TILETOOL 20

TileTool 2D Window Locating TileTool 2D Tile Prefab Drop Down Preview Scale Slider Toolbar **Erase Slider Layer View Creating Sprites Sprite Naming** Tile Prefab **Sprite Arrays** Tile Size **Neighboring Tiles Kevboard Shortcuts Tile Attachments** Tile2D Attachment properties **Easy Template** Pixel Top Down Example Fixing tile edges Tile Wizard The Tile Wizard is designed to easily be able to place sprites in the right tile segments. Multidrop **Segment Drop** Update changes Version 1.4 Version 1.3 Version 1.2 Version 1.13 Version 1.12 Version 1.11

The important stuff first:

Version 1.1

Position sprite pivots in the bottom left corner. (See <u>Creating Sprites</u>) Naming sprites correctly to avoid more work. (See <u>Sprite Naming</u>)

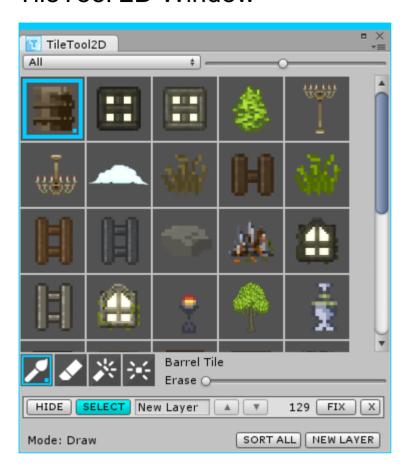
YouTube

TileTool2D playlist

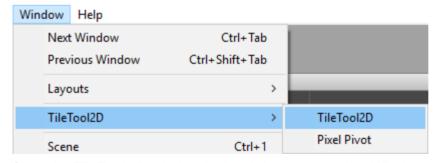
https://www.youtube.com/playlist?list=PLicIPaJrUXWvtjILySSbfCePco6uI4U1n

Here you will find examples and tutorials.

TileTool 2D Window

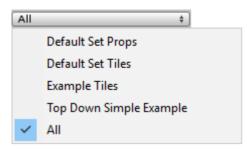


Locating TileTool 2D



Open the TileTool 2D window in the Unity top menu bar Window > TileTool2D > TileTool2D

Tile Prefab Drop Down



Select which tiles should be visible in the tile selection view.

Tiles are grouped based on their folder location in the project resources.

Preview Scale Slider



Adjust the scale of tile preview images in the tile selection view.

Tile Selection View



Select tiles used while drawing in the scene.

Double click to select the prefab in Project window.

Toolbar



Use the tools in the toolbar to draw, erase, fix or snap tiles.

1. **Draw** > creates new tiles in the scene. (Draw behind: **CTRL + Shift**)

2. **Erase** > removes tiles. (Shortcut: **Shift**)

3. Fix > changes tile based on neighboring tiles. (Shortcut: CTRL)

4. **Snap** > is used when moving tiles in the scene.

Draw, Erase and Fix is used to in scene by clicking and dragging the mouse.

Fix can be used to randomize tiles if there are more than one sprite of that type.

Fix is done automatically when drawing or erasing with the tools.

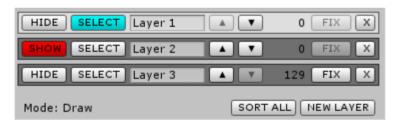
Fix can be used when tiles are removed without using Erase.

Erase Slider



The Erase Slider sets the size of the Erase and Fix tools.

Layer View



Layers are GameObjects that holds the tile sprites.

1. **Hide/Show** > Disable or enable layer.

2. **Select** > Layer to edit.

3. **Layer Name** > Edit layer GameObject name.

4. **Sort** > Sort layer up or down.

5. **Fix** > Fix all tiles in layer. (see Toolbar Fix)

6. **Delete** > Destroys layer GameObject.

7. **Sort All** > Sorts all layers. (Used if layers are moved in hierarchy view)

8. **New Layer** > Create a new layer GameObject.

