

# Dungeon Draft (An Unofficial Manual)

This documentation is for version “v0.9.2.0 Promising Pangolin”

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## About This Document

This is an unofficial manual. I am not the developer of Dungeondraft, and I have no professional affiliation with the developer. The developer has not participated in the writing of this document, and has offered no endorsement. I'm a customer, just like you, and I've written this in my spare time to help others.

This document is not meant to instruct anyone on how to make great-looking maps. It's meant to show you how to use the various features of the program, to enable you to apply your own ideas on making great maps.

## Is the program really so difficult to use that I have to read this whole manual?

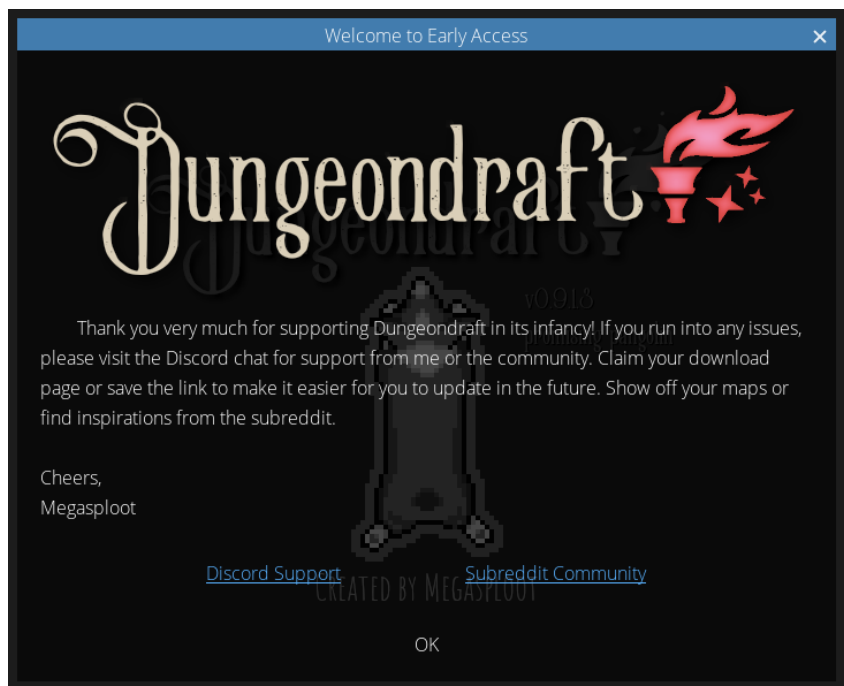
In a word, no. My advice is to put this manual aside for a while, and just jump in and start having fun with the program. That's how we've all done it so far, and a lot of people have made and shared a lot of great maps. Get the feel for the program first, then come back to this as a reference manual.

Dungeondraft is very easy to use. This document is the size it is because Dungeondraft has a lot of features, not because it's difficult to use. This document contains a large number of screenshots, which have also contributed to its large size.

While Dungeondraft is easy to use, there are some features, that might not be obvious. And exactly which features those are might differ from person to person. Instead of reading this manual straight through, you can reference the table of contents to jump to the page you want for the topic you want.

## Important Preliminaries

When you start the program for the very first time, you will see this splash screen:

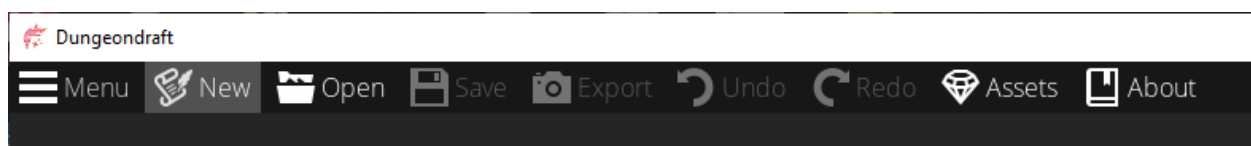


Take note of the links for “Discord Support” and “Subreddit Community”.



You should not ignore those. You will find a lot of community support on the Discord server, and people share some great maps on both the discord server and in the subreddit.

Click OK to get through the splash screen, then note the top menu bar.

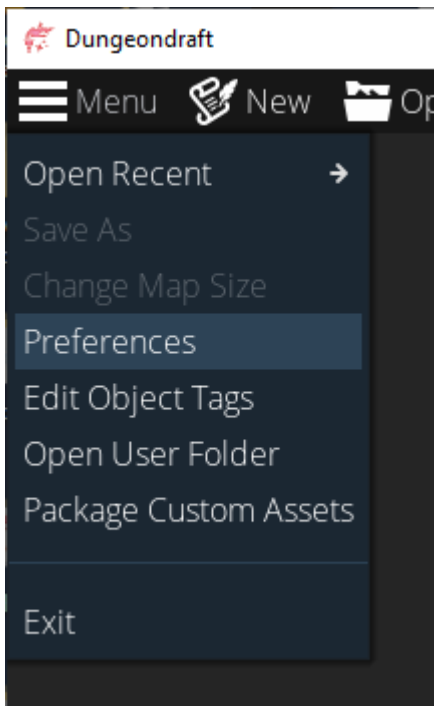


There are five things I would consider immediately important.

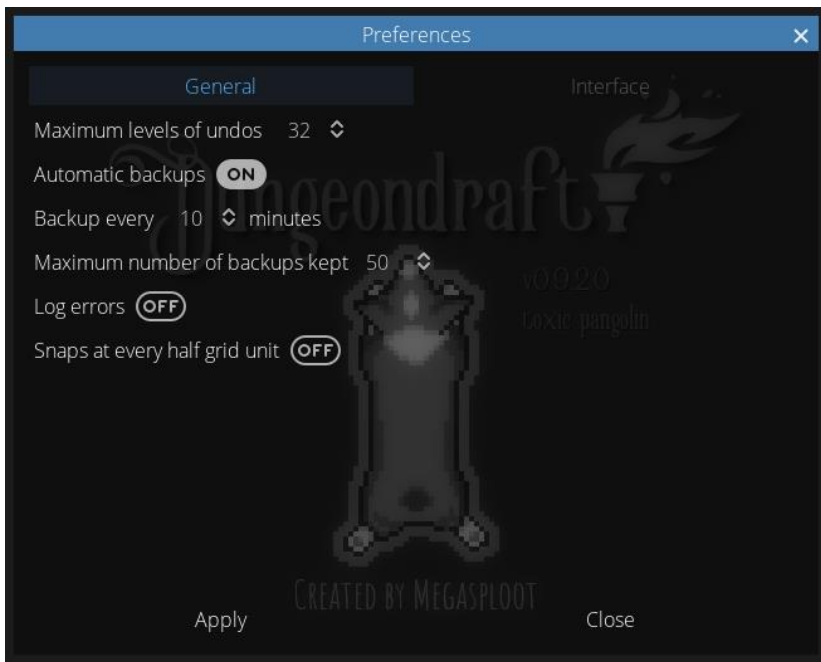
### Preferences for Automatic Backups

Click “Menu”, then click “Preferences”.





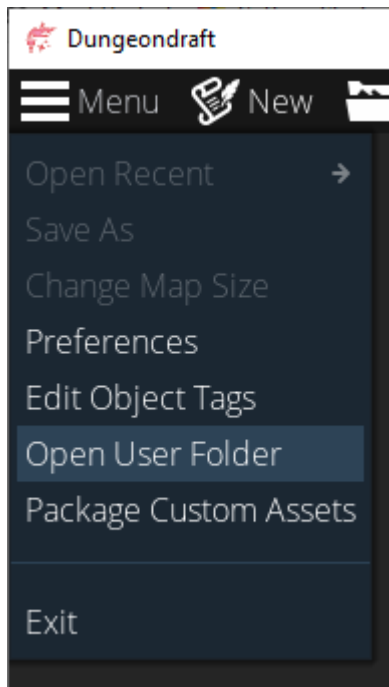
The important things to note here are the settings for “Automatic Backups”. Note that by default, automatic backups occur every 10 minutes, and that a maximum number of 50 backups are held. When you reach that limit, the oldest backup will be automatically deleted to make room for the next one. Normally, you should not need to change these settings. Just be aware that they exist.



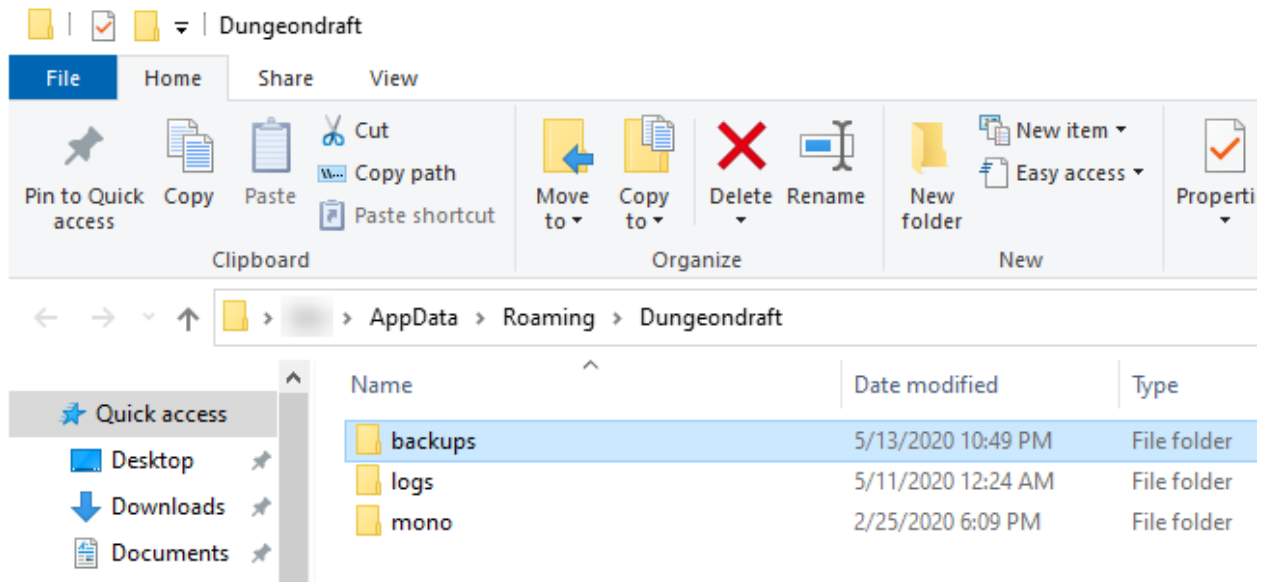
For now, just click “Close” to keep the default settings.

### Location for Automatic Backups

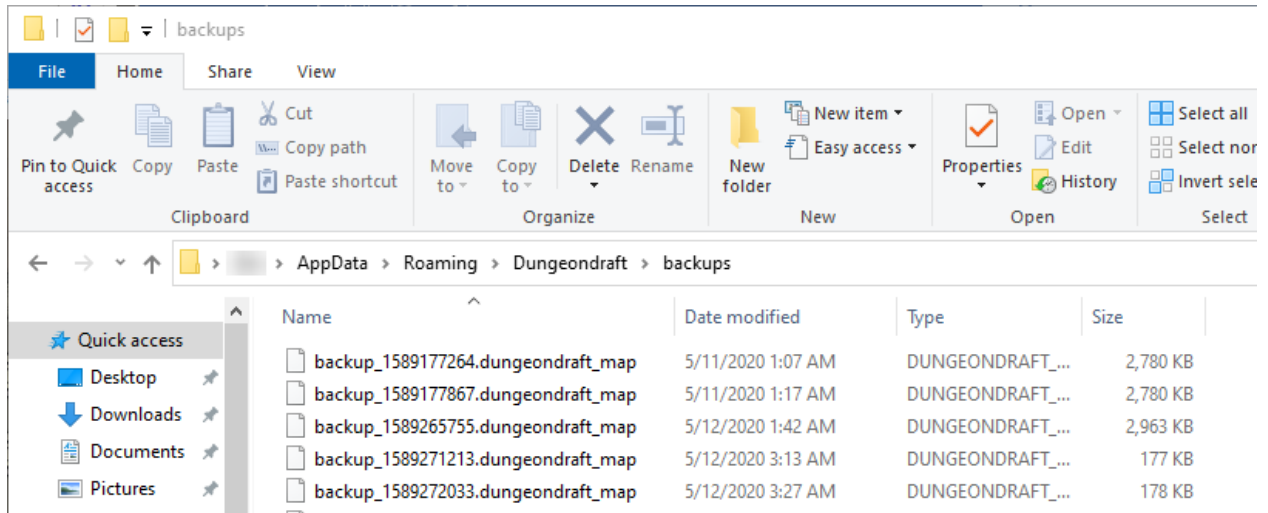
Click “Menu”, then click “Open User Folder”.



This is a quick way to open your Dungeondraft user folder. You can also open it by browsing to “%appdata%\Dungeondraft”.



Note that this folder contains a “backups” folder. This is where your automatic backups are stored.



If you're working on a map, and you have an unexpected crash, you can recover from the last automatic backup by loading the latest backup from this folder.

When you do, make sure you don't save your edits to the backup folder. Use the "Save As" option (under "Menu") to save your edits to your Documents folder or to wherever you regularly store your maps.

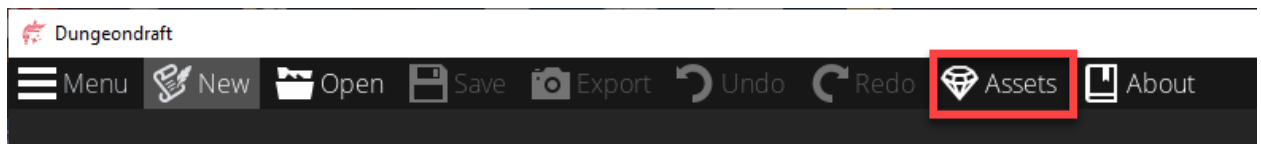
**Note:**

While automatic backups are a great safety net in a pinch, I would advise that you not rely on them. Save your work often. In some cases, it would be advisable to save different versions of your map if your map in case you want to revert some changes. It's great to have the backups there, but it's better not to need them.

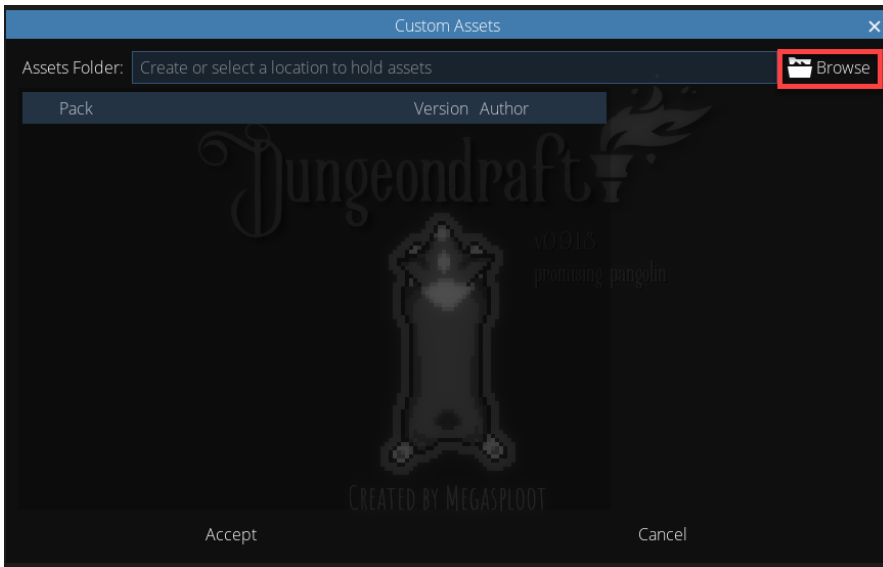
### Setting the Location for Custom Assets

Dungeondraft has a new feature to allow custom asset packs. You may or may not be using these right away, but either way, you should set a location for them. That location can be anywhere you would normally store your own files. I would recommend creating a "Dungeondraft\_packs" folder in your "Documents" folder, so that's the example I'm going to go with. If you choose a different location and/or folder name, make the appropriate changes as you follow along.

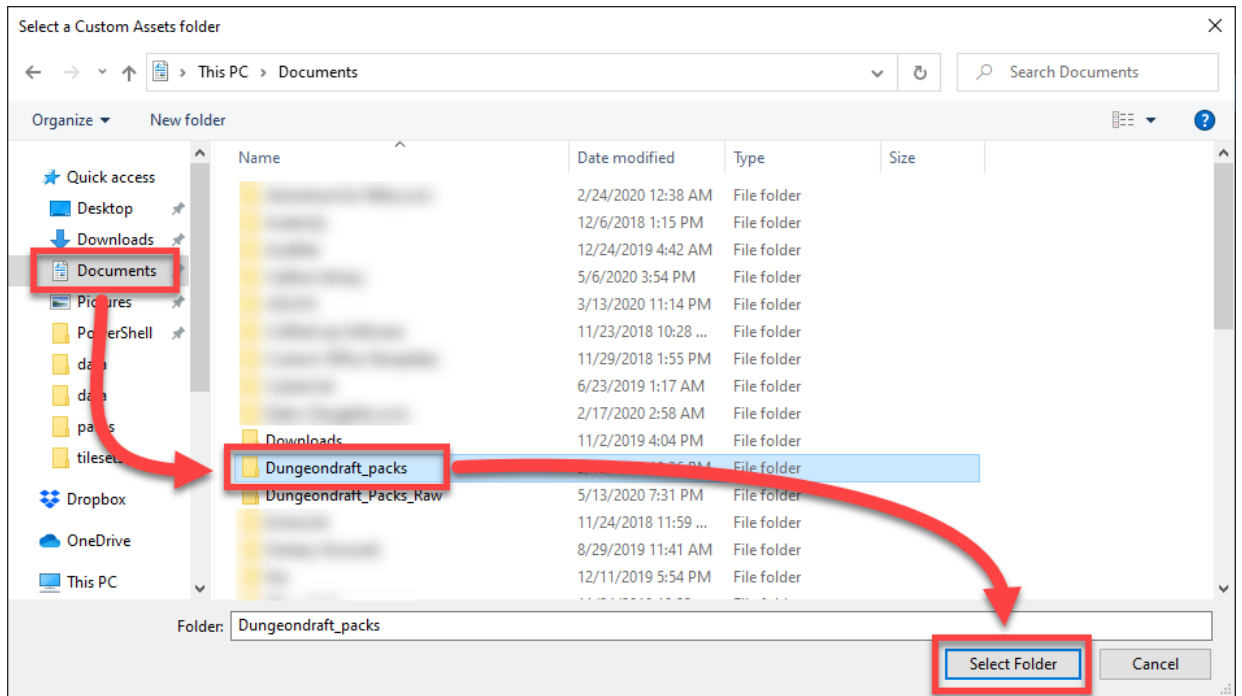
On the top menu bar, click "Assets"



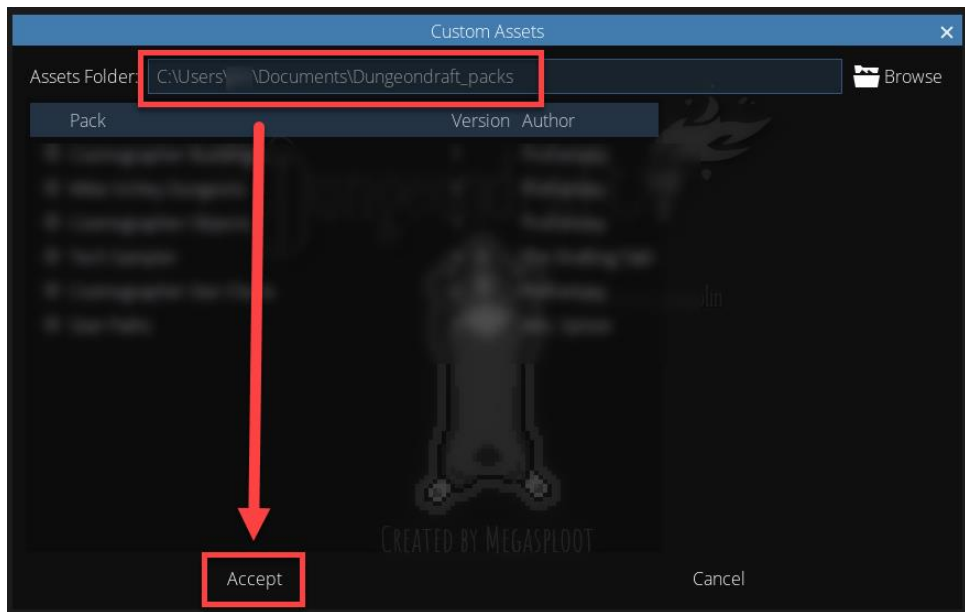
In the "Custom Assets" window, click "Browse".



In the file dialog that opens, browse to select your chosen folder. Don't open the folder, just highlight it and click "Select Folder".

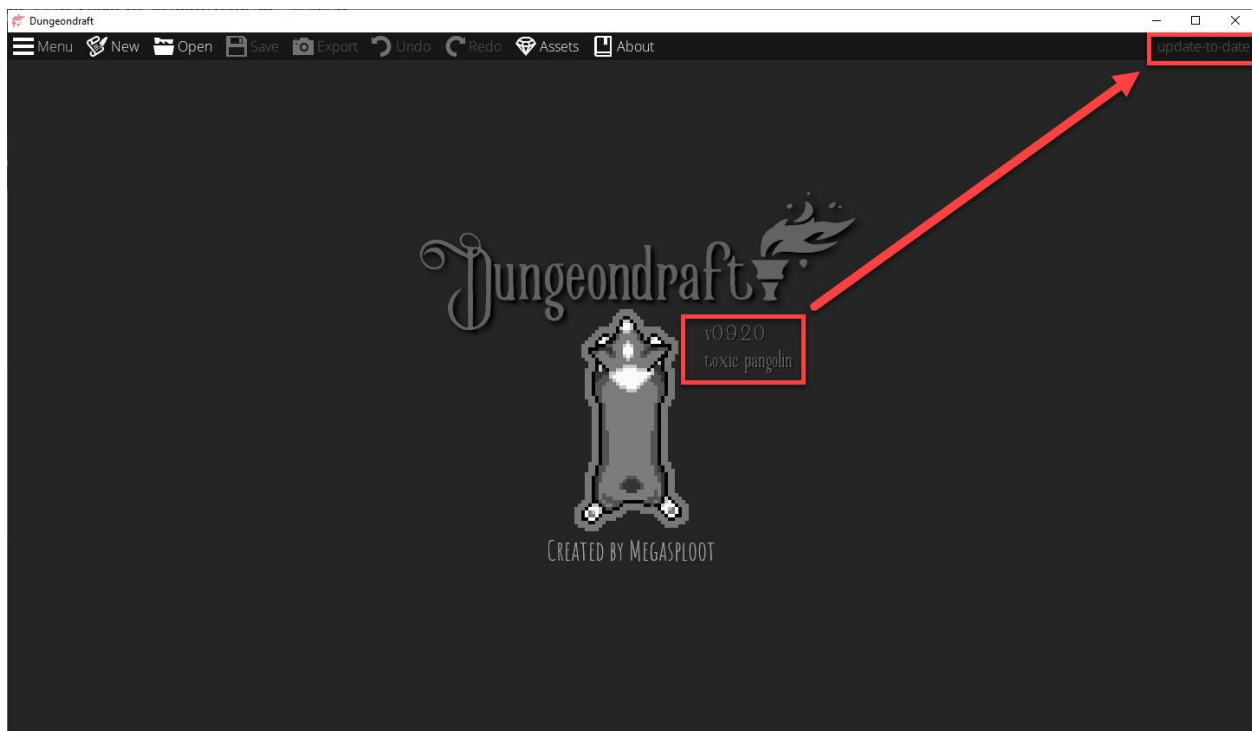


Verify that the correct Assets Folder is displayed, then click "Accept".



## Versions and Updates

From now on, when you first open Dungeondraft, near the center of the window, you will see your current version information, and in the top-right corner of the window, you see if you're up-to-date or if there's a new update available.



If there is a new update available, you can log into your Humble Bundle account, download the newest installer, and install it over your existing installation. You don't have to uninstall and re-install. Just install the newest version.

## Mouse and Keyboard Shortcuts

General	
Action	Shortcut
Pan	Hold the middle mouse button or spacebar while moving the mouse.
Zoom	CTRL + mouse wheel
Delete	DELETE or BACKSPACE
Back out	ESC
Select Tool	X
Undo	CTRL+Z
Redo	CTRL+Y
Brush size up	Right bracket
Brush size down	Left Bracket
Toggle grid	G
Toggle snap	S
Level up	PgUp
Level down	PgDn

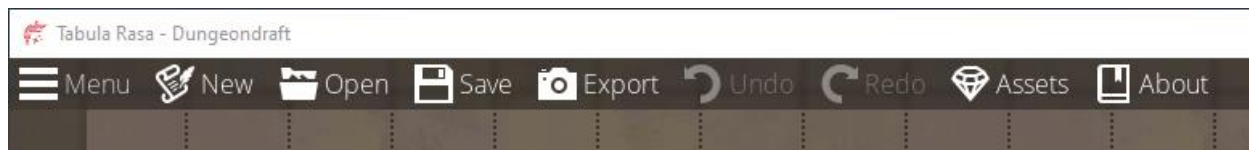
Floor Shape Tool, Cave Brush, Water Brush, Material Brush	
Action	Shortcut
Erase floor, material, terrain or water	Hold ALT while drawing with the appropriate tool/brush.

Floor Shape, Wall Tool – Polygonal, Path Tool	
Action	Shortcut
Curve	Hold SHIFT after setting the first point for the curve.

Object Tool	
Action	Shortcut
Rotate	Mouse wheel
Slow rotate	Z+Mouse wheel
Scale	ALT+Mouse wheel
Cycle object	SHIFT+Mouse wheel
Mirror object	Hold A

## The Top Menu Bar

This is going to be a quick overview of the top menu bar. Things that need more depth of explanation will be covered in their own sections later in this document.



1. “Menu” is the only menu option that has a submenu.
  - a. “Open Recent” will give you a list of maps you’ve recently edited to give you a quick way to select a map that might be a work-in-progress.
  - b. “Save As” opens a file dialog to let you save the current map to a folder you specify with a file name you specify.
  - c. “Change Map Size” lets you change the dimensions of your map.
  - d. “Preferences” will open a window that allows you to set various options.
    - i. “Maximum levels of undos” (default = 32)
    - ii. “Automatic backups” (default = ON)
    - iii. “Backup every \_\_ minutes” (default = 10)
    - iv. “Maximum number of backups kept” (default = 50)
    - v. “Log errors” (default = OFF)
    - vi. “Snaps at every half grid unit” (default = OFF)
  - e. “Edit Object Tags” lets you customize which objects are associated with which tags.
  - f. “Open User Folder” is a shortcut to open the %appdata%\Dungeondraft folder.
  - g. “Package Custom Assets” lets you create a custom assets pack file.
2. “New” will create a new map.
3. “Open” will load a previously saved map.
4. “Save” will save your map. If you haven’t saved your map yet, you will be prompted for a folder location and a file name. Otherwise, this will assume you want to save over the previously saved version.
5. “Export” will export your map as an image file that you can print or display, or as a “Universal VTT” file that you can then import into VTT programs that support “Universal VTT” files.
6. “Undo” and “Redo” should be self-explanatory. They standard keyboard shortcuts (CTRL+Z and CTRL+Y) will also work.
7. “Assets” will allow you to select which custom asset packs you wish to include.
8. “About” will display version and copyright information.

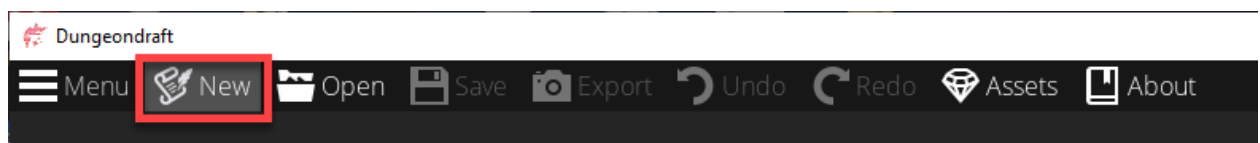
## Creating a New Map

The Map Wizard is the quickest and easiest way to get started with a new map. The map wizard will create a random dungeon or cave system according to your selections.

Creating blank map will give you a blank slate to draw what you want.

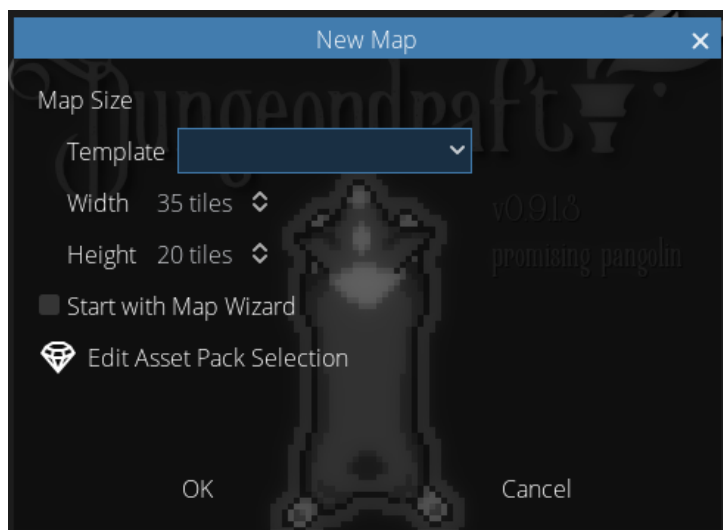
Using the map wizard still allows you to use all the same tools and options as creating a blank map. It just gives you a base dungeon or cave system to start with and edit to your liking.

Either way, the starting point is to click “New” on the top menu bar.

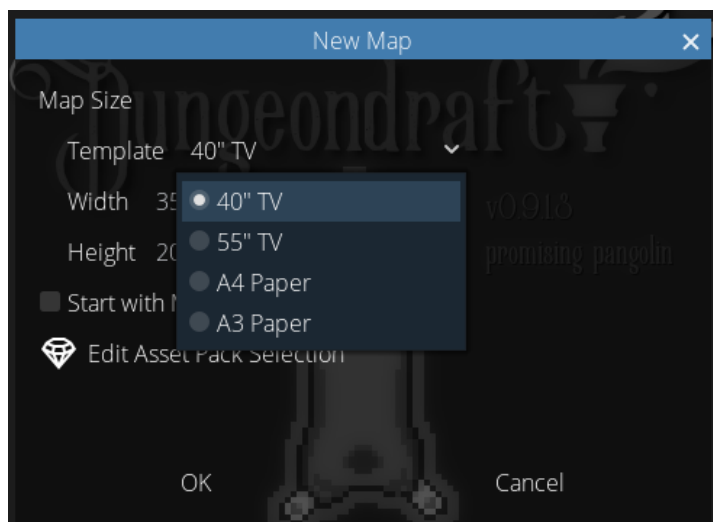


The New Map window will let you set the height and width of your map in terms of grid squares. (Hex grids are not currently supported, and I won’t presume to say whether or not they will be in the future.)

Be aware of the rules of your game as rules may vary in terms of what each grid square represents. For example, in some rule systems, each grid square represents 5 square feet, and in some rule systems, each grid square represents 10 square feet.



The “Template” drop-down menu lets you select how your map will be used so that each grid square will be 1 square inch when displayed or printed. This will allow you to use the output as a battle map during play.



The current available templates and their respective map sizes are:

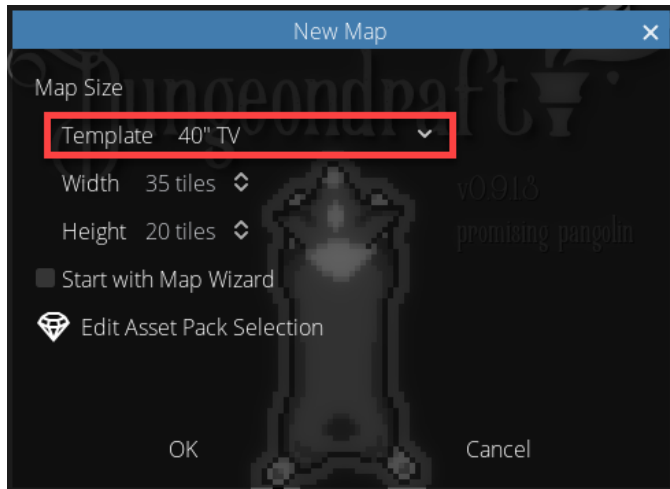
40" TV	35 tiles x 20 tiles
55" TV	48 tiles x 27 tiles
A4 Paper	11 tiles x 8 tiles
A3 Paper	16 tiles x 11 tiles

If you're not happy with the templates, you can set your own width and height. Just click on the numbers and change them to what you want. The maximum size you can set is 128 tiles x 128 tiles. Keep



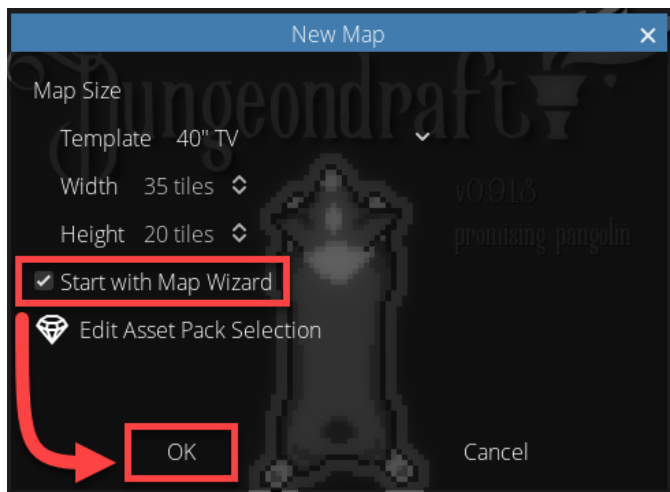
in mind that the larger you make your map, the more resource intensive it will be (in terms of using processor speed, memory, and your graphics card). Keeping your map to a more reasonable size will give you better performance and better stability.

For the purposes of this documentation, I'm going to select the 40"

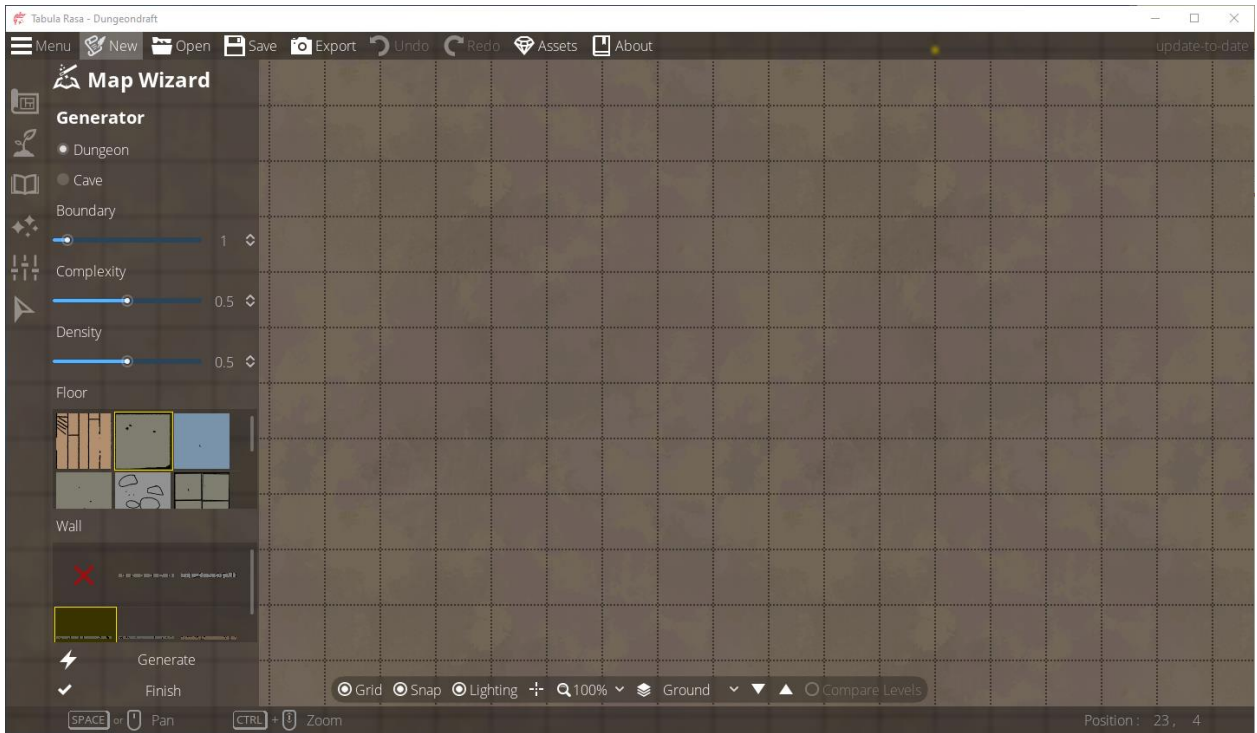


## Start with Map Wizard

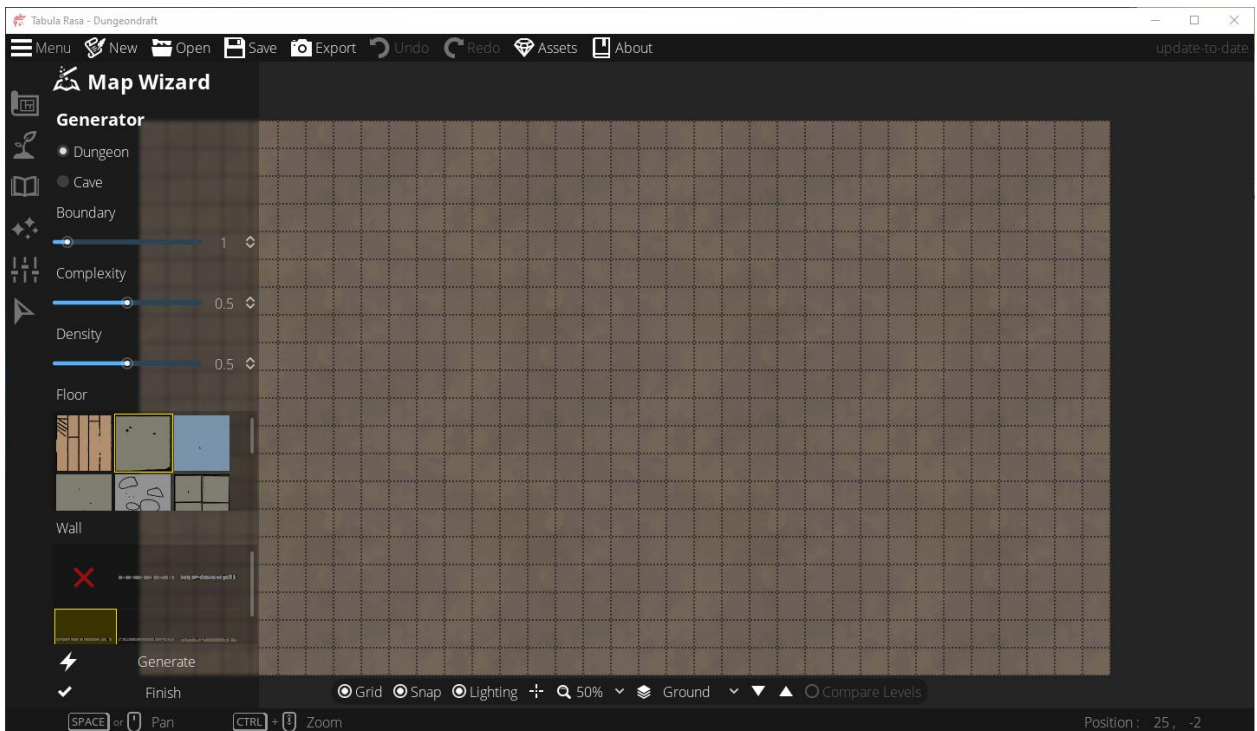
After setting the size for your new map, click "Start with Map Wizard", then click "OK".



