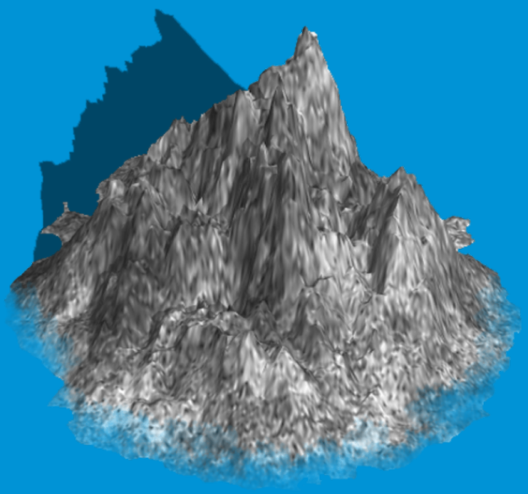
{EPITECH}

MY_WORLD

THE WORLD IS MINE



MY_WORLD

binary name: my_world
language: C/CSFML
compilation: via Makefile, including re, clean and fclean rules
Authorized functions: all

For this project you will create your own terraformer program.

Pick up some ideas from Tycoon Terrain for Unity3D.

Your challenge is to display a map and edit it at runtime.
The map is a wireframed map with tiles that are squares having all the same size.
The ground must be altered by raising, lowering or tilting tiles.

Having a pleasant user interface and intuitive interactions is the key to a good editing tool.
This project is the occasion for you to try your best on that topic.


NONE
BULLDOZE
BULLDOZE
RAISE
LOWER
LEVEL
SMALL
$1000
MEDIUM
$10000
LARGE
$100000
CASH: $ 1300000
$5000
$5000
$5000
64X64
+
-
GENERATE
SAVE
LOAD

EPITECH

Requirements

Mandatory

The following features are **mandatory**:

- ✓ the window can be closed using events,
- ✓ the game manages the input from the mouse click and keyboard,
- ✓ animations in your program are frame rate independent.

If your project is missing one of them, it will not be evaluated further!

Must

- ✓ The map **must** be displayed using a 3D projection (whether isometric or parallel),
- ✓ the map **must** have textures,
- ✓ the tiles **must** be selected using the mouse,
- ✓ at least 3 effects (including the modification of altitude) **must** be implemented and selectable with a toolbar in the window (reinitialization of the tiles altitudes, modification of the size of the area of effect, etc).

Should

- ✓ Your window **should** stick between 800x600 pixels and 1920x1080 pixels,
- ✓ the size of the map **should** be selected using editable textboxes in the window,
- ✓ help boxes **should** appear as the mouse hovers elements in the toolbar(s),
- ✓ the buttons **should** have at least 3 visual states : idle, hover, and clicked,
- ✓ the map **should** have additional layer (water, lava etc…),
- ✓ tiles **should** have a texture,
- ✓ the format of saved maps **should** be in a .legend file,
- ✓ moving around on the map **should** be done with arrow keys,
- ✓ zooming up and down **should** be done with keyboard and/or the mouse scrolling button.

Could

- ✓ the program **could** save the map in a file at runtime using buttons and tools,
- ✓ the program **could** load a map at runtime using buttons and tools,
- ✓ the name of the saved files **could** be chosen at runtime,
- ✓ the camera **could** turn around any axis,
- ✓ The layers **could** be animated,
- ✓ tools **could** be selected using keyboard shortcuts,
- ✓ sounds **could** be played on user actions,
- ✓ textures of the tiles **could** change depending on the direction of their slope,
- ✓ elements (e.g. buildings, roads) **could** be added on the map in compliance with the land-forms,
- ✓ water/lava areas **could** be added.

v 2.0.1