

# **Wzonka-Lad Guide**

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**COLLABORATORS**

	<i>TITLE :</i> Wzonka-Lad Guide		
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# Chapter 1

## Wzonka-Lad Guide

### 1.1 Wzonka-Lad v1.01.00 - The Game Boy Fan Software Test Platform

Before Starting...

ABOUT 1.01.00! READ ME!

Read me

Requirements

Copyrights and copying

Installing

Shareware announcement

Debugging

Windows

Menu

Preferences

Visual settings

Sound settings

Misc settings

Menu Lists

20 Recent ROMs

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Binaries

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Tools (directory)

Palette Editor  
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Rom images

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Emulation

Sound emulation

Supported cartridge types  
Misc Information

The Author

Thanks to

Future

Questions

The keyfile

Final words

History

## 1.2 Debugging with Wzonka-Lad

You can use opcode \$ED for debugging purposes. When Wzonka-Lad executes \$ED the power light flashes. Not very ingenious, but helps.

## 1.3 Supported cartridge types

List of existing cartridge types:

0 - ROM ONLY	12 - ROM+MBC3+RAM
1 - ROM+MBC1	13 - ROM+MBC3+RAM+BATT
2 - ROM+MBC1+RAM	19 - ROM+MBC5
3 - ROM+MBC1+RAM+BATT	1A - ROM+MBC5+RAM
5 - ROM+MBC	1B - ROM+MBC5+RAM+BATT
6 - ROM+MBC2+BATTERY	1C x ROM+MBC5+RUMBLE
8 - ROM+RAM	1D x ROM+MBC5+RUMBLE+SRAM

```

9 - ROM+RAM+BATTERY          1E x ROM+MBC5+RUMBLE+SRAM+BATT
B * ROM+MMM01                 1F * Pocket Camera
C * ROM+MMM01+SRAM           FD * Bandai TAMA5
D * ROM+MMM01+SRAM+BATT      FE * Hudson HuC-3
F * ROM+MBC3+TIMER+BATT      FF x Hudson HuC-1
10 * ROM+MBC3+TIMER+RAM+BATT
11 - ROM+MBC3

```

\* not supported by Wzonka-Lad (yet)

x partial support (so far)

## 1.4 About version 1.01.00

Wzonka-Lad emulates Game Boy (DMG), and is meant for the people who wish to develop their own fan software for it. I've also written WLA GB-Z80 (<http://www.hut.fi/~vhelin/wla.html>) macro assembler, which is suitable for compiling your software to be used with Wzonka-Lad.

There has been a change in the registering policy.

This is the evaluation archive (e). v1.01.00e doesn't use a keyfile, if one is present, you'll need v1.01.00r for that. Registered users need to send me email and they'll receive the latest registered version (r) of Wzonka-Lad with the reply.

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

NOTE! Use AHI Paula v4.19 (or better) device and DMA 8 bit Stereo mode to obtain the best and fastest sounds on any Paula-chip sound system machine! v4.19 is much better than the previous drivers (even the difference between v4.17 and v4.19 is hearable!!), so get it asap!!!

## 1.5 Questions

Q: The emulator doesn't work. In fact it quits right after starting. No window pops up at all!!

A: You have older than 0.9x preference files in your system. Delete ENVARC:Wzonka-Lad.prefs and ENV:Wzonka-Lad.prefs and it'll work.

Q: Programme xxx has corrupted graphics.

A: Try first using Gfx -> Mode -> Full. If the graphics are ok, but you want more speed, switch to Gfx -> Mode -> x/153. Use different values for x to fix the output. Note that there are some problems which only Gfx -> Mode -> Full solves, but usually Gfx -> Mode -> x/153 is ok.

And if you don't legally own the software you are referring to in this

case, then, well, I couldn't care less.

Q: I can't hear any sounds.

A: You'll need a keyfile to get them, so register fast! ;)

Q: If I put Wzonka-Lad on my homepage, will I get a keyfile?

A: Certainly not. I did once give a keyfile for that reason, but then I realized the world is filled with homepages, and anyone willing can make one by himself.

Q: If I draw MahouWB/Wunderbaum icons for Wzonka-Lad, will I get a keyfile?

