVision 64, CyberVision 64/3D, CyberVision PPC, Domino, EGS Spectrum, Firecracker 24, GDA-1, Horizon, Impact Vision 24, Merlin, Picasso II, Picasso IV, Piccolo, PiccoloSD-64, Rainbow III, Rembrandt, Resolver, Retina Z2, Retina Z3, Visiona, Vivid-24 and Voyager.
- Recognizes following sound cards: Delfina DSP, Delfina LITE, Maestro, MaestroPro, Prelude, Toccata, ToccataPro and Wave-tools.
- WhichAmiga works with programs that use MMU: Enforcer, CPU FASTROM, VMM and GigaMem are tested ones. WhichAmiga executable can be loaded into virtual memory.
- WhichAmiga peeks original ROM chip version, even if ROM is rekickd with MMU. Following kickstart ROM versions are recognised: 1.0, 1.1 NTSC, 1.1 PAL, 1.2, 1.3, 1.4 beta, 2.0 beta, 2.04, 2.05, 3.0, 3.1 and 3.2.
- If boards.library is found WhichAmiga lists all expansion boards on system.
- Tested with:
  - Amiga 4000 50M/5.0G, 68060 @ 50MHz
  - Amiga 4000 30M, 68060 @ 50MHz
  - Amiga 4000 30M, 68040 @ 40MHz
  - Amiga 4000/030 14M, 68EC030 @ 25MHz
  - Amiga 3000 18M, 68030 @ 25MHz
  - Amiga 1200 66MB/12GB, 68060 @ 50MHz / 603e@240MHz
  - Amiga 1200 18 MB, 68060 @ 50MHz
  - Amiga 1200 10/850 MB, 68060 @ 50MHz
  - Amiga 1200 4/160 MB, 68020 @ 14MHz
  - Amiga 500 ECS 2.05, 68000 @ 7MHz
  - Amiga 500 OCS 1.3, 68010 @ 7MHz

## 1.6 Requirements

### REQUIREMENTS

WhichAmiga requires Amiga computer with Kickstart 1.1 or better. WhichAmiga should work with any Amiga hardware. WhichAmiga should work with DraCo, too.

MultiView is highly recommended because this guide file uses @WORDWRAP.

If you have boards.library available, WhichAmiga will list all expansion boards present. boards.library isn't required, though.

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## 1.7 WhichAmiga installation

### INSTALLATION

Simple. Just drag whole WhichAmiga drawer where you want it.

## 1.8 Important notes

### NOTES

If WhichAmiga fails (read: crashes :), start it with any parameter. It will then get into debug mode and output some strange data whilst running. You should tell me what was the last output from WhichAmiga before it crashed.

WhichAmiga has few Enforcer hits that can't be removed. These should never show up, though. WhichAmiga disables Enforcer when needed. ;-)

WhichAmiga should correctly recognize 68030 and 68EC030, even if 68EC030 has a defective MMU (MMU instructions are working, but MMU is not) or 68030 MMU is currently in use (Enforcer, CPU FASTROM, VMM, Gigamem etc). It does its job by running MMU with simple MMU-table and by causing some address faults. Luckily no 68EC040 or 68EC060 are sold with defective MMU (As far as I know, all EC040 and EC060 models have MMU instructions disabled correctly), and no special testing is needed as with 68030/68EC030.

You can get wrong Amiga model, if you have unexpanded Amiga 2000(+). WhichAmiga may incorrectly claim it's Amiga 500(+).

On DraCo computers, WhichAmiga always says that CPU clock frequency is 50MHz. This is due to some compatibility tricks.

To tell you the truth, WhichAmiga can fail in many configurations... That's mainly because I don't have possibility to test 'em all... If WhichAmiga fails, please report it to [me](#) !

If you have any accurate information about new Amiga models/compatibles (DraCo, new PowerPC based Amigas or if you have any neat tricks for example to determine difference between Amiga 500 and Amiga 2000, or between Amiga 3000 and Amiga 3000T, then please, please contact [me](#) !

