

UniTiled

A tile based maps editor for
Unity3D

Alpha version 0.6.5 documentation

*This document descripts alpha version
Of asset. New features are added at separate chapters.*

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1. Overview

UniTiled is a tile based map editor for Unity3D main purpose of which is to make it easier to create tiled maps for 2D games.

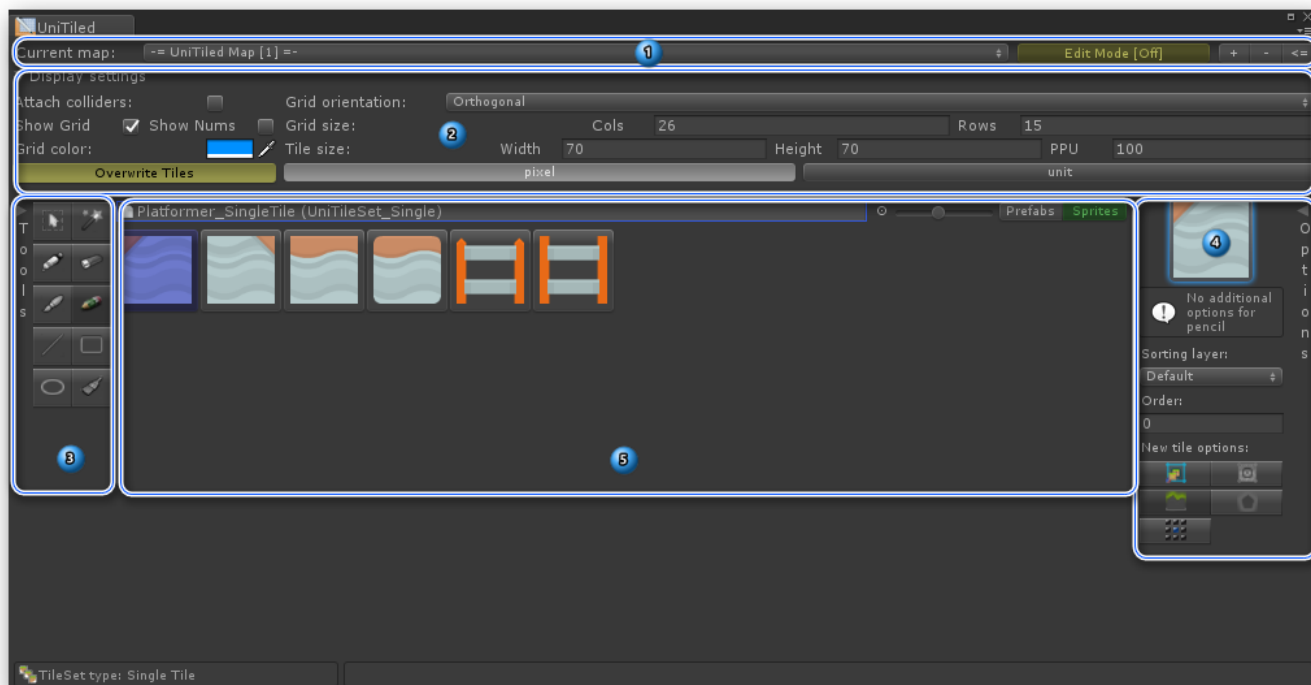
No matter is it 2D platformer, top-down, hexagonal or isometric tile style UniTiled supports all of them.

Attention!!! UniTiled is under heavy development. Current version is 0.6. So this manual will not cover all aspects of functional and will updates as often as asset will be.

2. Main Window overview

If you have no UniTiled Map Managers on scene and will to create new one this could be done via menu [Window -> Double 3 -> UniTiled].

Other way just select your Map Manager in the hierarchy view and click [Open Map Manager] under *Uni Map* script.

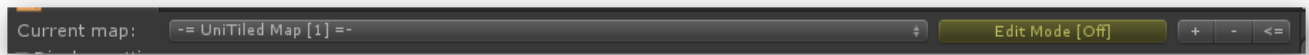


Regions of main window are:

- 1) Manager of current map;
- 2) Display and size settings of map;
- 3) Paint tools;
- 4) Global and tool options;
- 5) Selected tileset to place on map.

3. Closer look to regions

3.1 Manager of current map



Current map shows name of map manager which contains tiles you're editing now.

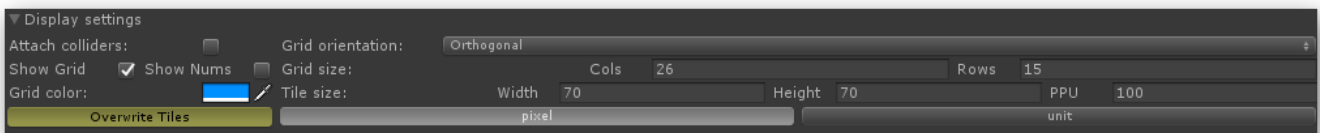
[Edit mode] – enables or disables mode in which you will place tiles on map.

