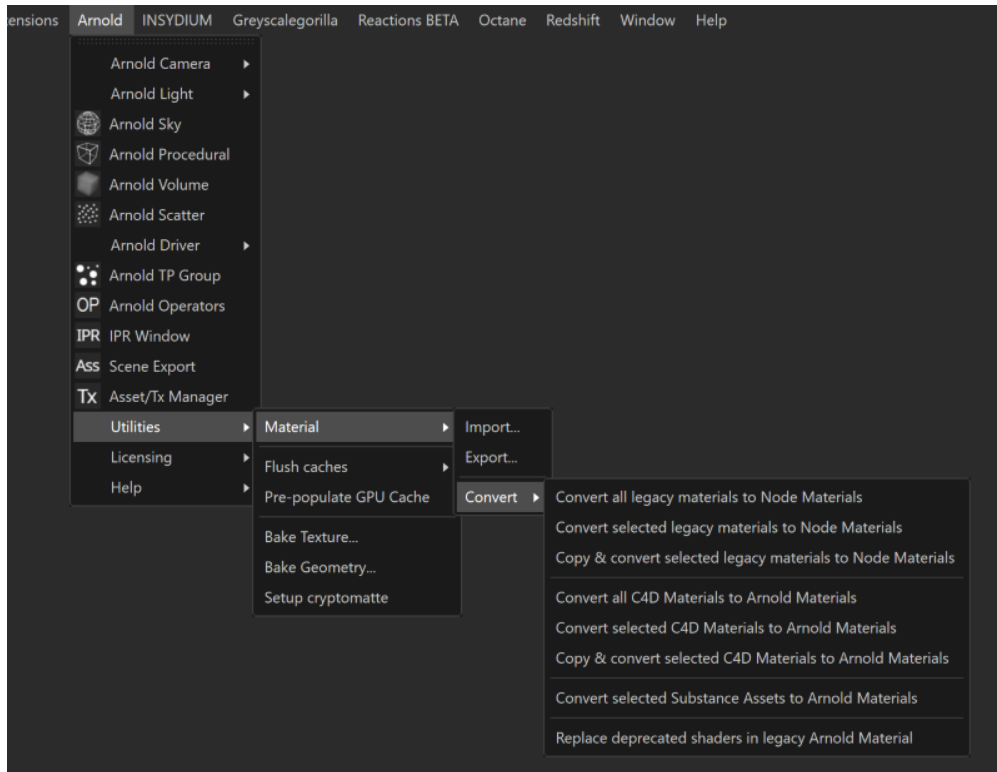


# Material Conversion

The **Arnold > Utilities > Materials > Convert** menu contains commands to convert between the supported material types.



## Legacy Arnold Material to Node Material

### Convert all legacy materials to Node Materials

All legacy Arnold Materials in the current scene are replaced with Arnold Node Materials.

### Convert selected legacy materials to Node Materials

The selected legacy Arnold Materials in the current scene are replaced with Arnold Node Materials.

Default shortcut is **Alt+W~D** in the Material Browser.

### Copy & convert selected legacy materials to Node Materials

The selected legacy Arnold Materials are converted to Arnold Node Materials, the legacy materials are kept in the scene.

Default shortcut is **Alt+W~C** in the Material Browser.

## Cinema 4D Standard Material to Arnold Material

### Convert all C4D Materials to Arnold Materials

All Cinema 4D Standard Materials in the current scene are replaced with Arnold Materials.

### Convert selected C4D Materials to Arnold Materials

The selected Cinema 4D Standard Materials in the current scene are replaced with Arnold Materials.

Default shortcut is **Alt+W~D** in the Material Browser.

### Copy & convert selected C4D Materials to Arnold Materials

The selected Cinema 4D Standard Materials are converted to Arnold Materials, the Cinema 4D Standard Materials are kept in the scene.

Default shortcut is **Alt+W~C** in the Material Browser.



The type of the Arnold Material (Node Material vs legacy material) depends on the default material system set in the [Preferences](#).



Note that the resulting Arnold Material won't be a perfect match to the C4D Material since Arnold has different shaders and concepts. See the [Cinema 4D Material page](#) for the supported features and limitations.

## Substance Asset to Arnold Material

### Convert selected Substance Assets to Arnold Materials

Converts all selected Substance Assets to an Arnold Material. A [Substance Shader](#) is created for each texture of the asset and connected to the appropriate parameter of a root [standard surface](#) shader.

Substance texture	Color space	Arnold shader network
Base color	sRGB	Connected to <i>Base color</i> .
Diffuse	sRGB	Connected to <i>Base color</i> if no Base color texture exists.
Specular	sRGB	Connected to <i>Specular color</i> . <i>Specular weight</i> is set to 1.0.
Roughness	raw	Connected to <i>Specular roughness</i> .
f0	raw	Connected to <i>Specular IOR</i> .
Refraction	sRGB	Connected to <i>Transmission color</i> . <i>Transmission weight</i> is set to 1.0.
Emission	sRGB	Connected to <i>Emission color</i> . <i>Emission weight</i> is set to 1.0.
Opacity	sRGB	Connected to <i>Cutout Opacity</i> .
Metallic	raw	Connected to <i>Metalness</i> .
Normal	raw	A <a href="#">normal map</a> shader is created and the texture is connected to its <i>Normal map</i> parameter.
Bump	raw	A <a href="#">bump2d</a> shader is created and the texture is connected to its <i>Bump map</i> parameter.
Displacement	raw	A <a href="#">normal displacement</a> shader is created and the texture is connected to its <i>Displacement</i> parameter.

Default shortcut is **Alt+W-C** in the Substance Asset Manager.

## Deprecated Shaders

### Replace deprecated shaders in legacy Arnold Material

The [hair](#), [standard](#), and [volume\\_collector](#) shaders are deprecated in Arnold 5, they will be removed in a future release. Use this command to convert these shaders to their replacements ([standard\\_hair](#), [standard\\_surface](#), and [standard\\_volume](#)). The shaders can be converted individually as well.