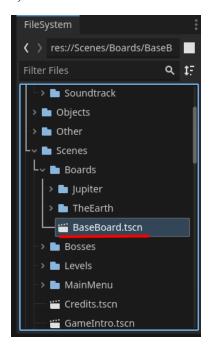
#### Contents

Creating the scene file	1
Changing common properties and creating assets	3
Changing the board tileset	5
Adding levels to the board	9
Changing the board layout	13
Adding new characters on the board	15
Using the board in the game saves	19
(Optional) Adding scene tiles to your tileset	26

### Creating the scene file

First, let's create a new scene for our new board.

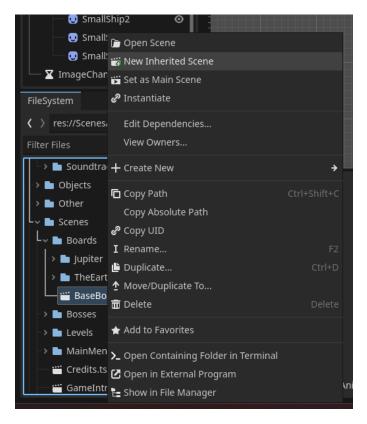
Find the base board scene file, "Scenes/Boards/BaseBoard.tscn"



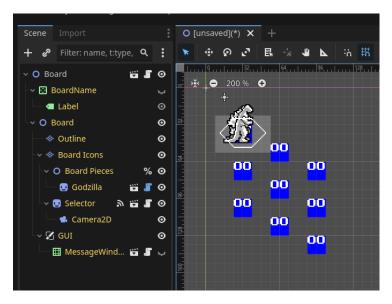
The base board scene contains objects that all boards require, such as board's name, board pieces (character objects), message window, etc.

We won't make a copy of it but rather make a <u>new inherited scene</u> from it! It makes it so no object duplication occurs and when we make new changes to the base board (for example, we want a new game mechanic for all boards), these changes will automatically appear in other scenes! Awesome!

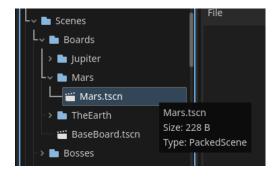
So how do we create an inherited scene? Right click on "BaseBoard.tscn" file and click on "New Inherited Scene".



This will create a new tab in the editor and make all the node names appear yellow

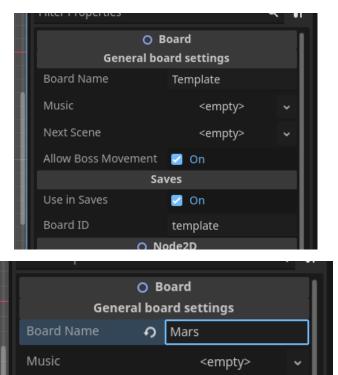


Yellow node names means that node is inherited from the base scene, in our case, BaseBoard.tscn. Let's save this newly created scene, for example, to "Scenes/Boards/Mars/Mars.tscn".

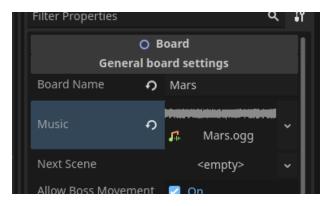


### Changing common properties and creating assets

Great, now let's do some customizations. First, it's very easy to change the board's name in-game, you can just click on the root node "Board" and change the name in its properties:



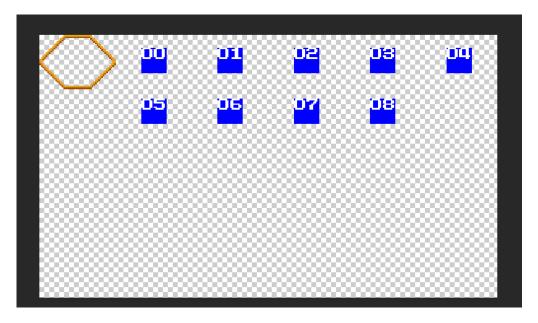
You can notice that the music property says "<empty>", which means there will be no music playing if we tested the board. Let's drag and drop some music file from "Audio/Soundtrack" folder into that property!



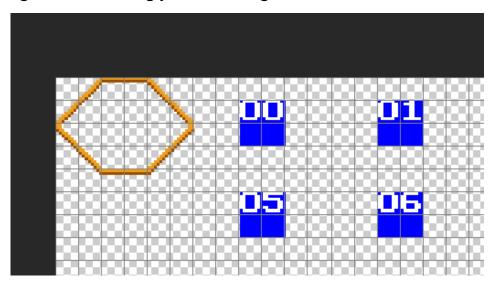
The "Next Scene" property stores, well, the scene that will be the next one after you complete the current board. You can drag and drop your next board scene into this property.

