

Wzonka-Lad Guide

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COLLABORATORS

	<i>TITLE :</i> Wzonka-Lad Guide		
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REVISION HISTORY

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Contents

1	Wzonka-Lad Guide	1
1.1	Minna-san! Ichiban yoi Gameboy emulatoru, Wzonka-Lad v0.91 to asonde kudasai!	1
1.2	About version 0.91	2
1.3	The keyfile	2
1.4	Registered users	3
1.5	Sound emulation	3
1.6	The two executables	4
1.7	Shareware announcement - O-kane ga takusan hoshii n desu! ;)	4
1.8	10 Recent Cartridges menu	4
1.9	10 Favourite Cartridges menu	5
1.10	The tools directory	5
1.11	Copyrights	6
1.12	Installing	7
1.13	Read me before anything!	7
1.14	Requirements	7
1.15	Snapshots	8
1.16	Controls	8
1.17	Menu window	8
1.18	Visual settings	9
1.19	Sound settings	10
1.20	Preferences	10
1.21	Rom images	11
1.22	Emulation	11
1.23	Things to do	12
1.24	Information	12
1.25	Thanks to	12
1.26	The author	13
1.27	Final Words	14
1.28	Wzonka-Lad	14
1.29	Wzonka-Lad Palette Editor 1.04	14

1.30 Usage	15
1.31 History	15
1.32 Requirements	16
1.33 Compability	16
1.34 Wzonka-Lad Palette Editor	17
1.35 Features	17
1.36 History	17

Chapter 1

Wzonka-Lad Guide

1.1 Minna-san! Ichiban yoi Gameboy emulatoru, Wzonka-Lad v0.91 to asonde kudasai!

Before Starting...

ABOUT 0.91!!! READ ME!

Read me

Requirements

Copyrights and copying

Installing

Shareware announcement
Windows

Menu

Preferences

Visual settings

Sound settings
Menu Lists

10 Recent ROMs

10 Favourite ROMs
Binaries

The two executables

Tools (directory)

Palette Editor
 Programme Information

Controls

Rom images

Snapshots

Emulation

Sound emulation
 Misc Information

The Author

Thanks to

Future

Registered users

The keyfile

Final words

History

1.2 About version 0.91

Version 0.9x are not very well tested on different systems than my A1200/Blizzard-IV 030/50+FPU(50)/16MB FAST/400MB HD/OS3.1 as I've been busy with the army and the rest, so there are no guarantees that 0.9x generation Wzonka-Lad will work with your machine.

I'm using Mungwall and Enforcer while bug testing the product, and 0.9x are not giving me any hits what so ever, but it doesn't mean that some patches you might be using could cause them in conjunction with Wzonka-Lad 0.9x. If you have the mentioned tools in use and get error messages while using Wzonka-Lad, send them to me with a good description so I can start looking for a remedy.

Remember when you use 0.9x Wzonka-Lad you are doing it on your own risk. You are fully responsible if something happens to your machine due to Wzonka-Lad 0.9x.

1.3 The keyfile

The keyfile must be kept in the PROGDIR: or in the L: device. ↔
You can
gain a keyfile by
registering
.

With the keyfile you can use the sound preferences window to select the preferred AHI output devices and settings. Without the keyfile the window cannot be accessed and the sounds are not emulated.

You must not spread the keyfile as it is not a very nice thing to do. Keep it to yourself!

1.4 Registered users

The following nice people have registered Wzonka-Lad and are waiting for the keyfiles to be completed. Want to speed up the development? Join the lot! ;)

Amiga User Club Hof
Chris Covell
Hans Guijt
Hidden
Imran Ahmed
Jarkko Vatjus-Anttila
Josef Andersson
Lennart Johannesson
Luca Longone
Martin Blom
Morgan Johansson
Nik Racine
Niklas Jonsson
Patrik Alexandersson
Rodney Norton
Sami Niromaa
Sebastian Schlesinger
Simon Goodwin
ZAngle / FireCrew

Not very much, don't you think so? But thanks dudes for the support! ;)

1.5 Sound emulation

You can get yourself the sounds, aka a keyfile by registering. ;)

The emulation is not perfect, but due to the lack of good documents I cannot enhance it much.

NOTE! Always check out <http://www.lysator.liu.se/~lcs/ahi.html> (AHI homepage) for new updates!