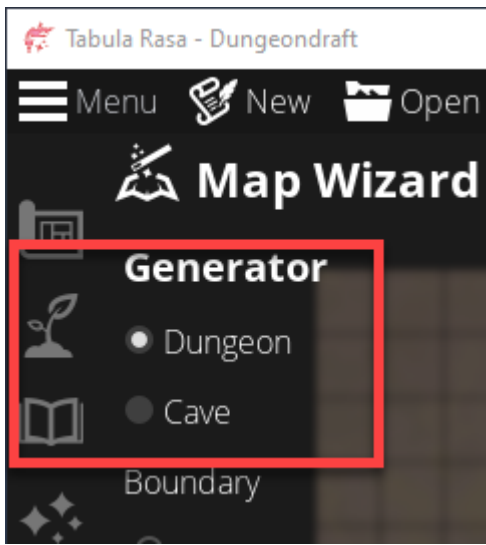
You should now see a window like this:



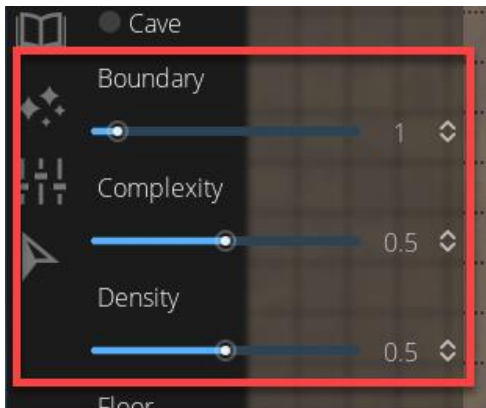
Hold down your CTRL key and move your mouse wheel back a couple of clicks to zoom out. That should make the whole map visible.



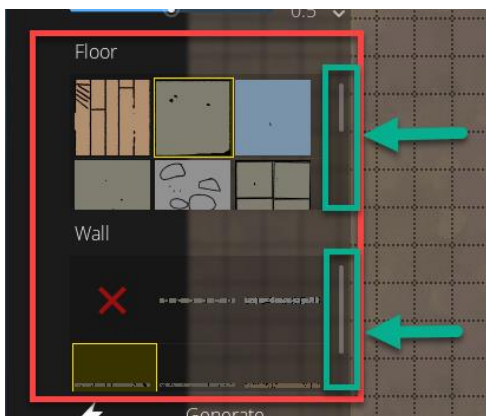
On the left side, near the top, note that you can select “Dungeon” or “Cave”, and that “Dungeon” is selected by default.



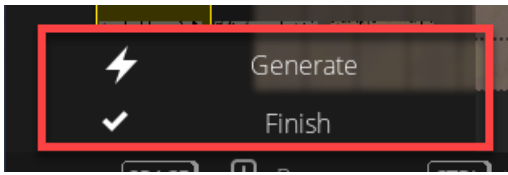
Below that, you have the option to set the “Boundary”, “Complexity” and “Density” parameters for the map wizard.



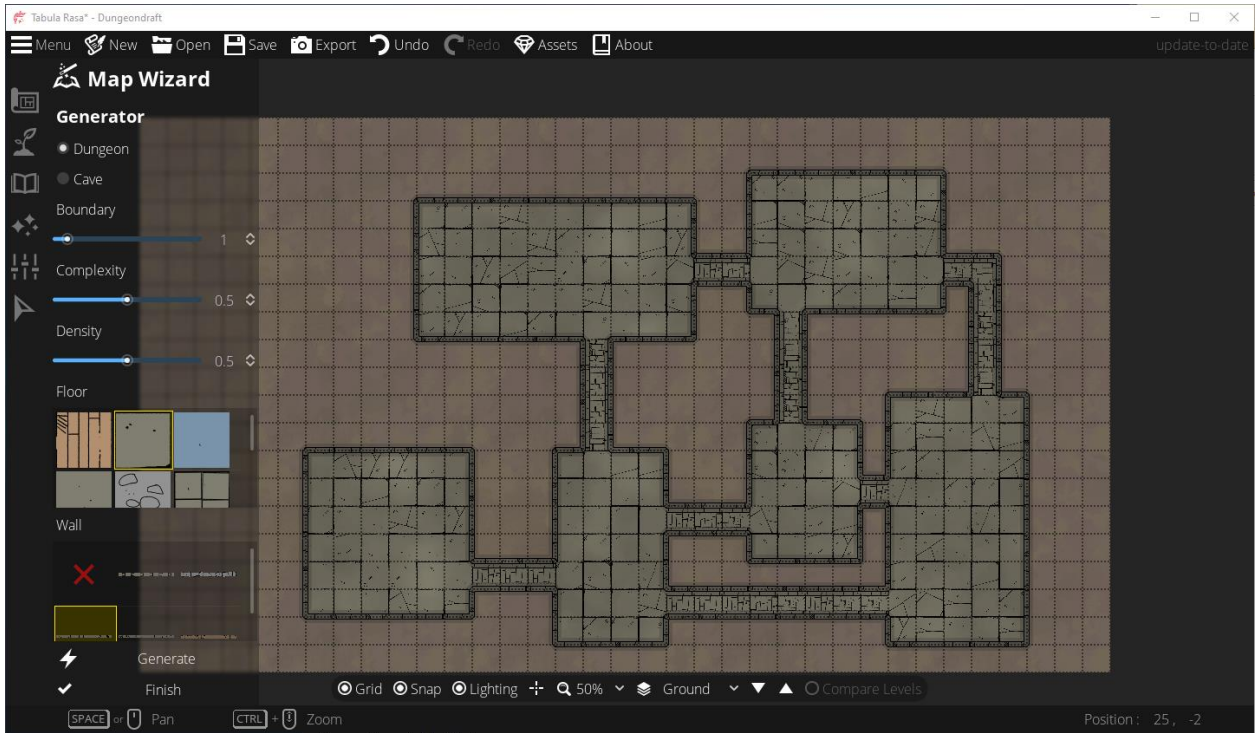
Below that, you can select the type of “Floor” you want and the type of “Wall” you want. Notice that each has a vertical scroll bar to indicate there are more options to scroll through.



And finally, below that, you can select “Generate” or “Finish”.

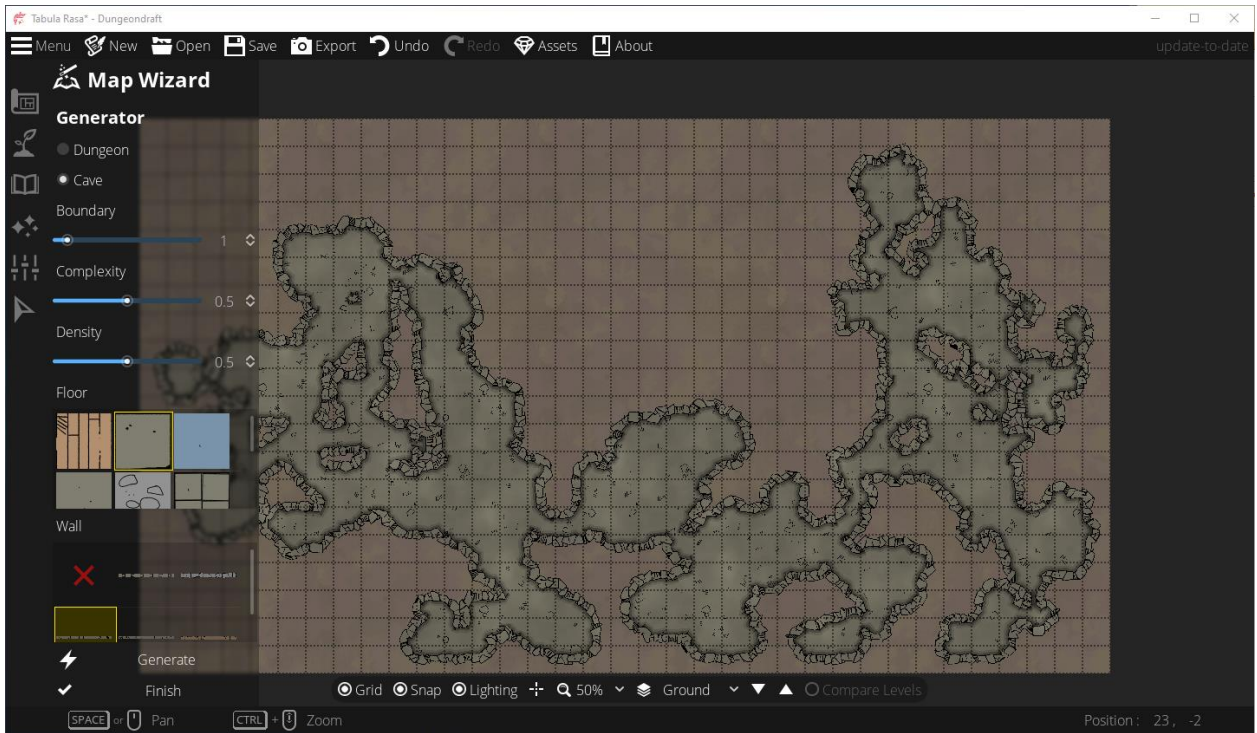


Just to get something on the canvas, let's click "Generate" and see what happens.



This is just an example. The generation is random, so you will see a different layout. If you're happy with what you see, you can click "Finish". If not, you can click "Generate" again to get a different layout.

For now, though, let's change the selection from "Dungeon" to "Cave" and click "Generate" again.

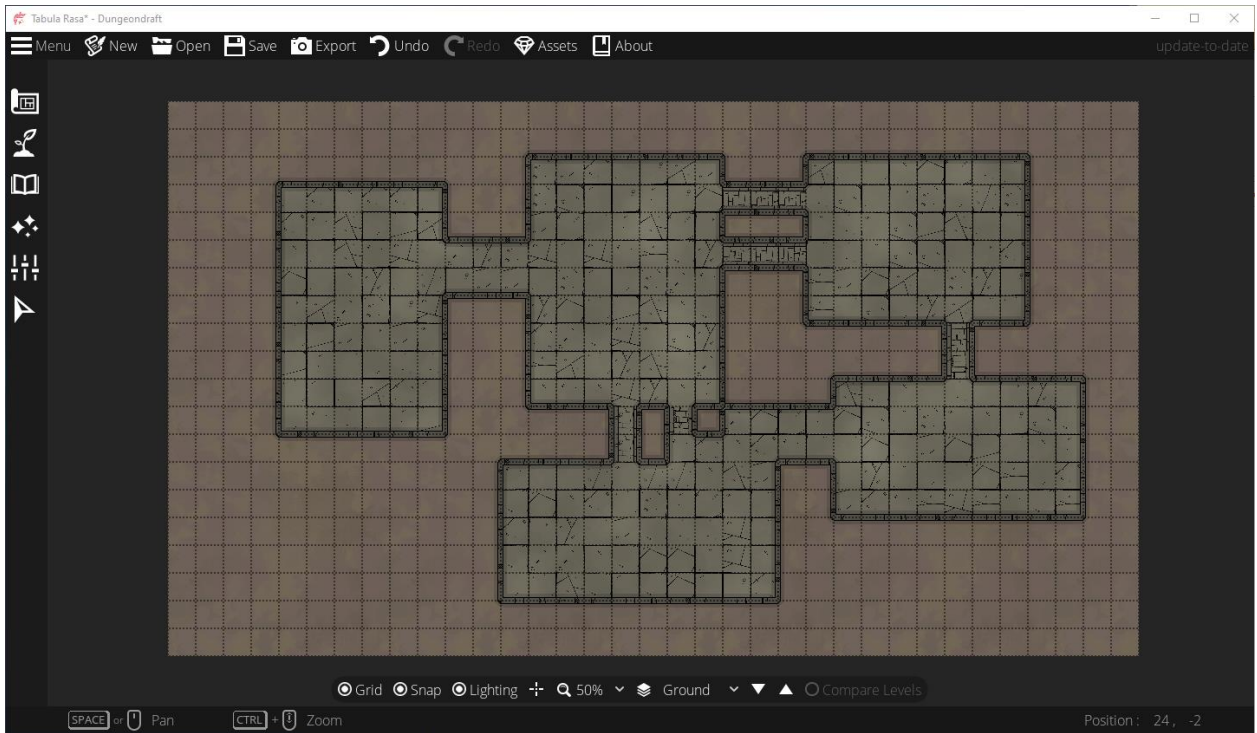


Again, this is just an example. The generation is random, so you will see a different layout. If you're happy with what you see, you can click "Finish". If not, you can click "Generate" again to get a different layout.

Feel free to experiment with the "Boundary", "Complexity" and "Density" values (for both dungeons and caves) to get a feel for what they do. For caves, you only get the one preset for the floor and wall, but for dungeons, you can experiment with the different types for each.

Once you click "Finish", you'll be in the main map editor where you have all the same tools, features and options as if you had started a blank map.

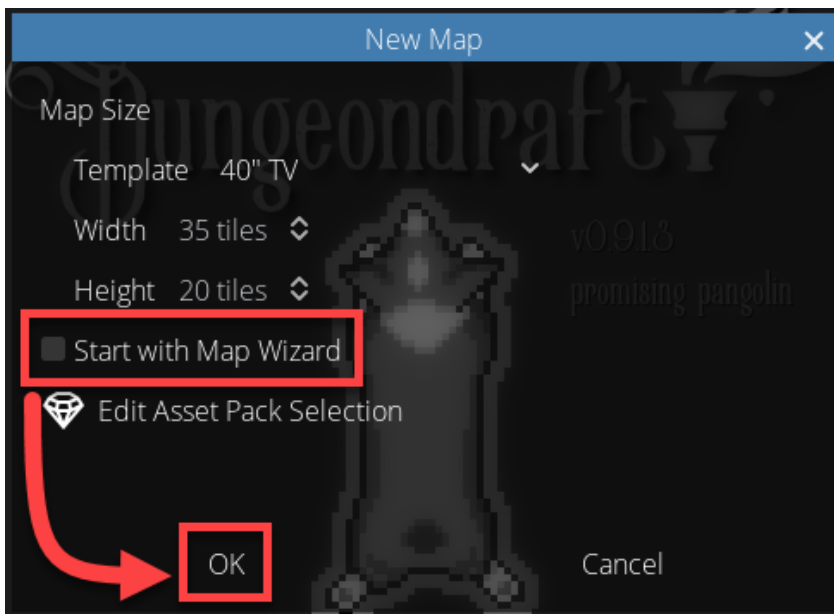




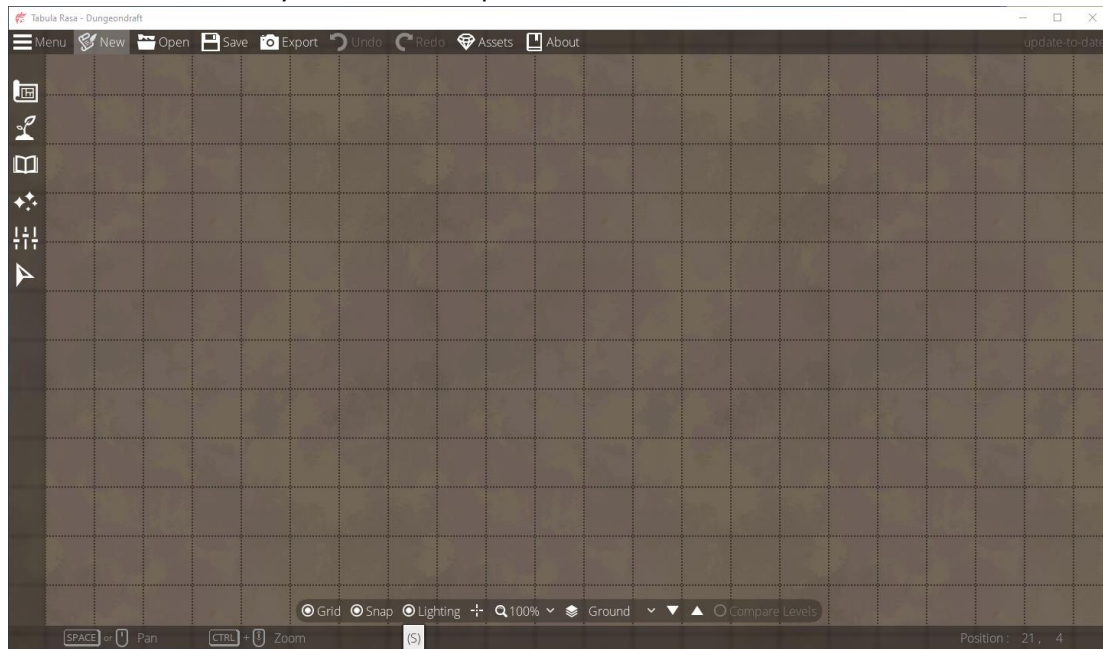
It doesn't look like much, but that left menu tray gives you a versatile array of tools.

## Create a Blank Map

After setting the size for your new map, make sure that "Start with Map Wizard" is unchecked, then click "OK".



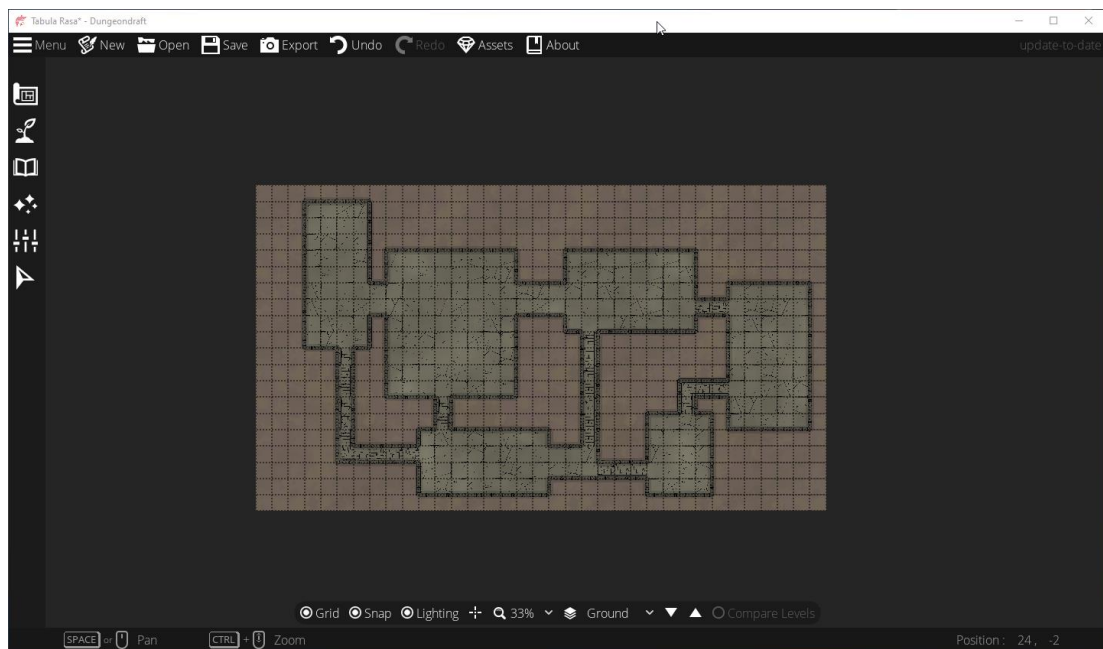
You will be sent directly to the main map editor with a blank slate.



## Change Map Size

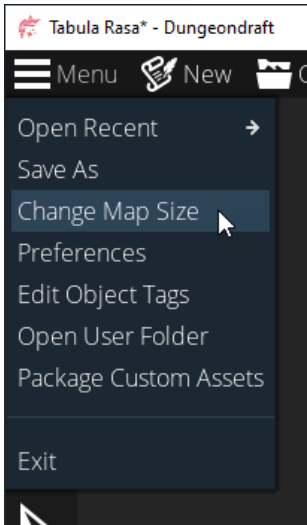
If, while editing your map, you realize you need more room to do what you want, you can use the “Change Map Size” feature.

To illustrate, I’ve created a dungeon with the map wizard. I used the 40” TV Template, so it’s 35 tiles wide by 20 tiles high. I’ve also zoomed out to make the full map visible.

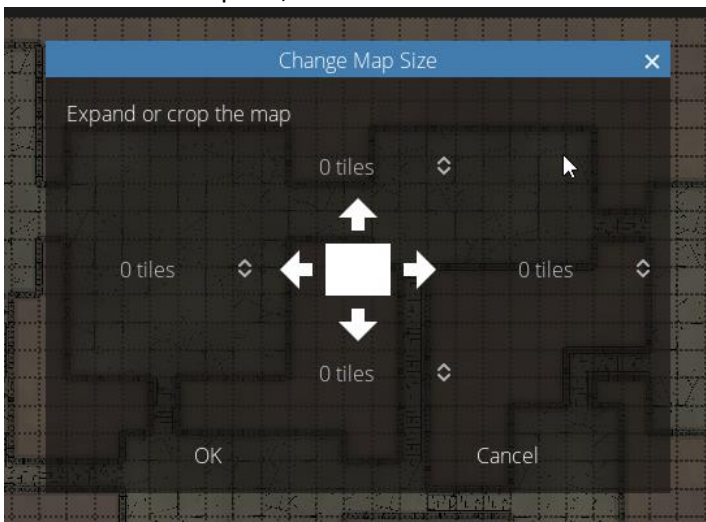


Let’s say I want to add space on the top to make it a square map, so it’s 35 tiles wide and 35 tiles high.

1. I click “Menu” on the top menu bar, then click “Change Map Size”.

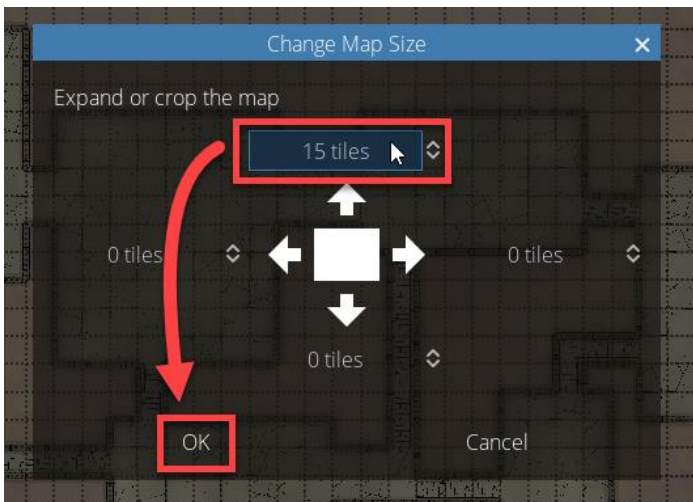


2. I get a “Change Map Size” dialog with a white square in the center to represent my map, and on each side of the square, I see “0 tiles”.

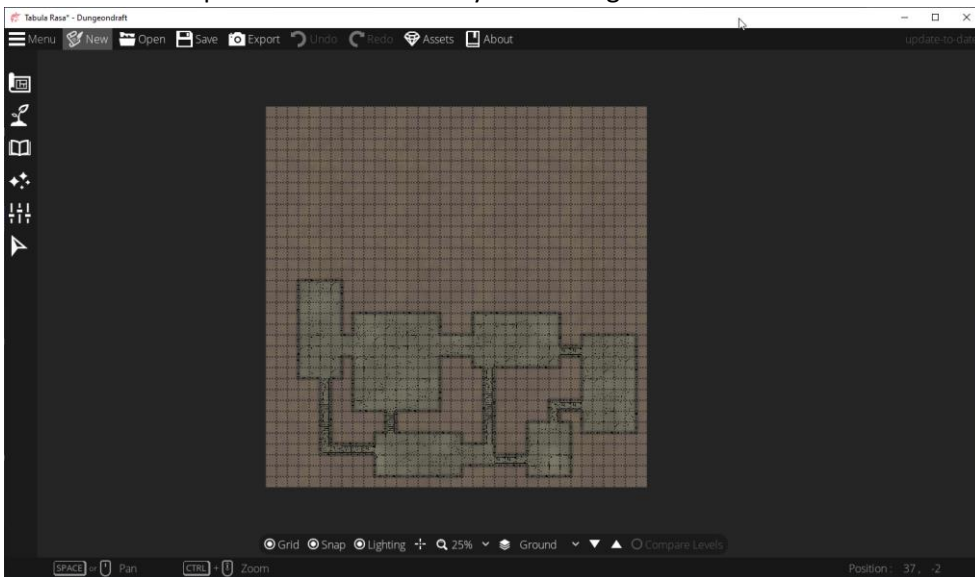


3. I want my map to be 35 x 35. It's currently 35 x 20. If I want it to be square, I need to add 15 tiles to the top or the bottom. For this example, I'll choose the top, then I'll click OK.



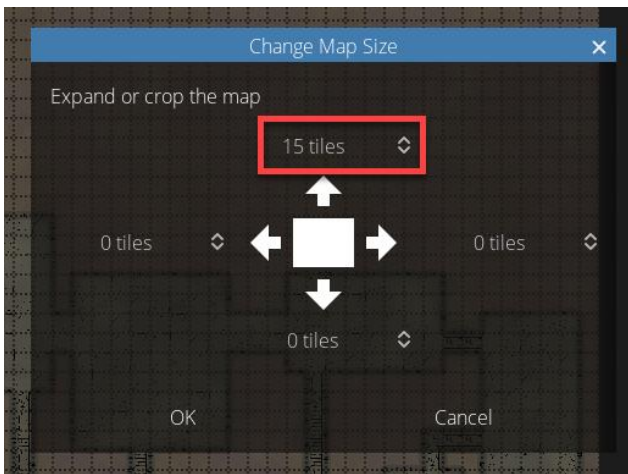


4. Now I have a map that's 35 tiles wide by 35 tiles high.

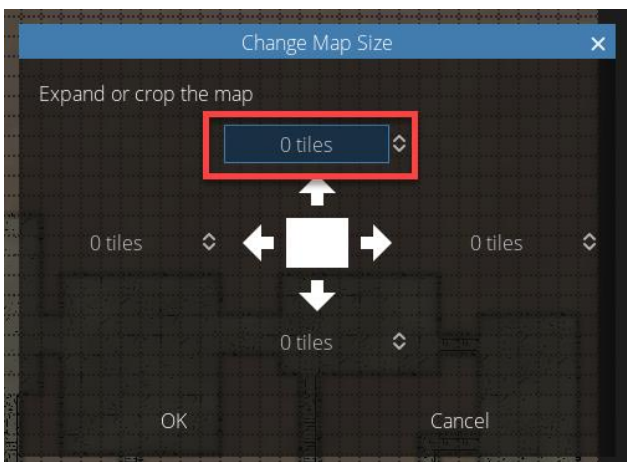


Now, I've decided that I don't want that extra space on the left, so I want to remove it. I want the left edge of the dungeon to only be one square from the left edge of the map instead of 3.

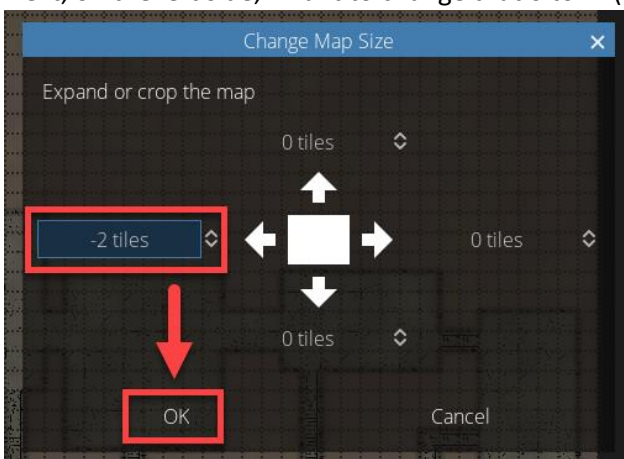
1. Again, I click "Menu", then "Change Map Size".
2. The first thing to notice is that it remembers and keeps the last change I made, which was to add 15 tiles to the top.



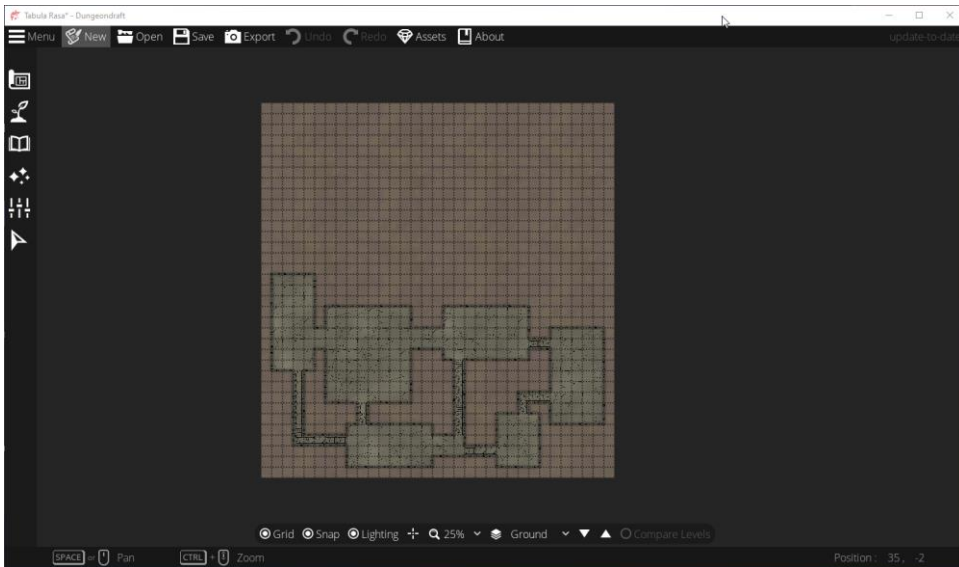
3. Before I do anything else, I want to zero out that top, because I don't want to add another 15 tiles.



4. Next, on the left side, I want to change that 0 to -2 (minus two), then click "OK".



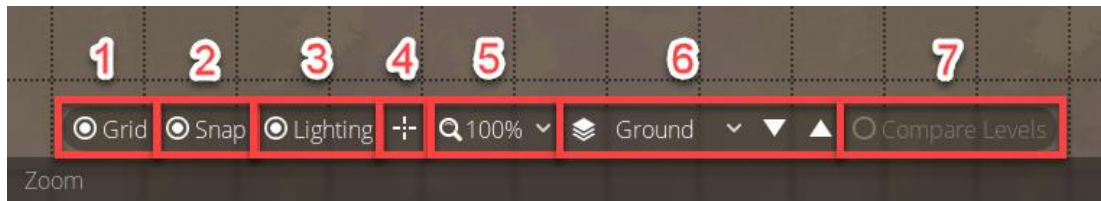
5. Now I have a map that's 33 tiles wide by 35 tiles high.



### Note:

Just keep in mind that whenever you change your map size, it will remember your last changes, so make sure everything is zeroed out before you make the changes you want.

## The Bottom Tool Tray



1. Toggles the grid lines on and off.
2. Toggles the snap-to-grid feature.
3. Toggles lighting effects on and off.
4. Toggles on and off a cross-hair to indicate the current cursor location.
5. Sets the zoom level.
6. Selects the current map level to edit.
7. When you have a map with multiple levels, “Compare Levels” will allow you to view any two levels at the same time, specifying the opacity for each.

## The Bottom Shortcut Bar

The very bottom of the window displays information for available mouse and keyboard shortcuts. This information changes, to show you the appropriate shortcuts for the tool you’re using.

With no tools selected, it shows you the mouse/keyboard shortcuts for to pan and zoom. Also, on the far right, it shows your current cursor position in reference to the grid.



With the object tool selected, it shows you the mouse/keyboard shortcuts to rotate objects, scale the size of objects, cycle through objects, mirror objects, turn objects by 90 degrees and rotate objects slowly for more precision.



Whichever tool you're using at any given time, you can use this bottom bar as a quick reference.

## The Left Tool Tray

Whether you started with the Map Wizard or created a blank map, you will end up in the same map editor with all the same tools, options and features. The left tool tray doesn't look like much at first glance, but as you dig into it, it's feature-rich.



### Design

1. Draw/edit floorplans for buildings.
2. Draw/edit walls.
3. Place portals (windows and doors).
4. Draw/edit caves.
5. Draw/edit patterns.

### Terrain

1. Draw/edit different terrain types (dirt, sand, grass, snow, etc).
2. Draw/edit water.
3. Draw/edit materials (acid, cobblestone, lava, ice, etc).
4. Draw/edit different types of paths (fences, rails, bridges, etc).

### Objects

1. Select and place objects.
2. Allows scaling, rotation, layering and scattering.
3. Allows color selection for objects that are tagged as colorable.

### Effects

1. Set the color and intensity of ambient lighting.
2. Set individual light sources, configuring for color, range, and intensity.

### Settings

1. Configure map settings (grid color and camera filter).

2. Create/delete levels.

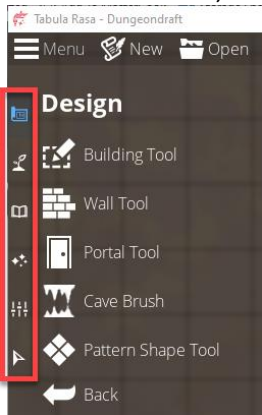
Select

1. Move objects to a different location.
2. Move objects to a different layer.
3. Modify objects (color, rotation, scale).
4. Copy and paste objects.
5. Delete objects.
6. Delete walls drawn with the Wall tool (not the Floor tool).
7. Copy and paste paths.
8. Delete paths.

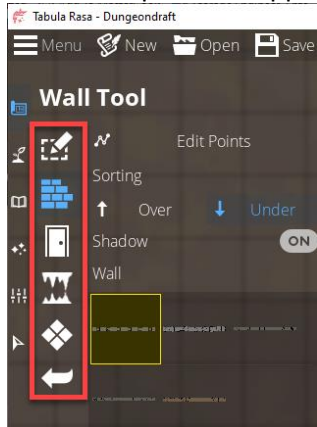
### Note:

When you select any of the main options in the left tool tray, the menu will transform. The icons for the main options will shrink down, and the submenu for the option you clicked will become prominent. You can still click any of the mini-icons to access any main option.

For instance, if we select the Design Tool, we see the submenu for the Design Tool, and all the main icons shrink down, but are each still clickable.



Likewise, if you click on any of the submenu options, like the Wall Tool, the text labels for the other submenu options disappear, but the icons are still there, and they're each still clickable.

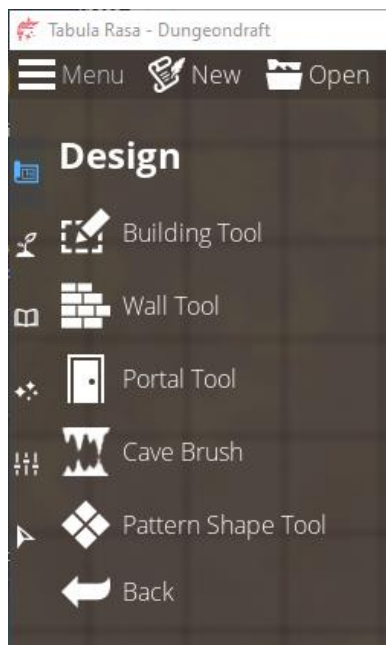


Keep this in mind as you navigate through the menus.

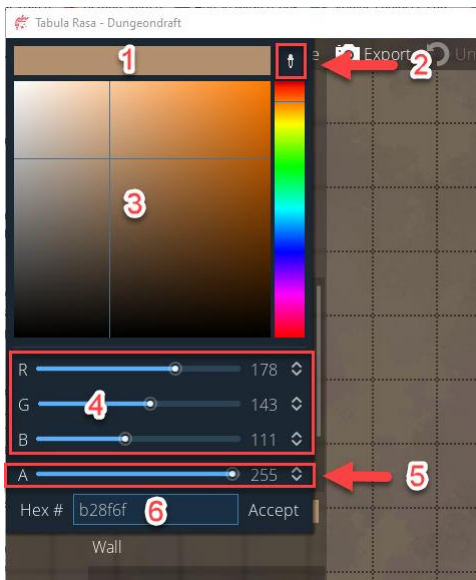
## Design Tools



This will show us the options available under the Design tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.



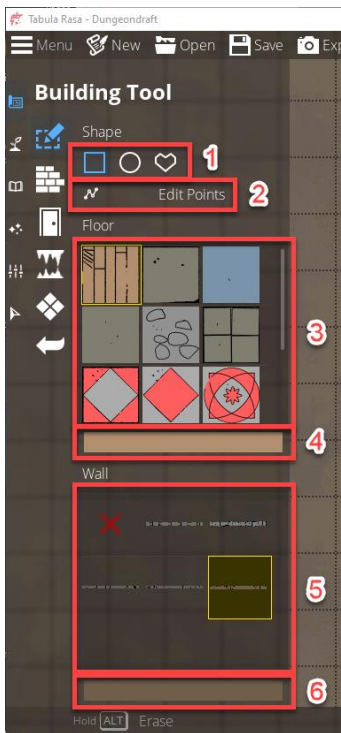
Various design tools allow color selection, so this would be a good time to point out a couple of useful things about the custom color dialog.



1. This shows the current color to be used when you click “Accept”.
2. This allows you to pick a color from another floor, wall or object that’s already on the map. Click the little eyedropper icon, then click on the color you want to use. You will see the top color bar change to indicate the new color.
3. You can pick your color by eye. You can slide or click up and down the vertical spectrum bar on the right, then you slide or click to move the crosshairs in the larger box on the left.
4. You directly select the RGB levels (red, green, blue) by using the sliders or by directly editing the numbers.
5. The slider for A controls the alpha, or the transparency. If you want your floor, wall or object to be semi-transparent, turn down the alpha a bit. If you want full transparency, turn it down all the way.
6. This is the hex code for the current color. If you want to use this color from another map or from another level of the same map, you won’t be able to use the eyedropper to pick that color. Instead, you can copy and paste the hex code.

## Building Tool (formerly known as Floor Shape Tool)

There are several options here.

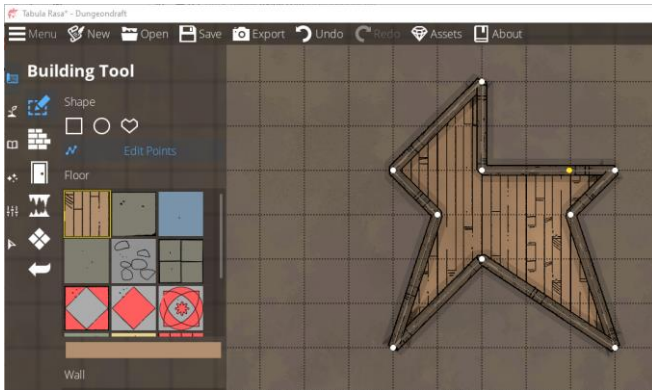


1. “Shape” lets you elect the shape you’d like to draw.
  - a. The square shape will draw a square or rectangle, obviously. Click and hold the left mouse button to set the first point of the shape, then move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - b. The circle will draw a circle or oval. It works the same as the square. Click and hold the left mouse button to set the first point. Move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - c. The heart shape will let you draw your own shape. Each left click will set a point until you close the shape. When you close the shape, it will fill in the flooring.
  - d. When drawing a polygon, you can draw curves by holding the SHIFT key between the two points where you want the curve to start and end. When you release the SHIFT key, you can set the arc for the curve. Left-click to finalize the curve.
  - e. Holding the ALT key when using any of the shape tools will allow you to erase your selections.
2. “Edit Points” toggles on and off. When you click it, it remains on until you click it again to turn it off. When you click it and mouse over a shape, you’ll notice that there’s a white line and some white dots outlining the shape. Depending on the nature of the shape, some will have more white dots than others.





The number of dots doesn't mean much, because anywhere you click will place a dot if there isn't one there, and you can click and drag to bend the shape.