A: Get real! Luca Longone is the official Wzonka-Lad icon producer. ;) But I do take free-of-charge fan art.

Q: If I'll do xxx, will I get a keyfile?

A: Unless the xxx isn't pretty fantastic you can bet your heart out you will not get it.

Q: Keyfile!?

A: With home made software.

Q: If I'll send you (the author) copyrighted ROM images, will I get a keyfile?

A: No. And please read the documents. I will not answer to mails concerning about spreading illegal ROM files. I'll just redirect them to BSA for further actions. But I'll do my best to see that your mailbox is filled with spam'n'bull in the next 24 hours.

Q: Can I register with Kronas/Deutch Marks/Nuggets/Credits/Copper coins?

A: Sorry, you can register Wzonka-Lad by sending me a piece of software you've made yourself as a proof of devotion.

Q: I'm the author of Spanish "Amiga Burrito" magazine. Can I have the keyfile for testing?

A: Dear Mr. Nobody, if your magazine doesn't exist you can forget it.

Q: Why are you still supporting Amiga though you've received so many letters from cheaters and idiots?

---



A: I'm not sure, perhaps I'm a masochist. ;) I like the Amiga OS, and there are quite a many nice people, too, but sometimes I wish I had never written any software, just because all the lamers and lamer wannabes have killed the Amiga with their childish tricks.

Q: Do you need a shrink?

A: No, but I bet the shirnk would want to have me. Unfortunately he wouldn't get a thing out of me. ;)

Q: What does Wzonka-Lad mean?

A: Not a thing, as far as I know. ;)

## 1.6 The keyfile

The keyfile must be kept in L: or PROGDIR: (the directory where ←  
Wzonka-Lad  
executable is) volumes. 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'll also get a chance to use CD<sup>3</sup> and SEGA pads, more than  
three XPK libraries, GBS loading and saving and GameGenie (tm)  
patch codes when you register!

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

## 1.7 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!

NOTE! It's recommended to keep the channel four shut down as the  
emulation for that channel is incomplete. With some software  
channel four works just fine, with some it doesn't. You'll  
just have to find it out.

---

NOTE! If you are using default Amiga sounds chips for output, use Paula DMA 8bit Stereo driver as it gives the best result by being fast, clean and sharp in sound. Use Paula driver v4.19 or better if possible!

NOTE! Due to the way things work, FAST and WARP executables work best with y Hz -mode.

## 1.8 The three executables

- FULL --> This one offers a full GB Z80 emulation with all the CPU flags. Every GB-Z80 command can access RAM and ROM and read/write from/to hardware registers. Even the OAM RAM bug is emulated.
- FAST ----> As the name indicated this one is faster, but lacks the emulation of H and N flags and the DAA command. GB-Z80 CALL, RST and PUSH opcodes can only write to RAM, and RET and RETI can only read from RAM. RES x, (HL), SET x, (HL), EX HL, (SP), INC (HL), DEC (HL), RLC (HL), RRC (HL), RL (HL), RR (HL), SLA (HL), SRA (HL), SWAP (HL), SRL (HL), LD (xx), SP, LDI (HL), A and LDD (HL), A commands can handle only RAM.
- WARP ----> WARP uses the same GB-Z80 CPU emulation with FAST. To make things warp TIMER, CMP and LCD interrupts are left away and only VBR interrupt is emulated.

NOTE! Due to these defects in FAST and WARP executables some software may have errors with sounds, graphics and/or compability.

## 1.9 Shareware happyoo da!

There has been a change in the policy; If you want to register ↔  
Wzonka-Lad,  
you'll have to send me a proof that you are writing software to Game Boy.  
A piece of your own stuff is more than sufficient.

The Following features are only available for registered users:

- Sounds
- GameGenie patch codes
- GBS saving and loading (realtime and snapshotting)
- More than three XPK libraries
- CD\$^3\$\$^2\$ joypad, SEGA pads with 2 and 4 buttons and 2 button joystick controllers

If I ever see a pirated version of  
Wzonka-Lad  
or a keyfile in public

distribution, I will stop working.

By registering you won't only get the missing features, you'll support Amiga and ensure that Wzonka-Lad is developed in the future.

