

# Slice Processors

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# What Are They?

- Slice Processors are special Scriptable Object assets which can be created and referenced in your Slice Configuration Files.
- These assets allow you to run custom code before and/or after each slice is generated by the slicing tool. This code can be whatever you want. For example, you could use it to add custom scripts to each slice, sort objects in the scene based on the slices position and dimensions, or create custom shaders.

# What Are They?

- There is currently one Slice Processor provided with the kit, the “atsColormapMaterialSlicer”. More information about that processor can be found [here](#).
- Additional slice processors will be provided in the future, but the real power in this system is that you can create your own Slice Processors.

# Creating Slice Processors

- To create a new Slice Processor, simply create a new C# script in an Editor folder (you can store them in TerrainSlicing/OtherScripts/SliceProcessorsSource/Editor, but it is not required).
- Open the “atsColormapMaterialSlicer.cs” file and choose “Select All”, then copy.
- Delete the existing code in your newly created script and past the code from the atsColormapMaterialSlicer.cs file. Change the class name so that it matches your file name.
- Delete all methods except “PreSlicingPrep” and “ProcessSlice”. Also remove the code from within these two methods.
- Remove the CreateATSPostSliceProcessor2 method, then rename the CreateATSPostSliceProcessor1 to something more suitable to your Slice Processor. Change <atsColormapMaterialSlicer> to whatever your class name is, and adjust the final “/ats Colormap Material Slicer” string in the MenuItem, as well as the “atsColormapMaterialSlicer.asset” string to better match your Slice Processor.

# Creating Slice Processors

- The `PreSlicingPrep` method is an optional method you can implement to perform some preparation before any slices are created.
- This is called only once for the entire terrain you are slicing, rather than for each individual slice that is created.

# Creating Slice Processors

- The ProcessSlice method must be implemented in your custom Slice Processor.
- This method is called after each slice is created (but before alphamap blending).
- You can use the terrainSlice argument to get information relating to the slice that was just generated.
- This is where you should perform your custom code that is specific to each slice, such as creating a custom material for that slice.

# Creating Slice Processors

- The PostSlicingPrep works similar to the PreSlicingPrep method (though it has no parameters). It's optional and only called once for the entire terrain you are slicing.
- This is mainly meant to provide you a single method for cleaning up after the slicing process. It's very likely you won't need to use it for anything.

# Creating Slice Processors

- The SliceProcessor class has some additional static method you can use to perform common operations. These include:
  - CreateFolder (in project hierarchy)
  - RefreshAssetDatabase (reimports assets)
  - SliceTexture (produce a small texture subset of a larger texture)
  - SetMaterialTexturesToTerrainSplats
  - SliceMaterialFloatProperties
  - SliceTextureScaleAndOffset\_NormalMethod
  - SliceTextureScaleAndOffset\_AbnormalMethod
- Intellisense should provide more information about these methods.



# Using Your New Slice Processor

- Once you've created the Slice Processor script, you can create the actual asset by right clicking a folder and selected Terrain Slicing Kit -> Slice Processors -> Your Slice Processor.
- Then, in your Slice Configuration File, find the Slice Processors field, increase the array size by one, and drag the asset onto the new field.

# Using Your New Slice Processor

- If you are using your slice processor to create a custom material, it may be worthwhile to examine the new option on the Slice Configuration File called “Don’t Slice Alphamap.”
- In some cases, your shader may be using a custom color map and doesn’t require the terrain to have a splat map. In these instances, you should check the “Don’t Slice Alphamap” option.

# ATS Colormap Material Slicer

- This Slice Processor is meant to be used with the [ats Colormap ULTRA Terrain Shader](#) (it probably works with the non ultra version, but this has not been tested).
- You can find it in the TerrainSlicing/SliceProcessors folder.
- This Slice Processor creates custom sliced materials for each terrain slice that utilize the same colormap and normal map as the source terrain.
- The float properties are sliced and offset to match each slices position, and because the slices use the source terrains textures, blending between the sliced terarins and meshes just works (assuming you've them up to work with the source terrain).
- You should check the “Don't Slice Alphamap” option on the Slice Configuration File when using this Slice Processor.