

# USD



USD kitchen set asset available [here](#). NVIDIA USD attic asset available [here](#).

A procedural node that is capable of reading USD files.



USD files can be opened in [procedurals](#). HtoA supports USD (.usda, .usdc, .usd) files using the `arnold_procedural` OTL.

## Procedural

### Filename

The path to the USD file.

### Namespace

Procedurals can declare a custom namespace using this parameter. This custom namespace can be used instead of the procedural name, to reference contents through absolute or relative paths. Multiple procedurals can share the same namespace by using the same custom name. Also, they can declare an empty name and they will use the global namespace.

### Object Path

Determines which USD primitive(s) are rendered. When empty (default), it will render the whole USD file.

### Frame

The frame number to expand in the procedural.

### Override Nodes

Nodes inside the procedural can be replaced by other nodes with this parameter. This may be used for example to replace shaders in an existing .ass procedural. When the parameter is enabled, nodes in the immediate parent scope of the procedural will replace identically named nodes inside the procedural.

### Debug

Dumps verbose logs about the USD nodes being created.

### Threads

When set to zero or a negative value, it won't detect the number of cores.

### Overrides

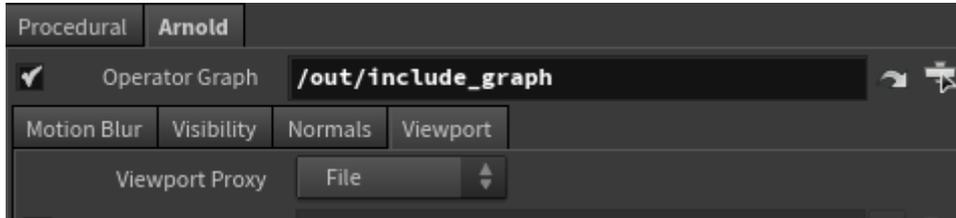
Overrides the values set within the USD file.

## Arnold

### Operator Graph

You can choose to connect any existing *operator* graph to a *procedural*.

To connect a *Procedural Operator* to an *Arnold USD*, you have to pick the operator ROP in the Arnold properties of the *Arnold USD*. Use the Arnold Properties top-level Arnold | Operator Graph parameter to pick the operator ROP, which can be anywhere in your scene.



*Procedural Operator* parameter in Arnold properties of *Arnold USD*

### Viewport Proxy

#### File

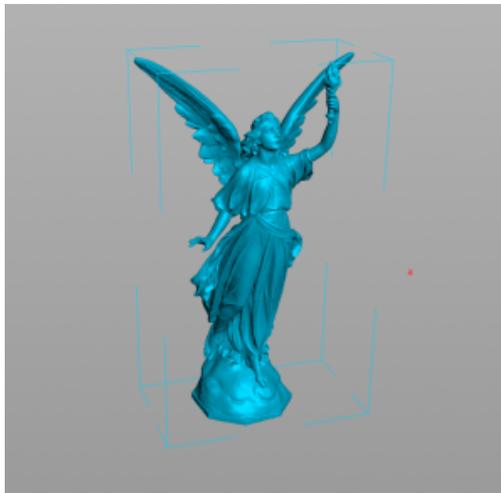
Reads the bounding box from the Geometry File. This will only work for .obj and .ply files. Bounds for .ass files will be displayed if an .asstoc file is found alongside the .ass file.

#### Target SOP

Use an object in the scene to attach as a bounding box preview.

#### Display As

The assigned file can be displayed as *Global Bounding Box*, *Bounding Box per Node*, *Points*, and *Polygons*.



### Proxy SOP

Provides a bounding box representation for visualizing the contents of a procedural when importing geometry into Houdini using a SOP.