## 1.10 20 Recent ROM images menu

This menu list is only available via  
Menu window

The 20 recently loaded ROM images are displayed on this menu.  
Selecting a name from the list will reload the ROM image.

NOTE! 31 characters of the file name are saved with this list.

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.

## 1.11 20 Favourite ROM images 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 20 favourite ROMs 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!

## 1.12 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]

## 1.13 Copyrights

Wzonka-Lad  
Palette Editor  
and  
Wzonka-Lad  
the Emulator are copyrighted  
by Ville Helin 1996-99.  
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. ;) )

Game Boy is naturally copyrighted by Nintendo.

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

## 1.14 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 (951lenjo@ostrabo.uddevalla.se) for  
the script. Without him we wouldn't have the option of automatic  
installation. ;) Cheers!

## 1.15 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. ;P
- Features you'd like to see in the future releases (these must, too, be brilliant suggestions aswell).

## 1.16 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:

- Keyfile to hear the sounds.
- 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 CPU (030/50 MHz should guarantee enjoyable usability in all graphics modes, I guess). At least my 030/50 plays most of the software at ok speed (with FAST emulation, that is).
- 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, OS3.1 and 060+ if you are really going to use the Workbench window drivers.

## 1.17 Snapshots

Wzonka-Lad allows you to save a snapshot of the RAM to disk. ↔  
This way  
you can freeze the Game Boy 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.
```

## 1.18 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
JOY 1B :	fire	left shift	right shift	right alt	p / esc
JOY 2B :	fire 1	fire 2	right shift	right alt	p / esc

If you have a keyfile, the following keys apply to all control modes:

TMP GBS :	1	2	3	4	5
SAVE GBS:	F1	F2	F3	F4	F5
LOAD GBS:	F6	F7	F8	F9	F10

In CD32 PAD mode you can use the following buttons to load/save TMP GBS 1 file in realtime:

TMP GBS1:	SAVE	LOAD
CD32 PAD:	reverse	forward

Note that these five GBS files are saved into T: and have names Wzonka-Lad.RT.GBS(1-5).GBS. Wzonka-Lad will delete all these temporary GBS files on exit.

## 1.19 Menu window

