

Objects and Skyboxes - SMILE GAME BUILDER Help

This is a help page on how to import objects and buildings that you can use on your maps. First, you put all the files: a model file, a texture file and a motion file, together in one folder.

----- Important File Format -----

One 3D object consists of three files: a modeling file, a texture file and a motion file. You also need 3D graphic technical knowledge and a certain software to create your own objects.

1. Model File (.fbx)

- File Format: FBX Format
- We recommend FBX7.4 (FBX2014) version. *The human form characters were created by Autodesk Maya2016.
- The FBX format could be either ASCII or Binary.
- When you use older version of FBX, you could import it with the optimize option on. (*It might not display properly.) For more details, read How to Import below the page.
- Only triangulated polygon models will be displayed correctly. Polygon models need to be triangulated in the output process or put a check mark on the optimize option when you import it into SGB. (*The optimize option will automatically make the polygons triangulated.)
- 1grid in Maya = 1block in the SGB Editor. A character's size would be approximately X: 0.8 and Y: 1.5.
- We recommend only using one material per model. If you use multiple materials on one model, it might cause some display errors.

2. Texture File (.png)

- File Format: PNG (Full Color)
- A texture image size is 64 x 64, 128 x 128, 256 x 256, 512 x 512 and other values which should be to the power of 2. 256 x 128 would also work. It might cause some errors if you use other sizes rather than the power of 2.
- Transparent images are possible if you create a transparent area in the PNG file.
- We recommend using one texture per model. This method helps the display process smoother. Moreover, if you use many materials on one model, it might cause some display errors.

If you see unexpected results on the texture, please change the name of the texture and re-export FBX. Then try importing them into SGB. For additional processing and animations, you'll need to prepare a motion setting file (.def).

3. Motion Setting File

If an object contains open/close motions for doors/treasure boxes, lighting on/off, and additional processing, you need to create this file.

File Format: Text file (*Model_Name.def*)

An example of content:

mtl Material::material_name	// Put a material name that you want to operate addition processing and animations in "material_name" part.
uscrollspeed 0.2	// UV scroll animation, a speed of the U direction (horizontal)
vscrollspeed 0.1	// UV scroll animation, a speed of the V direction (vertical)
texstopanim 5 2 10 0.2	// Step animation, U partition (horizontal frames), V partition (vertical frames), a total number of all frames, intervals (seconds)
shader legacy_tex	// Use this command if you don't want the lighting effect.
depthwrite false	// Control writing process of depth buffer. It would make a good result when you use it with addition processing.

Door Animation – You need to call this operation through Event Graphic Settings.

anim	// The list below is: a name of the motion, the first frame, the last frame, loop or not loop
keepClose 1	// A frame of closed status
open 1 60	// Frames of opening animation
keepOpen 61	// A frame of fully opened status
close 71 110	// Frames of closing animation

Lighting Animation – If you choose “Night” in the map setting, the objects will turn the light on automatically.

lightOff 0	// Lighting OFF animation
lightON 1 1 loop	// Lighting ON animation

To light objects, we made an additional processing plane, a single poly-model, “scale zero” in the first frame as OFF. Then, we set it to “scale one” in the second frame as ON.

----- Preparation 1: Use a Default Material and Exporting it-----

You can edit preset 3D models by exporting it to a folder and customizing it with software. The following is the method:

1. Select a material from "Object List". You can also choose an entire category from "Category" list. The category list is located on the left of "Add Assets > Maps > Objects".
2. Click an "Export" button above the list.
3. Choose a folder you wish to export it when a dialog shows up. Click "Choose a folder" after you pick where you'd like to save it.
4. A category folder will be created in the selected folder and you can find FBX file and PNG file in there. The category name might not be the same as on the editor because they're system names which are organized by the engine.
5. You can edit the exported PNG file by using graphic editing software.
6. When you edit it, do not change its file name. If you change it, the link between FBX file and PNG file will be broken and the texture won't be displayed properly.

----- Preparation 2: Importing Own Objects -----

All 3D objects will be imported by categories. You can import individually, but it'll be automatically put into a category. These categories are defined with tabs in the map parts under "Objects". The image shows that a category called "Mymodels" was imported.



* Please be careful: Deleting objects will also delete category units.

