

STL DYNAMICS

QUICK REFERENCE

Human Shaders - Quick Reference

Human Shaders for URP



Studio

Tools > STL Dynamics > Human Shaders Studio

Workspaces:

Overview
Materials
Texture Packing
Skin Visibility
Diagnostics

Create Menu

```
Create > STL Dynamics > Human Shaders
|-- Materials
| |-- Human Skin Material
| |-- Human Hair Material
| |-- Human Eye Material
| |-- Human Tongue Material
| |-- Human Teeth Material
| `-- Human Clothing Material
`-- Profiles
    |-- Skin Profile
    |-- Hair Profile
    |-- Eye Profile
    |-- Tongue Profile
    |-- Teeth Profile
    |-- Clothing Profile
    |-- Skin Paint Profile
    `-- Skin Visibility Set
```

Material-profile editor flow:

```
Select Profile
-> Inspector: Open Human Shaders Studio
-> Materials workspace
-> Matching shader family + Optional Profile preselected
```

Shaders

```
STL Dynamics/Human/Skin
STL Dynamics/Human/Hair
STL Dynamics/Human/Eye
STL Dynamics/Human/Tongue
STL Dynamics/Human/Teeth
STL Dynamics/Human/Clothing
```

Packed Maps

Shader	R	G	B	A
Skin	AO	Roughness	Specular Mask	Thickness
Hair	AO	Roughness	Specular Mask	Transmission
Eyes	Iris	Pupil	Redness / Veins	Wetness / Tear Pooling
Tongue	Occlusion	Roughness	Saliva Pooling	Thickness
Teeth	Occlusion	Roughness	Enamel Thickness	Incisal Translucency
Clothing	Occlusion	Roughness	Fiber Sheen	Thickness

Packed/data maps: sRGB OFF Normals: Texture Type = Normal Map

Hair

Surface:

```
Cutout
Transparent
```

Cutout coverage:

```
Hard Cutout
Alpha To Coverage
Dithered
```

Clothing Presets

```
Woven
Knit
Denim
Satin / Silk
Velvet
Leather
Synthetic
```

Skin Visibility Shapes

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

Controller limits:

```
32 zones  
128 custom convex planes
```

Runtime Namespace

```
using STLDynamics.HumanShader;
```

Runtime Visibility

```
int token = controller.ApplyVisibilitySet(set);  
controller.RemoveVisibilityRequest(token);
```

Runtime Material Changes

After changing feature flags/properties through code:

```
HumanSkinMaterialUtility.Synchronize(material);  
HumanHairMaterialUtility.Synchronize(material);  
HumanEyeMaterialUtility.Synchronize(material);  
HumanTongueMaterialUtility.Synchronize(material);  
HumanTeethMaterialUtility.Synchronize(material);  
HumanClothingMaterialUtility.Synchronize(material);
```

Final Check

```
Human Shaders Studio > Diagnostics > Run Validation
```