

# Map Making for Sector's edge

This guide is more complementary to Caspooky's guide which has some outdated information and only covers magicavoxel surface rather than a full guide that could stand by itself.

Capsooky's guide : [Making a map for Sector's Edge](#)

*Please note that this guide does not contain all information, i won't cover :*

- Full list of textures (Ask Vercidium to get it, I don't have it either)
- How to use json, [useful links at the end](#)

## 1) Before the first blocks :

Some useful information with files

- Having your map inside the game :

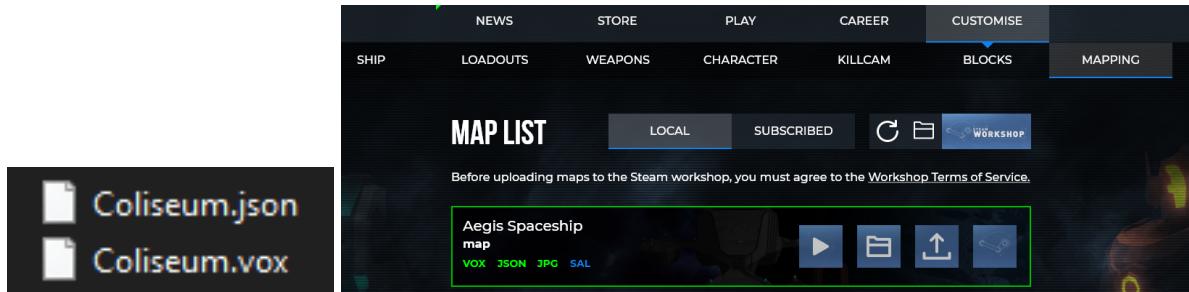
To get your map in the game and to be able to travel to it you need to add a folder for each different map at this path :

C:\Program Files (x86)\Steam\steamapps\common\SectorsEdge\workshop\maps

Nom	Modifié le	Type	Taille
Wildlands	15/04/2021 14:28	Dossier de fichiers	
The Core	18/02/2021 13:16	Dossier de fichiers	
Static Coliseum	10/04/2021 14:17	Dossier de fichiers	
Sniper outpost	09/04/2021 20:00	Dossier de fichiers	
Shooting range	26/02/2021 12:13	Dossier de fichiers	
Parkour	30/03/2021 14:17	Dossier de fichiers	
Microworld	16/04/2021 19:10	Dossier de fichiers	
Laser Tag	05/04/2021 16:06	Dossier de fichiers	
Futurscape	18/02/2021 13:16	Dossier de fichiers	
Colony	05/03/2021 18:06	Dossier de fichiers	
Coliseum	25/02/2021 16:41	Dossier de fichiers	
Cave Temple	10/03/2021 10:33	Dossier de fichiers	
Aegis Spaceship	18/02/2021 13:16	Dossier de fichiers	
sh.json	15/04/2021 16:44	Fichier JSON	11 Ko

Each folder corresponds to one map

Inside each folder you will add one **vox** and one **json** file with the same name.



maps will show here (will show red if either vox, json or preview image is missing, orange/yellow if you have errors in your json)

- **About Static arena template :**

As you may already know, to create a static map you need to have a special json condition, to fulfil these, I highly recommend taking Vercidium's template in the workshop for the vox and json. The path to it is :

C:\Program Files (x86)\Steam\steamapps\workshop\content\1024890\2358065412

A screenshot of a Windows File Explorer window. The address bar shows the path: C:\Program Files (x86)\Steam\steamapps\workshop\content\1024890\2358065412. The main area displays a list of files:

Nom	Modifié le	Type	Taille
arena.id	10/04/2021 13:45	Fichier ID	1 Ko
arena.json	16/04/2021 10:04	Fichier JSON	3 Ko
arena.vox	10/04/2021 13:45	Fichier VOX	4,747 Ko
preview.jpg	10/04/2021 13:45	Fichier JPG	379 Ko

here what you will get if you subscribed to it in the workshop

- **Modifying vox with magicavoxel :**

The Vox files that you will be able to access inside of magicavoxel need to be here :

