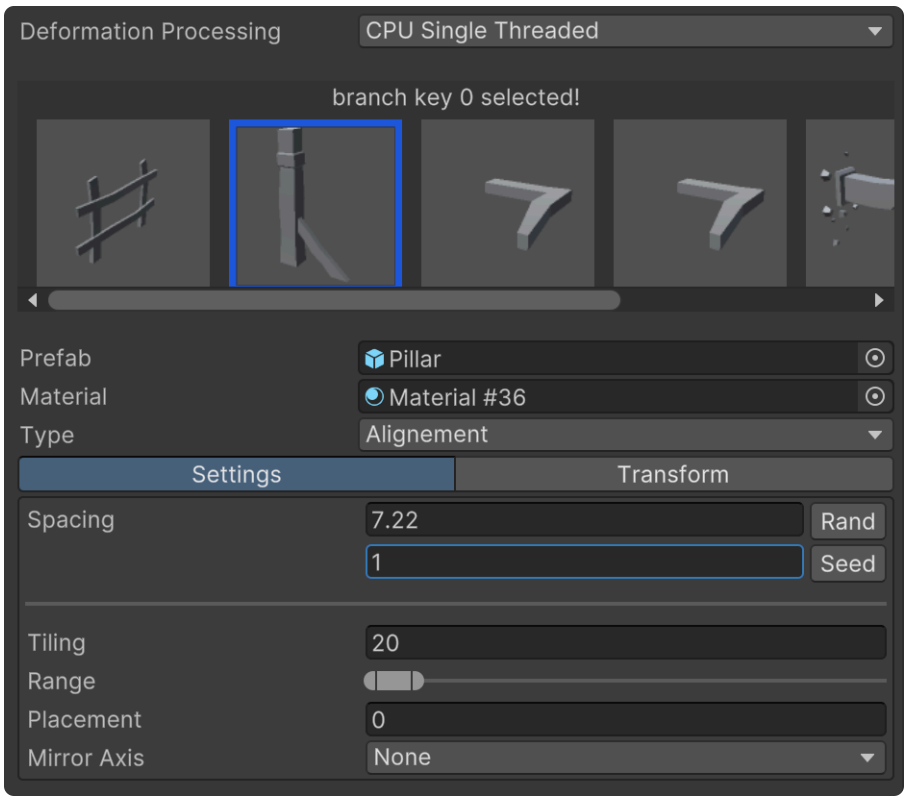
Mesh Deform Inspector



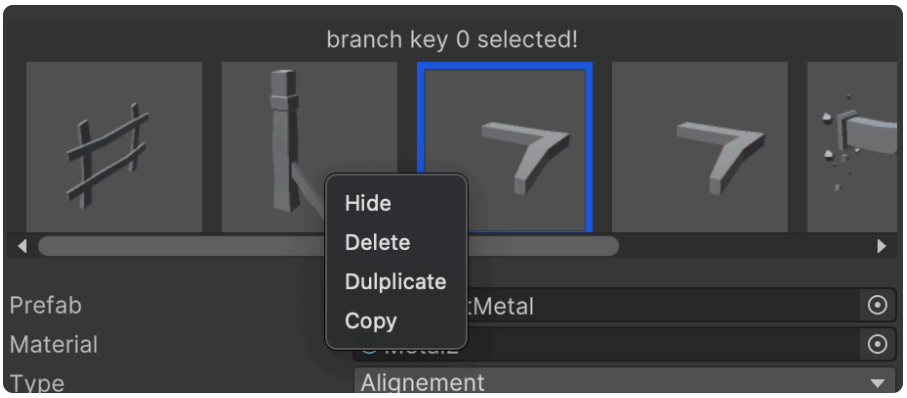
The **Mesh Deform** inspector in Spline Plus provides powerful tools and options for deforming custom meshes along splines. This guide will walk you through the various tabs and fields available within the inspector, allowing you to create intricate and visually compelling scenes in Unity.

Deformation Processing

Control how the deformation processing is handled:

- **Single-Threaded:**
  Executes the deformation processing on a single thread .
- **Multi-Threaded:**
  (Available only for deformation type "Deformation") This option enhances performance by utilizing multiple threads,.

Selected Branch Prefabs Preview



This section displays the list of prefabs used for alignment or deformation along the selected spline branch. To get started with mesh deformation, ensure you've selected the appropriate branch. Once selected, drag and drop your prefab meshes from the Project window into this area to add them.

