Nintendo Game Boy

The Game Boy (GB) is a 8-bit, fourth-generation handheld console released by Nintendo on July 31, 1989 and retailed for $89.95. The Game Boy has a Sharp LR35902 core CPU at 4.19 MHz. It had a monochrome display that could only show four shades of grey, albeit with a olive green tinge on the original. It's successor is the Game Boy Color released in 1998.

This system scrapes metadata for the "gb" group(s) and loads the gb set from the currently selected theme, if available.

Quick reference

- **Emulator:** RetroArch
- **Cores available:** libretro: Gambatte, libretro: mGBA, libretro: VBA-M, libretro: MesenS
- **Folder:** /userdata/roms/gb
- **Accepted ROM formats:** .gb, .zip, .7z

BIOS

No Game Boy emulator in Batocera needs a BIOS file to run.

If you'd like to use a BIOS for instance to see the game boot animation:

MD5 checksum	Share file path	Description
32fbbd84168d3482956eb3c5051637f5	bios/gb_bios.bin	Game Boy BIOS

ROMs

Place your Game Boy ROMs in /userdata/roms/gb.

To play Game Boy games in their Super Game Boy mode, place your ROMs into the roms/sgb folder.

To play two virtually linked Game Boy instances for multiplayer games, refer to GB2Players.

Emulators

RetroArch

RetroArch (formerly SSNES), is a ubiquitous frontend that can run multiple "cores", which are essentially the emulators themselves. The most common cores use the libretro API, so that's why cores run in RetroArch in Batocera are referred to as "libretro/(core name)". RetroArch aims to unify

the feature set of all libretro cores and offer a universal, familiar interface independent of platform.

RetroArch configuration

RetroArch offers a **Quick Menu** accessed by pressing [HOTKEY] + ⊕ which can be used to alter various things like RetroArch and core options, and controller mapping. Most RetroArch related settings can be altered from Batocera's EmulationStation.

Standardized features available to all libretro cores: `gb.videomode`, `gb.ratio`, `gb.smooth`, `gb.shaders`, `gb.pixel_perfect`, `gb.decoration`, `gb.game_translation`

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all cores of this emulator	
GRAPHICS API gb.gfxbackend	Choose which graphics API library to use. Vulkan is better, when supported. ⇒ OpenGL `opengl`, Vulkan `vulkan`.
AUDIO LATENCY gb.audio_latency	Audio latency in milliseconds, turn it up if you hear crackles ⇒ 256 `256`, 192 `192`, 128 `128`, 64 `64`, 32 `32`, 16 `16`, 8 `8`.
THREADED VIDEO gb.video_threaded	Improves performance at the cost of latency and more video stuttering. Use only if full speed cannot be obtained otherwise. ⇒ On `true`, Off `false`.

libretro: Gambatte

Gambatte is an accuracy-focused, open-source, cross-platform Game Boy Color emulator written in C++. It is based on hundreds of corner case hardware tests, as well as previous documentation and reverse engineering efforts. The accuracy of the emulator is among the highest and is based off numerous reverse engineering tests and document studies.

We use the latest libretro core. See the official documentation for more information.

libretro: Gambatte configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all systems this core supports	
SHOW BIOS BOOTLOGO global.gb_bootloader	Show BIOS animation when starting content ⇒ Off `disabled`, On `enabled`.
GHOSTING EFFECT global.gb_mix_frames	Simulate LCD ghosting effects ⇒ Off `disabled`, Simple (Accurate) `mix`, Simple (Fast) `mix_fast`, LCD Ghosting (Accurate) `lcd_ghosting`, LCD Ghosting (Fast) `lcd_ghosting_fast`.
Settings specific to gbc	
COLOR CORRECTION gbc.gbc_color_correction	Adjusts output colors to imitate real hardware ⇒ Off `disabled`, On `always`.
Settings specific to gb	