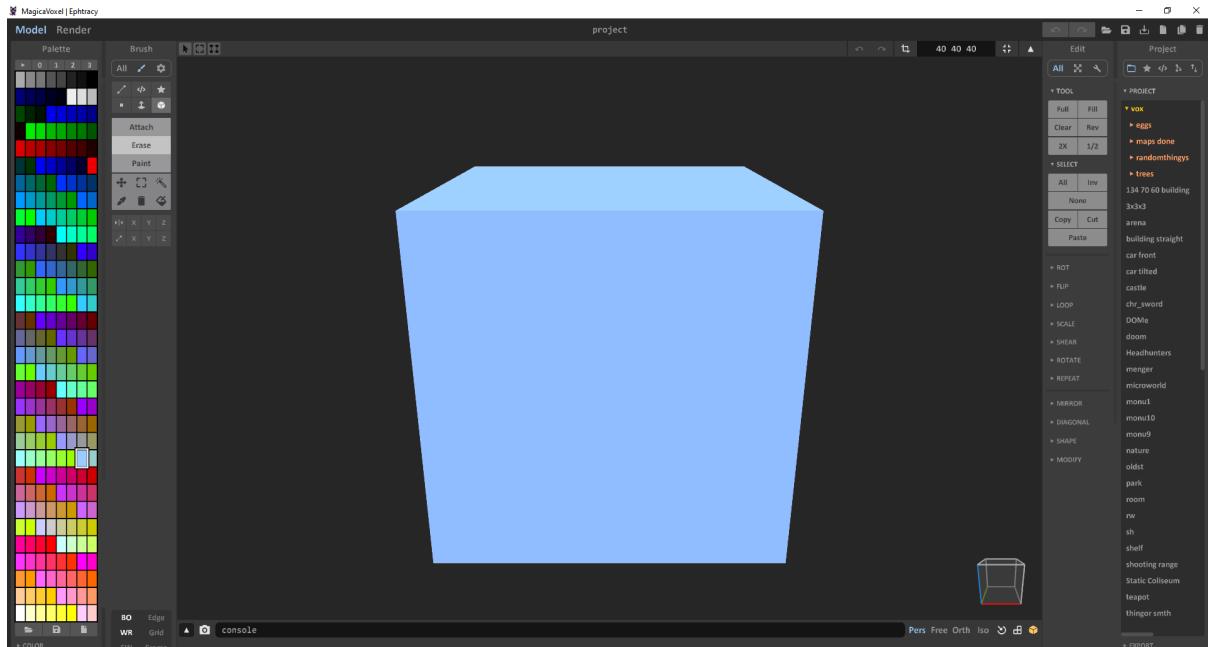
**MagicaVoxel-0.99.6.2-win64\vox**

eggs	18/02/2021 12:31	Dossier de fichiers
maps done	11/02/2021 16:45	Dossier de fichiers
randomthingsys	15/04/2021 15:08	Dossier de fichiers
trees	17/02/2021 17:31	Dossier de fichiers
3x3x3.vox	11/03/2018 19:45	Fichier VOX 29 Ko
134 70 60 building.v...	15/04/2021 15:51	Fichier VOX 433 Ko
arena.vox	10/04/2021 13:59	Fichier VOX 5,362 Ko
building straight.vox	20/11/2020 11:19	Fichier VOX 54 Ko
car front.vox	26/01/2021 14:57	Fichier VOX 24 Ko
car tilted.vox	31/01/2021 14:30	Fichier VOX 24 Ko
castle.vox	11/03/2018 19:45	Fichier VOX 40 Ko
chr_sword.vox	11/03/2018 19:45	Fichier VOX 31 Ko
DOMe.vox	15/02/2021 10:46	Fichier VOX 2,539 Ko
doom.vox	11/03/2018 19:45	Fichier VOX 44 Ko
Headhunters.vox	11/03/2021 15:11	Fichier VOX 8,932 Ko
menger.vox	11/03/2018 19:45	Fichier VOX 654 Ko
microworld.vox	31/03/2021 11:31	Fichier VOX 3,144 Ko
monu1.vox	11/03/2018 19:45	Fichier VOX 642 Ko
monu9.vox	11/03/2018 19:45	Fichier VOX 157 Ko
monu10.vox	11/03/2018 19:45	Fichier VOX 618 Ko
nature.vox	11/03/2018 19:45	Fichier VOX 325 Ko

*you can even create folders to separate WIPs, unrelated, and prefabs  
you will get them on the right panel in the app*

As you're not modifying the vox inside the map folder directly you will have to copy the file after each modification to the folder

## 2) Onto Magicavoxel :



*this is what you get when launching magicavoxel*

### - Palette :

The far left panel “palette” is for everything about what index you use when placing blocks, the color itself isn’t important for Sector’s Edge but its still nice to have the same color as the texture in game.

For optimisation Vercidium limited the amount of indexes for maps, as such you will be able to use only 64 indexes (1 to 64) which correspond to the lower part of the panel.



you can open/save/create new palettes, but I recommend using Caspokey’s “pal\_SETutorial” palette because it stops at index 64 and, while using his example json, all textures and indexes have similar colors



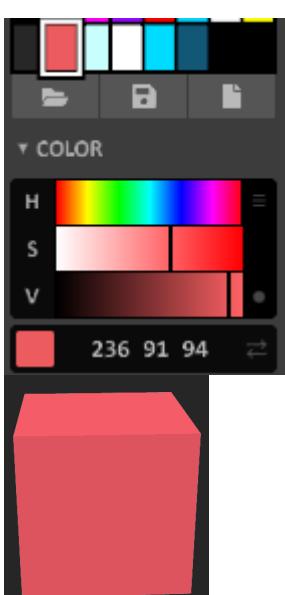
```

1 - invincible
2 - invisible
3 - glass
4 - floating (e.g. IS icebergs)
5 - explosive (soltrium canisters)
6 - magma
7 - reinforced
8 - reserved
9 - player built blocks
10-16 - reserved

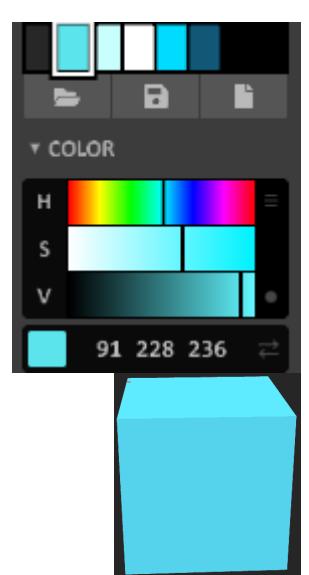
```

Note that the two lowest lines  
have special effect in game

Note that 10-16 textures can’t be changed (some have even been used for players paid blocks textures)



You can modify each index color by selecting it and messing with the 3 values inside the color tab under the palette. It will update in real time.



