

*This is a rough sketch of proper documentation coming in the near future. Sorry for the inconvenience.*

## **Inspecting for the first time the package in HDRP (common instructions for other pipelines also).**

Let's start by downloading and importing the character package into our project. Initially, it comes with Built-in Render Pipeline materials and a demo scene.

Next, you'll need to switch to HDRP. Just locate the HDRP expansion within the package and load that as well. This update will ensure that the materials, demo scene, and prefabs are perfectly set for HDRP.

The quickest way to explore our character is by jumping into the demo scene. Here, you can hit 'Play' and use the scene manager to navigate around. This setup allows you to view the character in various outfits, adjust lighting settings to see how it looks in different environments, and switch camera angles to focus on those detailed facial expressions.

My characters come equipped with over 200 blendshapes, ideal for setting up your own facial tracking to achieve dynamic results. If you're new to this, don't worry. I have a built-in solution called the Expression Manager. If you click on the character, you'll find this script attached. It helps you simulate a pseudo-talking routine or create your own expressions, even if you're not familiar with capturing expressions firsthand.

Now, let's talk about activating talking routines. The Expression Manager script offers up to four different talking modes—normal, whispering, talking, and angry. You can activate these routines either in real-time or manually via the inspector tab. Just locate the right Booleans in the debug foldout and toggle them as needed. Remember, to make the character stop talking, you must specifically deactivate the talking Boolean.

Finally, for those of you who like to get really hands-on, I've pre-loaded dozens of expression profiles. You can apply these to the entire face or just to specific features like the brows, eyes, and mouth. Not only that, but you can also play with the intensity of the results—apply them at just 25%, 50%, 75%, fully, or even 150%. Whatever the result is, you can even save it by setting up a camera to screen capture it, [info to be developed]

That's a quick overview of how to get started with my character packages.

## Make the Diffusion Profile Slot visible in HDRP custom shader GUIs

When working with HDRP (High Definition Render Pipeline), you might notice that skin shaders do not display the Diffusion Profile slot in their custom Shader GUI. To address this while continuing to use the customized shader GUI, you can follow these steps:

1. Navigate to CustomShaderGUI\_Body\_HDRP.cs and open . Then navigate to the following line:

```
//Make sure DiffusionProfileMaterialUI in DiffusionProfileMaterialUI.cs is a public static class  
//DiffusionProfileMaterialUI.OnGUI(materialEditor, diffusionProfileAsset, diffusionProfileHash, 0);
```

2. Before making any changes, return to the Editor and navigate to .
3. Open DiffusionProfileMaterialUI.cs.
4. Make the static class DiffusionProfileMaterialUI public and save your changes.

```
public static class DiffusionProfileMaterialUI  
{
```

After completing these steps, return to CustomShaderGUI\_Body\_HDRP.cs . You can now uncomment the specified line and save the changes to integrate the Diffusion Profile slot into your custom Shader GUI.

```
//Make sure DiffusionProfileMaterialUI in DiffusionProfileMaterialUI.cs is a public static class  
DiffusionProfileMaterialUI.OnGUI(materialEditor, diffusionProfileAsset, diffusionProfileHash, 0);
```

## Navigate through Demo Scenes

To have a more interactive experience with the demo scenes enter play mode and use the following hotkeys to navigate through the different options provided attached in MICRO STUDIO(SCENE MANAGER) object:

Change Lighting Setting Forward: 'Right Arrow' / 'D' /'Return'

Change Lighting SettingBackward: 'Left Arrow' / 'A'

Change Character/Outfit Forward: 'Right Arrow' / 'D' /'Return' + 'Left Control'

Change Character/Outfit Backward: 'Left Arrow' / 'A' + 'Left Control'

Rotation Character ON/OFF: 'Space'

Calibration Color Show ON/OFF: 'I'

Rotation Character Centered: 'Space' + 'Left Control'

Change Camera : 'C'

Talking Normal : '1'

Talking Whisper: '2'

Talking Angry : '3'

Talking Happy : '4'

Stop Talking : '5'

## **Is it possible to attach new clothes to these characters?**

The short answer is yes; they are indeed designed with that intention. However, it is also true that you will need to use a third-party program, such as Blender, for this purpose. In this regard, I have developed a specific add-on for Blender to facilitate this task. For more information about it, please check the following Youtube Playlist:

[https://www.youtube.com/watch?v=vGGVcBzgeGE&list=PLMNxE0TPL\\_2O0TEf8WzSFX6MGNZcQrjOb](https://www.youtube.com/watch?v=vGGVcBzgeGE&list=PLMNxE0TPL_2O0TEf8WzSFX6MGNZcQrjOb)

## Is there any way to lower the polygon account?

Absolutely! After deciding on the final outfit for your character, simply export it to a third-party modeling software, like Blender. Once there, select all the body polygons that are hidden by the outfit meshes and delete them. Afterward, reimport them back into Unity.

Usually, other packages already include multiple decimated models, but I prefer to leave this decision to the end-user. Perhaps you want to make certain modifications to the outfits before making any drastic decisions that later can't be changed.

If you prefer not to decimate the models, you can use the function included in my shaders to utilize alpha masks for hiding any part painted black in the mask. This approach will deliver visually pixel-perfect results, but keep in mind that polygons will still be drawn and consume resources.

## **Attaching the expression manager.**

Eventually I have a tutorial video about this and update the scripts. For now when attaching it, first right click on it and reset it. Then fill the expression arrays, the meshes references and the profiles for each talking mode (all of them inside said array).