

African Cumulonimbus Supercell Render



African Cumulonimbus Supercell by Dirk Kipper

Actually, I intend to develop my first own Cumulonimbus cloud image.

But before I can start to build up my own dramatic cloud render, I first have to start somewhere. So I simply began to read here in the file sharing section to look for good cloud examples to learn from.

Sure, I have my own very nice setups, but they're to render more common skies. I never did a really dramatic and impressive Cumulonimbus cloud scene in Terragen.

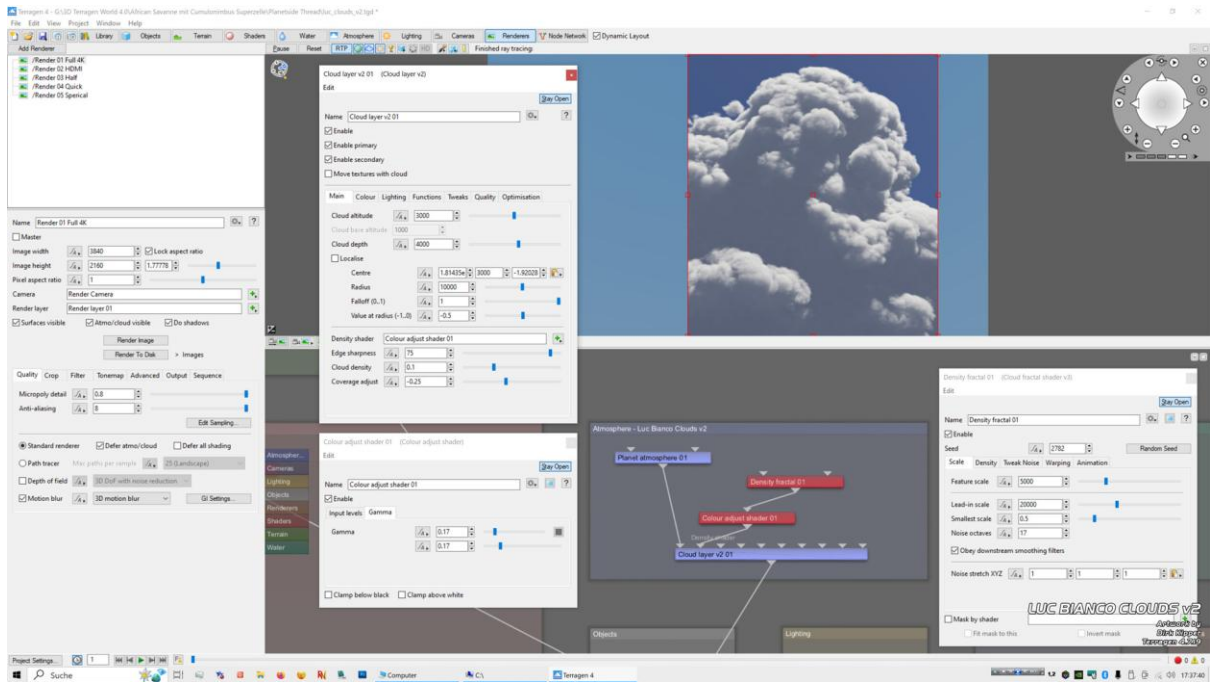
So in the last weeks, I dived into the interesting world of clouds to make myself more familiar with all available cloud types and all their settings. So this thread will be about my way to dive more into the world of clouds to create my first Cumulonimbus sky.

One of the first files, I examined, is a famous one from Luc Bianco.

<https://planetside.co.uk/forums/index.php/topic,5490.msg56677.html#msg56677>

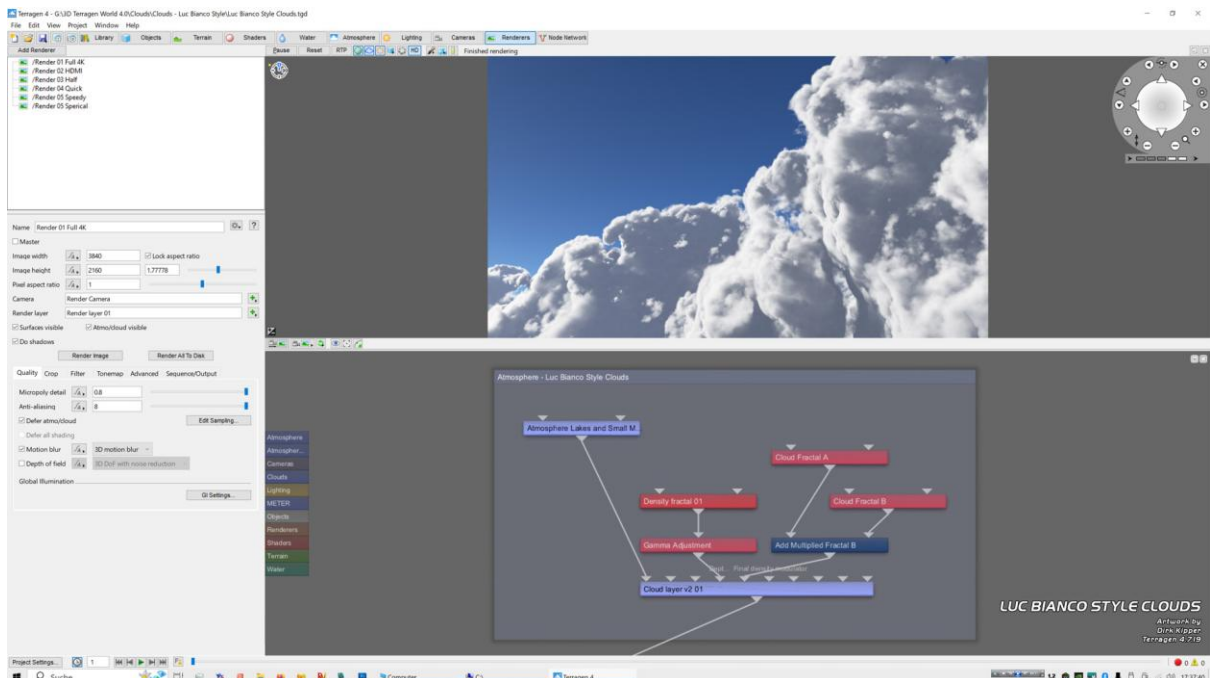
His most important settings can be seen in the screenshot.