Great, now let's prepare the board tileset!

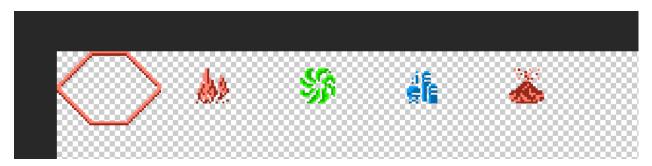
Take a look at "Sprites/Levels/TestLevel/board.png" file. We can see that it contains the board's placeholder icons and the outline, now let's create our own image.



You can align the icons using your editor's grid feature like this:

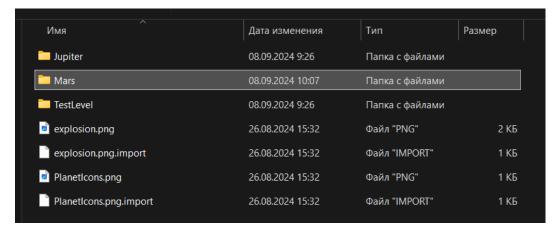


So... Let your imagination have some fun, I guess! :D

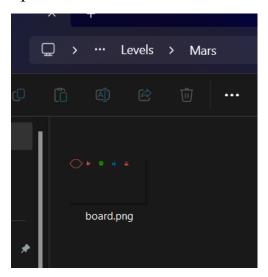


I used the test level's board sprites as a base. Yeah... Maybe I'm not that good at imagining things lol. But this should work for a tutorial!

Now let's create a new folder for files for our board (and the future levels that will be on that board, but that's going to be in another tutorial). So the path for the test board's sprites is "Sprites/Levels/TestLevel", we can now create our own folder in "Sprites/Levels" folder.



Now let's save our board sprites there.



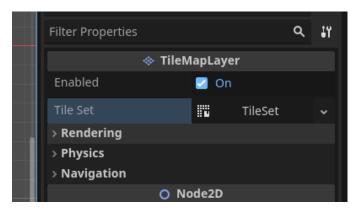
# Changing the board tileset

As you can see from the list of the board's properties (i.e. the properties of the root node in your board scene), there's no place to drag and drop your tileset. What should we do now?

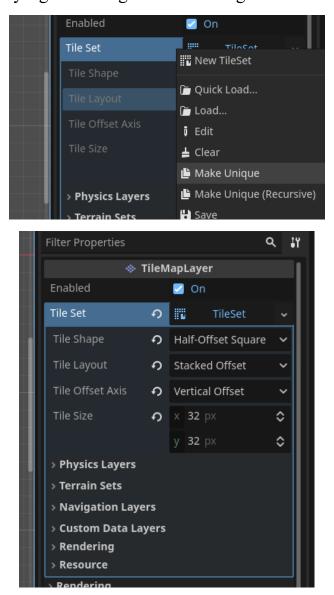
Click on the "Board Icons" node:



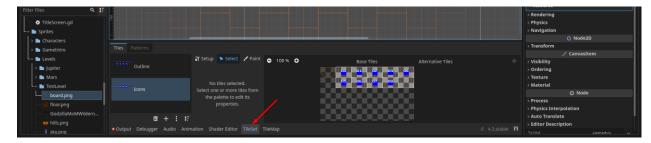
Take a look at its properties:



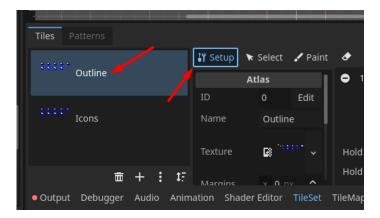
We can see that it has a tileset, but this tileset resource is inherited from the base board scene, so we shouldn't change this exact resource (and, in fact, we can't). But we can clone it by right clicking it and selecting "Make Unique":



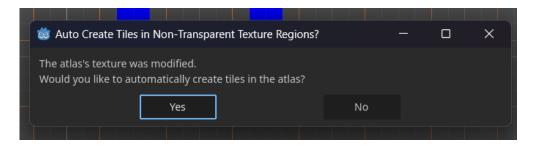
Wow, now all the properties of this thing magically became editable! Now head over to the "TileSet" section right here:



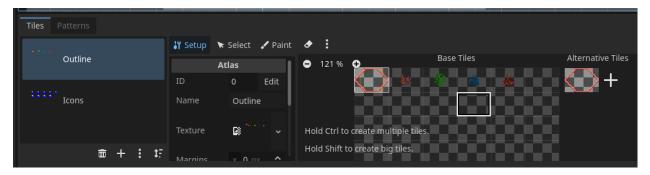
First, select the "Outline" group and press the "Setup" button



See the texture property? Now you can drag and drop your tileset here! A new message will pop up:

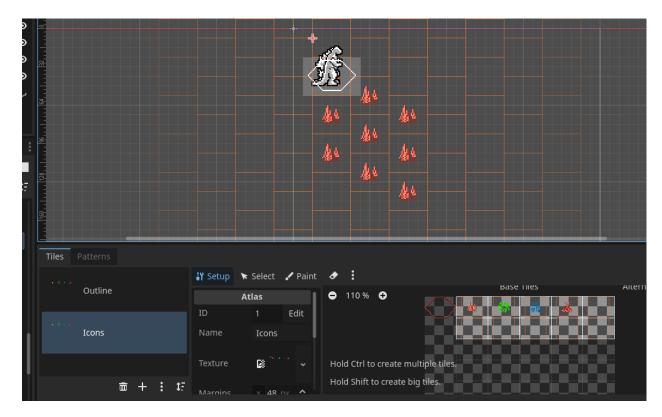


Just press "No".



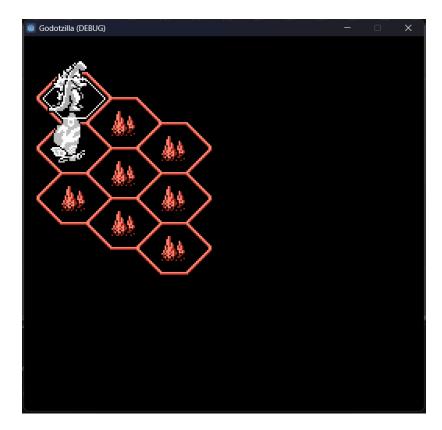
Making some progress! But the icons in the editor are still the same. That's because we only changed the board outline group (there was a reason for this, trust me :D )

Now you can do the same with the "Icons" group:



There we go! Now we can see the icons in the Godot editor, nice!

Now we're ready to test the board in-game! In the "How to create a new character" tutorial there is a section on how to change the first scene that opens up when you play the game, you can use that section and change the first scene to the new board.



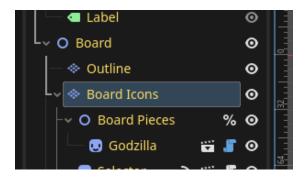
But when you try to play the levels with the characters, the game crashes. No, the framework isn't broken, it's just that we haven't set up the levels.

## Adding levels to the board

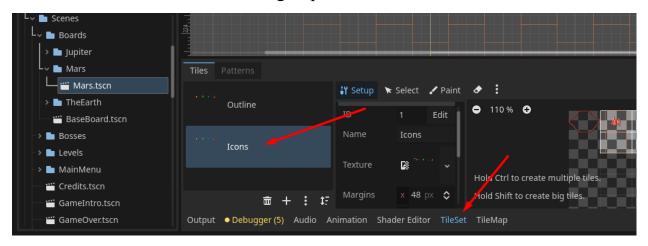
You might have noticed that the board node doesn't have the property for its levels. Why is that? That's because we store the levels in the icons themselves!

Let me explain.

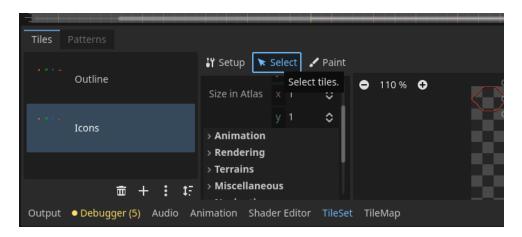
Click on the "Board Icons" node:



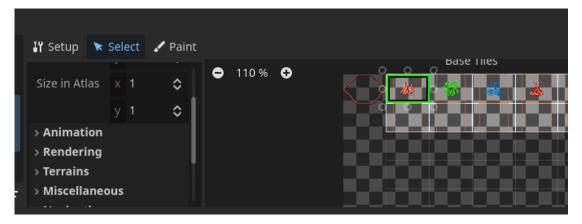
Click on "TileSet" and the "Icons" group:



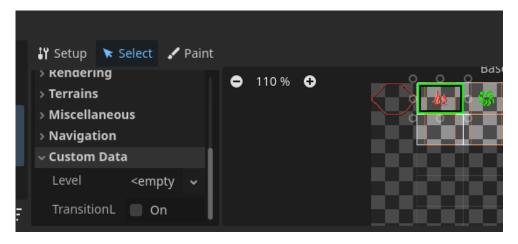
Click "Select":