The quality of output isn't either that great, but that's because AHI doesn't support greater play back frequency than 262143 Hz, so I had to drop down the quality to achieve correct tones.

NOTE! It's recommended to keep the channel four shut down as the emulation for that channel is incomplete.

1.6 The two executables

- FULL --> This one offers a full GB Z80 emulation with all the CPU flags.
- FAST ---> As the name indicated this one is faster, but lacks the emulation of H and N flags and the DAA command.

1.7 Shareware announcement - O-kane ga takusan hoshii n desu! ;)

During the long time of developement I've listened to user's requests and made most of them to come true. Now it's my time to ask you a favor.

Wzonka-Lad is shareware. By sending me 15US\$ or 70FIM (no other currencies are accepted) you'll become a registered user and will recieve a keyfile via email. Don's send any coins, I have no use for them, because the banks won't accept them. If you want your keyfile via snailmail then add 5US\$ or 20FIM for postages and a blank disk. By registering Wzonka-Lad you'll make me hurry with the coding and if enough of you register, I see no point in stopping emulator evelopements. ;) Want to see PPC asm coded emulators for A\BOX / PPC cards? 8D

Sounds are only be available for registered users.

If I ever see a pirated version of Wzonka-Lad or a keyfile in public distribution, I will stop working.

1.8 10 Recent Cartridges menu

This menu list is only available via
Menu window

The 10 recently loaded rom images are displayed on this menu. Selecting a name from the list will reload the cartridge.

NOTE! Only 15 characters of the file are saved with this list, so keep those names short. Note also that the data is loaded from the selected default rom image storage directory.

The list is saved on exit to the prefs file.

1.9 10 Favourite Cartridges menu

This menu list is created from an external file, which is not modified by the emulator. This is also only accessible via

```
Menu window
```

```
.
```

Inside this menu you can place the 10 favourite games of yours. The names are in ASCII, located in favourites/favourites.list.

favourites/favourites.list file is loaded on every start up and the menu will be shown only if it is available. It must be located in PROGDIR:favourites/!!!

You can edit the file with your normal text editor.

NOTE! The instructions for editing are inside favourites/favourites.list!

1.10 The tools directory

```
- prefs_to_cfg --> Converts
```

```
Wzonka-Lad
```

```
.prefs files to
```

```
Virtual GameBoy .CFG files. SYNTAX:
```

```
prefs_to_cfg "[INPUT NAME]" [OUTPUT NAME] [ENTER]
```

```
NOTE! Background colours are also extracted as window
colours to create a whole .CFG file.
```

```
- gbs_to_sav --> Converts
```

```
Wzonka-Lad
```

```
.gbs files to
```

```
Virtual GameBoy .SAV files. SYNTAX:
```

```
gbs_to_sav [INPUT NAME] [OUTPUT NAME] [ENTER]
```

```
NOTE! It's up to you to check out if the cartridge
has got battery backed RAM. The best way to
check this out is to run VGB with the desired
rom image and look if it searching for .SAV file.
```

```
NOTE! This utility is made to extract battery RAM data
from .GBS files to be used with VGB.
```

```
NOTE! Loader supports xpk packed files!
```

```
- sav_to_gbs --> Converts Virtual Gameboy .SAV files to
```

```
Wzonka-Lad
```

```
.GBS files. SYNTAX:
```

sav_to_gbs [INPUT NAME] [OUTPUT NAME] [ENTER]

1.11 Copyrights

Wzonka-Lad
Palette Editor
and
Wzonka-Lad
the Emulator are copyrighted
by Ville Helin 1996-97.
Wzonka-Lad
Palette Editor cannot be copied
separately from the Wzonka-Lad emulator distribution archive. File
removing and data altering are prohibited.

Wzonka-Lad
archive is freely distributable as long as

- no payment is taken.
- the archive is complete.
- no files inside the archive are altered.

If you are doing an article or a review of
Wzonka-Lad
then
you must send me a copy of the magazine!

If
Wzonka-Lad
is put on a cd, then you must send me a copy of it.

If you've registered
Wzonka-Lad
and you've recieved a keyfile,
it must not leave your computer. You are not allowed to spread the
keyfile.

Generally, if
Wzonka-Lad
is involved in something I must be told. ;)

Gameboy is naturally copyrighted by Nintendo. ;)

If any of these rules is broken I will stop developing of
Wzonka-Lad

.