- Size :



you can do 3 things to modify the size of a vox object :

-Resize it manually , and undo/redo these modifications

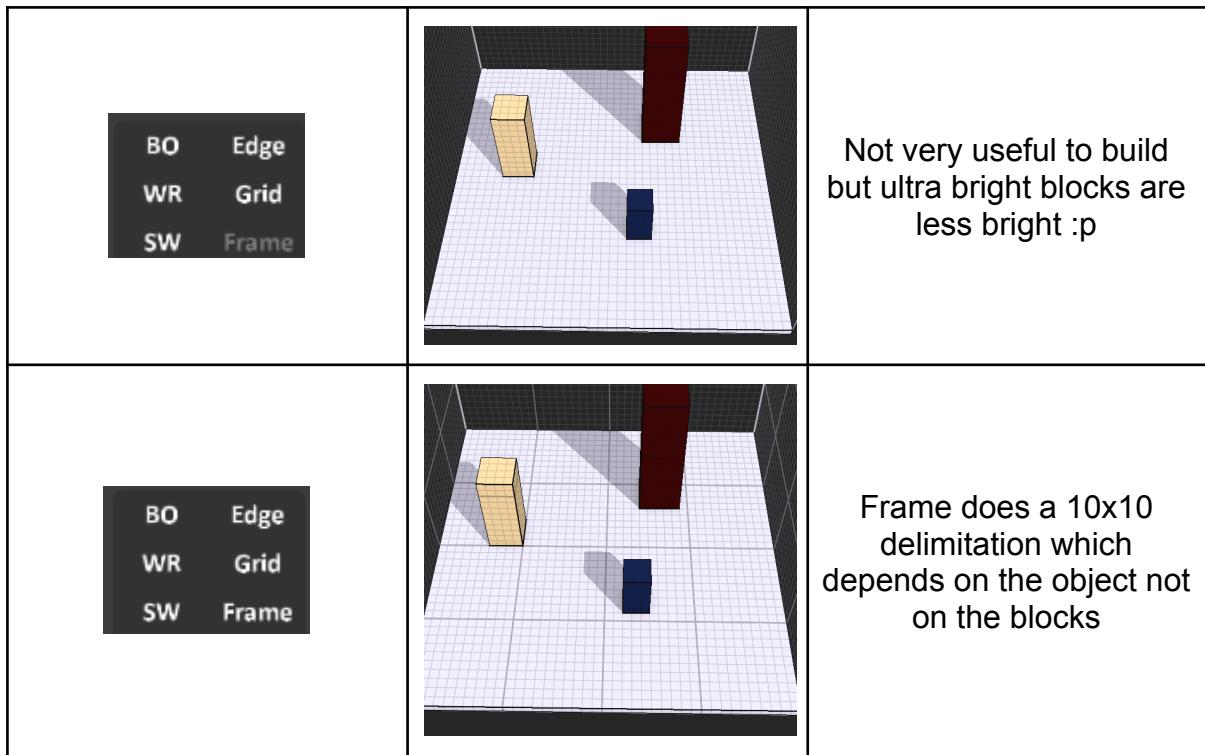
-Enter all coordinates 40 40 40

-Make it so the object fits perfectly inside

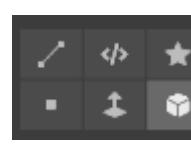
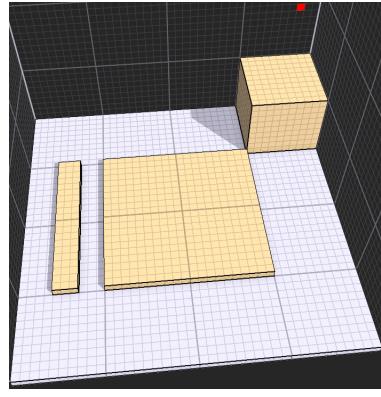
Max size for an object is 256x256x256