Click on a level icon:

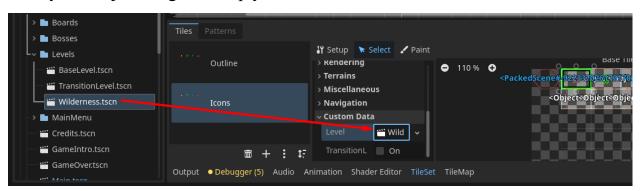


Scroll down until you see "Custom Data", click on it:



There it is! There's the level property!

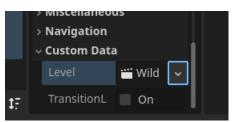
Now you can just drag and drop your level scene file onto it.



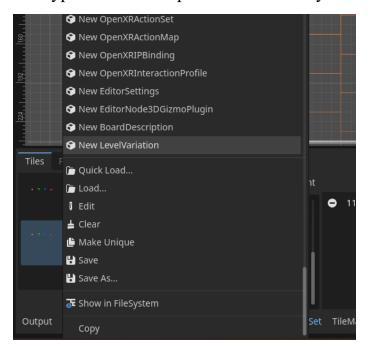
This should work in-game now.

But what if you want to have level variations? You surely don't want to have a lot of duplicated icons in your tileset for every variation of every level, right?

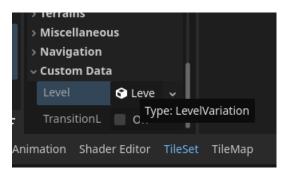
In this case, click on this arrow:



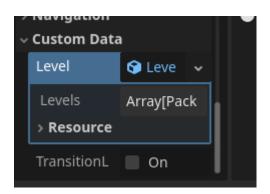
A huge list of resource types will show up. Scroll to the very bottom of it:



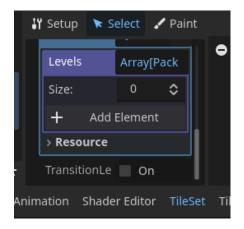
Hm, a LevelVariation resource. Click on it.



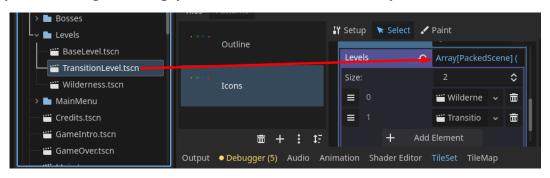
Click on the resource now.



Now we have an array of PackedScene resources. Open up the array by clicking on it:

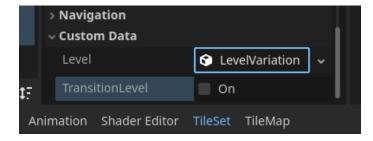


Now you can drag and drop your level scenes on the array like this:



Now if you play the game again you can see that it indeed chooses the levels kind of randomly based on the tile's position on the board.

Now what's the deal with the "TransitionLevel" property?



It's made for the ending levels of your board, just like the ending level in the original GMoM game! You can try turning it on and doing the "Not going to move?" thing.

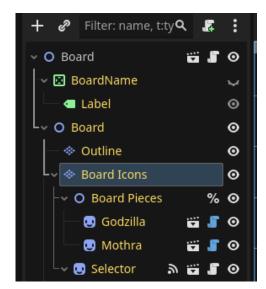


If you answer "Yes", your character will be transported to the next board (if it exists).

## Changing the board layout

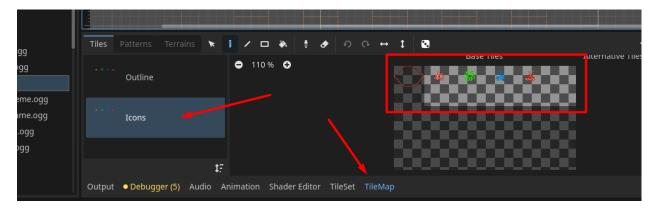
So how do we actually change the board layout?

