



Daggerfall Tools for Unity

Thank you for downloading Daggerfall Tools for Unity. This asset is an API and suite of editor scripts for procedurally importing Daggerfall's content into Unity.

Getting Started

Before using Daggerfall Tools for Unity, you will need the following:

1. A full install of **Daggerfall**. You can download Daggerfall for free from the following sites.
<http://www.elderscrolls.com/daggerfall/>
<http://www.uesp.net/wiki/Daggerfall:Files>
2. **Unity 4.5** or later (Free or Pro).
<http://unity3d.com/unity/download>
3. *Optional*, but highly recommended is **Daggerfall Modelling**. This Windows-only exploring tool allows you to quickly search for and browse Daggerfall models, blocks, and locations. It will be very useful until similar search features are implemented in Daggerfall Tools for Unity.
http://www.dfworkshop.net/?page_id=1045 (Download).
<https://code.google.com/p/daggerfallconnect/wiki/DaggerfallModelling> (Online Manual).

Note: Also install Daggerfall Modelling prerequisites as described in online manual.

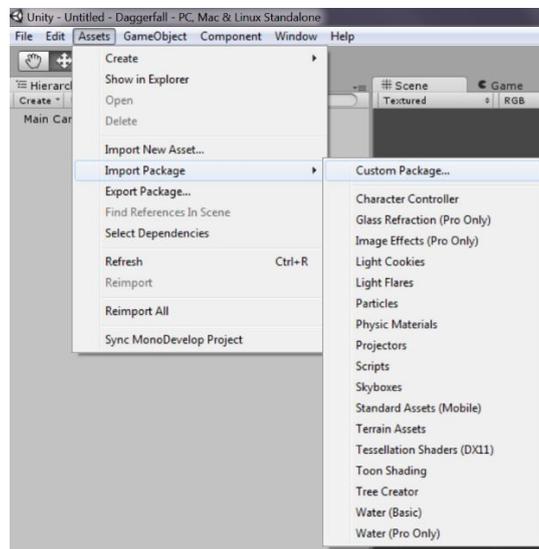


Using Daggerfall Tools for Unity

Importing Asset

After installing Daggerfall and Unity3D, the next step is to import the latest Daggerfall Tools for Unity package.

1. Open Unity3D and start a new project.
2. Click **Assets > Import Package > Custom Package**. Browse to the “Daggerfall Tools for Unity.unitypackage” file and click Open. This will import into your Asset folder and compile scripts.
3. *Alternatively* double-click the .unitypackage file to install into your current project.



Prepare GameObject

Daggerfall Tools for Unity uses a singleton class to interface with the *DaggerfallConnect* API. Only one instance of this script is required to import Daggerfall content from the editor or in code.

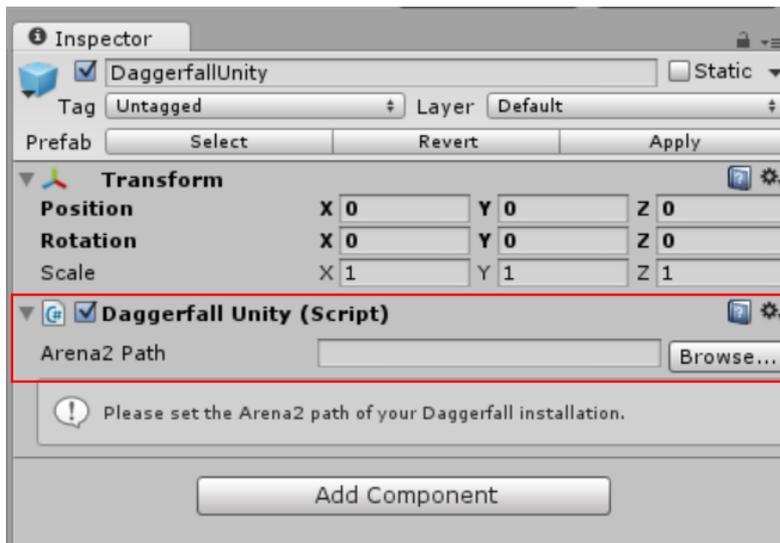
1. Create a new GameObject by clicking **GameObject > Create Empty**. Rename the new GameObject to something like “DaggerfallUnity”.
2. Select DaggerfallUnity in the Hierarchy then click **Add Component** in the Inspector. Browse to **Scripts > Daggerfall Workshop > Daggerfall Unity** to add the script to your new GameObject.
3. *Alternatively* there is a prefab DaggerfallUnity in the Prefabs sub-folder, and a ready-made demo scene in the Scenes sub-folder.



