



## Project Part 2

# Terrain Rendering

# Basic topics (0..4/6)

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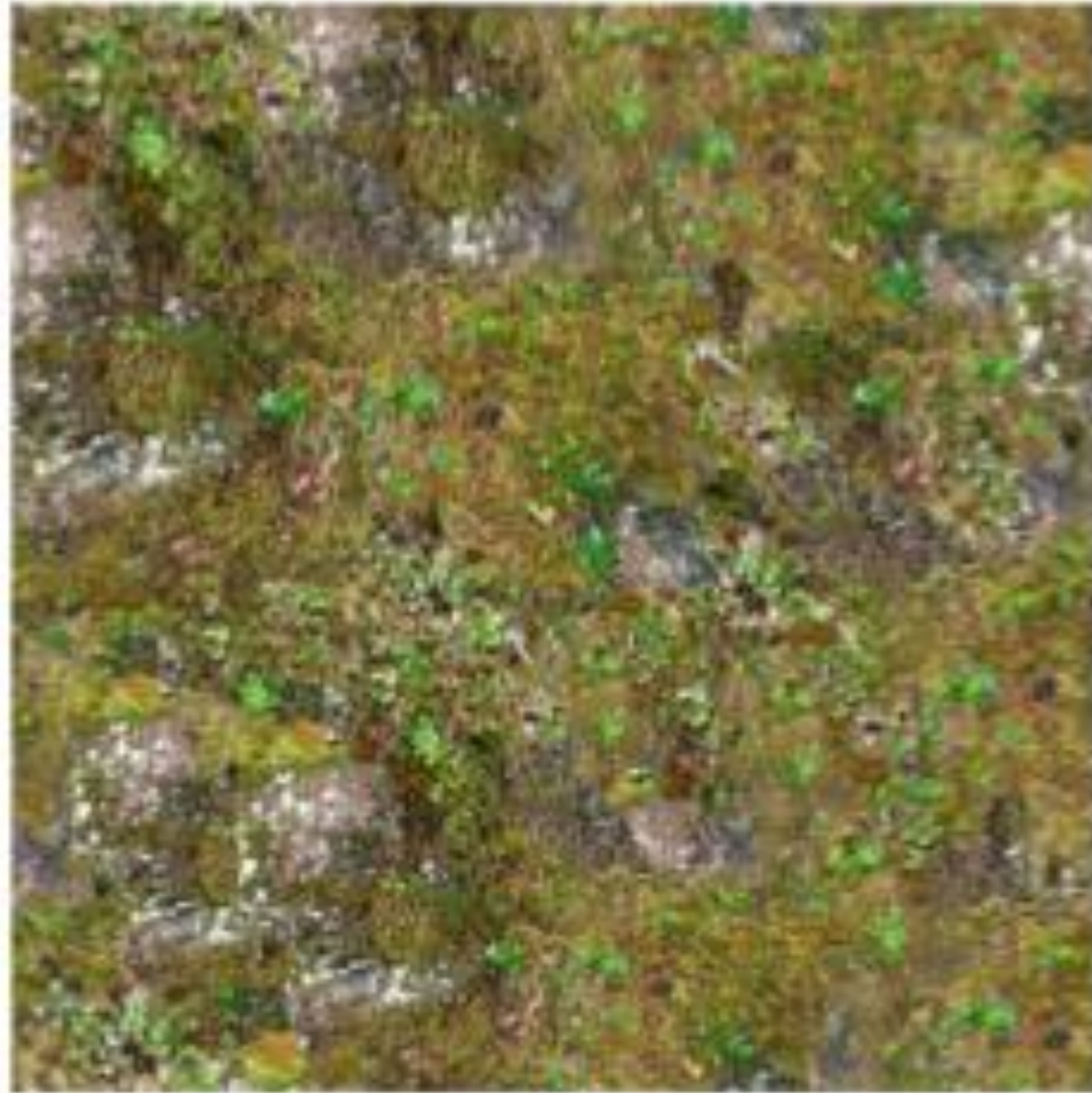
3 points: implementation of technique  
1 points: visual quality of results