1.12 Installing

Installing the emulator would not be easier; Just click on the icon and Installer (tm) does the job for you.

Thanks to Lennart Johannesson (95lenjo@ostrabo.uddevalla.se) for the script. Without him we wouldn't have the option of automatic installation. ;) Cheers!

1.13 Read me before anything!

Read the documents first before sending me any mail!!!

Do not send me mail about the following things. If you do send me mail with one of the listed subjects included I will not answer to your mail.

I don't want to hear about

- Requests for ROM images.
- SEGA PAD's behaviour. Contact the library's author, it's not my fault.

PS. If something seems to be wrong when first trying out a new version of

Wzonka-Lad
, delete the old prefs file first, before sending me mail. If that doesn't help, then please write me a line or two.

But do write about

- Emulator bugs.
- Brilliant ideas (brilliant = exceptionally good).
- Current compability with your gfx/sfx card (with system configuration).
- How much you like this emulator. ;) Or how little. 8D
- Features you'd like to see in the future releases.

1.14 Requirements

Real Requirements:

- MC68020+
 - About 3MB of memory.
 - reqtools.library version 38+
 - wzonka.font for the screen (zapot or topaz fonts will do it if wzonka font isn't found, but the view is optimized for wzonka font).
 - OS3.0 (OS3.0 routines are used!).
 - AHI sound system installed, any version of this will do fine, but the newer the better. Only used in the registered version of Wzonka-Lad
-

Things good to have:

- A cd32 compatible joypad.
- lowlevel.library for the cd32 joypad routines.
- controlpad.library if you are using a Sega controlpad alternatively.
NOTE! You need an CP-1 CONTROL PAD ADAPTER to utilize all the buttons.
Get ControlPad.lha from Aminet for more details.
- A fast processor (030/~40 MHz should guarantee enjoyable playability in all graphics modes, I guess). At least my 030/50 plays most of the games at full speed.
- xpkmaster.library and some good sub libraries to pack the rom images and ram snapshots with.
- NewIcons system to see the excellent Wzonka-Lad newicon icons!
- A Graphics card and OS3.1 if you are really going to use the Workbench window drivers.

1.15 Snapshots

Wzonka-Lad allows you to save a snapshot of the RAM to disk. ↔

This way
you can freeze the Gameboy and continue the game later.

Please make the files end to .GBS to indicate that the format really is

Wzonka-Lad
's own snapshot format.

1.16 Controls

	A	B	START	SELECT	(PAUSE)
KEYBOARD:	left alt	left shift	right shift	right alt	p / esc
CD32 PAD:	blue	red	yellow	green	pause
SEGA 4B :	a	b	start	c	p / esc
SEGA 2B :	fire 1	fire 2	right shift	right alt	p / esc
JOYSTICK:	fire	left shift	right shift	right alt	p / esc

1.17 Menu window

ROM

- Load --> Load a ROM image.
 - Run ---> Start / continue the emulation.
 - Info ----> Display ROM info field.
-

GBS

- Load --> Load a RAM snapshot file (.GBS).
- Save ---> Save .

Edit

- Gfx --> Edit graphics preferences.
- Sfx ---> audio .
- Prefs ----> universal .

Misc

- About --> Display emulator information.

1.18 Visual settings

Mode

- Full --> Process graphics data after every scanline. Slow.
- x/153 ---> Draw the whole screen on scanline x. Fast.

Driver

AGA

- PAL --> Output to a PAL hardware screen.
- NTSC ---> NTSC . (not functional).

Screen

- Select --> Select the used screenmode.

Window

- Solid --> Use a fixed 160x144 window.
- Scalable ---> Turn on the window scaling. Window width must be a multiplication of 16 (automatic fixer used).

Variables

- x --> The scanline where the screen will be drawn if x/153 mode is used.
- Frame skip ---> The amount of skipped frames.

Colours

- Obtain --> Fetch the colour values from the Palette Editor .

1.19 Sound settings

Master

Audio

- On --> Enable audio.
- Off ----> Disable .

Audio

Quality

- High --> Perform the best audio emulation available. Slow.
- Low ----> Leave out envelope and frequency sweeps. Fast.

Channels

Turn

- On --> Enable channel.
- Off ----> Disable .

AHI mode

- Select --> Select the AHI driver and playback frequency.

