

Terrain To OBJ

Editor Window

Terrain To OBJ editor window can be open from **Unity Main Menu -> Window -> Amazing Assets**.

Target terrains can be selected using buttons available in the top side of the window or by simple drag & drop terrain objects from Hierarchy and Project windows, including entire folders with terrain data.

Terrain To OBJ

▼ Mesh

Vertices

Count

1000

1000

Normal

Calculate From Mesh

Vertices: 1,000,000

Chunks

Count

4

4

Per-Chunk UV

Mesh Count: 16

Origin

Center (0, 0, 0)

▼ Save

Name

Prefix

Suffix

Location

Custom Folder

Assets/Amazing Assets/Terra

Save Folder Structure

► Help

Add Selected

Add All Scene Terrains

Add Custom

Load All Project Terrains

Remove All

Terrain Data	Dimension	Holes	
Crater	4000 1000 600	×	-
Desert	6660 3220 3932	✓	-
Falls	1500 2000 60	×	-
Flat	300 300 600	×	-
Glacier	500 500 600	×	-
Gut	200 1000 600	×	-
Hill	400 400 600	×	-
Island	500 500 600	×	-
New Terrain	1500 500 600	×	-
Demo Scene Terrain	500 500 600	×	-
SnowTerrain	100 100 70	×	-

Run (11 Files)

Vertices – Controls generated mesh vertex count horizontally and vertically:













Vertices ▾ Count

Final vertex count is displayed in the upper right corner:

Vertices: 1,000,000

Vertices ▾
Resolution
✓ Vertices

Choosing **Resolution** option instead of the **Vertices**, calculates vertex count horizontally and vertically in the way that vertex 2D grid always has quad shape. In this case final mesh vertex count depends on the source terrain length & width sizes and is displayed in the terrains list section.

Add Selected		Add All Scene Terrains		Add Custom		Load All Project Terrains		Remove All	
Terrain Data				Dimension		Holes	Vertices		
 New Terrain				4000 1000 600		✗	2,626	-	
 Terrain 10x3				6660 3220 3932		✓	1,326	-	
 Demo1				1500 2000 60		✗	676	-	
 Demo2				300 300 600		✗	676	-	
 Demo 2 Terrain				500 500 600		✗	676	-	
 New Terrain				200 1000 600		✗	3,276	-	

Normals – Calculates and saves *Normals* for OBJ file. If generated OBJ file has no *Normals*, Unity (and any other 3d modeling software) calculates them manually after importing a mesh.

Reduces generated file size if is disabled, but may create visible *Normal* seams on the chunks edges.

Chunks – Splits source terrain into 2D grid and after that each part is converted into a mesh. Count property defines Horizontal and Vertical split amount.

Per Chunk UV – Defines UV layout for chunks. If enabled, all sub-meshes will have individual UV in the range of [0, 1]. Otherwise one UV layout in the range [0, 1] will be stretched over all chunks.

Origin– Generated mesh origin position can be in (x0, y0, z0) or the same as it has in a scene. If terrain does not exist in a scene and is selected from Project folder position (x0, y0, z0) is used.

File Name Prefix/Suffix – Add prefix and suffix for generated file. Useful when creating multiple OBJ file variations.

Save Location – Generated OBJ file can be saved in three locations:

- Same Folder – File is saved in the same folder as the source Terrain asset.
- Same Subfolder – File is saved in the same folder as Terrain asset, but inside a custom subfolder.
- Custom Folder – Allows to save OBJ file in any directory on the hard drive. Directory requires Read/Write permissions.

Run time API

Terrain To OBJ extension methods can be brought into scope with this using directive:

```
C#  
using AmazingAssets.TerrainToOBJ;
```

Unity [TerrainData](#) class now will have two additional methods:

1. **ToOBJ** - returns **string** with OBJ file data.
2. **ToOBJStreamWriter** – same as **ToOBJ** method, but instead of returning sting data, calculated OBJ file is instantly saved into a file using **StreamWriter**, without allocating memory for string builder.

```
public string ToOBJ (int vertexCountHorizontal, int vertexCountVertical,  
                    Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file as a single mesh.

```
public enum Normal
```

- **None** – Mesh has no normals buffer.
- **CalculateFromMesh** – Normals are calculated from generated mesh.
- **CalculateFromTerrain** – Normals are read directly from source terrain.

```
public string ToOBJ (int vertexCountHorizontal, int vertexCountVertical,  
                    int chunkCountHorizontal, int chunkCountVertical,  
                    bool perChunkUV, Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file as a collection of multiple sub-meshes (2D grid).

```
public string ToOBJ (int vertexCountHorizontal, int vertexCountVertical,  
                    int chunkCountHorizontal, int chunkCountVertical,  
                    int positionX, int positionY,  
                    bool perChunkUV, Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file a collection of multiple sub-meshes (2D grid), but only segment defined by **positionX** and **positionY** variables is generated.

```
public void ToOBJStreamWriter (System.IO.StreamWriter streamWriter,  
                                int vertexCountHorizontal, int vertexCountVertical,  
                                Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file as a single mesh and using **streamWriter** is instantly saved into a file.

```
public void ToOBJStreamWriter (System.IO.StreamWriter streamWriter,  
                                int vertexCountHorizontal, int vertexCountVertical,  
                                int chunkCountHorizontal, int chunkCountVertical,  
                                bool perChunkUV, Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file as a collection of multiple sub-meshes (2D grid) and using **streamWriter** is instantly saved into a file.

```
public void ToOBJStreamWriter (System.IO.StreamWriter streamWriter,  
                                int vertexCountHorizontal, int vertexCountVertical,  
                                int chunkCountHorizontal, int chunkCountVertical,  
                                int positionX, int positionY,  
                                bool perChunkUV, Normal normalReconstruction, Vector3 originPosition)
```

Terrain is converted into OBJ file a collection of multiple sub-meshes (2D grid), but only segment defined by **positionX** and **positionY** variables is generated and using **streamWriter** is instantly saved into a file.