Sega CD

The Sega CD is an add-on for the Megadrive/Genesis developed by Sega. It was released in 1991.

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

Quick reference

- **Emulator:** RetroArch
- **Cores available:** libretro: genesisplusgx, libretro: picodrive
- **Folder:** `/userdata/roms/segacd`
- **Accepted ROM formats:** `.cue, .iso, .chd, .m3u`

BIOS

MD5 checksum	Share file path	Description
e66fa1dc5820d254611fdcdba0662372	bios/bios_CD_E.bin	
854b9150240a198070150e4566ae1290	bios/bios_CD_U.bin	
278a9397d192149e84e820ac621a8edd	bios/bios_CD_J.bin	

ROMs

Place your Sega CD ROMs in `/userdata/roms/segacd`.

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: `segacd.videomode`, `segacd.ratio`, `segacd.smooth`, `segacd.shaders`, `segacd.pixel_perfect`, `segacd.decoration`, `segacd.game_translation`

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all cores of this emulator	
GRAPHICS BACKEND segacd.gfxbackend	Choose your graphics rendering ⇒ OpenGL `opengl`, Vulkan `vulkan`.
AUDIO LATENCY segacd.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 segacd.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: Genesisplusgx

A good all-around emulator. It can run Sega Genesis/Megadrive, Sega Master System, Sega/Mega CD and Game Gear games, but lacks 32X and Pico support. It is also the only emulator to support Lock-On technology, but can only be activated in RetroArch's **Quick Menu** ([HOTKEY] + ⊕) (correct as of v31). After resetting the game, Lock-On will be activated. By default, Batocera will reset this setting after exiting the game. This can be changed on a per-game basis by using RetroArch's Overrides. There are patches available for ROMs that set the flag to boot into their Lock-On ROMs instead, so this is not strictly required to play those games.

libretro: Genesisplusgx configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all systems this core supports	
REDUCE SPRITE FLICKERING global.gpgx_no_sprite_limit	The Megadrive/Genesis can only draw ~80 sprites per horizontal line at a time, and any more will be mitigated by rapidly flickering between them each frame. This setting removes that limitation. Some games rely on the limit to mask certain sprites, but is generally not noticeable when removed. ⇒ Off `disabled`, On `enabled`.
Settings specific to megadrive	

ES setting name batocera.conf_key	Description ⇒ ES option key_value
NTSC FILTER `megadrive.gpgx_blargg_filter_md`	GenesisPlusGX has the Blarg NTSC filter built-in as a feature, unrelated to the shader selected within Batocera. This applies only to Megadrive/Genesis games. Batocera's or RetroArch's preset shaders can be used instead. ⇒ Off `False`, Composite (color bleeding + artifacts) `composite`, SVideo (color bleeding only) `svideo`, RGB (crisp image) `rgb`.
SHOW LIGHTGUN CROSSHAIR `megadrive.gun_cursor_md`	Shows crosshairs for Menacer and Justifiers devices. This applies only to Megadrive/Genesis games. ⇒ Off `disabled`, On `enabled`.
CONTROLLER 1 TYPE `megadrive.controller1_md`	The Megadrive/Genesis has many types of peripherals, notably a 6-button controller that some games require to be fully functional and a few lightguns. This is also where you would set your multi-tap on, if required. ⇒ Joypad Auto 1, Joypad 3 Button 257, Joypad 6 Button 513, Joypad 3 Button + 4-WayPlay 1025, Joypad 6 Button + 4-WayPlay 1281, Joypad 3 Button + Teamplayer 1537, Joypad 6 Button + Teamplayer 1793, Mouse 2.
CONTROLLER 2 TYPE `megadrive.controller2_md`	Same as above but also has the Menacer Light Gun and Konami Justifiers available. ⇒ Joypad Auto 1, Joypad 3 Button 257, Joypad 6 Button 513, Joypad 3 Button + 4-WayPlay 1025, Joypad 6 Button + 4-WayPlay 1281, Joypad 3 Button + Teamplayer 1537, Joypad 6 Button + Teamplayer 1793, Mouse 2, Menacer Light Gun 516, Konami Justifiers 772.
Settings specific to mastersystem	
NTSC FILTER `mastersystem.gpgx_blargg_filter_ms`	GenesisPlusGX has the Blarg NTSC filter built-in as a feature, unrelated to the shader selected within Batocera. This applies only to Master System games. Batocera's or RetroArch's preset shaders can be used instead. ⇒ Off `False`, Composite (color bleeding + artifacts) `composite`, SVideo (color bleeding only) `svideo`, RGB (crisp image) `rgb`.
FM CHIP (YM2413) `mastersystem.ym2413`	Enhanced sound output support for compatible games. ⇒ Autodetect `automatic`, Off `disabled`, On (forced) `enabled`.

