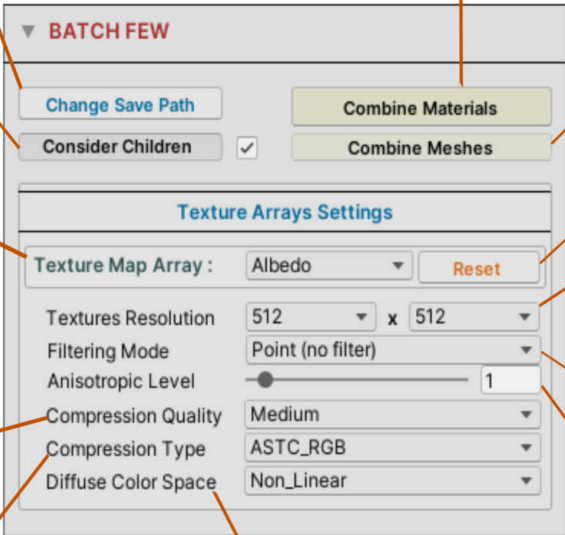This document describes the setup procedure, usage and various options of this tool.This document is not intended to describe the purpose of this tool. Please read the description on the asset store to understand what this tool does.

Installation procedure:

➤➤ Download and import the package from the asset store. Make sure you import everything in the package.

➤➤ Make sure you don't delete or modify anything that is newly imported and related to the package.

➤➤ Select a game object or multiple objects. You will see the BatchFew inspector in the bottom of the components hierarchy.

Options Description:

Change the path where the new combined meshes, texture atlases and materials will be saved. The chosen path will be used for saving such assets in the future, unless changed.

Combine all the materials in the selected objects and generate Texture Atlases with the settings specified. Materials that don't use the Standard Shader or it's variants (Standard Specular etc) will be ignored. Please note that you must save the scene after successful operations and apply changes to any prefabs manually.

Should we consider the deep nested children of the selected object(s) while combining materials without the need for explicitly selecting each child object. If this option is unchecked then only the selected objects(Without their children) are considered while combining the materials.

Combine all renderers and meshes nested under the selected object(s). Select a top level parent root object or multiple root objects to start with.

Choose a Texture map to adjust its generated Texture Array's settings. Each Texture in a Texture Array has to have the same settings. This allows us to change the settings for the individual Texture Arrays generated. Note that Batch Few will only generate Texture Arrays which will be used by the combined material.

Reset all settings to default. This will reset settings for every Texture Array, not only the selected one

The resolution of each texture in the selected Texture Map Array. Every texture in the selected Texture Map Array will be resized to this resolution.

The filtering mode for the textures in the selected Texture Map Array.

The compression quality for the textures in the selected Texture Map Array. This option is only valid if the compression type selected is "ASTC RGB"

The level of the anisotropic filtering for the textures in the selected Texture Map Array.

The compression type for the textures in the selected Texture Map Array.

The color space diffuse maps are in. This should only be changed to "Linear" if you're generating Texture arrays on a platform where linear rendering mode can cause diffuse maps to be too dark, Occulus Quest is an example of such a platform.

BATCH FEW

Change Save Path   Combine Materials

Consider Children   ✓   Combine Meshes

Texture Arrays Settings

Texture Map Array :   Albedo   ▼   Reset

Textures Resolution   512 ▼ x   512 ▼

Filtering Mode   Point (no filter) ▼

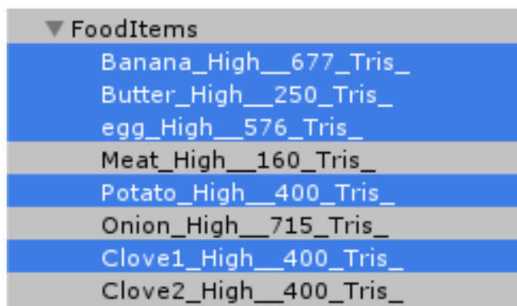Anisotropic Level   ━●━━━━━━ 1

Compression Quality   Medium ▼

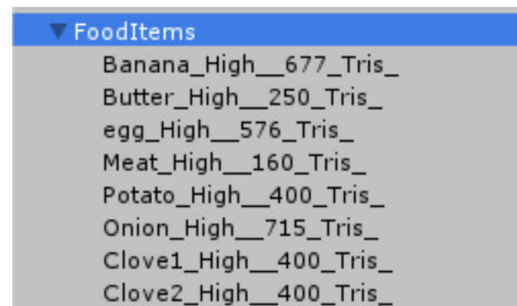Compression Type   ASTC_RGB ▼

Diffuse Color Space   Non_Linear ▼

Combining Materials:

» Select multiple objects whose materials you wish to combine Or Select the top level parent element of the objects whose materials you want to combine.