I would also appreciate if some could send me information (how to detect, manu/prod id) about following hardware devices:

Graphics boards and expansions

A500 A600 A1000 A2000 A3000 A4000 CDTV

Harlequin x x x

OpalVision x x x

AVideo12 x x x x

AVideo24 x x x x

DCTV x x x x x x

HAM-E x x x x x x

+EGS-110 and EGS Graffiti.

Sound cards

-

Emulator boards

ATOnce

EMC 486SLC

GVP 286

Miscellaneous

Lola L1500 PAL Genlock

WACOM, wireless digi.tablet

Amiga emulators (like Frodo)

Send manufacturer and product IDs (for all versions of the product!) if board uses AUTOCONFIG(TM) or assembler source to check it otherwise. Also, information about other new (1995+) hardware devices is gracefully accepted.

## 1.9 Future: Things to come -- or not!

TO DO

- Fix bugs (there are some!).
- Add CGFX4 BlizzardVision PPC to gfxboard list (I think it has separate ID then...).
- Fix FPU MHz calculation and enable it.
- Add WarpOS support (boo!).
- Add support for possible new Amiga models or clones.
- Add support for SuperIO (if it exists!) and Buster (Zorro-III DMA controller) chips.
- Add support for some graphics boards (EGS-110, EGS Graffiti, Harlequin and OpalVision).

## 1.10 The Package

PACKAGE

WhichAmiga 1.3.3 distribution package contains following files:

WhichAmiga The main executable

WhichAmiga.ASM The source code

WhichAmiga.guide This AmigaGuide document

WhichAmiga.guide.info Icon for the Guide

WhichAmiga.readme Aminet std readme file

No additional files (including BBS adds) may be included!

## 1.11 How do I use WhichAmiga?

USAGE

WhichAmiga's usage is really simple: Run it from CLI/Shell or doubleclick its icon. In either way, you should see similar output.

See [sample run](#) . You can test WhichAmiga by clicking here.

## 1.12 Sample run on my Amiga 1200

SAMPLE RUN

7-Ram Disk:WhichAmiga> WhichAmiga

WhichAmiga 1.3.3 (2.5.99)

Written by Harry "Piru" Sintonen. Copyright © 1995-1999 PitPlane Productions.

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Evaluating system...

Central Processing Unit: MC68060 50.0 MHz (rev 5)

1 PowerUP Processor(s): PPC 603p 240 MHz (rev 2.1), 60 MHz busclock

Floating Point Unit: 68060fpu

Memory Management Unit: 68060mmu running

Custom graphics chip: AGA Lisa 4203 (rev 0)

Custom animation chip: AGA PAL Alice 8374, rev 3-4

Other custom chip(s): Paula 8364 (rev 0), Gayle (rev 13)

Graphics system: CyberGraphX

Graphics board(s): CyberVision PPC

Hardware Clock: clock found

Max. Chipmem available: 2064 K

Max. Fastmem available: 64528 K

ROM chip version: 39.106 (Kickstart 3.0)

ReKicked ROM, version: 40.68 (Kickstart 3.1)

Workbench version: 40.42 (Workbench 3.1)

SetPatch version: 43.6

Expansion board(s):

8512/110: Phase 5 Digital Products Blizzard PPC SCSI (@\$00F00C38 128k)

Blizzard PPC serial number: IDH0071

Your computer is an Amiga 1200.

**Explanation**

## 1.13 Explanation of the output

### EXPLANATION

First of all I get to now that I have revision 5 Motorola 68060 processor running at 50 MHz.

Also I have 240MHz PowerPC 603p (revision 2.1) in my system. This CPU uses 60MHz bus clock.

As I have full 68060 I have FPU and MMU too.

I've got AGA chipset. Lisa and Pal Alice revision 3-4 chips.

Paula 8364 for audio, Gayle (rev 13) handling miscellaneous stuff (Gayle can be found from all AGA machines).

Graphics system is CyberGraphX, and I have CyberVision PPC (actually BlizzardVision PPC but CGFX uses same ID for both) graphics card installed.

