

# AutoGrid Manuel

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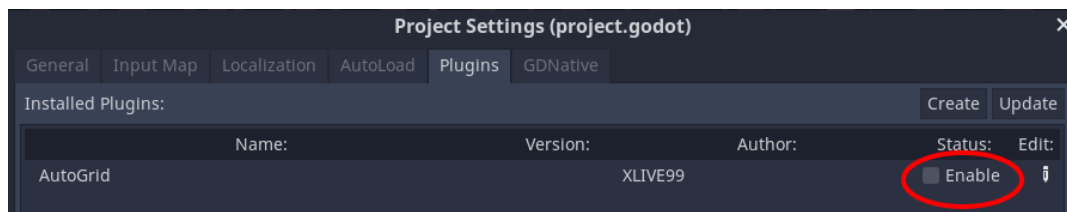
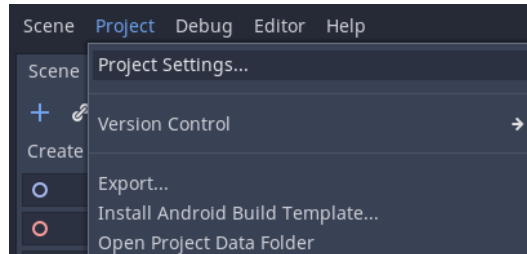
You can request feature or report a bug by opening issue from the [github repository](#).

# 1-Installation

Move “addons/AutoGrid” folder to the game project “addons” folder. If you don’t have any “addons” folder in the game project, you can either create folder named with “addons” or move “addons/AutoGrid” folder with “addons” folder.

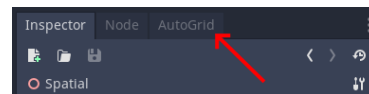
Go to Project>Project Settings, on pop-up window change tab to “Plugins” and activate the “AutoGrid” plugin by checking the “Enable” button.

Warning! AutoGrid tested on Godot 3.2



## 2-AutoGrid Dock Panel

After enabling the plugin, you will see the “AutoGrid” dock panel near to the “Inspector” panel.



### 2.1-Dock panel settings

Currently (Version 1.1) there’s only 6 option available on the AutoGrid panel.

Autotile: Enables autotile system.

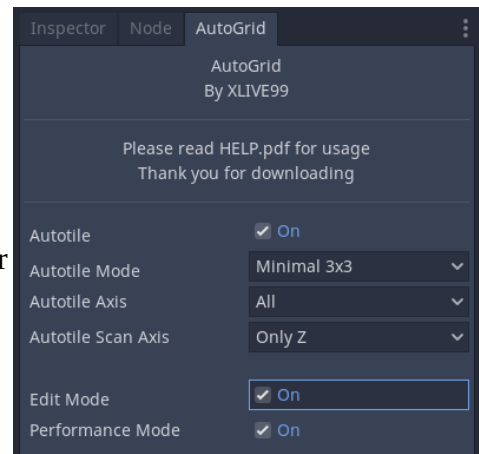
Autotile Mode:

- Full 3x3: Checks every corner for fit the perfect tile for that place (Same as tilemap).
- Minimal 3x3: Checks the corners three by three (Same as tilemap).

Autotile Axis: Limits the autotile check axis.


Autotile Scan Axis: Scans surrounding to apply autotile (If you are working on 3D environment then leave this as "Y axis". If you are working on 2D environment then select which axis is facing the tiles)

Edit Mode: Enables the bitmap edit button.



Performance Mode: If enabled only checks for new tiles, do not check for repainted tiles (If map is too big, enabling this might increase the performance).

If edit mode is checked two buttons at the bottom of the dock panel will appear, these buttons corresponds from creating or reloading the autotile info for AutoGrid.

A screenshot of two buttons from a software interface. The buttons are dark gray with light gray text. The first button on the left is labeled "Reload Autotile Info" and the second button on the right is labeled "Create Autotile Info". They are positioned side-by-side within a dark rectangular container.

