// ProceduralTerrain

We generate the values for the four vertices the same way we do for a height map

```
frequency *= Lacunarity;
}
if (UseFalloffMap) {
 float falloff_00 = Mathf.PerlinNoise(x,
                                        z ) - 0.5f;
 float falloff 01 = Mathf.PerlinNoise(x, z + 1f) - 0.5f;
 float falloff_10 = Mathf.PerlinNoise(x + 1f, z ) - 0.5f;
 float falloff_11 = (Mathf.PerlinNoise)(x + 1f)
                                           z + 1f
                                                   -0.5f;
 height00 -= Mathf.Clamp01(height00 - falloff_00) * 0.5f;
 height01 -= Mathf.Clamp01(height01 - falloff_01) * 0.5f;
 height10 -= Mathf.Clamp01(height10 - falloff_10) * 0.5f;
 height11 -= Mathf.Clamp01(height11 - falloff_11) * 0.5f;
}
```

For each vertex we:

```
frequency *= Lacunarity;
}
if (UseFalloffMap) {
 float falloff_00 = Mathf.PerlinNoise(x, z ) - 0.5f;
 float falloff 01 = Mathf.PerlinNoise(x, z + 1f) - 0.5f;
 float falloff_10 = Mathf.PerlinNoise(x + 1f, z ) - 0.5f;
 float falloff_11 = Mathf.PerlinNoise(x + 1f, z + 1f) - 0.5f;
 height00 -= Mathf.Clamp01(height00 - falloff_00) * 0.5f;
 height01 -= Mathf.Clamp01(height01 - falloff_01) * 0.5f;
 height10 -= Mathf.Clamp01(height10 - falloff_10) * 0.5f;
 height11 -= Mathf.Clamp01(height11 - falloff_11) * 0.5f;
}
int x0 = x * CellSize;
```