1.20 Preferences

Paths

- ROM --> Set the path for ROM images .
- GBS ----> GBS files .
- Prefs ----> ROM .prefs files.
- Battery -----> ROM .sav files .
- Get -----> Use a requester the select the path.

XPK packing when saving

Battery RAM

- On --> Use the selected XPK library to pack the battery backed RAM.
- Off ----> Don't pack battery backed RAM's.

GBS

- On --> Use the selected XPK library to pack the RAM snapshot.
- Off ----> Don't pack RAM snapshots.

<List of XPK libraries>

- Select the used XPK library.

Controller

<List of controlling methods>

- Select the used controlling method.

Save preferences

- Default --> Save the preferences as default ones. Everything is saved to ENVARC:Wzonka-Lad.prefs
- ROM ----> Save ROM image preferences. Only the colours, graphics emulation mode, variable x and frame skip are saved.

RAM

Battery

- On --> Save battery backed RAM files.
- Off ----> Battery has run out of power. ;)

1.21 Rom images

You can load your own rom images assuming that you have some ;) I recommend those shipped with the Virtual Gameboy, because almost all of them run without any problems 8D

Tictactoe:

Made by Norman Nithman. I got his permission to use the rom image. Thanks, Norman. ;)

1.22 Emulation

Not very far from perfect. ;) There are two things that are not done ←
in the graphics emulation. Sprites to h/w window priority and colour changes on a scanline basis are left out for your's sake. They would eat up too much resources.

It's a real Gameboy emulation this time, no fakes here! ;)

Runs a lot faster than the medicore unix-port Virtual Gameboy, which is though a far better emulator in the terms of compability.

Here is some misc
information
about the emulator programme.

1.23 Things to do

Very imminent additions:

- Fix all the bugs.
- Enhance the sound quality.
- NTSC AGA mode.
- More compability.
- Add a slider to select the accuracy of interrupt emulation.
- GameGenie support (I've got the material to do this, but I'm just lacking the time to implement it).

In the reserve:

- Multiplayer support via TP/ICP link or two Wzonka-Lad's running in one machine.
- Select a background image to be displayed inside the Wzonka-Lad WB game window.

1.24 Information

- 100% assembler code.
- Assembled by PhxAss MC680x0/68851/6888x Macro Assembler v4.36 Copyright 1991-97 by Frank Wille. Thanks Frank!
- Uses Sega ControlPad Library, Copyright ©1995 by Joseph Carlson and Randall Richards <xrichard@csu.fullerton.edu>.
- 020 / 32bit instructions used. Very little additional memory access while doing the z80 emulation (With FAST executable the amount of memory access is divided about by five).

NOTE! Don't load something that isn't a rom image, because I haven't done the code to check the cartridge's validity. It won't guru, though, but be careful!

1.25 Thanks to

- Jarkko Vattjus-Anttila for great help, succestions, information ←
 , source
codes and for being such a nice geezer ;) Without him this emulator would look much more boring (Check out BFBPlayer, Marbles and SinED in Aminet!!!).
 - Big thanks to Marcel de Kogel (Author of VGB-DOS) for the great help with the sounds!!! Thanks!!! Without him the sounds were much grainier. Cheerio Marcel!!!
 - Marat Fayzyllyn for the most valuable information 8D He's one of the three guys who helped me through the developement and stayed calm, though my mails filled his account's hd-space ;) VGB inspired me to do
Wzonka-Lad
!
 - Chaos-Knight for the documents.
 - Hans Guijt, the author of 100% asm fMSX, for z80 example codes, information
-

- and source codes. Without him this emulator would not exist. Brilliant, Hans! Good work with the fMSX! And thanks again for the help with the GUI!
- Morgan Johansson [orbit / giants] for (his everstopping whining about when the emulator is ready ;) Check out this dude! He's making a NES emulator!!! (A\NES <http://home2.swipnet.se/~w-28134/ANES/>).
 - Brothers Sandgren for their help with os-code and graphics.
 - Luca Longone for his marvellous newicons!
 - Lennart Johannesson for the installer script!
 - Paul Barker for beta testing and excellent ideas!
 - Jon Åslund for the magic-wb drawer icon.
 - Jeff Frohwein for his brilliant GameBoy homepage and the variety of documents available there. Keep that robot rolling!
 - Sampo Kytömäki for VGB preference files and info!
 - And all the others for encouraging me to continue the work. Cheers!
 - Sebastian Schlesinger who sold me his old Blizzard IV card! ;)
 - Special hidden secret thanks to an anonymous individual! ;) Thanks! 8D

1.26 The author

I'm happily living here in Finland. Age is 20 and I'm studying computer science at the Helsinki University of Technology. After the school I'll be a lot older and Master of Technology. =D

At the moment I'm in the middle of my military service, which means I'm at home only during the week ends (usually every second).