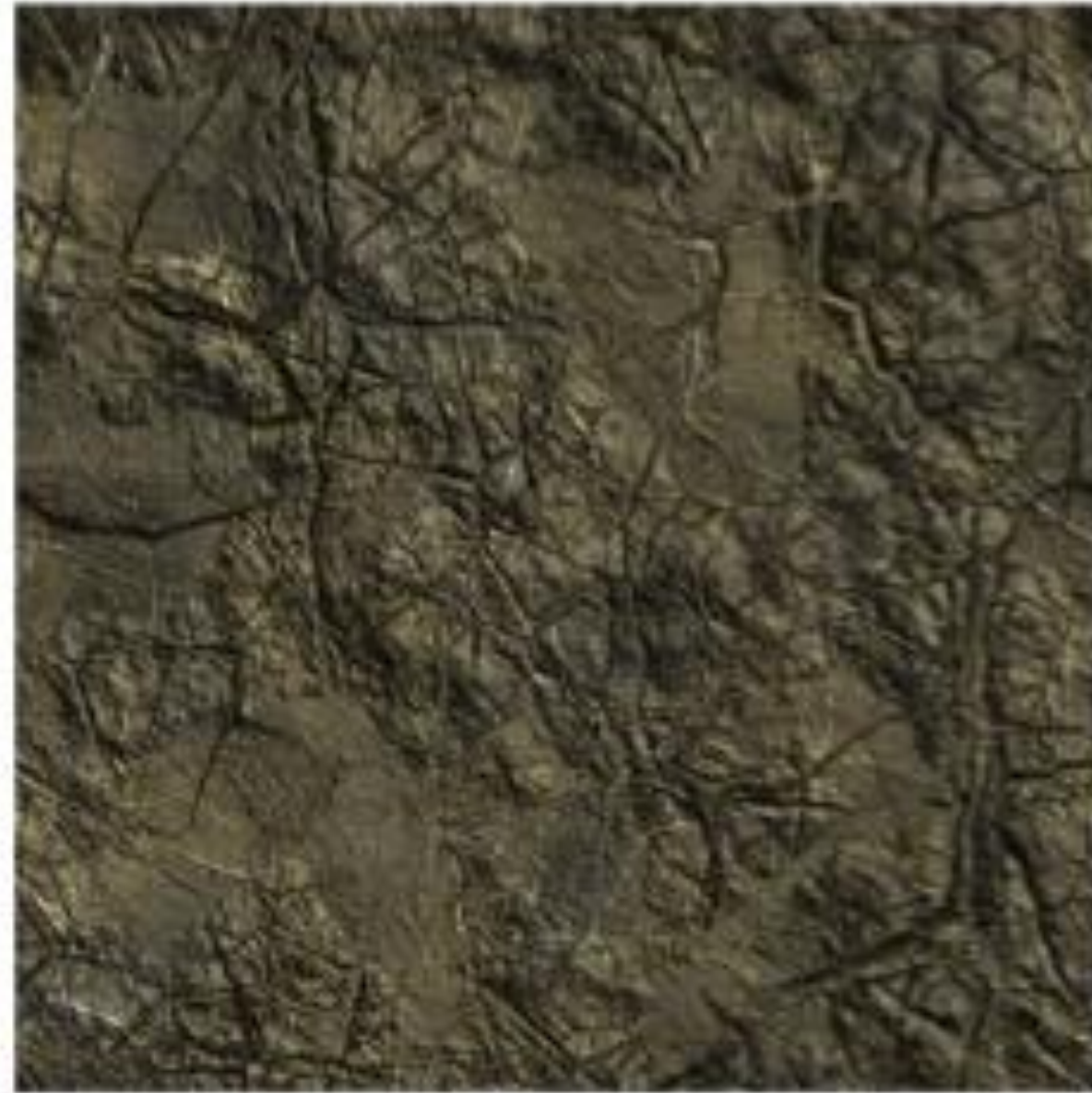
## Improved texturing



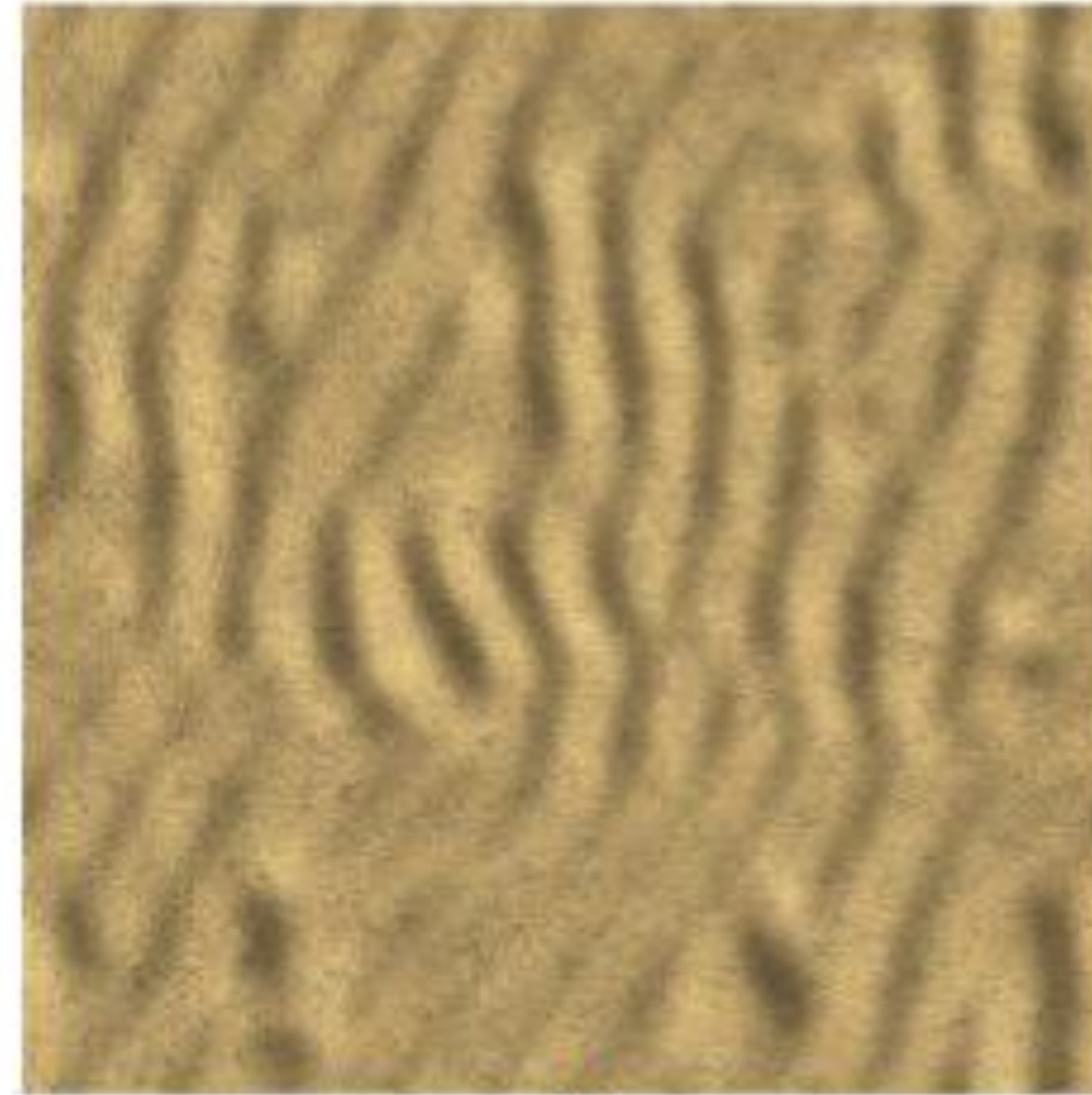
# Texturing: weighted