

BY CYGNUS 2022

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## Introduction

This manual contains all the relevant information related with the game River Raid by Cygnus 2022. The application is a rebuilt version of the original game, introducing new features given by the client and improving the graphic interface.

## Installation and execution

River Raid by Cygnus 2022 has been developed using Processing [1]. The application runs under Java language, and some external libraries are required:

1. ControlP5. Used to build the graphical user interface for the forms. [2]
2. Minim. Audio library for the sounds of the game. [3]

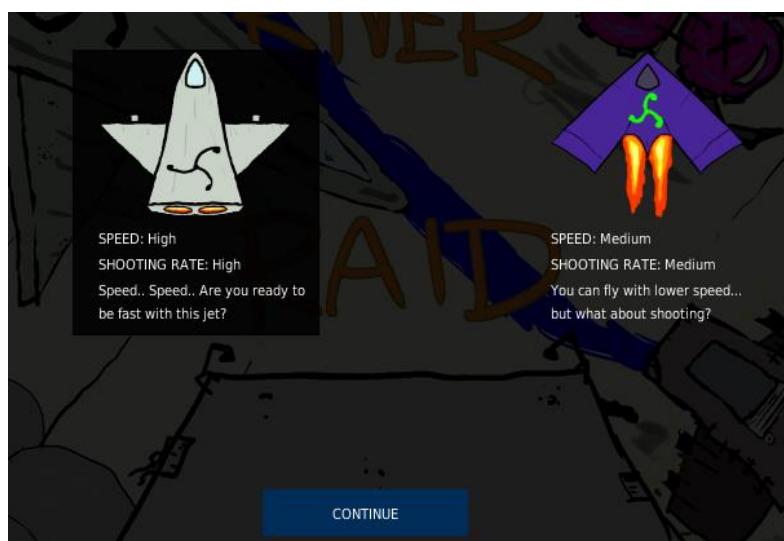
It is possible to launch the game by opening it in Processing (with the previous libraries imported) and execute it.

## Game

The game starts with a welcome screen, where the user has to introduce its username for the game. After that, the user can choose between two different modalities of game: one player (by pressing the key 'ENTER' or clicking over the 'Start' button), or two players.



In case of selecting only one player, the game shows a new screen where the user can select the jet to play with. Each jet has different characteristics that are described in that screen. The selection can be done by clicking over the desired jet or navigating with the right and left arrows of the keyboard.



The game continues when the user presses the button.

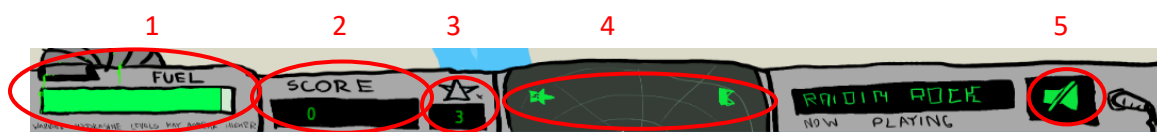
Now, a story of what is happening is showed. To go through the different comic slides, the user can press any key of the keyboard.

## Map

When the story is finished, the game starts automatically. The screen of the game shows the map, the jet, the enemies, fuel depots and islands.

The jet can move to both sides by pressing the right and left arrows of the keyboard and, also it is possible to increase or decrease the speed (by holding pressed the up or down arrows). Changing the speed will affect to the fuel consumption. By pressing the spacebar, the jet will shoot rockets for destroying enemies.

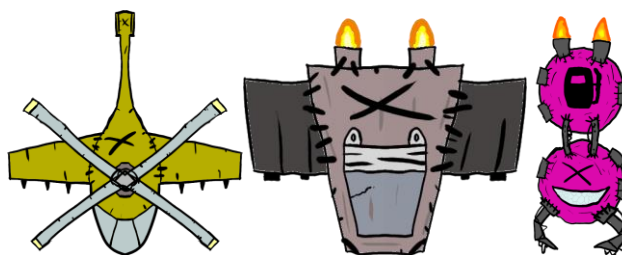
The dashboard on the bottom of the screen shows different information:



1. Level of fuel. The fuel is consumed by the jet. When the jet is out of fuel, it crashes.
2. Score. By defeating enemies and going through the map, the user can increase its score.
3. Number of reserve jets. There are some reserve jets that the user can use (automatically) when it crashes. Also, each 3000 points of score or after crossing a bridge, a new reserve jet is added.
4. Progress indicator. The radar shows the current position of the jet respecting the next bridge.
5. Mute/unmute sound. The user can mute or unmute the sounds of the game by clicking over the icon.

During the game, the user will interact with different elements:

## Enemies



The different enemies are moving all the time from side to side. If the user collides against one enemy, it will automatically crash (losing one life or ending the game in case it has no more).

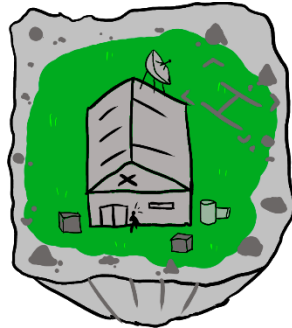
Also, the enemies can shoot against the jet.



