

# Setting Up Cards and Meshes for Grooms

Set up and assign cards and meshes to levels of detail for your groom.



Grooms can have multiple levels of details (LODs) and each can use a strand, card, or mesh for their representation. The number of LODs a groom has is set up in the **LOD** panel of the [Groom Asset Editor](#). Card and mesh geometries are managed in their own **Cards** and **Meshes** panels. In each panel, you can add new entries and configure the mesh geometry and its material.

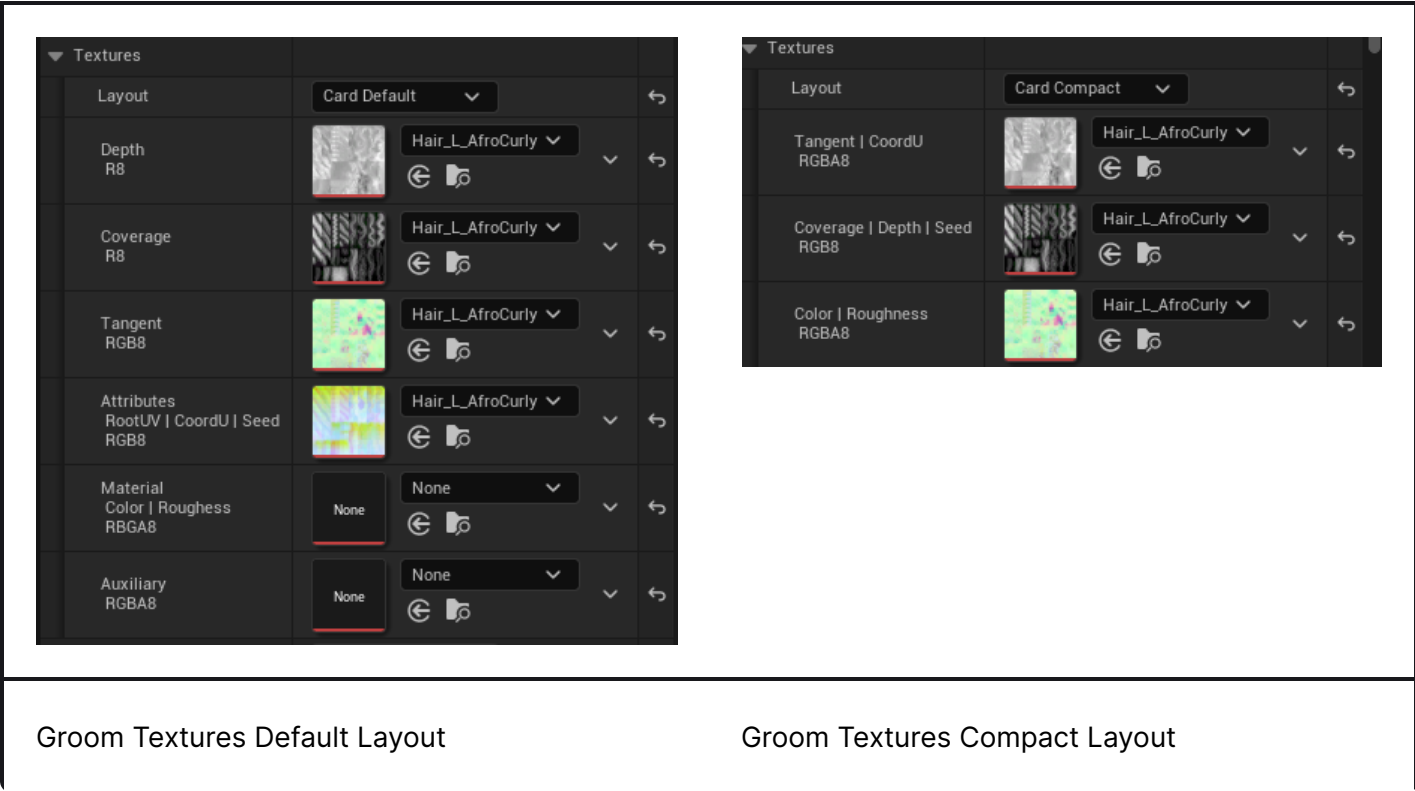
## Cards Panel

The **Cards** panel is where you set the cards mesh, textures, and mapping to specific hair groups and LODs. Statistical information about each card mesh is displayed at the top of each entry for the number of cards and vertices it contains.

