Noise patterns can be a powerful tool when used creatively. It is possible to create various effective patterns, for example, different types of corrosion, foam, landscapes, alien skin or just organic patterns. This tutorial demonstrates the types of patterns possible when setting different attributes with the Arnold Noise and Cell Noise shaders. Hopefully, this tutorial will inspire you to experiment and create your own patterns using a combination of Noise shaders. Thanks to Slava Sych for his assistance with this tutorial.

Note that the Scale attribute values depend on the size of your geometry and therefore may require adjusting according to your scene size.
Noise Shaders

Noise Type 1

Octaves: 1, Distortion: 1.2, Lacunarity: 1, Scale XYZ: 10

Noise Type 2
Create a Noise shader and set the following parameters:

- **Octaves to 1.**
- **Distortion to 5.**
- **Lacunarity to 3.25.**
- **Scale XYZ to 0.**

Next, create another Noise shader and connect its output to the Offset parameter of the first Noise shader. Set the following:

- **Octaves to 5**
- **Distortion to 4**
- Lacunarity to 1
- Scale XYZ to 5

Noise Type 4 (Noise x2)

Create a Noise shader and set the following parameters:

- Octaves to 1
- Distortion to 5
- Lacunarity to 3.25
- Scale XYZ 10

Next, create another Noise shader and connect its output to P parameter of the first Noise shader. Set the following:

- Octaves to 2
- Distortion to 3
- Lacunarity to 1
- Amplitude 0.21
- Scale XYZ to 5

Noise Type 5 (Noise x2)
Create a Noise shader and set the following parameters:

- **Octaves to 1**
- **Distortion to 6.7**
- **Lacunarity to 1**
- **Scale XYZ 5**

Next, create another Noise shader and connect its output to P parameter of the first Noise shader. Set the following:

- **Octaves to 4**
- **Distortion to 0**
- **Lacunarity to 2.68**
- **Amplitude 0.719**
- **Scale XYZ to 10**

Noise Type 6 (Cell Noise ->Noise)
Create a Noise shader and set the following parameters:

- **Octaves to 1**
- **Distortion to 3.1**
- **Lacunarity to 1**
- **Scale XYZ 6**

Next, create a Cell Noise shader and connect its output to \( P \) parameter of the first Noise shader. Set the following:

- **Octaves to 7**
- **Lacunarity to 2.806**
- **Scale XYZ to 7**

**Noise Type 7 (Cell Noise ->Noise)**
Create a Noise shader and set the following parameters:

- **Octaves to 1**
- **Distortion to 3.1**
- **Lacunarity to 1**
- **Scale XYZ 6**

Next, create a Cell Noise shader and connect its output to \( P \) parameter of the first Noise shader. Set the following:

- **Disable Additive**
- **Octaves to 1**
- **Lacunarity to 2.989**
- **Scale XYZ to 7**
- **Density to 0.286**
- **Randomness to 0.583**

**Noise Type 8 (Cell Noise ->Noise)**

Create a Noise shader and set the following parameters:

- **Octaves to 1**
- **Distortion to 3.1**
- **Lacunarity to 1**
- **Scale XYZ 6**
Next, create a *Cell Noise* shader and connect its output to *P* parameter of the first *Noise* shader. Set the following:

- *Change Pattern to* worley2
- *Enable Additive*
- *Octaves to* 4
- *Lacunarity to* 5
- *Amplitude to* 0.114
- *Scale XYZ to* 7
- *Density to* 0.623
- *Randomness to* 1

**Noise Type 9 (Cell Noise ->Noise)**

Create a *Noise* shader and set the following parameters:

- *Octaves to* 1
- *Distortion to* 3.1
- *Lacunarity to* 1
- *Scale XYZ 6*

Next, create a *Cell Noise* shader and connect its output to *P* parameter of the first *Noise* shader. Set the following:

- *Change Pattern to* alligator
- *Enable Additive*
- *Octaves to* 1
• **Lacunarity** to 5
• **Amplitude** to 0.920
• **Scale XYZ** to 7
• **Density** to 0.623
• **Randomness** to 0

Noise Type 10 (Cell Noise ->Noise)

Create a *Noise* shader and set the following parameters:

• **Octaves** to 1
• **Distortion** to 3.533
• **Lacunarity** to 1
• **Scale XYZ** 6

Next, create a *Cell Noise* shader and connect its *output* to *P* parameter of the first *Noise* shader. Set the following:

• **Change Pattern to alligator**
• **Enable Additive**
• **Octaves** to 3
• **Lacunarity** to 5
• **Amplitude** to 0.920
• **Scale XYZ** to 7
• **Density to 0.549**
• **Randomness to 0**

Noise Type 11 (Cell Noise ->Noise)

Create a *Noise* shader and set the following parameters:

- Octaves to 1
- Distortion to 10
- Lacunarity to 1
- Scale XYZ 6

Next, create a *Cell Noise* shader and connect its *output* to *P* parameter of the first *Noise* shader. Set the following:

- Change *Pattern* to *alligator*
- Turn on Additive
- Set Octaves to 3
- Lacunarity to 5
- Amplitude to 0.177
- Scale XYZ to 7
- Density to 0.549
- Randomness to 1

**Cell Noise Shaders**

Cell Noise Type 1
Create a *Cell Noise* shader and set the following parameters:

- Disable *Additive*
- Set Octaves to 4
- Lacunarity to 1.274
- Scale XYZ 10

**Cell Noise Type 2 (Cell Noise -> Range)**

Create a *Cell Noise* shader and set the following parameters:

- Change *Pattern* to *alligator*
- Disable *Additive*
- Octaves to 2
- Lacunarity to 1.5
- Amplitude to 1
- Scale XYZ to 10
- Density to 0.326
- Randomness to 0

Next, create a *Range* shader and connect the *Cell Noise* to its input parameter. Set the following:

- Input Max to 0.343
- Enable *Smoothstep*
Create a Cell Noise shader and set the following parameters:

- Change Pattern to alligator
- Disable Additive
- Octaves to 6
- Lacunarity to 1.297
- Amplitude to 1
- Scale XYZ to 10
- Density to 0.326
- Randomness to 1

Next, create a Range shader and connect the Cell Noise to its input parameter. Set the following:

- Input Max to 0.343
- Enable Smoothstep

Cell Noise Type 4 (Cell Noise -> Cell Noise -> Range)
Create a *Cell Noise* shader and set the following parameters:

- Change *Pattern* to *alligator*
- Enable *Additive*
- Set *Octaves* to 3
- *Lacunarity* to 1.297
- *Amplitude* to 1
- *Scale XYZ* to 10
- *Density* to 0.326
- *Randomness* to 1

Create another *Cell Noise* and connect its *output* to *P* parameters of the first *Cell Noise*. Set the following:

- Change *Pattern* to *worley2*
- Enable *Additive*
- *Octaves* to 3
- *Lacunarity* to 1
- *Amplitude* to 1
- *Scale XYZ* to 6
- *Density* to 0.5
- *Randomness* to 0

Next, create a *Range* shader and connect the *Cell Noise* to its input parameter. Set the following:

- *Input Max* to 0.343
- Enable *Smoothstep*

Or set parameters in the second *Cell Noise* to get a result like in the image below:

- Change *Pattern* to *worley1*
- Disable *Additive*
- *Octaves* to 3
- *Lacunarity* to 1
- *Amplitude* to 1
- *Scale XYZ* to 6
- *Density* to 0.5
- *Randomness* to 0

Or set parameters in the second *Cell Noise* to get a result like in the image below:
- Change Pattern to *alligator*
- Disable *Additive*
- Octaves to 2
- Lacunarity to 2.189
- Amplitude to 1
- Scale XYZ to 6
- Density to 0.5
- Randomness to 0.183