When importing 3D objects, put all the model files (*.fbx), textures (*.png) and motions files (*.def) into a new folder for your custom models. The name of the folder will basically be the name of the category tab.

1. You don't need to make subfolders. Just place them directly into a folder.
2. Texture files will be automatically read, based on the name of the FBX file. The file should be in the same folder with FBX file or "texture" folder in the folder.
3. If the object has a motion file (*.def), this should also be named the same as the FBX file and placed into the folder.

Ex: The image shows two object materials, house01 and house02, in the category "Mymodels".



Updated on August 10, 2018

----- **How to Import Objects** -----

Objects will be imported by named folders, not individual file names. If the same category exists, newer files will be added and old files will be overwritten.

1. Select "Add Assets" > "Maps" > "Map Models".
2. Press the "+Add" button above the "Object List".
3. Select the "Choose from Local File" tab from the "Select Resource" window.
4. Select the folder or file you want to import from the right-hand pane and press the "Add" button.

Your newly added objects will be listed as a new tab in the "Map Parts" on the editor.

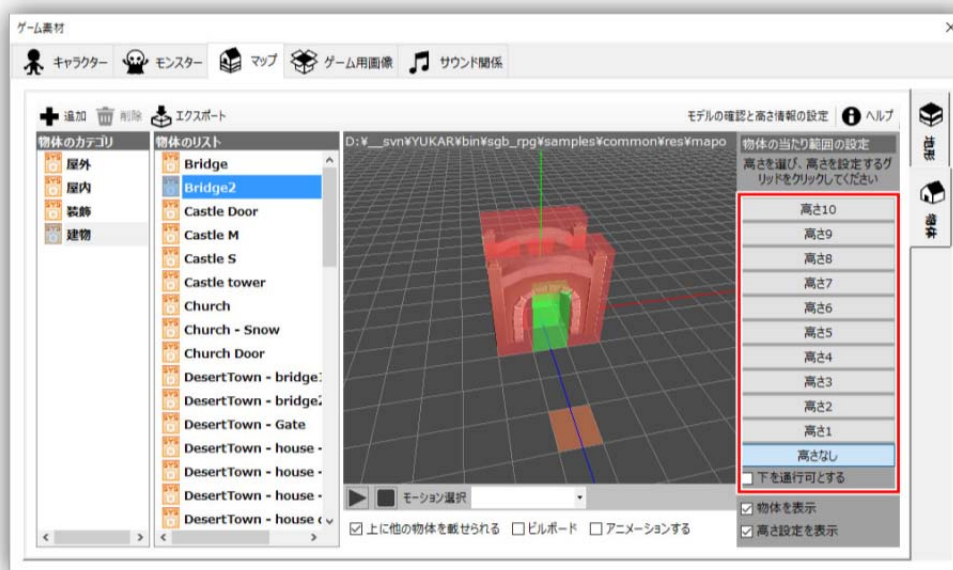
User files are distinguished from the default files with green color icons. User imported materials will automatically be saved in the game file when you save your game data, but the original files will not be moved.

Object Settings

After importing the object, it contains no collision detection settings, so characters can literally go through them. If objects need higher collision detections (for example a bridge), you need to set another option, *Elevation*.

Elevation Settings (Collision Detection)

You can set the elevation by clicking the grid units of the object's bottom surface.



1. Select the elevation button you'd like to apply, from "Elevation 1" through "Elevation 10".
2. In the preview area, you can see red pillars when you click a grid.
3. There are some shortcuts to look around the object in the preview area:

- Alt + right-drag -- Rotate in all directions
- Alt + left-drag -- Up and down, left and right
- Mouse Wheel -- Zoom in/out or up/down

4. If you'd like to delete an elevation setting, select "No Elevation" and click the grid part to be deleted.
5. You can use these settings to enable characters to go through and under an object, rather like a bridge. Select the proper elevation and put a checkmark on "Create a Passage Through the Object". Then click the grid where you want to apply the passable section. The bottom of the elevation pillar will be displayed as green, which will be a passage through the object.
6. When you have multiple elevations, it can be hard to see the object or its settings, so check/uncheck the "Display Object" or "Display Elevation Settings" to toggle views.

