TRS-80

The TRS-80 (Tandy/Radio Shack, Z-80) is a home computer released in August 1977 by Tandy Corporation through their Radio Shack retail stores. It was one of the "1977 Trinity" of personal computers alongside the Apple II and Commodore PET, and was the **best-selling personal computer** from 1977 to roughly 1981.

The original Model I features a Zilog Z80 CPU at 1.774 MHz, 4 KB RAM (expandable to 48 KB), and a 64×16 character monochrome display with 128×48 block "graphics". It came with a modified RCA black-and-white TV as a monitor, an integrated 53-key keyboard, and a cassette interface. The price started at a competitive **$599.95**. Despite being widely nicknamed the **"Trash-80"**, Tandy sold over 100,000 units in the first year — wildly exceeding their initial estimate of 3,000 — thanks to unparalleled retail distribution through 3,000+ Radio Shack stores across the US.

Models supported in Batocera:

- **Model I** (1977) — the original two-piece design (keyboard + separate monitor), Level I/II BASIC
- **Model III** (1980) — all-in-one design integrating keyboard, monitor, and dual disk drives, Z80 at 2.03 MHz
- **Model 4** (1983) — enhanced Model III with 80×24 display, 64-128 KB RAM, CP/M support
- **Model 4P** (1983) — portable version of the Model 4

The TRS-80 Color Computer (CoCo) is a **completely separate system** in Batocera. Despite sharing the TRS-80 branding, the CoCo uses a Motorola 6809 CPU (not Z80), has color graphics, and shares no software compatibility with the Model I/III/4 line.

This system scrapes metadata for the "trs80" group(s) and loads the `trs80` set from the currently selected theme, if available.

Quick reference

- **Emulator:** MAME, RetroArch
- **Core:** MAME, libretro: MAME
- **Folder:** `/userdata/roms/trs80`
- **Accepted ROM formats:** `.cmd`, `.cas`, `.dsk`, `.dmk`, `.bas`, `.wav`, `.zip`, `.7z`

BIOS

MD5 checksum	Share file path	Description
	`bios/trs80.zip`	Model I BIOS (includes Level I and Level II BASIC ROMs)
	`bios/trs80m3.zip`	Model III BIOS
	`bios/trs80m4.zip`	Model 4 BIOS

MD5 checksum	Share file path	Description
	`bios/trs80m4p.zip`	Model 4P BIOS

The BIOS files must match the version of MAME used in your version of Batocera. Only the BIOS for the model you want to emulate is required. You can verify your BIOS files from the Batocera menu: **GAME SETTINGS > MISSING BIOS CHECK**.

ROMs

Place your TRS-80 ROMs in `/userdata/roms/trs80`.

Software for the TRS-80 was distributed on cassette tapes and floppy disks. The supported file formats are:

- `.cmd` — executable command files (autoload directly)
- `.cas` — cassette tape images
- `.dsk`, `.dmk` — floppy disk images
- `.bas` — BASIC program files (autoload using RUN command)
- `.wav` — raw cassette audio recordings

Autoload behavior can be customized by editing CSV files in `system/configs/mame/autoload/trs80_{cass,flop}_autoload.csv`.

Emulators

MAME

MAME (Multiple Arcade Machine Emulator) is the primary emulator for the TRS-80 in Batocera. MAME supports the Model I, Model III, Model 4, and Model 4P through separate drivers.

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.

libretro: MAME

The libretro version of MAME can be used to emulate the TRS-80. It uses the same BIOS and ROM sets as the standalone version.

Controls

The TRS-80 is a computer system that uses a **keyboard** for input. A physical USB keyboard is strongly recommended.

Notable software

The TRS-80 had one of the largest software libraries of any early personal computer. Many early game and software companies got their start on the platform.

- **Adventureland** (Scott Adams, 1978) — one of the first commercial text adventures for personal computers
- **Zork** (Infocom, 1980) — one of the most famous text adventures
- **Galaxy Invasion** — Space Invaders clone
- **Defense Command** — Missile Command clone
- **Dancing Demon** (Leo Christopherson, 1979) — famous graphical demo
- **Android Nim** (Leo Christopherson) — notable for animated graphics
- **VisiCalc** — the pioneering spreadsheet application (Model III)

See also

- TRS-80 Color Computer (CoCo) — separate Tandy computer with Motorola 6809 CPU
- TRS-80 MC-10 — Tandy's budget micro computer
- Apple II — fellow member of the “1977 Trinity”

Troubleshooting

Black screen on boot

Make sure the correct BIOS file is in `/userdata/bios/` for the model you want to emulate (e.g. `trs80.zip` for Model I, `trs80m3.zip` for Model III). Use **GAME SETTINGS > MISSING BIOS CHECK** to verify.

Software won't load

The TRS-80 had multiple BASIC versions. Programs written for Level II BASIC won't run on Level I, and vice versa. Most software requires Level II BASIC (the `level2.rom` inside `trs80.zip`).

Disk software needs TRSDOS

Some disk-based software requires TRSDOS (TRS-80 Disk Operating System) to be present on the boot disk. The software may not load if the disk image doesn't include the OS.

Further troubleshooting

For further troubleshooting, refer to the generic support pages.

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