

# Fast Model Maker

1.0

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## **Chapter 1**

## **Index page**

### **1.1 Introduction**

This is the documentation for the Ease Mesh Maker, it describe the classes and functions in this package.





## Chapter 2

# Namespace Index

### 2.1 Packages

Here are the packages with brief descriptions (if available):

<a href="#">FastAtlas</a>	Namespace for the scripts that interact with the texture. . . . .	9
<a href="#">FastMesh</a>	Namespace containing the scripts that interact with the mesh of the objects and generate new meshes . . . . .	9



## Chapter 3

# Hierarchical Index

### 3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

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## Chapter 4

# Class Index

### 4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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## Chapter 5

# Namespace Documentation

### 5.1 FastAtlas Namespace Reference

Namespace for the scripts that interact with the texture.

#### Classes

- class [FixAtlas](#)  
*Generate the Fix Atlas window to create a new atlas with borders*
- class [SetAtlasMaterial](#)  
*It interact with the texture in the GameObject and set the correct tilling and offset to show a texture in a atlas.*
- class [SetAtlasMaterialEditor](#)  
*Editor for the [SetAtlasMaterial](#) Script*

#### 5.1.1 Detailed Description

Namespace for the scripts that interact with the texture.

Editor for the [SetAtlasMaterial](#)

### 5.2 FastMesh Namespace Reference

Namespace containing the scripts that interact with the mesh of the objects and generate new meshes

#### Classes

- class [CombineBlocks](#)  
*Combine multiple meshes, focusing in merging blocks that touch*
- class [CombineBlocksEditor](#)  
*Editor for the [CombineBlocks](#) script*
- struct [MeshData](#)  
*Contain data for a mesh*
- class [SetPivot](#)  
*Change the pivot of a 3D model*
- class [SetPivotEditor](#)  
*Editor for the [SetPivot](#) script*

### 5.2.1 Detailed Description

Namespace containing the scripts that interact with the mesh of the objects and generate new meshes



## Chapter 6

# Class Documentation

### 6.1 FastMesh.CombineBlocks Class Reference

Combine multiple meshes, focusing in merging blocks that touch

#### Static Public Member Functions

- static void [Combine](#) (GameObject[] objs)  
*Combine multiple GameObjects*
- static void [CleanVertices](#) (Mesh mesh)  
*Remove unused vertices and points from mesh*
- static void [RemoveTouching](#) (CombineInstance[] data)  
*Remove Vertices in a model that complete touch, removing them*
- static bool [CheckTouching](#) (Vector3 a, Vector3 b, Vector3 c, Mesh check)  
*Check if any vertice in a mesh is touching points A B and C*
- static GameObject [] [RemoveDuplicate](#) (GameObject[] data, bool destroy)  
*Make a list without any meshes in the exacly same position*

#### 6.1.1 Detailed Description

Combine multiple meshes, focusing in merging blocks that touch

#### 6.1.2 Member Function Documentation

##### 6.1.2.1 CheckTouching()

```
static bool FastMesh.CombineBlocks.CheckTouching (
    Vector3 a,
    Vector3 b,
    Vector3 c,
    Mesh check ) [static]
```

Check if any vertice in a mesh is touching points A B and C

**Parameters**

<i>a</i>	
<i>b</i>	
<i>c</i>	
<i>check</i>	

**Returns****6.1.2.2 CleanVertices()**

```
static void FastMesh.CombineBlocks.CleanVertices (
    Mesh mesh ) [static]
```

Remove unused vertices and points from mesh

**Parameters**

<i>mesh</i>	Mesh to do the update
-------------	-----------------------

**6.1.2.3 Combine()**

```
static void FastMesh.CombineBlocks.Combine (
    GameObject [] objs ) [static]
```

Combine multiple GameObjects

**Parameters**

<i>objs</i>	GameObjects to combine
-------------	------------------------

**6.1.2.4 RemoveDuplicate()**

```
static GameObject [] FastMesh.CombineBlocks.RemoveDuplicate (
    GameObject [] data,
    bool destroy ) [static]
```

Make a list without any meshes in the exactly same position

## Parameters

<i>data</i>	GameObject list
<i>destroy</i>	Destroy duplicates?