After adding your prefabs, you can perform several operations on them via the context menu, accessible with a right-click:

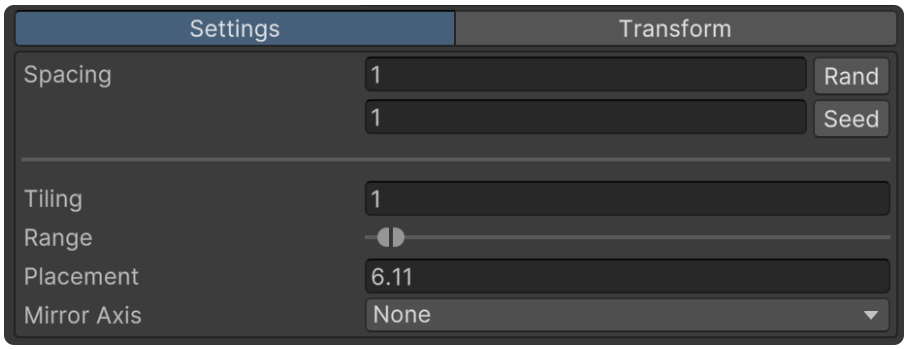
- **Hide/Unhide:**
  Hide/Unhide prefab from branch Alignement/Deformation.
- **Copy/Paste:**
  Seamlessly transfer prefab configurations between branches.
- **Delete:**
  Remove the selected prefab from the spline.
- **Duplicate:**
  Quickly replicate prefab settings for uniform mesh placement along the spline.

Prefabs Tab

In the Prefabs tab, you'll configure the branch prefab, material, and deformation type applied along the spline:

- **Prefab:**
  The prefab GameObject that will be deformed/aligned along the spline.
- **Material:**
  The material to apply to the prefab as it follows the spline's curvature.
- **Type:**
  Define the mesh deformation behavior:
  - **Alignment:** Aligns the mesh along the spline curve.
  - **Deformation:** Both aligns and deforms the mesh to match the spline's shape.

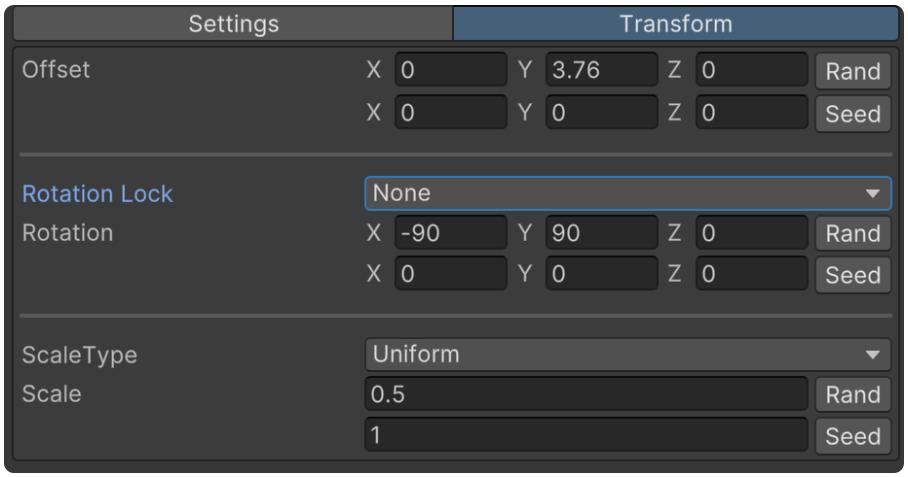
Settings Section



Fine-tune how your prefab instances are spaced, placed, and mirrored along the spline:

- **Spacing:**
  Set the distance between each instance of the prefab. Randomize the spacing for a more natural and less repetitive look.
- **Tiling:**
  Control the number of prefab instances used along the spline.
- **Range:**
  Limit prefab placement to specific sections of the spline.
- **Placement:**
  Adjust the position of prefab instances along the spline.
- **Mirror Axis:**
  Mirror the mesh along a selected axis of the spline, perfect for symmetrical designs.

Transform Section



Manipulate the transform properties of your prefab instances to customize their appearance and alignment:

- **Offset:**
  Apply an offset to the prefab instances along the spline. Randomize the offset to achieve a more organic layout.
- **Rotation Lock:**
  Lock the mesh's rotation along specific axes (X, Y, Z,XY,XZ,YZ) to maintain consistent alignment with the spline.

- **Rotation:**
  Add local rotation to the prefab instances. Randomize the rotation for varied and natural results.
- **Scale Type:**
  Choose between different scaling methods for the mesh:
  - **Uniform:** Scale all three axes together.
  - **Relative:** Scale each axis independently.
- **Scale:**
  Adjust the overall scale of the mesh along the spline. Randomize the scale for more dynamic and less uniform patterns.

Conclusion

The Mesh Deform inspector in Spline Plus is a comprehensive toolset for deforming meshes along splines, offering control over alignment, randomization, and performance. Whether creating simple paths or complex, procedurally generated environments, this inspector allows you to efficiently design and manage your spline-based scenes in Unity.