ES setting name `batocera.conf_key`	Description ⇒ ES option key_value
COLORIZATION `gb.gb_colorization`	Set the Game Boy palettes to use ⇒ Off none, GB - Smart Coloring GB - `SmartColor`, GB - DMG GB - `DMG`, GB - Light GB - `Light`, GB - Pocket GB - `Pocket`, GB - Black and White GB - `Disabled`, GBC - Blue GBC - `Blue`, GBC - Brown GBC - `Brown`, GBC - Dark Blue GBC - `Dark Blue`, GBC - Dark Brown GBC - `Dark Brown`, GBC - Dark Green GBC - `Dark Green`, GBC - Grayscale GBC - `Grayscale`, GBC - Green GBC - `Green`, GBC - Inverted GBC - `Inverted`, GBC - Orange GBC - `Orange`, GBC - Pastel Mix GBC - `Pastel Mix`, GBC - Red GBC - `Red`, GBC - Yellow GBC - `Yellow`, SGB - 1A SGB - `1A`, SGB - 1B SGB - `1B`, SGB - 1C SGB - `1C`, SGB - 1D SGB - `1D`, SGB - 1E SGB - `1E`, SGB - 1F SGB - `1F`, SGB - 1G SGB - `1G`, SGB - 1H SGB - `1H`, SGB - 2A SGB - `2A`, SGB - 2B SGB - `2B`, SGB - 2C SGB - `2C`, SGB - 2D SGB - `2D`, SGB - 2E SGB - `2E`, SGB - 2F SGB - `2F`, SGB - 2G SGB - `2G`, SGB - 2H SGB - `2H`, SGB - 3A SGB - `3A`, SGB - 3B SGB - `3B`, SGB - 3C SGB - `3C`, SGB - 3D SGB - `3D`, SGB - 3E SGB - `3E`, SGB - 3F SGB - `3F`, SGB - 3G SGB - `3G`, SGB - 3H SGB - `3H`, SGB - 4A SGB - `4A`, SGB - 4B SGB - `4B`, SGB - 4C SGB - `4C`, SGB - 4D SGB - `4D`, SGB - 4E SGB - `4E`, SGB - 4F SGB - `4F`, SGB - 4G SGB - `4G`, SGB - 4H SGB - `4H`, Special 1 `Special 1`, Special 2 `Special 2`, Special 3 `Special 3`, Special 4 (TI-83 Legacy) `Special 4 (TI-83 Legacy)`, TWB64 - Pack 1 TWB75 - `WonderSwan`, TWB64 - Pack 2 TWB76 - `Yellow Banana`.

libretro: mGBA

mGBA is an emulator for running Game Boy Advance games. It aims to be faster and more accurate than many existing Game Boy Advance emulators, as well as adding features that other emulators lack. It supports Game Boy and Game Boy Color games.

libretro: mGBA configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all systems this core supports	
SHOW BIOS BOOTLOGO `global.skip_bios_mgba`	Show BIOS animation when starting content ⇒ Off `True`, On `False`.
Settings specific to gb	
SUPER GB BORDERS `gb.sgb_borders`	Only for Super Game Boy enhanced games ⇒ Off `False`, On `True`.
COLOR CORRECTION `gb.color_correction`	Adjusts output colors to feel real hardware ⇒ Off `False`, On `GBA`.
Settings specific to gbc	
SUPER GB BORDERS `gbc.sgb_borders`	Only for Super Game Boy enhanced games ⇒ Off `False`, On `True`.
COLOR CORRECTION `gbc.color_correction`	Adjusts output colors to feel real hardware ⇒ Off `False`, On `GBC`.
Settings specific to gba	

ES setting name batocera.conf_key	Description ⇒ ES option key_value
SOLAR SENSOR LEVEL `gba.solar_sensor_level`	Only for games that employed it (for Boktai) ⇒ 0 `0`, 1 `1`, 2 `2`, 3 `3`, 4 `4`, 5 `5`, 6 `6`, 7 `7`, 8 `8`, 9 `9`, 10 `10`.
FRAMESKIP `gba.frameskip_mgba`	Skip frames to improve performance (smoothness) ⇒ 0 `0`, 1 `1`, 2 `2`, 3 `3`, 4 `4`, 5 `5`, 6 `6`, 7 `7`, 8 `8`, 9 `9`, 10 `10`.

libretro: VBA-M

VBA-M is a Game Boy Advance emulator with the goal to improve upon VisualBoyAdvance by integrating the best features from the various builds floating around. It also supports Game Boy, Game Boy Color and Super Game Boy (borders, palette).

