

Arcade Project: Documentation

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Introduction:

The Arcade Project is a gaming platform that allows users to select and play games, with a score register maintained for each player. The system is designed to use dynamic libraries that are loaded at runtime. The graphics libraries and games are implemented as dynamic libraries, and each GUI available for the program is used as a shared library that is loaded and used dynamically by the main program. This documentation is intended to provide a guide to the Arcade Project, its features, and its usage.

Usage:

The program requires the graphics library to use as a startup argument. The graphics library can be changed at runtime. When the program starts, the games libraries available in the `./lib/` directory, the graphics libraries in the `./lib/` directory, scores, and a field for the user to enter their name are displayed in separated boxes. The program must handle cases where there are more or fewer than one argument, and where the dynamic library passed as an argument does not exist or is not compatible. Keys are mapped to actions such as switching the graphics library, switching the game, restarting the game, returning to the menu, and exiting.

Keybinds:

For all the games, the keybinds are fixed. Here a list for every game action and its inputs:

- UP: "z"
- DOWN: "s"
- LEFT: "q"
- RIGHT: "d"
- MENU: "1"
- NEXTLIB: "n" (to switch the graphics to the next library)
- PREVLIB: "p"
- NEXTGAME: "m" (to switch to the next game at ru time)
- PREVGAME: "l"
- EXIT: "e"

Building:

The Arcade Project can be built using the command "Make" in the root directory. The Makefile includes rules for building the core, games libraries, and graphics libraries. The results of running a simple make command must generate a program, at least three graphics dynamic libraries, and at least two game dynamic libraries.

How to add new graphic / game libraries compatible with Arcade ?

If you want to add new graphic libraries or games compatible with Arcade, make sure you are following these steps:

- create a new graphical library directory in src/graphics (from root)
- add the function for your library to use for the game (ex: clearWindow function, implemented with the graphic library tools)
- edit the Makefile in src/graphics to create an "arcade_yourlibname.so" in the lib/ directory
- create a new game directory in src/games/
- add your game files in
- edit the Makefile in src/games to create an "arcade_yourgamename.so" in the lib/ directory