OR

» Scroll down the inspector until you see the BatchFew window

» You will see various settings that you can tweak. BatchFew uses Texture Arrays for combining materials. Each texture in a Texture Array has to have the same settings. We can change these settings for each individual Texture Array that is generated by selecting a Texture Array from the "Texture Map Array" drop down.
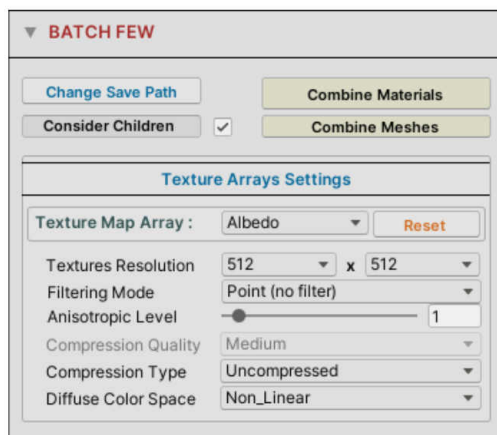
» After selecting a Texture Array we can see and modify various settings like the resolution of the textures, filtering mode, compression etc

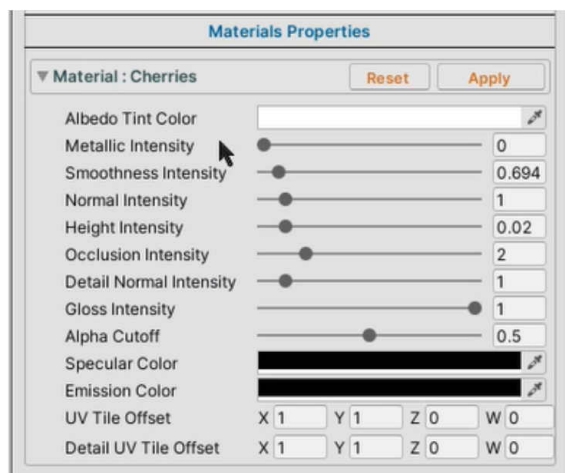» **Click the "Combine Materials" button to start the process.**
Wait until the process completes and save the scene afterwards.

Scene(s) Have Been Modified   [x]

Do you want to save the changes you made in the
scenes:
  Assets/Food Pack Mixed/Scenes/DemoScene.unity

Your changes will be lost if you don't save them.

[Save]   [Don't Save]   [Cancel]
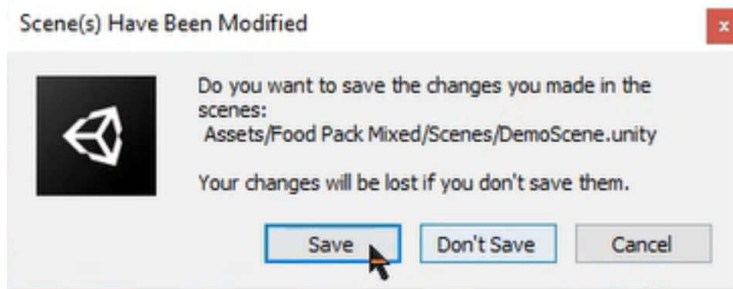
» **We can see a few new assets that Batch Few has created for us. These include the combined material, the texture array(s), a special texture and the modified meshes.**

Assets > MyNewAssets > **BatchFew_CombinedStuff**

TextureIn...   _MatAttrib...   CombineM...   DiffuseMa...
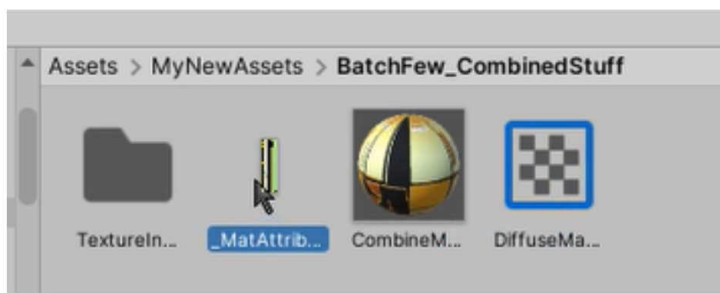
» **Even though all of the objects use the same material now.You can still modify individual material properties for each object. Simply click an object that has the new combined material and the BatchFew inspector now shows you the material settings for the object.**

