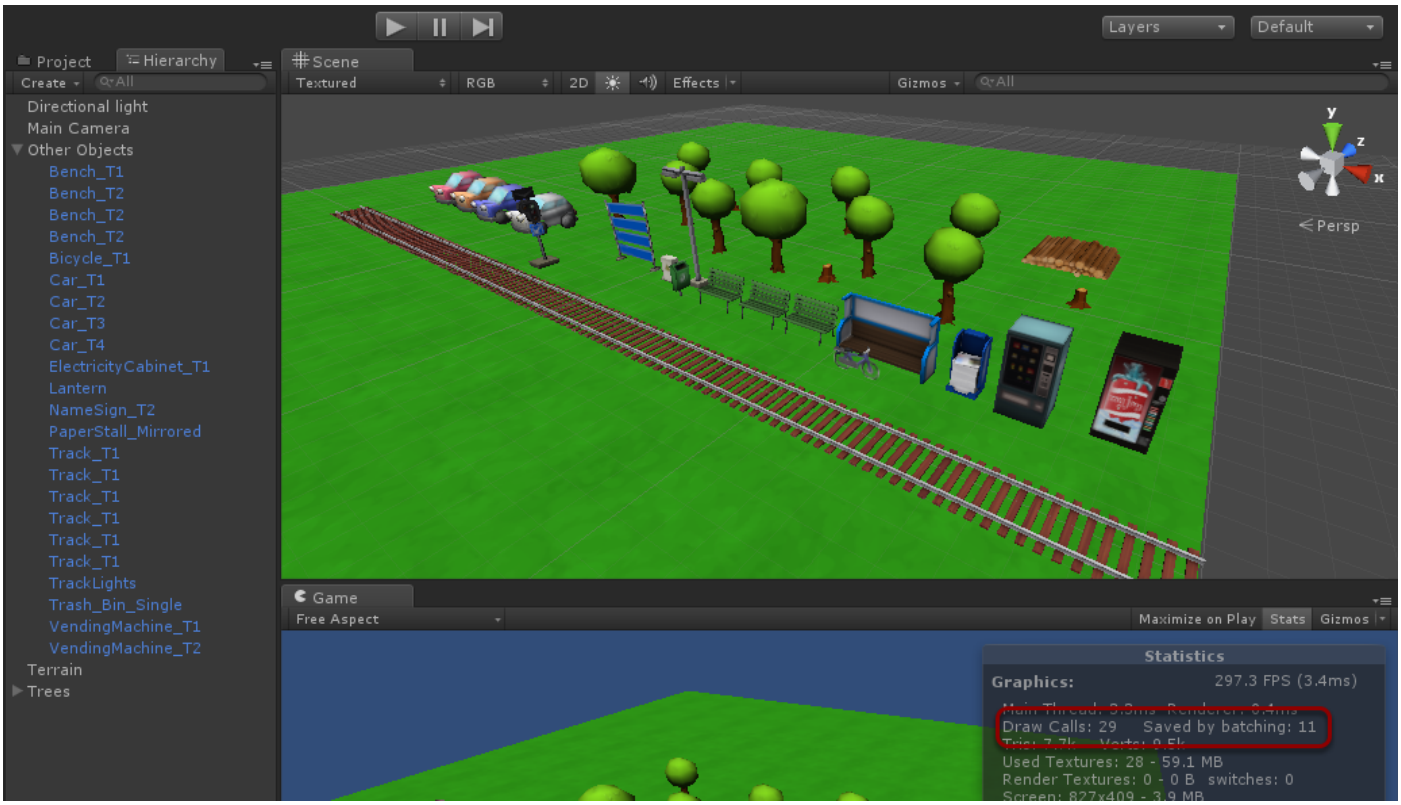
Mad Mesh Combiner - Tutorial

Introduction

Welcome to Mad Mesh Combiner tutorial. Here you will learn how to use Mad Mesh Combiner to combine multiple meshes into single* mesh object to reduce draw calls for your mobile game. For this tutorial I've prepared a scene with Toon Train Pack (https://www.assetstore.unity3d.com/en/#!/content/13212). You can notice that number of draw calls is 29 (+11 saved by Unity batching). We will try to reduce that.