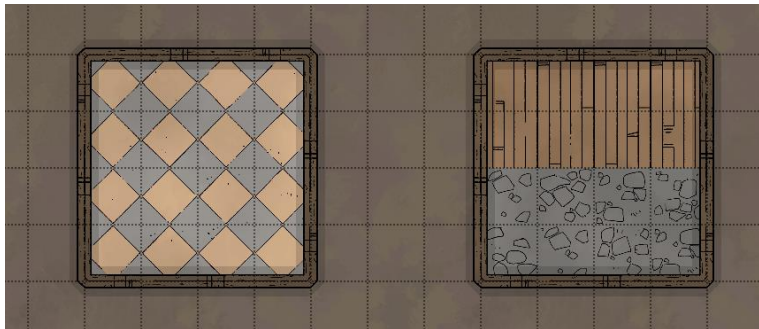
3. Select the type of floor tiling you want (Smart Wood, Smart Stone, Carpet, Cave Floor, Cobble, Concrete, Diamond Custom, Diamond Custom 2, Ornat, Sewers, Straw and Wood Interlaced).
4. Clicking the color bar will open a dialog that lets you select a custom color for the type of flooring you selected.
5. Select the type of wall you want. Selecting the red X will allow you to draw floors with no walls. The other options are Battlements, Cobble, Concrete, Stone and Wood.
6. Clicking the color bar will open a dialog that lets you select a custom color for the type of wall you selected.

You can erase flooring by drawing over it while holding the ALT key. This works with all three shape options.

1. When using the square or circle tool, you only have to hold ALT before releasing the mouse button.
2. When using the polygon shape, you only have to hold the ALT key before placing the last point to complete the shape.

### Notes:

As indicated below, you can have different types of flooring on the same map, even in the same room.



If you draw a connecting room or hallway between two separate rooms, the walls will automatically open to merge the rooms.



Let's say you draw a room with a different type of wall.



If you try to merge those rooms, it will change all the walls to make them the same.



Also, understand that when you draw walls with your floors, the walls will always be a closed shape. You can put in small gaps (one square wide) using the Portal Tool.

If you want to use different types of walls on your map, or if you want gaps wider than one square, you should start by drawing your floors with no walls (using the red X as your wall selection).



Then use the Wall Tool to draw your walls as you want them.

## Wall Tool

With the Wall Tool, you can draw custom walls independent of floors.

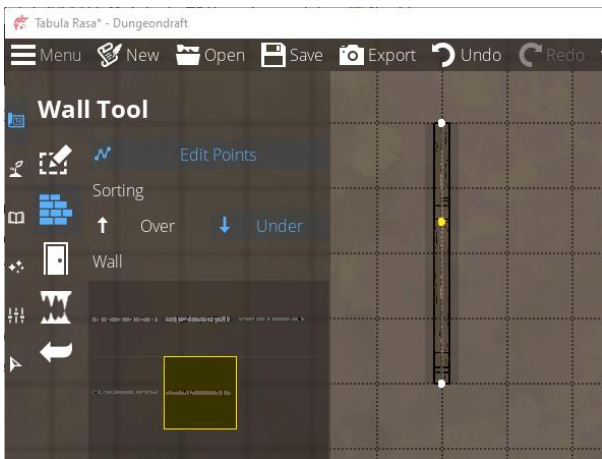
1. Each left click will set a point. Right-clicking will complete the walls you've drawn so far.
2. Unlike with the Floor Tool, it is not necessary to complete an enclosed shape.
3. Unlike with the Floor Tool, you can mix and match walls.
4. You can draw curves by holding the SHIFT key between the two points where you want the curve to start and end. When you release the SHIFT key, you can set the arc for the curve. Left-click to finalize the curve (or right-click if you're done drawing walls).



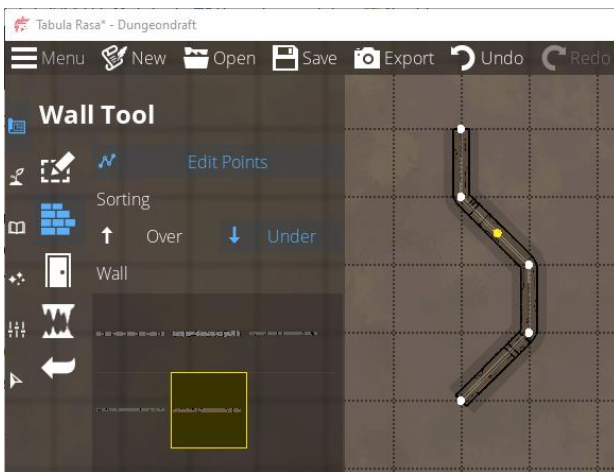
As with the Building Tool, various options are available.



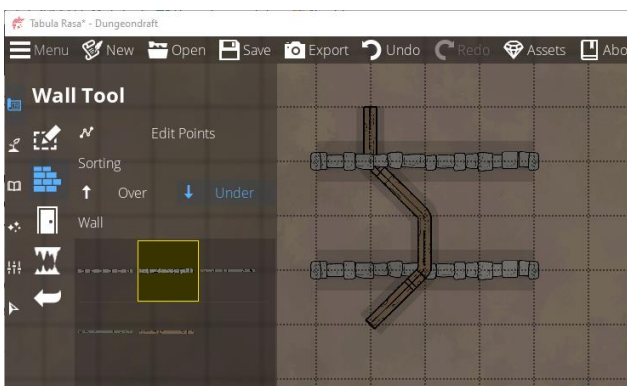
1. “Edit Points” toggles on and off. When you click it, it remains on until you click it again to turn it off. When you click it, and mouse over a wall that was drawn with the Wall Tool (not the Floor Tool), you’ll notice that there’s a white line and some white dots running through the center of the wall.



The number of dots doesn't mean much, because anywhere you click will place a dot if there isn't one there, and you can click and drag to bend the shape.



2. When you draw a new wall to intersect with an existing wall, you can select whether the new wall appears over or under the existing wall.



3. Toggle whether or not you want the next wall you draw to have a shadow.





4. Select the style of wall you wish to draw (Battlements, Cobble, Concrete, Stone or Wood).
5. Clicking the color bar will open a dialog that lets you select a custom color for the type of wall you selected.

**Notes:**

If you want to draw a larger building with smaller rooms inside, one way to do that is to use the Building Tool to draw the larger perimeter of the building, then use the Wall Tool to create the rooms inside.

### Portal Tool

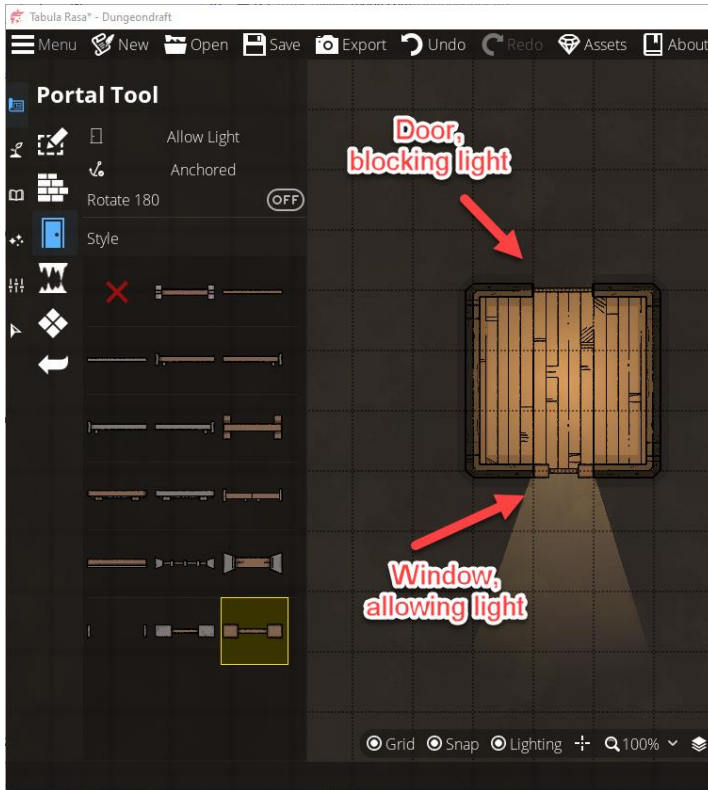
Use the Portal Tool to place doors and windows.



As with the Building Tool and Wall Tool, there are various options.

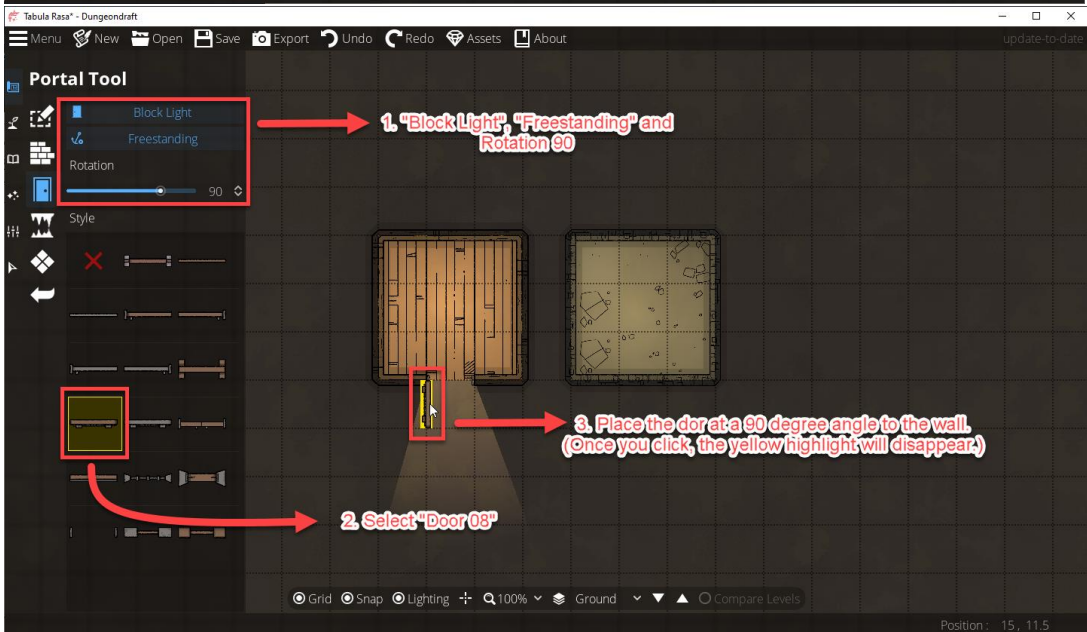
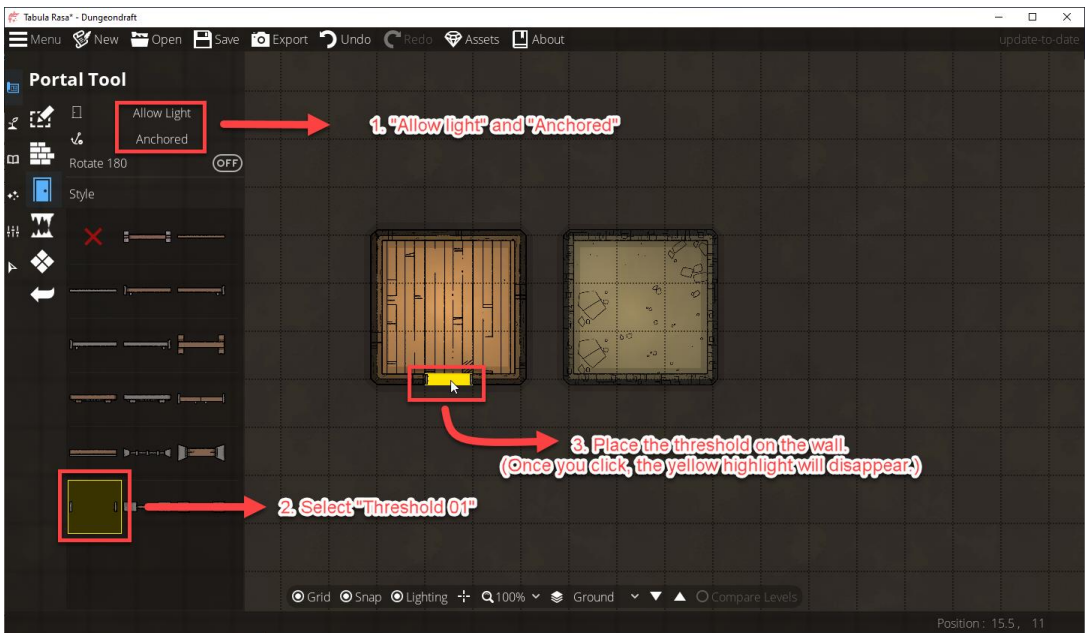
1. **Block Light/Allow Light:** Generally speaking, when placing a closed door, you should set this to block light. When placing a window, and open door or anything else that would be expected to let light pass through, you should set this to allow light.

In the following example, I turned down the ambient lighting and put a light source inside the room. Those items are covered later in this document, but right now, I just wanted to illustrate the difference.

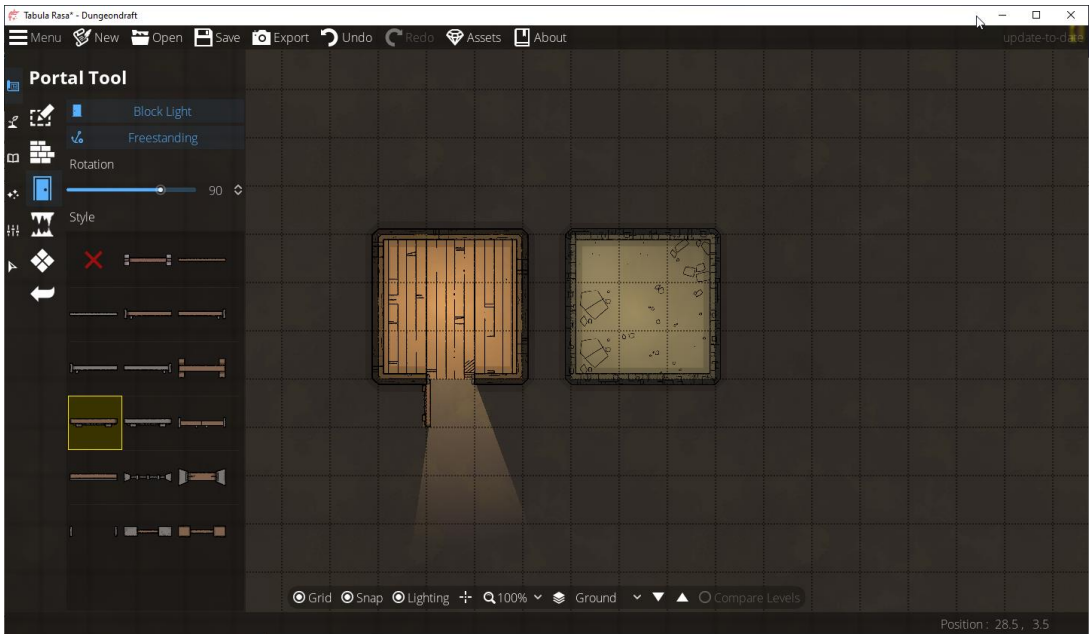


2. **Anchored/Freestanding:** When a portal is anchored, it automatically interacts with the wall where it's being placed. It's automatically aligned with the wall, it automatically covers the wall, and it seamlessly connects to the wall on both sides.

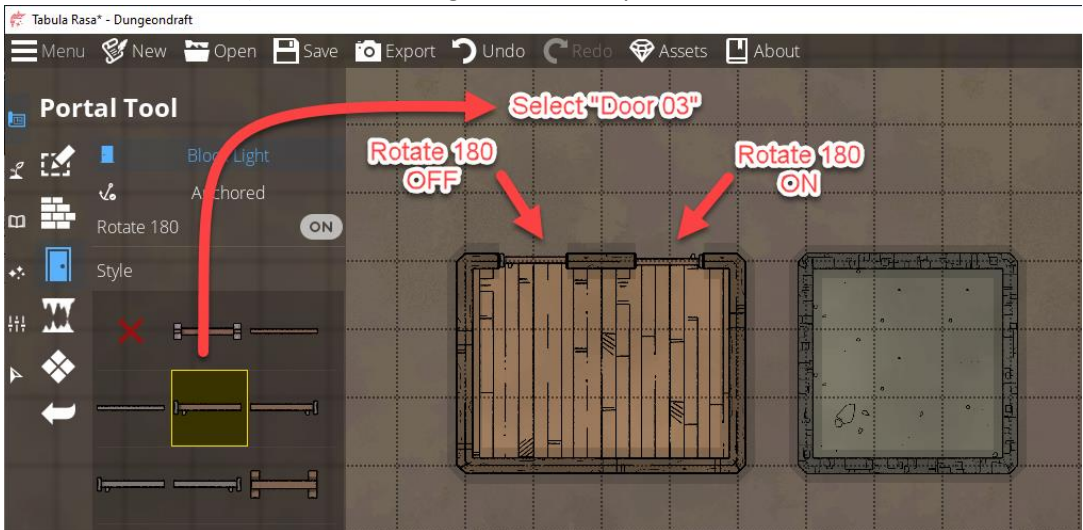
When a portal is freestanding, you have to manually place it, and you have to make your own opening in the wall, otherwise the wall will cover the portal. One reason to use a freestanding portal would be if you want a door that's open rather than closed. One way to open the wall for a freestanding door would be to place an anchored threshold before placing the freestanding door.







3. **Rotate 180:** Flip the orientation of a portal (for example, putting a door handle on the outside instead of the inside) while still having an anchored portal.



4. **Style:** Choose between different portals. The red X is just a blank. It opens a gap in the wall the width or height of one square. Then you have “Door 01” through “Door 13”. Then you have “Threshold 01”, “Window 01” and “Window 02”.

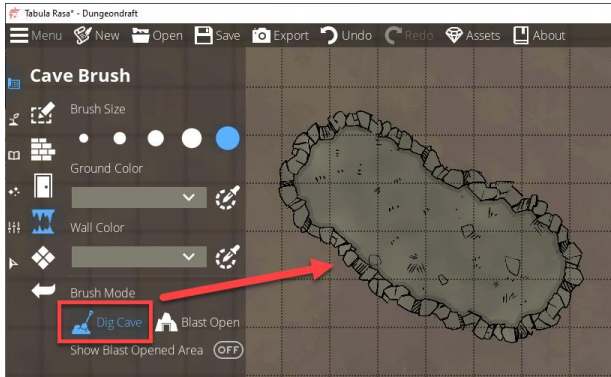
“Threshold 01” also opens a gap in the wall. The difference between the threshold and the red X is that the threshold puts a door jamb on each side.

## Cave Brush

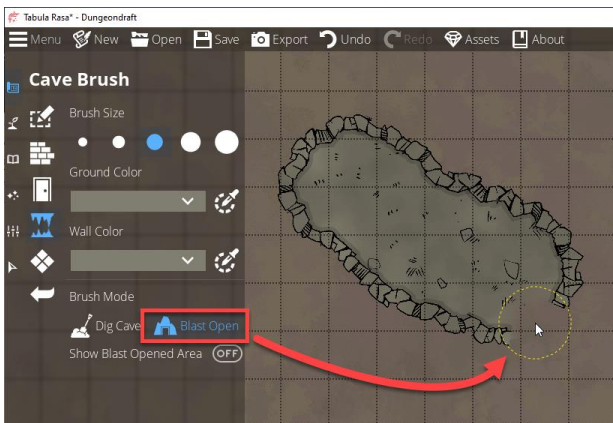
The cave brush lets you draw caves, and it’s very easy to use.



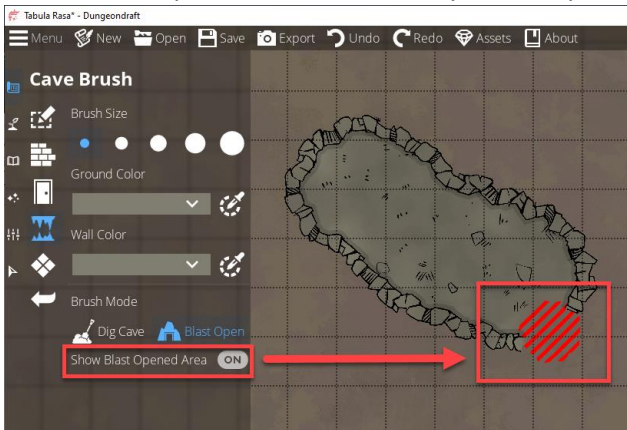
1. **Brush Size:** Drawing caves is as easy as selecting your brush size and drawing with your mouse. If you want to erase part of a cave, select your brush size, and hold ALT while drawing.
2. You can select the color for your cave floor. This will be uniform for the whole cave. You cannot have different color cave floors on the same map.
3. You can select the color for your cave wall. As with the floor color, this will be uniform for the whole cave.
4. You can toggle “Dig Cave” and “Blast Open”
  - a. “Dig Cave” will draw a cave floor with walls.



- b. “Blast Open” will allow you to draw openings in the cave walls.



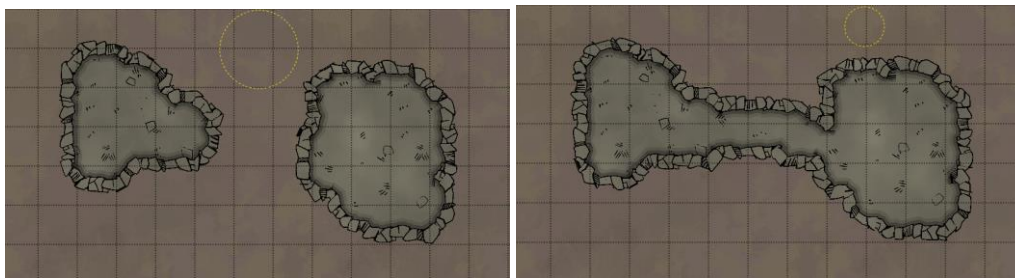
5. "Show Blast Opened Area" will show you what you've drawn with the "Blast Open" option.



If you want to restore all or part of what you've blasted open, make sure the "Blast Open" option is selected, make sure "Show Blast Opened Area" is turned on, then draw over the blast area while holding the ALT key. This will erase the blasted area.

**Notes:**

If you have two, separate sections of a cave, drawing a connection between them will automatically open the walls to merge them.

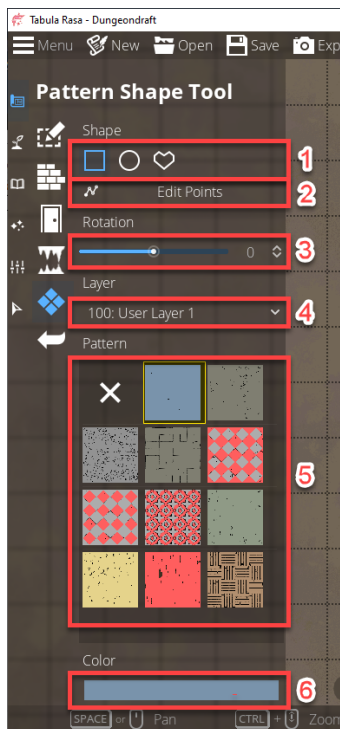


**Pattern Shape Tool**

The Pattern Shape Tool is similar to the Building Tool, but with some important differences.

- The Pattern Shape Tool does not include any options for walls, though you can add them separately with the Wall Tool.

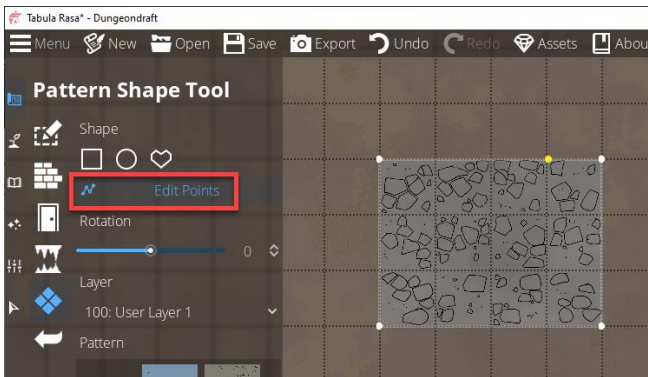
- The Pattern Shape Tool allows you to draw on different layers. With the Building Tool, floor tiles will always be drawn on the Floor layer.
- The Pattern Shape Tool allows you to set a rotation for the pattern.
- Patterns can overlap. With the Building Tool, if you draw a circle with one style of tile over another style of tile, you might not get the results you expect, because each floor tile wants to take up a full grid square. With the Pattern Shape Tool, the different patterns aren't fighting for grid squares, so if you overlay a circle of one pattern over a square of another, you'll always get the results you expect.
- A pattern drawn with the Pattern Shape Tool is treated as an object, and it can be moved on the grid, moved to a different layer, rotated, recolored, copied and pasted.
- All that being said, Megasplot's advice is: "I would stick to the Floor tool unless you need something specific that the building/floor tool cannot do."



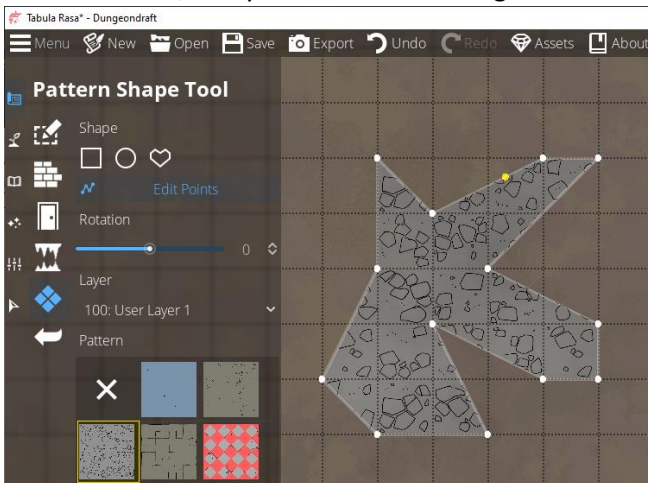
There are several options here.

1. "Shape" lets you elect the shape you'd like to draw.
  - a. The square shape will draw a square or rectangle, obviously. Click and hold the left mouse button to set the first point of the shape, then move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - b. The circle will draw a circle or oval. It works the same as the square. Click and hold the left mouse button to set the first point. Move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - c. The heart shape will let you draw your own shape. Each left click will set a point until you close the shape. When you close the shape, it will fill in the flooring.

- d. When drawing a polygon, you can draw curves by holding the SHIFT key between the two points where you want the curve to start and end. When you release the SHIFT key, you can set the arc for the curve. Left-click to finalize the curve.
  - e. Holding the ALT key when using any of the shape tools will allow you to erase your selections.
2. “Edit Points” toggles on and off. When you click it, it remains on until you click it again to turn it off. When you click it and mouse over a shape, you’ll notice that there’s a white line and some white dots outlining the shape. Depending on the nature of the shape, some will have more white dots than others.



The number of dots doesn’t mean much, because anywhere you click will place a dot if there isn’t one there, and you can click and drag to bend the shape.



3. “Rotation” lets you set a rotation for the pattern in reference to the square grid.
4. “Layer” lets you select a layer for the pattern. Anything drawn or placed on a numerically higher layer will appear above anything drawn or placed on a numerically lower layer. The levels should be self-explanatory. Anything in grey is not selectable.
  - a. -500: Terrain
  - b. -400: Below Ground (the default layer for materials)
  - c. -300: Caves
  - d. -200: Floor
  - e. -100: Below Water
  - f. 000: Water
  - g. 100: User Layer 1 (the default layer for objects)

- h. 200: User Layer 2
  - i. 300: User Layer 3
  - j. 400: User Layer 4
  - k. 500: Walls
  - l. 700: Above Walls
5. "Pattern" lets you select the pattern you'd like to draw with. (Tileset Carpet, Tileset Cave, Tileset Cobble, Tileset Concrete, Tileset Diamond, Tileset Diamond 2, Tileset Ornate, Tileset Sewers, Tileset Straw, Tileset Wood Damaged and Tileset Wood Interlaced).
  6. Clicking the color bar will open a dialog that lets you select a custom color for the pattern you selected.

## Terrain Tools

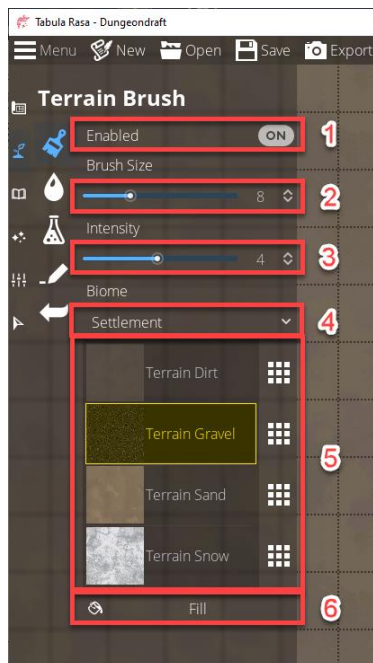


This will show us the options available under the Terrain tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.

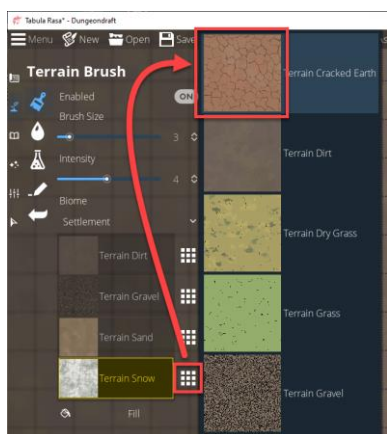




# Terrain Brush



1. The default terrain for a new map is “Terrain Dirt”. You can draw other types of terrain such as gravel, sand, snow, grass and others. If you turn off the Terrain Brush, the default terrain and any other terrain you’ve drawn will disappear and become transparent. This does not reset the terrain. If you turn it back on, any terrain you’ve drawn will reappear as you drew it.
2. Select the brush size when drawing new terrain.
3. Select the intensity when drawing new terrain. Terrain is not drawn as solid. It’s drawn with a blend to make it look more natural and organic. The intensity adjusts how solid you want the brush to be.
4. “Biome” gives you a quick way to select presets which determine your 4 active terrain types. While you can select from multiple types of terrain, you can only have 4 types active for any given map. (If you have multiple levels in your map, each level can have its own set.)
5. If you don’t like the presets, you can manually select each terrain type yourself.

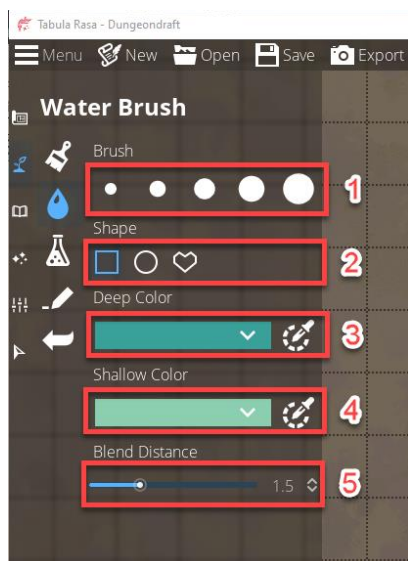




Changing any terrain will automatically change any drawn terrain. For example, if you've drawn "Terrain Snow" on your map, then change "Terrain Snow" to "Terrain Grass", any snow you've drawn will change to grass.

6. "Fill" will change all the terrain on the map to the terrain you've selected. If you select "Terrain Gravel", then click "Fill", it will change the default terrain on the map to "Terrain Gravel", and it will override any other terrain you've drawn with "Terrain Gravel".

## Water Brush



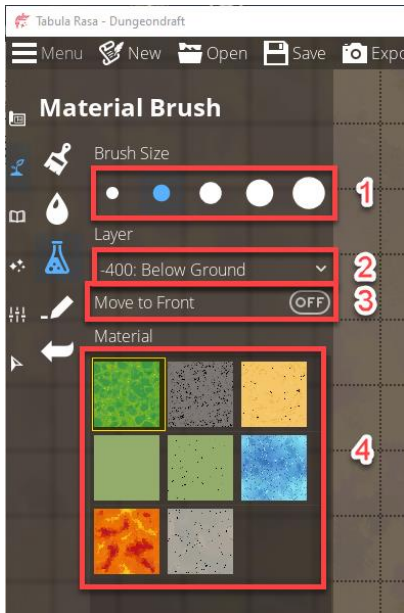
1. Set the brush size for drawing water.
2. Select the water shape you want to draw.
  - a. The square shape will draw a square or rectangle, obviously. Click and hold the left mouse button to set the first point of the shape, then move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - b. and the circle will draw a circle or oval. It works the same as the square. Click and hold the left mouse button to set the first point. Move the mouse to set the width and height. Release the left mouse button to complete the shape.
  - c. The heart shape will let you draw your own shape. Each left click will set a point until you close the shape. When you close the shape, it will fill in the flooring.
  - d. When drawing a polygon, you can draw curves by holding the SHIFT key between the two points where you want the curve to start and end. When you release the SHIFT key, you can set the arc for the curve. Left-click to finalize the curve.
  - e. Holding the ALT key when using any of the shape tools will allow you to erase your selections.

Note that if you want to draw a large body of water, it's better to use the shape tool instead of the brush. After you draw a large square or a large circle, you can still use the brush to finish off the shoreline.

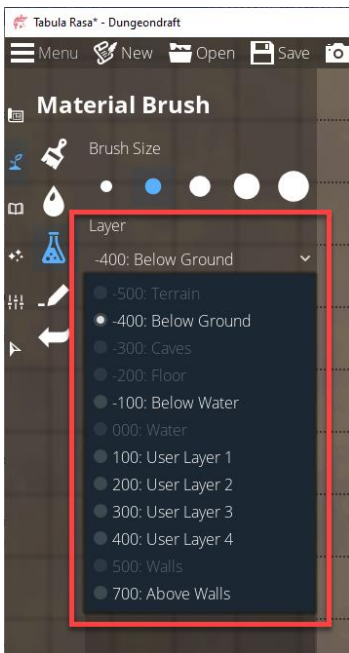
The water brush is resource intensive, and still a little buggy. If you use the brush to manually draw a large body of water, it may take a bit of time to render, or the program may crash.

3. Clicking the “Deep Color” color bar will open a dialog that lets you select a custom color for the center, deeper water of the body of water.
4. Clicking the “Shallow Color” color bar will open a dialog that lets you select a custom color for the more shallow water, closer to shore.
5. “Blend Distance” will allow you to change the distance for the transition from the shallow color to the deep color.

## Material Brush

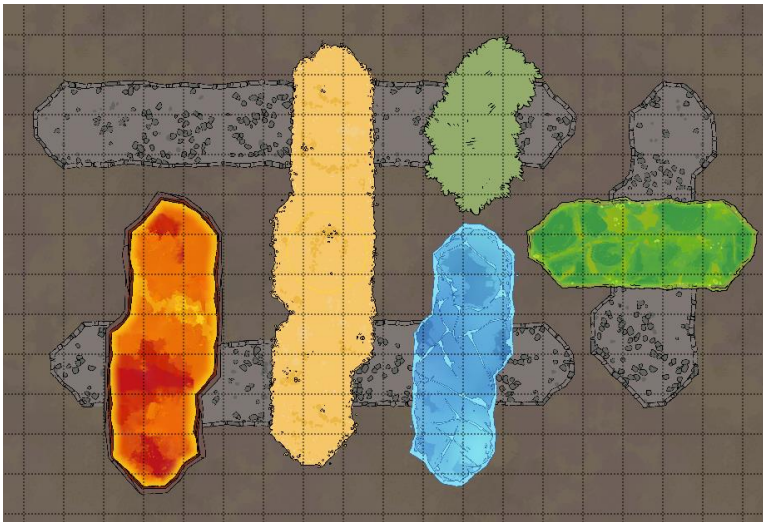


1. Select the brush size for the material you want to draw.
2. Select the layer where you want to draw the material. Anything drawn or placed on a numerically higher layer will appear above anything drawn or placed on a numerically lower layer. The levels should be self-explanatory. Anything in grey is not selectable.
  - a. -500: Terrain
  - b. -400: Below Ground (the default layer for materials)
  - c. -300: Caves
  - d. -200: Floor
  - e. -100: Below Water
  - f. 000: Water
  - g. 100: User Layer 1 (the default layer for objects)
  - h. 200: User Layer 2
  - i. 300: User Layer 3
  - j. 400: User Layer 4
  - k. 500: Walls
  - l. 700: Above Walls

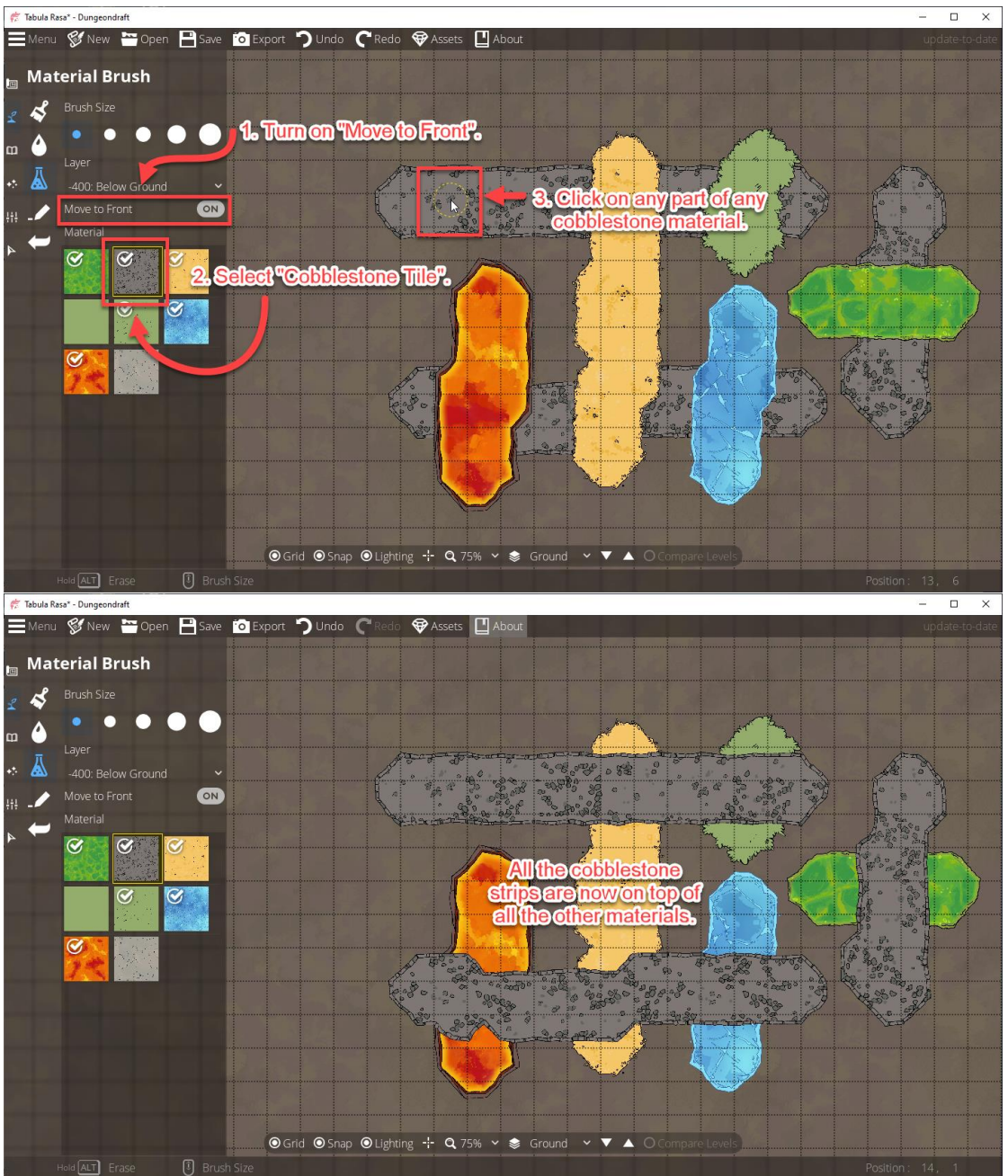


3. “Move to Front” only applies to different material types that exist on the same layer. By default, any new material you draw is drawn over existing material.

In the following example, I’ve drawn three strips of “Cobblestone Tile”, and over those, I’ve drawn various strips of other types of material. They’re all on the same layer (-400: Below Ground), but since I drew the cobblestone material first, the other materials have covered the cobblestone.



When I turn on “Move to Front”, select the cobblestone material, and click on any part of any of the cobblestone strips, all the cobblestone material will be moved over all the other materials.



