

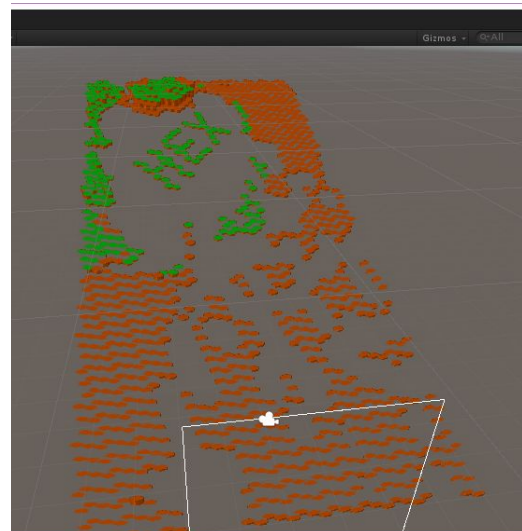
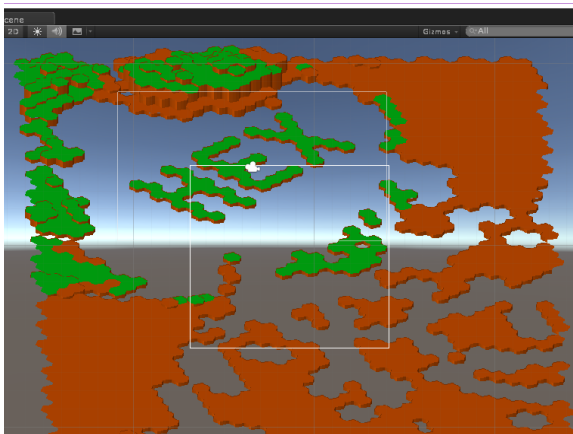
Iso Hex Autotile

This project is implementation of isometric hexagonal grid with autotiling and heightmap + base map editor (2 brushes: height / grass drawing / serialization to xml)



Current project is a result of my personal research of autotiling algorithm. Internet is full for square-grid autotiling solutions, but i couldn't find any about hexagonals (the only was open-source game [Battle For Wesnoth](#), which i used as reference for my own algorithm). I decided to follow (little)harder path and developed system for isometric hexagonal tiles.

Demo Scene path: HexAutotile\Scenes\Iso Hex Grid

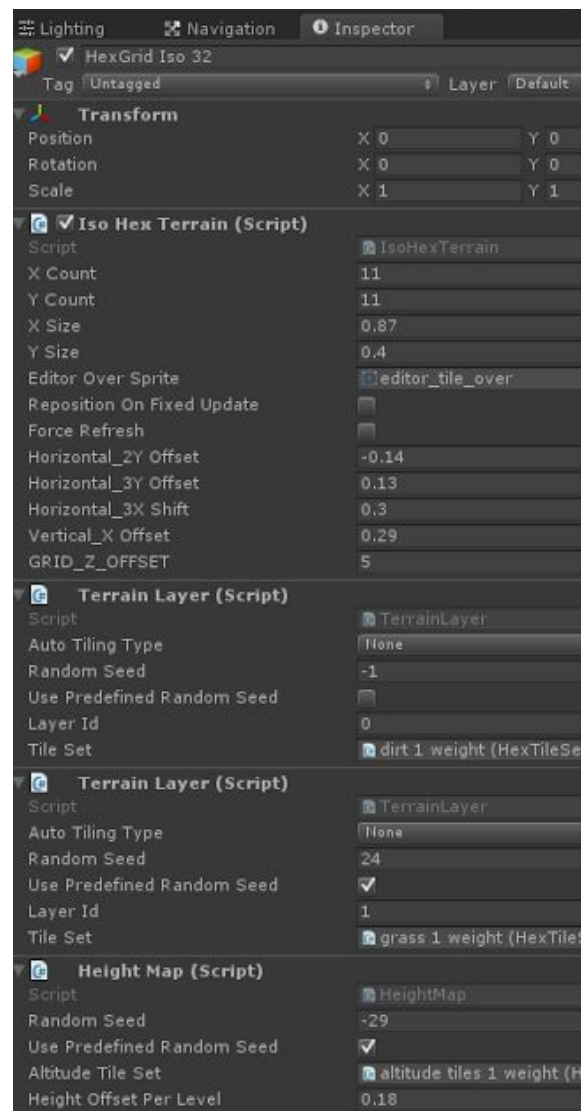


Current System is based on standart UISprites. Z order is based on simply z position of each sprite. Let me introduce U main Scripts for terrain

IsoHexTerrain: main script describing grid, grid size, do positioning for each cell.
Derives from older script "BaseHexTerrain"

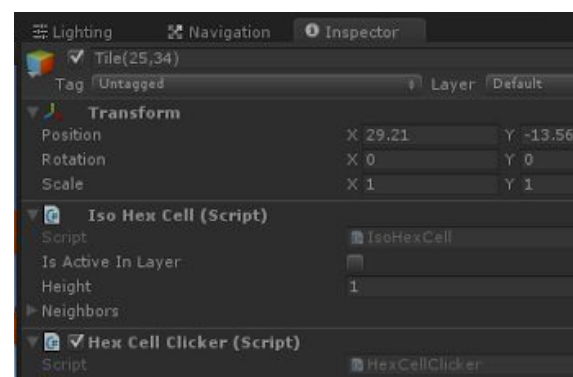
TerrainLayer: describes one of terrain layers (current terrain contains to of them: for grass and for ground). Has options for auto-tiling type like expanding or none.
Info stored in 2d bool array.