Other Settings

- “Other objects can be placed onto this object”: If you checkmark this setting, other objects and events can be placed on this object. However, SMILE GAME BUILDER restricts objects from being piled on top of one another.
- “Billboard”: If this option is checkmarked, regardless of where the camera is pointing, the object will always show its front side.
- “Animate”: If this is checkmarked, texture animation will operate in the Editor, such as the fountain object.

Adding Skyboxes

The skyboxes are the “backgrounds” which will be displayed outside of maps such as a clear sky, a night sky, a cloudy sky and so on. It synchronizes with the player’s coordinates except the height and it’ll be displayed as the actual size on the map. The skybox model is the same regardless of any sky types, so we recommend you to export the preset model and customize its texture.

1. Model File (.fbx)

- File Format: FBX Format
- We recommend FBX7.4 (FBX2014) version. *The human form characters were created by Autodesk Maya2016.
- The FBX format could be either ASCII or Binary.
- When you use older version of FBX, you could import it with the optimize option on. (*It might not display properly.) For more details, read How to Import below the page.
- Only triangulated polygon models will be displayed correctly. Polygon models need to be triangulated in the output process or put a check mark on the optimize option when you import it into SGB. (*The optimize option will automatically make the polygons triangulated.)
- 1grid in Maya = 1block in the SGB Editor. A character’s size would be approximately X: 0.8 and Y: 1.5.
- We recommend only using one material per model. If you use multiple materials on one model, it might cause some display errors.
- Be sure to name the file with half-width alphanumeric characters.

2. Texture File (.png)

- File Format: PNG (Full Color)
- A texture image size is 64 x 64, 128 x 128, 256 x 256, 512 x 512 and other values which should be to the power of 2. 256 x 128 would also work. It might cause some errors if you use other sizes rather than the power of 2.
- Transparent images are possible if you create a transparent area in the PNG file.
- We recommend using one texture per model. This method helps the display process smoother. Moreover, if you use many materials on one model, it might cause some display errors.
- Be sure to name the file with half-width alphanumeric characters.

3. Material Setting File (when you want to assign a display method)

File Format: Text file (*Model_Name.def*)

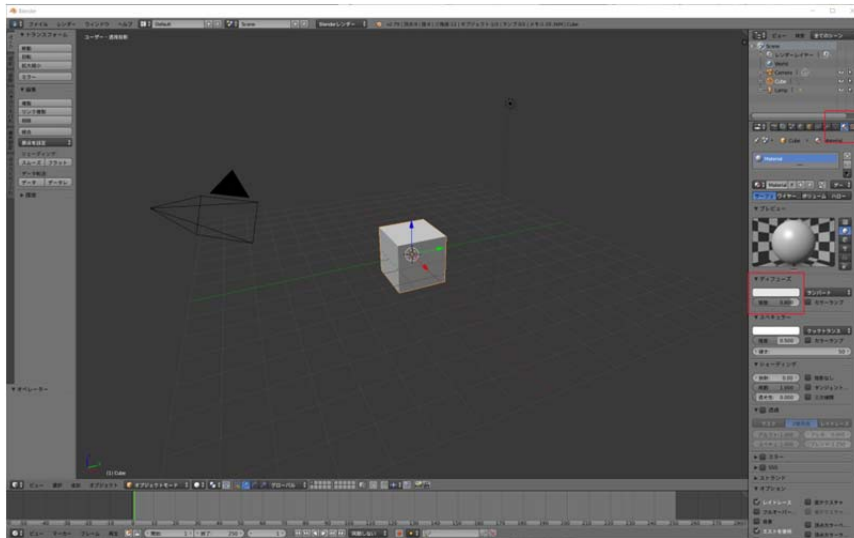
Examples

mtl Material::material_name	// Assign a material name in "material_name" where you want to change how it displays
shader legacy_tex	// Assign when you want its lighting effect to be void. You always assign it.
blend add	// Assign when you use addition method. It's useful when you want to have the Sun or other things.
depthwrite false	// Depth drawing will be void. You always assign it.

Updated on August 10, 2018

How to deal with when you have darker objects in SGB comparing it on Blender

1. Select the object.
2. In the material setting, assign "Diffuse" RGB and Intensity to 1.



3. Open "File > User Preference".
4. Assign all the "Diffuse" to 1 in "Solid OpenGL lights" color setting.