blend



$T_{grass}$



$T_{rock}$



$T_{sand}$

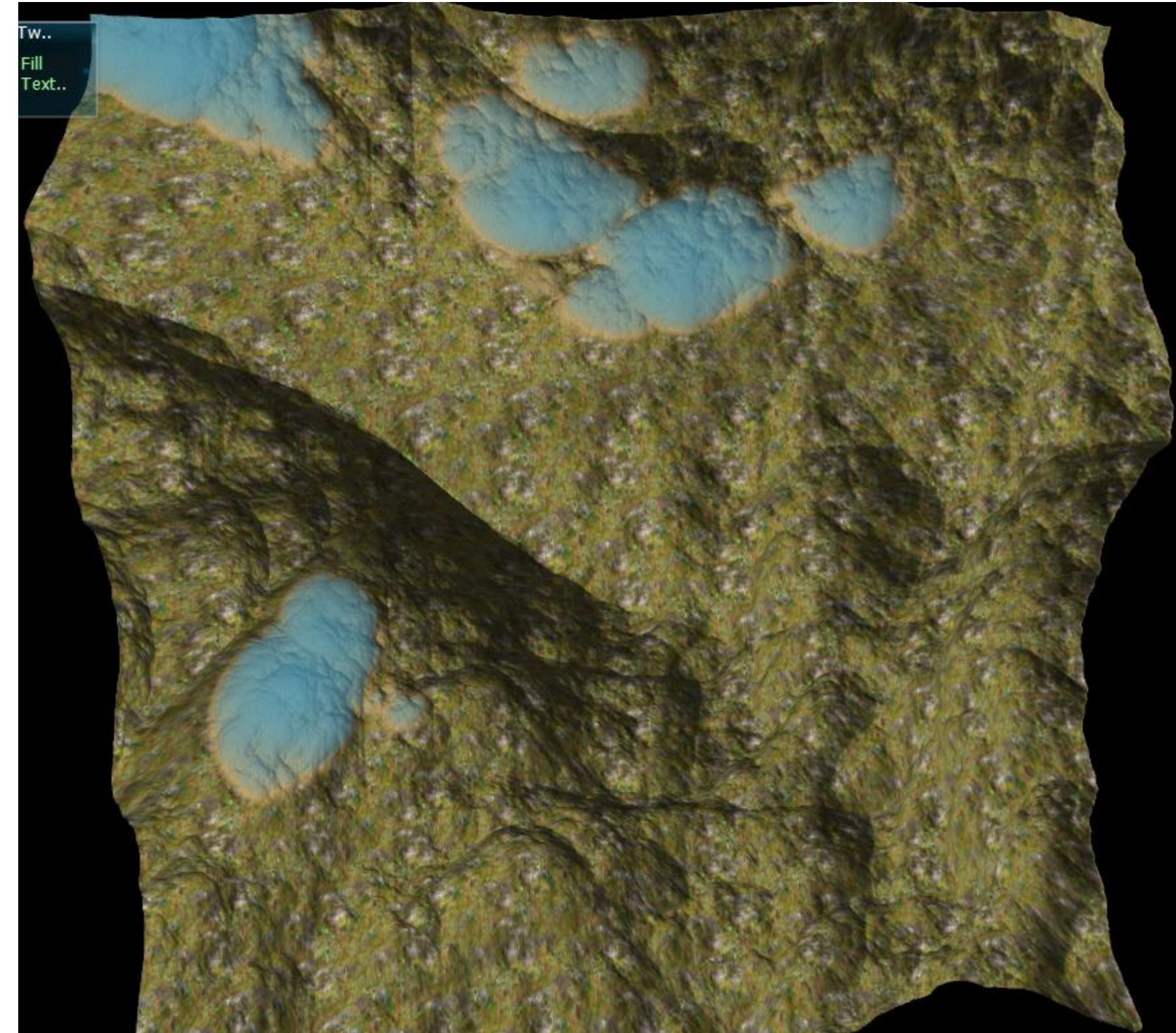
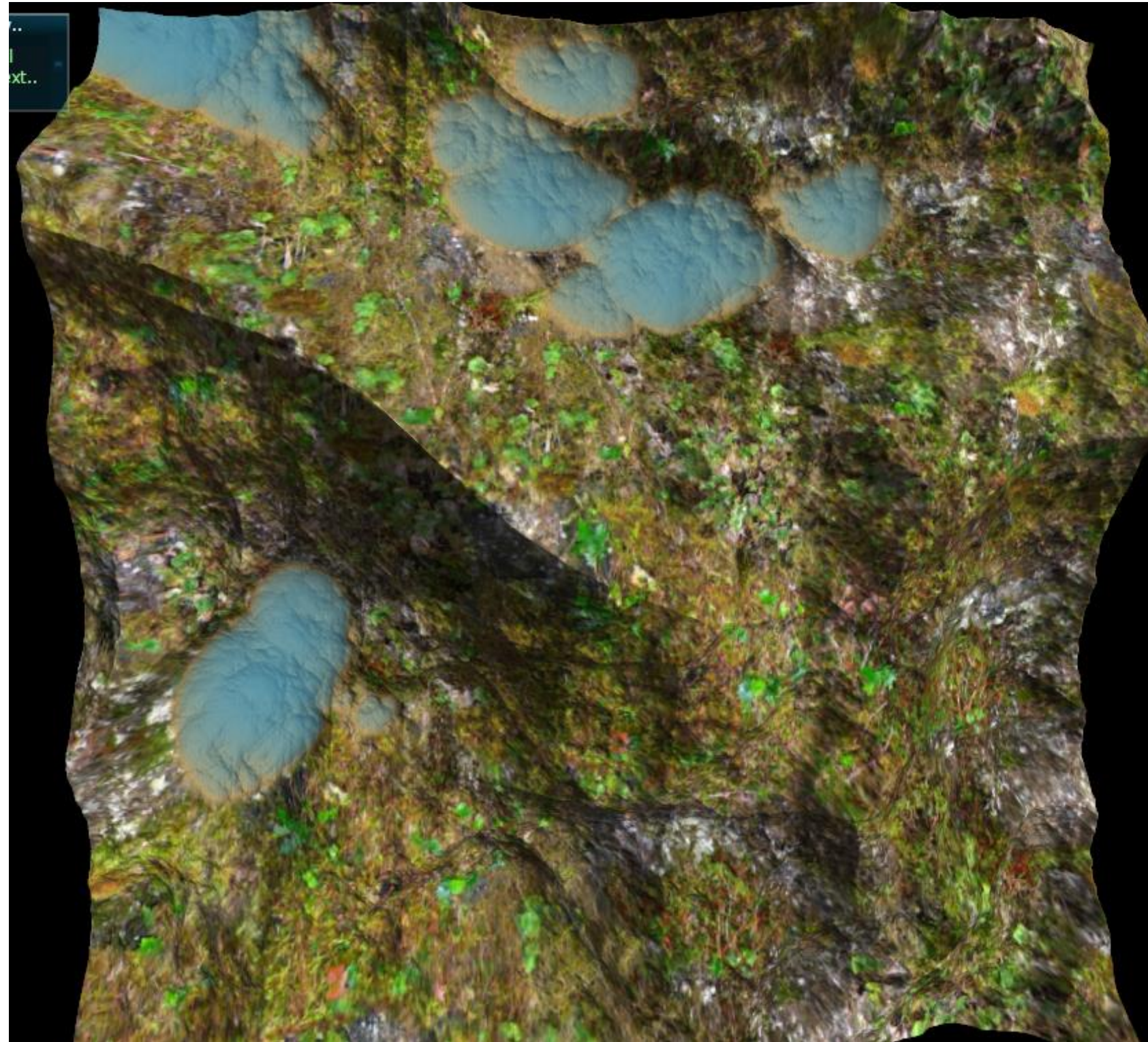