| ES setting name batocera.conf_key	Description ⇒ ES option key_value
SHOW LIGHTGUN CROSSHAIR `mastersystem.gun_cursor_ms`	Shows crosshairs for Menacer and Justifiers devices. This applies only to Master System games. ⇒ Off `disabled`, On `enabled`.
CONTROLLER 1 TYPE `mastersystem.controller1_ms`	Select 2 button controller, Lightgun or Multitap. ⇒ Joypad 2 Button 769, Joypad 2 Button + Master Tap 2049, Light Phaser 260, Paddle Control 261.
CONTROLLER 2 TYPE `mastersystem.controller2_ms`	Select 2 button controller, Lightgun or Multitap. ⇒ Joypad 2 Button 769, Joypad 2 Button + Master Tap 2049, Light Phaser 260, Paddle Control 261.
Settings specific to gamegear	
LCD GHOSTING FILTER `gamegear.lcd_filter`	Simulate LCD ghosting effects. ⇒ Off `disabled`, On `enabled`.
EXTENDED SCREEN `gamegear.gg_extra`	Extend the game screen area like on a Master System. ⇒ Off `disabled`, On `enabled`.

libretro: Picodrive

A lighter emulator which although not as accurate as GenesisPlusGX, can be run on much weaker hardware. This should be the default for devices such as the Raspberry Pi Zero and other sub-1GHz CPUs. Currently the only cross-architecture option for 32X and Pico games.

libretro: Picodrive configuration

ES setting name batocera.conf_key	Description ⇒ ES option key_value
Settings that apply to all systems this core supports	
REDUCE SPRITE FLICKERING `gamegear.picodrive_sprlim`	The Megadrive can only draw ~80 sprites per horizontal line at a time, and any more will be mitigated by rapidly flickering between them each frame. This setting removes that limitation. Some games rely on the limit to mask certain sprites, but is generally not noticeable when removed. ⇒ Off `disabled`, On `enabled`.
CROP OVERSCAN `gamegear.picodrive_cropoverscan`	Crops out video edge hidden under bezel of analog TV. ⇒ Off `disabled`, On `enabled`.
CONTROLLER 1 TYPE `gamegear.picodrive_controller1`	Select 3 or 6 button controller. ⇒ Joypad 3 Button `3 button pad`, Joypad 6 Button `6 button pad`.
CONTROLLER 2 TYPE `gamegear.picodrive_controller2`	Same as above, but for port 2. ⇒ Joypad 3 Button `3 button pad`, Joypad 6 Button `6 button pad`.

Controls

Here are the Sega CD's controls shown on a Batocera Retropad:
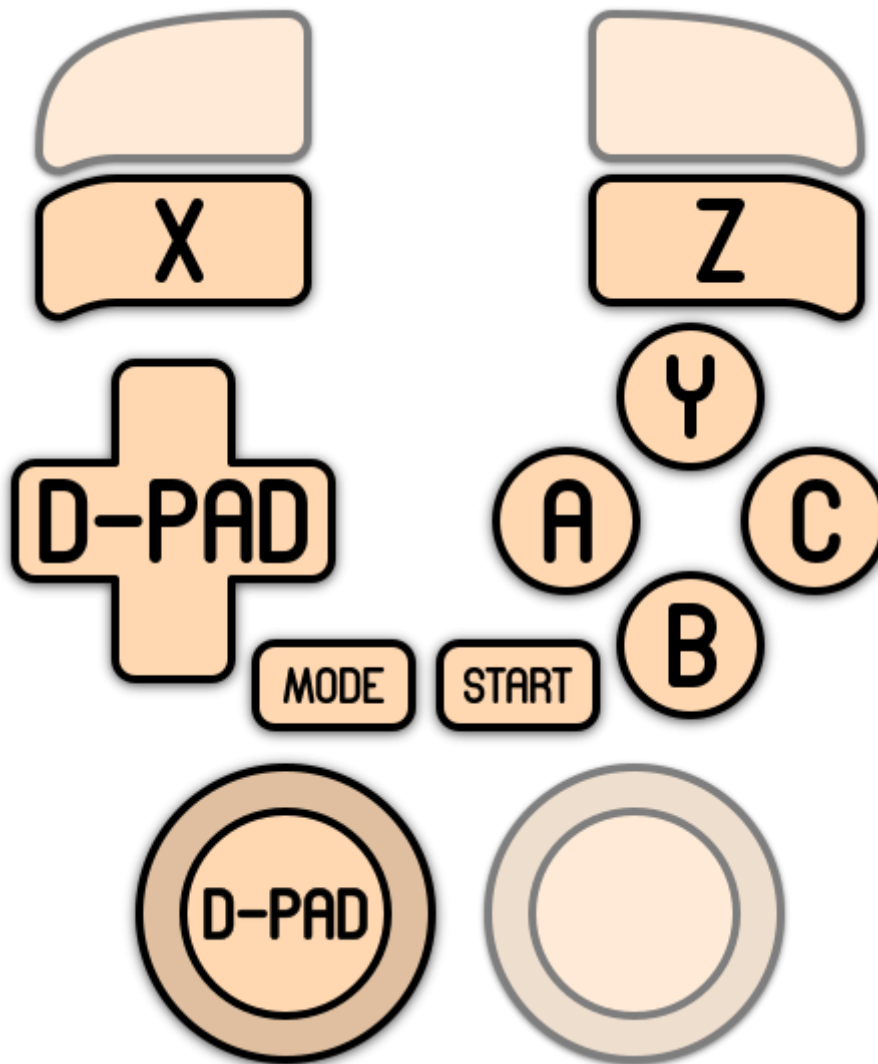
Troubleshooting

For further troubleshooting, refer to the generic support pages.