Index

Install

How to install basic programs to use it. ## Designing You need to design som images fot your game, screens (title, loading, hud...), tileset, spriteset... ## Positioning **Tiled** is a powerfull tool to design game screens. Using Tiled you can create the map of the game and put elements like enemies, keys, items and doors. ## Generating TODO

Image editor

You need to design som images fot your game, screens (title, loading, hud...), tileset, spriteset... You can use whatever you want generic image editor like Photoshop or GIMP. But we recommend to use retro gaming image editor like ZX Paintbrush because knows about ZX Spectrum image rules to generate it perfectly.

ZX PAINTBRUSH

If you are a linux user, you can execute it perfectily using wine.

Tiled

This game maker use Tiled to design the map and put all elements on it. Then you need to install it downloading your operative system version of thi in the following link:

DOWNLOAD TILED

Docker

To allow execute the game maker in all computers is builded in docker, then you need install it to generate ZX Spectrum game

DOCKER

Designing

To create your ZX Spectrum games you need to create/edit some images. Screens like title, loading, hud... and tileset that you will use to design your map and spriteset with your main character, enemies...

Screens

You should create 4 screens png into assets/screens folder, loading.png, title.png, ending.png and hud.png

Loading

This image (assets/screens/loading.png) will be user to loading screen. It will be show meanwhile your game is loading.

Title

This image (assets/screens/title.png) will be show when your game be completly loaded and you should contain your menu options.

Ending

This image (assets/screens/ending.png) will be show when you end the game.

HUD

This image (assets/screens/hud.png) will be show at your game bottom zone to show how many life, keys and items you have in game. The size is exactly the same than other screens but you only need edit the bottom part

Tile Set

You should create a 256x48 tiles png file (assets/tiles.png) into assets folder. ZX Game Maker works with 8x8 pixels tiles, then you can create 256 tiles into this png.

You should follow some rules to create this tileset:

- The first tile always should be the background.
- The second tile always should be your bullet.
- The first 64 tiles will be considered as solid for the game maker.

Sprites   You should create a 256 x 32 sprites png file (sprites.png) into assets folder. Each sprite is 16x16 pixels.

The 8 first sprites (1 - 8) are reserved for game main character (0-2 for right movement, 3 for right jump, 4-6 for left movement, 7 for left jump).

The following 6 sprites (9 - 14) will be used for movement platforms, 2 tiles for each platform for animation.

The follow sprite can't be used (No effect if you design anything)

The follow sprite will be use for burst when you kill the enemies

The rest 16 tiles are reserved for enemies, 4 for each enemy, 2 frames for direction

## Designing your screens and positioning your elements with Tiled

Tiled is a powerfull tool to design game screens. Using Tiled you can create the map of the game and put elements like enemies, keys, items and doors.

Our game will have screen with 32x22 tiles (You can change it).

Create map

You should create a map with the following properties:

- Orientation: Orthogonal.
- Tile layer format: CSV.
- Tile render order: Right Down.
- Map size: Infinite.
- Tile size: 8x8px.
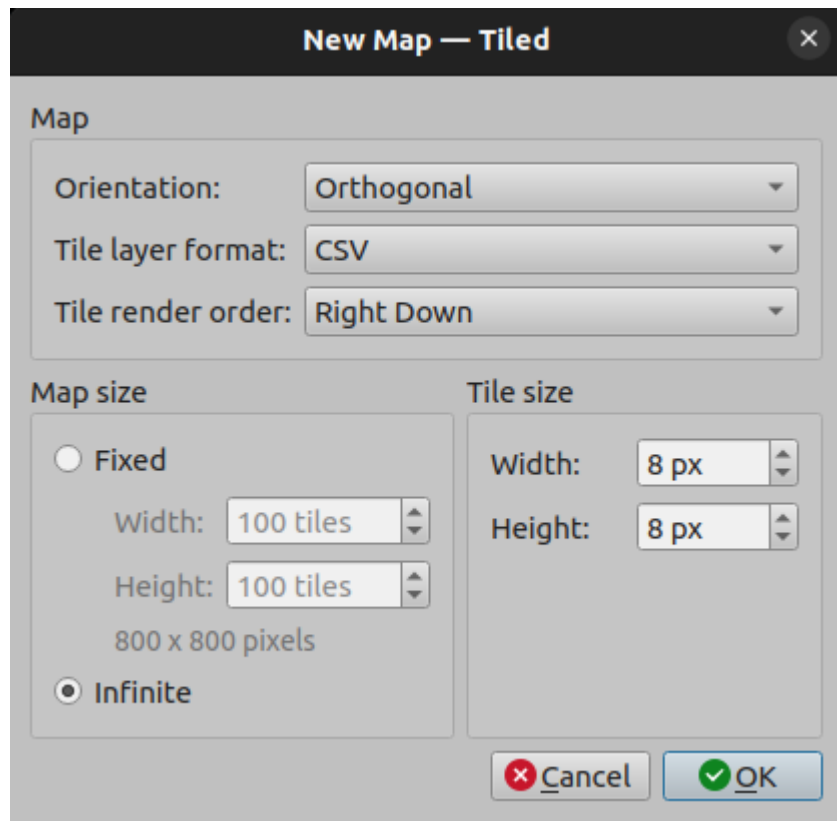
Then go to Map > Properties and set the map to **infinite** and Output Chunk Width to 32 and Output Chunk Height to 22

Preferences

Or game will have 32x22 pixels for screen, then is recommended set in Preferences > Interface > Major grid to 32 tiles x 22 tiles to view each screen division. This option help you to tile and screen divisions
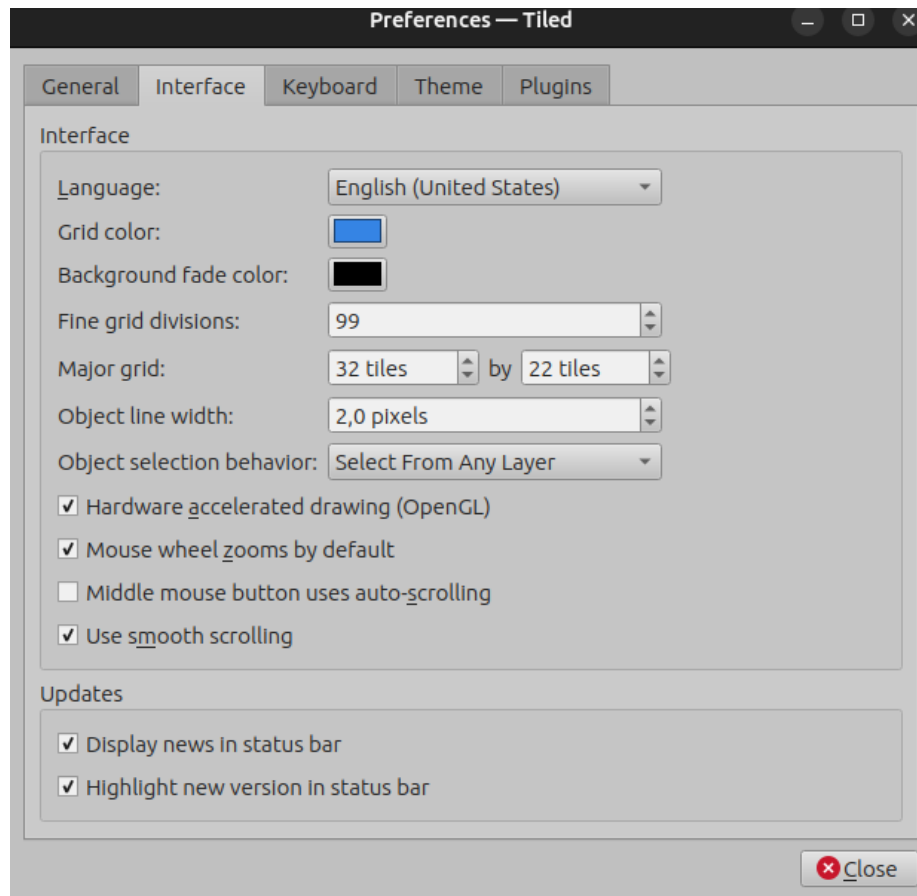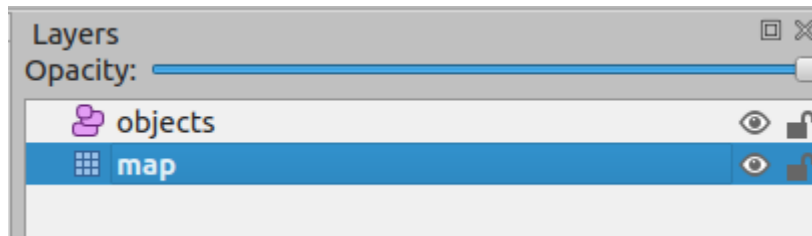
Create tilesets