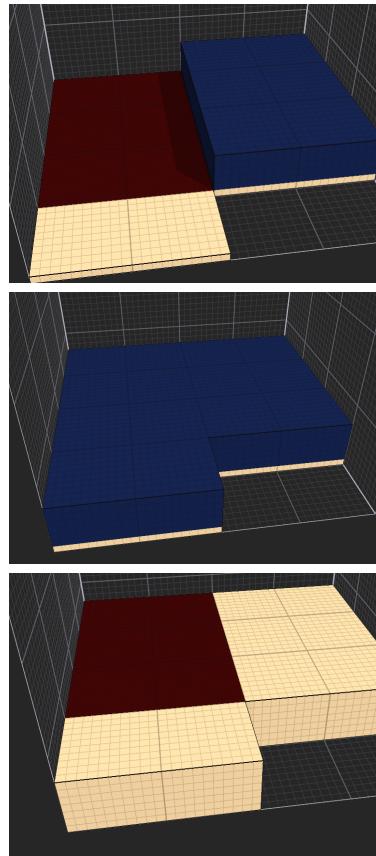
- the cool panel :

 BO Edge WR Grid SW Frame	A screenshot of the Magicavoxel interface showing a smooth shaded 3D model of a stylized letter 'H' shape. The background is black, and the model is light blue.	Default view is smooth but isn't helpful to build in magicavoxel
 BO Edge WR Grid SW Frame	A screenshot of the Magicavoxel interface showing a grid-based view of the same 3D model. The grid highlights individual voxels, making it easier to build.	Grid delimits each block separately
 BO Edge WR Grid SW Frame	A screenshot of the Magicavoxel interface showing an edge-based view of the 3D model. Thick black lines are drawn around the edges of each voxel, aiding in precise placement.	Edge draws a big line on the sides of each shape



### - Placing Blocks, brush panel !

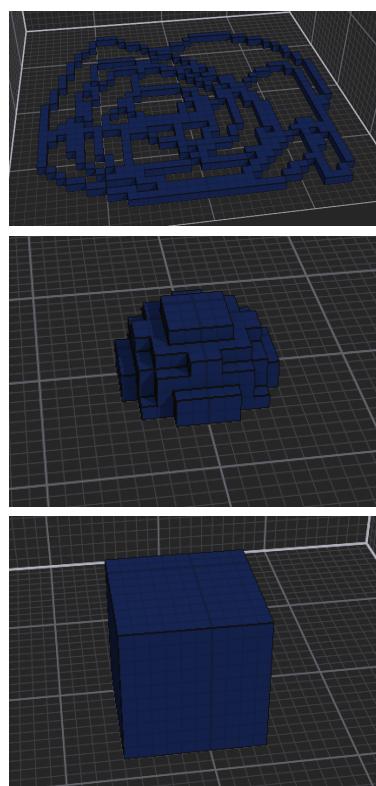
	<p>Place blocks Erase blocks Paint blocks <i>(These 3 should be self-explanatory)</i></p>	
		<p>Box mode : drag and drop to fill/erase/paint the space between the starting and ending block</p>



**Face mode :**  
drag and drop to modify the height/width that you want to change.  
while “color” will consider a face where all blocks have the same index, geo will take the full surface.

will use the selected index in the palette and

will use the same color on the surface selected (best used with geo mode, useless in paint and erase mode)



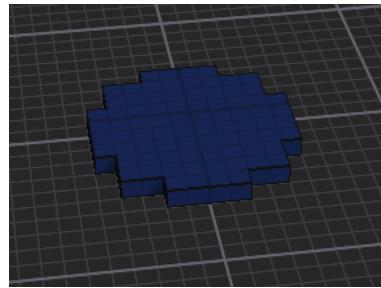
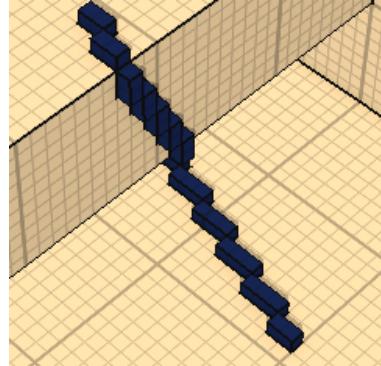
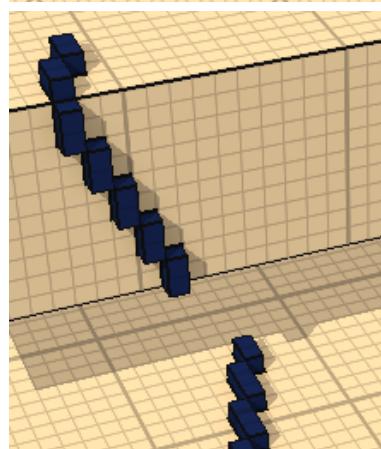
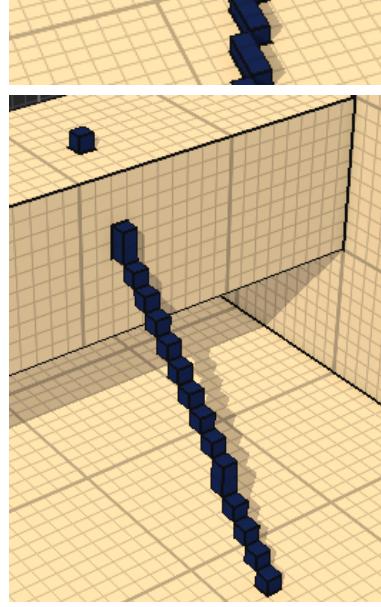
**Voxel mode :**  
Click to Place blocks, you can also place multiple blocks by dragging the mouse while clicking, keep in mind that all blocks placed during the same “click” won’t be considered as a surface to place blocks on. You can change the size of it with **1 :** from 1 to 64, making this number higher will make the size larger. This tool will be impacted by the shape (cube, sphere, circle, square).