4. Select the type of material you wish to or erase. Holding ALT will erase instead of drawing, but it will only erase the selected material. If you've drawn both ice and lava, and you have "Ice Tile" selected, holding the ALT key will only delete ice. If you want to erase multiple materials, you will have to select each material in turn.

## Path Tool

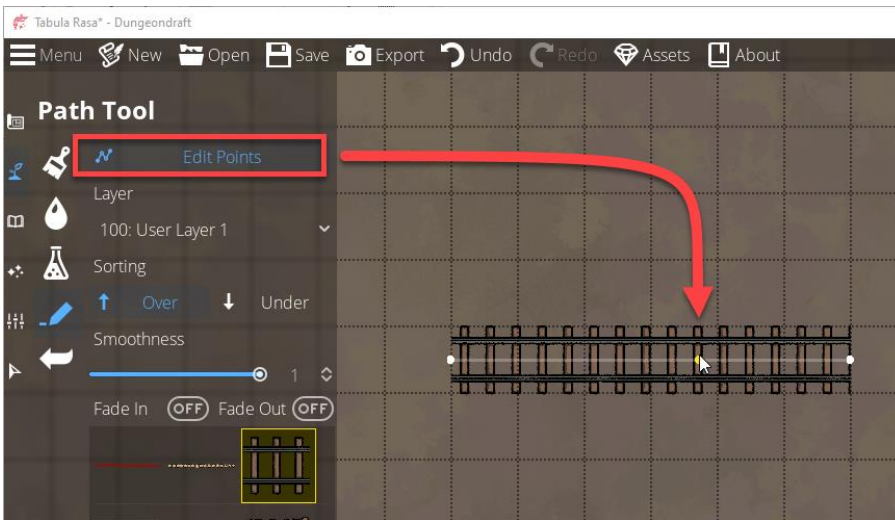
The path tool will draw paths, like rail tracks, fences or blood trails.

1. Each left click will set a point. Right-clicking will complete the path you've drawn so far.

2. You can draw curves by holding the SHIFT key between the two points where you want the curve to start and end. When you release the SHIFT key, you can set the arc for the curve. Left-click to finalize the curve (or right-click if you're done drawing your path).

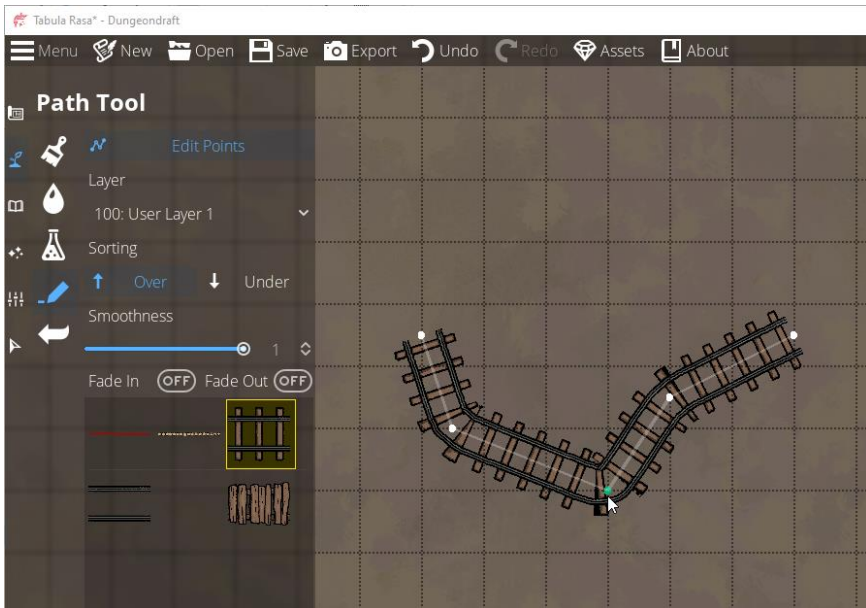


1. "Edit Points" toggles on and off. When you click it, it remains on until you click it again to turn it off. When you click it, and mouse over a path you've already drawn, you'll notice that there's a white line and some white dots running through the center of the path. Depending on the nature of the path, some will have more white dots than others.

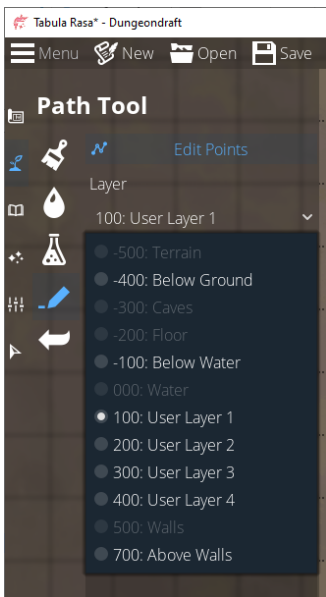


The number of dots doesn't mean much, because anywhere you click will place a dot if there isn't one there, and you can click and drag to bend the shape.

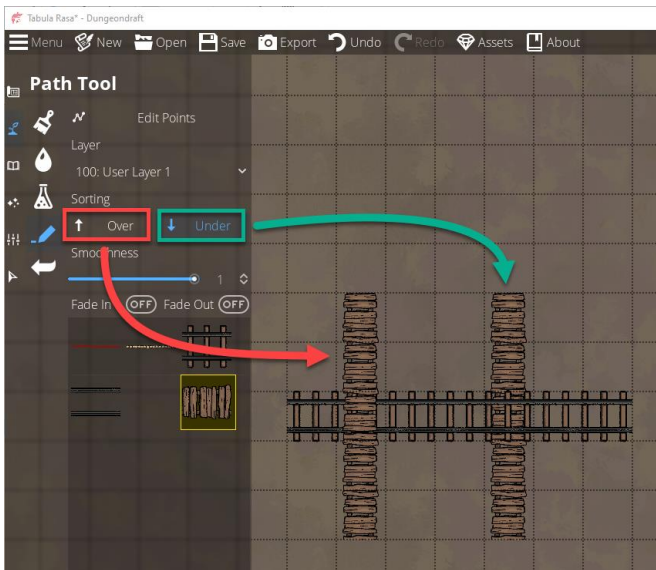




2. Select the layer where you want to draw the material. Anything drawn or placed on a numerically higher layer will appear above anything drawn or placed on a numerically lower layer. The levels should be self-explanatory. Anything in grey is not selectable.
- a. -500: Terrain
  - b. -400: Below Ground (the default layer for materials)
  - c. -300: Caves
  - d. -200: Floor
  - e. -100: Below Water
  - f. 000: Water
  - g. 100: User Layer 1 (the default layer for paths and objects)
  - h. 200: User Layer 2
  - i. 300: User Layer 3
  - j. 400: User Layer 4
  - k. 500: Walls
  - l. 700: Above Walls



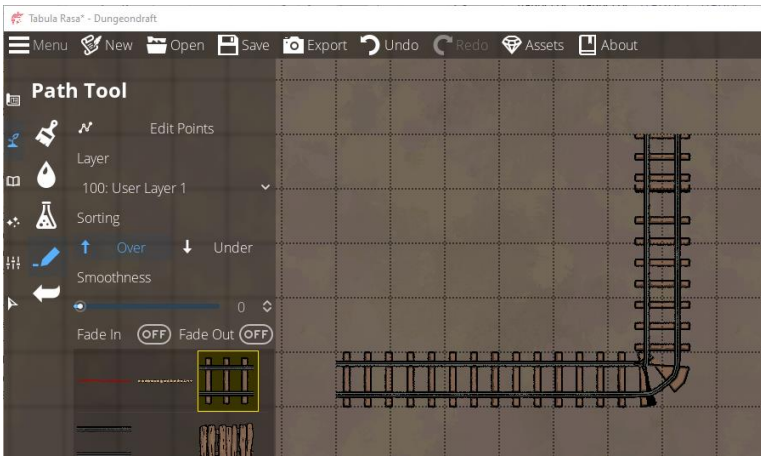
3. Select whether you want to draw a new path over or under an existing path. In the following example, I drew a set of rail tracks first, then I drew two bridge paths across the tracks, one over the rail tracks and one under the rail tracks.



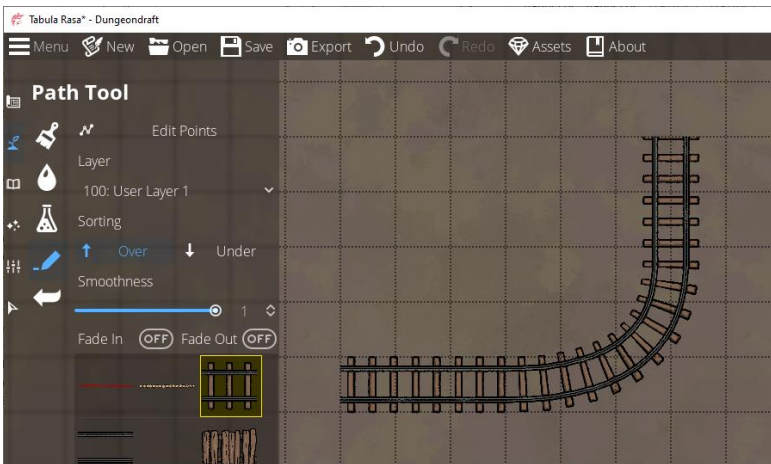
4. Smoothness affects the sharpness of turns in the path. By turns, I don't mean curves. When you draw curve by using SHIFT, you set your own sharpness for that curve. If, for example, you draw a set of rail tracks six squares across from left to right, left-click to set that path, then continue drawing four squares up, that would create a turn in the path.

With the Smoothness set to 0, this is what that turn would look like:





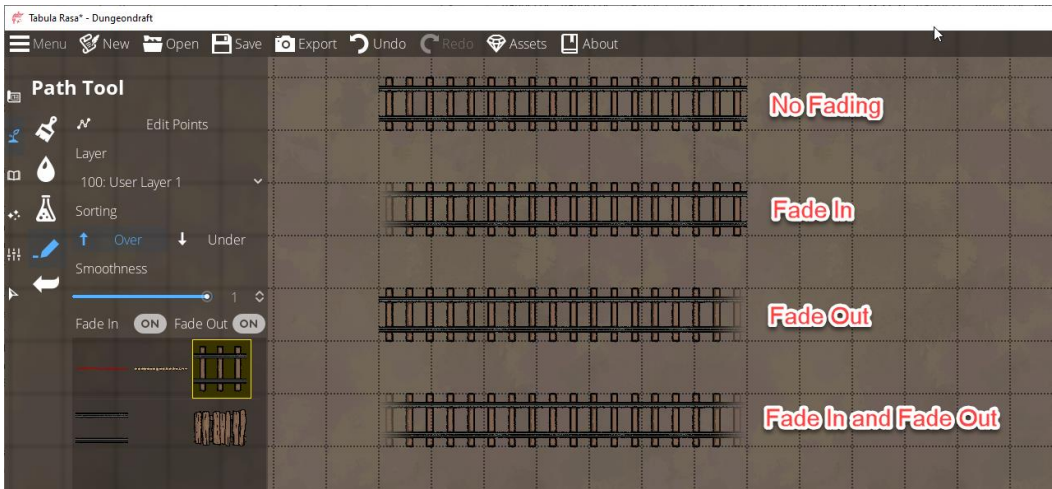
With the Smoothness set to 1 (the highest value), this is what that same turn would look like:



If you were drawing a fence, you might want that sharp turn you get with a value of 0. For a set of tracks, you probably want the smoother curve you get with a value of 1.

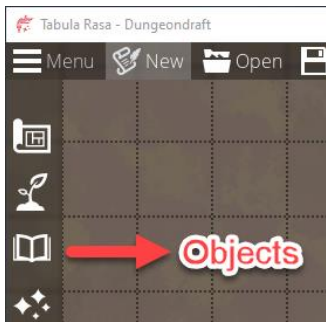
5. Fade In/Fade Out puts a slight fade on the end of the path. Normally, when you're drawing a path, you can end it with a right-click. In order for fading to work properly, you need to left-click first, even if you're at the end of the path you're drawing, then right-click.

The following examples were drawn from left to right.

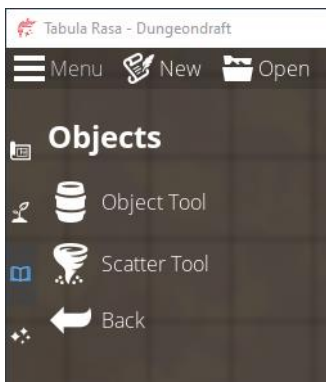


6. Select the type of path you wish to draw.

## Object Tools

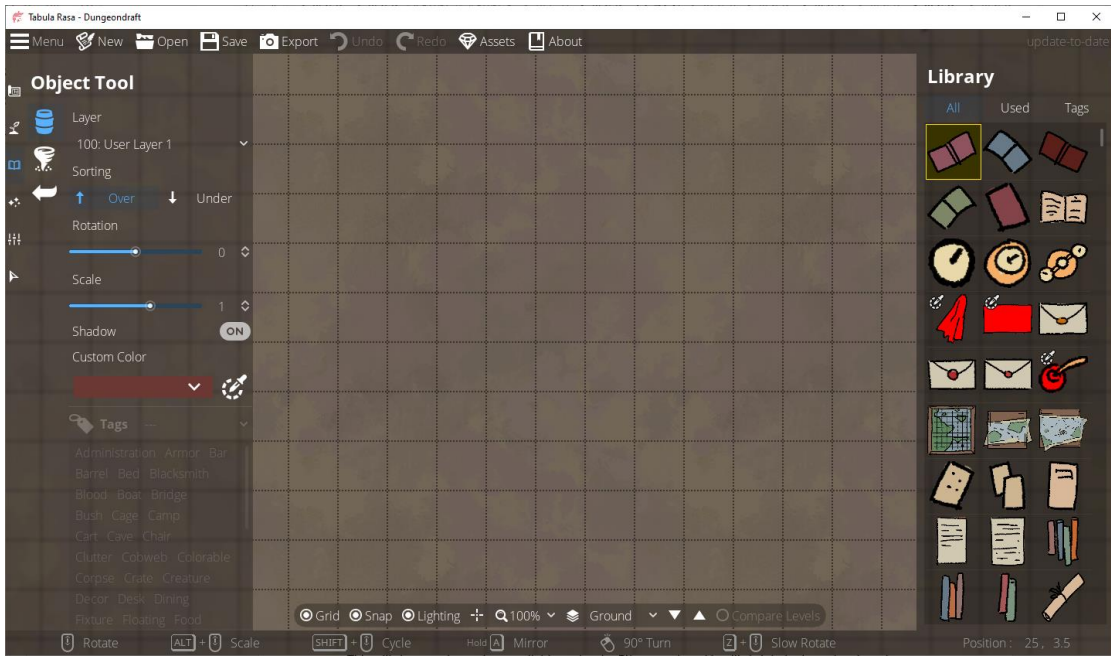


This will show us the options available under the Objects tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.



## Object Tool

The Object Tool, like other tools, gives you a list of options in the left tool tray, but it also gives you a library of objects on the right.



We're going to break down both sides of this. First the right side.



1. "All" is the default option here, and it will show you all the available objects in your library.
2. "Used" will show you only the objects you've used so far.

To use an object, simply left-click it to select it in the library, then click the location on the map where you want to place the object. You don't have to hold the mouse button to drag the object. Just click it once in the library to select it, then click once on the map to place it.

At the top of the library are several types of books. Let's select each book in turn and place it on the map.

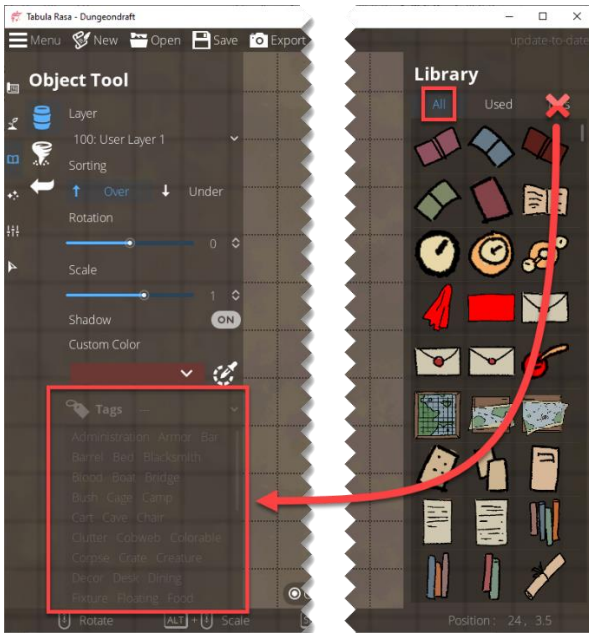


Now, if we click “Used”, the Library will only display the books we’ve used. Everything else will be filtered out.

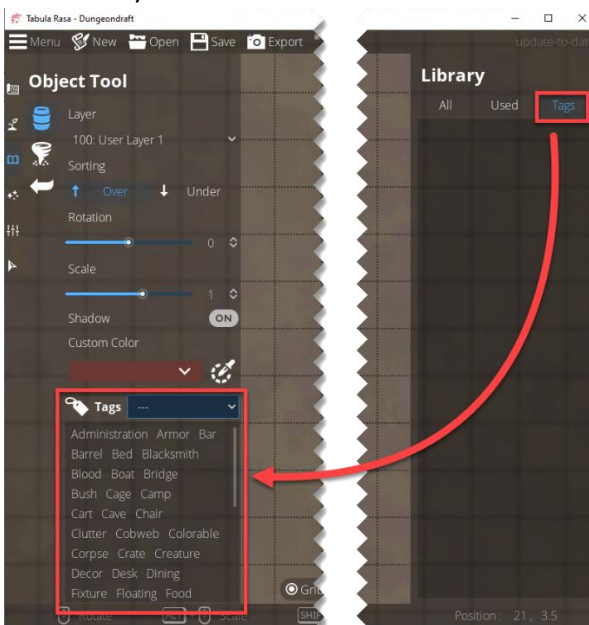


You can get everything back by clicking “All” again.

3. “Tags” will let you filter objects by their associated tags. Once you select “Tags”, you can use the tag filters on the left menu tray. First be aware that if you do not have “Tags” selected in the right tray, the “Tags” section in the left tray will be unusable.

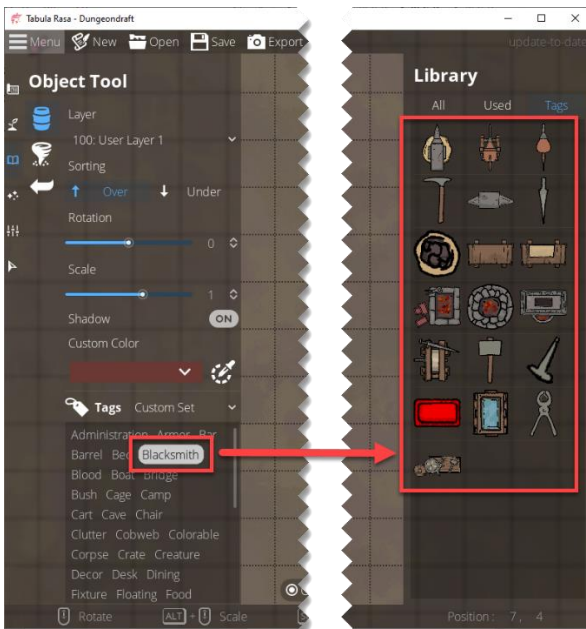


When you select “Tags” in the right tray, your Library goes empty, and the “Tags” selection in the left tray becomes usable.

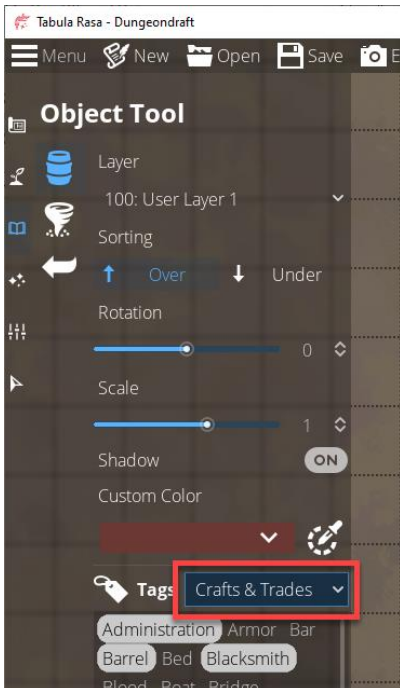


When you select what tags you want to filter for, your Library will display the associated objects. In the “Tags” section on the left, let’s click “Blacksmith”. Your Library will now display various objects that might be found in a blacksmith shop.

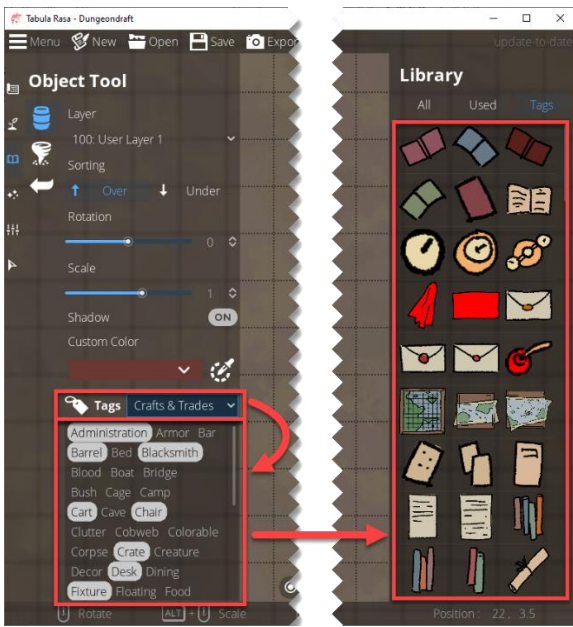




Alternatively, you can filter for a broader category by filtering for a tag set instead of a specific tag. Let's click the drop-down for "Tags" and select "Crafts and Trades".



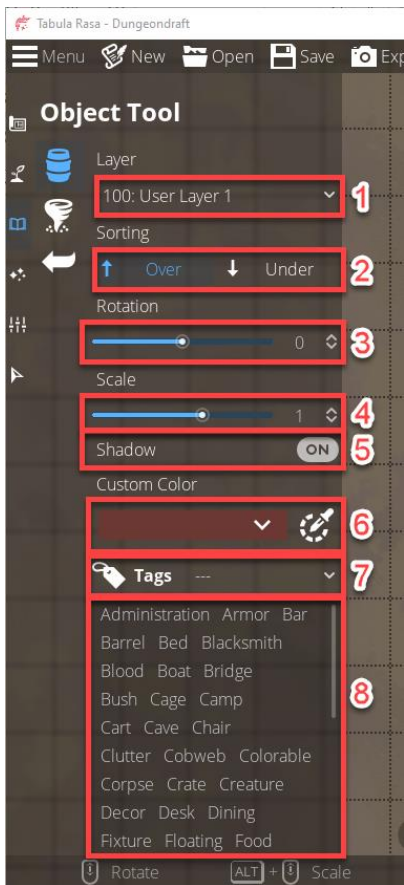
This will select various individual tags associated with "Crafts and Trades", and your Library will now display all the objects associated with all those tags.



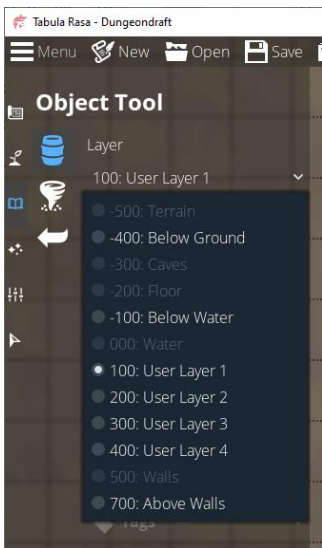
If you scroll down in the “Tags” list, you will see more associated tags, and if you scroll down in the Library, you will see more associated objects.

4. This is your object library where you can select which objects you would like to place on your map.

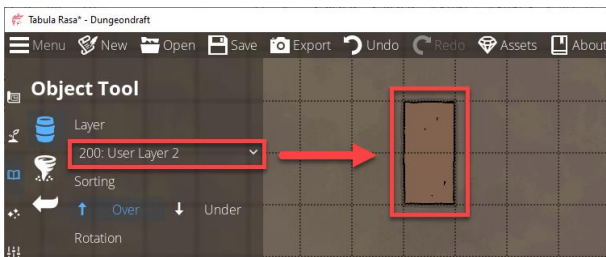
Now the left side.



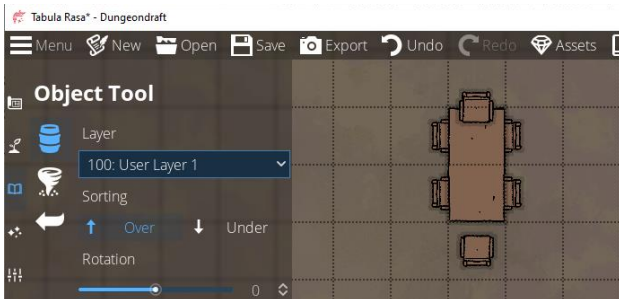
7. Select the layer where you want to place your object. Anything drawn or placed on a numerically higher layer will appear above anything drawn or placed on a numerically lower layer. The levels should be self-explanatory. Anything in grey is not selectable.
- m. -500: Terrain
  - n. -400: Below Ground (the default layer for materials)
  - o. -300: Caves
  - p. -200: Floor
  - q. -100: Below Water
  - r. 000: Water
  - s. 100: User Layer 1 (the default layer for objects)
  - t. 200: User Layer 2
  - u. 300: User Layer 3
  - v. 400: User Layer 4
  - w. 500: Walls
  - x. 700: Above Walls



For example, let's say you want a table with four chairs and a lantern. You can put the table on "200: User Layer 2".



Then you can place chairs around it on "100: User Layer 1" so the chairs are under the table. In the following example, just to contrast, I put the top chair on "200: User Layer 2", the same layer as the table, so you can see what you don't want it to look like. I left the bottom chair pushed out so you can see what the chair looks like on its own. Then I put the side chairs on "100: User Layer 1" so they appear the way you would usually want them, under the table and pushed in.



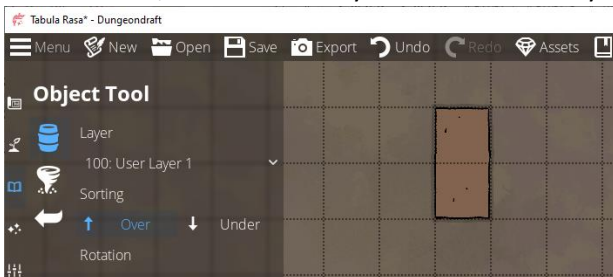
Finally, you can place the lantern on "300: User Layer 3".



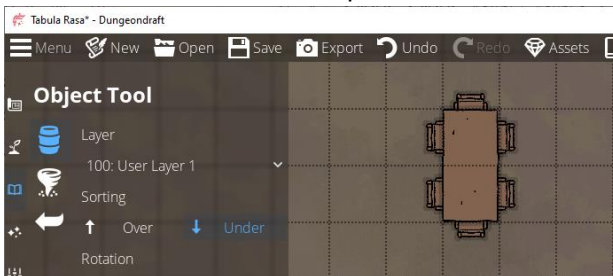
This is just a basic example of how to layer objects to introduce you to the principle. You can use layering to do much more creative things. You can get some great tips from people on the Discord server and in the subreddit, and you can find some great examples in the maps people have shared.

8. The Over/Under feature applies to placing objects on the same layer as other objects.
  - y. If you select “Over”, then next object you place will be placed over any existing objects on the same layer, as if you placed them on a higher layer.
  - z. If you select “Under”, the next object you place will be placed under any existing objects on the same layer, as if you placed them on a lower layer.

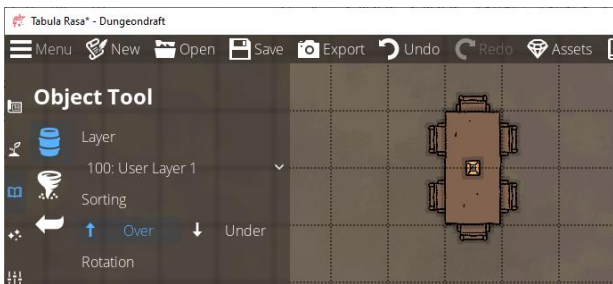
We can recreate the table, chairs and lantern on the same layer by using the Over/Under feature. First, we leave the layer at “100: User Layer 1”, then we place the table.



Then we select “Under” and place the chairs around the table.



Finally, we select “Over”, then place the lantern.



In this example, all the objects are on the same layer, but within that layer, we selected which objects appear over which other objects.

9. You can use the “Rotation” slide bar to rotate your selected object. Alternatively, you can use your mouse wheel to achieve the same effect. If you hold Z, you can get a slow rotation for more precision.
10. You can use the “Scale” slide bar to change the size of your selected object. Alternatively, you can hold ALT while using your mouse wheel to achieve the same effect.
11. You can choose whether or not you want the selected object to have a shadow. See the example below for the difference (I turned off the grid lines to make the difference more clear).

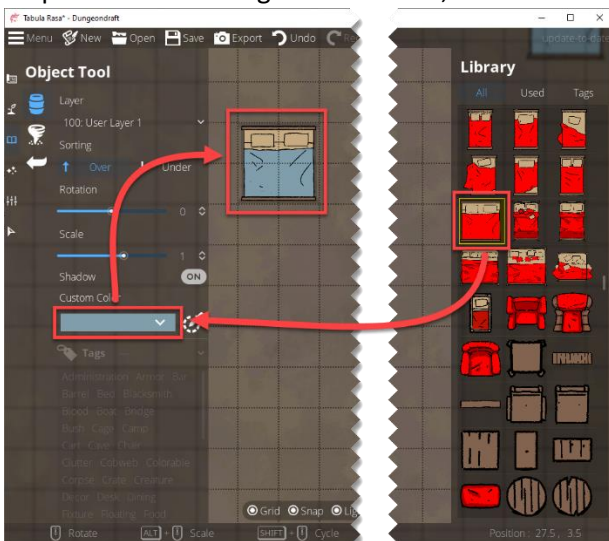


12. Click the color bar to select a custom color for colorable objects. Colorable objects will appear in your library as having a red color, and they will each have a small eye-dropper icon in the top-left corner.





To place a bed with light-blue covers, select the bed, change the color, then place the bed.



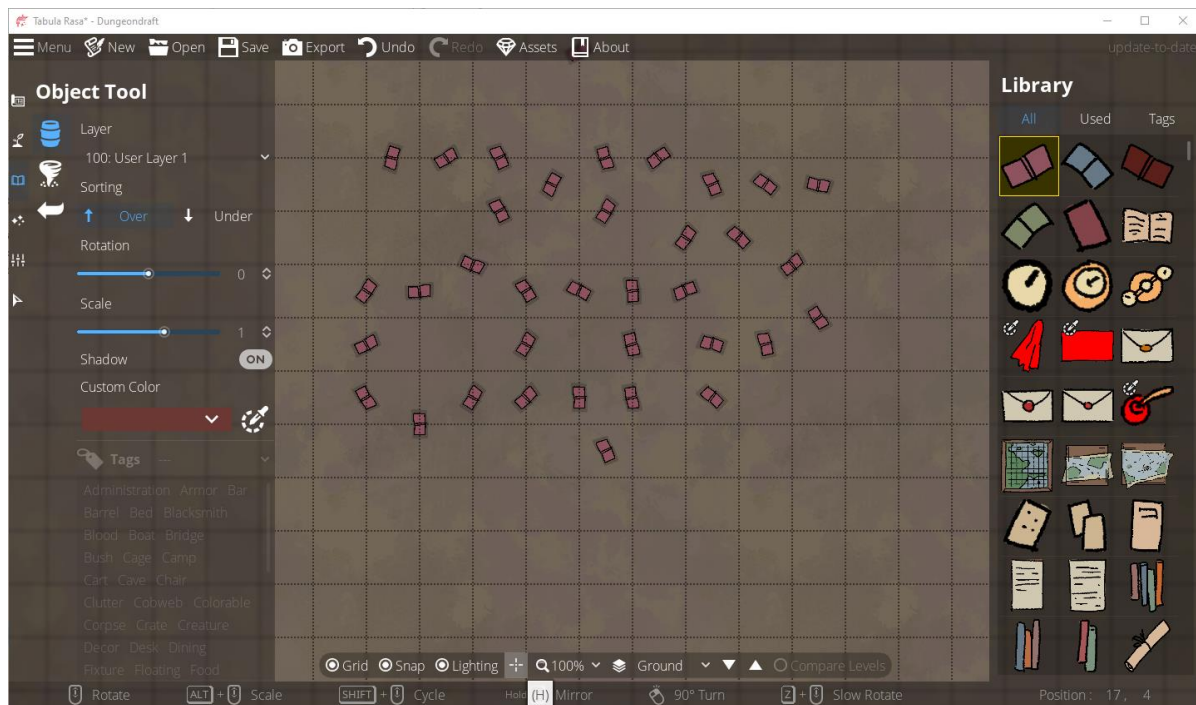
13. Tag Sets are as covered in the previous section on the right tool tray.

14. Tag Selection is as covered in the previous section on the right tool tray.

## Scatter Tool

The Scatter Tool lets you scatter objects across your map. To scatter an object, select the object from the library with a single left-click, then drag your mouse across the map while holding the left mouse

button. If you want to place each object manually, you can just use a single left-click wherever you want to place a scattered object.



If you want to scatter multiple objects, there are two ways to select them.

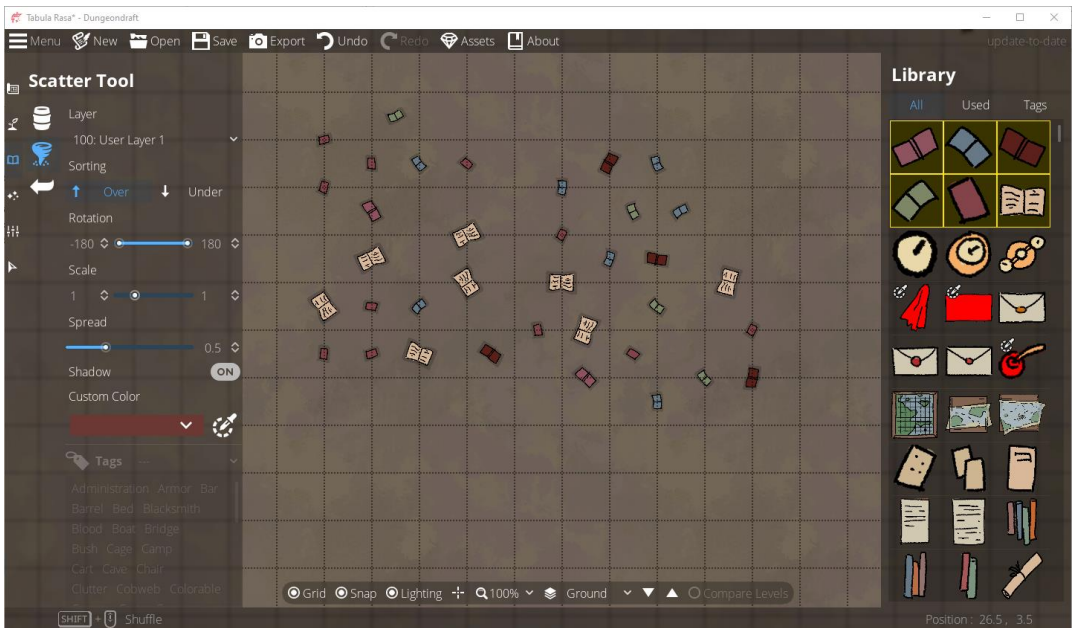
1. Let's say we want to scatter all the books. Left-click the first book to select it.



Hold the SHIFT key, then left-click the last book to select it. Note that all the books in-between are automatically selected.



With all the books selected, drag the mouse across your map while holding the left-mouse button.

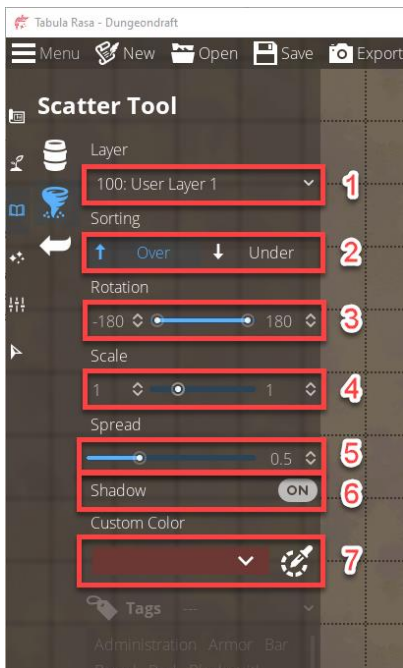


2. If you want to select multiple objects that are not in sequence, you can hold the CTRL key while select each one.



Drag your mouse across the map while holding the left-mouse button.





1. Select the layer where you want to place your scattered objects. Anything drawn or placed on a numerically higher layer will appear above anything drawn or placed on a numerically lower layer. The levels should be self-explanatory. Anything in grey is not selectable.
  - a. -500: Terrain
  - b. -400: Below Ground (the default layer for materials)
  - c. -300: Caves
  - d. -200: Floor
  - e. -100: Below Water
  - f. 000: Water
  - g. 100: User Layer 1 (the default layer for objects)
  - h. 200: User Layer 2
  - i. 300: User Layer 3
  - j. 400: User Layer 4
  - k. 500: Walls
  - l. 700: Above Walls



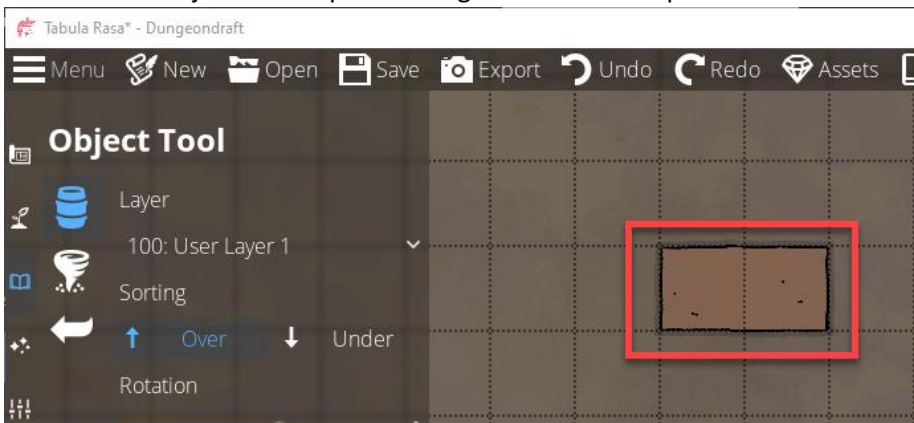
2. If you select “Over”, your scattered objects will appear over other objects on the selected layer. If you select “Under”, your scattered objects will appear under other objects on the selected layer.

As an example:

- a. Let’s turn off “Snap”. You can press “S”, or you can click the “Snap” button on the bottom menu bar.

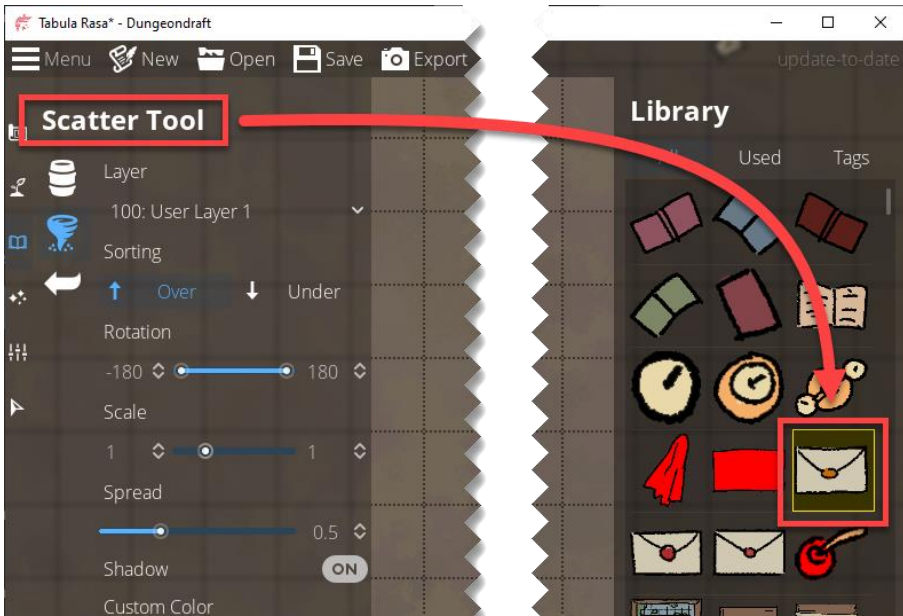


- b. Let’s use the object tool to place a long table on the map.

