

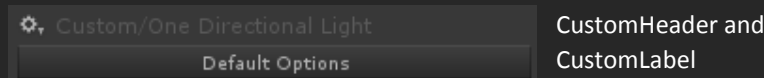
Creating custom Curved World shader

1. Select menu "Assets/Create/Curved World shader".
2. In the popup window enter shader name and lighting type (Unlit or One Directional Light).
3. Two shader files will be created inside "Curved World/Shaders/Custom" folder. For local and global controlling (they can be switched from material editor).
4. Shaders are ready to use.

Generated files are vertex/fragment shaders and can be easily modified.

Shader features:

- Properties filed contains two custom variables :
 - `[CustomHeader] _V_CW_Header("Custom/One Directional Light", float) = 0`
This variable is required for displaying header in material editor. Its description name displays shader type, currently it is set to "Custom/One Directional Light".
 - `[CustomLabel] _V_CW_DO("Default Options", float) = 0`
Displays "separator" label.



If you add `[CustomLabel]` in front of variable, than material editor will render it as "separator" label.

- You can add any number and type of variables to the **Properties** section, but leave Curved World properties unmodified.
- Shader contains `"CurvedWorldTag"` – leave it unmodified.
- Inside main Pass section are fields

```
#pragma multi_compile V_CW_FOG_OFF V_CW_FOG_ON
#pragma multi_compile V_CW_IBL_OFF V_CW_IBL_ON
```

For global shaders

```
#pragma multi_compile V_CW_GLOBAL_FOG_OFF V_CW_GLOBAL_FOG_ON
#pragma multi_compile V_CW_GLOBAL_IBL_OFF V_CW_GLOBAL_IBL_ON
```

They serve for activating Fog and IBL

- All passes must include `"../cginc/CurvedWorld_Base.cginc"` – all Curved World variables for vertex Bending, Fog and IBL calculation are described here. All upcoming Curved World features will be added inside this file.

Global shaders each pass must also contain `#define V_CW_GLOBAL_ON`

- `CurvedWorld_Base.cginc` – contains three main Curved World macros:
 - `V_CW_BEND` - Use this macro to bend vertex inside vertex shader
 - `V_CW_FOG` - Use this macro to calculate Fog inside vertex shader
 - `V_CW_IBL` – Use this macro to calculate IBL inside pixel shader

For shadow casting and collecting shader uses two pass:

```
//ShadowCaster local
UsePass "Hidden/VacuumShaders/Curved World/ShadowPass/SHADOWCASTER"
//ShadowCaster global
UsePass "Hidden/VacuumShaders/Curved World/ShadowPass_Global/SHADOWCASTER"

// ShadowCollector local
UsePass "Hidden/VacuumShaders/Curved World/ShadowPass/SHADOWCOLLECTOR "
// ShadowCollector global
UsePass "Hidden/VacuumShaders/Curved World/ShadowPass_Global/SHADOWCOLLECTOR "
```

For image effects supporting use Curved World renderTypes:

```
"RenderType"="CurvedWorld_Local_Opaque"

"RenderType"="CurvedWorld_Local_TransparentCutout"
```

Modify both generated files only if you want to have same behavior for local and global shaders. Otherwise delete unused file.

Note: This is first attempt to support custom shaders and it may be incomplete.