Heightmap: describes heightmap of terrain.
Info stored in 2d int array.



IsoHexCell - class for cell. Contains info about cell position, neighbors etc.

HexCellClicker - additional class, controlling input for cell.



Other classes: MapDAO - serialization/deserialization of map; MapEditor - handles UI;

Map Editor functionality:

Key arrows - to navigate map

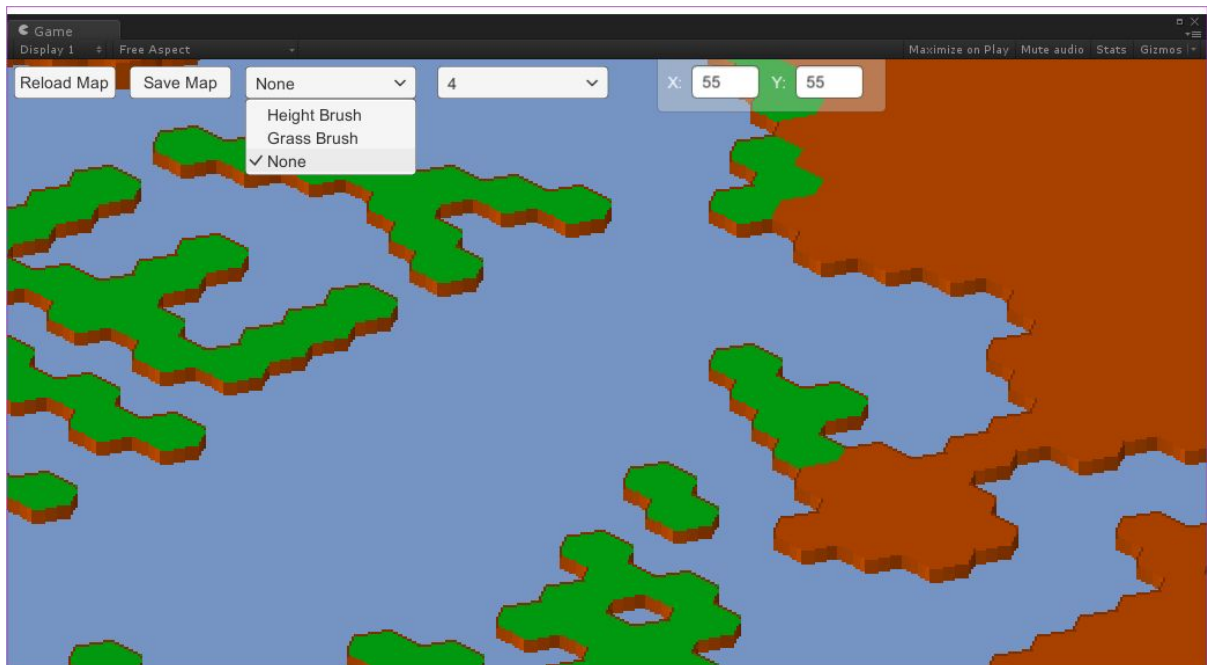
Reload Map - reloads map

Save Map - saves map (creates file in streaming assets)