Hardware used for development: A1200/030/50MHz (+FPU) + 16MB'S OF FAST + 400MB HD + CD³ JOYPAD + "DRACULA X" - AUDIO CD ;) + LOAD OF ANIME TAPES.

NOTE! NUMEROUS URUSEI YATSURA, SLAYERS, RANMA ½, BAKURETSU HUNTERS, TENCHI MUYO, ARMITAGE III, VAMPIRE PRINCESS MIYU, Y'S, PHANTOM QUEST CORPORATION, RECORD OF LODOSS WAR, MARMALADE BOY, PRETTY SAMMY, ALL PURPOSE CULTURAL CAT GIRL NUKU NUKU, DIRTY PAIR FLASH (I&II), MAZE, AH! MEGAMI SAMA, EL-HAZARD, LUPIN III, PATLABOR, HERE'S GREENWOOD, NEW CUTEY HONEY, GOLDEN BOY, HYPER DOLLS, PROJECT A-KO, FUSHIGI YUUGI, SHAMANIC PRINCESS AND KO CENTURY BEAST (I&II) EPISODES WERE WATCHED DURING THE TIME WHICH SHOULD HAVE BEEN USED ON CODING. ;)

I'VE ALSO SPENT LOTS OF TIME LISTENING TO MY COLLECTION OF ANIME AUDIO MP2 AND MP3 FILES, WHICH I HAVE NOW OVER 300MB'S!

e-mail: vhelin@cc.hut.fi

snail-mail: Ville Helin
Suomenlinna c54 b14
00190 Helsinki
Finland

www: <http://www.hut.fi/~vhelin> (The page with information about Wzonka-Lad and other ~normal stuff).

<http://www.niksula.cs.hut.fi/~tursas> (This is for people capable

of reading Finnish. Take a look at my school related home page ;).

1.27 Final Words

If you think you could improve on some parts of the program, then let me know.

Help wanted: ;)

If anyone has very good information about GB's channel 4, well, I could use some help here ;)

And if you confess you are hiding some good interrupt documents, I won't punish you, but please send them to me! ;)

1.28 Wzonka-Lad

So, where does this silly name come from? Many have guessed that Wzonka stands for Game and Lad for Boy in finnish, but that's not it! Wzonka-Lad is the first name that came into my mind when it was time to choose a title for this emulator. I often like to name things like this, though it sounds as an act of lunacy ;) Anyway, it's much better than something like "MagiGB", "GoggleBoy" or "AmiGameBoy", well not better than GoggleBoy, but anyway. ;)

1.29 Wzonka-Lad Palette Editor 1.04

In General

The Palette Editor

Features

Compability

Requirements

History

Usage

Gadgets

.prefs

- Load --> Load colours from a Wzonka-Lad .prefs file.
- Save ---> Save colours to a Wzonka-Lad .prefs file.

.cfg

- Load --> Load colours from a VGB .cfg file.
- Save ----> Save colours to a VGB .cfg file. Note that
 -xc(0-3) tags are used.

Colours

- Obtain --> Obtain colours from
Wzonka-Lad
the Emulator.

Wzonka-Lad
must be running in the background,
or this gadget will be shadowed. To have this
button activated you need

Wzonka-Lad
version
0.90 or greater.

Background and Sprite colours

- Interpolate --> Compute the two colours between the first
and the last one to form a smooth slide
of shades.
- < --> Copy colour to left.
- > ----> right.
- R --> Change the amount of Red in that colour.
- G ----> Green .
- B ----> Blue .

1.30 Usage

Use the sliders and interpolate and copy gadgets to alter the colour values, and save, load and obtain gadgets to exchange data with external processes.

You can check out the effect of the current palette on Wzonka-Lad the Emulator's game window by looking at the two provided example images located at the bottom of the Wzonka-Lad Palette Editor window. Note that if your Workbench hasn't got enough pens available, some of the colours will not show correctly. By using Wzonka-Lad with Screen or AGA modes this problem is solved, because they don't rely on Workbench's dimensions.