[+] – creates new default map manager.

[-] – removes current map manager.

[<=] – adds a UniMap script to selected object and forces it to be a new map manager.

3.2 Display setting



[Grid color] – color of grid outline shown in scene.

[Overwrite Tiles] – will tile overwrite another tile if it's already placed in same cell.

(Note all tile operation as overwrite, select, erase etc. Works with tiles on same layer as selected in options)

[Show Grid] – will map grid outline be visible on scene view.

[Show Nums] – will cell numbers always visible on scene view.

[Attach colliders] – will auto-generated colliders be attached to a newly placed tile.

[Grid orientation] – what kind of tiles will you use and what kind of grid it will display. You can choose from Orthogonal, Hexagonal and Isometric grid orientation.

[Grid size (Cols/Rows)] – size of current map.

[Tile size] – width and height of single tile. If Hexagonal mode a hex size is also appears. PPU is a pixel per unit Unity setting and shows only if tile sizing mode is **[Pixel]**.

[Pixel]/[Unit] – sizing mode of single tile. Is it bitmap pixel or Unity units?

In Hexagonal mode there will be some more setups for map:

[Offset] – Is it **[Column]** or **[Row]** oriented hex.

[Parity] – parity of hex map **[Even]** or **[Odd]**.

In Isometric mode there will be two another options:

[Auto order] – will be sorting order on layer auto changed depending on cell number.

[Height correction] – helps to place tile right to lower center of cell.

3.3 Paint tools

Panel with tools you'll use to "paint" your map.

From upper left to right then lower and so on they are:

[Select] – use this to select tiles while you in Edit mode. You can use Ctrl to select multiple tiles. Use this to move tiles to another cell or change sorting layer / sorting order of tile. *Avoid to do this option via Unity internal methods until your map is done and you will need no more of UniTiled help for this manager.*

[Magic Wand] – use it to select same tiles on same layer. Further you can do all the things that normal select does.

[Eyedropper] – use it to quickly select tile that is already on the level and use it as your "color".

[Eraser] – use it to remove tile from scene.

[Brush] – use it to place tiles with different shapes. Experiment for better knowledge.

[Pencil] – use it to place one tile at one cell.

[Line] – use it to draw line of tile on the map.

[Rectangle],[Ellipse] – same as line but other shapes.

[Fill] – fill any outlined or same-tiled area with tile of your choice.



3.4 Global and tool options

Here you can see preview of tile you currently going to place on map.

Under preview there's a place for different paint tools options such as shapes and size for brush, fill or not ellipse and rectangle, change position or layer data through select mode.

[Sorting layer] – which sorting layer new tile will be placed on.

[Sorting order] – sorting order of newly placed tile.

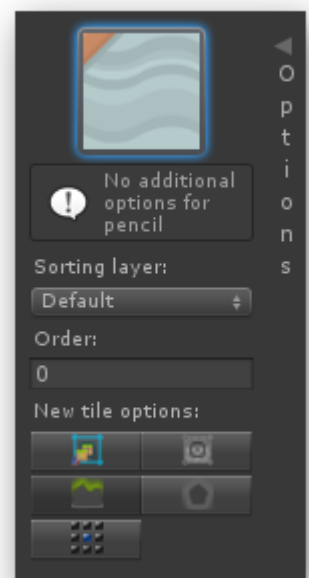
[Snap to grid] – will tile be placed exactly at given cell and aligned to it or it will be "free" positioning.

[Size to grid] – if turned on, tile will be scaled right to size of cell.