```

ROM

- Load      -->  Load a ROM image.
- Run       --->  Start / continue the emulation.
- Reset     ----> Reset the emulator.
```

NOTE! Resetting does the following things:

- 1) Battery RAM is saved.
- 2) Emulator is reset.
- 3) Battery RAM is loaded.
- 4) ROM's preferences are loaded and used.

NOTE! Resetting does not:

---

- 1) Clear any installed GameGenie patches. If you want a 100% fresh ROM, you'll have to reload it.

- Info -----> Display ROM information data.

GBS

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

Check out  
controller  
preferences info for  
runtime shortcuts for GBS loading and saving!

Edit

- Gfx --> Edit  
graphics  
preferences.

- Sfx --->  
audio

- Prefs ---->  
universal

- Misc ----->  
misc

<Misc>

- About --> Display emulator information.  
- Status line ---> Displays misc info.

## 1.20 Misc settings

Misc

- Multitasking --> Executes exec.library/Forbid() at the beginning of the emulation loop, and ends the emulation loop to an exec.library/Permit() call.

These two procedures control the multitasking. With this box unchecked you can turn off the multitasking with system routines to gain a little speed.

Disabling the multitasking and enabling the sounds is not recommended, though testing results show that it's ok. ^\_^

- OS screen speed limit ---> Uses graphics.library/WaitTOF() to sync the



screen drawing into the beam. Use this only if you've got a very fast Amiga and software runs far too fast on the OS screen you use.

- Bitmaps in FAST RAM ----> Place all bitmaps to FAST RAM instead of CHIP RAM in OS Screen and Window modes.

All displayable bitmaps should be placed in CHIP RAM, but graphics cards and AmigaOS GUI hacks might work with FAST RAM'ed bitmaps. Use at your own risk!

#### GameGenie patch code

- <The three boxes> --> Put three letters/digits into every three boxes. Currently only the older version of GameGenie codes is supported, so nine digits are needed.

- Patch ----> Patch the ROM file with the provided code.

NOTE! You can use as many cheats per ROM as you like as long as they don't alter the same memory location. You can discard the patches by reloading the ROM file. Resetting doesn't clear the patches!

- <List of codes> ----> ROM related GameGenie patch codes are obtained from the game\_genie/game\_genie.list file. Press one of these and the corresponding code is inserted into the three boxes above.

## 1.21 Visual settings

### Mode

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

### Driver

#### AGA

- PAL --> Output to a PAL hardware screen.
- NTSC ----> NTSC .

#### 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 (Wzonka-Lad fixes this automatically). You had better have a graphics card and a fast CPU to use the window driver!

#### 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
- Load        ---> When unchecked this button disables colour data loading from ROM's own preference file. If you have a very nice colour scheme saved as default and don't want to use the ugly predefined palettes, but still need the ROM's variable x and frameskip, uncheck this.

## 1.22 Sound settings

#### Master

- Audio    --> Disable / enable audio.
- Volume   ---> Change the master volume (ranging from 1 to 16).

#### Audio

##### Quality

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

High and Low modes update the sound output when the registers are written into. Doing this you'll gain very accurate emulation, but it costs some speed by breaking the emulation.

- y Hz    ----> Update the sound information y times a second. The bigger the y, the more often the sounds will be updated, and the more slower the emulation.

AmiGameBoy is using a sound emulation very similiar to this mode with y = 60 (?).

NOTE! Realtime changing effects for eg. channel three (sample) can't be heard with this mode as they update the sample buffer more than 60 times a second (usually >100 times faster).

#### Channels

---

- Turn --> Disable / enable channel.

AHI mode

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

Variables

- y --> Ranging from 1 to 60, this value is the amount of times to update the sound registers in a second. The bigger the better the audio will be, but the slower the emulation is going to get.

## 1.23 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, variable x and framskip value are saved.

RAM

---

Battery

- On --> Save battery backed RAM to a file.
- Off ---> Onboard battery has run out of power. ;)

## 1.24 Rom images

Wzonka-Lad is targetted for people who wish to developpe and test Game Boy fan software on Amiga machines.

Wzonka-Lad is by no means a competitor for the professional developement software. I wanted to help individuals who wish to write their own software for the best hand held console there is. At least I do enjoy coding for Game Boy. ;)

WLA (GB-Z80 macro assembler I've written, <http://www.hut.fi/~vhelin/wla.html>) comes packed with a sufficient include file to create software that works with Wzonka-Lad. Wzonka-Lad doesn't check the validity of the ID area in a ROM dump file, so you can write software without the licensee code.

## 1.25 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 Game Boy 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.

## 1.26 Things to do

Very imminent additions:

- Fix all the bugs.
  - More compability.
  - Two player support via direct modem connection (TCP/IP is too slow and sophisticated to be of any use).
  - Enhance the sound quality.
  - Sound saving to a file plus an external player.
-

To be done:

- Speed up the cybergraphics drivers alot!
- Code a sound driver banging directly Amiga's Paula chip get gain more speed and quality on machines without soundcards.
- Select a background image to be displayed inside the Wzonka-Lad WB game window.
- ColourGB support.

## 1.27 Information

- 100% assembler code.
- Assembled with PhxAss MC680x0/68851/6888x Macro Assembler v4.38  
Copyright 1991-98 by Frank Wille.
- 020+ instructions used. Very little additional memory access while doing the Z80 emulation (With FAST and WARP executables the amount of memory accesses is divided by ~seven).
- GB-Z80 instruction timings 100% supported.
- Uses optionally Sega ControlPad Library, Copyright ©1995 by Joseph Carlson and Randall Richards <xrichard@csu.fullerton.edu>.

## 1.28 Thanks to

Thanks to the following people:

Jarkko Vatjus-Anttila, Marcel de Kogel, Marat Fayzyllin, Chaos-Knight, Hans Guijt, Morgan Johansson, Brothers Sandgren, Luca Longone, Lennart Johannesson, Paul Barker, Jon Åslund, Jeff Frohwein, Sampo Kytömäki, Sebastian Schlesinger, D. Domínguez, Jussi Lindgren, Mr. A, Mr. B, Tim Favro, Noca\$h, Rodney Zaks, Joonaa Palaste and all those unlukcy people I've forgotten. I have a bad memory. ;) )

"Nocash GMB Diag" was used in the making of this product. Thanks again!

## 1.29 The author

I'm happily living here in Finland. Age is 22 and I'm studying information technology at the Helsinki University of Technology.

Now I have a summer job at Napa OY, and I'm studying at the university so there's very little time for anything else at the moment. ;(

Stuff used for developement: A1200/030/50MHz (+FPU) + 16MB'S OF FAST + 400MB HD + CD\$^3\$\$^2\$ JOYPAD + "DRACULA X" - AUDIO CD ;) + LOADS OF ANIME TAPES + WINUAE.

NOTE! UNCOUNTED ANIME TAPES WERE WATCHED DURING THE TIME WHICH SHOULD HAVE BEEN USED TO CODING/STUDYING. ;) )

---

REGISTER WZONKA-LAD and support my anime hobby! ^\_^

--> Free commercial <--

Disney's bullshit! GET ANIME NOW! ;)

Did you know that Disney cloned Jungle Taitei anime and gave it the name "Lion King"? Ok, they didn't 100% duplicate it as the main character's name is Simba, not Kimba like in Jungle Taitei's English version which was released in the 60's. Nice one!

I just wonder where Walt copied Mickey and Donald from... They just might be original characters as they suck bad.

e-mail: [vhelin@cc.hut.fi](mailto: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 ;).

## 1.30 Final Words

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

Help wanted:

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

Mappers MMM01, MBC3+TIMER, MBC4(?), TAMA5 and HUC3 information anyone? Weird, but legal ROM sizes?

## 1.31 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.

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Anyway, it's much better than something like "MagiGB", "GoggleBoy" or "AmiGameBoy", well not better than "GoggleBoy", but anyway. ;)

Damn, I should have chosen that one... ;)

## 1.32 Wzonka-Lad Palette Editor 1.10

### In General

The Palette Editor

Features

Compability

Requirements

History

Usage

Gadgets

.iff

- Load           --> Load colours from an iff file. Only the first 8 colours are processed.

.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.

Wzonka-Lad

- 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            .