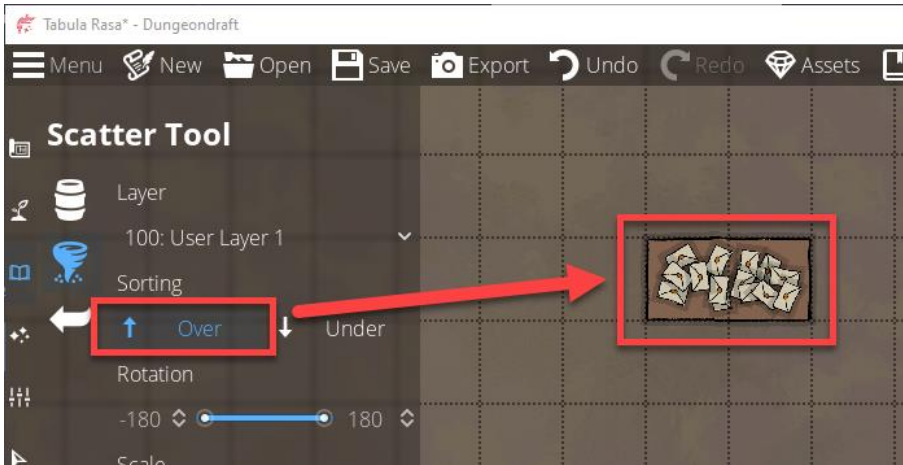


- c. Let’s switch back to the scatter tool, and select an envelope.

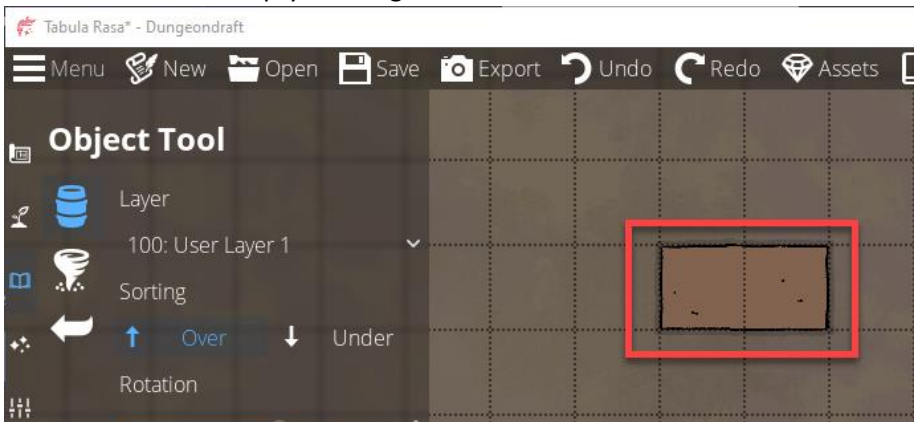




- d. Notice that “Over” is selected by default. Let’s leave that for now, and left-click several times at different points across the top of the table.

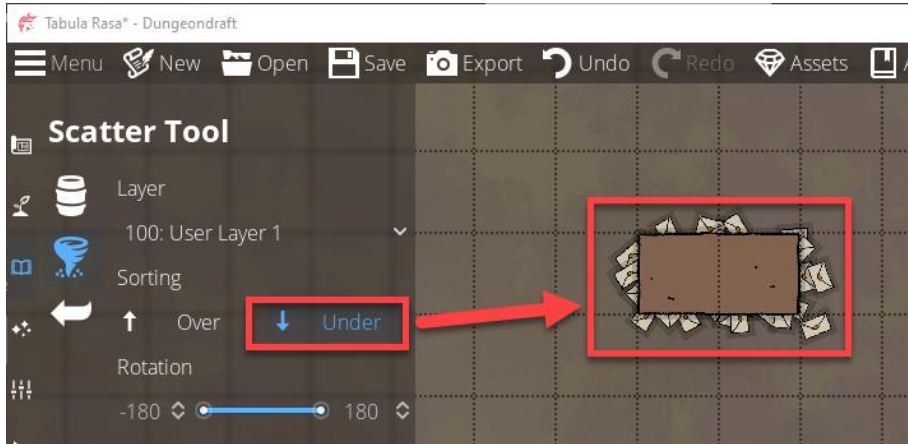


- e. Let’s start with an empty table again.





- f. This time, select “Under”, and scatter the envelopes around the table again, but put some around the edges so you can see how they’re being placed under the table instead of over it.



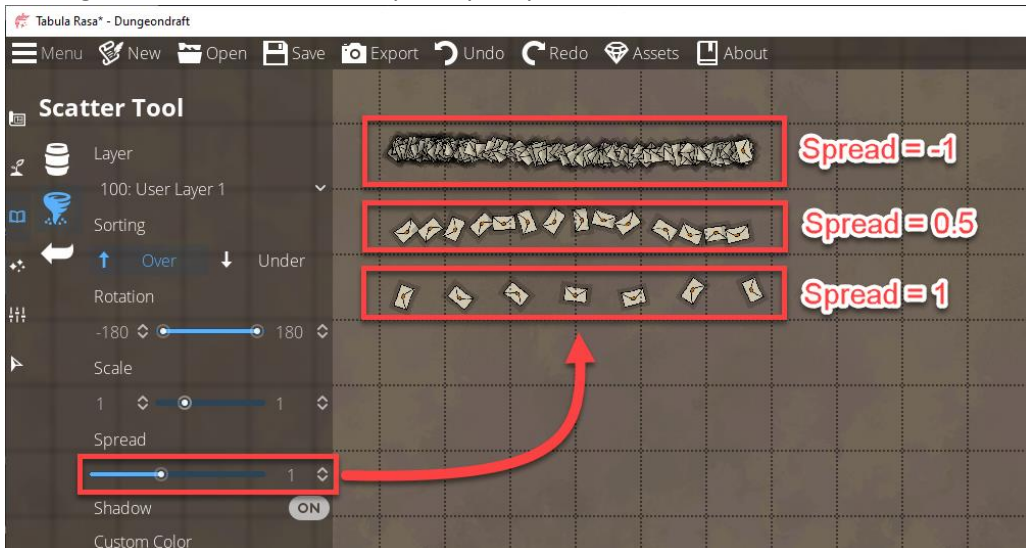
3. Select the rotation range for your scattered objects. For example, if you select a range from 0 to 90 degrees, the rotation of your scattered objects will be randomized within that range.

In the examples above, I left the default range of -180 to 180 degrees, and you can see how the scattered envelopes each have a different rotation.

4. Set the range for the scale of your scattered objects. If you set a range from 0.5 to 2, the sizes of your scattered objects will be randomized between half their normal size to four times their normal size.



5. "Spread" controls how densely your objects are scattered when you drag to scatter object instead of clicking to place them. The lower the value, the more densely they will be scattered. The higher the value, the more sparsely they will be scattered.

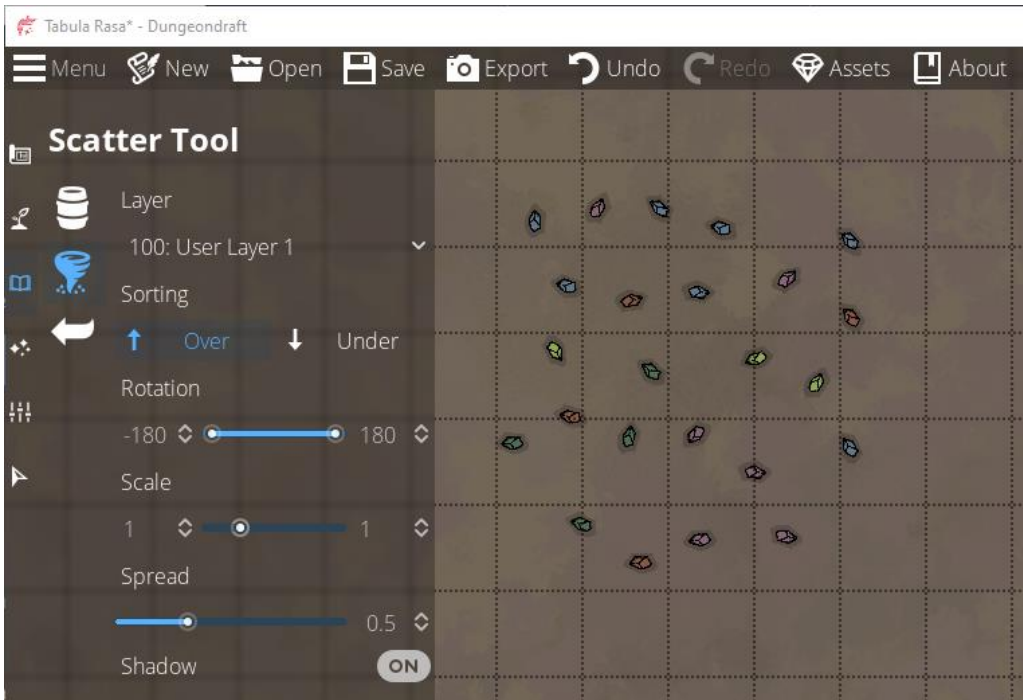


6. You can select whether or not your scattered objects will have shadows.
7. For colorable objects, you can select one or more colors for your scattered objects. Each color is selected by toggling it on or off. You can tell which colors are selected by looking for the yellow outlines around the color's circle. If you select multiple colors, each object's color will be randomly picked from the colors you selected.

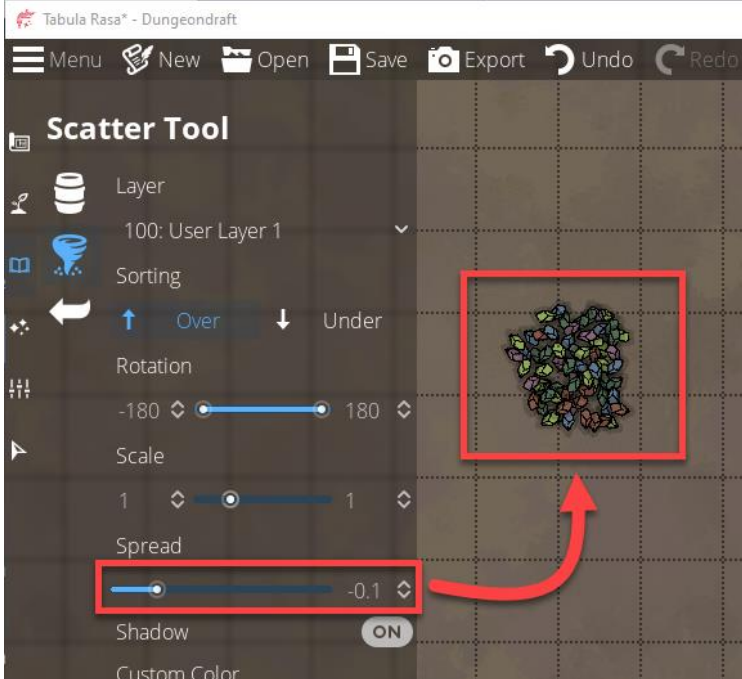
Let's scroll down a bit in the Library to find "Cave Crystals 09", then click the custom color bar, click the default color to toggle it off, then click a few other colors to toggle them on.



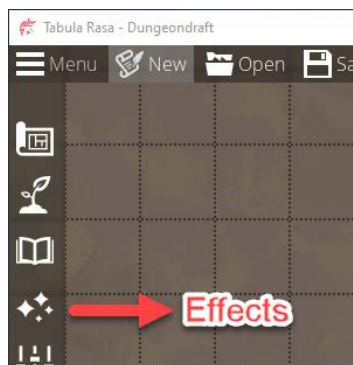
Now let's drag the mouse across the map while holding down the left mouse button.



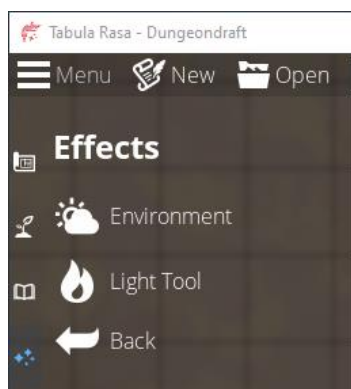
Let's change the Spread to -0.1 and draw a pile of gems.



## Effects Tools



This will show us the options available under the Effects tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.

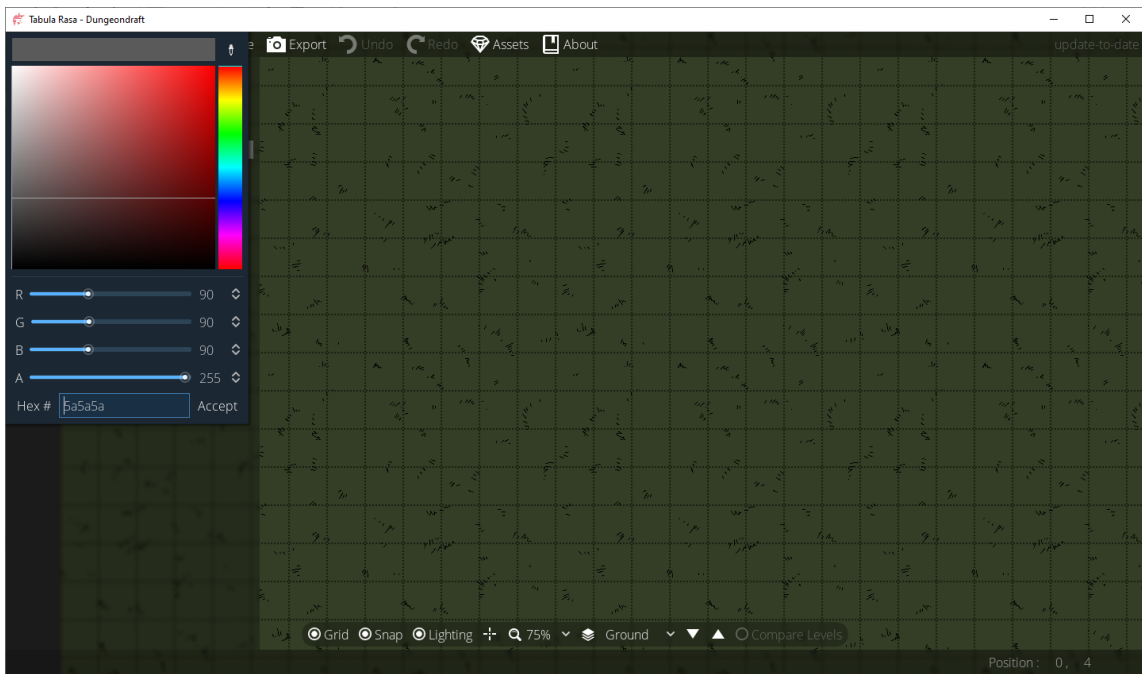


## Environment Tool

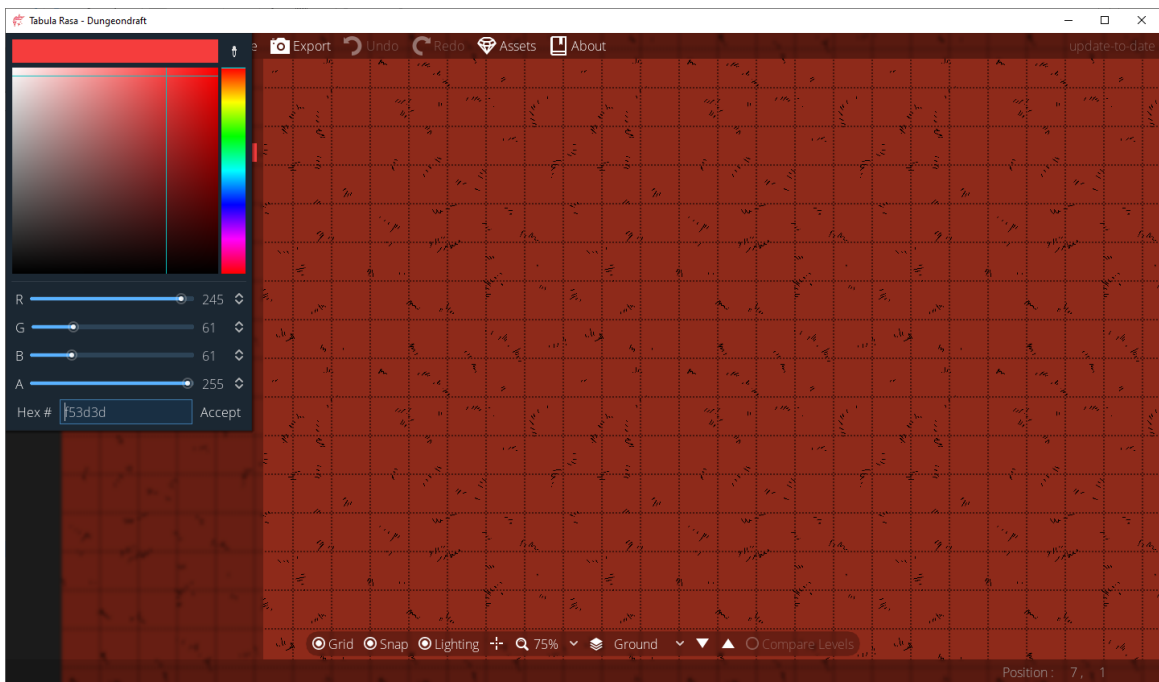
This is one of the simpler options in the program as there's only one thing you can do here. Click the color bar to open a dialog that lets you select the ambient lighting for your map.



If you're creating map for night-time encounter at a camp site, you can dim the lighting to make the entire map look dark.



If you're creating a map on a planet with a red sun, you can change the ambient lighting to give the entire map a reddish tint.



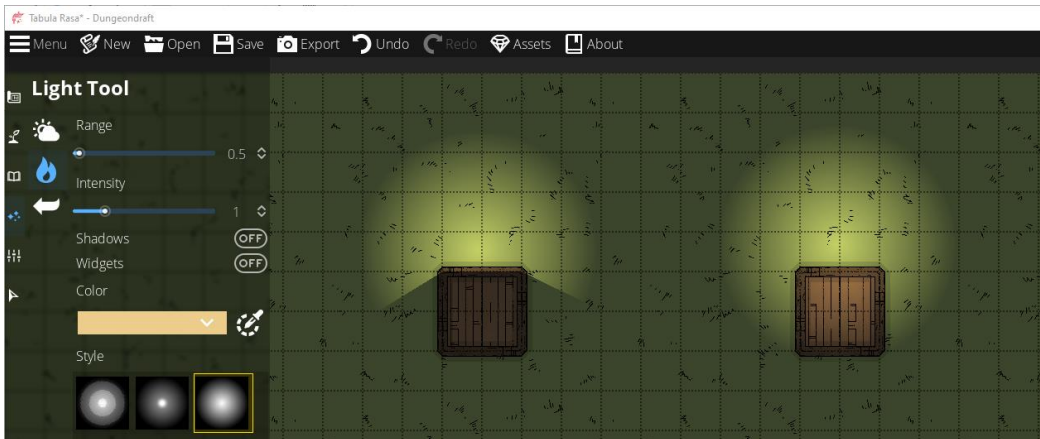
## Light Tool

The "Light Tool" lets you place individual light sources on the map. As above, if you're creating a map for a night-time encounter at a camp site, you can turn down the ambient lighting to have a dark map, then set a localized light source with a limited range and intensity.

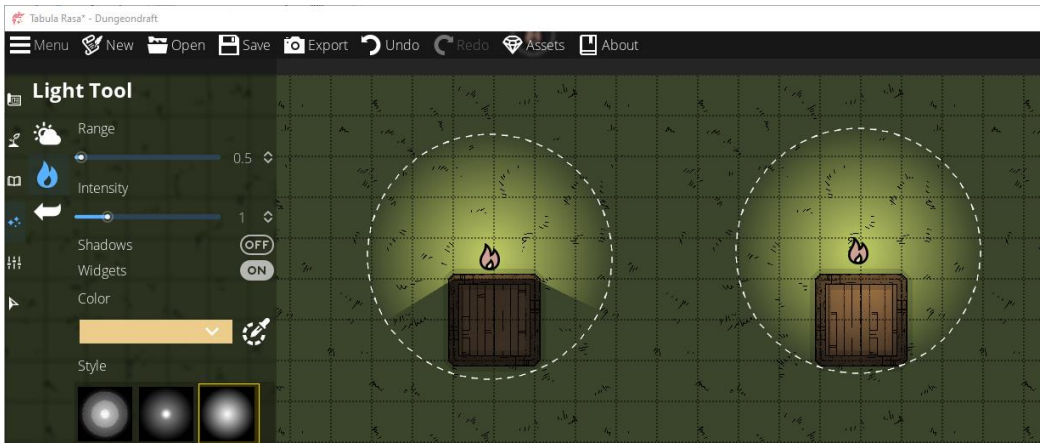




1. Set the range of the light source.
2. Set the intensity of the light source.
3. Select whether or not you want the light source to cast shadows. This is specific to each light source, so you can have some that cast shadows and some that do not. (I believe right now, only walls will cast shadows. Objects will not. I have no idea if this will change with future updates.) In the example below, the left light source was placed with shadows on, and the right light source was placed with shadows off.



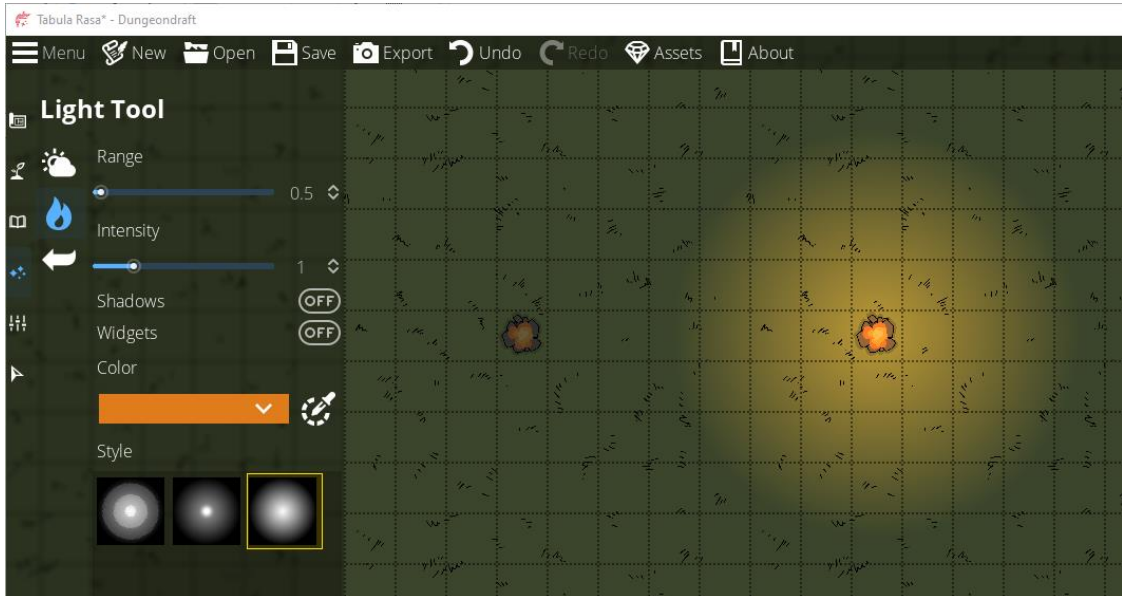
4. If you turn on “Widgets”, each light source will have a small flame icon at its center. This setting affects all light sources.



5. Select the color of the light source.
6. Select the style of the light source.

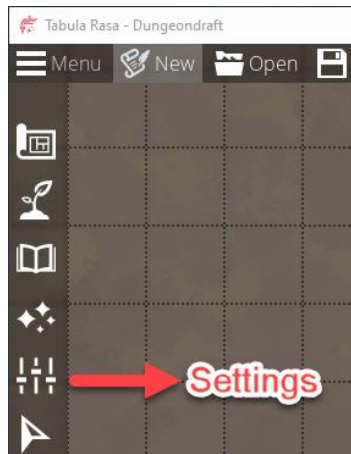
**Note:**

One use of light sources that should be obvious is to use them on things like campfire objects and torch objects. In the example below, I placed two, identical campfire objects. With the one on the right, I placed a light source on top of it to give it the look and feel of a campfire. And if you'll notice, I change the color to be more orange.

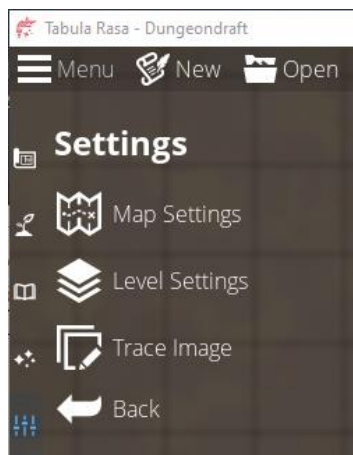




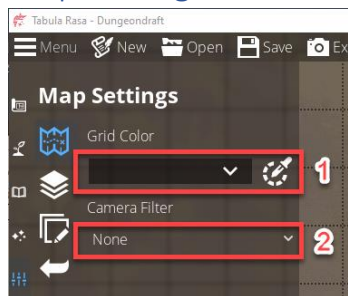
## Settings



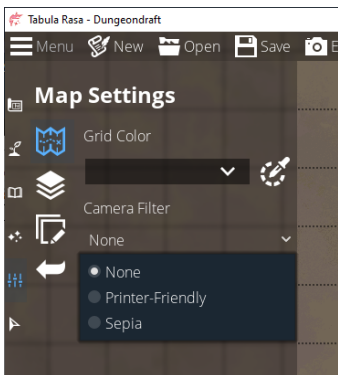
This will show us the options available under the Settings tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.



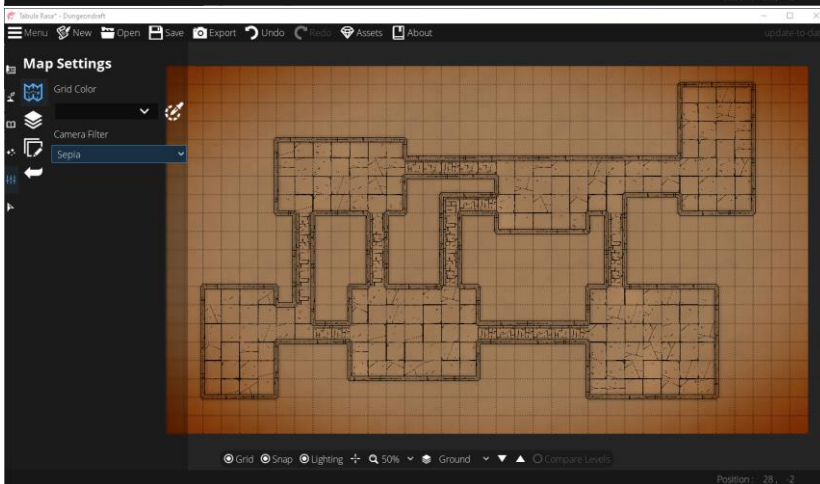
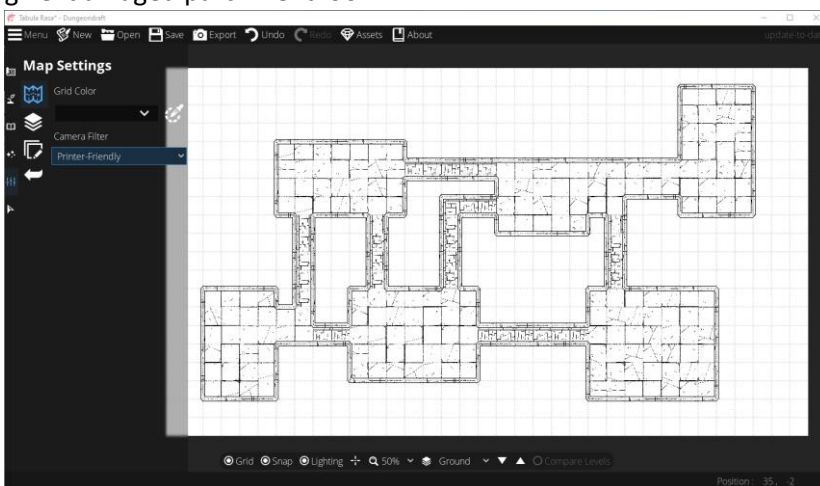
## Map Settings



1. Grid Color will set the color of the grid lines. The default color is black, but if you have a lot of black on your map, and that hides the grid lines, you can change their color to white, red or whatever you like.
2. Camera Filter will change the overall look of your map.

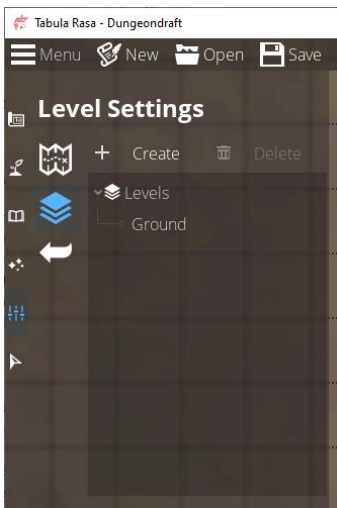


“Printer-Friendly” will make the map black and white, so it’s easily printable, and “Sepia” will give it an aged parchment look.



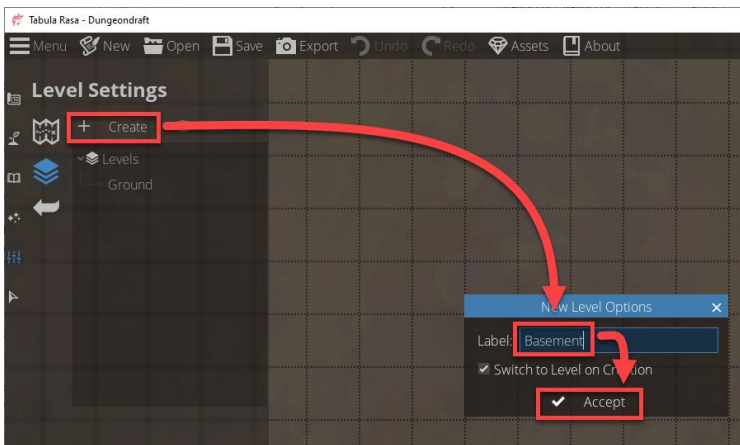
## Level Settings

At their most basic, think of levels as different floors for your map. For example, you can have a basement, a ground floor, and an upstairs.

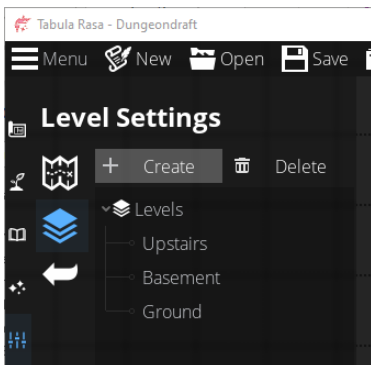


It's difficult to clearly explain how levels work, and how transparency works, without going through an example. If you'll bear with me, we're going to create some levels, draw some rooms, and do some landscaping. Then you'll be able to see practical examples of the basic principles behind how levels work.

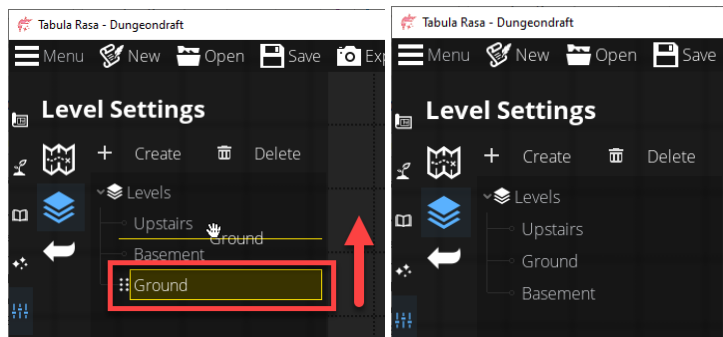
Click "Create" to create a new level. When the dialog pops up, change the label from "New Level" to Basement, then click Accept.



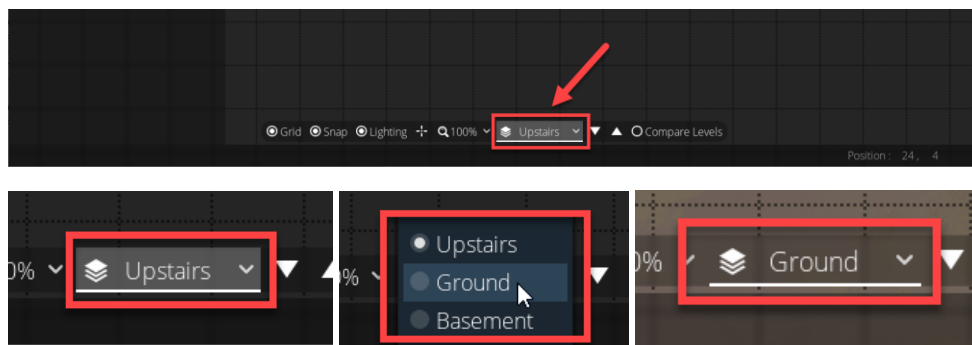
Create another level named "Upstairs".



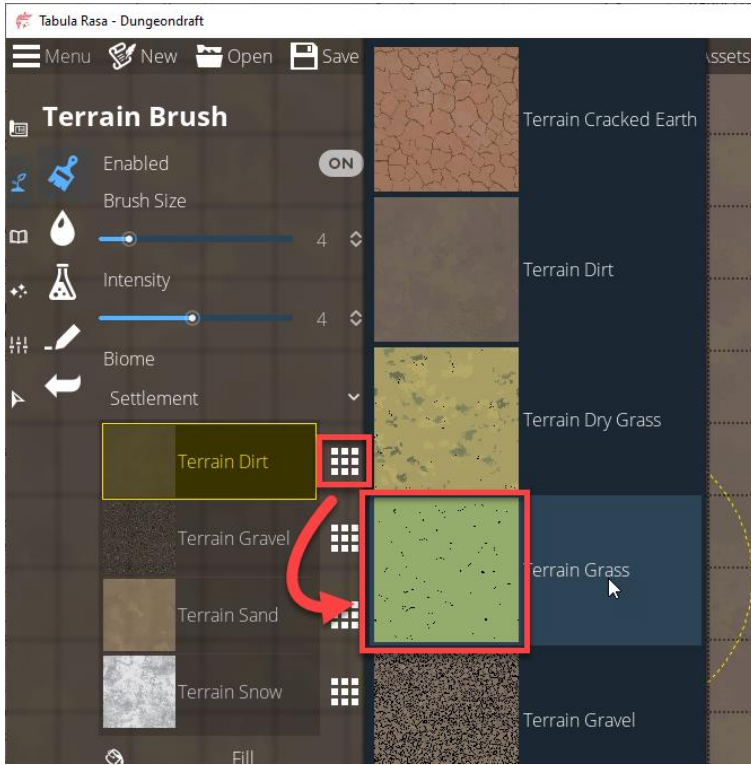
Move your mouse pointer over “Ground” then left-click and drag it up to fit between “Upstairs” and “Basement”. (The order in which the levels appear in this list is just for your own, visual reference. You can arrange them any way you like, and it won’t affect how other features of the program work.)



On the bottom menu tray, click “Upstairs” to change the active level to “Ground”.



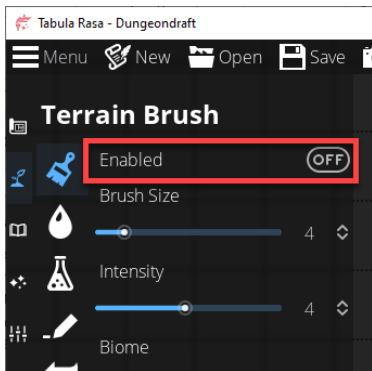
Use the Terrain Brush to change “Terrain Dirt” to “Terrain Grass”.



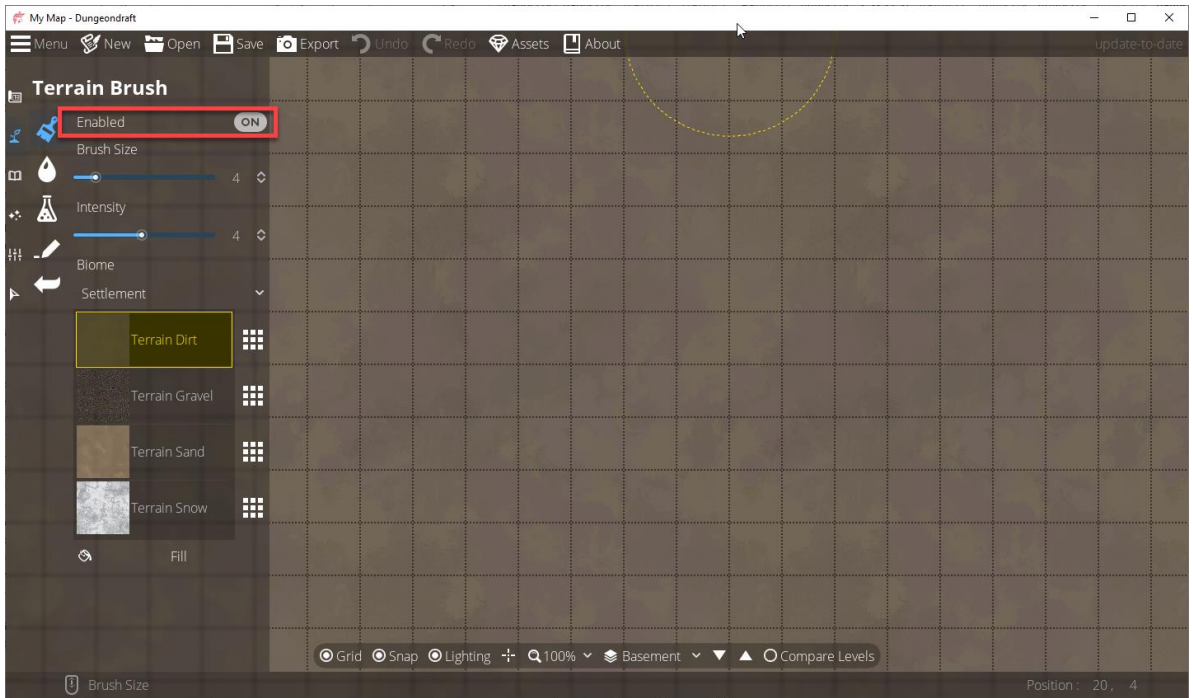
Change the active level from “Ground” to Basement.