$T_{snow}$

$$T(\mathbf{x}) = \alpha_1 T_{grass}(10\mathbf{x}) + \alpha_2 T_{rock}(10\mathbf{x}) + \alpha_4 T_{snow}(30\mathbf{x}) + \alpha_3 T_{sand}(60\mathbf{x})$$



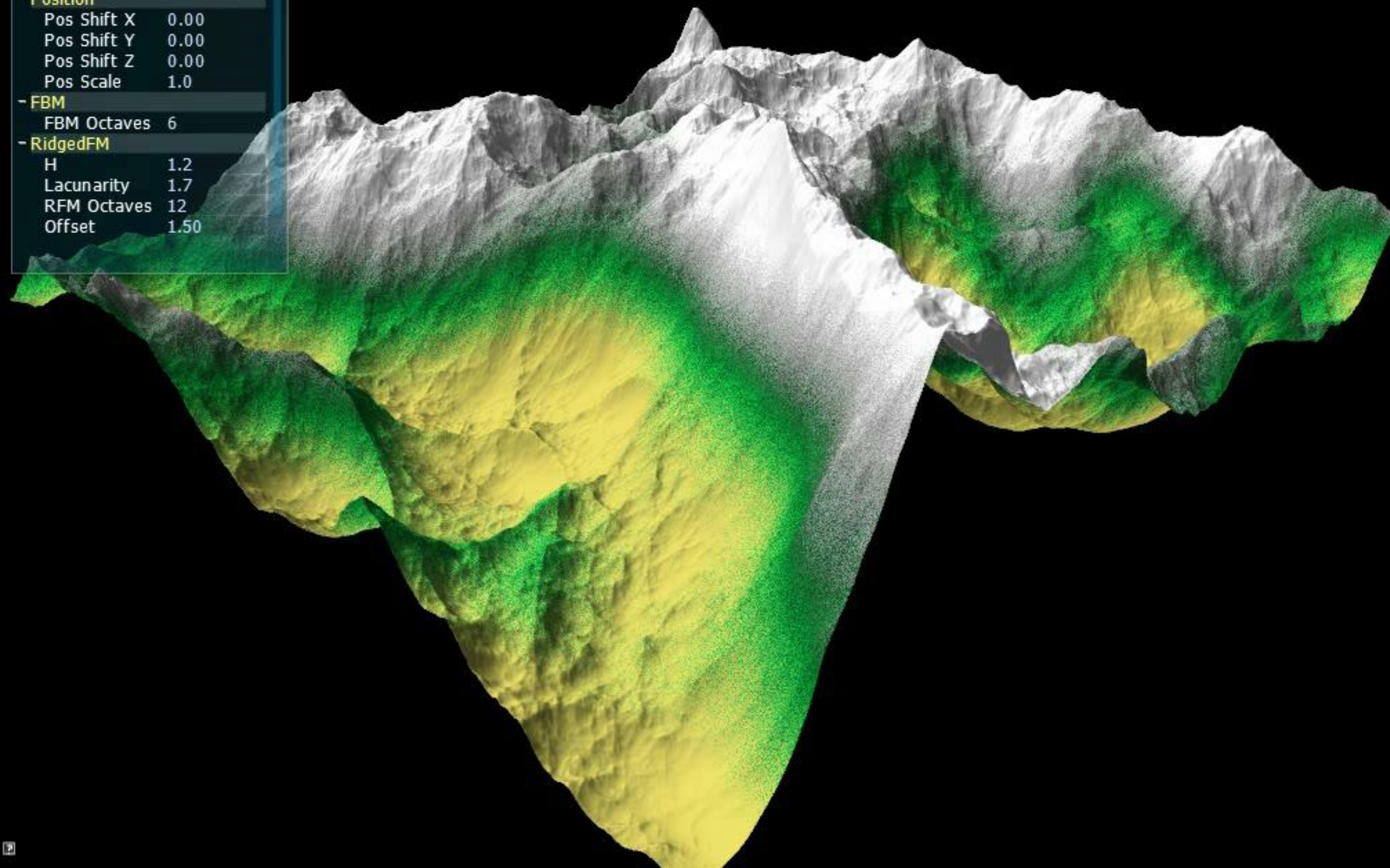
# Texturing: weighted blend



$$T(\mathbf{x}) = \alpha_1 T_{grass}(10\mathbf{x}) + \alpha_2 T_{rock}(10\mathbf{x}) + \alpha_4 T_{snow}(30\mathbf{x}) + \alpha_3 T_{sand}(60\mathbf{x})$$