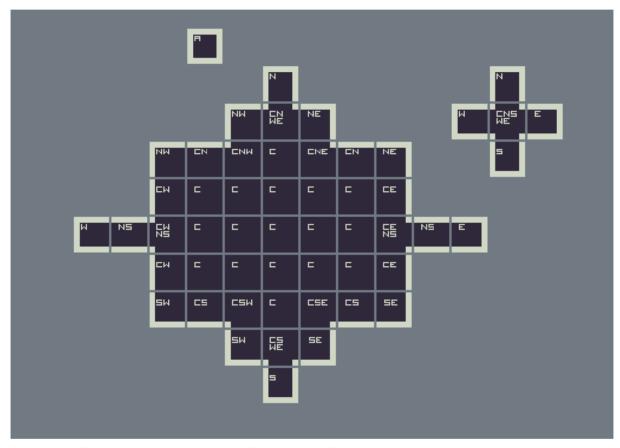
Creating Sprites

Position the pivot of the sprites in the bottom left corner.

For pixel perfect pivot positions, use the included pivot tool.

(Top menu: Window > TileTool2D > Pixel Pivot)

Sprite Naming



Basic tiles. For advance tiles see the *Tile Naming Example* scene.

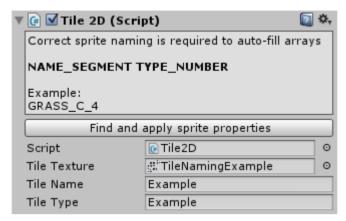
Correct sprite naming is required to auto-fill arrays. To avoid having to assign each sprite to the tile prefab, by naming the tiles correctly the tiles can be located by the press of a button.

NAME_SEGMENT TYPE_NUMBER

GRASS_A	or	GRASS_0 (easy template uses numbers instead of chars)
GRASS_C	or	GRASS_6
GRASS_C_1	or	GRASS_6_1
GRASS_C_2	or	GRASS_6_2

Numbers are optional. Numbers can be used to randomize a segment type when drawing. For examples see the Tile Naming Example scene, prefabs and textures.

Tile Prefab



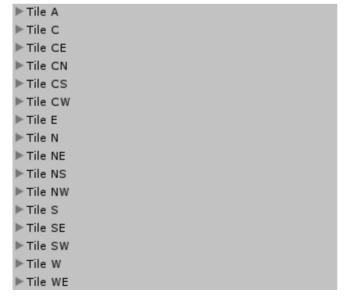
Tile prefabs contain references to all the sprites used by a TileTool2D tile.

- 1. Tile Texture > Select the texture containing the sprites for the tile.
- 2. Tile Name > Write in the name used for the tile in the texture.
- 3. Tile Type > Tile types blend together with Fix. (See Toolbar Fix)
- 4. Button > Automatically assign sprites to the tile. Tile Name must be the same as the sprite naming in the Tile Texture. (See Sprite Naming)

 Texture must be in the Resources folder.

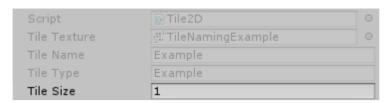
For examples see the Tile Naming Example scene, prefabs and textures.

Sprite Arrays



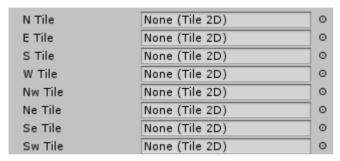
Tile sprites are placed in arrays, it is possible to have multiple versions of the same tiles. Multiple versions will be randomized when drawing.

Tile Size



It is now possible to use tiles bigger and smaller than the default 1 unit. Remember to fill in the Tile Size and change box collider size.

Neighboring Tiles



Other tiles next to the current tile. These tiles are detected when drawing or erasing. Used to automatically change the tile sprite.

Keyboard Shortcuts

Draw behind: CTRL + Shift (Used when tiles bleed outside the tile bounds)

Erase: **Shift** Fix: **CTRL**

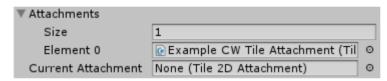
Tile Attachments



Tile attachments are attached as a child to the Tile GameObject when added to the scene.

- 1. Replace Tile > What Tile the attachment should be added to.
- 2. Replace Collider > Disables tile box collider.
- 3. Replace Sprite > Disables tile sprite.

Tile2D Attachment properties



Add the attachments to the Attachments array.

In this example all CW tiles will have a new sprite and collider.

Easy Template

Easy Template texture and prefab. You can use this texture to easily set up your tiles.

Simply duplicate the texture, scale the texture to your desired texture size in photo editing software. Add your tiles in the appropriate positions based on the template.

Video on how to use the template texture and creating a new tile.

YouTube https://www.youtube.com/watch?v=PZY9QtgSklk

You can use the Easy Template texture and tile to practice this method.

