# Sagitta: Endless Runner Usage Instructions

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## **Usage Instructions**

## Prerequisites

- Linux terminal emulators (256-color mode) for game clients. Black backgrounds please.
- System key repeat rate set to fastest setting (30 ms), key delay set to shortest setting (200 ms).



- Linux server machine (can be same as client machine(s))
- High-speed network connections (no dial-up, please)

This game is designed to run in a Linux environment and looks best with a terminal with 256-color support, but will be playable with lesser color modes. Faster network connections between devices will result in a better experience. Setting key delays and repeat rates as noted above will give you the best playing experience.

#### Folder Structure

- src (contains source code, makefile)
- binaries
  - runner (contains game executable and supporting files)
  - server (contains server executable and supporting files)

#### Files

It is absolutely essential for you to have the following files in your /binaries/runner folder:

- runner (executable)
- vals.cir
- highscore.txt

And in your /binaries/server folder:

- server (executable)
- server\_highscore.txt

Please do not alter the text files. The executables may be re-compiled from the src folder for your Unix-like system.

# Starting the Game

There are two necessary executables to run this game, found in the binaries/server and binaries/runner folders – the server ("server") and the game itself ("runner"). Of course, one instance of server and two copies of the game (runner) will need to be running simultaneously. Command format from appropriate folder:

- Server: ./server [<port>] (defaults to port=30123 with no parameters)
- Game/Client: ./runner [ <ip> <port> ] (defaults to ip=127.0.0.1, port=30123 with no parameters)

Here is an example of a typical startup of the game, including the server:

- 1. ./server 40001 server is started on port 40001. The IP address of the machine is 192.168.1.2
- 2. ./runner 192.168.1.2 40001 run the game
- Select Start Game. The game will try to connect to the server at the earlier specified IP and port.



- 4. The game will not start until another player connects.
- When another player connects, the game starts.





## Controls

- Menus are navigated by using the up and down arrow keys and pressing [enter] to select an option.
- Player 1 moves left and right with the left and right arrow keys and uses [space] to shoot.
- Player 2 moves up and down with the up and down arrow keys.
- Either player can press [q] to quit mid-game.

## Building the Game

The executables will be included with the submission in the binaries folder, but if necessary they can be recompiled in the following manner: typing "make" in the src folder will recompile the main game (runner), and typing "make server" will recompile the server

executable (server). The executables will automatically be copied to their corresponding folders in binaries, prompting you for an overwrite if necessary.

The game has been tested most thoroughly in Linux environments, but has been successfully built and used with Mac OS X and Cygwin. Your compiler needs to support the C++11 standard; we recommend gcc 4.8.5 or above. Ncurses headers must be installed on your system.