The jet can survive to two impacts of enemy rockets. When the third one impacts against the jet, this one will crash.

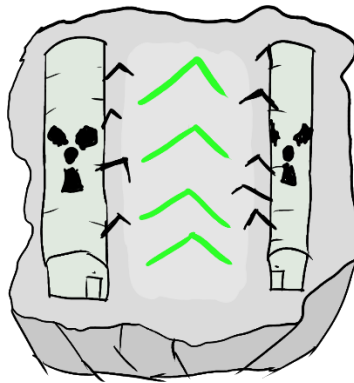
### Islands

The islands are map elements included to increase the difficulty of the game. They won't interact against the jet, but if the jet collides against one island it will crash.

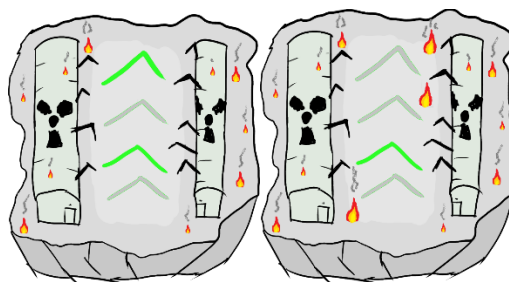


### Fuel depots

The user can refuel the jet by flying over the fuel depots. The lower the speed of the jet is, the faster the fuel will be recharged.

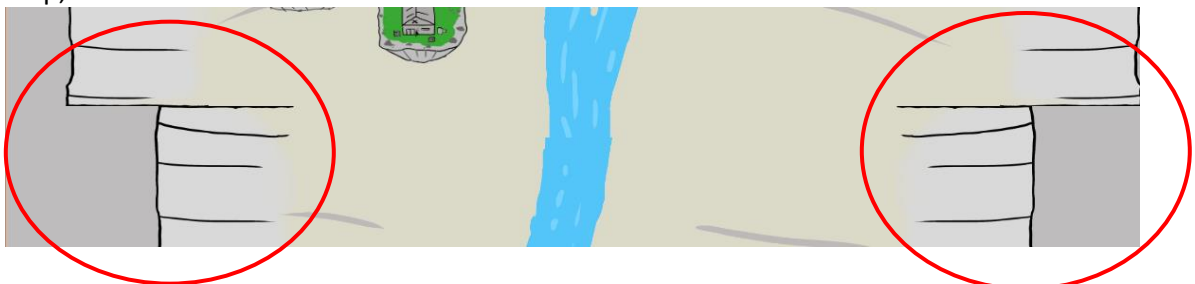


The jet can shoot against the fuel depots. By firing it five times, the fuel depot will disappear. The game shows the evolution of the fuel depot after each rocket.



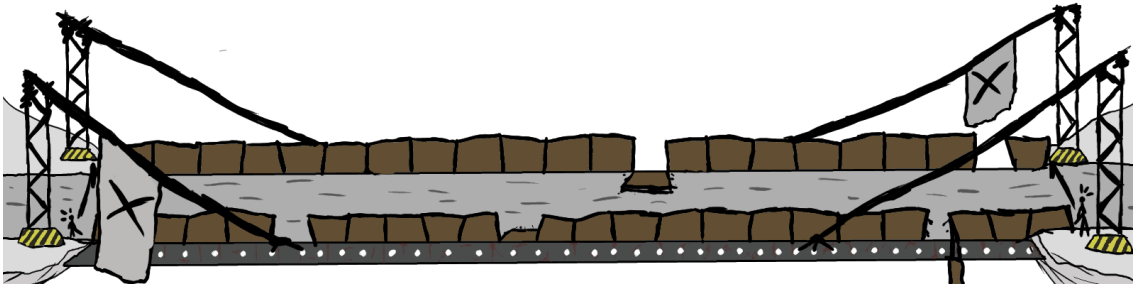
### Map sides

The jet is flying over a river and between two falls. If the jet is too close to the sides of the map, it will crash.



## Bridges

There is one bridge at the end of each section.










The user has to fire against it to destroy it, so it can be possible to cross to the next section. If the jet collides against the non-destroyed bridge, it will crash.



## Scoreboard

The game ends when the user has no more reserve jets. A scoreboard table is shown with the best players of the game. The ranking is done by the score reached by each user.

SCORE						
1. Tom		x0		x0		Total Score: 1200
2. Uko		x0		x0		Total Score: 1200
3. Viti		x0		x0		Total Score: 600
4. Guest		x0		x0		Total Score: 46

REPLAY

END

The user has now two options: restart the game from the beginning, or end it.

## Credits

If the game is ended, the credits screen will appear. Here, the user can also shoot against the different boxes of the credits.



## References

- [1] Processing: <https://processing.org/>
- [2] ControlP5: <http://www.sojamo.de/libraries/controlP5/>
- [3] Minim: <http://code.compartmental.net/tools/minim/>