

# Atom

The Atom is a computer developed by Acorn Computers. It was released in 1979.



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

## Quick reference

- **Accepted ROM formats:** .wav, .tap, .csw, .uef, .mfi, .dfi, .hfe, .mfm, .td0, .imd, .d77, .d88, .ldd, .cqm, .cqi, .dsk, .40t, .atm, .bin, .rom, .zip, .7z
- **Folder:** /userdata/roms/atom

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## BIOS

MD5 checksum	Share file path	Description
b7b7f8a608339fa39d44a3bcfa2cc3f0	bios/atom.zip	
baa26f458acf5745388177ffc7368124	bios/atom.zip	
9627dfb5f8302db8dd5702dbf7c09f72	bios/atom.zip	

## ROMs

Place your Atom ROMs in /userdata/roms/atom.


Requires MAME BIOS file atom.zip Using software list mode is recommended. Software list cassettes don't work but floppies do. Disks will automatically show contents, if the program isn't auto-launched, type the program name followed by a double quote (mapped to shift-2) and hit enter to run.

## 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: atom.videomode, atom.videomode, atom.ratio, atom.shaderst, atom.smooth, atom.integerscale, atom.bezel, atom.bezel\_stretch, atom.hud, atom.bezel.tattoo, atom.bezel.tattoo\_corner, atom.bezel.tattoo\_file, atom.bezel.resize\_tattoo, atom.ai\_service\_enabled, atom.ai\_target\_lang, atom.ai\_service\_url, atom.ai\_service\_pause, atom.runahead, atom.secondinstance, atom.video\_frame\_delay\_auto, atom.vrr\_runloop\_enable, atom.video\_threaded

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all cores of this emulator</b>	
<b>GRAPHICS API atom.gfxbackend</b>	Choose which graphics API library to use. Vulkan may not work for every core. ⇒ OpenGL gl, GLCore glcore, Vulkan vulkan.
<b>AUDIO LATENCY atom.audio_latency</b>	In milliseconds. Can reduce crackling/cutting out. ⇒ 256 256, 192 192, 128 128, 64 64, 32 32, 16 16, 8 8.
<b>ALLOW ROTATION atom.video_allow_rotate</b>	Allow cores to set rotation. ⇒ On true, Off false.
<b>CONTROLLER TO LIGHTGUN atom.lightgun_map</b>	Map controller inputs to lightgun inputs ⇒ On true, Off false.

### libretro: mame

#### libretro: mame configuration

Standardized features for this core: atom.autosave, atom.netplay, atom.padtokeyboard


ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all systems this core supports</b>	
<b>OVERCLOCK (UNSTABLE) global.mame_cpu_overclock</b>	Enhancement. Reduces system slowdown. Causes issues in some games. ⇒ default default, 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, 125 125, 130 130, 135 135, 140 140, 145 145, 150 150.

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>RENDERING RESOLUTION</b> global.mame_altres	Enhancement. Increase the rendering resolution. Makes 3D objects clearer. ⇒ 640×480 640×480, 800×600 800×600, 960×720 960×720, 1024×768 1024×768, 1280×720 1280×720, 1600×800 1600×800, 1920×1080 1920×1080, 2560×1440 2560×1440, 3840×2160 3840×2160.
<b>SHARE MAME ARTWORK</b> global.sharemameart	Use the same art paths as standalone MAME - not recommended if using decorations or shaders. ⇒ On (Default) 1, Off 0.
<b>CROP ARTWORK</b> global.artworkcrop	Crop MAME artwork to maximize the game screen and only fill unused space. ⇒ On (Default) 1, Off 0.
<b>CUSTOM MAME CONFIG</b> global.customcfg	Set system-wide controls via MAME menu ⇒ On 1, Off 0.
<b>ALT DPAD MODE</b> global.altdpad	If the D-Pad is oriented incorrectly for your controller. ⇒ Off (Default) 0, DS3 Orientation 1, X360 Orientation 2.
<b>Settings specific to atom</b>	
<b>SOFTWARE LIST</b> atom.softList	Use MAME software lists to identify ROM ⇒ Don't Use (Default) none, Acorn Atom cassettes atom_cass, Acorn Atom disk images atom_flop, Acorn Atom Utility ROMs atom_rom.
<b>MEDIA TYPE</b> atom.altromtype	Type of ROM file to load. ⇒ Cassette cass, Disk (Drive 1) flop1, Disk (Drive 2) flop2, Cartridge cart, Quickload quik.
<b>UI KEYS</b> atom.enableui	Toggle with hotkey + D-pad up or Scroll Lock in-game. ⇒ Off at Start 0, On at Start 1.
<b>CUSTOM GAME CONFIG</b> atom.pergamecfg	Enable per-game custom configuration via MAME menu. ⇒ On 1, Off 0.