Notice this particular node in the scene:

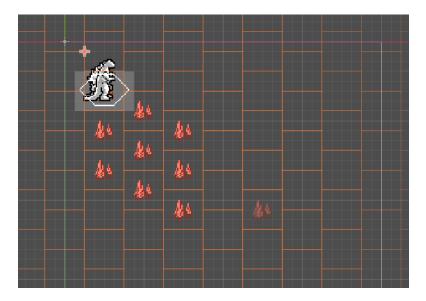


That's where our layout is! (You can make sure it's the correct node by temporarily making it invisible with the eye button to the right of the node's name)

Now that we selected the node, we can now select the tiles we need:

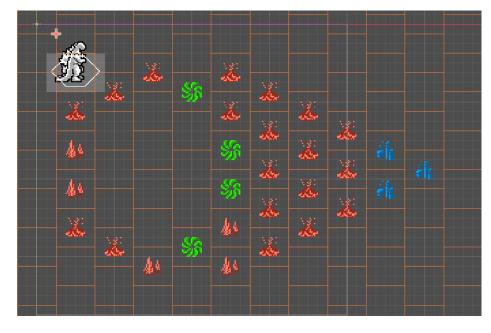


Select one of the tiles and move the cursor to the board.

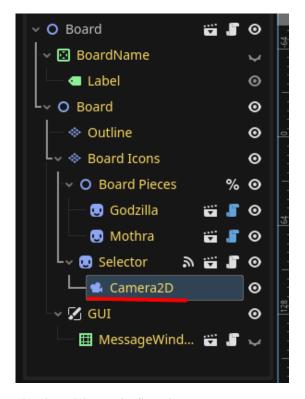


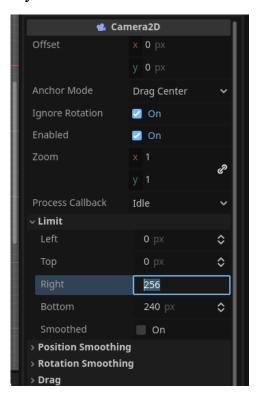
We can now start building our layout! You can, of course, also select any other tile with that method.

You can also remove the icons by holding the right mouse button.



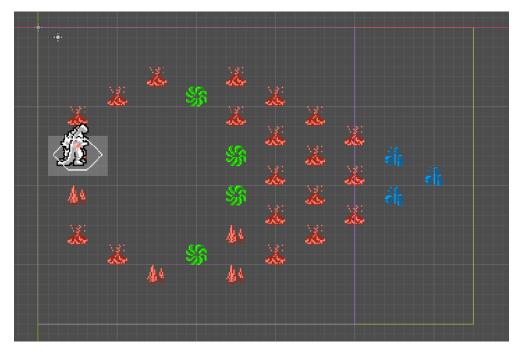
Nice! But when you try it in-game half of the board is inaccessible, that's because there is a camera limit, you can change it this way:





Now it should work fine in-game.

And of course, you can move the character objects on the board (they are called "board pieces" by the way) and the selector to properly position the characters.

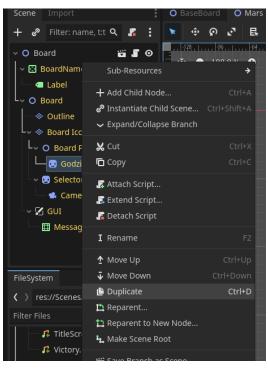


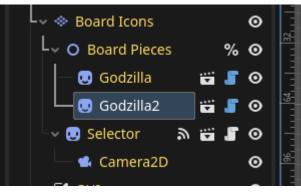
Adding new characters on the board

See this Godzilla board piece?

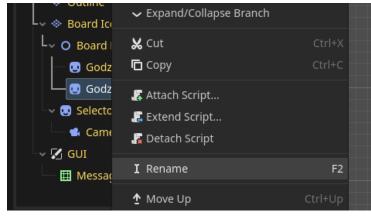


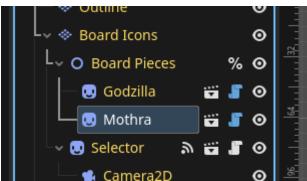
You can duplicate it by right clicking and selecting "Duplicate"!



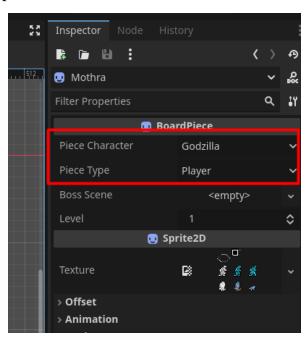


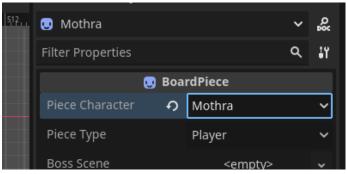
#### You can rename it:



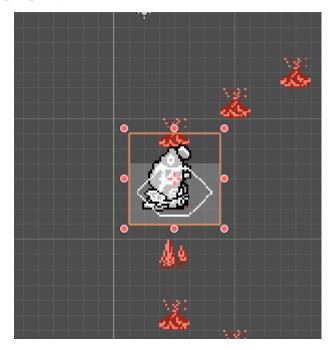


You can change its type and set whether this character is a boss or not:





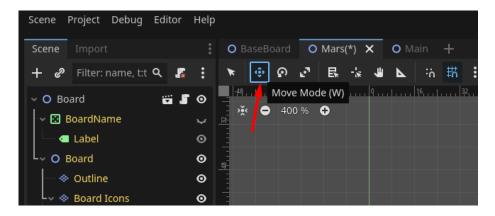
Now you can see it properly on the board:



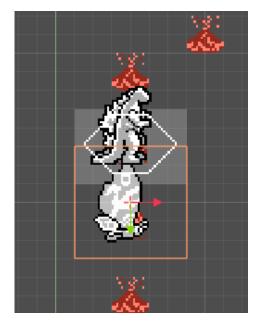
When trying to click on it now you might accidentally select the "Selector" node, so instead you can select the node in the scene tree and moving it with the move mode. First, select the new character node:



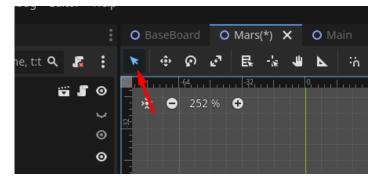
Select the move mode:



Move the character by dragging it:



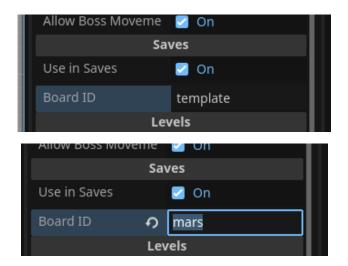
Change the editor mode back:



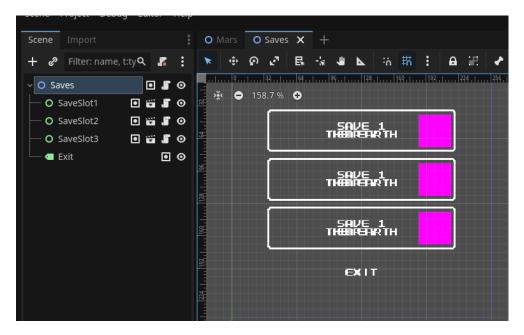
And there you go! Now you can move the characters on the board!

# Using the board in the game saves

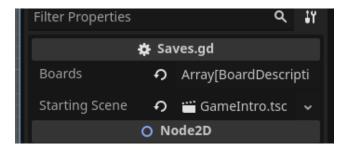
First of all, let's change the board's ID for saves:



Nice, now let's open the save menu, which is located in "Scenes/MainMenu/Saves.tscn"



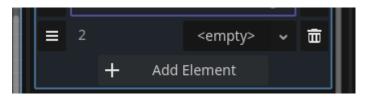
By opening the root node's properties you can see the "Boards" property:



You can open it and see every board available in the saves menu:

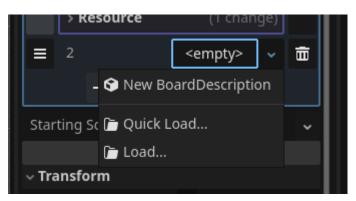


Let's add our own board here!

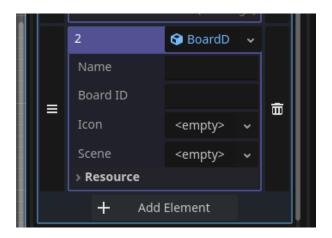


Okay, now what?

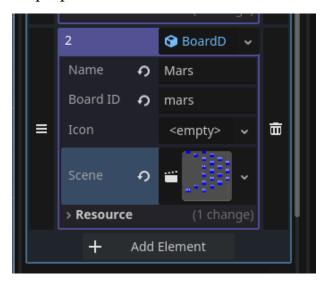
Click on "<empty>".



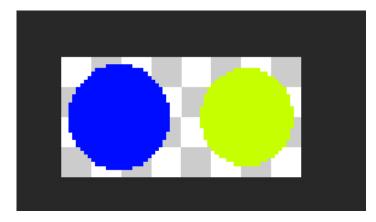
Now on "New BoardDescription".



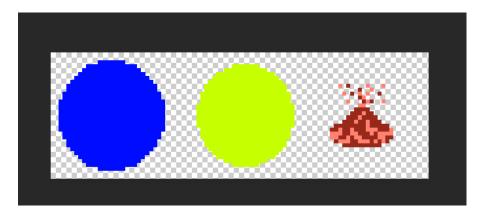
Now we can change the properties.