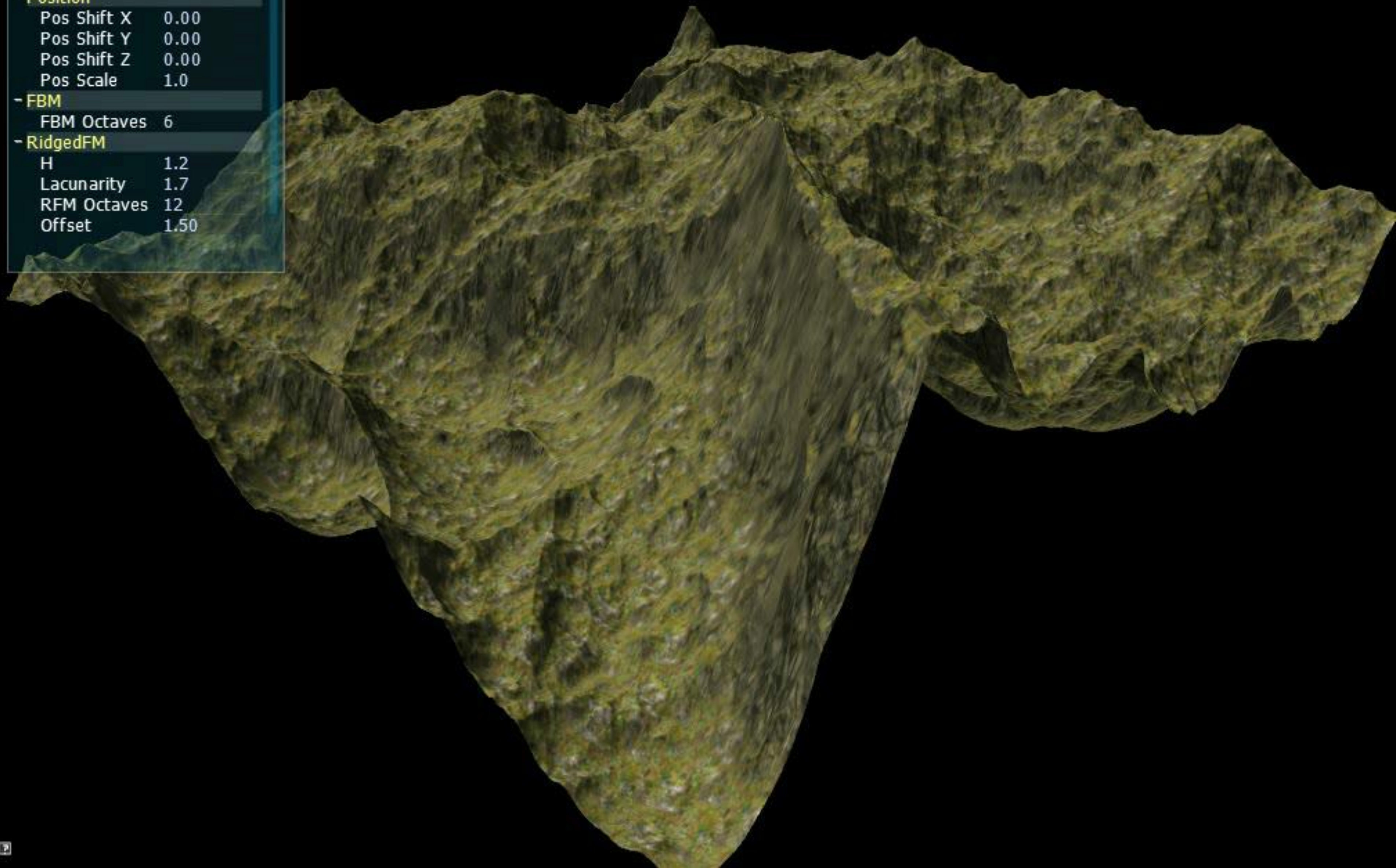


AntTweakBar	
Render	Fill
Color	Color
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	-
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50



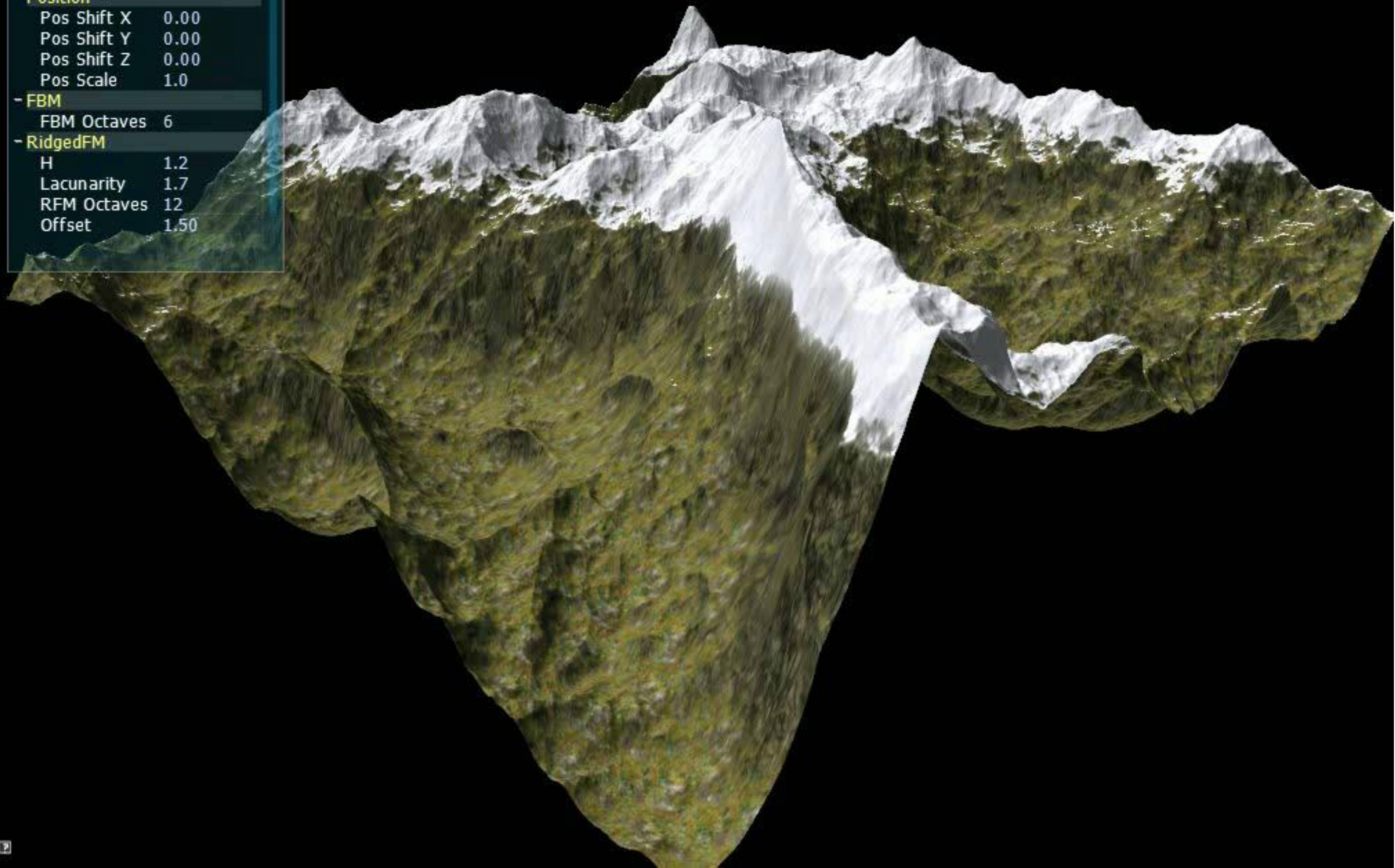


AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	-
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50