Internal hardware clock is there...

Ah, the usual 2 MB of chip memory...

...and 63 megs of (available) fast memory.

Used ROM version is 40.68, that is AmigaOS 3.1. Originally I have Kickstart 3.0.

SetPatch version used is 43.6.

I have Phase 5 Digital Products Blizzard PPC SCSI node in expansion list (BlizzPPC 603e+).

Also my card's serial number is IDH0071.

And finally... WhichAmiga says that my machine is an Amiga 1200. That's right!

## 1.14 Copyrights

### COPYRIGHTS

Amiga is Copyright © 1985-1999 Amiga International, Inc.

Blizzard Turbo Boards are Copyright © phase 5 digital products. All rights reserved.

Enforcer is Copyright © 1992-1998 Michael Sinz.

boards.library is Copyright © **Torsten Bach** <bach@deadline.snafu.de>.

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Products names are trademarks and registered trademarks of their respective companies.

## 1.15 Hellos to Torsten Bach

HELLO!

Hello Torsten!! Fine library you have... I use it in WhichAmiga and I bet you can imagine how much easier my life became... ;-)

## 1.16 About bug-reports

### ABOUT BUG-REPORTS

When sending in bug reports, please state exactly under what circumstances the bug occurred, what equipment was used and what happened. If possible also try to give me enough information to reproduce the bug. Dumps produced by common debugging tools are welcome. It is very difficult to find bugs when you don't know exactly what happened.

You are strongly encouraged to use included **bug-report -form** to report bugs.

## 1.17 Form for sending bug reports

### BUG-REPORT

I HAVE FOUND BUG(S) FROM WhichAmiga. I HAVE VERSION \_\_\_\_\_.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### ELECTRONIC ADDRESSES:

(if any, ie. Internet Email, FidoNet Netmail etc.)

\_\_\_\_\_

### MACHINE CONFIGURATION:

(ie. 500, 600, 1000, 1200, 1400, 1500, 2000, 2500, 3000, 4000, accelerator...)

\_\_\_\_\_

\_\_\_\_\_

DETAILED DESCRIPTION OF BUG (ENVIRONMENT, ANY DEBUGGING INFORMATION RECEIVED FROM YOUR FAVORITE DEBUGGING TOOLS (ENFORCER etc.), WHAT YOU WERE DOING WHEN BUG OCCURED OR SIMILAR STUFF:

\_\_\_\_\_

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(Date) (Signature)

## 1.18 History

### PROGRAM HISTORY

==== Version 1.3.3 == May 10th, 1999 =====

- PUBLIC SOURCE CODE RELEASE !
- Fixed ppc revision display.
- Now displays busclock MHz instead of PPL number.

==== Version 1.3.2 == Aug 24th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !
- Added detection for CyberVision PPC graphics card.
- Switched back to old MHz calculation routine, this time

I only made it use fastmem for 040 and 060. Seems to work.

==== Version 1.3.1 == Aug 18th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !
- Fixed pre-SetPatch 68060 test.
- Fixed 68k MHz calculation. Stripped one decimal. ;)
- Removed speed compare (it didn't compare real life performance anyways).
- Fixed various bugs.
- PPC cpu revision in decimal now. Added PPL info.
- Added revision display for 68060.
- Added Blizzard PPC serial number display.

==== Version 1.2.23 = May 13th, 1998 =====

- PUBLIC SOURCE CODE RELEASE !
- Due the fact that I haven't been able to work on WhichAmiga for ages now, I decided to release the source code for public. You can consider the source code PD,

though I would really appreciate if you would credit me for the hard work I've done in these years. The idea is that someone would continue development of WhichAmiga and add features I haven't been able to implement.

Anyways, have fun with it!

- BTW I'm \*not\* quitting Amiga ;)

==== Version 1.2.22 == Aug 2nd, 1997 =====

- Added Delfina LITE sound card.
- Fixed retina gfx system test.
- Added hardware clock info.
- Removed one A500 available board from A2000 only list.