1.31 History

1.04 (17.10.97)

The background bitmap was one scaline too short. When pressing the colour copy gadget the RGB values were not copied if the visible colour on Workbench screen was same in the both units.

1.03 (10.10.97)

Fixed a grave bug in gfx routines. If OS3.1 and chunky to planar conversion hardware is detected, the example images will be drawn with WriteChunkyPixels() instead of WritePixelFormat8(). Simplified the font sensitivity code a lot. Changed the example images. First public release.

1.02 (04.10.97)

Now the .prefs directory is loaded from Wzonka-Lad.prefs.

1.01 (04.10.97)

Added font sensitivity to the GUI.

1.00 (04.10.97)

Initial release for internal beta testing.

1.32 Requirements

Wzonka-Lad Palette Editor requires

- OS 3.0.
- Wzonka.font, Zapot.font or Topaz.font.
- A mouse. ;)

If you want to edit Wzonka-Lad .prefs files, you need some of them previously saved with Wzonka-Lad. Note that Wzonka-Lad Palette Editor cannot create .prefs files from nothing as they contain more data than just the palette.

1.33 Compability

Wzonka-Lad Palette Editor is compatible with all the versions of

Wzonka-Lad

. VGB compability is greatly extended to support almost all the colour values and options.

Supported VGB .cfg colour tags:

-c(0-3)	-bc(0-3)	-backgroundcolor(0-3)
	-wc(0-3)	-windowcolor(0-3)
	-sc(0-3)	-spritecolor(0-3)

Supported VGB .cfg colour names:

yellow, green, brown, black, cyan, red, white, pink, blue,

orange, magenta, dkcyan, dkmagenta, dkcyan, dkgreen, dkred, dkblue, gray and dkgray.

NOTE! I have no exact 24-bit values for gray and dkgray, so I had to use my imagination to add the support for those colours. If you have the true values for gray or dkgray (or something else, that's completely missing from the previous list), please send me a note.

NOTE! -wc(0-3) and -windowcolor(0-3) are ignored if -c(0-3), -bc(0-3) or -backgroundcolor(0-3) tags are found. If not, then the background colour is obtained from window colour tags.

NOTE! As Wzonka-Lad doesn't support window colour editing, the background colours are outputted as window colours, too.

1.34 Wzonka-Lad Palette Editor

People who are not interested in messing around with colour values can forget Wzonka-Lad Palette Editor, the emulator will work without it very nicely, indeed. But those who'd love to create wild colour schemes for different games to suit their tastes Wzonka-Lad Palette Editor will be the perfect tool.

Forget unimaginative hex values. Wzonka-Lad Palette Editor will provide you with all the gadgets and example images required for fast and easy colour editing.

1.35 Features

Wzonka-Lad Palette Editor

- Applies intelligent pen allocating/deallocating scheme to achieve the best results.
- Allows you to select and edit the colours used by Wzonka-Lad.
- Is 100% asm code.
- Is free of any charge. ;) No keyfile is required to use Wzonka-Lad Palette Editor to the maximum.
- Is fully multitasking.
- Window is font sensitive.
- Runs inside a window on Workbench screen.
- Shows you the results in real time without even starting the emulator.
- Supports Wzonka-Lad .prefs and VGB .cfg files.
- Uses gadtools.library for the GUI.

1.36 History

v0.91 (24-Oct-97)

Fixed Window driver palette bug, and speeded up the driver. Deleted "Palette Editor Guide" as it was included in the "Wzonka-Lad Guide". Optimized Window 320x?, 320x144 and 320x288 modes a lot! Battery RAM file was cleared if a game with battery RAM was loaded, but not played. Enlarged the game window's dimensions. Added a close gadget to the preferences window. Now the preferences window doesn't pop up on start up. ROM prefs file loader supports now v0.83 prefs and older. Added emulation of the last interrupt - serial interrupt. Optimized "Wzonka-Lad FAST" CPU emulation. Luca Longone drew a new icon for the "Palette Editor". READ THE DOCS!

v0.90 (14-Oct-97)

