

Encyclopedia of Video Games: The Culture, Technology, and Art of Gaming

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Multiple Arcade Machine Emulator (MAME)

The Multiple Arcade Machine Emulator (MAME) is an **emulator** application specifically aimed to emulate **arcade games**. MAME's official website states that it is a

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nonprofit organization with two main purposes: **education** and preservation. MAME is particularly useful for the study of arcade games, many of which are now difficult to find or no longer exist at all.

The first version of the MAME software was developed by Nicola Salmoria in 1996. By 1997, 346 games were supported by the application, and by 2008, there were 3,910 unique games emulated. MAME is an open-source project, which means that the code is **accessible** to every user who wants to work with it. Its license, however, still restricts any commercial usage of the code and the emulation of recent games. The philosophy behind MAME is to give access to games without competing with the arcade games that are still being sold by companies, and the license makes sure that this line of thought is respected. Furthermore, because each arcade game is unique, new versions of the software can change in such a way that previously supported games are not supported anymore. The MAME developer team supports DOS and Windows operating systems, although it has been ported to Mac OS and UNIX. As of April 5, 2011, Angelo Salese was the MAME coordinator.

Because the software is made of code, games can be charged in the application within the command lines; therefore, access may be difficult for the common user. However, MAME can be used with "front-end" applications, which offer a more user-friendly **interface** for the loading of games. Some, like *Arcade 3D*, depict a three-dimensional **arcade** environment, with virtual arcade machines. Others are more like an application menu, similar to an average emulator interface.

Not every arcade game is easily and legally available to a common MAME user. Some arcade games are distributed willingly by the owner of the copyright on the application's or game developers' websites within a noncommercial license, but for most of the games, the read-only memory (ROM) and basic input/output system (BIOS) parts are under copyright. The MAME website suggests creating ROM files directly from original printed circuit boards of arcade games with a hardware ROM reader.

Even though playing the games is necessary to test the emulation success or failure, it is only considered a "nice side effect" of the MAME project and is not its main goal. According to this line of thought, new features permitted by the newer operating systems, such as playing multiplayer games on-line or **modifications** to make games easier to use are not implemented in the official versions and are discouraged by the main team for third-party developers.

The preservation aspect of the MAME project is aimed at the video games themselves, the

original context of gaming being necessarily omitted. However, fans and amateur archive curators build homemade MAME cabinets to recreate the original gaming interfaces, with **joysticks** and buttons. Although museums and galleries have made some effort to preserve arcade cabinets and games, it is often not easy for the common user to access them. Even for game historians and researchers, MAME is often the only way to play certain arcade games.

Simon Dor

Further Reading

Jenkins, David. "UltraCade Moves to Trademark MAME Name." *Gamasutra*, February 21,

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2005, available at

[http://www.gamasutra.com/view/news/4992/UltraCade Moves To Trademark MAME Name.php](http://www.gamasutra.com/view/news/4992/UltraCade_Moves_To_Trademark_MAME_Name.php).

Multiple Arcade Machine Emulator (MAME) website, available at <http://mamedev.org>.

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Wolf, Mark J. P. "Multiple Arcade Machine Emulator (MAME)." *Encyclopedia of Video Games: The Culture, Technology, and Art of Gaming*. Santa Barbara, CA: Greenwood, 2012. *ABC-CLIO eBook Collection*. Web. 27 Nov 2012.

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