Set Arena2 Path

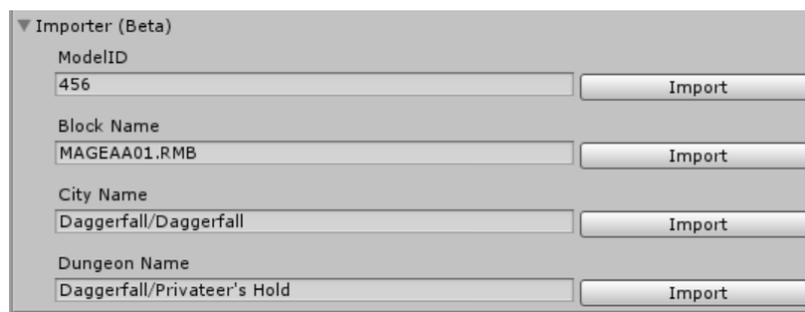
Before importing Daggerfall content, you must direct the script to your Daggerfall installation's *Arena2* folder.

1. Click on your DaggerfallUnity game object. Use the Inspector to **Browse** for your Arena2 folder.



Importing Content

Once you have set your Arena2 path, go to the **Importer (Beta)** foldout in the Inspector of your DaggerfallUnity instance. Currently, Daggerfall Tools for Unity does not have in-editor browsing. You will find *Daggerfall Modelling* useful for locating IDs and names of content to import.



Models are imported using a unique ModelID. For example, ModelID **456** is the exterior of "Scourg Barrow".

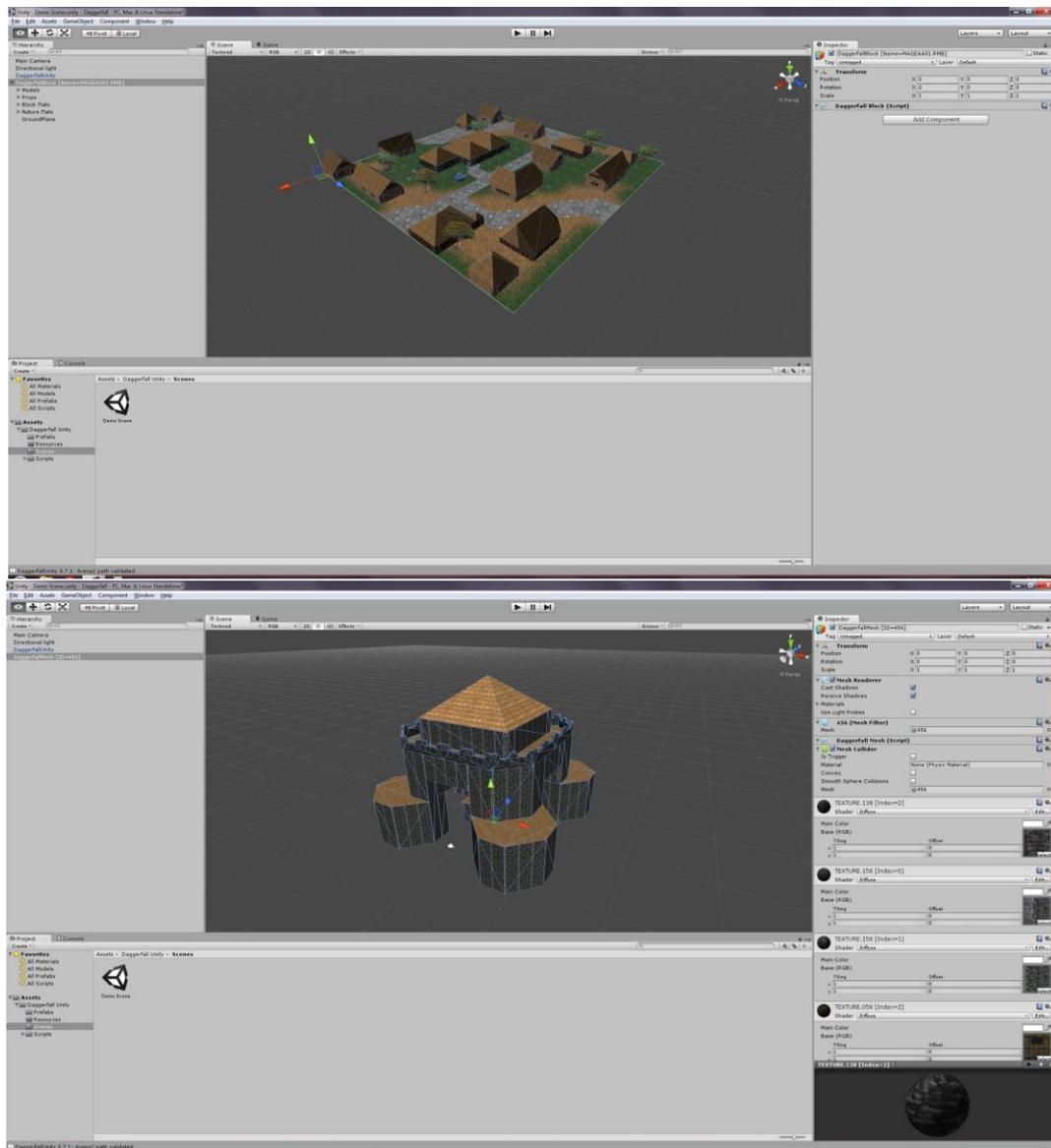
Blocks are imported using a unique Block Name. City blocks end with .RMB and dungeon blocks end with .RDB. For example, **S0000999.RDB** is the central block of Privateer's Hold, and **CUSTAA45.RMB** is the exterior of Castle Wayrest.