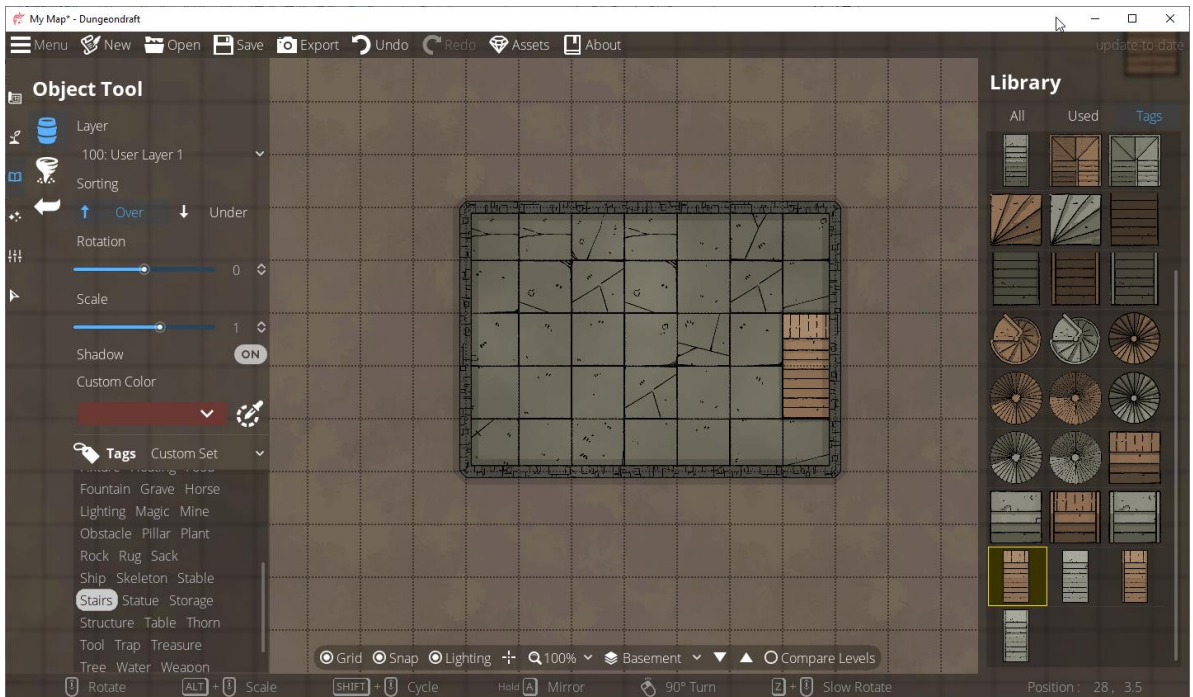
Notice that when you create a new level, the Terrain Brush is off by default.



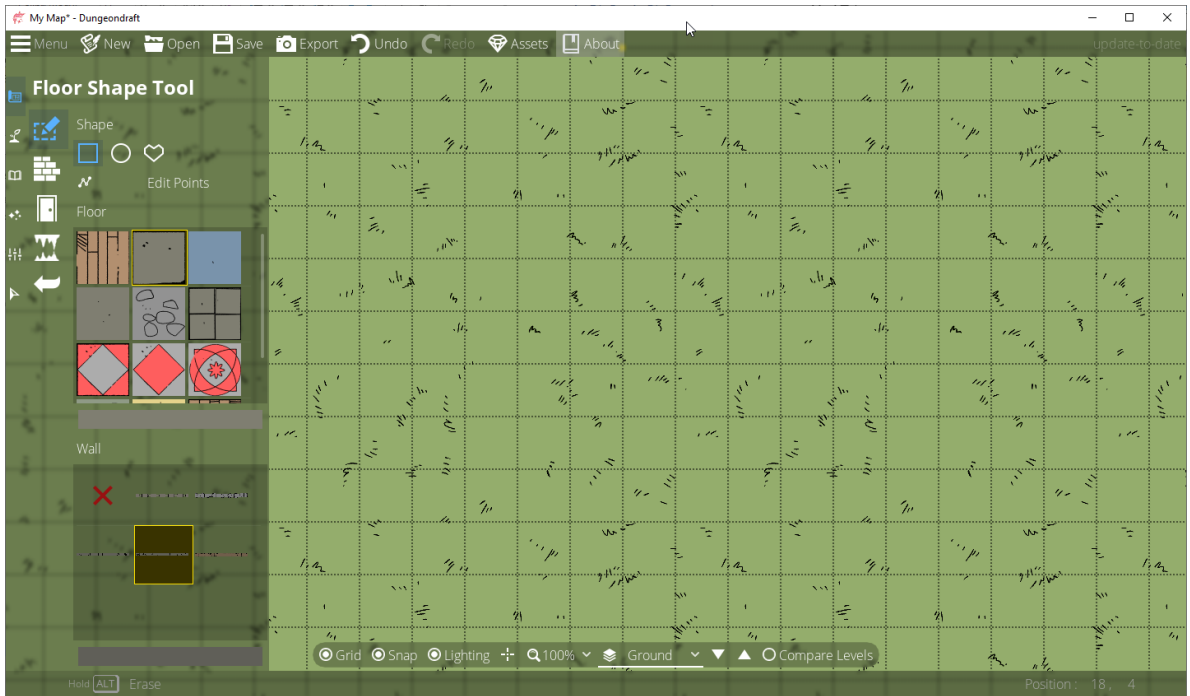
In this example, we left it off for the Upstairs level, which is fine, but let’s turn it on for the Basement level. Notice that as soon as you do so, the map fills in with the “Terrain Dirt” default.



Let's draw a small room with a set of stairs. Since this is the basement, we want a strong foundation, so let's draw with a stone floor and stone walls. We can add a wooden set of stairs, though.



Let's change the active level back to "Ground".



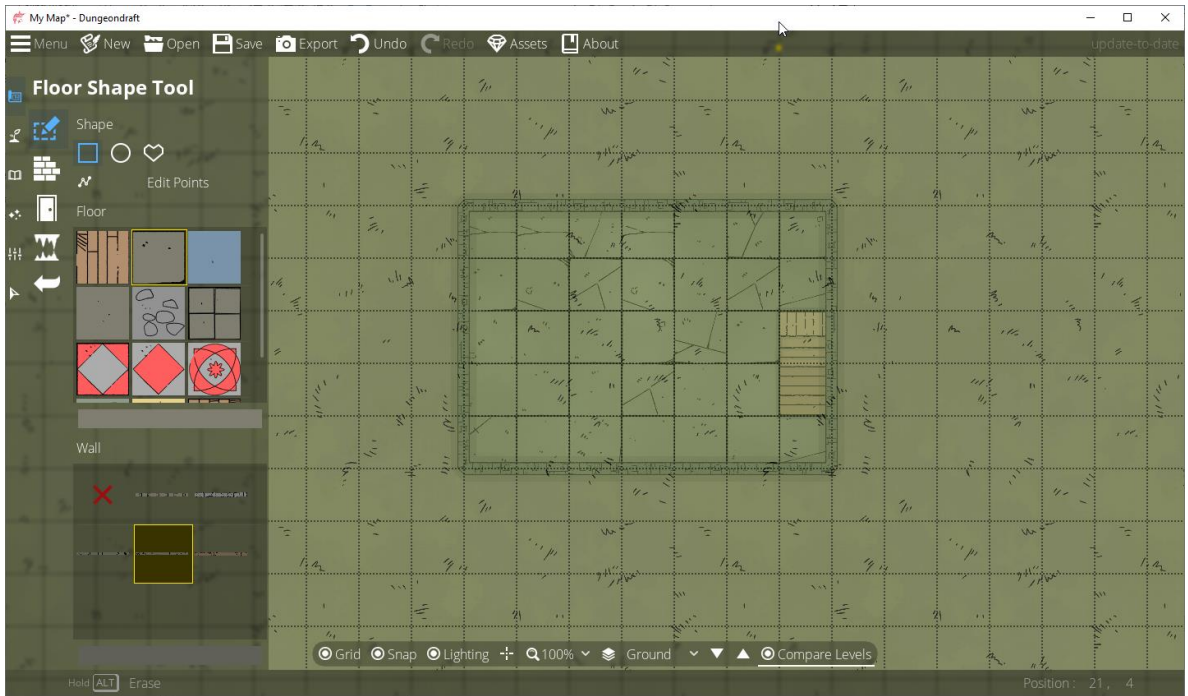
Now, I want to draw a matching room with a matching staircase, but I can't see what I drew in the basement to match things up. So I use the compare levels feature.

I click "Compare Levels" in the bottom menu tray. In the dialog window:

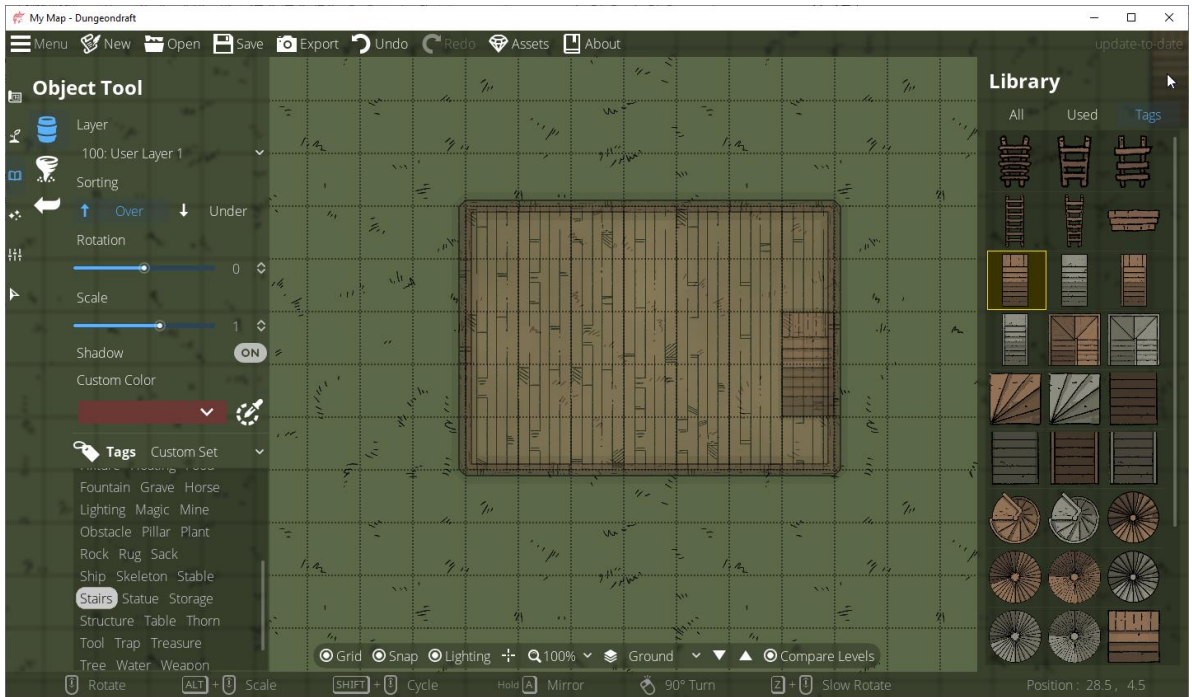
1. I set the reference level to "Basement".
2. I set the opacity for the reference level to 100%.
3. I set the opacity for the current level to 50%.
4. Then I click "OK".

Now I can see a faint image of the basement to use a reference for drawing my ground floor.

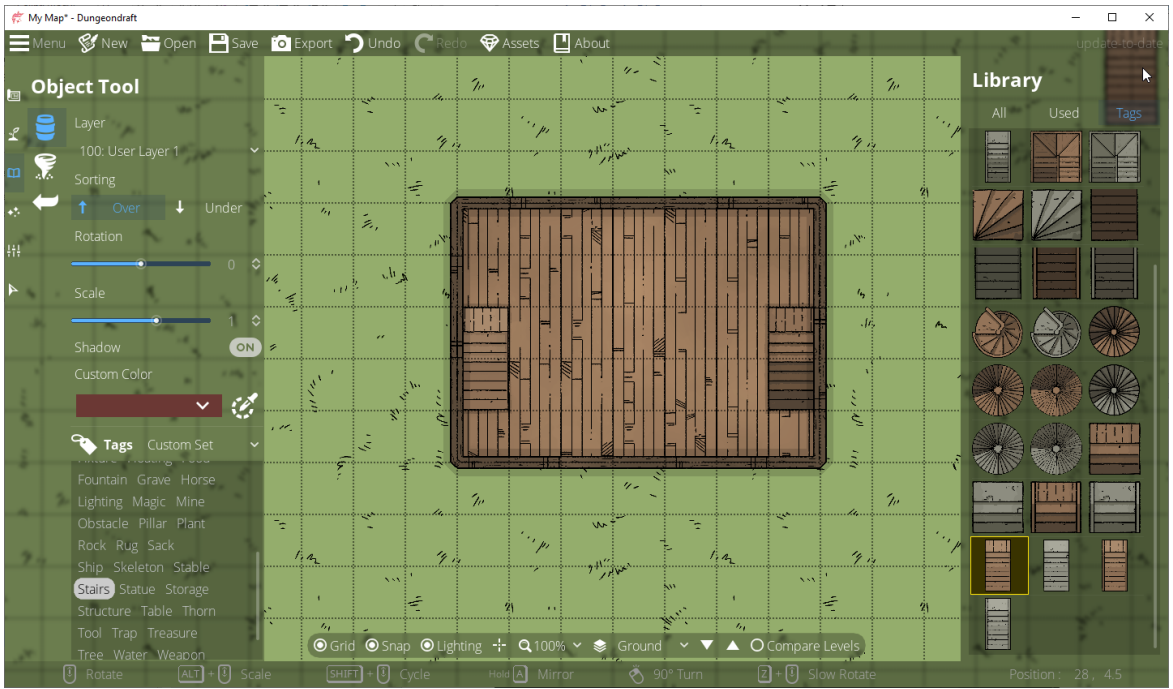




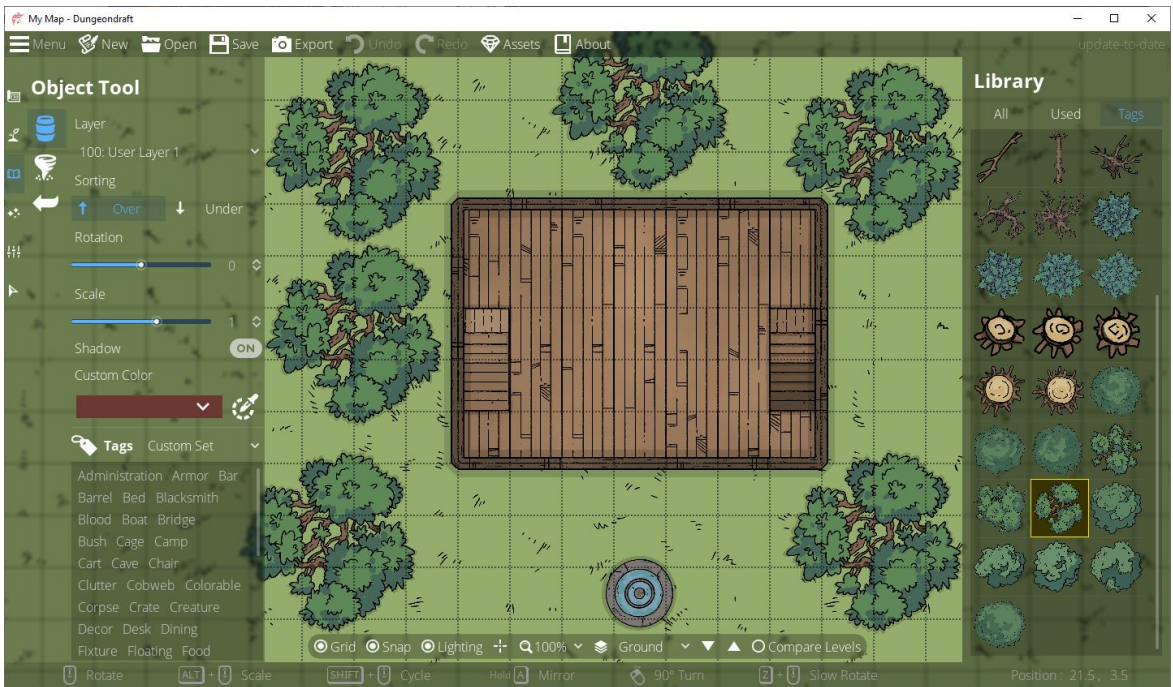
I'm going to draw a room the same size and shape of my basement, but I'm going to use a wood floor and wood walls. Then I'm going to place a staircase in the same location.



Let's turn off "Compare Levels" and add another staircase on the other side of the room (to go upstairs). Notice I chose "Stairs 09" for the stairs going down to the basement, because those stairs are shaded at the bottom to indicate they're going down. I chose "Stairs Up 01" for the staircase going upstairs. It's an aesthetic choice. You can do things differently if you like.

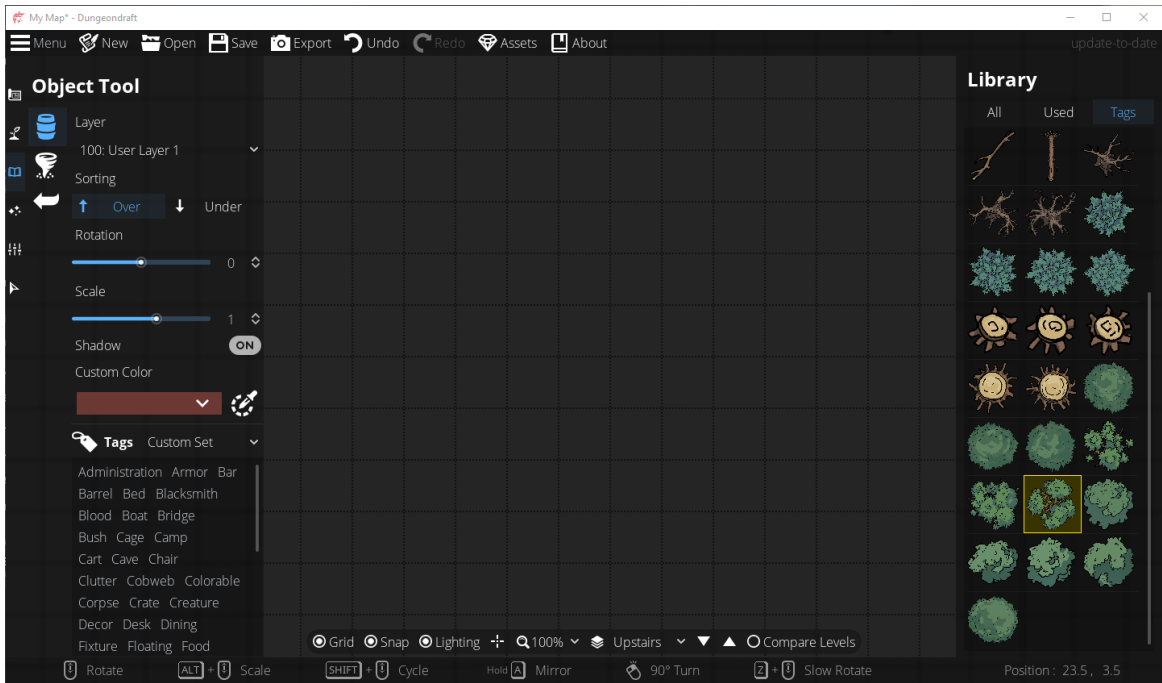


Now let's add some landscaping, some trees and a fountain.

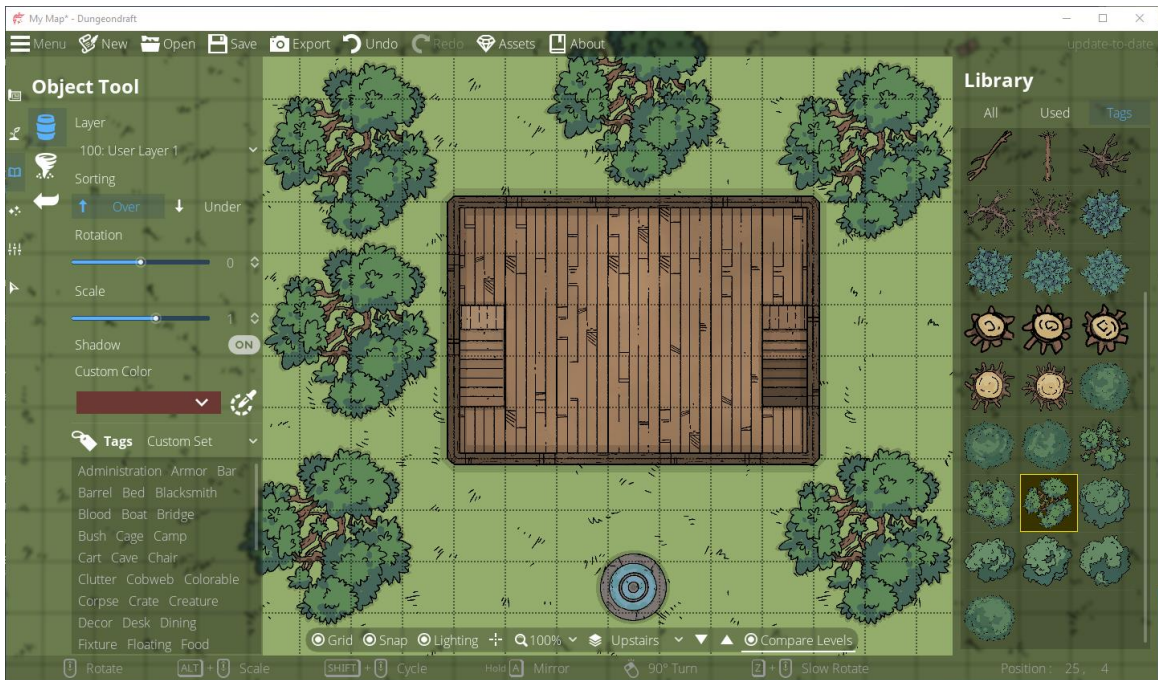


Let's change the active level to "Upstairs".



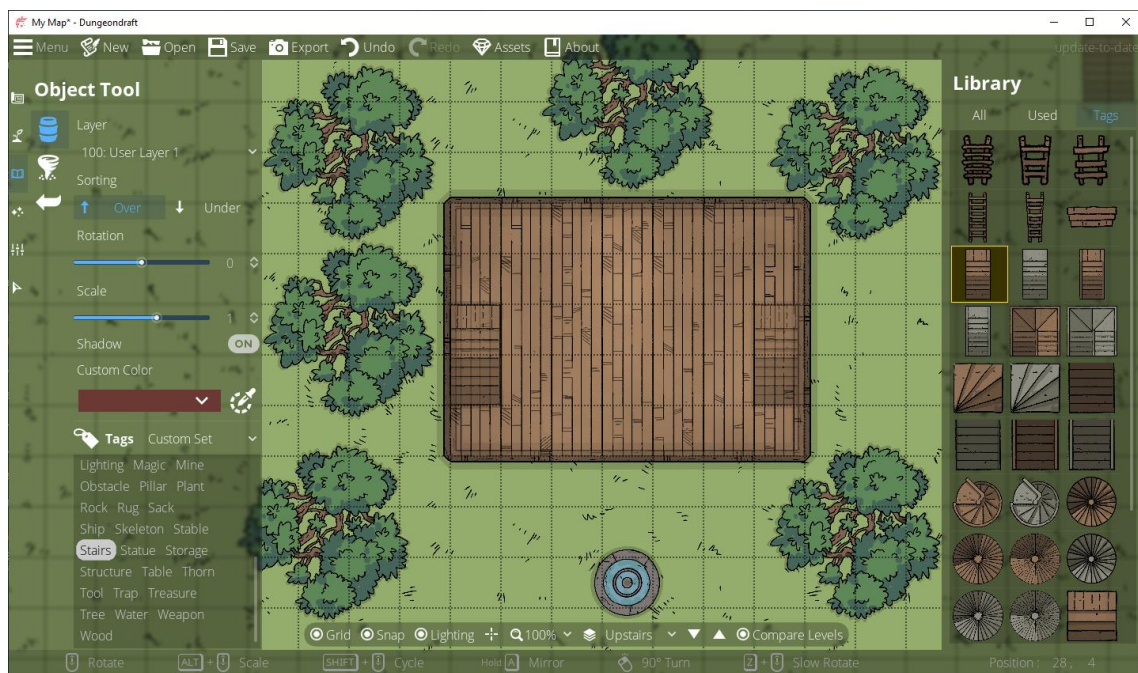


Let's compare levels again, this time using "Ground" as the reference level. Again, set the opacity for the reference level to 100%, and set the opacity for the current level to 50%.

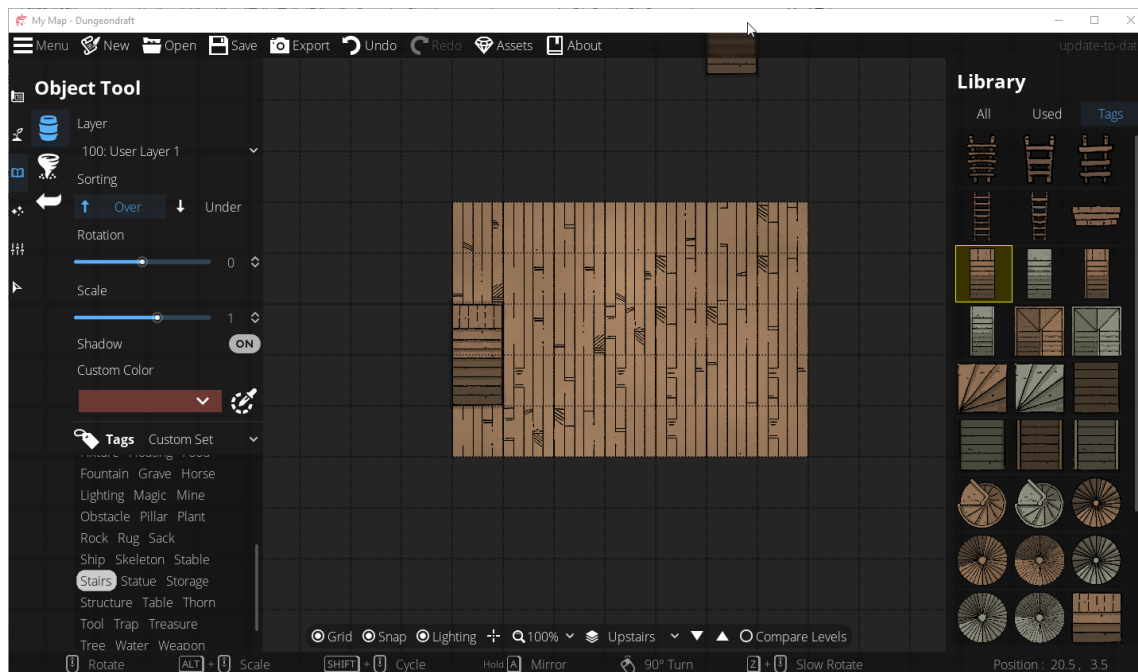


Notice that the Ground level shows through the Upstairs level much more clearly than the Basement level showed through the Ground level. This is because we left the Terrain Brush disabled on the Upstairs level, and we haven't drawn anything on it yet, so the Upstairs level is completely transparent. But we'll change that now.

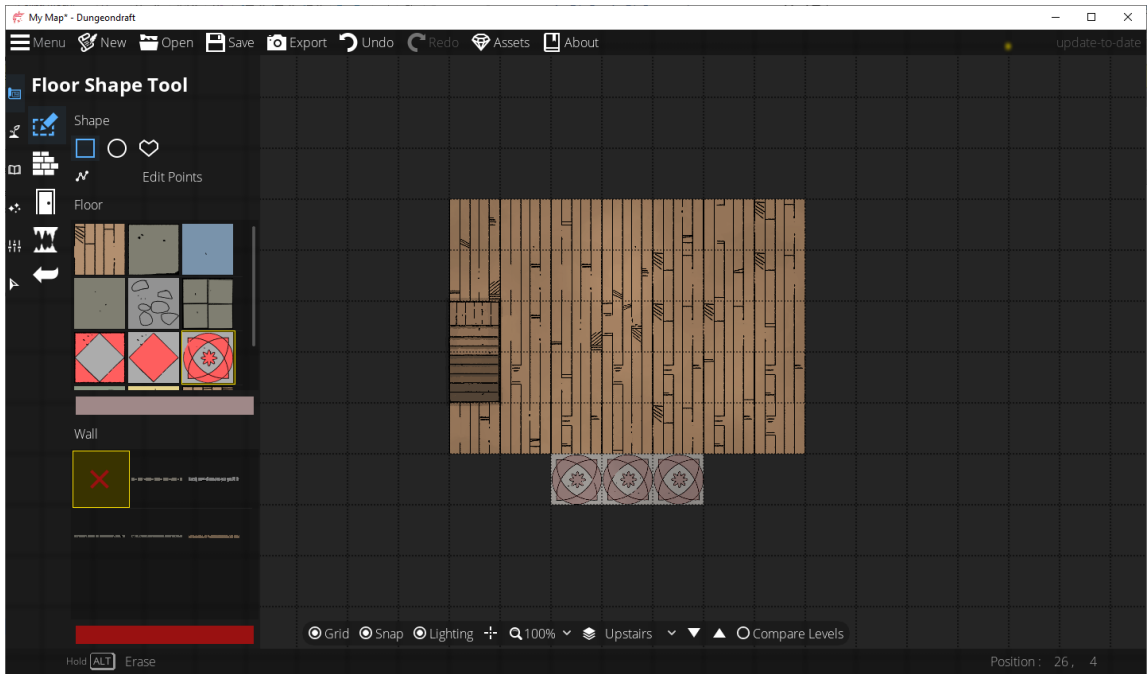
Let's draw a room using the floor tool. We'll use a wooden floor and no walls (select the red X for the walls). Then we'll place a staircase on the left side of the room to match the one from the floor below.



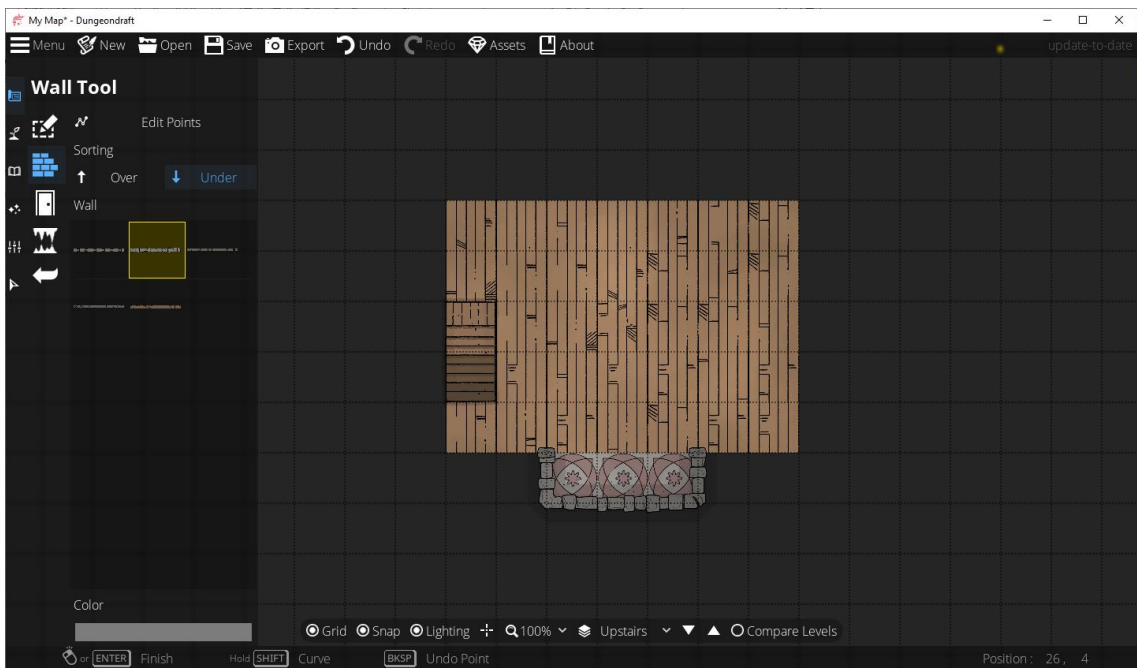
Let's turn off "Compare Levels" to see what we have just on the Upstairs level now.



Since this is an upstairs room, let's draw a little balcony with an ornate floor tile (again, no walls yet).

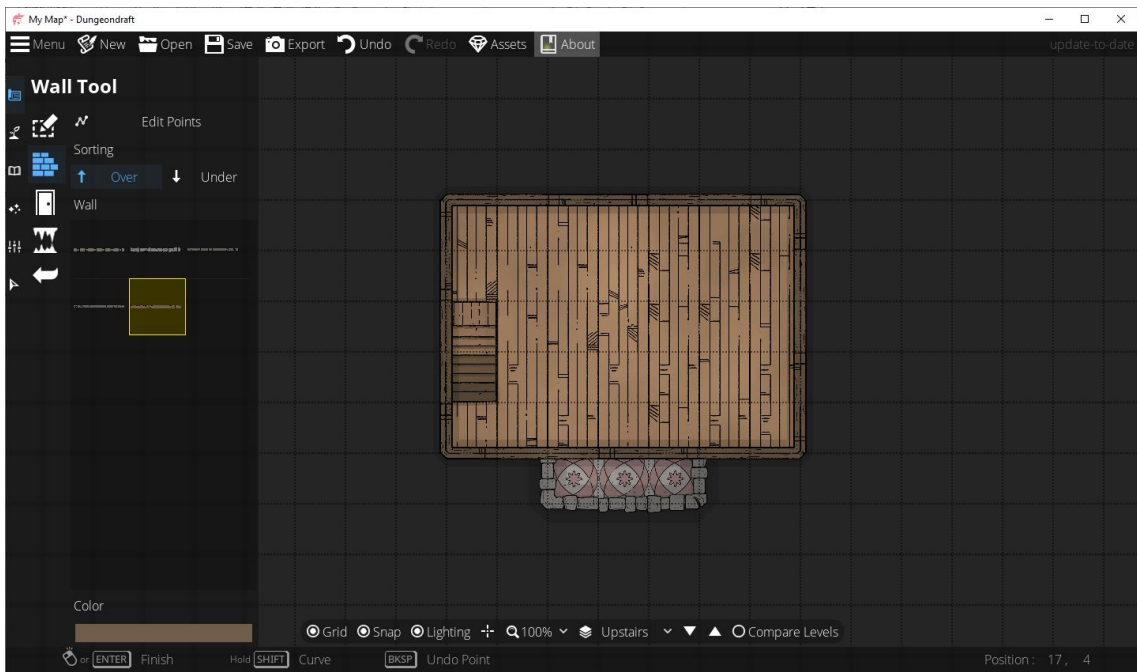


Now, let's use the Wall Tool (not the Floor Tool) to draw a cobblestone wall around the outside of the balcony.

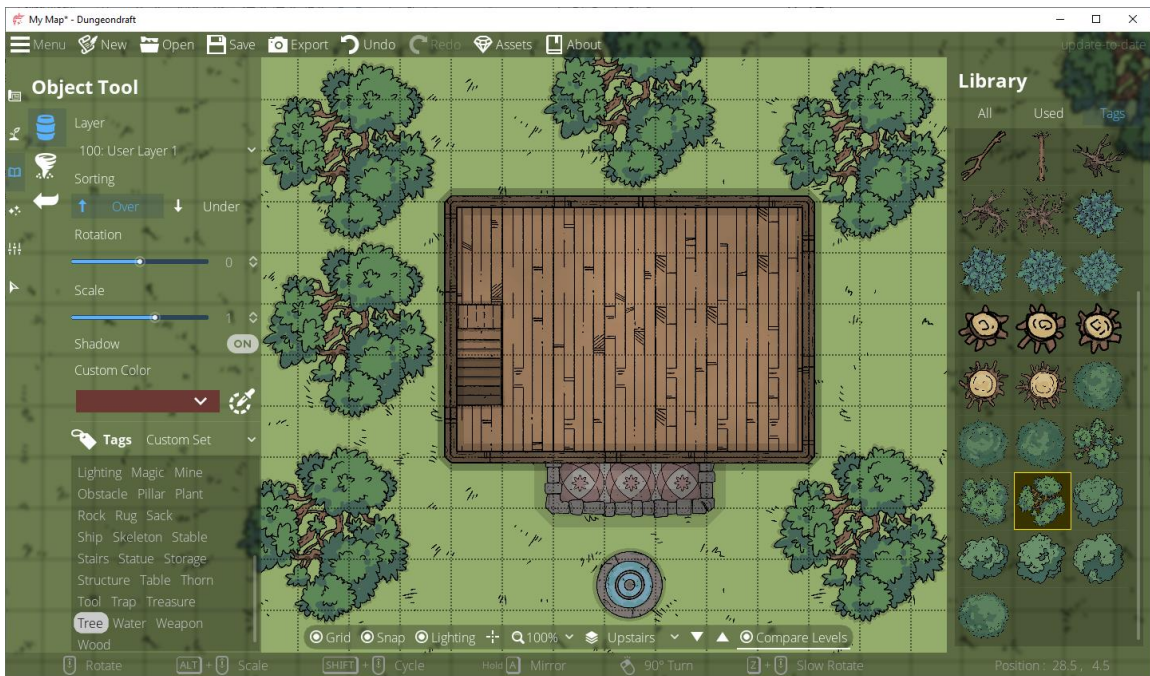


Now, let's draw a wooden wall around the wooden floor, making sure to draw the wooden wall "Over" the cobblestone wall.





Finally, let's compare levels with the ground level again, but this time, set both levels to 100% opacity.



Notice that we see the building structure of the Upstairs level, but we see the terrain and landscaping of the Ground level. Again, this is because on the Upstairs level, the Terrain Brush is off, which makes it transparent.

The principle here is that upper floors will not have their own terrain or landscaping. If you have a map with five upper floors, you can leave the Terrain Brush off on all but the ground level, so you only have

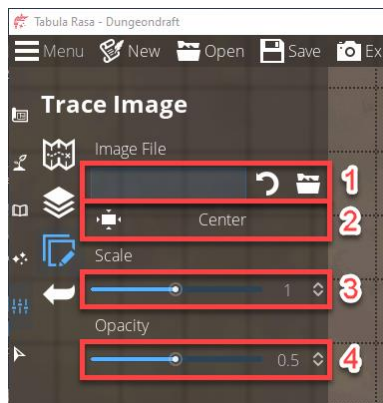


to do the landscaping once, and you don't have to worry about matching it on other levels. Just leave the Terrain Brush off and let it show through.

You can get more creative than this with how you use levels, but hopefully, this was clear enough to give you the basics, and you and your imagination can take it from there.

## Trace Image

With the Trace Image tool, you can load an image as a background to trace over. Maybe you have a hand-drawn map that you'd like to convert, or maybe you'd like to use a satellite photo of your hometown as inspiration.



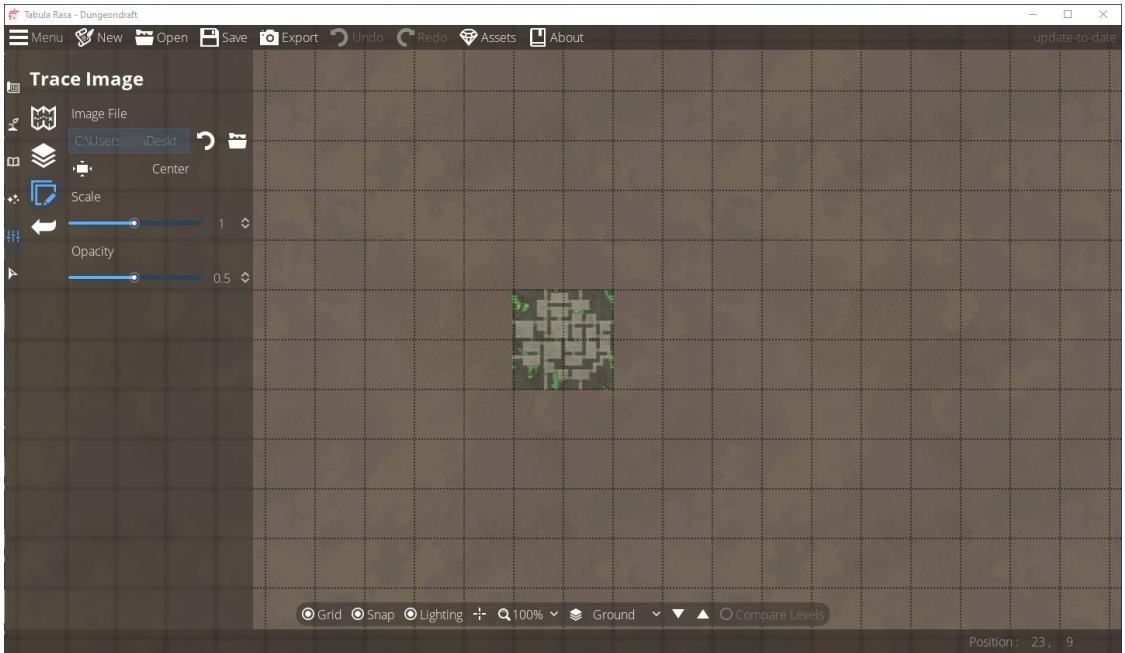
1. Click the folder icon to browse for the image you want to trace, or click the curved arrow icon to clear the selected file.
2. Click to center the image on the grid.
3. Set the scale for the image.
4. Set the opacity for the image.