## Returns

GameObject list without duplicates

## 6.1.2.5 RemoveTouching()

```
static void FastMesh.CombineBlocks.RemoveTouching (
    CombineInstance [] data ) [static]
```

Remove Vertices in a model that complete touch, removing them

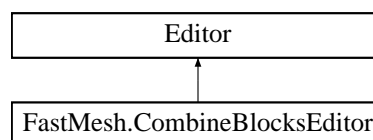
## Parameters

<i>data</i>	Instance to do the check
-------------	--------------------------

## 6.2 FastMesh.CombineBlocksEditor Class Reference

Editor for the [CombineBlocks](#) script

Inheritance diagram for FastMesh.CombineBlocksEditor:



### Static Public Member Functions

- static void [Combine](#) ()  
*Combine all the selected GameObject Meshes*
- static void [CombineChilds](#) ()  
*Combine all the selected GameObject meshes and the meshes inside their childs*
- static void [Remove](#) ()  
*Remove an objects that perfectly align with another (like two blocks on top of each other)*

### 6.2.1 Detailed Description

Editor for the [CombineBlocks](#) script

## 6.2.2 Member Function Documentation

### 6.2.2.1 Combine()

```
static void FastMesh.CombineBlocksEditor.Combine ( ) [static]
```

Combine all the selected GameObject Meshes

### 6.2.2.2 CombineChilds()

```
static void FastMesh.CombineBlocksEditor.CombineChilds ( ) [static]
```

Combine all the selected GameObject meshes and the meshes inside their childs

### 6.2.2.3 Remove()

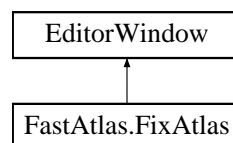
```
static void FastMesh.CombineBlocksEditor.Remove ( ) [static]
```

Remove an objects that perfectly align with another (like two blocks on top of each other)

## 6.3 FastAtlas.FixAtlas Class Reference

Generate the Fix Atlas window to create a new atlas with borders

Inheritance diagram for FastAtlas.FixAtlas:



### Static Public Member Functions

- static void [GetWindow](#) ()  
*Create a new Window*
- static int [round](#) (float i)  
*Round a number to be by the power of 2*

## Static Public Attributes

- static Texture2D [texture](#)  
*Source texture that will be used to generate the new atlas*
- static int [resX](#) = 16  
*Resolution X of a sprite in the atlas*
- static int [resY](#) = 16  
*Resolution Y of a sprite in the atlas*
- static int [margin](#) = 1  
*Margin in PX between sprites in the atlas*

### 6.3.1 Detailed Description

Generate the Fix Atlas window to create a new atlas with borders

### 6.3.2 Member Function Documentation

#### 6.3.2.1 GetWindow()

```
static void FastAtlas.FixAtlas.GetWindow ( ) [static]
```

Create a new Window

#### 6.3.2.2 round()

```
static int FastAtlas.FixAtlas.round (
    float i ) [static]
```

Round a number to be by the power of 2

#### Parameters

<i>i</i>	Output need to be at least this big
----------	-------------------------------------

#### Returns

### 6.3.3 Member Data Documentation

#### 6.3.3.1 margin

```
int FastAtlas.FixAtlas.margin = 1 [static]
```

Margin in PX between sprites in the atlas

#### 6.3.3.2 resX

```
int FastAtlas.FixAtlas.resX = 16 [static]
```

Resolution X of a sprite in the atlas

#### 6.3.3.3 resY

```
int FastAtlas.FixAtlas.resY = 16 [static]
```

Resolution Y of a sprite in the atlas

#### 6.3.3.4 texture

```
Texture2D FastAtlas.FixAtlas.texture [static]
```

Source texture that will be used to generate the new atlas

## 6.4 FastMesh.MeshData Struct Reference

Contain data for a mesh

### Public Attributes

- List< Vector3 > **vertices**
- List< Vector2 > **uv**
- List< int > **triangles**
- Matrix4x4 **transform**