You should create 2 tilesets, tiles, importing tiles.png (8x8px) and sprites importing sprites.png (16x16px).

Is important to set **Object Aligment** to sprites tileset properties to **Top Left**.
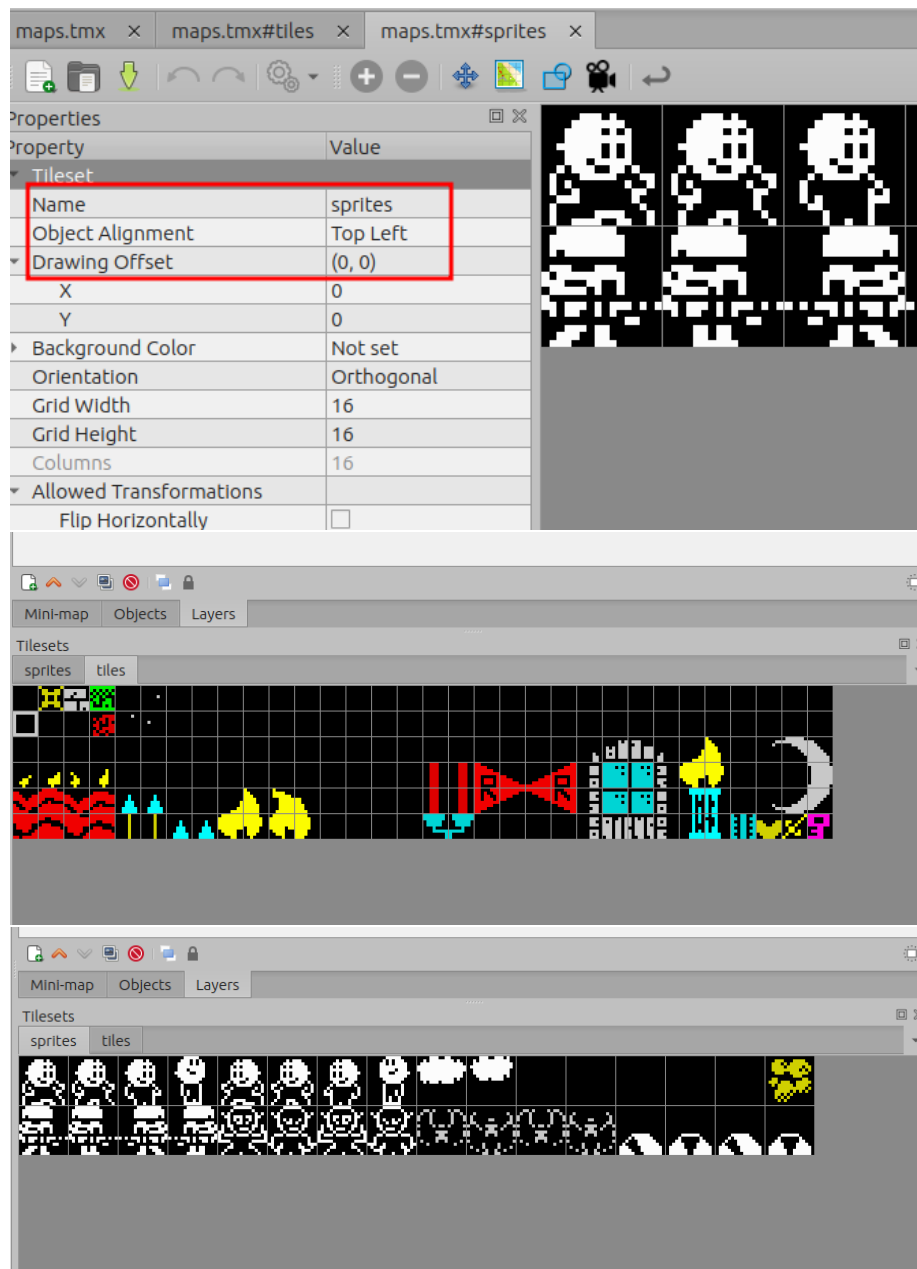
Create layers