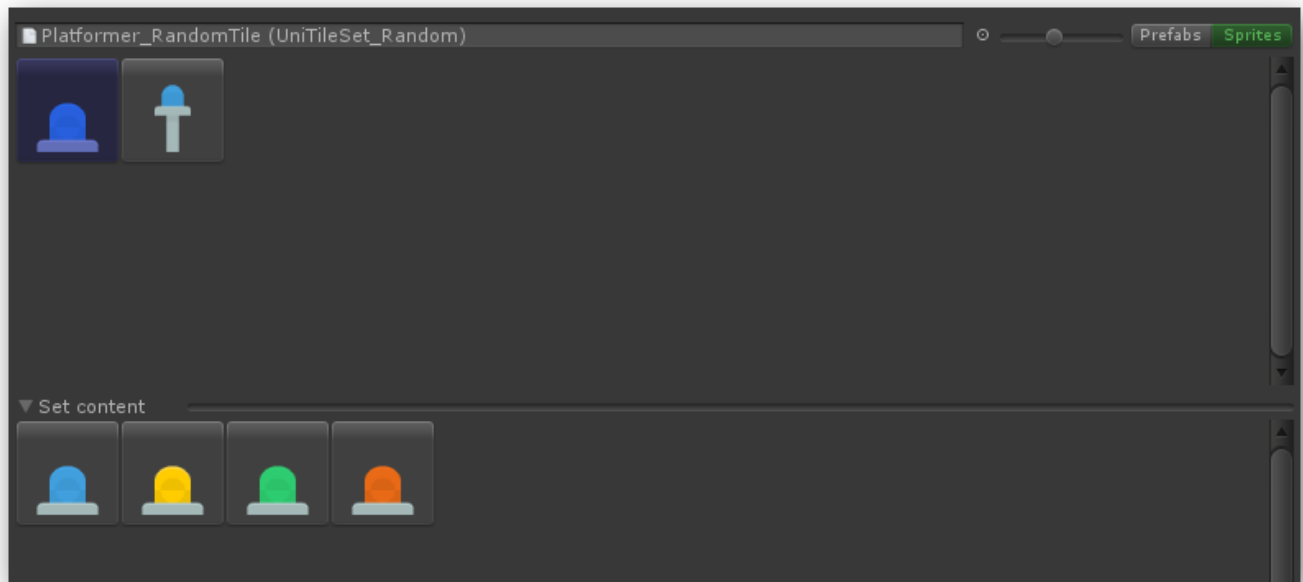
Attention works fine only with orthographic maps. Other types may result in unexpected and funny results.

[Edge collider] / [Polygon collider] – type of auto-generated collider that will be attached to tile if this option is on.

[Alignment] – the way new tile will be aligned to cell if their sizes do not match.



3.5 Selected toolset



Here you can see and choose which tile to place on the map.

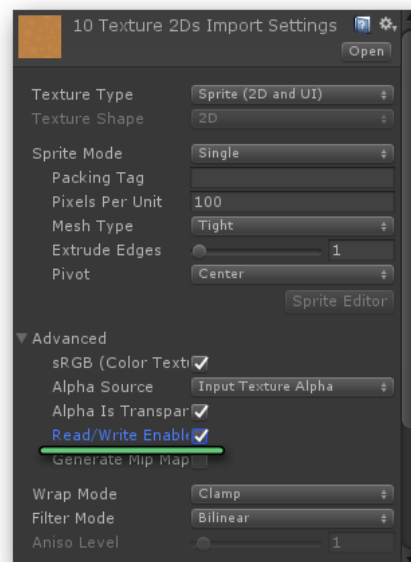
4. TileSets

UniTiled uses 3 different types of tilesets to place tiles on map.

They are Single Tile, Random Tile and Smart Tile.

Beyond is a closer look to every of them.

Attention!!! Every texture used to be a tile must have Read/Write Enabled mode in its Texture2D Import Settings to work.



4.1 Single Tile Type

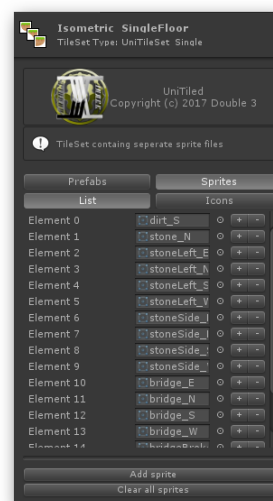
SingleTile is the simplest type of tile. Look at it like what you choose from the set is what will be placed on the map.

All of Set Types has following import controls:

[Prefabs] / [Sprites] – what do you want to use as your tile? Existing prefab or just a sprite/texture2d and gameObject will be generated automatically.

[List] / [Image] – what look of import you prefer to use? Like a list with choice boxes or image previews.

All of that methods can be changed and mixed at any time.



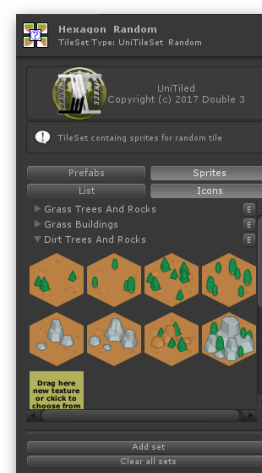
4.2 Random Tile Type

Random tile its like an array of tiles array. It consists of named sets which in their way have some tiles inside. When you choose set in edit mode and place a tile on map, a random tile of that set will appear.

Note, that in edit window, you can choose any item of set so it will be red lighted and it will work like simple tile.

To return to random mode, simply click on selected tile once again.