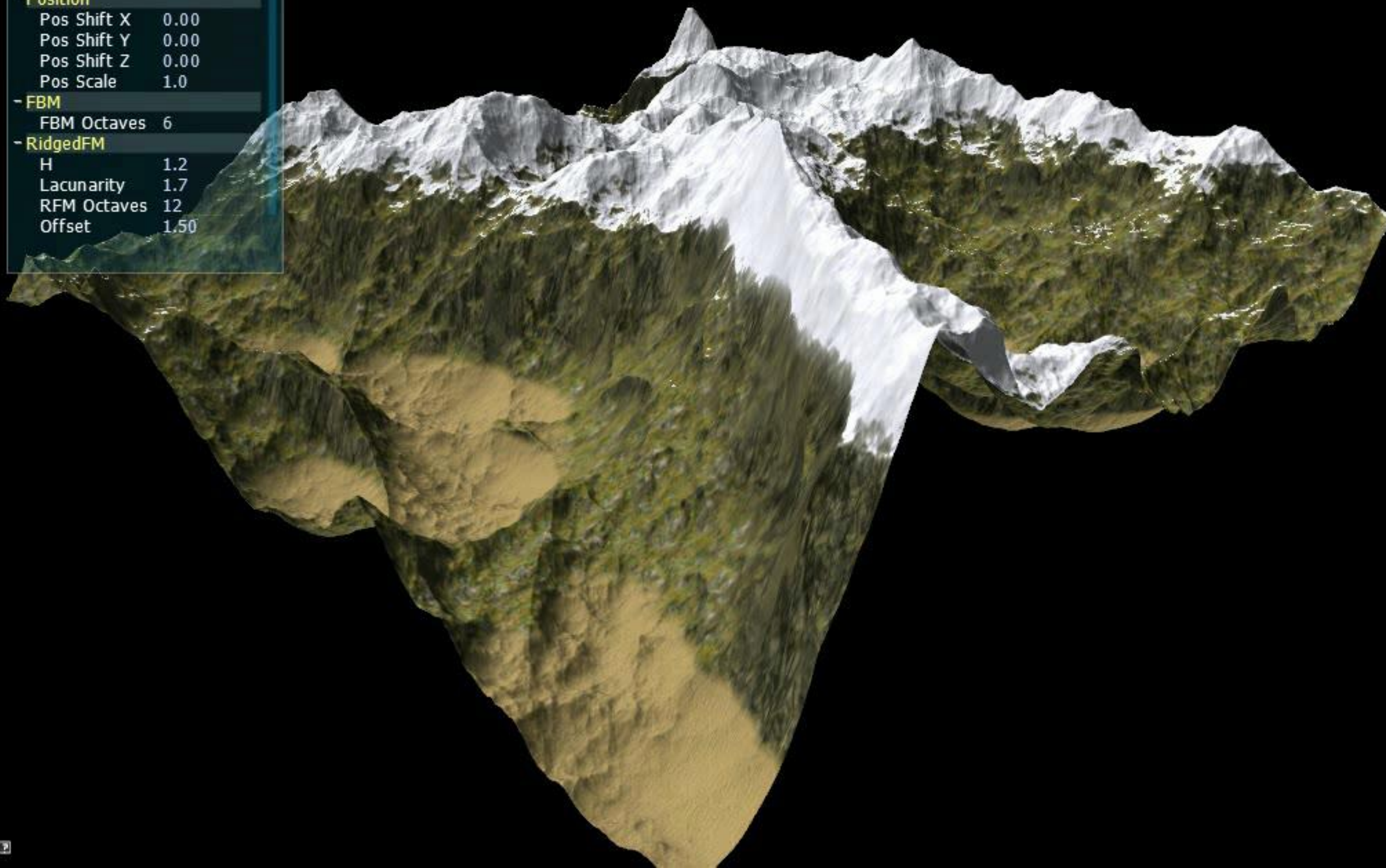


AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	-
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50





AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	-
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50