Materials Properties

▼ Material : Cherries   Reset   Apply

Albedo Tint Color   ⟋
Metallic Intensity   ●————————————   0
Smoothness Intensity   ——●——————————   0.694
Normal Intensity   ——●——————————   1
Height Intensity   ——●——————————   0.02
Occlusion Intensity   ————●————————   2
Detail Normal Intensity   ——●——————————   1
Gloss Intensity   ——————————●——   1
Alpha Cutoff   ——————●——————   0.5
Specular Color   ████████████████ ⟋
Emission Color   ████████████████ ⟋
UV Tile Offset   X 1   Y 1   Z 0   W 0
Detail UV Tile Offset   X 1   Y 1   Z 0   W 0

» **Change these settings and click apply to keep them persistent.**

Combining Renderers/Meshes:

» **Select a top level parent root object Or multiple root objects to start with. All the meshes in the selected object(s) including the deep nested ones in the children will now be considered for the mesh combining operation.**

OR
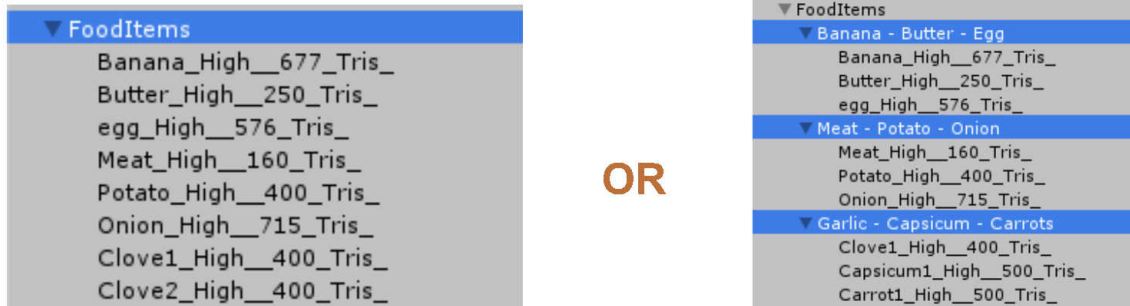
» **Scroll down the inspector until you see the BatchFew window**

» **Click the "Combine Meshes" button and wait for the process to complete and save the scene afterwards.**

» **To keep the a non-destructive workflow, BatchFew first duplicates the objects whose meshes you wish to combine and then combines their meshes. This would leave the original GameObjects unmodified.**

» **If you had previously combined materials for the GameObjects whose meshes you just combined, you would no longer be able to adjust the individual material properties for the combined objects from the BatchFew inspector.**

NOTES:

» To ensure proper functionality of this tool please don't modify the package contents in any way.

» As stated in the tool requirements on the asset store, this asset requires unity version 2017 and above. Otherwise the tool won't work as expected.

» Just Like PolyFew, BatchFew also requires requires that the gizmos from the scene view are enabled, and have the Transform gizmos checked.

» There are various operations that will prompt you to save the scene after completion. If the scene is not saved in such cases before exiting the Unity Editor the changes might get lost.

» BatchFew currently can only combine materials that use the Standard Shader or its variants (Standard Specular etc)

» After combining materials you might see slight differences in the lighting of the objects. You can easily adjust settings for the individual materials that are combined. Simply click on an object that now has the combined material and you'll see material properties in the BatchFew inspector for that particular object.

» The mesh combiner included cannot combine Skinned meshes with blend shapes so they are ignored when combining meshes and left as is.

» In Unity 2017.2 and below, No meshes under the selected GameObject(s) will be combined if the combined mesh exceeds the maximum vertex count of 65534. This is a limitation in older versions of Unity.

» If a GameObject has non uniform scaling applied. Then the mesh combining operation will cause the combined mesh normals to be incorrectly calculated resulting in slight variation in lighting.

» In Unity 2017.2 and below, when the material combining process gets complete you might get an error:
" Assertion failed: Assertion failed on expression: 'pred(*previous, *i)' "
This is a harmless bug in older versions of Unity and can be safely ignored.

If you have any problems or queries you can contact me at:

kbawar555@gmail.com
OR
https://connect.unity.com/u/594e404f32b306001c1b2711