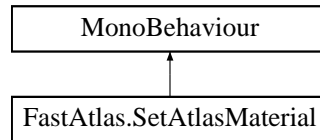
#### 6.4.1 Detailed Description

Contain data for a mesh

## 6.5 FastAtlas.SetAtlasMaterial Class Reference

It interact with the texture in the GameObject and set the correct tilling and offset to show a texture in a atlas.

Inheritance diagram for FastAtlas.SetAtlasMaterial:



### Public Member Functions

- void [SetMaterial](#) ()  
*Set the material to be used*
- void [SetPosition](#) (int px, int py)  
*Set a new size and offset to be used in the material*

### Public Attributes

- bool [isUsingFixedAtlas](#) = false  
*Is using a atlas generated by the [FixAtlas](#) Script?*
- int [margin](#) = 1  
*Margin between sprites*
- int [atlasMargin](#)  
*Margin size auto generated by the [FixAtlas](#) script*
- int [resX](#) = 16  
*Resolution in X of a sprite in the atlas*
- int [resY](#) = 16  
*Resolution in Y of a sprite in the atlas*
- float [zoom](#) = 1.00f  
*How much zoom in the selected sprite*
- int [currentX](#) = 0  
*Selected sprite X index*
- int [currentY](#) = 0  
*Selected spriteY index*
- float [scaleX](#)  
*Scale X to be used in the material*
- float [scaleY](#)  
*Scale Y to be used in the material*
- float [offsetX](#)  
*Offset X to be used in the material*
- float [offsetY](#)  
*Offset Y to be used in the material*

### Static Public Attributes

- static float **expandSizePercent** = 0.2f

## Protected Attributes

- Material [myMaterial](#)  
*Selected material to use*

## Properties

- Material [MyMaterial](#) [get]  
*Get the material to be used*

### 6.5.1 Detailed Description

It interact with the texture in the GameObject and set the correct tilling and offset to show a texture in a atlas.

### 6.5.2 Member Function Documentation

#### 6.5.2.1 SetMaterial()

```
void FastAtlas.SetAtlasMaterial.SetMaterial ( )
```

Set the material to be used

#### 6.5.2.2 SetPosition()

```
void FastAtlas.SetAtlasMaterial.SetPosition (
    int px,
    int py )
```

Set a new size and offset to be used in the material

#### Parameters

<i>px</i>	Sprite index in X
<i>py</i>	Sprite index in Y

### 6.5.3 Member Data Documentation



#### 6.5.3.1 atlasMargin

```
int FastAtlas.SetAtlasMaterial.atlasMargin
```

Margin size auto generated by the [FixAtlas](#) script

#### 6.5.3.2 currentX

```
int FastAtlas.SetAtlasMaterial.currentX = 0
```

Selected sprite X index

#### 6.5.3.3 currentY

```
int FastAtlas.SetAtlasMaterial.currentY = 0
```

Selected spriteY index

#### 6.5.3.4 isUsingFixedAtlas

```
bool FastAtlas.SetAtlasMaterial.isUsingFixedAtlas = false
```

Is using a atlas generated by the [FixAtlas](#) Script?

