

Tutorial: Basic

Purpose: In this tutorial we will explain how to setup basic functionality of the Honey Hex Framework.

When you add Honey Framework to your project it will add 1 main folder to it – HoneyFramework. In it there will be "3rd party" folder which contains:

- AstarPathfindingProject (free version of pathfinding plugin from Aron Granberg http://arongranberg.com/astar/)
- UFTAtlasEditor (modified open source atlasEditor https://www.assetstore.unity3d.com/en/#!/content/5515)

It will create and manage xml configuration files within Assets/StreamingAssets as well.

To quickly generate a terrain with Honey's default settings you need to:

1. Open test scene (from HoneyFramework/testScene)

The test scene contains 3 elements:

- WorldOven (this part is used during terrain generation, then it is destroyed)
- World (all of world content including cameras is stored within)
- Game (a place for managers and game loop updates)

Select "World" to inspect its values.

If you want to have a bigger world you should increase hex radius and chunk radius.

🖲 🛛 World (Script)		\$,
Script	🕞 World	Θ
Status	NotReady	\$
Hex Radius	7	
Chunk Radius	1	
Chunk Base	Chunk	0
Foreground Base	Foreground	0
Terrain Camera	🛳 WorldCamera (Camera)	0
Foreground Atlas	Foreground (UFTAtlasMetadata)	0
Seed	0	

If your world is made of a huge amount of hexes they will exist in game memory and can be used for all calculations, but visual representation is limited to the number of chunks.

On the other hand if you have too many chunks, but reasonably low hex radius, chunks that don't contain any hexes will not be created.

If there is any empty space left within chunks it will be filled with Border Type hexes (set in Terrain Editor).

Do not enter hex radius values above 40 (~5000 hexes in total) unless it is your intention to build a huge (memory hungry) world. Look into the advanced tutorial for details.

2. Prepare foreground atlas

2.1 Using provided foreground, delivered with the package

Drag and drop HoneyFramework/Foreground/Foreground.asset object onto Foreground Atlas field of the World (pic. above) for UFTAtlasMetadata

2.2 Using custom foreground

To add custom sprites to the atlas you first have to open Window-> UFT Atlas Editor

Atlas:			
name	Foregro	ι	
Foreground		0	
new	save		
width	256	;	
height	256	;	
Drag Image Or Pivot			
Align:			
border size	2		
auto align & size			
al	ign)	

- change atlas_0 to a name you prefer for your atlas
- find images you want to have in the atlas and drag & drop them into atlas editor
- leave border size on at least 1 or 2 pixels
- press auto align & size the Atlas tool will automatically select the best texture size and align all sprites

Alternatively, press align button if you'd like to manually set atlas size. If align is processed successfully (comment below the align button will tell you that) you may try to use a smaller texture, if it is unsuccessful try using a bigger one.

The next step is to set correct pivots for each sprite. By default, the pivot is set at middle bottom point, but it may not always be the best thing.



Sprite on terrain



Could have resulted in incorrect placement of foreground objects

In Honey 1.1 we have added the option to adjust pivot position.



Doing so is easy. Hover over your sprites window to see sprite boundaries and current pivots.



Click and drag the orange dot to set a new pivot position. You can lock sprite position if the sprite is very small to avoid accidental moving it around – just select Drag Pivot Only from a drop down menu on the right hand side of the Atlas tool window. You can also lock Pivot position if you only want to move the sprite around.

If you are happy with texture size and pivots press save.

Atlas definition would be created in Assets root directory together with its texture. Move them to directory where you want them to be stored.

Select World object on your scene and drag&drop your new atlas asset into UFTAtlasMetadata object field.

3. Prepare terrain data

- Open Honey Terrain Editor (Window->Honey->Terrain Editor)
- Press "Reload Definitions"; if it is the first use your terrain xml files will be generated in streaming assets folder.

A window similar to the one below will be shown.



3.1.1 To use pre-prepared terrain you don't have to do anything.

3.1.2 To use new terrain prepared by you:

- Press "x" to remove old terrain types from the list.
- Press the big green button "+" to add new terrain definition.
- You need at least one terrain which has a set of river textures and

"Is River Type" set in the first column

• You need at least one terrain which has a set of textures and

"Is Border Type" set in the first column

• Any number of other terrain types

3.2 Note that:

- Diffuse is a terrain's colour texture
- Height is the terrain's shape definition, with colour in half way between black and white (that's RGB 127/127/127) as ground level
- Mixer is a dominance texture which the terrain uses to define areas which are important for it. Hexes blend with each other using mixers AND distance from hex centre but in axis

aligned distance.

3.3 Use foreground selector to choose trees you want to have in this terrain type

Trees are taken from the Foreground atlas. Then set amounts of instances for each tree type. Tree count should not exceed 200 for any single terrain type.

4. Press play and then Press "Generate World" button

It will take some time to produce terrain data textures, this time depends on the device performance and world size.

5. Switching to DirectX 9 mode

To switch to dx9 mode (which is able to run on android) you need to switch one setting in HoneyFramework.MHGameSettings.xml. This file is located in Assets/StreamingAssets folder, or if it is missing there, you can modify source settings in HoneyFramework/Resource folder. Open the xml file and simply change <dx11Mode>true</dx11Mode> to false