In this example, I'm going to use a dungeon map that was randomly generated at <https://donjon.bin.sh/d20/dungeon/>

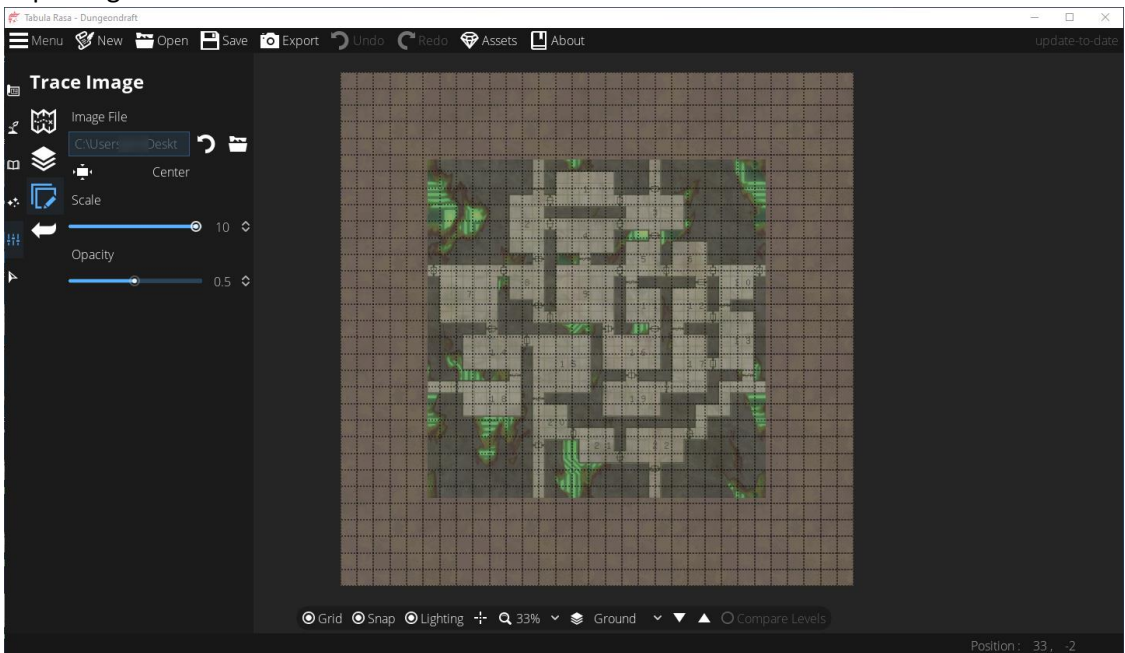


1. Counting the squares on this map, its grid size is 29x29. Just for a bit of leeway, I'm going to create a new Dungeondraft map with a grid size of 31x31.

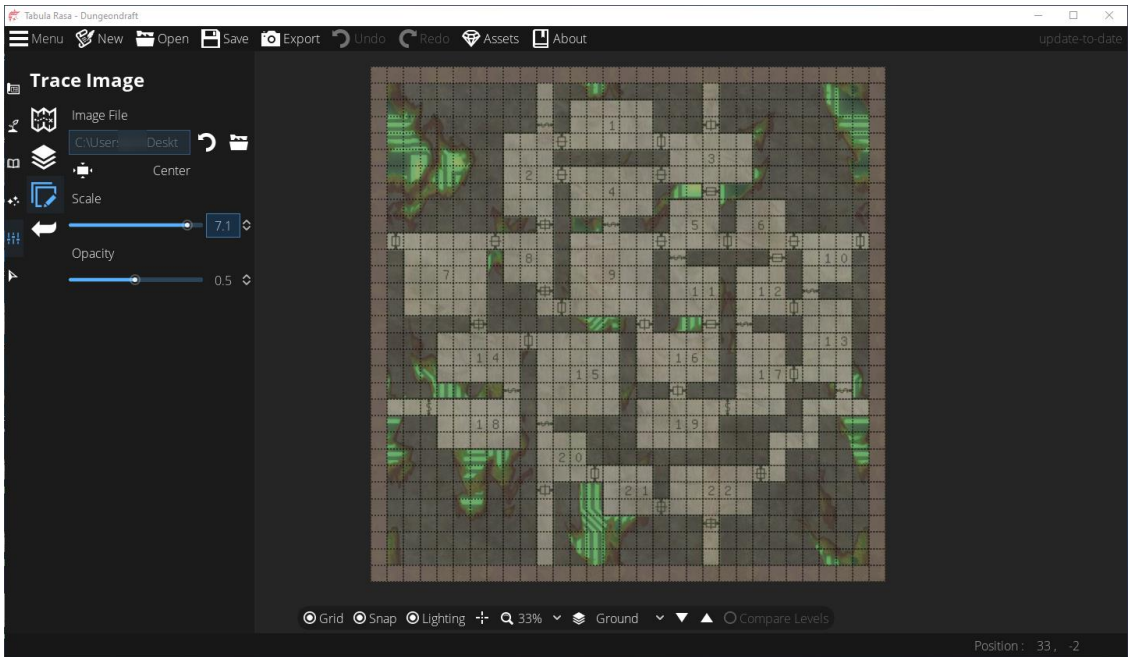
2. When I browse for the file, it ends up being very small compared to my Dungeondraft map.



Even when I scale it up to the maximum value, it doesn't scale up to the 29x29 grid size I was expecting.



3. I used Photoshop (GIMP is a free alternative) to double the size of the image.
4. I loaded the double-sized image into Dungeondraft. It was still much too small at first, but now I was able to scale it up to 7.1 to align the grids.



5. You can change the opacity to whatever you like to make the image easy to trace, but from here, it's just a point of tracing over the image with the Building Tool or the Terrain Tools or the Material Brushes, or whatever you want to use.
6. When you're finished using the other tools to trace your map, come back to the Trace Image tool, and click the curved arrow to clear out the background image.

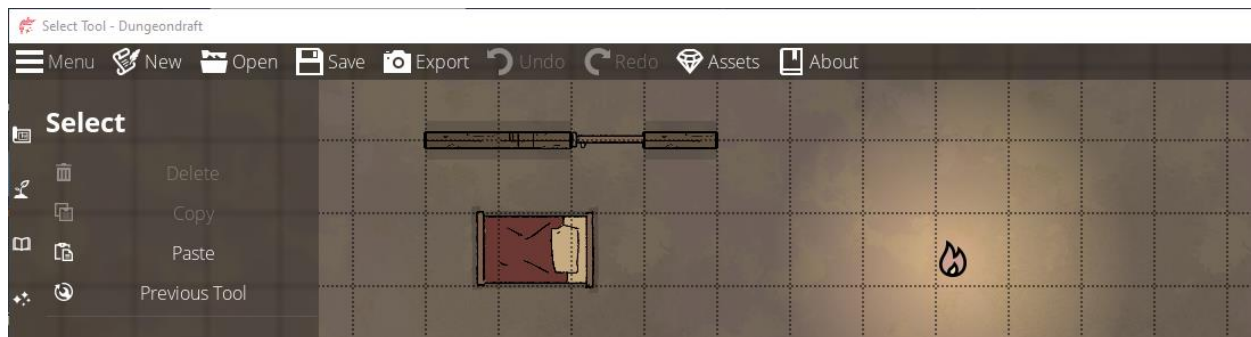
## Select Tool

The Select Tool allows you to make certain types of edits on walls, portals, objects and light sources that you've already placed on your map.



This will show us the options available under the Select tool, and it will shrink the icons for the other tools. They're still there, and they're still active and clickable. They're just shrunk down to make room for the submenu.

The available options will change depending on what you select to edit. The default options, with nothing selected are Delete, Copy, Paste and Previous Tool.



Previous Tool will always take you back to the tool you were using before you clicked the Select Tool. If you were using the Floor Tool, Previous Tool will return you to the Floor Tool. If you were using the Object Tool, Previous Tool will return you to the Object Tool.

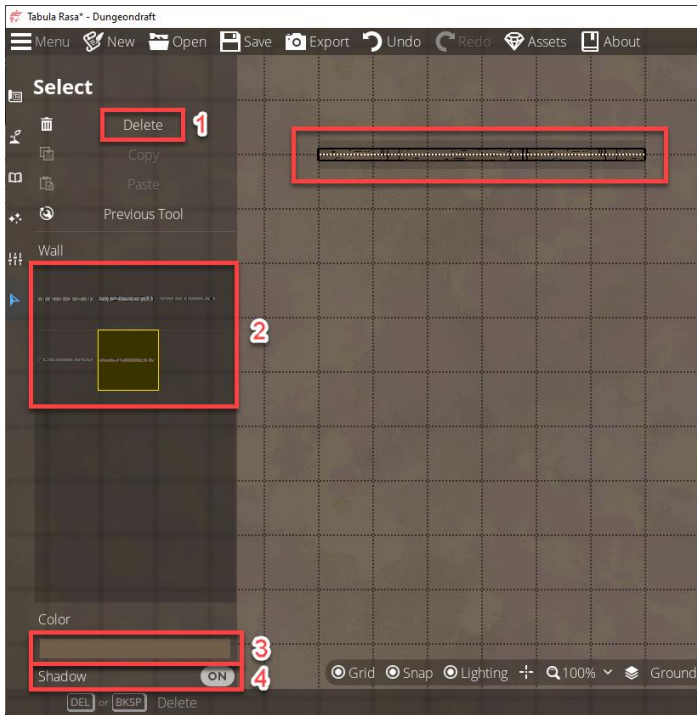
Also notice that any light sources will automatically have their widgets displayed.

## Walls

To select a wall, move your mouse pointer over any part of the wall, then left click. Note that when you move the mouse pointer over the wall, you'll see a dotted yellow line through the center of the wall to indicate what you are going to select. If you have a large floor plan with different walls drawn throughout, this will be an important indication to tell you exactly what you're about to edit.



Once you click, the dotted yellow line will turn into a dotted white line, and the left menu tray will change to show you the options for editing walls.



1. Delete the selected wall.
2. Select a different style for the wall.
3. Select a different color for the wall.
4. Toggle the wall's shadow on and off.

## Portals

To select a portal, move your mouse pointer over the portal, then left click. Note that when you move the mouse pointer over the portal, you will see a yellow highlight around the portal to indicate what you are going to select.



Once you click, the dotted yellow highlight will turn into a blue highlight, and the left menu tray will change to show you the options for editing portals.



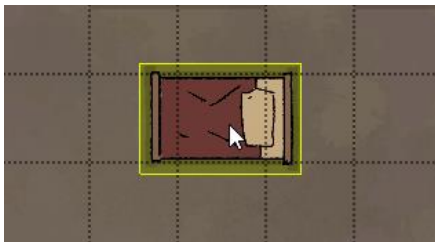


1. Delete the portal.
2. Select whether the portal blocks or allows light.
3. Select a different style for the portal.

You can also move the portal to a different part of the wall by dragging it along the wall while holding the left mouse button.

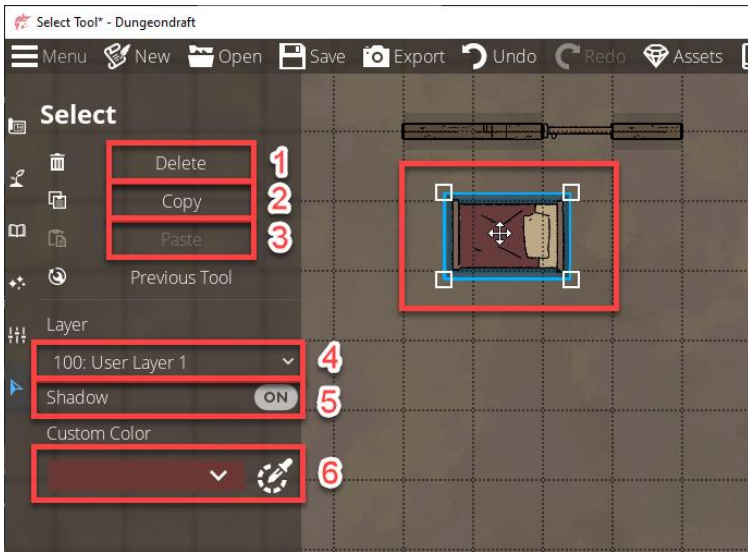
## Objects

To select an object, move your mouse pointer over the object, then left click. Note that when you move the mouse pointer over the object, you will see a yellow highlight around the object to indicate what you are going to select.



Once you click, the yellow highlight will turn into a blue highlight, and the left menu tray will change to show you the options for editing objects.

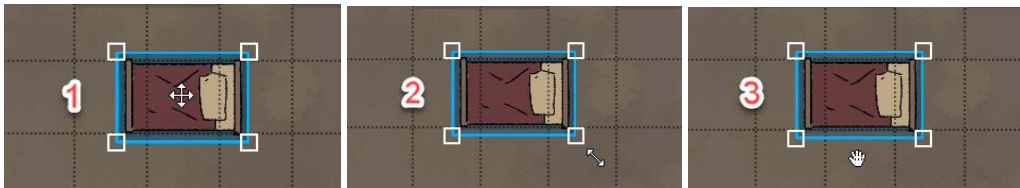




1. Delete the object. The Delete and Backspace keys will also work here.
2. Copy the object to the clipboard. The standard CTRL-C shortcut also works here.
3. Paste a copy of the object on the map. The standard CTRL-V shortcut also works here. (This option will only be enabled after you've copied an object to the clipboard.)
4. Select a different layer for the object.
5. Select whether or not the object has a shadow.
6. Select a different color for the object. (This option will only be available if you've selected a colorable object.)

You can also move, resize and rotate the selected object.

1. To move the object, place your mouse pointer over the center of the object until it looks like a crosshair with an arrow at each point.
2. To resize the object, place your mouse pointer on or near any of the white, corner squares until it looks like a diagonal line with an arrow at each point.
3. To rotate the object, place your mouse pointer on the outside perimeter of the blue highlight, near any of the blue sides, until it looks like a small hand.



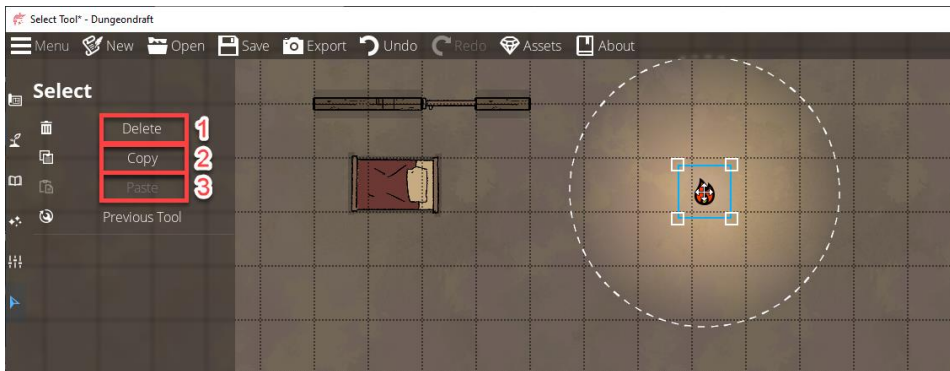
In all three cases, drag your mouse while holding the left button to achieve your desired effect.

## Light Sources

To select a light source, move your mouse pointer over the light source, then left click. Note that when you move the mouse pointer over the light source, the flame icon turn red to indicate what you are going to select.



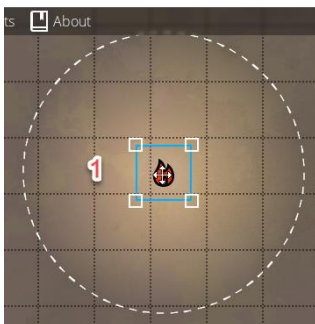
Once you click, the light source will be highlighted in blue, and the left menu tray will change to show you the options for editing light sources.



1. Delete the light source. The Delete and Backspace keys will also work here.
2. Copy the light source to the clipboard. The standard CTRL-C shortcut also works here.
3. Paste a copy of the light source on the map. (This option will only be enabled after you've copied a light source to the clipboard.)

You can also move, resize and rotate the selected light source.

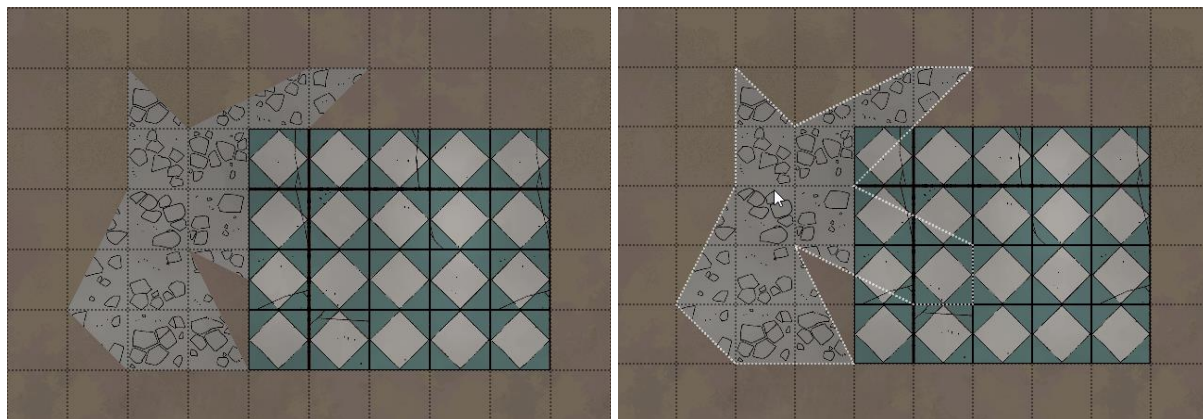
1. To move the light source, place your mouse pointer over the center of the light source until it looks like a crosshair with an arrow at each point.
2. To resize the light source, place your mouse pointer on or near any of the white, corner squares until it looks like a diagonal line with an arrow at each point.
3. To rotate the light source, place your mouse pointer on the outside perimeter of the blue highlight, near any of the blue sides, until it looks like a small hand.



In all three cases, drag your mouse while holding the left button to achieve your desired effect.

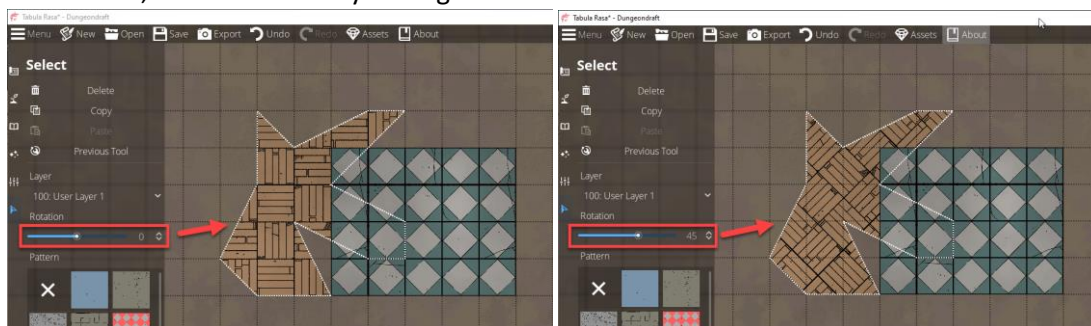
## Patterns

Let's start with these two patterns as a baseline. Note that if I select the cobblestone pattern on the left, I see the outline extending into the diamond pattern on the right. This indicates that they are two different shapes, and the diamond pattern is covering a portion of the cobblestone pattern.



1. Delete the shape. The Delete and Backspace keys will also work here.
2. Copy the shape to the clipboard. The standard CTRL-C shortcut also works here.
3. Paste a copy of the shape on the map. The standard CTRL-V shortcut also works here. (This option will only be enabled after you've copied an object to the clipboard.)
4. Select a different layer for the shape.
5. Change the rotation of the pattern within the shape. This will not rotate the shape itself.

For example, let's say I change the pattern of the cobblestone shape to "Tileset Wood Interlaced", then I rotate it by 45 degrees.



Notice that between the two images, the outline, position and orientation of the shape itself have not changed, but the pattern within the shape has rotated 45 degrees.

6. Select a different pattern for the shape.
7. Select a different color for the shape.

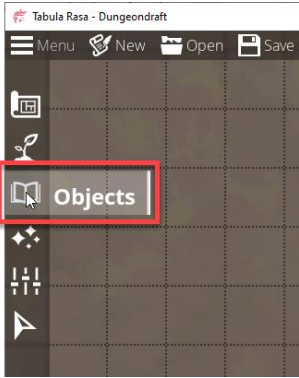
You can move shapes by simply dragging them with the mouse.

# Edit Object Tags

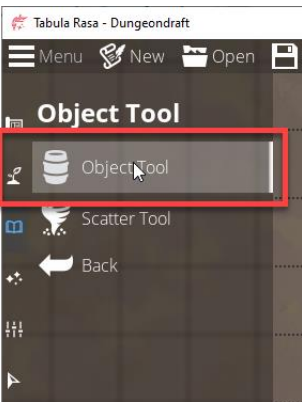
## Overview of Object Tags

Object Tags are basically categories. If you're using the Object Tool, and you filter the library to only see trees, you can select the "Tree" tag. Dungeondraft has a built-in set of tags and tag sets. If the defaults are not to your liking, you can override them and edit them.

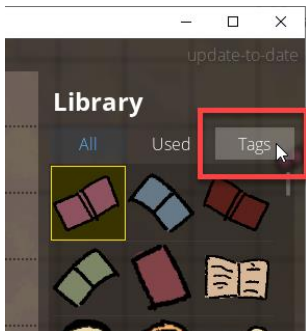
To take a quick look at what we're dealing with, let's click the "Objects" tool in the left tool tray.



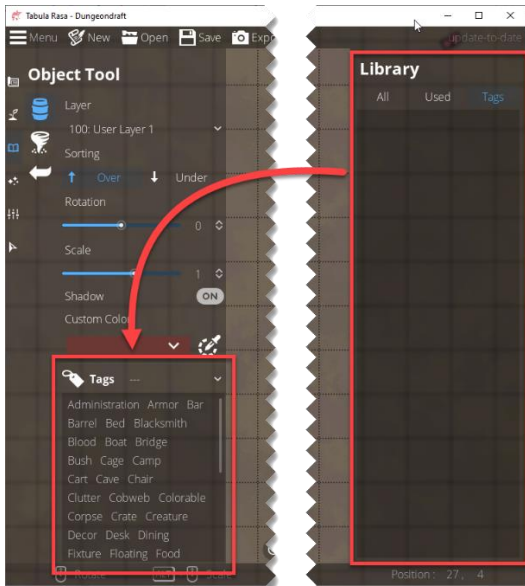
In the submenu, click "Object Tool".



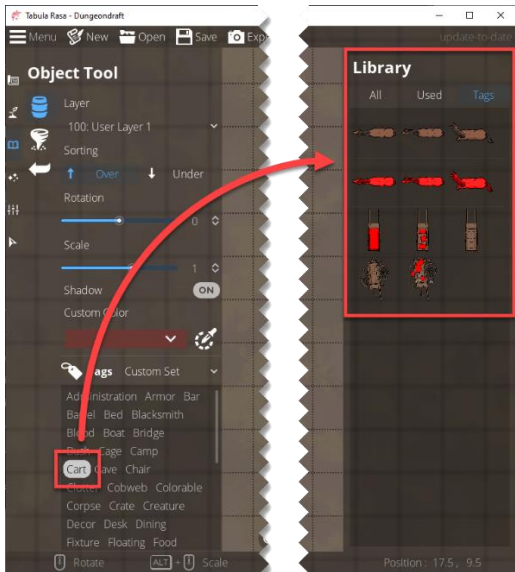
In the right tool tray, click "Tags".



After selecting "Tags", you will notice that on the right tool tray, the objects library is empty, and on the left tool tray, the "Tags" section is enabled.

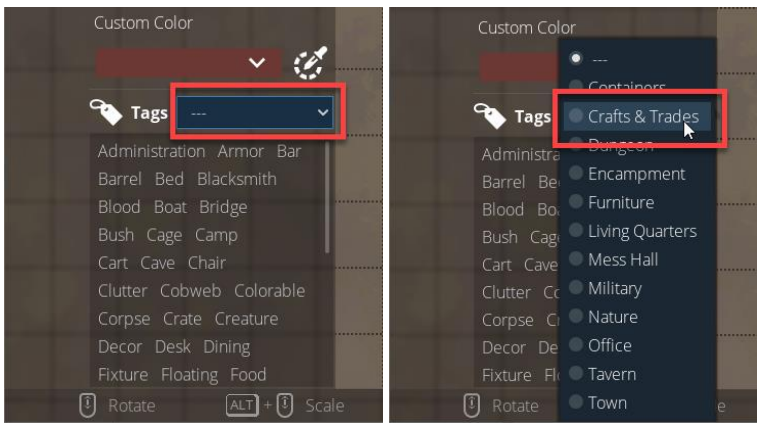


If you scroll through the list of tags and select “Cart”, you will notice that the object library populates with carts and cart-related objects.

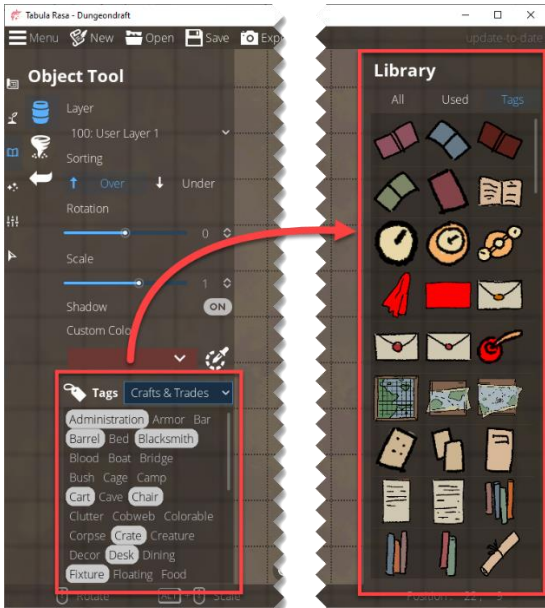


If you click the drop-down menu for “Tags”, you will be presented with a list of tag sets. Select the “Crafts & Trades” set.



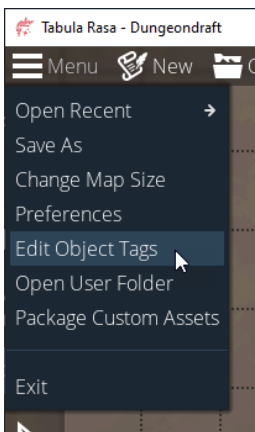


Notice that when you select a tag set, it selects several associated tags, and the object library is populated with the objects associated with all the selected tags.



## Overriding Default Object Tags

On the top menu bar, click "Menu", then click "Edit Object Tags".

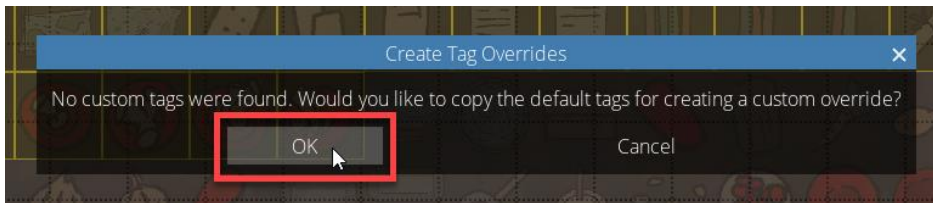




In the “Tags Browser” window, click “Override”.



If you get a message that says, “No custom tags were found ...”, click “OK”.



In the “Tags Browser” window, click the drop-down menu.



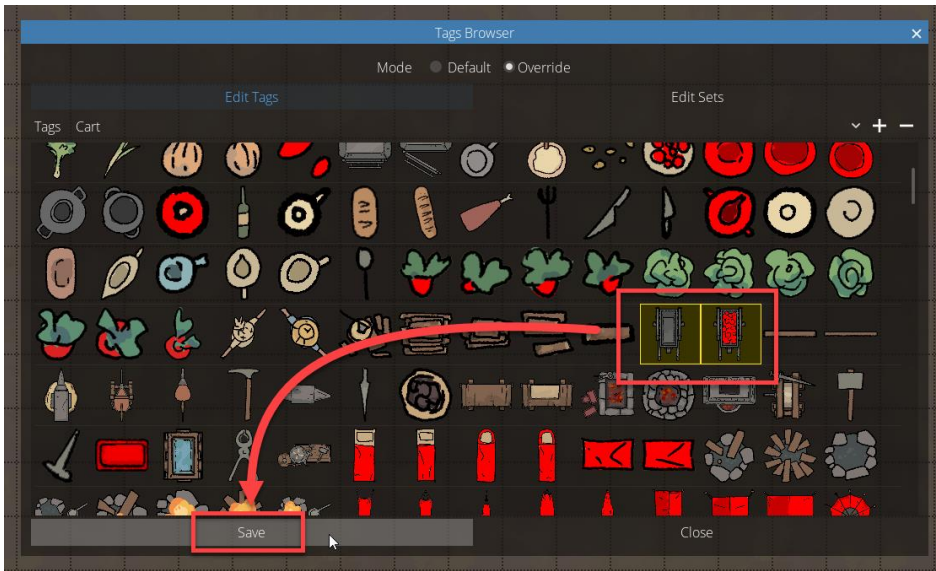
In the drop-down menu, select “Cart”.



Scroll down through the objects a little bit to find the mining carts. They're just a couple rows down, so you won't have to scroll very far.



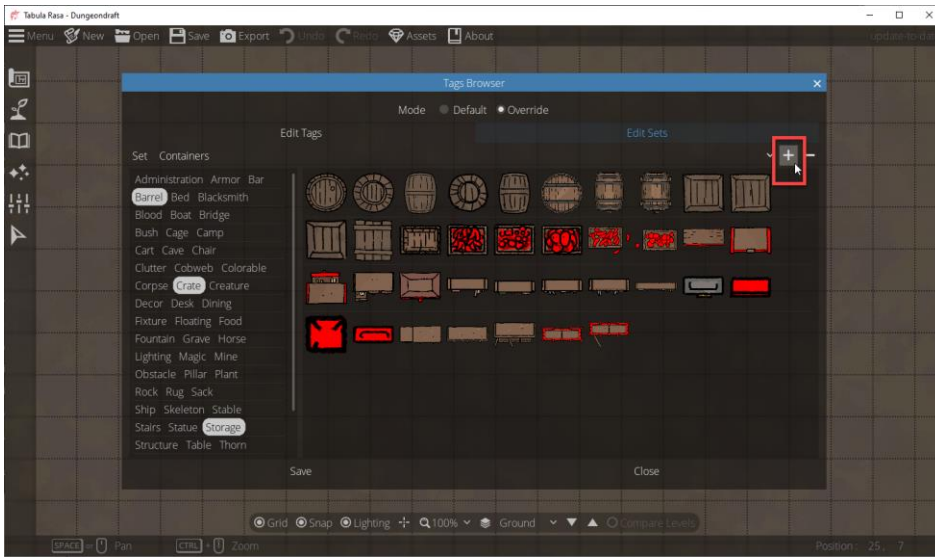
Click each cart so it's highlighted in yellow, then click "Save".



Click "Edit Sets".



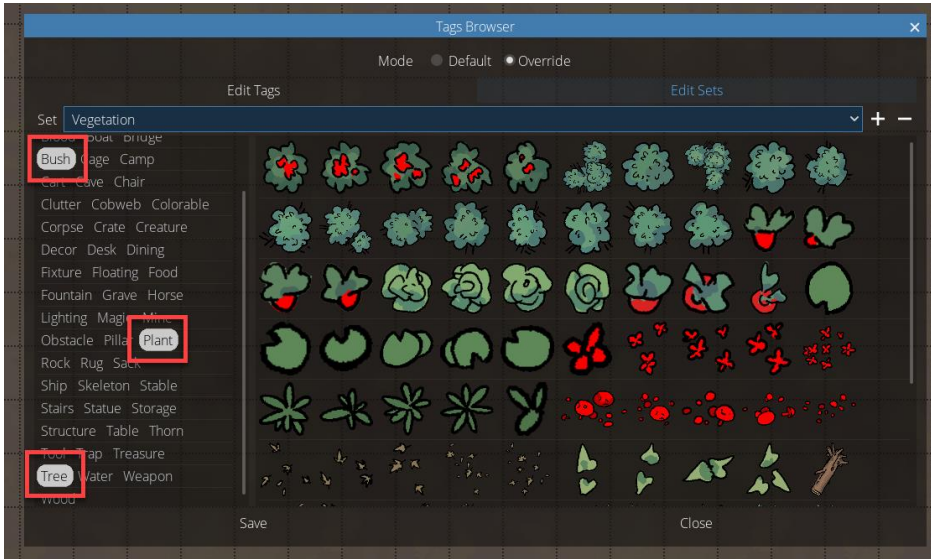
Click the + symbol.



In the “Edit Name” window, type “Vegetation” for the name, then click “Accept”.



Scroll down the list of tags just little bit, then hold down your CTRL key. While you’re holding your CTRL key, select “Bush”, “Plant” and “Tree”.



Click “Save”, then click “Close”.



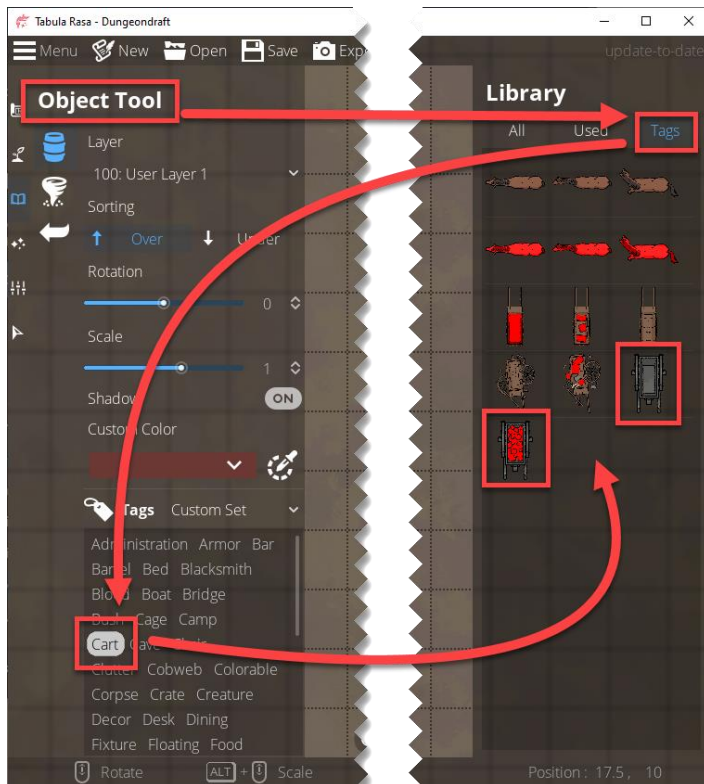


Go back to the Object Tool.

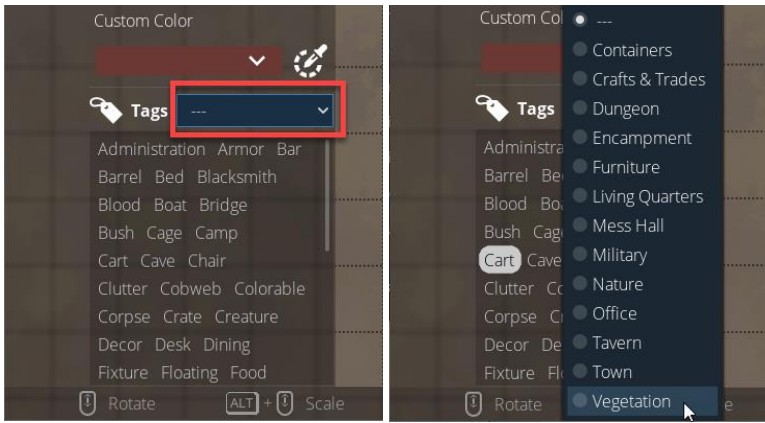
In the right tool tray, click “Tags” again.

In the left tool tray, in the tags list, select “Cart” again.

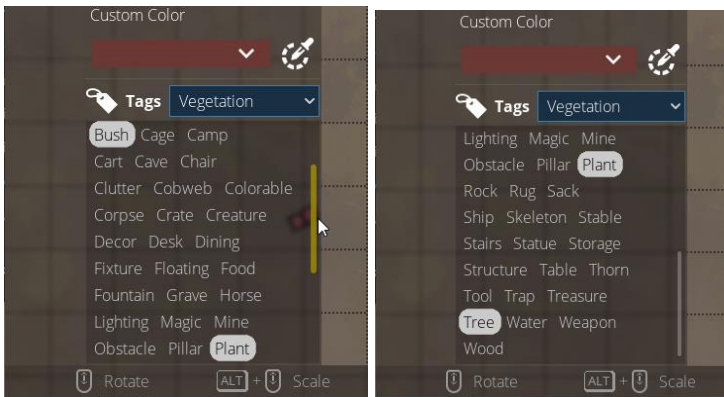
You’ll now see the two mining carts we just added. If you go back and check the previous image where we filtered by the “Cart” tag, you will see that those two mining carts were not there before.



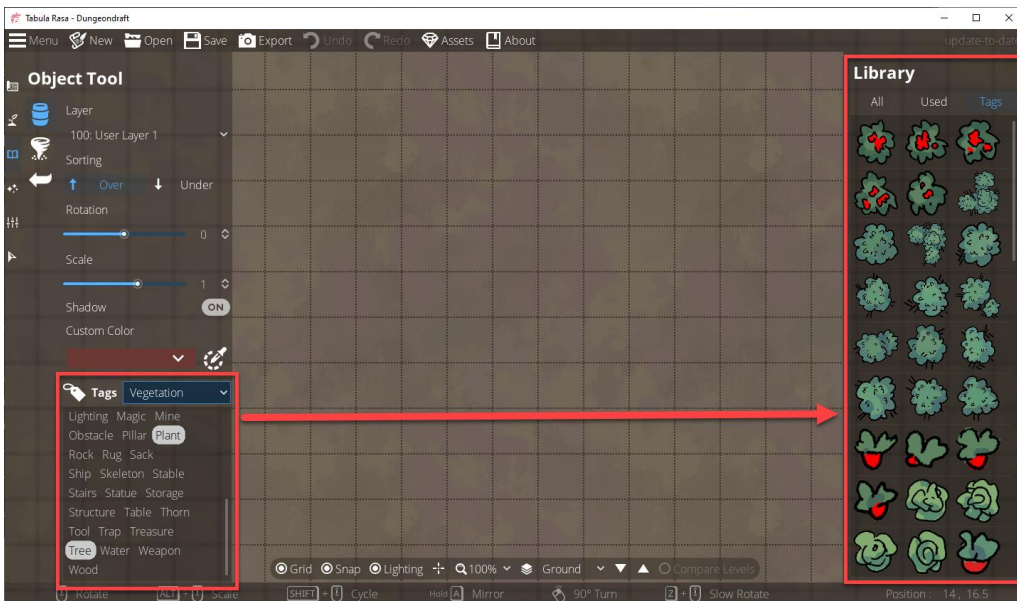
Click the drop-down menu for “Tags”, then find and select the new “Vegetation” set we just added.



If you scroll down a little bit, you will see the “Bush” and “Plant” tags were automatically selected when we selected the Vegetation set. If you scroll down a little more, you will see the “Tree” tag has been selected as well.



Notice that the object library is now populated with bushes, plants, trees and related objects.