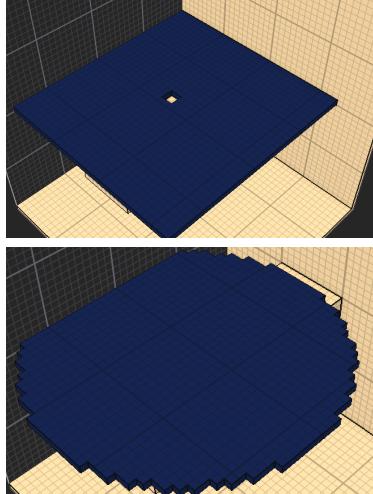
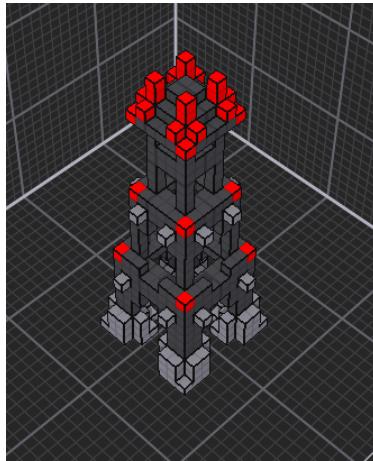
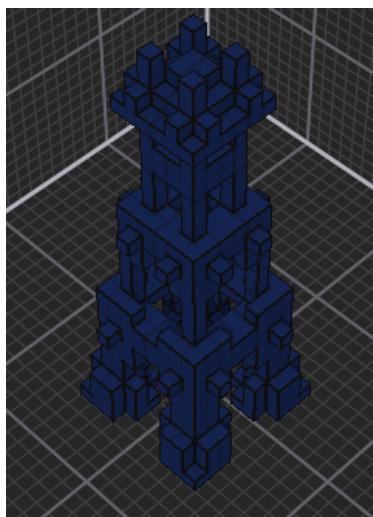
square/cube

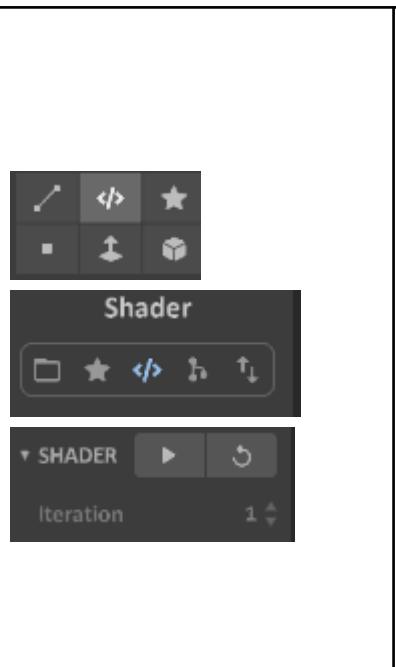
circle/sphere

2D square/circle

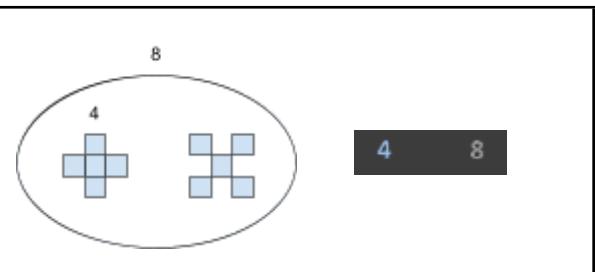
3D cube/sphere

		
 <b>GEOMETRY</b> <ul style="list-style-type: none"> <li>Line</li> <li>Square</li> <li>Circle</li> </ul> <p><b>Project</b> <input checked="" type="checkbox"/></p> <b>GEOMETRY</b> <ul style="list-style-type: none"> <li>Line</li> <li>Square</li> <li>Circle</li> </ul> <p><b>Project</b> <input type="checkbox"/></p> <b>GEOMETRY</b> <ul style="list-style-type: none"> <li>Line</li> <li>Square</li> <li>Circle</li> </ul> <p><b>Fill</b> <input checked="" type="checkbox"/></p> <p><b>Even</b> <input type="checkbox"/></p> <b>GEOMETRY</b> <ul style="list-style-type: none"> <li>Line</li> <li>Square</li> <li>Circle</li> </ul> <p><b>Fill</b> <input type="checkbox"/></p> <p><b>Even</b> <input checked="" type="checkbox"/></p>	  	<p><b>Geometry mode :</b> Drag and drop</p> <p>Geometry mode has 3 inner modes, line, square, and circle. (<i>Although line is the only one I use I will still explain</i>).</p> <p>Line will do a direct line from the first point to the last point with a twist,</p> <p><b>Project</b>, if enabled, will glue the line between the two points onto surfaces, if both surfaces are separated so will the line.</p> <p>Disable it and it will be the most direct line possible between the two points.</p> <p>Square/circle will draw a square/circle using the first selected block as the center and dragging to create the width.</p> <p><b>Even</b> Causes the square/circle to have a 2x2 center instead of a 1x1 center when enabled.</p> <p><b>Fill</b> Fills the center of the shape when enabled (will leave only the first point empty)</p>