==== Version 1.2.19 = Jul 14th, 1997 =====

- Fixed Picasso96 graphics system test.
- Finally fixed A4000 test!
- Thanks a lot to folks on #AmigaFIN for betatesting WhichAmiga (and not kicking/banning me when (if?) their machines crashed ;), namely: Roland, Jozo, angel, vLT, Zuikkis, Rolle and \_Duke.

==== Version 1.2.16 = Jul 11th, 1997 =====

- Added proper UAE detection, Thanks a lot ariap! :)
- Added detection for 1600-GX, Altais Card, Kronos/C Ltd A2410, Cybervision64/3D, FireCracker 24 PAL and Picasso IV graphics cards.
- Now detects following sound cards: Delfina DSP, Maestro, MaestroPro, Prelude, Toccata, ToccataPro and Wavetools.

==== Version 1.2.15 = Jul 10th, 1997 =====

- Fixed some typos.
- Seems to have some problems with 030 MMU test if MMU isn't used previously. Strange part is that it work on my 030!
- A4000 recognition still not fixed. Soon.

==== Version 1.2.14 == Jun 4th, 1997 =====

- Added support for GigaMem (Max Virtmem).
- Doesn't seem to recognize A4000 correctly. Probably Gary revision check is broken. I'll fix this soon.

==== Version 1.2.13 == May ???, 1997 =====

- Should recognize if run on UAE.
- Should recognize Phase5's PowerUP boards.

==== Version 1.2.12 = Mar 23rd, 1997 =====

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- Fixed CloseLibrary(0) -bug on kick 1.x.
- First Aminet release soon?
- ==== Version 1.2.11 = Mar 18th, 1997 =====
- Added SetPatch version information.
- ==== Version 1.2.10 = Mar 10th, 1997 =====
- Fixed some brain damaged code. :P
- ==== Version 1.2.9 == Feb 25th, 1997 =====
- Added support for Picasso96 gfx system.
- Added debug mode... :)
- ==== Version 1.2.6 === Dec 3rd, 1996 =====
- Fixed MMU problems with 68060 and GVP A1200 board.
- ==== Version 1.1 ===== Jun 29th, 1996 =====
- Documentation tuned up.
- Added support for several graphics boards.
- Added support for boards.library.
- Added workbench version display.
- ==== Version 1.0 ===== Jun 9th, 1996 =====
- Almost perfect.
- Revision **notes** for version 1.0.
- ==== Version 0.x ===== 1995-1996 =====
- VERY much work...

## 1.19 WhichAmiga 1.0 revision notes

rev notes

- 197 Added real 68060 test and fixed MMU codes.
  - 214 Fixed 68060 test and MMU codes.
  - 228 Bug?: Sometimes can't disable MMU!?
  - 275 Fixed MMU code a \*lot\*! Now display is blanked when display doesn't have 4x bandwidth. Now WhichAmiga works with Enforcer, CPU FASTROM and VMM etc.
  - 281 Now checks cardslot via hardware.
  - 282 Added test for stock model Walker.
  - 301 Added display for Paula, Ramsey, Gary and Gayle. Now checks IDE connection via hardware.
  - 302-304 Added DraCo support.
  - 305 A4000 also has Ramsey chip, but no Gary chip! (I guess!)
  - 309 Now should be 100% HW independent, if needed (DraCo!)
  - 313 Added display for Akiko.
-

- 328 Really fixed GetAddressBits and moved all VMEM critical code into CODE\_C hunk.
- 331 Real support for DraCo... It wouldn't have worked...
- 333 Fixed CDTV test.
- 347 Tried to fix 68040/060 MMU code as much as possible.
- 364 A3000 and A4000 have both Ramsey and Gary, A4000 has Ramsey rev \$F.
- 371 Few things added/fixes.
- 377 Fixed bad 040/060 MMU test.
- 384 Added very flexible CPU/FPU/MMU support.

## 1.20 License

### LICENSE

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## 1.21 Disclaimer

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