Final Burn Neo

The Final Burn Neo is a specialized multi-arcade emulator forked from Final Burn Alpha after... stuff happened. It was released in 2019.

Due to the complex nature of the situation, Batocera refers to FBNeo and FBAlpha almost interchangeably. And to add to the complexity, FBNeo shares a lot of characteristic with MAME as well. It's worth reading the arcade guide to become familiar with how arcade games in general work first.

This system scrapes metadata for the “arcade” group(s) and loads the `fbneo` set from the currently selected theme, if available.

Quick reference

- **Emulator:** RetroArch
- **Cores available:** fbalpha, fbneo
- **Folders:** `/userdata/roms/fbneo`, `/userdata/roms/neogeo`
- **Accepted ROM formats:** `.zip`, `.7z`

BIOS

FBNeo requires certain BIOS files to be placed in `/userdata/roms/fbneo` instead. These are:

- `neogeo.zip`
- `pgm.zip`
- `skns.zip`

ROMs

Place your Final Burn Neo ROMs in `/userdata/roms/fbneo`. You can also place your NeoGeo games in this folder as well, but if you'd like to organize them into their own “system” you can place them in `/userdata/roms/neogeo` instead. This will make them appear as a dedicated system in EmulationStation.

The romset used in Batocera's FBNeo is not updated as frequently as the latest MAME romset is. The current FBNeo romset used is 1.0.0.0 and probably will be for a while, unless some major developments within Batocera happen.

The ROMs themselves should not be decompressed, FBNeo expects them in their provided `.zip`/`.7z` format.

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

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

a.k.a. fbalpha2012, this is an older build of Final Burn Alpha that performs better on weaker SBCs like the RPi Zero.

Todo for this emulator: like everything.

libretro/fbneo

libretro/fbneo configuration

ES setting name `batocera.conf_key`	Description ⇒ ES option `key_value`
Settings that apply to all systems this core supports	
CPU CLOCK `global.fbneo-cpu-speed-adjust`	Can fix native system slowdowns in some games ⇒ 30% `30%`, 40% `40%`, 50% `50%`, 60% `60%`, 70% `70%`, 80% `80%`, 90% `90%`, 100% `100%`, 110% `110%`, 120% `120%`, 130% `130%`, 140% `140%`, 150% `150%`, 160% `160%`, 170% `170%`, 180% `180%`, 190% `190%`, 200% `200%`.
FRAMESKIP `global.fbneo-frameskip`	Skip frames to improve performance (smoothness) ⇒ No skipping `0`, Skip rendering of 1 frames out of 2 `1`, Skip rendering of 2 frames out of 3 `2`, Skip rendering of 3 frames out of 4 `3`, Skip rendering of 4 frames out of 5 `4`.
CROSSHAIR (LIGHTGUN) `global.fbneo-lightgun-hide-crosshair`	Show crosshair if playing with a lightgun device ⇒ Off `enabled`, On `disabled`.
Settings specific to neogeo	
NEOGEO MODE `neogeo.fbneo-neogeo-mode-switch`	Load appropriate Bios depending on your choice ⇒ Console AES World AES `Asia`, Console AES Japan AES `Japan`, Arcade MVS Europe MVS `Asia/Europe`, Arcade MVS USA MVS `USA`, Arcade MVS Japan MVS `Japan`, Arcade Universe BIOS (Cheats) `Universe BIOS`.
MEMORY CARD MODE `neogeo.fbneo-memcard-mode`	Change the behavior for the memory card ⇒ Off `disabled`, Shared `shared`, Per-game `per-game`.

fba2x

A standalone version of fba, this is a specialized fork of an older build of Final Burn Alpha that performs better on weaker SBCs like the RPi Zero.

Todo for this emulator: like everything.

How is this different from MAME?

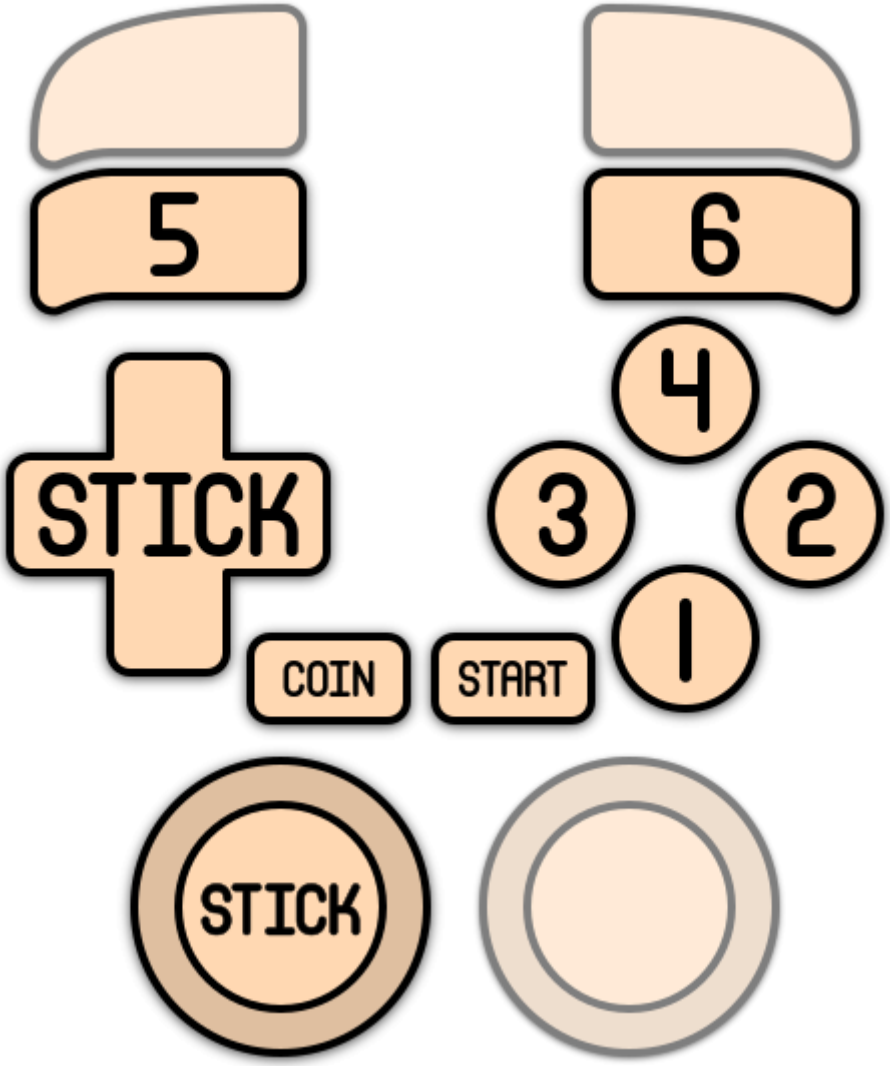
It's... complicated and no paragraph long block on a random wiki can properly explain it, so take the rest of this with caution. But the general agreement between users is that FBNeo “focuses” more on

speed and performance than MAME, though in practice there aren't many cases where one emulator performs better than another on the same game (with the same versioning, settings, etc.). FBNeo also has a smaller supported library, but still supports an impressively large number of games.

When it boils down to the pragmatic differences, if you're having issues with an arcade game it's worth trying it out from sets for both MAME and FBNeo to see if one does better than the other.

Controls

Here are the default Final Burn Neo's controls shown on a Batocera Retropad:



Troubleshooting

Further troubleshooting

Most questions are answered in the generic arcade guide.

For further troubleshooting, refer to the generic support pages.