BBC Micro

The BBC Micro (aka the BBC Microcomputer System/Beeb for short) is a series of computers developed by Acorn Electronics. The first model was released in 1981 and the last model was discontinued in 1994. The first model, Model A, retailed for £235 UK pounds (£946.05 in 2021; $1,248 USD). Notable titles includes Elite, Starship Command and Granny's Garden.

Nine models use the BBC brand, with the first six being referred to generally as the “BBC Micro” and the latter models being referred to as the “BBC Master”. Software was generally incompatible between the newer and later models.

The “BBC Micro” computers include the:

- Model A
- Model B
- B+64
- B+128

The “BBC Master” computers include the:

- Master 128
- Master Turbo
- Master AIV
- Master ET
- Master 512

The BBC spearheaded the computer literacy project launched by the BBC following a documentary in which Dr. Christopher Evans predicts the coming of the computer revolution and its affects on the United Kingdom.

Designed with an emphasis on education, the BBR Micro line was notable for how robust it was and the high quality of its operating system. It was adopted by most schools in the UK during its prime, making it fairly recognizable to any UK students that did their tutelage during the late 80s/early 90s. It also had moderate success in the home computer market in the UK, North America and West Germany.

The computers were compatible with many types of peripherals, most notably an optical pen, analog controls and a digital joystick.

This system scrapes metadata for the “bbc” group and loads the bbc set from the currently selected theme, if available.
Quick reference

- **Emulator:** MAME
- **Folder:** /userdata/roms/bbc
- **Accepted ROM formats:** .mfi, .dfi, .hfe, .mfm, .td0, .imc, .d77, .d88, .1dd, .cq, .cqi, .dfi, .ima, .img, .ufi, .360, .ipf, .ssd, .bbc, .dsd, .adf, .ads, .adm, .adl, .fsd, .wav, .tap, .bin, .zip, .7z

**BIOS**

Requires MAME BIOS files bbcb.zip, bbc_acorn8271.zip, & saa5050.zip or *.7z in either the roms/bbc or BIOS folder.

In order to get sound for certain games, sample pack bbc.zip can be placed in the bios/mame/samples folder.

**ROMs**

Place your BBC Micro ROMs in /userdata/roms/bbc.

**Emulators**

**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 has since absorbed the sister-project MESS (Multi Emulator Super System) to support a wide variety of vintage computers, video game consoles and calculators as well. 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. For MESS systems specifically, you might find more information on MESS's wiki. All options can also be edited by opening the mame.ini file.

Standardized features available to all versions of this emulator: bbc.videomode, bbc.decoration, bbc.padtokeyboard
### BBC Micro

<table>
<thead>
<tr>
<th>ES setting name</th>
<th>Description ⇒ ES option key_value</th>
</tr>
</thead>
<tbody>
<tr>
<td>batocera.conf_key</td>
<td><strong>Settings that apply to all versions of this emulator</strong></td>
</tr>
<tr>
<td>VIDEO MODE bbc.video</td>
<td>BGFX for post-processing, accel/opengl for raw image. ⇒ BGFX bgfx, Accel accel, OpenGL opengl.</td>
</tr>
<tr>
<td>BGFX GRAPHICS API bbc.bgfxbackend</td>
<td>Depends on video mode being set to BGFX. Vulkan is better, when supported. ⇒ MAME Detect automatic, OpenGL opengl, OpenGL ES gles, Vulkan vulkan.</td>
</tr>
<tr>
<td>BGFX VIDEO FILTER bbc.bgfxshaders</td>
<td>Apply a post-processing effect. ⇒ Off None, Bilinear default, CRT Geom crt-geom, CRT Geom Deluxe crt-geom-deluxe, Super Eagle eagle, HLSL hlsl, HQ2X hq2x, HQ3X hq3x, HQ4X hq4x.</td>
</tr>
<tr>
<td>CRT SWITCHRES bbc.switchres</td>
<td>Allows the use of switchres profiles if present. ⇒ Off 0, On 1.</td>
</tr>
<tr>
<td>VERTICAL ROTATION (TATE) bbc.rotation</td>
<td>Rotates screen by 90 degrees. Intended for rotating displays. ⇒ Off None, Rotate 90 autoror, Rotate 270 autorol.</td>
</tr>
<tr>
<td>ALT DPAD MODE bbc.altdpad</td>
<td>If the D-Pad is oriented incorrectly for your controller. ⇒ Off (Default) 0, DS3 Orientation 1, X360 Orientation 2.</td>
</tr>
<tr>
<td>SPECIAL CONTROL LAYOUTS bbc.alttlayout</td>
<td>Controls for 5/6 button games and other unique controls ⇒ Default Only 0, Street Fighter (SNES) 1, Street Fighter (Modern) 4, Mortal Kombat (SNES) 2, Killer Instinct (SNES) 3, Genesis 6-Button (Retroarch) 5, Neo Geo (Neo Geo Mini Pad) 6, Neo Geo (Neo Geo CD Pad) 7, Neo Geo (Offset Fightstick) 8, Twin Stick with Triggers 9, Rotated 4-Way Stick (Q*Bert) 10.</td>
</tr>
<tr>
<td>MEDIA TYPE bbc.altromtype</td>
<td>Type of ROM file to load. ⇒ Cassette cass, ROM (Slot 1) rom1, ROM (Slot 2) rom2, ROM (Slot 3) rom3, ROM (Slot 4) rom4, Disk (Drive 1) flop1, Disk (Drive 2) flop2.</td>
</tr>
<tr>
<td>UI KEYS bbc.enableui</td>
<td>Open with hotkey + D-pad up or Scroll Lock in-game. ⇒ Off at Start 0, On at Start 1.</td>
</tr>
</tbody>
</table>

### Controls

The BBC Micro had a wide variety of accessories and thus methods of controller inputs.

**Which ones can we emulate?**

Here are the default BBC Micro's controls shown on a Batocera RetroPad:

![Batocera RetroPad](image)

### Troubleshooting
Further troubleshooting

For problems with MAME specifically, there are some tips on the troubleshooting section on MAME's system page.

For further troubleshooting, refer to the generic support pages.