

SMALL WORLD

User Manual – v1.0

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Introduction

Small World is a tactical game inspired by the well-known board game of the same name. It opposes two players controlling two different races in a turn-based battle. The two players play on the same computer.

Each player owns several units on the battlefield, and each unit produces victory points on several conditions. The goal is to maximize the total number of victory points at the end of the game, or to kill all foes.

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Context

This project was developed by two students for a school project at INSA Rennes French engineering school.

It uses Windows technologies (.NET), but is largely compatible with OSX and Linux, thanks to the use of MonoGame framework. It is therefore compatible with an Xbox controller.

Installation

Windows

You'll need windows 7 or higher to play correctly the game. You should install visual studio c++ redistributable if needed.

1. Download the SmallWorld-Win.zip file
2. Uncompress it on a folder of your choice
3. Start SmallWorld.exe

Linux

You may have to install some system dependencies to run the game, but this point is left to the end-user. Please note that you won't be able to customize game options or load saved game in the Linux version.

1. Download the SmallWorld-Lin.tar.gz file
2. Uncompress it on a folder of your choice
3. Start SmallWorld.run

Build from source

1. Install MonoGame tools if not present on your system
2. Compile assets present in "gameRessources" folder with MonoGame Pipeline tool
3. Open "Winnie/WinnieLin.sln" or "Winnie/WinnieWin.sln" depending on your current operating system
4. Build "AlgoWin" or "AlgoLin" alone (C++ classes)
5. Build the whole solution
6. Run!

Rules

Map

The battle takes place into a 2D map composed of 4 different kind of terrain:

- Water
- Plain
- Forest
- Mountain

Maps are randomly generated, and several sizes are available. The duration of a game (number of rounds) and the number of available unit depend on the map size.

Kind of Map	Dimensions	Rounds	Units by player
Demo	6 x 6	5	4
Small	10 x 10	20	6
Standard	14 x 14	30	8

There can be any units on one map cell, but they must be of the same race.

Races

There are three available races in Small World: **Humans, Orcs and Elves**. Each unit has life, attack and defense characteristics, and each race has its own capabilities. Please note that the number of attack and defense points are linked to the life level of a unit: an injured unit will have less attack and defense points than a healthy unit.

Race	Life	Attack	Defense
Human	15	6	3
Elf	12	4	3
Orc	17	5	2

Earned victory points are dependent on the current unit position:

Race	Water	Plain	Forest	Mountain
Human	0	2	1	1
Elf	(Forbidden)	1	3	0
Orc	(Forbidden)	1	1	2

During its turn, one player can move all its unit, providing the fact that each unit only have two move points by turn. It costs one move point to move or attack, except for elves on mountains (two move points) or orcs on plains (a half move point).

Attacks

Classic attacks

Each unit can attack enemy units from a connected tile, for the same amount of move points required to move to this tile. Several rules apply to attacks:

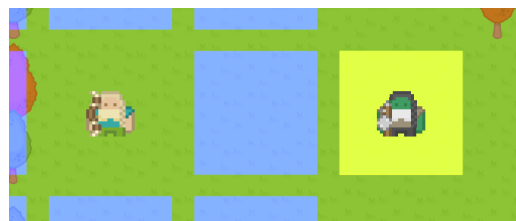
- Attacks only imply two units: one attacker and one defender
- If there are several units on the targeted tile, the strongest is automatically selected to oppose the attacker
- The winner is randomly determined, but a strong unit has more chance than a weak unit. The attack points of the attacker and the defense points of the defender are used in the computation
- In general, **attackers has more chances of success than** defenders. Please consider that in your strategy!
- The winner of an attack do not lose any life point, but the loser randomly lose from 1 to 5 life point(s)
- If there is no remaining enemy on the targeted tile after the battle, the attacker is allowed to move freely to this tile (without any move point cost)



Ranged attacks

Elves and orcs on mountains can trigger **ranged attack**.

