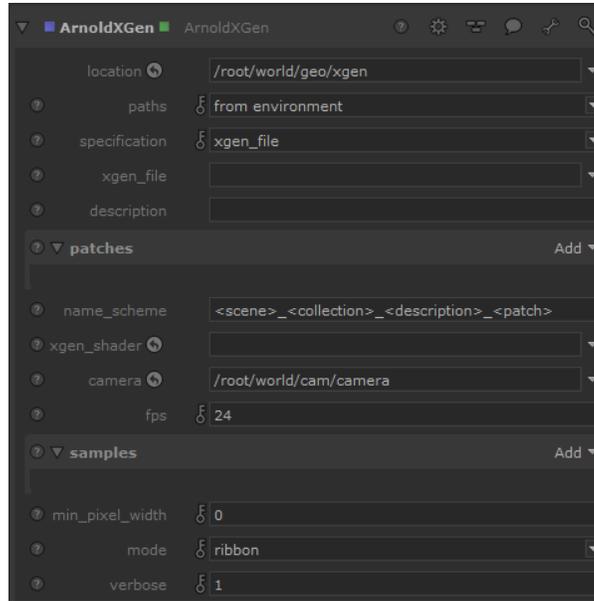


ArnoldXGen



Create Arnold procedurals suitable for invoking Autodesk XGen (bundled with Maya). If you wish to use camera-guided data (such as LOD), feed the scene with a camera to the input. This node is influenced by the following environment variables:

```
MAYA_PATH: root of Maya installation.  
MTOA_PATH: root of MtoA installation.  
XGEN_LOCATION: xgen location within Maya, usually ${MAYA_PATH}/plug-ins/xgen.
```

location

Path to Maya installation to find XGen libraries (optional). If empty, KtoA will use the MAYA_PATH environment variable to locate Maya.

paths

Whether to customize paths to Maya/MtoA/XGen, or just use MAYA_PATH, MTOA_PATH, and XGEN_LOCATION environment variables.

specification

How to find the XGen data: either directly specify a .xgen file, or else specify a Maya project directory and the .xgen files will be searched for.

xgen File

Path to .xgen file (required).

Description

XGen description to render. If left empty, descriptions will be found from the XGen data.

Patches

name_scheme

Naming scheme for child locations of unique XGen procedurals. It honors the following tags (enclosed in angle braces): scene, collection, description, patch.

xgen_shader

Default shader to apply to procedural contents, except for archive parts that have their own material assigned. If you assign a material to the location normally (via MaterialAssign), it will override what you set here on xgen_shader.

camera

The camera used for LOD and other effects; can be blank to disable camera-related effects.

fps

Frames per second animation is proceeding at; 24, 30, 48 and 60 are typical.

Samples

min_pixel_width

If this value is non-zero, curves with a small on-screen width will be automatically enlarged so that they are at least the specified size in pixels. The enlargement fraction is then used in the hair shader to adjust the opacity so that the visible thickness of the hair remains the same. For a given number of AA samples, this makes it a lot easier to antialias fine hair, at the expense of render time (because of the additional transparency/depth complexity). Good values are in the range of 0.2 to 0.7. Values closer to 0 are faster to render but need more AA samples. So if your scene already uses very high AA settings, you should use a low value like 0.1. For best results, you may need to increase the auto-transparency depth, and/or lower the auto-transparency threshold, but watch the effect on render times. Note that this parameter currently works with the ribbon mode only.



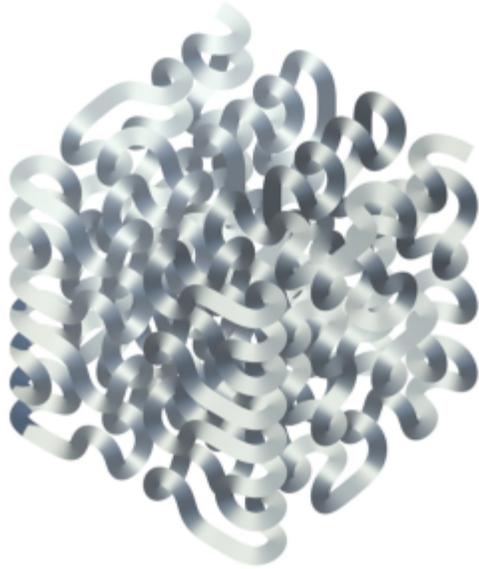
0.1



1

mode

There are three algorithms for rendering curves in Arnold.



Ribbon



Thick

Ribbon

Ribbon mode is recommended for fine geometry such as realistic hair, fur or fields of grass. These curves are rendered as camera-facing flat ribbons. For secondary and shadow rays, they face the incoming ray direction. This mode doesn't look so good for very wide hairs or dramatic zoom-ins because of the flat appearance. This mode works best with a proper hair shader (perhaps based on a Kay-Kajiya or Marschner specular model).

Thick

Thick mode resembles spaghetti. It has a circular cross-section and a normal vector that varies across the width of the hair. Thick hairs look great when zoomed in, and are especially useful for effects work, but their varying normals make them more difficult to antialias when they are small. You can use any shader with this rendering mode, including lambert, phong, etc.

Oriented

Oriented mode allows the curves to face in a given direction at each point. This is more useful for modeling blades of grass, tape, and so on.

verbose

Log level for XGen.