Rewrote the whole GUI! Now gadtools.library is used instead of custom images. Fixed some very rare user interface bugs. GBS loader doesn't give anymore those two enforcer hits when loading an unpacked data file, and it behaves much better now. The hardware filter is now returned to its original state after a pause if the audio is turned on. Removed the iconstartup.i code as it started to give me enforcer hits out of blue. The emulator can still be executed from a icon, but a script must be used (done so by default). Added battery RAM (VGB, AmiGameBoy) support, a different Palette Editor executable, graphics card indirect support via window mode, audio quality selector and an easy path selector. WIN+SCR is replaced by Window on Workbench screen driver, and it's now resizeable, too! The emulator runs now on Workbench! Replaced the old window scheme with a new one. Now every driver allocates its own memory, unlike the old versions where all the memory required by the drivers was allocated on startup, shrinking the memory requirements. Now all AGA modes should have a maximum refresh value. Removed all debug capabilities. READ THE DOCS!

v0.83 (10-Aug-97)

Fixed few audio bugs and a one bigger interrupt bug. Fixed a tiny controller emulation bug, now eg. Rolan's Curse 2 works *much* better. Speeded up the audio routines once again.

v0.82 (27-Jul-97)

Optimized the sound emulation routines. Fixed few small sound bugs. Fixed a fatal interrupt bug causing timer interrupts to occur five times slower than normal. Super Mario 1 and Mega Man 2 among the others sound much better now...

v0.81 (21-Jun-97)

Enhanced the sound emulation, fixed some sound and interrupt bugs. Now the selected mixing frequency for sound is used and saved along with the preferences. The frequency was always 4410, but now selecting something bigger will enhance the sound quality very much. The games will sound *much* better now!

v0.80 (08-Jun-97)

Greatly improved the speed of GB's memory handling, but the emulator needs now 256kB's more memory. Fixed a rare ROM bank switcher bug. The AGA modes do not steal the system's VBR interrupt, now only hooking is used, so better multitasking is achieved. Added a new FRAME SKIP value - ALL (no graphics are displayed). Lennart updated the installer script. Speeded up the DAA command emulation (in FULL executable). Fixed the .prefs

to .cfg converter version number. Added a .gbs to .sav and .sav to .gbs file converters. Sounds (and the keyfiles) are now supported. Added a special Sound Preferences window for registered users to use.

v0.64 (01-May-97)

A "Happy Wappu To Everyone" release. ;) Fixed a sprite flipping bug (a bug due to fast optimizing). Fixed a bug in SCREEN mode graphic emulation style change, so no more trashed output.

v0.63 (27-Apr-97)

Removed lowlevel.library from the archive due to copyright reasons. Now the screenmode is fetched again from the preferences (I blew it up in the previous version). Emulation can now also paused by pressing esc. Speeded up 144/144 and 1/144 modes (WIN+SCR & SCREEN) a little. Tweaked the AGA modes, too.

v0.62 (12-Apr-97)

Added crippled GB Z80 emulation executable for those who want more speed. Now ZELDA, SUPER MARIO 2 and FISHDUDE among others don't suffer from the counter reset! Fixed one corrupted word from the sprite x flipping table, so sprites should look better now. Added a new menu - 10 Favourite Games! Read the docs for more info. Added colour reset button to the colour editor window.

v0.61 (05-Apr-97)

You can now load a rom image by supplying the name in the commandline. Combined and enhanced the interrupt routines from versions 0.59 and 0.60. Optimized the cpu emulation.

v0.60 (02-Apr-97)

Now the default icons have OS2.0 look if NewIcons system is not used. Added support for 2 button Sega joypad and a normal joystick. Rewrote the input routines and enhanced the OS code sections a lot. Speeded up the emulation, and rewrote the interrupt part, which may affect some games. Enhanced the z80 emulation code. Now FRMSKIP, RENDER and REFRESH values are saved with the cartridge independent colour preferences. Wzonka-Lad is now shareware.

v0.59 (22-Mar-97)

A fast loader fix and bug removals executed. AGA 1/144 modes have now the limit of 50fps (not tested). ;)

v0.58 (21-Mar-97)

Fixed an AGA 1/144 mode sprite masking bug. Added Sega controller pad support and enhanced the controller autodetection. Added a 10 Recent Cartridges menu. Speeded up AGA 1/144 modes and added the missing h/w window emulation. Keyboard handler is finally fully coded for every screen mode. Fixed a possible font allocator bug, and the version strings (both executables and guide) plus some rare gui bugs.

v0.57 (02-Mar-97)