Easy Template numbered sprites also works with the Tile Wizard. (Update 1.4)

Pixel Top Down Example

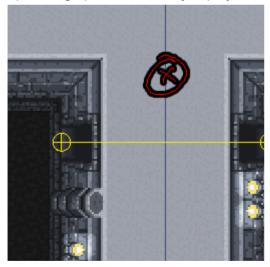
Located in folder: Assets\TileTool2D\Example Top Down

This example will be updated frequently. Use it as a reference and help for your own project. It's preferable not to use the scripts or edit the textures as they will be changed on updates. Create your own scripts or duplicate the example scripts for your own project. Only use the scripts in this example to learn how to manipulate TileTool 2D tiles, copy their content, avoid changing them as it will make updating the asset difficult.

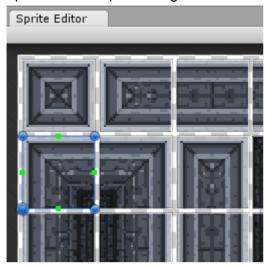
Fixing tile edges

When a sliced texture has a transparent side, Unity sprites will occasionally render the pixels next to the sliced edge. To solve this issue it is necessary to bleed 1 pixel to the edges of the sprite. A simple way to solve this issue is to make a 4 duplicate layers of the entire texture in Photoshop or other graphic software, move this layer behind the original and move those layers so they fill 1 pixel of the edges. The bleed layers should be merged to save memory. This is a limitation in Unity and should be done once the tile texture is complete and ready for publishing.

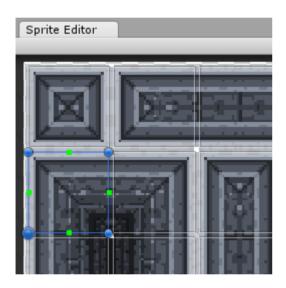
Sprite edge problem in Unity in play mode.



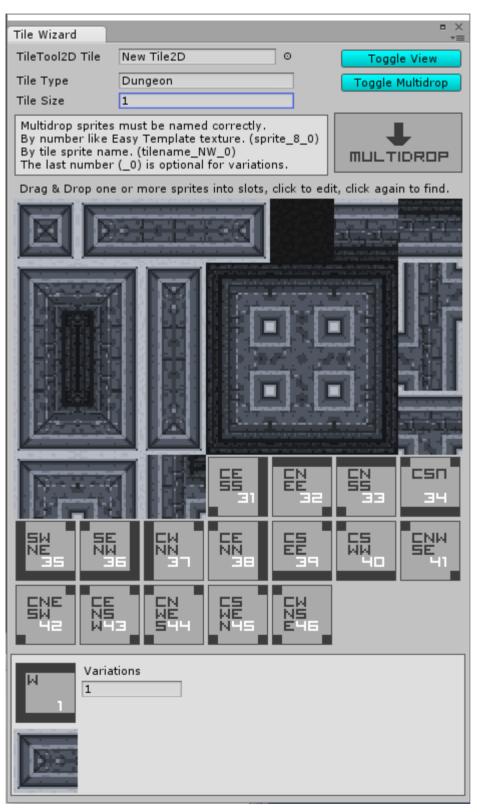
Sprite with transparent edge.



Solve the problem by bleeding edges 1 pixel after auto generating sprites.



Tile Wizard



Location: Window > TileTool2D > Tile Wizard

The Tile Wizard is designed to easily be able to place sprites in the right tile segments.

Multidrop

To use the multidrop to auto find sprites, tiles has to be named correctly. (see <u>sprite naming</u>) Simply select all the sprites you want to include from the project folder, then drag and drop them into the multidrop window.

Segment Drop

Select and drop single or multiple sprites into the tile segment slots, multiple sprites can be dropped if there are more variations of a tile segment.

Update changes

Version 1.4

- Added the Tile Wizard.
- Added the Prefab Creator.
- Colliders are no longer needed to draw and erase.
- Changed from prefab preview to texture preview in the preview thumbnails.

Version 1.3

- Added Pixel Top Down example.
- Sorting with Unity layers ignores sprite sorting order.

Version 1.2

- Added easy template texture and tile.
- Fixed blinking preview window.

Version 1.13

- Fixed draw function not working after entering play mode.

Version 1.12

- Fixed null reference error when arranging layers.
- Fixed attachment sorting.

Version 1.11

- Unity sprite layer support.
- Attachment improvements.
- Fixed null error on erase.

Version 1.1

- Added Attachments. (Custom colliders, animated tiles ++)
- Tile size support. (Tiles can now be bigger or smaller than 1 unit)
- Fixed auto fill not finding all sprites.