

Human Shaders - Skin Visibility Quick Start

Skin Visibility



Use this workflow when clothing should hide the body underneath it.

Human Shaders supports two complementary methods:

1. Painted Regions - reusable body regions authored directly on the skin mesh.
2. Exact Hide Zones - sphere, box, capsule, or custom convex volumes.

Painted regions are ideal for clothing/outfit logic. Zones are ideal for exact spatial coverage or special cases.

Fastest Painted-Region Setup

1. Open Skin Visibility

Open:

Tools > STL Dynamics > Human Shaders Studio > Skin Visibility

2. Select the character root

Select the character root in the Hierarchy and click:

Use Selected Character

If the selected object does not have a [HumanSkinVisibilityController](#), the Studio creates one.

3. Find skin renderers

Click:

Find Skin Renderers

The controller searches the character hierarchy for renderers using:

```
STL Dynamics/Human/Skin
```

4. Choose the skin renderer

In Surface Region Painter, assign the correct Skin Renderer.

5. Create a paint profile

Click:

Create New Geometry Paint Profile

Give it a useful name such as:

```
Hide_Torso  
Hide_UpperLegs  
Hide_LowerLegs  
Hide_Arms  
Hide_BraArea  
Hide_ShirtArea
```

6. Paint

In the Scene view:

- Left-drag to paint.
- Hold Alt to orbit normally.
- Toggle Erase Mode to remove painted coverage.
- Adjust Surface Radius, Hardness, and Opacity.
- Use Undo Stroke when needed.
- Save the profile.

The geometry painter follows connected surface topology. It is designed not to jump through the body or across unrelated areas that happen to share UV coordinates.

7. Add the profile to clothing logic

Create:

Create > STL Dynamics > Human Shaders > Profiles > Skin Visibility Set

Add the paint profiles that this clothing piece should hide.

8. Add a requester to the clothing object

Add:

```
HumanSkinVisibilityRequester
```

Assign:

- Target Controller - optional if the controller exists in a parent.
- Visibility Set - the set created for the garment.
- Apply On Enable - normally enabled.

Now enabling the clothing object applies its hide request. Disabling it releases only that request.

Why Visibility Sets Are Useful

Visibility requests are reference counted.

That means overlapping garments can hide the same painted region safely.

Example:

```
Shirt -> Hide_Torso  
Jacket -> Hide_Torso + Hide_Arms
```

If both are equipped, `Hide_Torso` is hidden.

If the Shirt is removed while the Jacket remains equipped, `Hide_Torso` stays hidden.

It becomes visible only after the final active request is released.

Fastest Hide-Zone Setup

1. Open Skin Visibility.
2. Assign or create a `HumanSkinVisibilityController`.
3. Under Exact Hide Zones, click:

```
Sphere  
Box  
Capsule  
Custom Convex Mesh
```

4. Move and scale the created zone around the skin that should disappear.
5. Keep the zone connected to the correct controller.

Primitive zones are analytic.

Custom mesh zones must be closed and convex. For concave coverage, use multiple convex zones.

Limits

Per `HumanSkinVisibilityController`:

```
Maximum zones: 32  
Maximum custom convex planes: 128
```

Recommended Clothing Workflow

```
Character Root  
|  
+-- HumanSkinVisibilityController  
|  
+-- Body Renderer (Human Skin shader)  
|  
+-- Shirt  
| +-- HumanSkinVisibilityRequester  
| +-- Visibility Set: Shirt_Hide  
|  
+-- Pants  
+-- HumanSkinVisibilityRequester  
+-- Visibility Set: Pants_Hide
```

This keeps body visibility driven by the clothing itself.