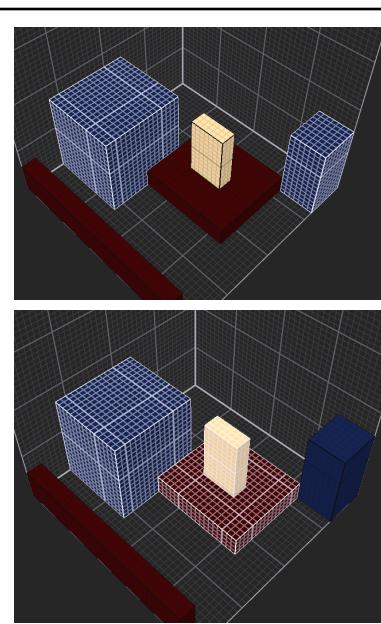
		
	 	<p><b>Pattern mode :</b> <i>(which i like to call prefab mode)</i></p> <p>You need to select two things to be able to use this mode. Select the star on the brush panel and on the panel on the far right under “project”. With this tool you can fetch other objects inside different vox files you have.</p> <ul style="list-style-type: none"> <li> Will place the prefab with all original indexes</li> <li> used, and  will use the selected index for all blocks placed with this tool.</li> <li> If there are multiple objects inside a vox file, you can change which one you want to select with these arrows. I don't understand what  does.</li> <li> Will make all selected blocks into a prefab so you can place them directly multiple times without needing to reselect them.</li> </ul>



Shaders need to be selected in the two panels to be used as well . Shaders are downloadable on the internet and each one acts differently. For example, the sand shader needs you to have the index you want selected and will act only when is pressed. It will be used times each click (it will act on selected blocks that were placed beforehand)



4 only considers blocks with a face shared with each other, like the SE engine detecting whether a block should fall or not, while 8 selects all blocks that share an edge or a corner



Select, delete and bucket tools

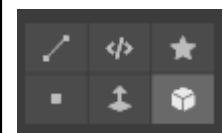
(all 3 are impacted the same way, i will do examples with select)

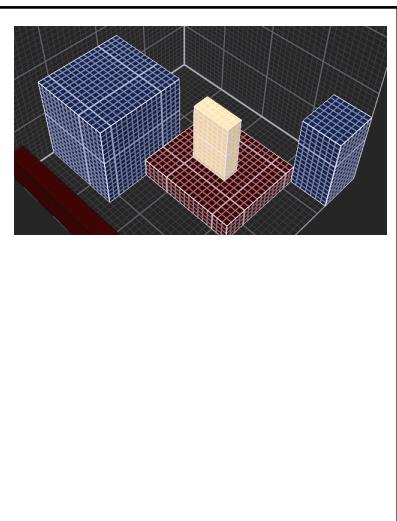
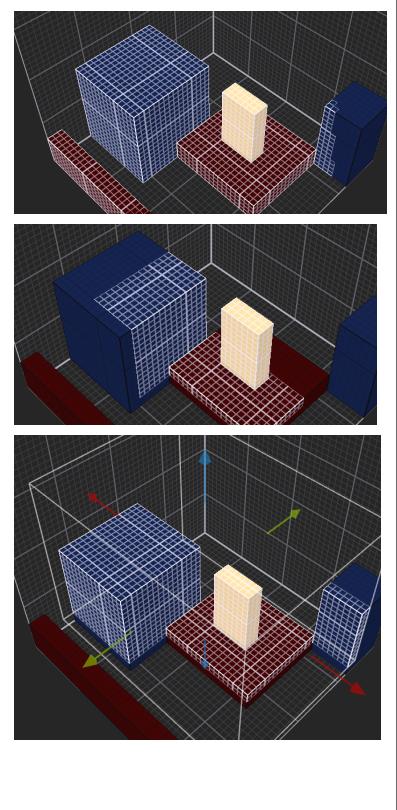
will act on the index you clicked on, no matter where the object is

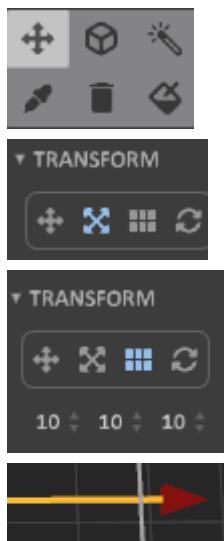
will act with collision the same way as the face tool was impacted by