Added automatic window activation in KEYBOARD mode. Now the CARTRIDGE, PREFS and GBS paths from the file requesters are saved along with the universal prefs. Colour loader defaults to prefs directory. Added close gadgets to the CARTRIDGE INFO, PREFERENCES, ABOUT and COLOUR EDITOR windows. Changed the background pattern image. ;) Added p-key pausing to KEYBOARD controller. Fixed a bug in NONE xpk library GBS saver. The colour editor now

accepts VGB CFG files. Added a colour prefs to VGB.CFG file converter executable. The COLOUR EDITOR and PREFERENCES window gadgets are shadowed when the emulator is running. Luca Longone fixed the drawer icons! (Which I accidentally messed up). ;) Lennart Johannesson updated the installer script. Speeded up all graphics modes a little. Now the screens use the SA_AutoScroll tagitem. Moved S:WzonkaLad.prefs to ENVARC:Wzonka-Lad.prefs by request. Added AGA (unfinished) screen drivers.

v0.56 (03-Feb-97)

Added a new screen driver and introduced a new graphics emulation mode. Added reset button to the menu bar. Added colour editor window and possibility to save colours universally and cartridge independently. The SCREEN screen driver now inherits the main screen's ID. The SCREEN screen driver now works correctly with all modes. Joypad's pause button is now utilized. Removed window's priority over the sprites, because many games were suffering from invisible sprites on the window. Echo RAM emulation added. Added automatic screen to front popper in SCREEN + JOYPAD mode.

v0.55 (18-Jan-97)

Added window position saving with preferences. Added installer script by Lennart Johannesson! Thanks! Fixed screenmode requester cancel button bugs. Reordered the keys once again (!). This time they work perfectly on an A1200 (10hrs of testing accomplished). The 1st Aminet release.

v0.54 (15-Jan-97)

Compatibility boost release. Interrupt emulation and z80 bugs fixed. Once again reordered the keys to avoid A1200 keyboard bug. Fixed a sprite priority bug. Added a screenmode requester. Modified the GBS file format!

v0.53 (10-Jan-97)

Fixed a debug window update bug. Fixed some major z80 and h/w emulation bugs. "Zelda is working!" - release ;)

v0.52 (08-Jan-97)

Fixed some z80 bugs. Added new icons by Luca Longone. Reordered the keys and buttons to enhance the emulation ;) Fixed a GBS loader bug. Added xpk cartridge and GBS packing/unpacking support. Speeded up debug and cartridge info windows output. Visuals changed a bit, due to the addition of a preferences window. Fixed a bug which could cause a crash on exit. Added a primitive preferences saver. Added frame skipper.

v0.51 (03-Jan-97)

Speeded up the z80 emulation. Added icons by Rickard Sandgren to the icons directory. Switched from Asmone to PhxAss, because the bug I encountered in Asmone wasn't funny. Boo! Added ram bank switching. Now the requester recalls its path. The emulator can be launched from wb. Drew myself a newicon. ;) Fixed some misc user interface bugs. Added ram snapshot loader and saver.

v0.50 (30-Dec-96)

Implemented the code for bank switching with look up table. Multibank games speed up! Fixed some more z80 bugs. Now uses OpenWindowTags and supports the 3d look mode, so there is no need for MultiCX anymore ;) Thanks to Johan Sandgren for this fix! Fix for the new button looks goes for Johan's brother, Rickard! (Though I did not do all the modifications he suggested). Anyway, great support! ;)

v0.49 (28-Dec-96)

Fixed a sprite palette bug (Reported by Morgan Johansson).
Now requires 1 MB more memory for the bank switching table, which isn't yet
in use. Fixed some bugs and speeded up the z80 emulation.

v0.48 (26-Dec-96)

Added emulation for sprite colours, and an amigaguide version of the documents.

v0.47 (25-Dec-96)

Rewrote the gfx routines. Now faster (much faster on slower machines) and better ←

Added emulation for sprite x and y flippings.

v0.46 (15-Dec-96)

Added emulation for the gameboy h/w window.

v0.45 (11-Dec-96)

Fixed some bugs and added the keyboard controller!

v0.44 (06-Nov-96)

Now you can load rom images by the power of reqtools.library (assuming
that you have it). ;) Added some more things to the debug window and
made the emulator behave better.

v0.43 (30-Oct-96)

Added a little debug window. Modified the z80 emulation. Now faster and
safer. Made the other windows nicer ;) Found irritating bugs... ;(

v0.42 (20-Oct-96)

The first public release.