I will use 2 layers a tile layer for tiles and object layer for enemies, keys, items, doors. . .

Adding elements

Enemy

You can add enemies into your map and set its movement (just horizontal for now). Set enemy in Type into object properties

Initial position   Select the object layer, click on insert tile button and put into the map adjusting in grid (press CTRL).

End position   For add en position: * Click on insert point button. * Put the point in the map (same x than enemy). * Add custom object property and select the enemy related.
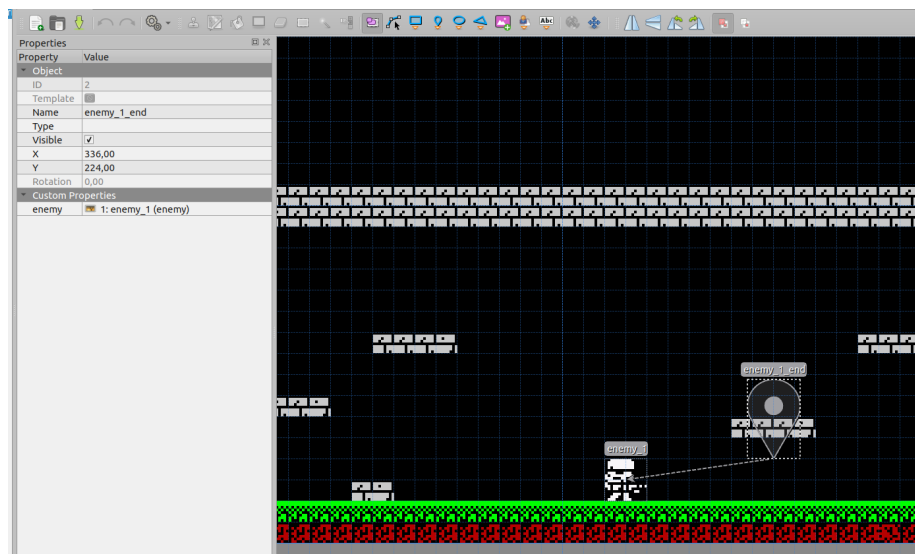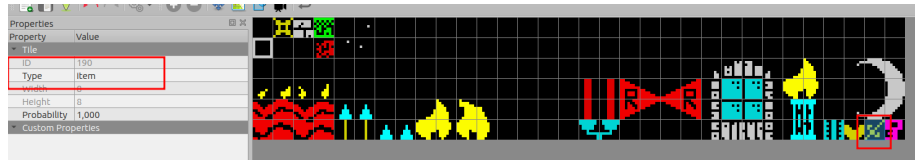

Item

This is a colectable object that the main character should find arround the game to end it (Is configurable)

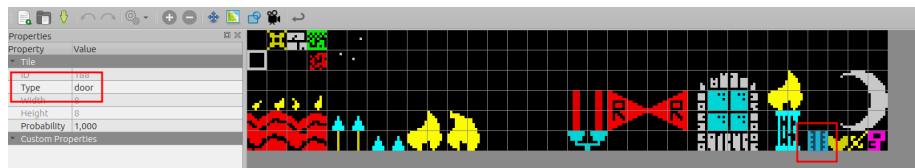You need to set tile type as a **item** and then put it whatever you want in the

map. To make it you should make click in gear button in tileset, select the tile and write **item** in type field.