Reload Autotile Info

Create Autotile Info

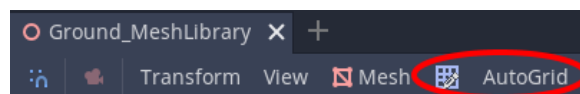
## 3-Creating Bitmask

### 3.1-Setting up the scene

Set the scene as shown in [Creating a MeshLibrary](#). If link doesn't work, then create new spatial scene and create bunch of "MeshInstance" node with tiles. You can also set navmesh or collision shape with adding node to "MeshInstance".

### 3.2-Setting the bitmask

Enable "Edit Mode" from the AutoGrid panel. Select a "MeshInstance" you want to create the bitmask of it (If you already select the MeshInstance while enabling the Edit Mode then the button won't show up. You need to re-select the MeshInstance). If MeshInstance is selected edit button will show up as "AutoGrid". It has 9 options



Create Bitmask: Creates a bitmask for the selected MeshInstance.

Remove Bitmask: Deletes the bitmask of the selected MeshInstance.

Increase Bitmask: Increases visual size of the bitmasks.

Decrease Bitmask: Decreases visual size of the bitmasks.

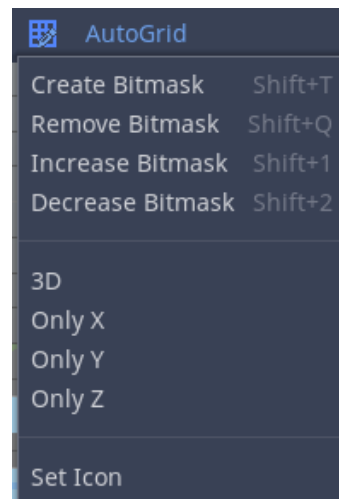
3D: Shows the full bitmask.

Only X: Shows the only x axis of the bitmask (Global X).

Only Y: Shows the only y axis of the bitmask (Global Y).

Only Z: Shows the only z axis of the bitmask (Global Z).

Set Icon: Sets the icon for the AutoGrid tile to be created (Default is the first child of the scene, selected icon will be shown as blue transparent sphere).



After creating the bitmask you can simply paint the bitmask by clicking on white cubes. Painted cubes will become red. If MeshInstance is not selected the bitmask will become transparent. You can click again to the red painted cube for disabling it.

Rotating the bitmask is only visual. Bitmasks axis is global not local. Rotating the bitmask won't change anything.

### 3.3-Reloading the bitmasks

If you already created the bitmasks but you can't see the painted bitmasks in the scene (If you re-open the Godot Engine, bitmasks of the scene will reset itself). You can reload bitmasks info from clicking on the "Reload Autotile Info" button at the bottom of the AutoGrid panel.

## 4-Creating Autotile Info

AutoGrid's autotile system works with autotile info (.agrid) which created from the plugin itself. Autotile info files won't visible at Godot FileSystem.

Before creating the autotile info, be sure you are in the MeshLibrary scene (Where you created the bitmasks). You can create autotile info by simply clicking the "Create Autotile Info" button at the bottom of the AutoGrid panel. AutoGrid will ask for the save location and a name for the file to be created. After saving the file, you will see newly created node at the bottom of the scene, do NOT change it's name! Now you need to create a MeshLibrary again from "Scene>Convert to>MeshLibrary", and done! You have successfully created the autotile info.

## 5-Using The Autotile

Autotile system works with the global axis. So autotile doesn't check the orientation of the tiles.

Be sure to enable the "Autotile" from the AutoGrid panel. Select the gridmap which has autotile info. If autotile info is not available for the selected gridmap, AutoGrid will warn you through console. Autotile will work for every tile you created bitmask of it but some glitches can occur, for better performance please paint with the tile which name ends with "\_agrid", it's icon will be the icon you selected while creating the autotile info.

When a GridMap node selected you will see some console message if the "Autotile" is ready to use as seen below.

```
Output:
--- AUTOGRID INFO --- AutoGrid is ready to use!
```

Autotile system only checks for newly created tiles if performance mode is enabled. If you repaint the tile, AutoGrid won't detect it as newly created tile, therefore autotile won't work for that tile. For these kind of cases disable the "Performance Mode" from the AutoGrid panel. This will cause to use more performance.

