Toon Shading and Lighting Sven

In this simple ‘making of’ tutorial, we will break down the steps used to render the image above using the Toon shader. We will cover how to use the Rim Lighting, Base Tonemap, Specular Tonemap and Stylized Highlight attributes of the Toon shader to create a ‘painterly’ type portrait of our intergalactic hero Sven!

The original Maya scene files for this series of tutorials can be downloaded from Autodesk’s Hyperspace Madness production.

Assign Toon Shaders

- Start off by assigning Toon shaders to the head, hair, eyes, and space suit. Connect the relevant diffuse maps to the Base Color of each Toon shader.
Base Tonemap (ramp)

- Create a ramp similar to the one below and connect it to the Base Tonemap of the Toon shader assigned to Svens face.
Specular Tonemap (ramp)

- Lower the *Specular Weight* to around 0.1 and increase the *Specular Roughness* to around 0.7.
- Create a ramp and connect it to *Specular Tonemap*. 
Rollover image to view without Ramp-> Specular Tonemap

Rim Lighting

- Create a spot light and position it so that it is pointing at Sven from behind and at an angle. Add it to the Rim Lighting-> Light attribute.
- Create a ramp and connect it to Rim Lighting Color.
Rollover image to view without Light-> Rim Lighting

Face Toon shading network

Stylized Highlight
We can use the *Stylized Highlight* to create a cartoon style highlight on Svens eyes.

- Create a spotlight and point it at Svens eyes. Hide the light so that it does not illuminate Sven.
- Connect a circular ramp (similar to the one below) to the *Stylized Highlight Color* of the Eye shader and increase the *Stylized Highlight Size* to around 0.8.

![Stylized Highlight](image)

**Indirect Specular**

*Indirect Specular* (and *Indirect Diffuse*) can have a subtle effect on the appearance of the *Toon* shading. In this case *Indirect Specular: 0* works better for the eye shader.

![Indirect Specular](image)
*Indirect Specular: 0 (default). Rollover image for *Indirect Specular: 1.*