When importing a mesh used as card geometry, you must choose the **Guide Type** to for each card mesh:

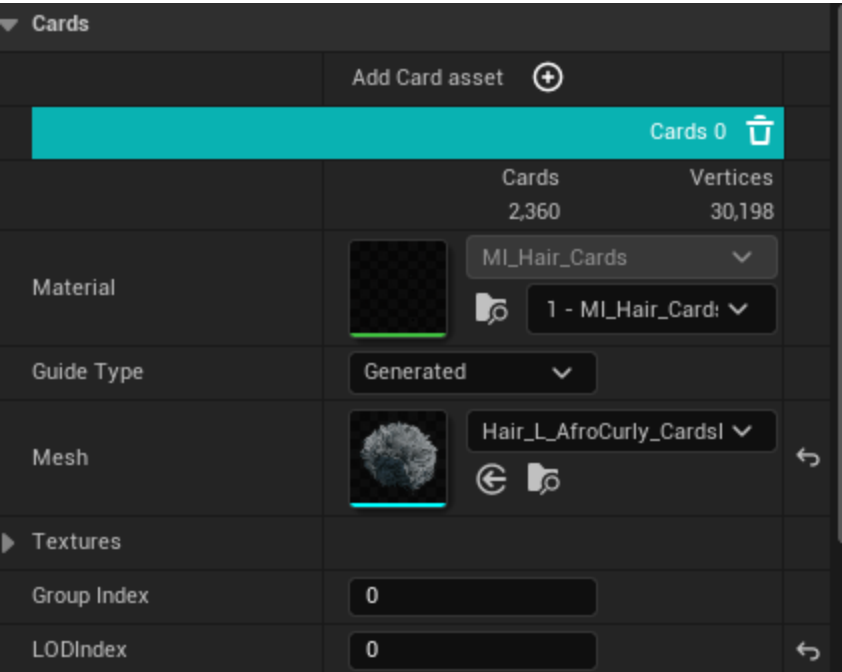
- **Generated** guides generate deformation guides based on the mesh itself. These guides are run through the middle of each hair card geometry.
- **Guide-Based** uses the groom's guides for skinning the cards geometry by picking the closest guide for each card vertex.

The **Textures** section configures the input textures used for card geometry. Two different card layouts are available: **Default** and **Compact**. These layouts define how the attributes are packed for these textures. Attributes such as **GroupID** and **Per-Point Color** are automatically generated by voxelizing the strands and transferring the average value to each card vertex.



The textures in the list are automatically bound and sampled in a material when using the **Hair Attributes** expression. For more information on this material expression and its usage, see [Groom Material](#).


The following properties are available in the **Cards** panel:



Property	Description
Material	The assigned material used for card representation LODs. This material is picked from the list shown in the Materials panel of the Groom Asset Editor.
Guide Type	Choose the type of guides used for cards: <ul style="list-style-type: none"><li><b>Generated:</b> Generates deformation guides based on the mesh. The guides run through the middle of each piece of hair card geometry. It assumes the input geometry is made of triangle bands.</li></ul>