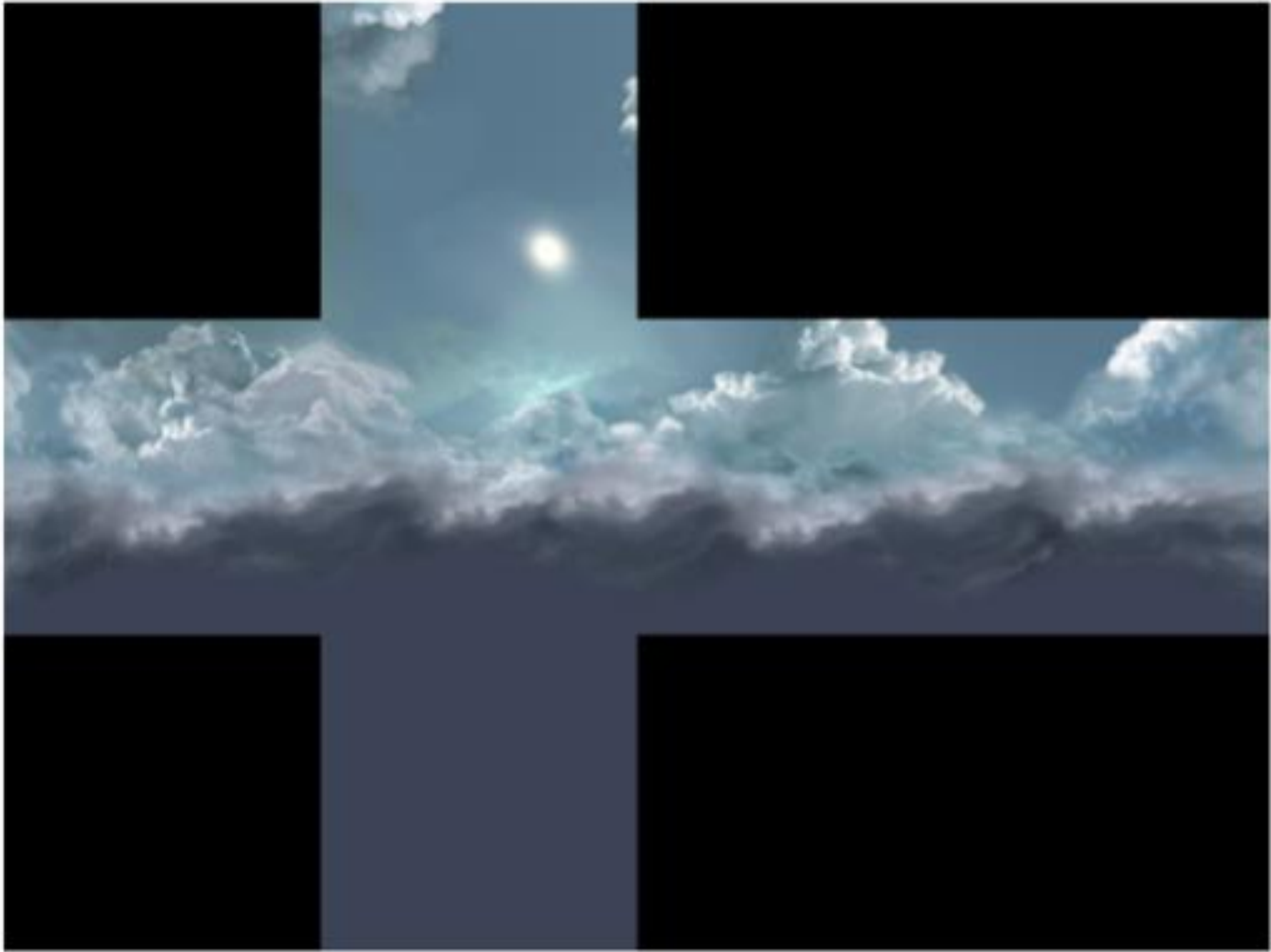




## Sky modeling

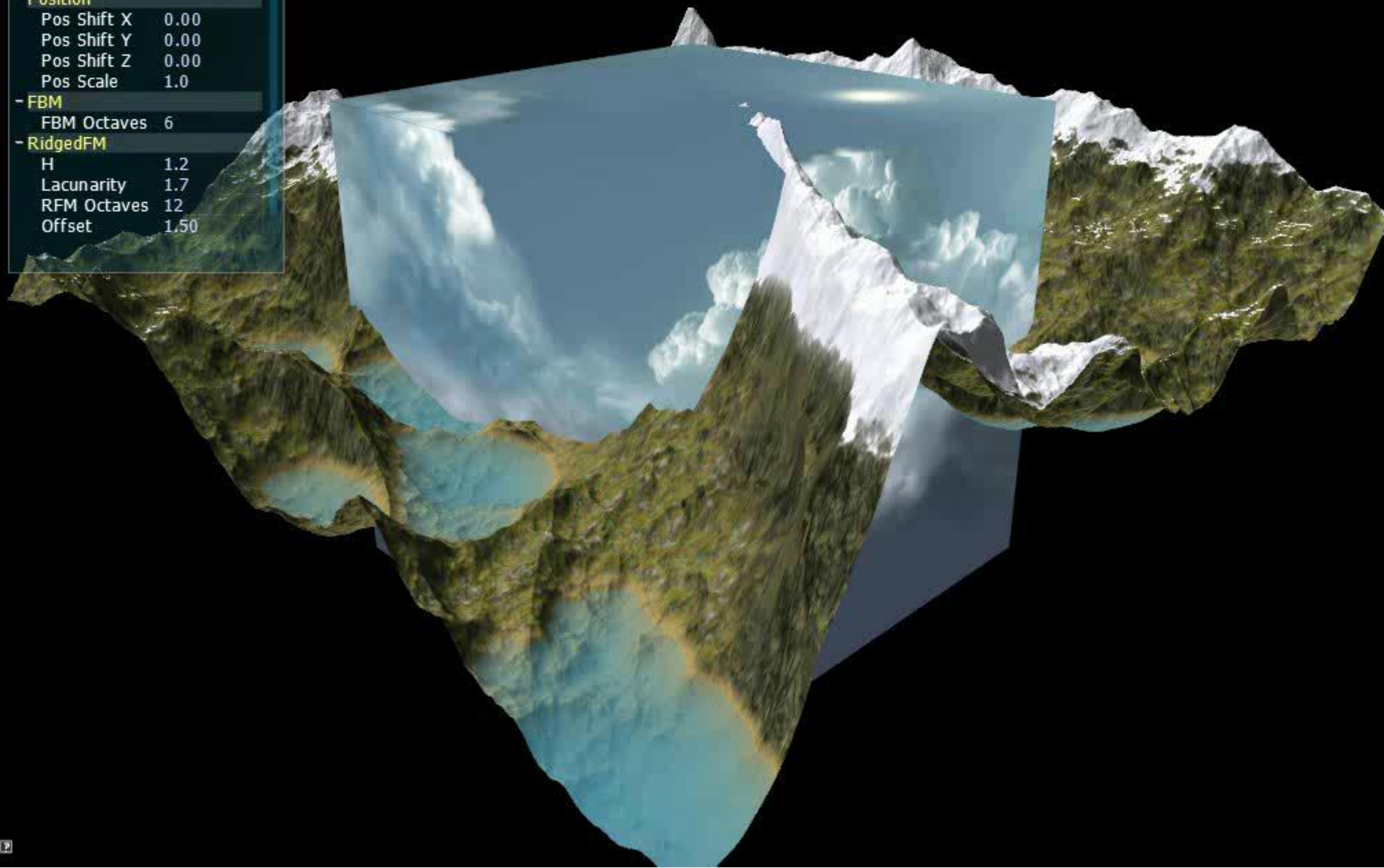


# Sky Modeling



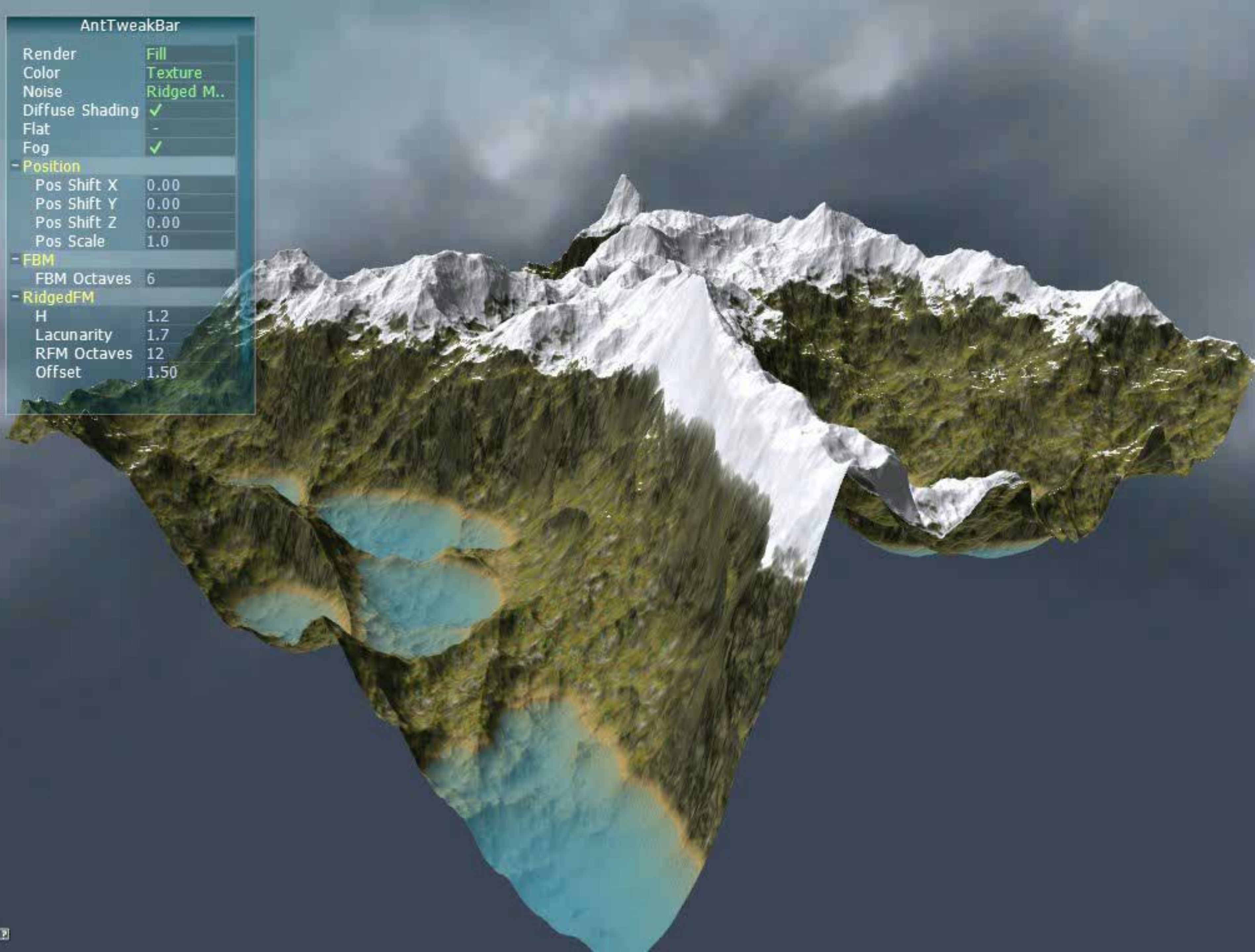


AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	✓
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50





AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	✓
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50







These are just **ideas** for advanced topics.  