But I left the icon property empty, that's because we haven't created an icon yet. Open "Sprites/Levels/PlanetIcons.png".



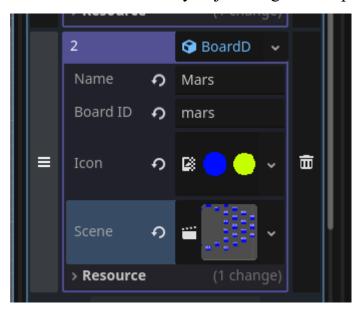
Now you can extend it and add your own icon.



Good enough for a tutorial.

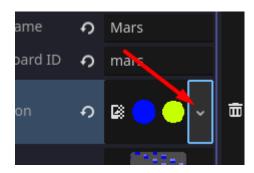
Now let's add it to the game.

You can notice that it doesn't look well if you just drag and drop the image in:

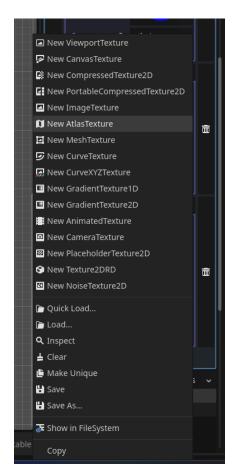


What do we do?

Click on this button:



And then "New AtlasTexture":

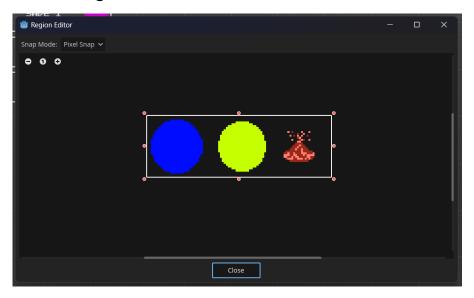




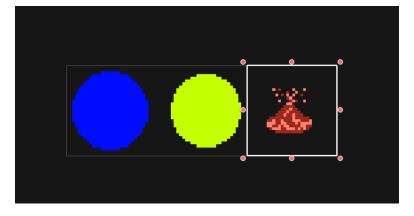
Drag and drop your icons spritesheet in the "Atlas" property:



Now click on "Edit Region" below.



Now you can select the new icon.

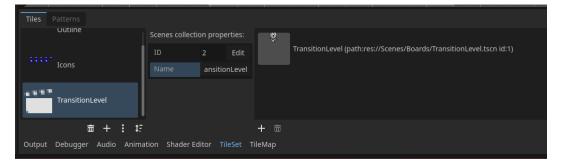


Now close it and it's done!



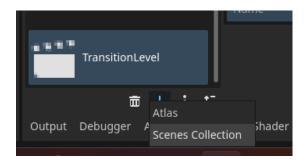
## (Optional) Adding scene tiles to your tileset

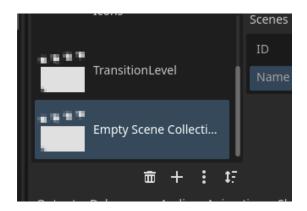
The previous screenshots don't show this but you should actually have a third group in the "TileSet" section, which is a scene tiles group:



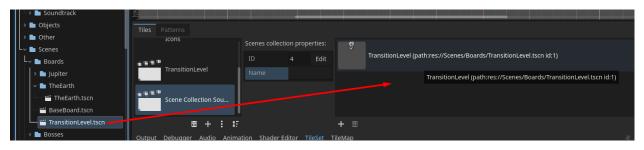
You can either add your scene tiles there or create a new group. I will create a new group for this tutorial.

Click on "+" and then on "Scenes Collection":



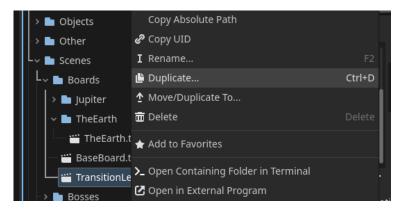


You can drag and drop the transition level tile scene as an example:

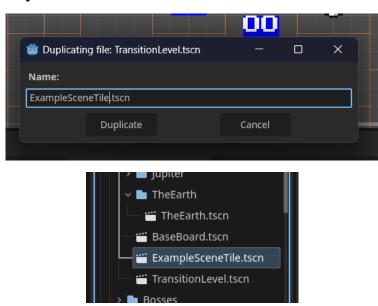


But how do we create a new one?