Cities and **Dungeons** are a little more involved as some locations have both an exterior map and a dungeon map. To import a city or dungeon enter in the format *RegionName/LocationName* to either the City field or Dungeon field.

For example, entering **Daggerfall/Daggerfall** in the City field will import the above-ground city of Daggerfall. Entering the same into the Dungeon field will import the dungeons within Castle Daggerfall. If the target location has any apostrophes, be sure to enter exactly as shown in-game. For example, entering **Daggerfall/Privateer's Hold** into the dungeon field will spawn Privateer's Hold. This field is also case-sensitive.

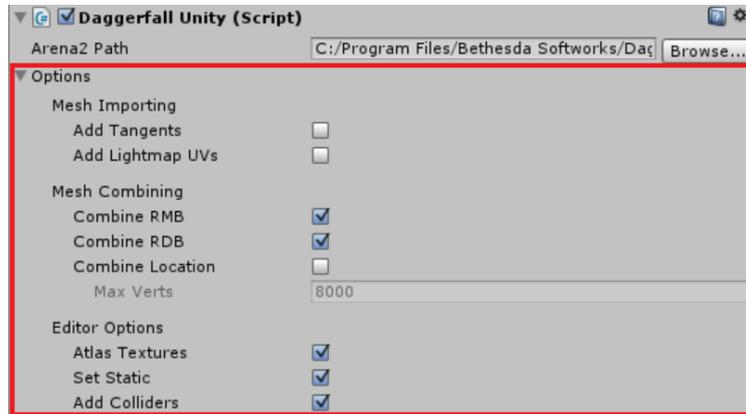
Once you have entered a model, block, or location, click the adjacent **Import** button to import that resource into Unity.





Options

The DaggerfallUnity editor has several options available to control how content is imported.



Mesh Importing

- **Add Tangents.** This option calculates tangents for Daggerfall models as they are imported. Tangents are used for shaders requiring a Normal Map.
- **Add Lightmap UVs.** This option creates a secondary UV channel, required for lightmapping environments with tiling textures. Enabling this option will greatly increase import times.

Mesh Combining

- **Combine RMB.** Combines models in RMB blocks (city blocks) to reduce draw calls and increase efficiency of scene. Will otherwise maintain the same native scene layout as Daggerfall. Only uncheck this option if you want to observe the exact scene layout Daggerfall uses, or select individual models.
- **Combine RDB.** Combines models in RDB blocks (dungeon blocks) as above.
- **Combine Location.** Combines an entire location to a condensed scene layout. Only works for entire cities and dungeons, and will replace RMB/RDB combining.
- **Max Verts.** Controls how aggressively meshes are combined by setting the maximum number of vertices per batch. Allowable range is 4000-64000. Increasing this number will result in fewer lightmaps with a coarser shadow resolution. Reducing this number results in more lightmaps with a finer shadow resolution.

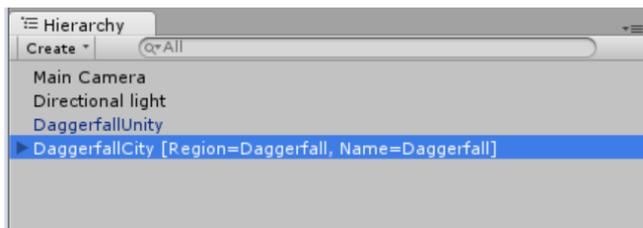
Editor Options

- **Atlas Textures.** Combines billboard and ground textures into an atlas for improved efficiency.
- **Set Static.** Sets appropriate objects as static. Ignores billboards and dynamic objects.
- **Add Colliders.** Adds a mesh collider to imported objects. Daggerfall's meshes are very simple, about the complexity of normal physics meshes.