We invite you to browse online and try something that inspires you  
(perhaps just consult with us before you get started)

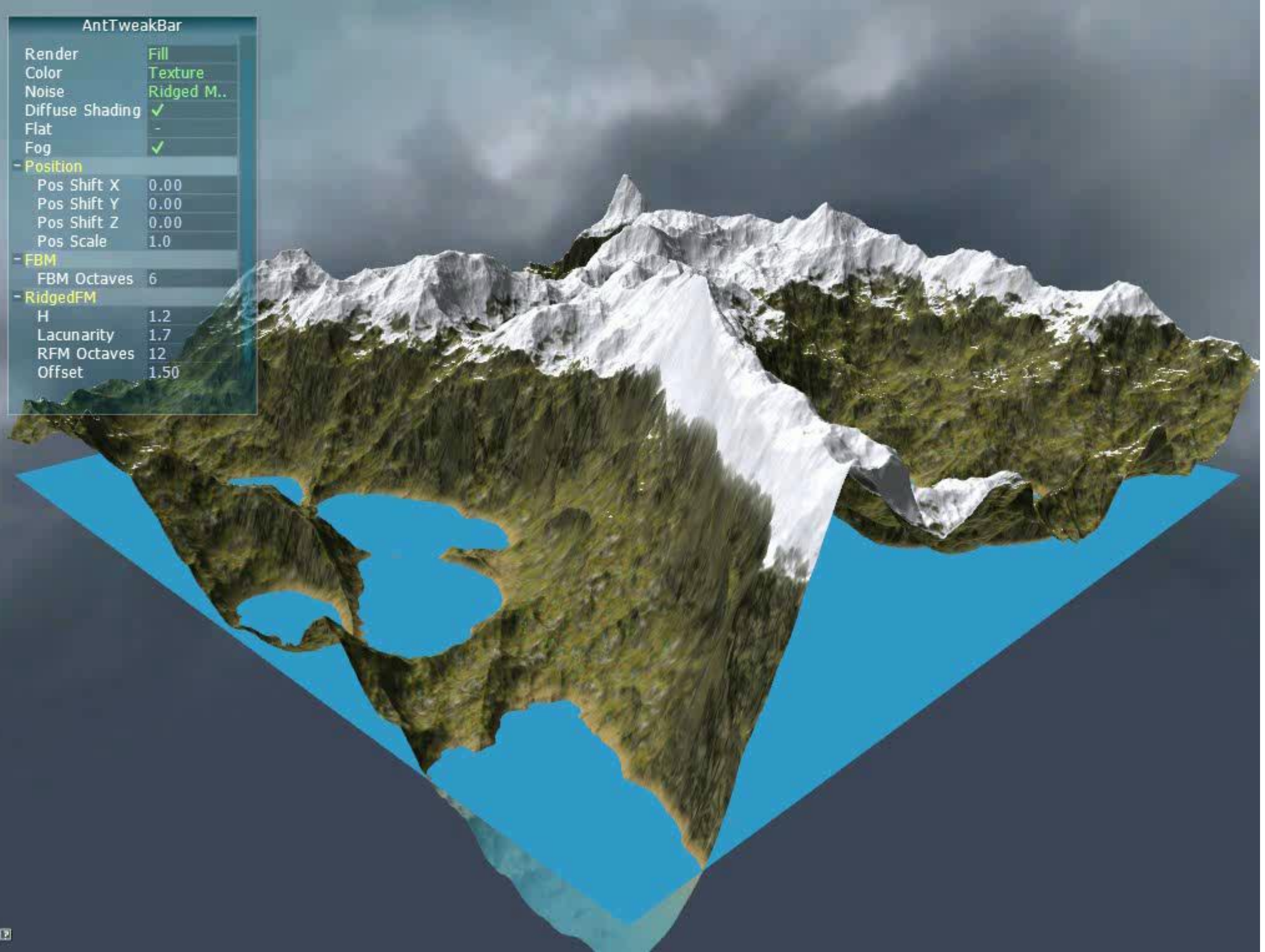




## Water modeling



AntTweakBar	
Render	Fill
Color	Texture
Noise	Ridged M..
Diffuse Shading	✓
Flat	-
Fog	✓
- Position	
Pos Shift X	0.00
Pos Shift Y	0.00
Pos Shift Z	0.00
Pos Scale	1.0
- FBM	
FBM Octaves	6
- RidgedFM	
H	1.2
Lacunarity	1.7
RFM Octaves	12
Offset	1.50









# Reflection / Refraction