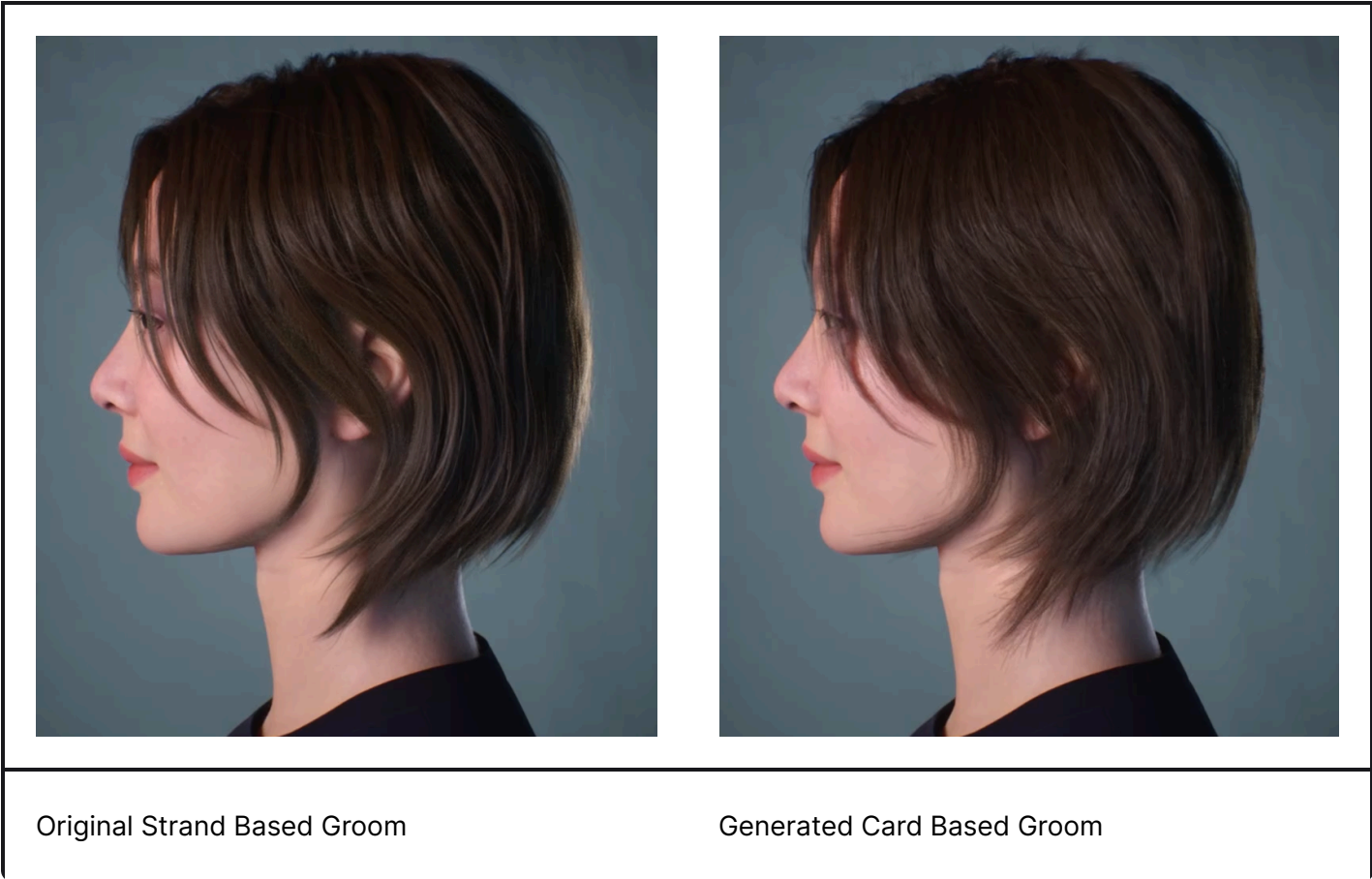
Property	Description
	<ul style="list-style-type: none"> <li>• <b>Guide-Based:</b> Uses the groom guides for "skinning" the card geometry by picking the closest guide for each card vertex.</li> </ul>
<b>Mesh</b>	The mesh referenced by the card geometry.
Textures	
<b>Layout</b>	This setting determines how the attributes of the groom are packed into textures. You can choose between Card or Mesh <b>Default</b> and <b>Compact</b> . Default packs attributes separately into textures where it makes sense. Compact groups more attributes into fewer textures.
<b>Depth</b>	The depth texture used for the card asset. This texture is optional, but when set, the value is forwarded to the <b>Hair Attributes</b> node in the <a href="#">Material Editor</a> .
<b>Coverage</b>	This texture is used for the card asset. This texture is optional, but when set, the value is forwarded to the <b>Hair Attributes</b> node in the <a href="#">Material Editor</a> .
<b>Tangent</b>	This texture is used for the card asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the <a href="#">Material Editor</a> .
<b>Attributes: RootUV / CoordU / Seed</b>	This texture is used for the card asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
<b>Material: Color / Roughness</b>	This texture is used for the mesh asset. This texture is generated with the hair textures option on the Groom Asset.
<b>Auxiliary</b>	This texture enables user data to be transferred for the card asset. It is an optional texture. When this value is set, it is forwarded to the Hair Attributes** node in the Material Editor.
Group Settings	
<b>Group Index</b>	The group index on which this card's geometry is mapped.
<b>LOD Index</b>	The LOD index at which this card asset should be used.

# Hair Card Generator Plugin



This feature is experimental. Output results can vary depending on the complexity of the groom.