Color	Geo
4	8

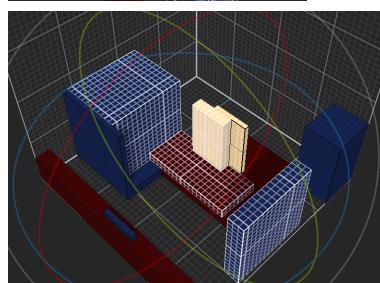
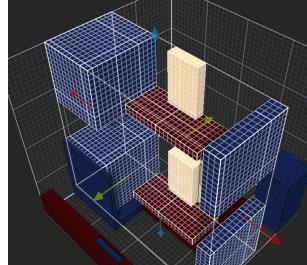
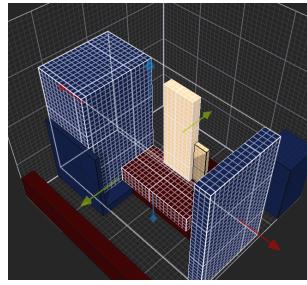
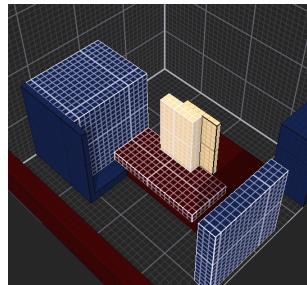
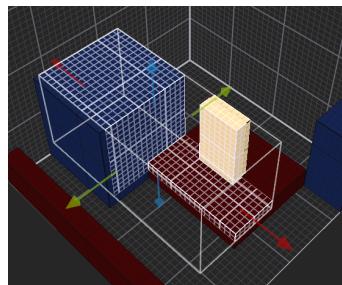
keep in mind that selected blocks cannot be impacted by normal tools :



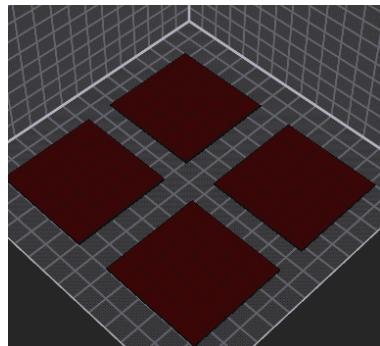
		
		<p>Pick color will change the selected index in the palette depending on the index of the block you clicked on</p>
 <p>arrow in red string in orange</p>		<p>Marquee mode : a way to select blocks based on their location and not their index.</p> <ul style="list-style-type: none"> <li> draws a square on your screen and every block within, no matter if they are hidden behind another block or not, will be selected.</li> <li> Will select with a shape depending on the normal tool you selected (here: box mode)</li> <li> create an area which can be fully modified (<i>size with the strings, position with the arrows</i>), every block inside this area is selected.</li> </ul>



arrow in red  
string in orange



◀ ▶ X Y Z



**Modification tool :**  
this tool will work on the selected blocks, if there are no selected blocks then it will act on the whole object.

depending on the surface you click on, you will be able to move that surface in two directions, but only one at a time (*if you click on the side and move up you won't be able to move to the sides*), when moving blocks outside the object, the blocks will not disappear but will be moved on the opposite side of the object

will show a similar area as but when moving the arrow/pulling the strings will act on the blocks inside too

you can set it so every X blocks (*here 10 in all direction*) it will repeat the selection when pulling the strings

Rotation, blue is z axis, green is x axis, and red is y axis. The grey circle axis is from the camera center

**Mirror mode :**  
every block placed/deleted/painted will be the same on the other side of the axis selected

to deselect any mirror mode but you can click the axis again to deselect

	<i>x and y at the same time</i>	it
	 <i>clicked once with x activated</i>	Axis mode : everything done somewhere will be made across the whole selected axis ( <i>like placing a block makes a complete line</i> )

- **The edit panel :**

- Full will make the entire object filled with the selected index.
- Fill will change every selected block index to the selected one.  
(*if no block selected then it will apply to the whole object*)
- Clear will delete the selected blocks.  
(*if no blocks are selected then it will apply to the whole object*)
- Rev will reverse the state depending on the selected index and blocks, empty will be filled with selected index and selected will be emptied.  
(*if no blocks are selected then it will apply to the whole object*)
- 2x and ½ modify the size of the selection, if there is no selection the object itself will be scaled **80 80 80** (*2x on a 40 cubed object will double the coordinates, since an object max size is 256 cubed, any object bigger than 128 cubed will not get an exact 2x scale*).

- All will select all blocks inside the object.
- Inv will inverse selection
- None deselects any blocks, if no new selection is done anything working on selection will act on the whole object.
- Copy copies the selection.  
(*if no blocks are selected then it will apply to the whole object*)
- Cut copies and deletes the selected blocks.  
(*if no blocks are selected then it will apply to the whole object*)

- Paste pastes what you copied or cutted, i recommend using to select where it was pasted and be able to move it (*it will be pasted in the exact location it was copied*).

- Rot, same as but only by 90° counterclockwise turns, works on the selection  
(*no selection = whole object*)



- Flip, like a mirror but ain't keeping the original  
(*no selection = whole object*)





- Scale scales the selection based on the axis written, the number is the multiplicator

(no selection = whole object)



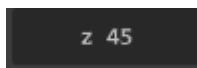
- Shear ↴(↙) ↵(↖)

(no selection = whole object)



- Rotate is the same as ↪ but you can set which axis it will turn around and by how much in °.