Random and Smart tilesets has additional “set control” button **[E]** which will bring up menu that allows you to rename or remove set from collection.



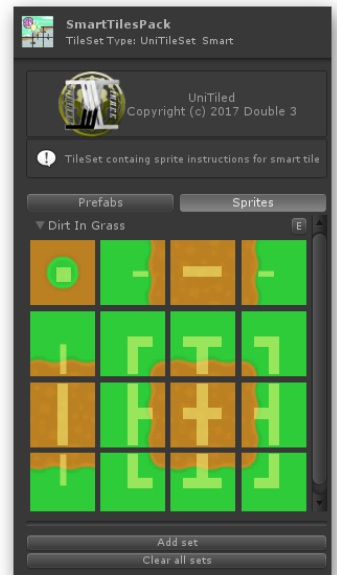
4.3 Smart Tile Type

Smart tile is an implementation of orthogonal 9-based auto-tiling.

To get better understand of it you need to experiment with it.

Feel free to that and maybe you`ll get your unique style with it.

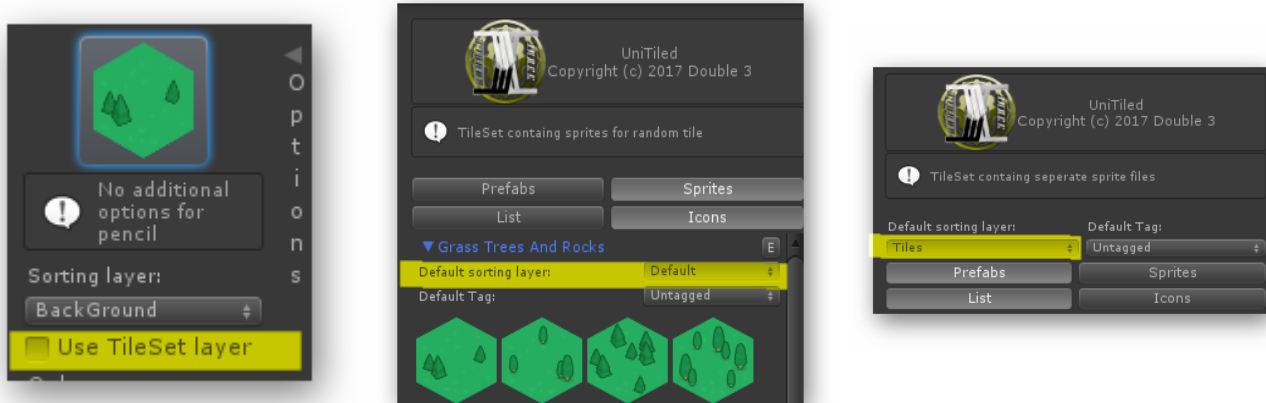
Note that for now it works only with orthogonal oriented maps.



5. Version 6.5 features

5.1 TileSet default layer

When placing tiles on the map from now on you can use “default” layer which sets from TileSet inspector dialog.

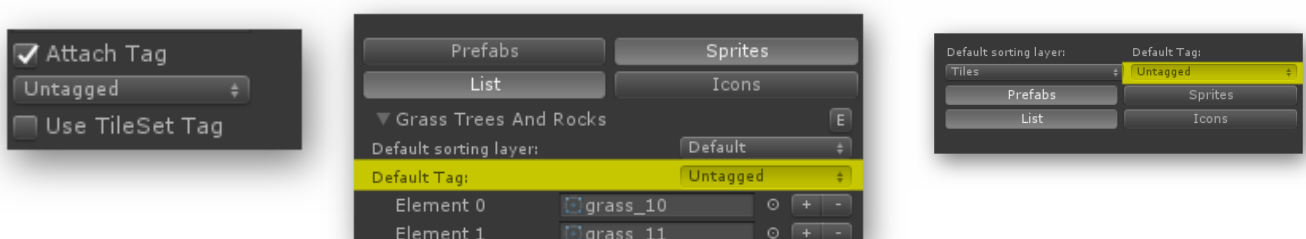


With this option you can choose what layer will be used to place new tile. The one from map manager dialog or that comes from tileset settings.

5.2 Tag for tile

Just like working with sorting layers, work with Tags are now available.

All of stuff is just the same as with layers.



Note: To use tag the “Attach Tag” option must be enabled at Map Manager Inspector interface.

6. Contacts

As this is early alpha version of asset I assume there will be a bugs which I cannot or have not founded yet by myself.

So please report them to me so I can make this asset better.

Also you are free to send any of your suggestions / wishes for functionality of this asset.

Thanks for your support on this early alpha stage.

It helps me to continue work on project and lets you to get it cheaper than final release.

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For all tiles used for examples, thanks going to Kenney:

<http://kenney.nl/>