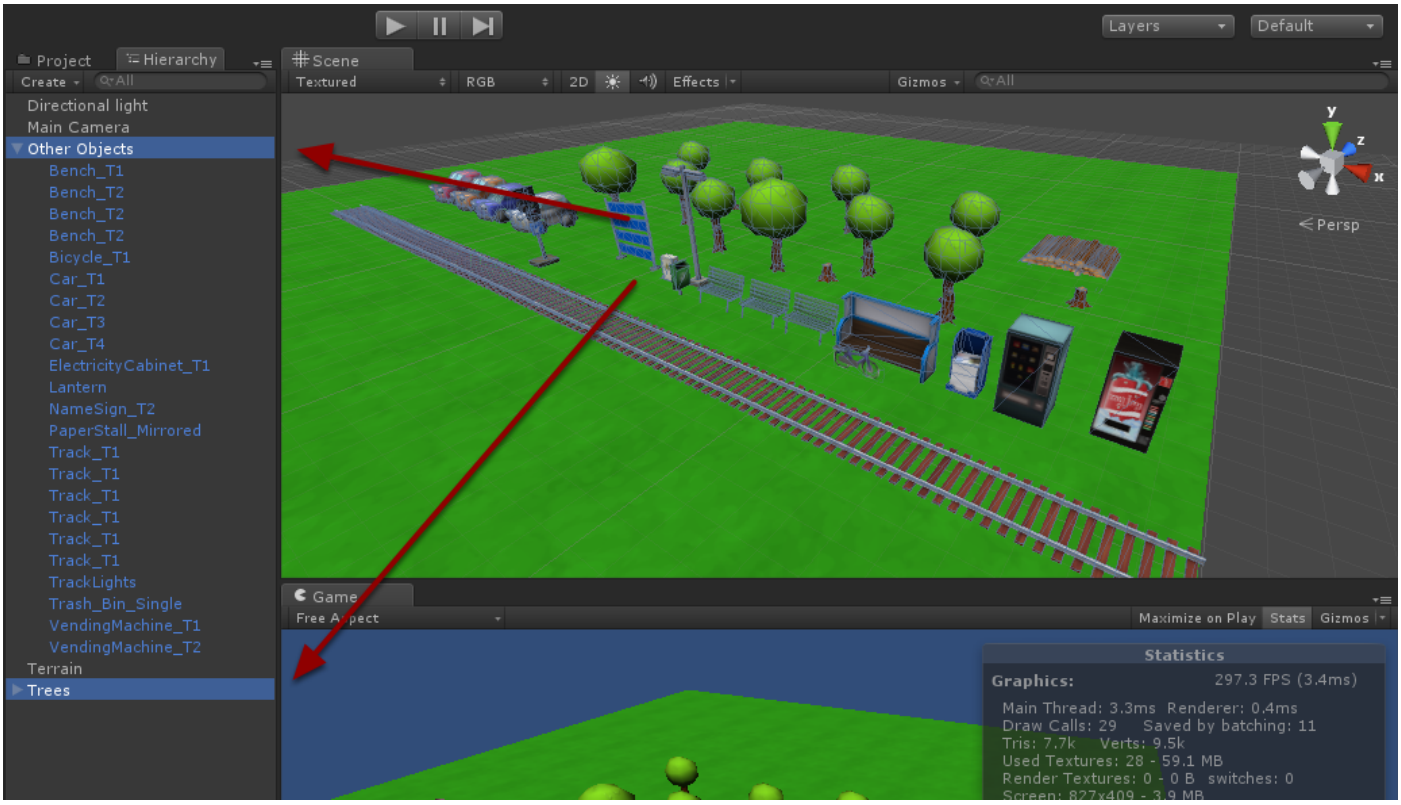
* - Number of draw calls is dependent of type of source shaders and color/material variation. Result mesh count usually varies between 1-3.

([This tutorial is also available as the YouTube video](#))



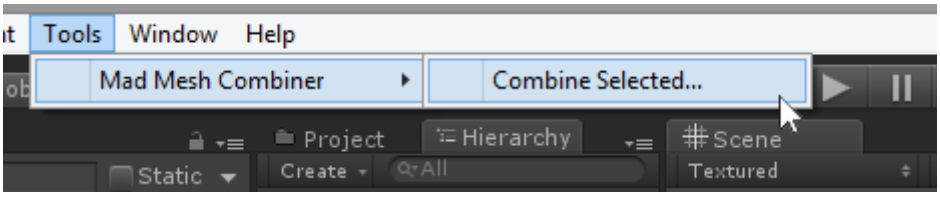
Step one: select objects

First what you have to do is to select object that you want to combine. You don't have to select each object seperatelly. Mad Mesh Combiner will recursively search for all objects that have Mesh Filter component attached.



Step two: execute "Combine Selected"

While having objects selected, execute "Tools -> Mad Mesh Combiner -> Combine Selected..." from the main menu.



Step three: review combine settings

Mesh Combine window will open. Here you can see how many meshes will be combined, how many verticles they all have, and the count of meshes that will be generated. In this case Mad Mesh Combiner decided to split all materials to 3 variations for the optimal result.

Here you can also choose between multiple **Combine Modes**:

- **Managed** (default) - Creates a new object hierarchy and allows you to edit your combined mesh later
- **Simple** - Combines meshes and forgets. You will receive a new game objects, source meshes won't be modified in any way.

You have the control the maximum number of verticles per mesh. Usually the best choice for mobile devices is between 5000-8000, but you can change it using **Vert Count Per Mesh** option.