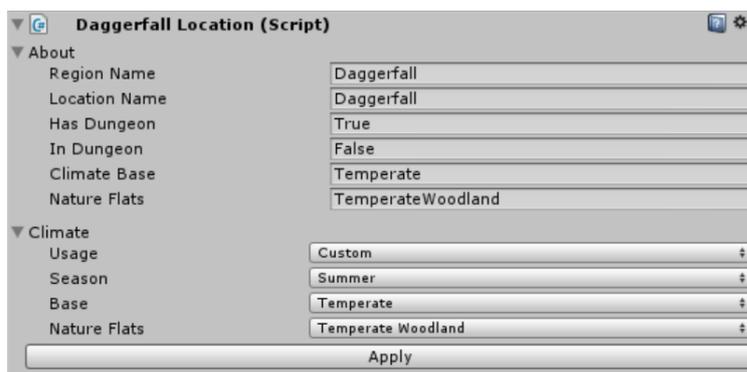


Climate Textures

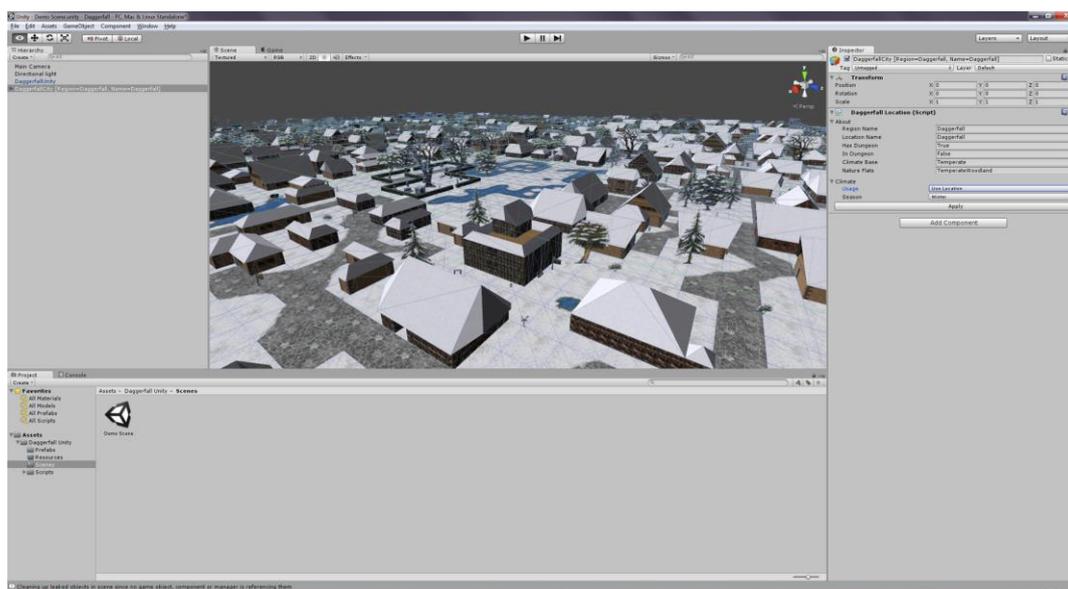
After importing a city location, you can customise the climate and season directly in the editor. To get started, import a full city like **Daggerfall/Daggerfall**. By default this will have the climate settings matching that location. Click on the **DaggerfallCity** game object in the *Hierarchy*.



Your *Inspector* will then display a summary of your location along with several controls for adjusting the climate textures.



Adjust settings as required. Saving your scene will properly serialise the current season textures. You can even load a scene later and change seasons. Click **Apply** to apply new climate textures.



If you would like to go back to the original settings, select *Use Location* from the **Usage** field.



Additional Notes

Following is a collection of notes and bugs that may affect you while using this version of Daggerfall Tools for Unity.

Notes

- Editor GUI is currently limited and does not have location browsing/search features.
- Dungeon textures are not correct at this time.
- Day/night/emissive windows are not implemented yet.
- Animated textures are not implemented yet.
- Action records (moving platforms, switches, etc.) in dungeons are not implemented yet.
- Lights in cities and dungeons are not implemented yet.
- Daggerfall skies are not imported, but can be accessed using API. Daggerfall skies are a planar background type.
- Currently no way to specify shader for objects before importing. These default to "Diffuse" for mesh objects and "Transparent/Diffuse" for billboards.
- Once imported, everything is serialised in your scene file.
- Meshes and materials are cached and shared where possible to reduce scene size and improve efficiency. Starting and stopping play mode will clear cache as editor scripts are reinitialised.
- You can use any other Unity features on top of imported content. For example, lightmapping, navigation, deferred rendering, etc.



ChangeLog

0.7.1

- Initial release.