libretro: VBA-M configuration

| ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings specific to gb	
COLORIZATION `gb.palettes`	Set the Game Boy palettes to use ⇒ original gameboy `original gameboy`, black and white `black and white`, gba sp `gba sp`, blue sea `blue sea`, dark knight `dark knight`, green forest `green forest`, hot desert `hot desert`, pink dreams `pink dreams`, weird colors `weird colors`.
COLOR CORRECTION `gb.gbcoloroption_gb`	Adjusts output colors to simulate real hardware ⇒ Off `disabled`, On `enabled`.
SUPER GB BORDERS `gb.showborders_gb`	Only for Super Game Boy enhanced games ⇒ Off `disabled`, On `enabled`.
Settings specific to gbc	
COLOR CORRECTION `gbc.gbcoloroption_gbc`	Adjusts output colors to simulate real hardware ⇒ Off `disabled`, On `enabled`.
SUPER GB BORDERS `gbc.showborders_gbc`	Only for Super Game Boy enhanced games ⇒ Off `disabled`, On `enabled`.
Settings specific to gba	
SOLAR SENSOR LEVEL `gba.solarsensor`	Only for games that employed it (for Boktai) ⇒ 0 `0`, 1 `1`, 2 `2`, 3 `3`, 4 `4`, 5 `5`, 6 `6`, 7 `7`, 8 `8`, 9 `9`, 10 `10`.
SENSOR SENSITIVITY (GYROSCOPE) `gba.gyro_sensitivity`	For Gyro-enabled games (bound to left analog stick) ⇒ 10 `10`, 15 `15`, 20 `20`, 25 `25`, 30 `30`, 35 `35`, 40 `40`, 45 `45`, 50 `50`, 55 `55`, 60 `60`, 65 `65`, 70 `70`, 75 `75`, 80 `80`, 85 `85`, 90 `90`, 95 `95`, 100 `100`, 105 `105`, 110 `110`, 115 `115`, 120 `120`.
SENSOR SENSITIVITY (TILT) `gba.tilt_sensitivity`	For Gyro-enabled games (bound to right analog stick) ⇒ 10 `10`, 15 `15`, 20 `20`, 25 `25`, 30 `30`, 35 `35`, 40 `40`, 45 `45`, 50 `50`, 55 `55`, 60 `60`, 65 `65`, 70 `70`, 75 `75`, 80 `80`, 85 `85`, 90 `90`, 95 `95`, 100 `100`, 105 `105`, 110 `110`, 115 `115`, 120 `120`.

libretro: Mesen-S

Technically a SNES emulator, Mesen-S supports Game Boy via the Super Game Boy (or at least, an emulated version of it). Requires the appropriate BIOS files to function.

ROMs placed in the `roms/sgb` folder will appear in the SNES's game list, opening them from here will start the Game Boy game as if though you were playing it from the Super Game Boy. How neat!

Controls

Here are the default Game Boy's controls shown on a Batocera Retropad:
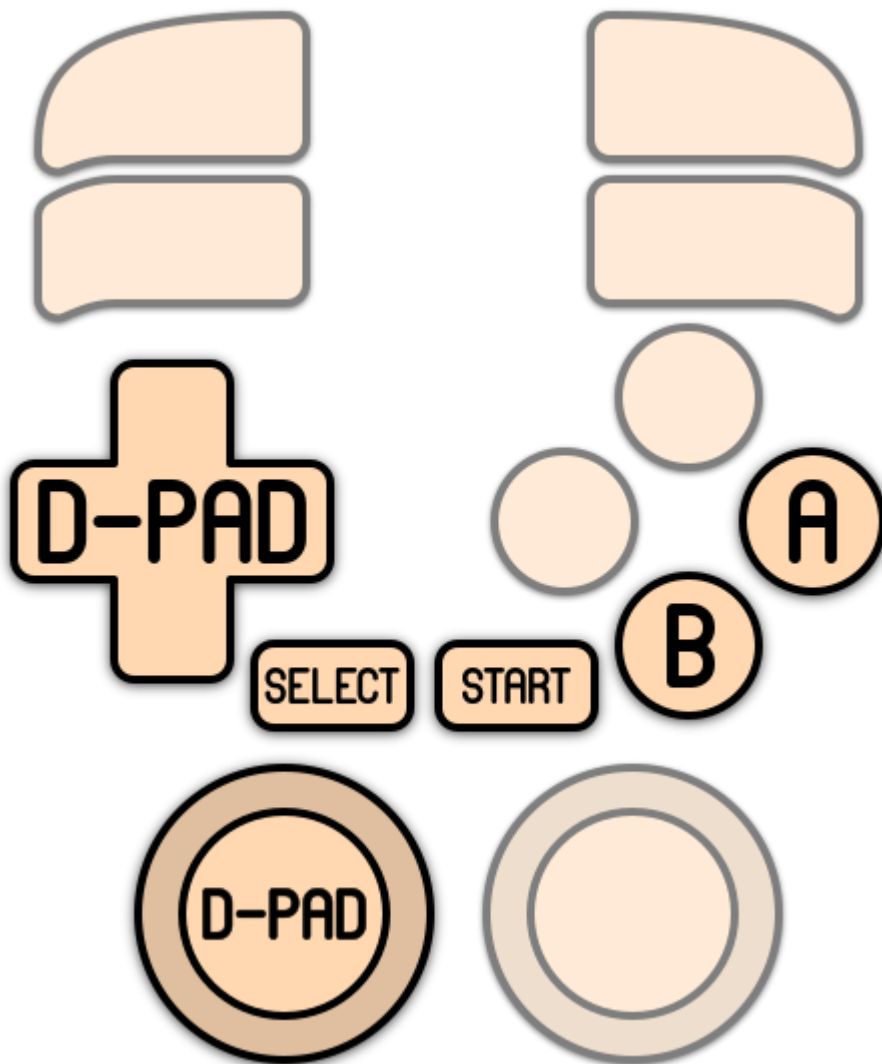
Troubleshooting

Further troubleshooting

For further troubleshooting, refer to the generic support pages.

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