Brush selection - selects brush

Brush size - change brush size

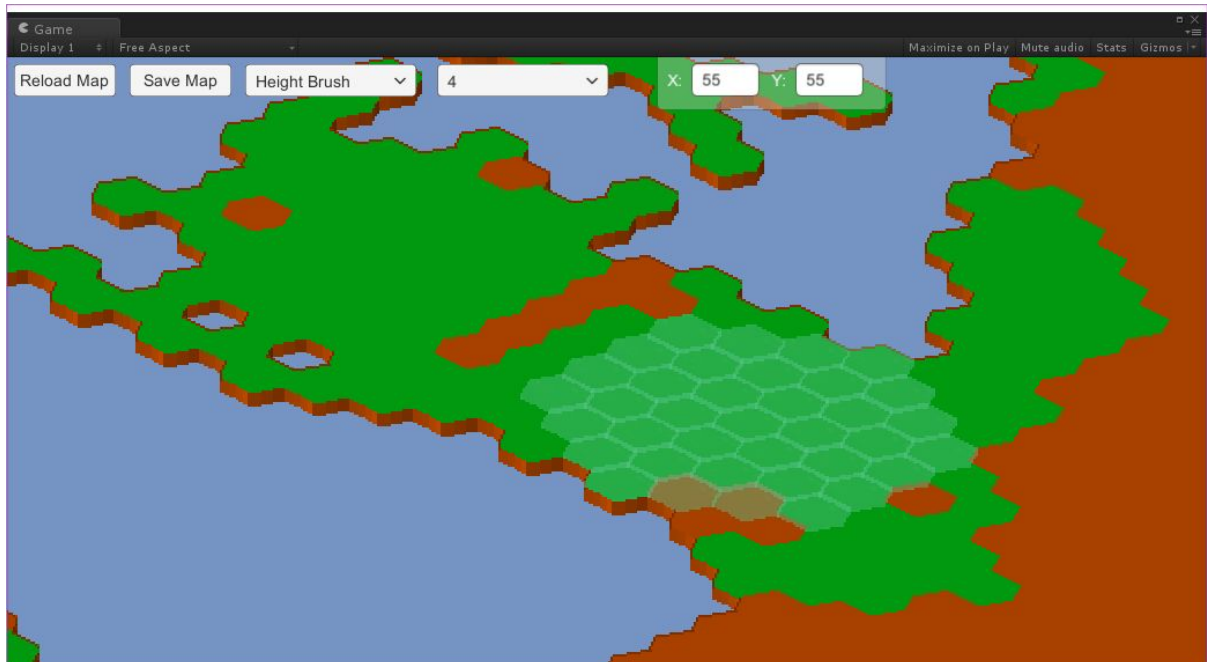
XY map size - describes map size. Change value to change map size



In the screen below shows brush with 4th size. Current cells will be highlighted



Grass brush left click is used to pain cells in grass, right click - to make them display dirt

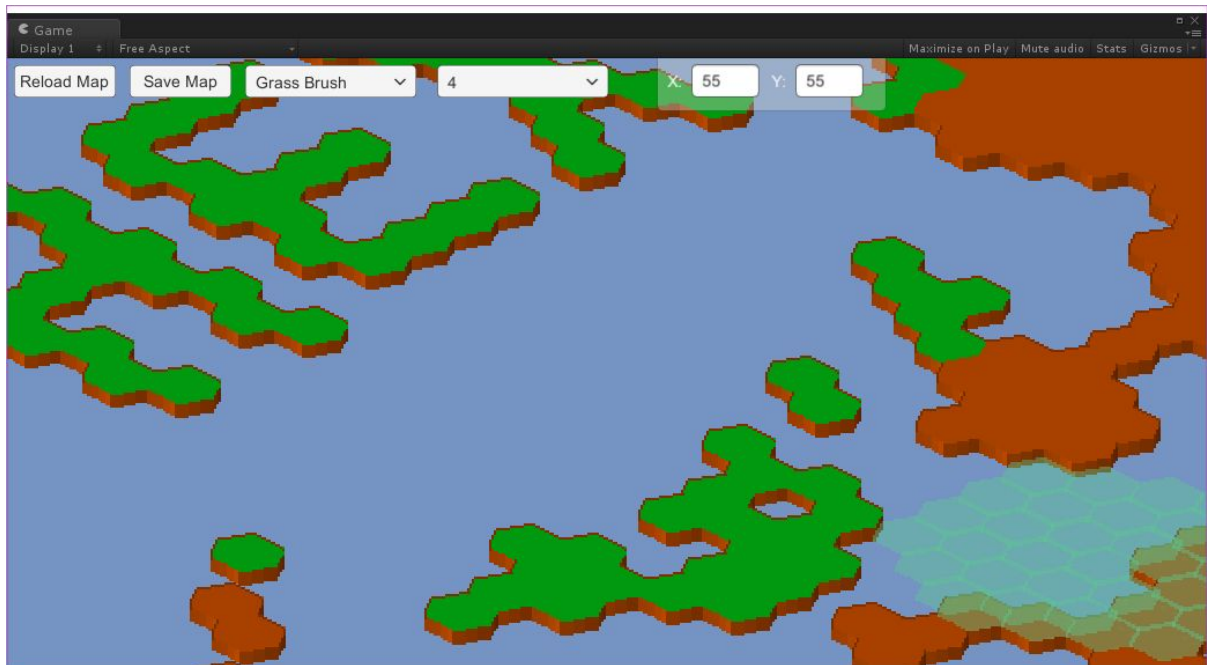


Height brush left click is to make current cell height upper on 1 point. Right click subtracts height with 1 point.



All sprites are drawn by me (I'm not artist) so You are free to use them in Your project. Autotiling algorithm is used in for height cells to display their borders. It was originally used also with grass cells to feel borders of nearest dirt cells, but it didn't look nice, so I disabled this feature.

Use reload map button to reload map.



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Thanks for using!