(no selection = whole object)



- Repeat will copy and paste the selection on the axis you set and how much.

(no selection = whole object)



(with this you get 4 times the selection)

- mirror the selection based on the side closer to the 0, Diagonal is similar. Don't recommend using them.

(no selection = whole object)



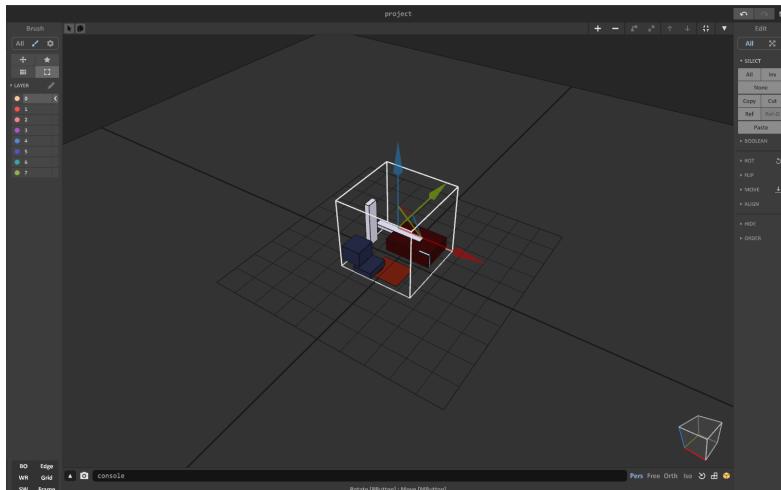
- Shape will shape everything inside the object and place one of the shapes available scaled to fit inside. (Funny but not useful).

- Modify ↴(↙) ↵(↖)

Elli	Cyli
Pyra	Cone
Maze	Perlin
Fractal	

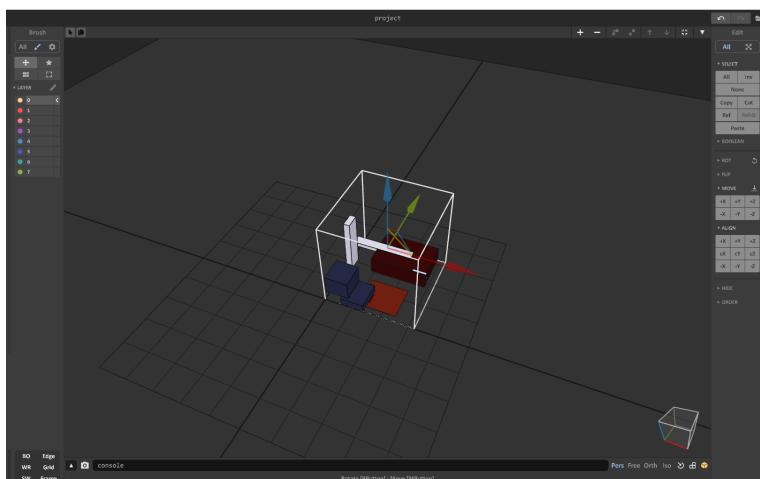
- Press Tab to get a new world :

Pressing tab brings you to the world screen, here you can move, add delete objects



here 3/4th of the object won't be visible

The most important thing to remember : everything in negative coordinates won't show in game.

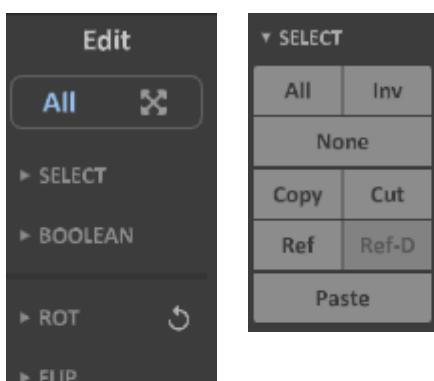
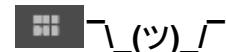


This is what you want to have everything ingame

Will allow you to move the object by dragging your mouse around

Is the same as normal but it will place the prefabs as new objects which is useful to have builds through two bigs prefabs

Is the same selection tool as in normal mode, each object completely inside the rectangle will be selected



Everything inside the select sub-panel is basically the same as normal :

select all, inverse selection, unselect all, copy, cut, paste (*idk about ref/ref-D*)



If you got multiple objects inside each other you can select them and press Union, it will merge them  
intersection will take only the part present in both  
(*i don't understand about inter/sub/rep/operand*)

As object rotation is simply ignored in SE its best to not use ROT, same thing with flip

Move allow you to move the selected object block by block which is extremely useful

Hide and Order are useless for SE mapping and Align seems like a bad idea to me  
(*don't know how it works too*)

### 3) About Json

I won't cover all json details in this guide, you will get plenty other places and i'm bad with it anyway but here's some links that will help you greatly :

The page verc had to do to be allowed workshop in steam :

<https://sectorsedge.com/workshop>

Caspooky's guide [some things are outdated] :

[Making a map for Sector's Edge](#)

Some things are also posted in the map making channel and server for SE

preview.jpg needs to be tinier than 1 Mo