## MAME

[MAME](#), the Multiple Arcade Machine Emulator, is a multi-purpose emulation framework which facilitates the emulation of vintage hardware and software. Originally targeting vintage arcade machines, MAME now also supports a wide variety of vintage computers, video game consoles and calculators. MAME doesn't use an individual "core" for each system like RetroArch does, instead the ROM itself usually contains the necessary information to accurately emulate it, thus making it specific to the version of MAME it was made for. Overall it's a very complicated subject, we have a [guide specific to arcade](#) just for it.

## MAME configuration

MAME offers a **Menu** in-game ([HOTKEY] +  or [Tab] on the keyboard). This can be used to manually adjust inputs or game settings. If you're having issues with a specific game, check the [MAMEdev FAQ for that game here](#). All options can also be edited by opening the mame.ini file.

Standardized features available to all versions of this emulator: `xegs.videomode`, `xegs.padtokeyboard`, `xegs.videomode`, `xegs.bezel`, `xegs.bezel_stretch`, `xegs.hud`, `xegs.bezel.tattoo`, `xegs.bezel.tattoo_corner`, `xegs.bezel.tattoo_file`, `xegs.bezel.resize_tattoo`

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all versions of this emulator</b>	
<b>VIDEO MODE</b> <code>atom.video</code>	BGFX for post-processing, accel/opengl for raw image. ⇒ BGFX <code>bgfx</code> , Accel <code>accel</code> , OpenGL <code>opengl</code> .
<b>BGFX GRAPHICS API</b> <code>atom.bgfxbackend</code>	Depends on video mode being set to BGFX. Vulkan is better, when supported. ⇒ MAME Detect automatic, OpenGL <code>opengl</code> , OpenGL ES <code>gles</code> , Vulkan <code>vulkan</code> .
<b>BGFX VIDEO FILTER</b> <code>atom.bgfxshaders</code>	Apply a post-processing effect. ⇒ Off None, Bilinear default, CRT Geom <code>crt-geom</code> , CRT Geom Deluxe <code>crt-geom-deluxe</code> , CRT Geom Deluxe (RGB) <code>crt-geom-deluxe-rgb</code> , CRT Geom Deluxe (Composite) <code>crt-geom-deluxe-composite</code> , Super Eagle <code>eagle</code> , HLSL <code>hls1</code> , HQ2X <code>hq2x</code> , HQ3X <code>hq3x</code> , HQ4X <code>hq4x</code> .
<b>CRT SWITCHRES</b> <code>atom.switchres</code>	Allows the use of switchres profiles if present. ⇒ Off 0, On 1.
<b>VERTICAL ROTATION (TATE)</b> <code>atom.rotation</code>	Rotates screen by 90 degrees. Intended for rotating displays. ⇒ Off None, Rotate 90 autorot, Rotate 270 autorot.
<b>ARTWORK CROP</b> <code>atom.artworkcrop</code>	Crop artwork to only unused space, keeping the game as large as possible. ⇒ Off (Default) 0, On 1.
<b>ALT DPAD MODE</b> <code>atom.altdpad</code>	If the D-Pad is oriented incorrectly for your controller. ⇒ Off (Default) 0, DS3 Orientation 1, X360 Orientation 2.
<b>CUSTOM MAME CONFIG</b> <code>atom.customcfg</code>	Set system-wide controls via MAME menu ⇒ On 1, Off 0.
<b>DATA PLUGIN</b> <code>atom.dataplugin</code>	Make game history, setup instructions, and special moves viewable in the menu ⇒ Enabled 1, Disabled (Default) 0.

## Controls

Here are the default Atom's controls shown on a [Batocera RetroPad](#):



## Troubleshooting

### Further troubleshooting

For further troubleshooting, refer to the [generic support pages](#).

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Last update: **2026/03/29 17:56**