- It allows these races to attack distant units (one tile in term of distance)
- This guarantees victory in all cases!
- However, targeted unit can dodge the attack and not lose any life point
- It costs only one move point, no matter what race or terrain is implied



Victory conditions

One player can win the game by two ways:

1. If there is no remaining enemy units
2. If he does have more victory points than its foe by the end of the game (on last round)

Tips

- Try to lead attacks to enemy units: it is a lot easier to attack than defend
- As a human, use water tiles to stay safe; but do not forget ranged attacks!
- As an orc, stay in plains at the beginning to allow more tactical movements. Migrate to mountains when the end is coming
- As an elf, stay in forest to maximize points and always use your ranged attack whenever it's possible
- Don't be afraid to skip your turn if you are comfortable with your positions

Game configuration

Windows

The next figure presents the screen that appears after game launch.



FIGURE 1 : THE WINDOWS CONFIGURATION SCREEN

Please note that either Player A or Player B will start the game. This choice is random.

Linux

On linux, it is not (yet) possible to configure the game. Players have default names and races (Human and Elf) on a standard map.

Game interface

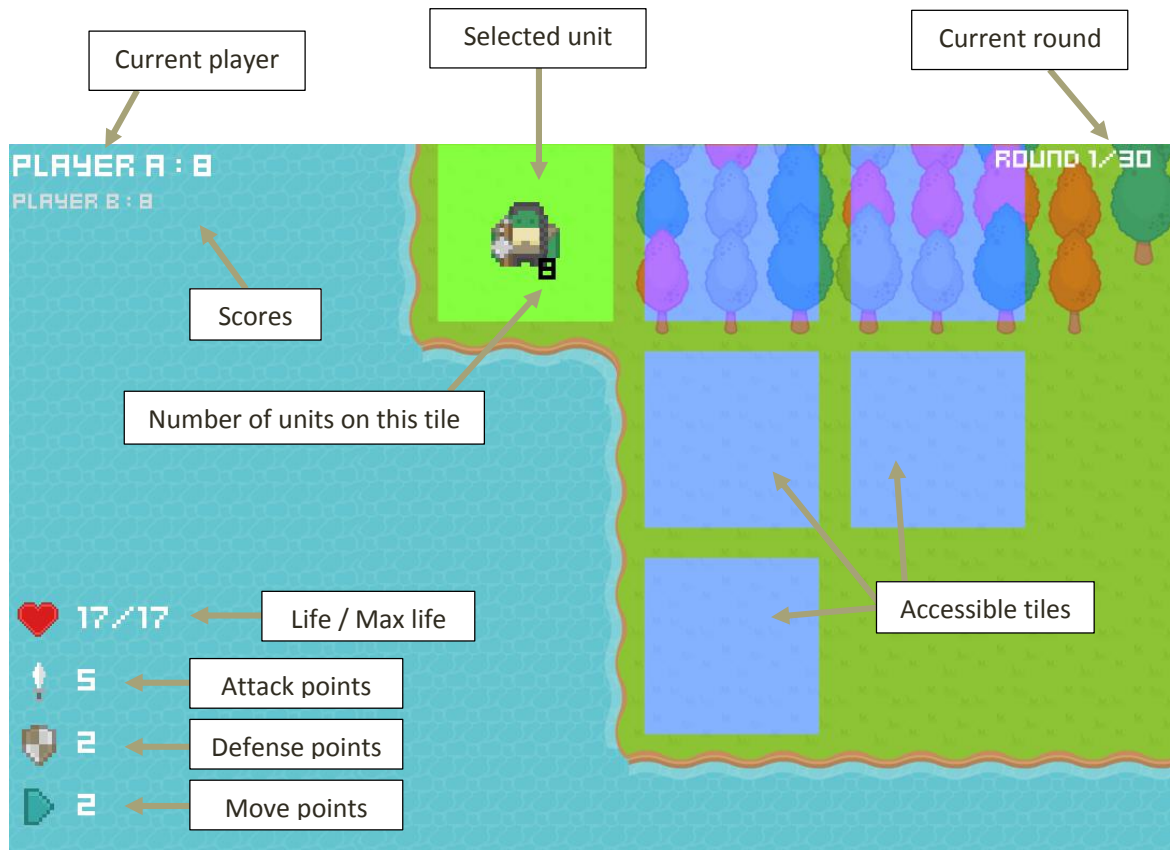


FIGURE 2 : MAIN GAME INTERFACE

Game controls

Keyboard (QWERTY only)