#### 6.5.3.5 margin

```
int FastAtlas.SetAtlasMaterial.margin = 1
```

Margin between sprites

#### 6.5.3.6 myMaterial

```
Material FastAtlas.SetAtlasMaterial.myMaterial [protected]
```

Selected material to use

#### 6.5.3.7 offsetX

```
float FastAtlas.SetAtlasMaterial.offsetX
```

Offset X to be used in the material

#### 6.5.3.8 offsetY

```
float FastAtlas.SetAtlasMaterial.offsetY
```

Offset Y to be used in the material

#### 6.5.3.9 resX

```
int FastAtlas.SetAtlasMaterial.resX = 16
```

Resolution in X of a sprite in the atlas

#### 6.5.3.10 resY

```
int FastAtlas.SetAtlasMaterial.resY = 16
```

Resolution in Y of a sprite in the atlas

#### 6.5.3.11 scaleX

```
float FastAtlas.SetAtlasMaterial.scaleX
```

Scale X to be used in the material

#### 6.5.3.12 scaleY

```
float FastAtlas.SetAtlasMaterial.scaleY
```

Scale Y to be used in the material

### 6.5.3.13 zoom

```
float FastAtlas.SetAtlasMaterial.zoom = 1.00f
```

How much zoom in the selected sprite

## 6.5.4 Property Documentation

### 6.5.4.1 MyMaterial

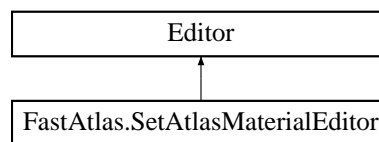
```
Material FastAtlas.SetAtlasMaterial.MyMaterial [get]
```

Get the material to be used

## 6.6 FastAtlas.SetAtlasMaterialEditor Class Reference

Editor for the [SetAtlasMaterial](#) Script

Inheritance diagram for FastAtlas.SetAtlasMaterialEditor:



### Public Member Functions

- void **Awake** ()
- Material [DuplicateMaterial](#) (Material material)  
*Create a clone of the material you are using*
- override void **OnInspectorGUI** ()

### Public Attributes

- [SetAtlasMaterial](#) myTarget  
*Target of the Editor*

### 6.6.1 Detailed Description

Editor for the [SetAtlasMaterial](#) Script

### 6.6.2 Member Function Documentation

#### 6.6.2.1 DuplicateMaterial()

```
Material FastAtlas.SetAtlasMaterialEditor.DuplicateMaterial (
    Material material )
```

Create a clone of the material you are using

**Parameters**

<i>material</i>	Material to clone
-----------------	-------------------

**Returns**

The clone of the material

**6.6.3 Member Data Documentation****6.6.3.1 myTarget**

`SetAtlasMaterial` FastAtlas.SetAtlasMaterialEditor.myTarget

Target of the Editor

**6.7 FastMesh.SetPivot Class Reference**

Change the pivot of a 3D model

**Static Public Member Functions**

- static void `SetMiddle` (GameObject obj)  
*Set the GameObject Pivot to its center*
- static void `Set` (GameObject obj, Vector3 point)  
*Set the pivot of a GameObject in a relative point*

**6.7.1 Detailed Description**

Change the pivot of a 3D model

**6.7.2 Member Function Documentation****6.7.2.1 Set()**

```
static void FastMesh.SetPivot.Set (
    GameObject obj,
    Vector3 point ) [static]
```

Set the pivot of a GameObject in a relative point

## Parameters

<i>obj</i>	GameObject to set the pivot
<i>point</i>	Point of the pivot

## 6.7.2.2 SetMiddle()

```
static void FastMesh.SetPivot.SetMiddle (
    GameObject obj ) [static]
```

Set the GameObject Pivot to its center

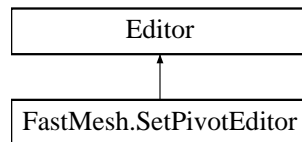
## Parameters

<i>obj</i>	GameObject to center the pivot
------------	--------------------------------

## 6.8 FastMesh.SetPivotEditor Class Reference

Editor for the [SetPivot](#) script

Inheritance diagram for FastMesh.SetPivotEditor:



## Static Public Member Functions

- static void [SetToCenter](#) ()  
*Set the pivot to the center of the selected GameObjects*

## 6.8.1 Detailed Description

Editor for the [SetPivot](#) script

## 6.8.2 Member Function Documentation

## 6.8.2.1 SetToCenter()

```
static void FastMesh.SetPivotEditor.SetToCenter ( ) [static]
```

Set the pivot to the center of the selected GameObjects