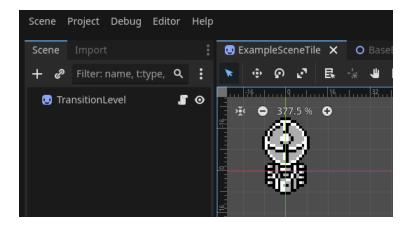
Duplicate the transition level tile scene:



Choose a name for your scene tile:

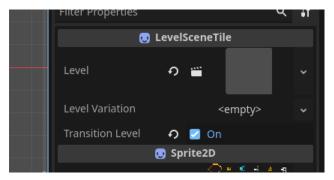


Now open it.

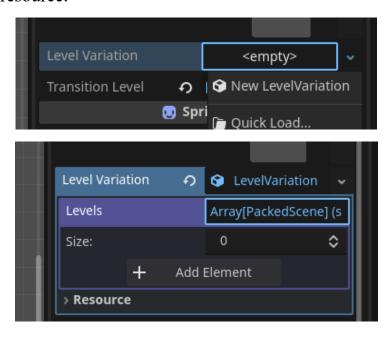


You can change the sprite and the scene however you like:)

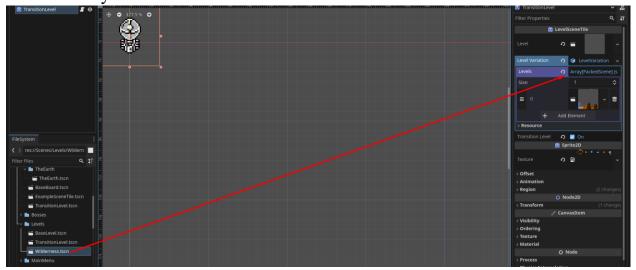
If you click on the node you can see it has a script and properties:



You can use the "Level" property and drag and drop you level scene there if you don't need level variations in your tile, otherwise you can setup the level variations by clicking on "<empty>" in the "Level Variation" property and creating a new Level Variation resource:

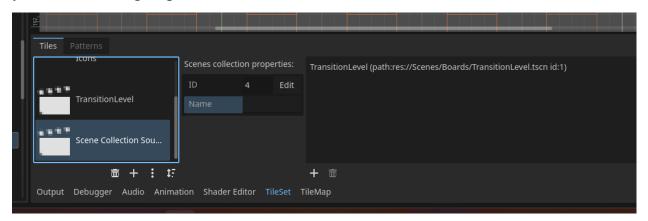


Just like how it's done with normal tiles, you can drag and drop your level scenes onto the array:

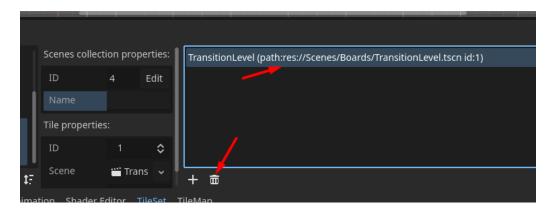


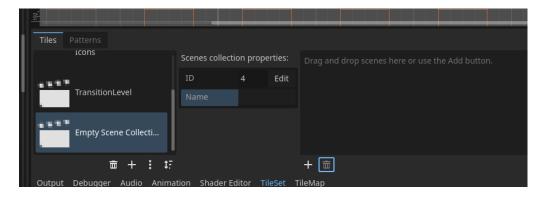
Now save the scene.

Go back to the board, select the "Board Icons" node, select "TileSet" and select your scene tiles group:



If you want, you can select the existing "TransitionLevel" option in the group and delete it:

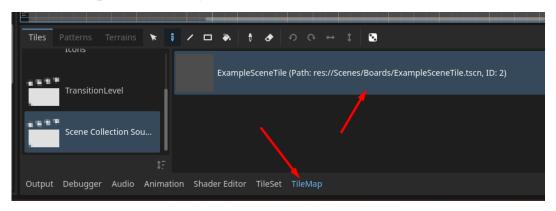




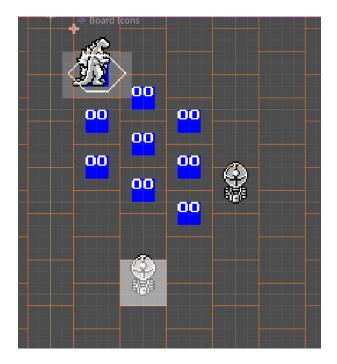
Now drag and drop your tile scene file:



Click on "TileMap" and select your scene:



Start placing it on the board:



And there you go! Now you have scene as board tiles!

And remember that you can do anything with the scenes. For example, you can make an animated tile with that feature!