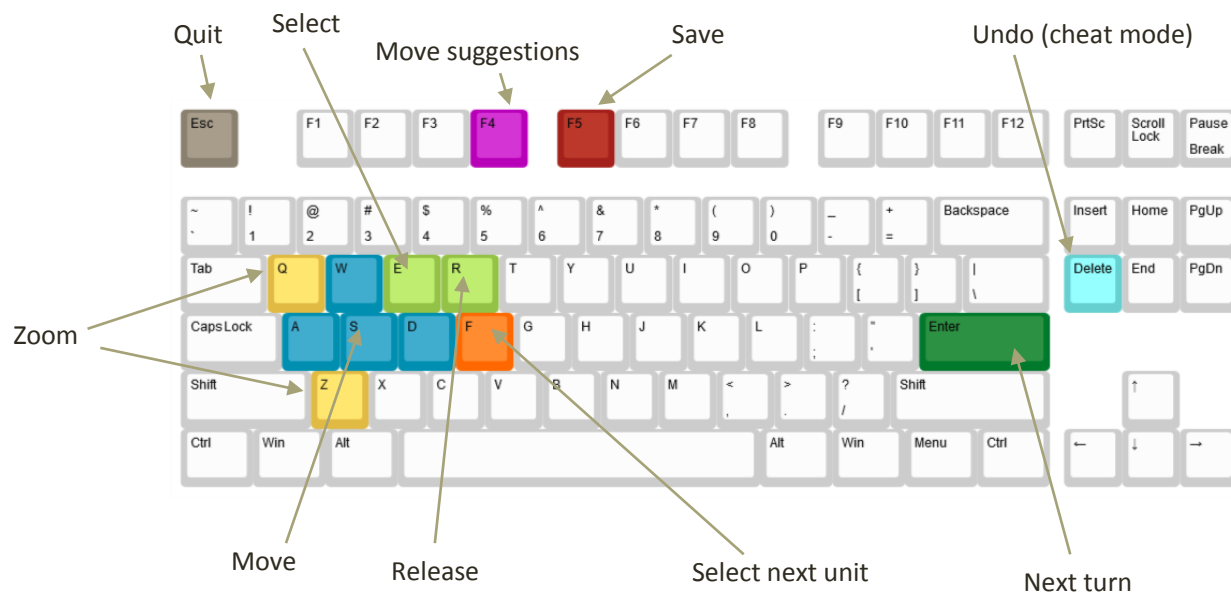


FIGURE 3 : KEYBOARD CONTROLS

Xbox controller (USB)

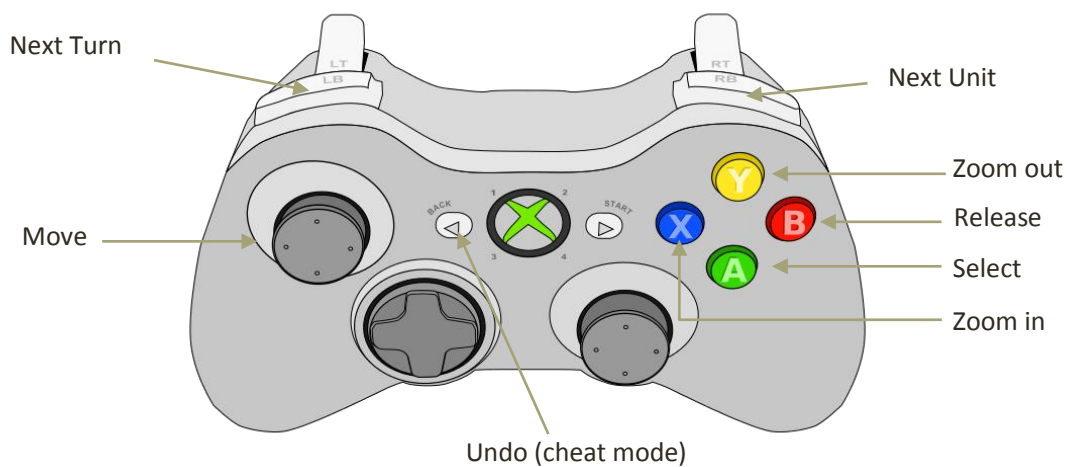


FIGURE 4 : XBOX CONTROLLER CONTROLS

Credits



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