## Reverting to Default Object Tags

### Temporarily

This process allows you to toggle between the default tags and your overrides. When you want to use the default tags, change the mode to “Default”, and when you want to use your overrides, change the mode to “Override”.

On the top menu bar, click “Menu”, then click “Edit Object Tags”.

In the Tags Browser, change the mode to “Default”, then click “Save” and “Close”.



### Permanently

This method will delete your overrides. You can make a backup before deleting them, but other than that, this is permanent.

On the top menu bar, click “Menu”, then click “Open User Folder”.

You will see a file named “override.dungeondraft\_tags”. If you want to make a backup, do so now. Copy this file to a different folder.

After you’ve made your backup, or if you really don’t want to make a backup, delete the file from this folder.

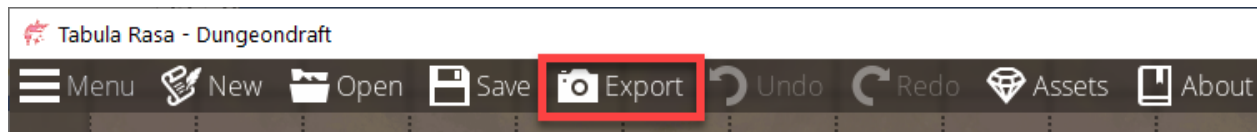
Close the file window.

Close and restart Dungeondraft.

## Exporting Maps

When you save your map in Dungeondraft, it saves it as a JSON file that isn’t usable for most applications you would want to use a map for. The “Export” function lets you save your map as an image that you can print or display, or as a “Universal VTT” file that can be imported into VTT programs that support the “Universal VTT” format.

On the top menu bar, click “Export”.



This opens a dialog window with several options.

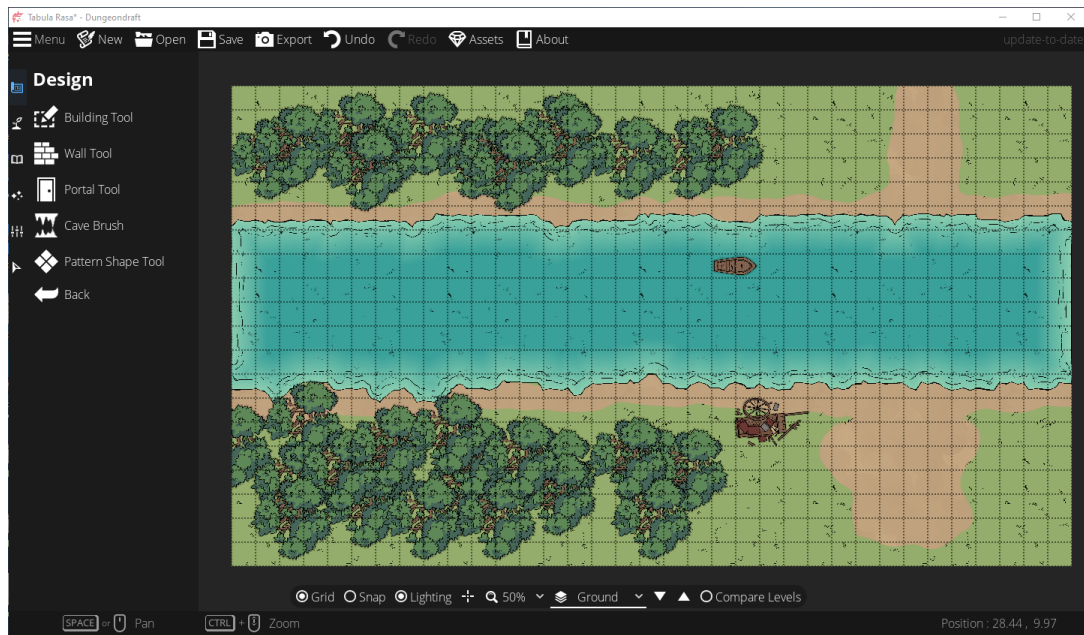


1. If you click the drop-down menu for “Export Mode”, you can choose to export your map as a PNG file, a JPEG file or a Universal VTT file.
  - a. PNG and JPEG files are just flat image files. You can edit/print these files in other graphics programs, and you can load them into Virtual Tabletop platforms.
  - b. A “Universal VTT” file is a JSON file that contains an image of the map (encoded in Base 64) as well as metadata about locations of walls, doors, windows and lighting. This metadata is used by Virtual Tabletop platforms to determine the locations of these items on your map so it can use them dynamically during your sessions.
  - c. As I write this, I am aware of two Virtual Tabletop platforms that can import “Universal VTT” files. MapTool, available from <https://www.rptools.net>, and Foundry VTT, available from <https://foundryvtt.com>.
  - d. MapTool, beginning with version 1.7.0 has a built-in function to import Universal VTT files.
  - e. Foundry VTT requires an additional module.
  - f. The documentation for MapTool and Foundry VTT are beyond the scope of this document, but if you have any issues, you can find support at the respective online communities for these programs or on the Dungeondraft Discord server (to a limited degree).
2. You can toggle the gridlines on or off before exporting your map.
3. You can toggle lighting effects on or off before exporting your map.

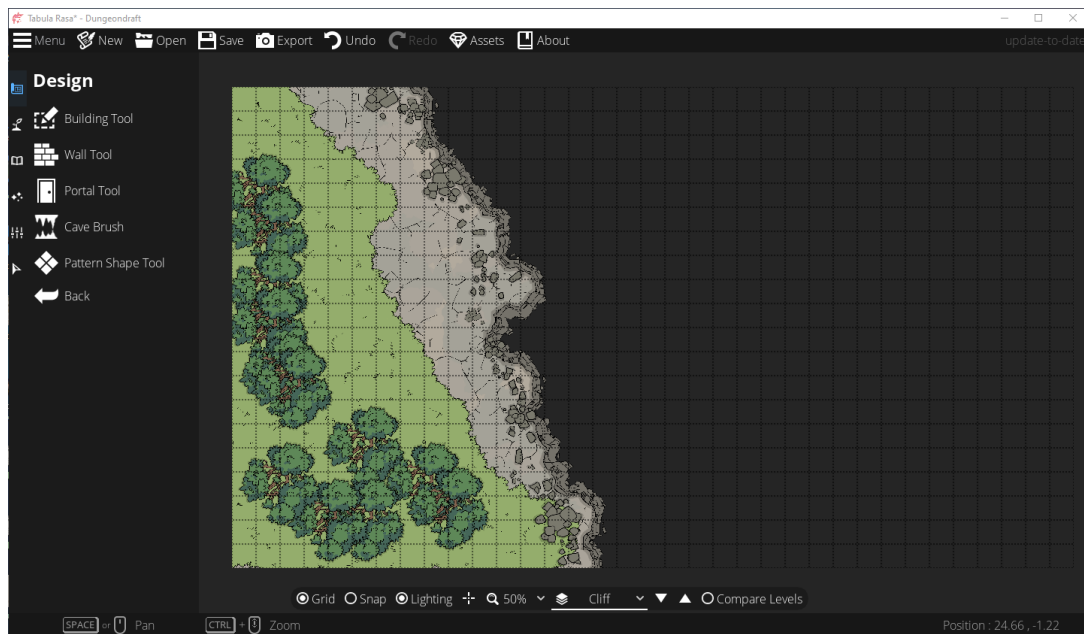
4. If your map has multiple levels, you can choose which level to use as the source level when exporting.
5. Set the Brightness for the Source Level
6. Set the Focus for the Source Level
7. If you want to combine two levels of your map into a single image, you can choose which level to overlay over the source level.
8. You can set the opacity for the overlay level.
9. If you click the drop-down menu for “Camera Filter”, you can choose how you want your exported map to look.
  - a. None: Your exported map will look as you’ve designed it.
  - b. Printer-Friendly: Your map will export as a black-and-white image.
  - c. Sepia: Your exported map will have that aged parchment look.
10. If you click the drop-down menu for “Grid Presets”, you choose a preset PPI (Pixels Per Inch) value for your map. The higher the PPI value, the higher the resolution of your map, the larger the file size of your map. The presets and their respective PPI values are:
  - a. Custom: No specific value. It will default to last value used or to 256. Manually editing the PPI value will automatically set this as the preset.
  - b. Best Quality: 256 pixels
    - i. Use this preset if you want a high-quality map for general use.
  - c. Optimal Halved: 128 pixels.
    - i. Use this preset if you still want a high-quality map, but not so large a file.
  - d. Commercial Print: 300 pixels
    - i. Use this preset if you want your map commercially printed.
  - e. Roll 20: 70 pixels
    - i. Use this preset if you want to use your map on Roll 20 or another Virtual Tabletop platform. The map will still be decent quality, but it won’t be so large as to hog people’s bandwidth.
    - ii. This preset should also give you a version of your map where the Dungeondraft grid lines will line up with the Roll 20 grid lines.
  - f. 40” TV: 54 pixels
    - i. Use this preset if you want to display your map on a 40” TV and have one grid square equal to one square inch, so you can use it as a live battle map.
  - g. 55” TV: 80 pixels
    - i. Use this preset if you want to display your map on a 50” TV and have one grid square equal to one square inch, so you can use it as a live battle map.
11. If none of the Grid Presets suit your needs, you can manually set your own PPI value.
12. This displays the output resolution of your soon-to-be-exported map. Not that this will change with the PPI value. The higher the PPI value, the higher the output resolution. The lower the PPI value, the lower the output resolution.
13. “Show in Folder on Finish” is checked by default. Leaving this checked means that when you click “Export”, Dungeondraft will export your map, then automatically open the destination folder in a file explorer window with your exported map file selected.
14. After setting all your options, click “Export” to export your map.

**Example:**

I have a map with a “Ground” level:

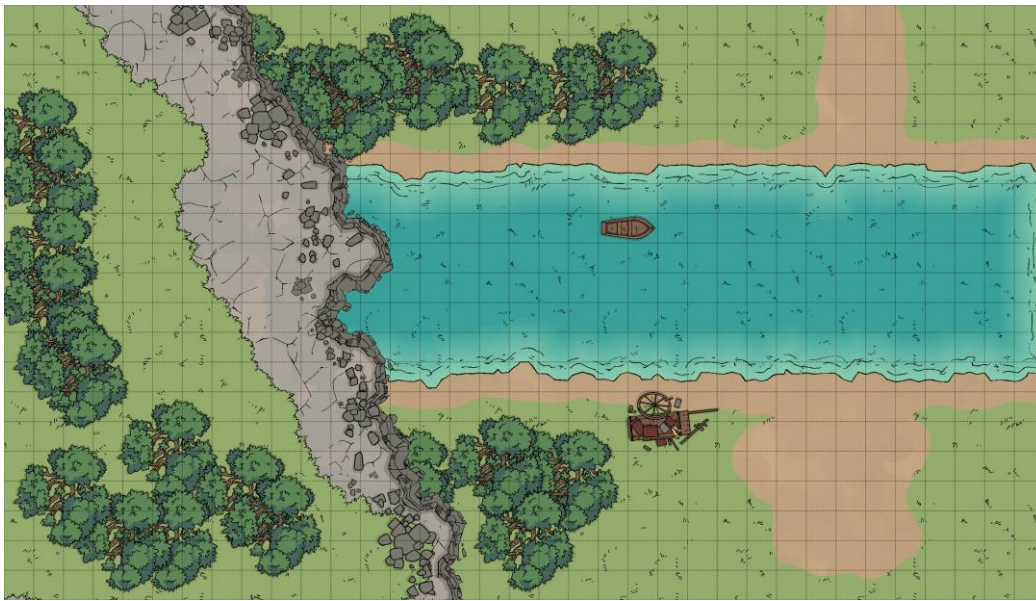


And a “Cliff” level:



Note that the Terrain is OFF on the cliff level, making it transparent.

When I export, I want to use the “Cliff” level as an overlay, and I want the “Ground” level to be just a little bit out of focus to add a sense of depth. If I don’t change the focus, I get this, which looks flat and boring:



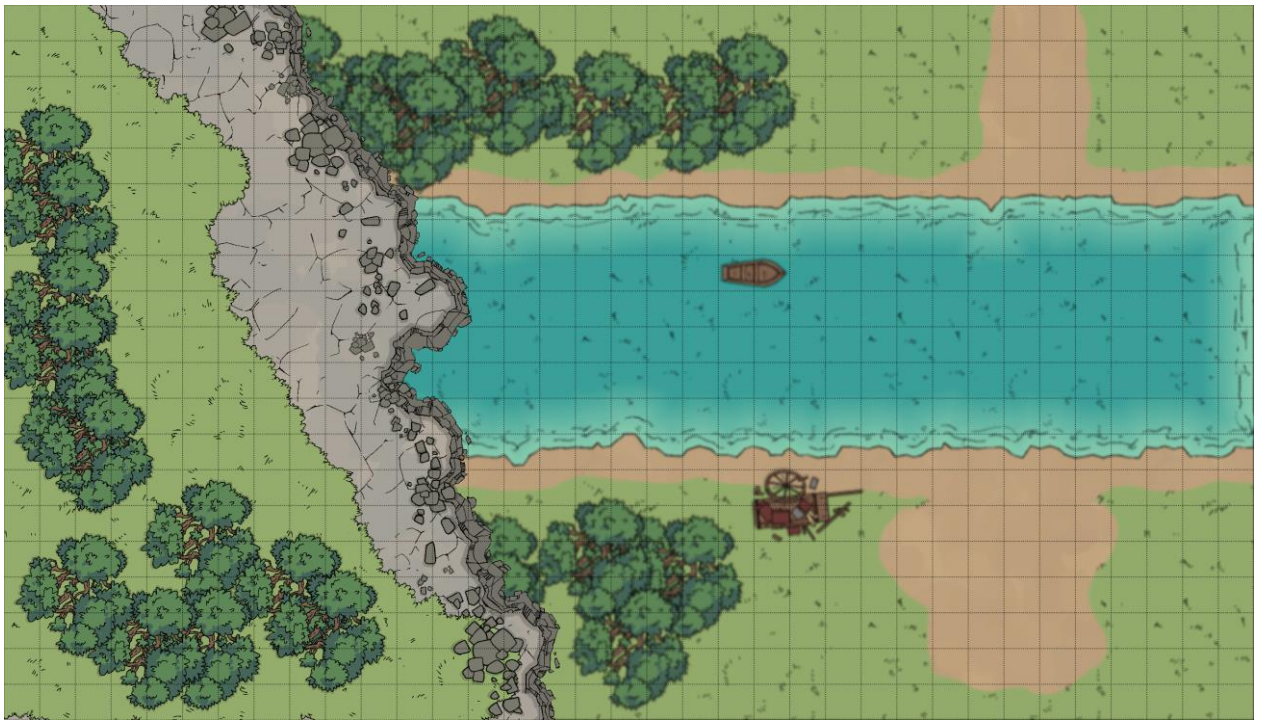
So when I export:

- I set the “Source Level” to “Ground”.
- I set the “Brightness” to 94%.
- I set the “Focus” to 75%.
- I set the “Overlay Level” to “Cliff”.
- And if I plan on using this map online, I set the “Grid Presets” to “Roll 20”.



That gives me a map that looks like this:





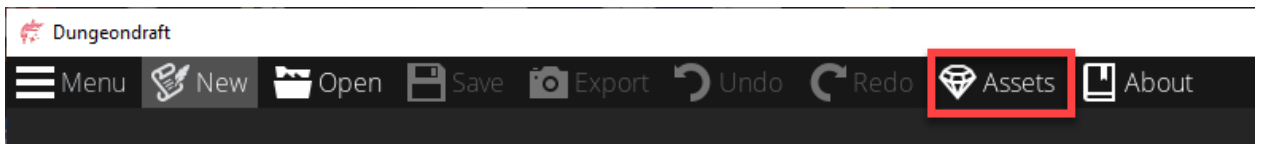
That offers a bit more of a sense of the height of the cliff.

## Custom Assets

### Setting Your Custom Assets Folder

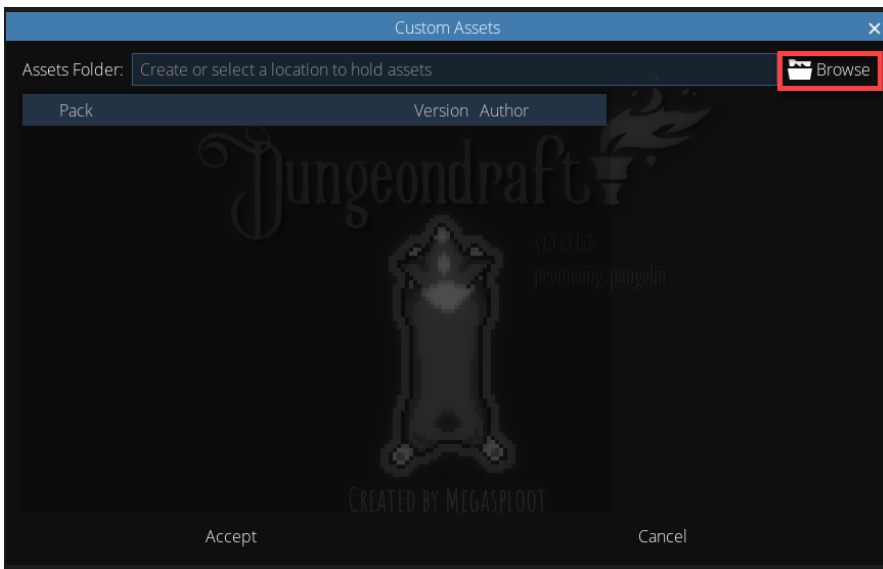
If you haven't done so yet, the first thing you need to do is to set the location for your custom asset packs. The folder should ideally be in your Documents folder or a similar location where you would normally store your own files. I would recommend creating a "Dungeondraft\_packs" folder in your "Documents" folder, so that's the example I'm going to go with. If you choose a different location and/or folder name, make the appropriate changes as you follow along.

On the top menu bar, click "Assets"

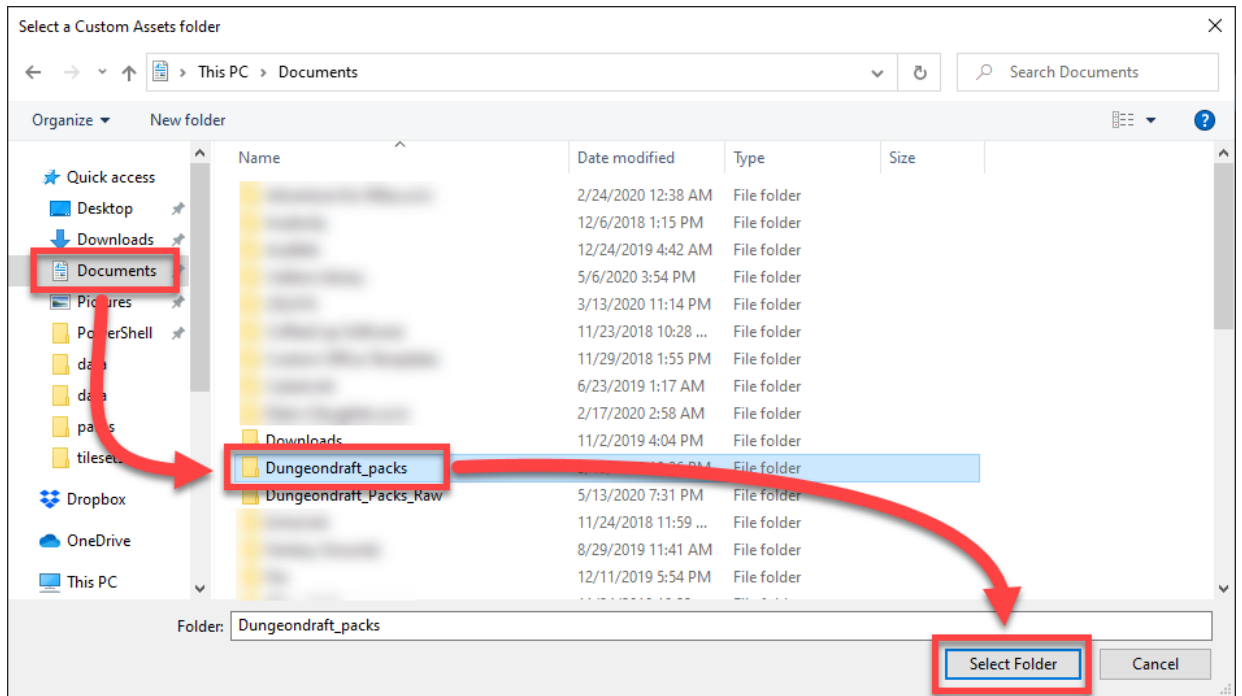


In the "Custom Assets" window, click "Browse".

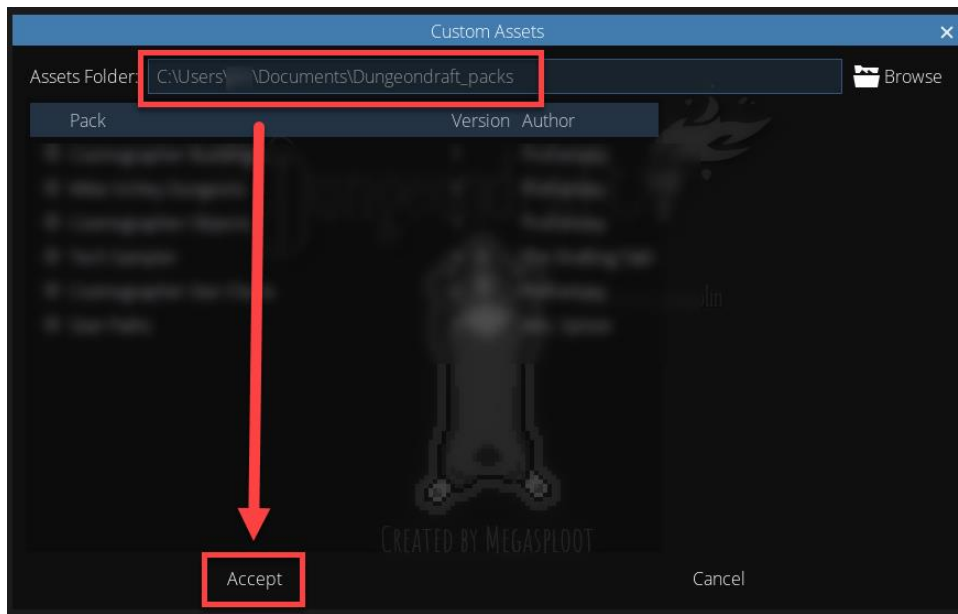




In the file dialog that opens, browse to select your chosen folder. Don't open the folder, just highlight it and click "Select Folder".



Verify that the correct Assets Folder is displayed, then click "Accept".



## Downloading and Installing Custom Asset Packs

There is a growing number of asset packs available for download. If you're not a great artist, or if you don't want to want to trouble yourself with the technical details of making your own packs, you can select from a catalog of asset packs that others have created.

Two popular sites where you can find these catalogs are:

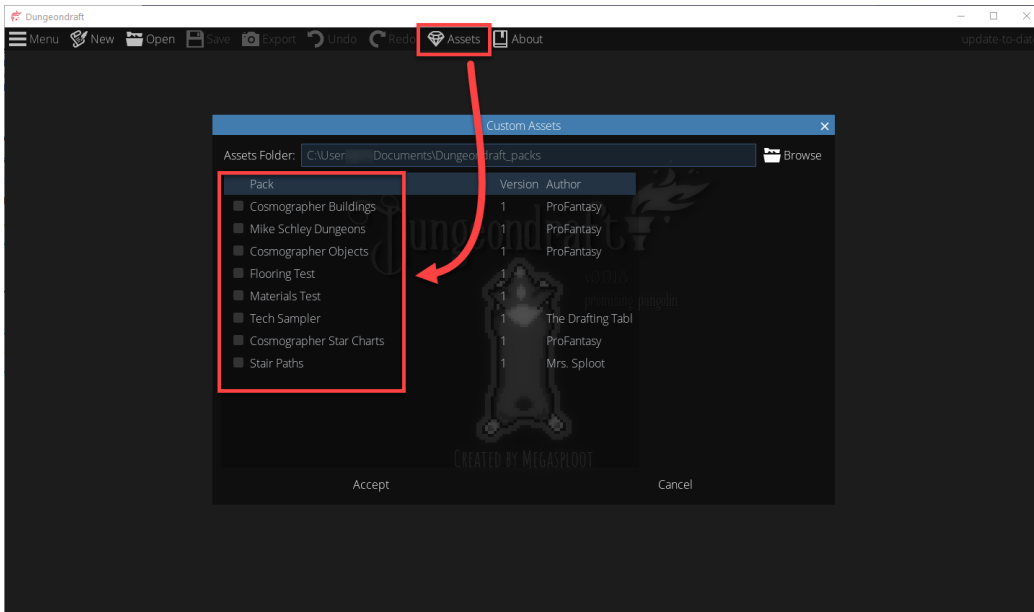
1. <https://www.cartographyassets.com/assets/categories/dungeondraft.99/>
2. <https://2minutetabletop.com/product-category/map-assets/dungeondraft-assets/>

The Dungeondraft files you download from these sites will usually be `.dungeondraft_pack` files, but they could also be `.zip` files that contain `.dungeondraft_pack` files.

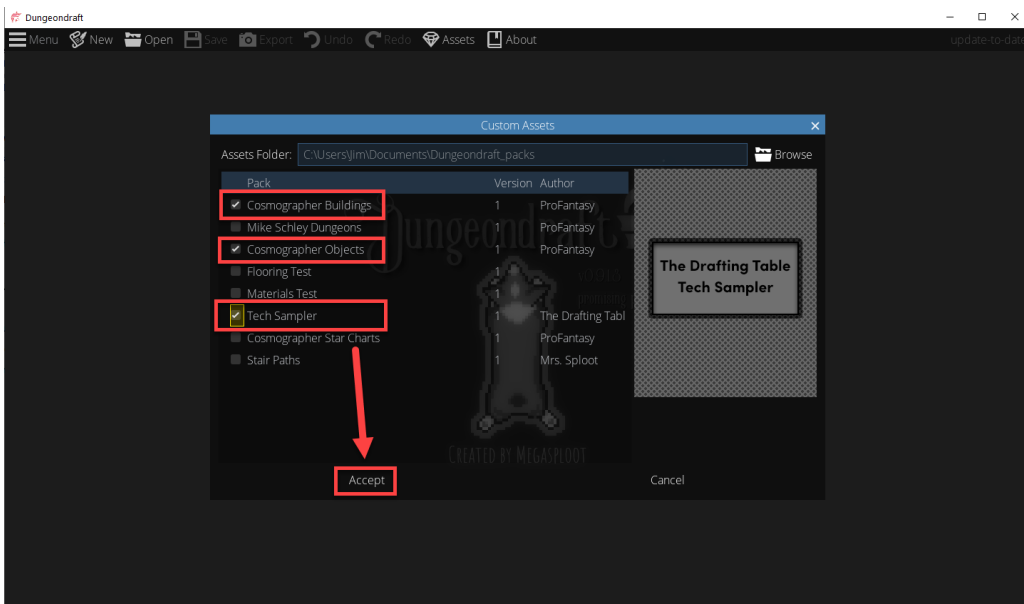
With `.dungeondraft.pack` files, simply copy them to the Custom Assets folder you configured in the Assets menu.

With `.zip` files, you'll have to extract the `.dungeondraft_pack` files, then copy them to your Custom Assets folder.

Open Dungeondraft and click "Assets" on the top menu bar. You should now see a list of asset packs that correspond to the ones you downloaded and copied into your folder.

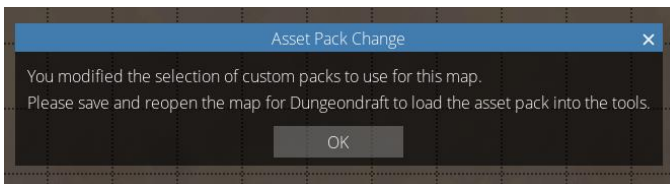


Click the check box for each asset pack that you want to use by default for each new map you create, then click “Accept”.



Whenever you save a map, your selections are saved with it. Consequently, whenever you open a map, it’s selections will override the default ones. If you want to change the selections for map (add or remove custom assets), do the following:

1. Click “Assets” on the top menu bar.
2. Change the selections to your liking.
3. Click “Accept”.
4. You will get a notification that you need to save your map and reopen it.



5. Click OK, then save your map and reopen it.

## Creating Your Own Custom Asset Packs

To create your own asset packs, you'll first need artwork. You can draw your own or you can use downloaded artwork. Two of the more popular sites for finding artwork are:

1. <https://cartographyassets.com>
2. <https://2minutetabletop.com>

Custom asset packs are created from source folders that have a collection of PNG files and JSON files organized in a specific folder structure. You should store these folders in a central location.

In the "Dungeondraft\_packs" folder you created earlier, create a new folder and name it "Source".

There is an example source folder included with Dungeondraft.

1. Browse to %ProgramFiles%\Dungeondraft.
2. Open the "example\_template.zip" file.
3. Copy the entire "example" folder to the "Source" folder you just created.

Browsing through the example folder will show you how everything should be structured. The following section details the specifications for each type of image and each type of JSON file.

## The Official Custom Assets Guide

This guide was written, and is updated, by the developer, Megasplot. At any given time, the most up-to-date version of the guide can be found here:

<https://github.com/Megasplot/Dungeondraft/wiki/Custom-Assets-Guide>

I'm including the current version of the guide below (and with permission) for your convenience.

### 1. Preparing an asset pack folder

Extract the example template zip file to a location of your choice. You can locate the .zip either from the Package Custom Assets window button called 'Example Template' or in the install folder of Dungeondraft. Once extracted, you can rename that folder to anything you prefer.

Inside the folder are files and sub-folders that Dungeondraft need to import every kind of asset. The example tries to provide one sample of each type of asset. Use these as references on how to author your own asset. For your own pack, you need an identical structure. You can opt to copy the structure found here or create your own.

You can skip to [Packaging the pack](#) to test the example as is. Otherwise, proceed to add a few test assets yourself for the pack.

## 2. Authoring custom assets

There are two primary types of files to author. The PNG are your raw art files that will be used to display drawings inside the /textures folder. The rest are JSON text files located inside the /data folder. The purpose of each JSON text file is designated by its file extension (e.g. dungeondraft\_wall informs Dungeondraft where the wall file and what the default color are).

It is important to keep the PNG files in their respective folders, as Dungeondraft depends on these folders to determine what they will be used for. Subfolders inside these folders are allowed, but really only necessary for the /objects folder to help organize a large library of objects.

The PNGs are authored at 256 ppi resolution natively. That means that Dungeondraft treats 256 pixels you draw as one grid unit across.

### *Objects*

Objects are just PNG files. Once placed into /textures/objects/ or its subfolders, they will start showing up in Dungeondraft's library at the end of the list.

To help organize it, you can add Tags and Tagsets. Open /data/default.dungeondraft\_tags in a text editor like Notepad++. You will see a JSON-like format for a section called Tags and a section called Sets. A Tag forms a collection of objects, and a Set is a collection of Tags. Imagine Tags as descriptors of objects, and Sets as groups of Tags. These Tags can be same as existing ones in default Dungeondraft tags. These tags and sets will be merged with the default ones. You will need to revert to the Default tags under the Tags Browser if you have overwritten the default tags.

To make, custom colorable objects, draw the colorable area in a generally reddish tone. Then inside the tags file, add the reference to the object under "Colorable" tag.

### *Terrain*

Terrain are seamless PNG files. Ideally they are 2048 x 2048 in size, but the most important feature is that they tile seamlessly. The terrain system has a hidden mechanic that reads the alpha channel of the PNG as a way to blend together different terrain based on depth. If you simply want normal blending, leave the alpha channel alone. Otherwise, read the next section. Place them in /textures/terrain/.

Terrain blend with each other based on the depth described in the alpha channel. The brighter the alpha, the taller in elevation that section of the terrain. In real-world analogy, if you draw snow on top of cracked earth, it should fill in the cracks first, because cracks are lower. Likewise, the cracked earth terrain in Dungeondraft has darker alpha for the cracks than the rest of the image. Therefore, when a user draws another terrain over the cracked earth texture, it will fill the cracks before filling the rest of the terrain.

### *Materials*

Materials are seamless PNG files. They require an additional border PNG, which is used to encircle each material. You should name the material and its borders materialname\_tile.png and materialname\_border.png respectively. Place them in /textures/materials/. Ideally, the border textures have at least a 1 pixel transparent gap at the top and bottom of the texture. The top of the border is the outer edge, while the bottom of the border will overlap the material.

## *Tilesets*

A Tileset is a black-and-white PNG texture that contains square tiles that can be placed as floor shapes. They come in 3 flavors:

- Simple
- Smart
- Smart Double

The location of the texture file determines which type of Tileset it is.

### Simple

Simple tilesets randomly picks tiles. These are 1024 x 1024 textures that contain 4 x 4 tiles (16 total). They are randomly placed on the grid.

### Smart

Smart tilesets pick random tiles unless the user creates a corridor. These are 1024 x 2048 textures that contain 4 x 8 tiles (32 total). The top half functions identically to the simple tileset. The bottom half of the texture are single-wide corridors that are used when a user draws narrow corridors. These must be laid out in the exact same pattern as the example. Dungeondraft will properly place t-junctions, dead ends, and corners based on the layout.

### Smart Double

Smart double tilesets are exactly the same as the Smart tileset except that the texture size is 2048 x 2048 containing 8 x 8 tiles (64 total). It's a smart tileset where the author can provide more variety if they desire.

Tilesets can be custom colored. In that case, the artist would create a colored PNG instead of black-and-white. The reddish colors are what Dungeondraft uses as the cue to replace.

To complete a tileset, you need to add the meta file for the tileset. These are located in the `/data/tilesets/` folder with the extension `.dungeondraft_tileset`. There are 3 examples corresponding to each of the 3 flavors of tilesets for you to copy. Follow the same format, but replace the fields with your own.

Path is the location of the tileset image file.

Name is the displayed name.

Type is either 'normal' or 'custom\_color' based on the image type.

Color is the default color for the tileset.

## *Walls*

Walls are black-and-white long textures that tile seamlessly left-to-right. They can be placed with the Wall tool but also can automatically wrap any Floor Shapes. Line-of-sight blockers will be automatically generated in the middle of your texture when a user creates a wall, so it is important to align where the wall should cut off lighting.



Walls also require an end texture that is placed at the end of a wall. You need to give it the same name as your wall but with '\_end.png' in the end (eg sample\_wall.png and sample\_wall\_end.png). The height of the texture should be the same height you chose for your wall.

Every wall needs an accompanying meta file inside the /data/walls/ folder. Copy the sample\_wall.dungeondraft\_wall file and change sample\_wall to the name of your wall. Then edit with a text editor, the path and color to correspond to your texture file and default color respectively.

### *Paths*

Paths are long PNGs. Make sure the image loops/tiles left to right. It is ideal to have at least a 1 pixel transparent gap at the top and bottom of the image to prevent float-point artifacts. Place them in /textures/paths/.

### *Portals*

Portals are doors, windows, or anything else that can connect two areas together. They must be exactly 256 pixels wide PNGs. Center the portal image. You do not need additional data for portals to work. Place them in /textures/portals/.

### *Lights*

Lights are grayscale PNG textures of square size. The white portion of the image will let light through. Place any light textures in /textures/lights/. No additional editing needed.

## 3. Packaging the pack


Before you package your assets, you may want to create a preview image of the pack. It will be displayed in the Asset selection window. This is a 256 x 320 pixel PNG file located in base folder. It must be named preview.png.

You will want to delete any of the sample assets and data if you have not yet done so.

To bundle your custom assets, go to the dropdown menu inside Dungeondraft and select Package Custom Assets. It will pop open a new window (which may have led you to this guide). Click Browse for the Base Folder field and navigate to your pack folder. You will want to highlight the folder from the outside of the folder rather than inside, then click Select Folder.

Fill in the appropriate fields like the Name, Author, and Version. These fields are displayed to future users. Click Package to create the .dungeondraft\_pack file. If you have already set a custom assets directory, it will place the pack there. Otherwise, it will default to the current user's My Documents folder.

## 4. Testing your assets

Once you've created your pack, you can immediately test it by creating a new map and clicking on  Edit Asset Pack Selection. Your new pack should appear in the list. Check the checkbox for your pack, hit Accept, and create the new map. Now you can test your pack and address any issues.

In order to refresh the contents of a pack, you will need to quit Dungeondraft and delete the .dungeondraft\_pack file. Dungeondraft reads any packs into the memory, so you won't be able to modify existing packs without closing it first.

Please make sure to test all elements from your pack, test their functionality, and test saving them to a map.

## 5. Distributing the pack

Upload the `.dungeondraft_pack` to the website or server of your choice and share the link. That's it. I suggest [www.cartographyassets.com](http://www.cartographyassets.com).

If a user uses the pack to create a map, others who try to open the map will be warned that they have to download this pack in order to open the map safely.

### Updating the pack

If you update your pack, you need to be cognizant of backwards compatibility. If your new pack only adds new assets or change their appearances, you can just delete your old pack and repackage it. Dungeondraft will treat the new version as the same pack as the previous one. Changing the version number does not affect compatibility.

However, if you know that your new pack removes old assets, change their names, or in anyway corrupts maps that were created from the previous version, you need to make sure Dungeondraft treats this as a different pack. You do this by going into the pack base folder and deleting the `pack.json` file before packaging it again.

## Video Tutorials for Custom Assets

Additionally, you can check out these two YouTube videos. You may be able to find more if you search.

<https://www.youtube.com/watch?v=J1MP9aSEwEg>

<https://www.youtube.com/watch?v=vp2ZEN8wl6g>

## Can I sell or publish my maps?

According to the Dungeondraft license agreement, if you wish to sell or publish your maps, you can only install the program on one computer per license you've purchased. That is to say, if you've only purchased one license, you can only install it on one computer.

The Dungeondraft license agreement does not extend to third-party artwork. If you use custom assets in your map, or any artwork that is not included with the default installation of Dungeondraft, you need to abide by the license agreements associated with those assets and that artwork.

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## Version History

- “Floor Shape Tool” has been renamed to “Building Tool”.
- “Pattern Shape Tool” has been added as a new tool under “Design Tools”.
- “Cave Brush” now has two modes, “Dig Cave” and “Blast Open”.
- “Trace Image Tool”

### 0.9.2.0 Toxic Pangolin

#### Features

- New map loading experience
- Pattern Shape Tool
- Trace Image tool
- Export effect sliders: brightness and focus
- Blast open caves to outdoors

## Assets

- Chain, rope, and thick rope, shadow paths
- Cliff path
- Damaged wood floor tiles
- Toilets x 6
- Palm trees x 3
- Grates x 8
- Ferns x 6
- Cows, cat, pigeond x 6
- Pipes x 9
- Totems x 6
- Floating debris x 6
- Flower beds x 3
- Magic mushrooms x 14
- Pillows x 2
- Broken furniture x 27
- Grass/weeds x 21
- Broken bridge pieces x 4
- Snow patches x 15

## Fixes

- Freestanding portal preview
- Opacity slider and export PPI not saving between sessions
- Crashes from regenerating cave walls too early in Cave Brush
- Crash when saving or backing up while using the Path Tool
- Map file not opening Recently Opened Maps because of missing .dungeondraft\_map extension
- Mirrored objects behaving strangely after being scaled
- Warn user if no custom assets directory has been set while packaging
- Browse button stops working if the previous folder no longer exists
- Paths not fading out if there are only 2 points
- Floor tile undo does not undo changed tile colors
- Walls being created for buildings without walls when creating a separate building
- Lighting not casting properly if exporting from a lit level different from the chosen level
- Crash from redoing a portal from an altered building shape
- Deleting points on a wall with a portal causing wall to connect points in the wrong order

## Improvements

- Shadow toggle for walls
- Aligned the line-of-sight/light blocker of caves to be more on the outside
- Added a preference for snapping at half grid instead of full grid
- Reduced limestone brightness
- Normalized custom terrain texture to 256 dpi
- Moving a single object now respects snapping

- Stricter definition of redness for custom color assets to allow more orange and purple range
- Select tool now updates information from selected objects