When you'll decide to use **Managed** mode, you can choose what to do with the source objects:

- **Disable Renderers** (default) - Disables MeshRenderer component what will hide your source objects in the scene. If you have any scripts or colliders attached to your source objects, then this is the best way to keep them working.
- **Disable Game Objects** - Disables all combined game objects.
- **Do Nothing** - Won't modify source objects.

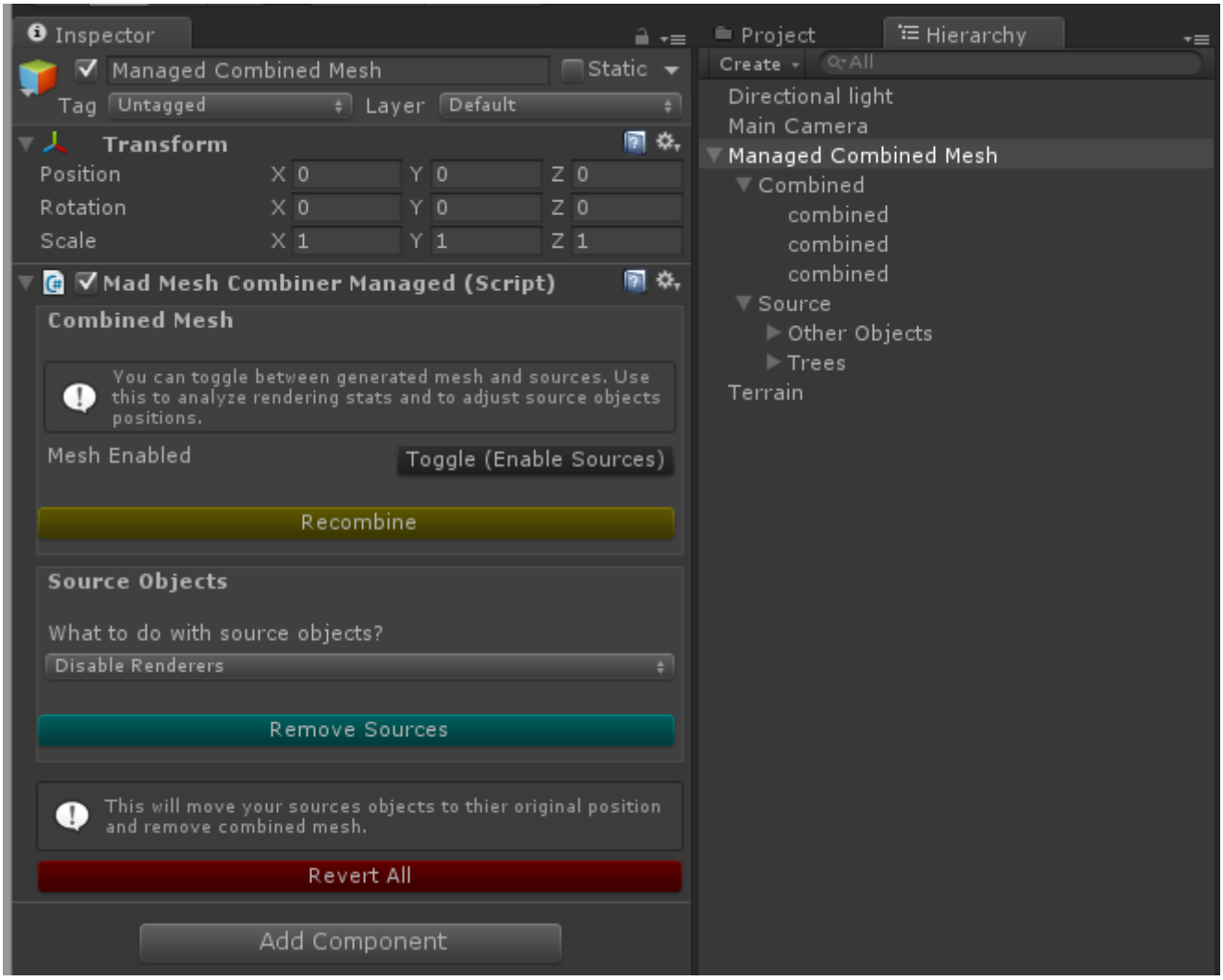
For this tutorial purpose please leave all options at the default value.

When you're ready, click on the **Combine Now** button.

Step four: Manage your mesh

When mesh is created, a new Managed Combined Mesh object will be available in the Hierarchy. From there you can:

- **Toggle** between combined mesh and source objects. This can be helpful to review changes.
- **Recombine** your mesh object. Use this if you did changes in **Source** (like added, removed or transformed your objects).
- Change what to do with **Source Objects**
- **Remove Sources** when you are sure that you won't be changing the position of your objects anymore. Remember that if you won't remove source objects, Unity will be still loading them!
- **Revert All** actions. It will remove combined meshes and move your source objects to thier original locations in hierarchy.



Summary

And that's it! You can see that number of draw calls has been reduced to 5 (2 for the terrain, 3 for the combined meshes).

If you will need more help, please write to support@madpixelmachine.com!