Door

This is a solid tile untreaspasable for your main character. You need to have at least 1 **key** to open it.

You need to set tile type as a **door** and then put it whatever you want in the map. To make it you should make click in gear button in tileset, select the tile and write **door** in type field.

Key

You need to set tile type as a **key** and then put it whatever you want in the map.

You need to set tile type as a **key** and then put it whatever you want in the map. To make it you should make click in gear button in tileset, select the tile and write **key** in type field.

Life item

This life item increase som amount of main character life (configurable).

You need to set tile type as a **life** and then put it whatever you want in the map. To make it you should make click in gear button in tileset, select the tile and write **life** in type field.
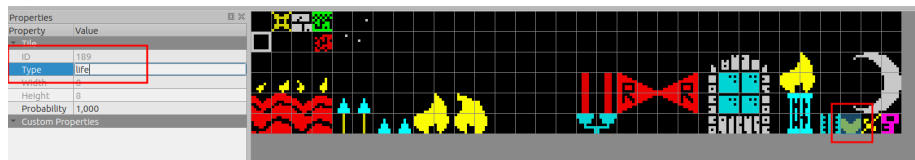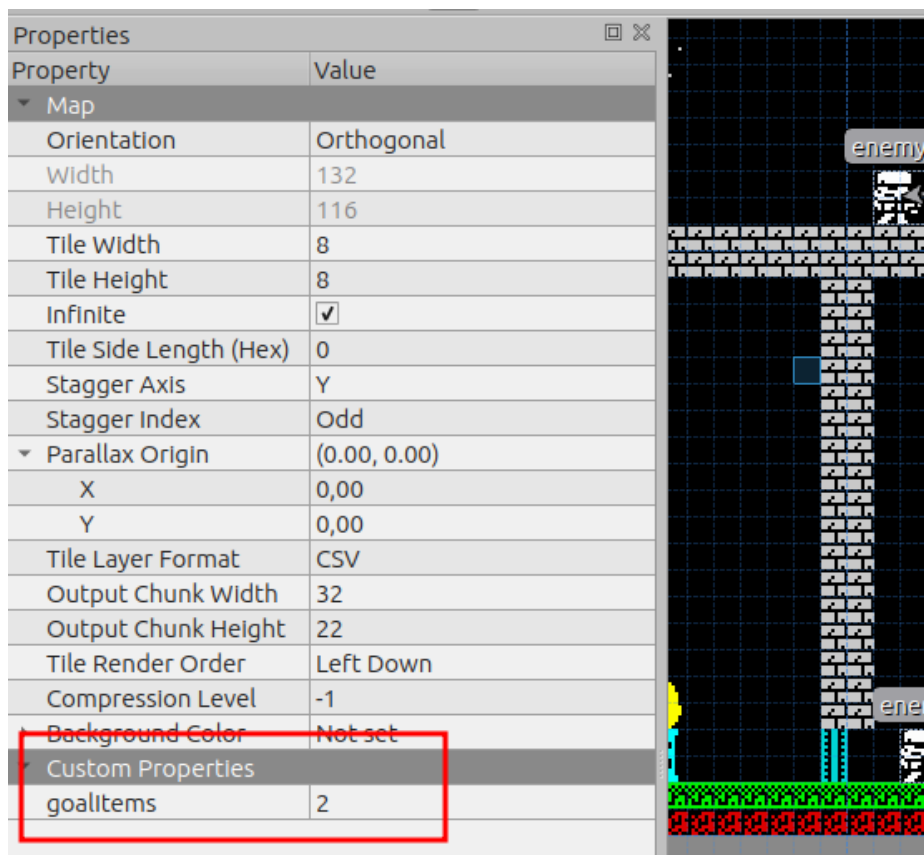
General configuration

You can add general configuration of your game like number of items to collect as a game goal.

Custom properties:

- goalItems

TODO