```

### 1.33 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.

### 1.34 History

1.10 (25.05.99)

"Colours"-label is now known as "Wzonka-Lad" for better logic.

1.09 (14.02.99)

Cleaned up the code, less memory references.

1.08 (29.11.98)

Changed the example pictures.

1.07 (15.07.98)

Recompiled for faster CPUs with optimizations.

1.06 (19.05.98)

Palette Editor does now FindPort() 75% less often. Deadlock's propability to occur now is 99% smaller if the user closes Wzonka-Lad and rapidly



presses Palette Editor's obtain button.

1.05 (05.12.97)

Added iff palette loading. When idle, the CPU usage is only 20% of what it used to be. Fixed a bug that might cause Palette Editor to fail to locate Wzonka-Lad.

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 are 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.

## 1.35 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.

## 1.36 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.

## 1.37 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 software 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.

## 1.38 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, VGB .cfg and Amiga .iff files.
-

- Uses gadtools.library for the GUI.

## 1.39 History

v1.01.00 (14-Aug-99)

Wzonka-Lad doesn't check the ID area in a ROM dump file, so you can run all the software you want with Wzonka-Lad.

v1.00.00 (25-May-99)

ROM+MBC5+RUMBLE(+SRAM+BATTERY)-mappers are now emulated, but the rumble device emulation is not implemented. Optimized scanline emulation loop. MBC3's clock I/O was emulated, but the clock itself wasn't. Now it is. Enhanced sound channel 4 emulation. When the Game Boy screen is turned off all the data is cleared instead of doing nothing in AGA mode. Palette emulation came one frame too early in AGA modes. When the size of the battery RAM was bigger than 8kb the active bank wasn't saved. Main menu window functions can now be accessed with keyboard. Interleaved \$xx and \$CBxx opcode routines in FULL CPU emulation, like it was done in FAST earlier, resulting in a smaller executable. Enhanced Info-window data display. Wzonka-Lad can now only be used in testing unlicensed software (ie. the programmes you and your friends have written). Read the documentation for further information.

v0.ab.cd

Too much to list in here.

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