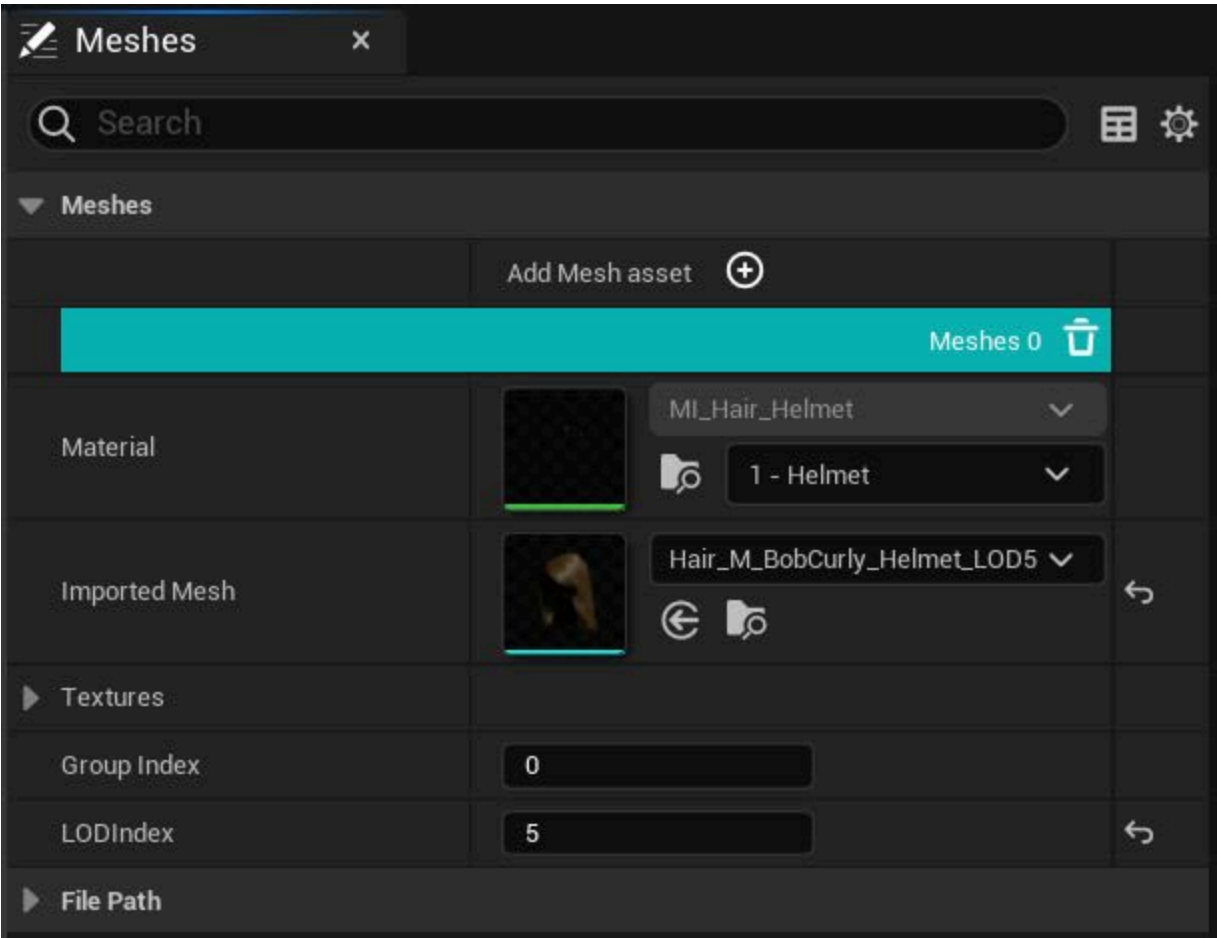
Creating these hair cards can be a difficult and time-consuming task, especially when trying to match the volume and styling of a strand based groom counterpart. The **Hair Card Generator** plugin makes this process simpler by converting strand based grooms to card based representations within the [Groom Asset Editor](#).



To learn how to use this plugin and set it up, see [Hair Card Generator](#).

## Meshes Panel

The **Meshes** panel is where you set the mesh, textures, and mapping to specific hair groups and LODs. This panel lists all geometry but not all geometry is necessarily used.



The following properties are available in the Meshes panel:

Property	Description
Material	The assigned material used for mesh representation LODs. This material is picked from the list shown in the Materials panel of the Groom Asset Editor.
Mesh	The geometry referenced for this mesh.
Textures	
Depth	The depth texture used for the mesh asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
Coverage	This texture is used for the mesh asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
Tangent	This texture is used for the mesh asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
Attributes: RootUV / CoordU / Seed	This texture is used for the mesh asset. This texture is optional, but when set the value is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
Material: Color / Roughness	This texture is used for the mesh asset. This texture is generated with the hair textures option on the Groom

Property	Description
	Asset.
<b>Auxiliary</b>	This texture enables user data to be transferred for the card asset. It is an optional texture. When this value is set, it is forwarded to the <b>Hair Attributes</b> node in the Material Editor.
Group Settings	
<b>Group Index</b>	The group index on which this mesh's geometry is mapped.
<b>LOD Index</b>	The LOD index at which this mesh's asset should be used.
LOD	
<b>Minimum LOD</b>	Specify the minimum level of detail to cook for all platforms, or specify minimums for individual platforms by adding them to the array using the <b>Add (+)</b> icon.