African Cumulonimbus Supercell Render



Screenshot of Luc Biancos Basis Cloud v2 Setup

I never worked with Cloud Layer 2 in Terragen, but after some tweaking and experimenting, I ended up with this nice Cumulus Cloud rendering.



Screenshot of Luc Bianco Style Clouds (The Basic Setup)

African Cumulonimbus Supercell Render



Luc Bianco Style Clouds 2024 by Dirk Kipper

A first wild perspective give's you a glimpse, what you can create using Terragens Cloud Layer v2. Here comes an aircraft styled view down to the south pacific sea from more than 30,000 feet. It's just wow!



Cumulus Trench 2024 by Dirk Kipper

African Cumulonimbus Supercell Render

Not bad at all, but there's more to come...

In my next example, I combined two Cloud Layer v2 to add some mist on a lake.



Plains and Mountains 2024 by Dirk Kipper



Plains and Mountains with an added subtle first Cloud Layer v2



Plains and Mountains with a second denser Cloud Layer v2 to add more fog

African Cumulonimbus Supercell Render



Plains and Mountains 2024 with some morning fog

After experimenting with Terragens Cloud Layer v2, the Cloud Layer v3 is next...

To try out all possibilities with the Cloud Layer v3 parameters, I used a neutral scene and tried to find an interesting cloud shape first. This is what I got as a starter.



Cloud Layer v3 1.0 starter scene out of the box (no parameters set)

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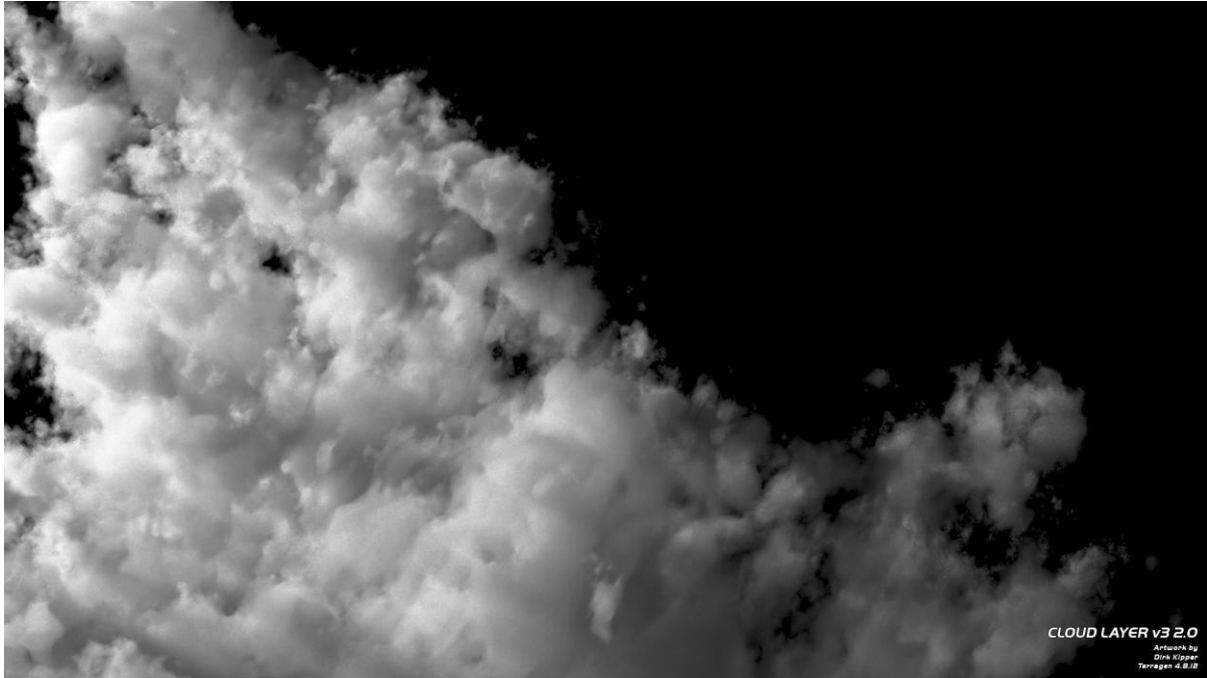
The same Cloud Layer v3 2.0 with smoother edges and much better shadowing

To receive such pleasant results, it is necessary to use the Layer Manager and combine the most important cloud layers in Photoshop for a proper fine-tuning. There are three: „tgCloudDirect“, „tgCloudInDirect“ and „tgCloudAlpha“. All three single layers, combined in the right way, will produce great results like this.



Cloud Layer v3 2.0 with optimized parameters, rendered against a black background

African Cumulonimbus Supercell Render



Cloud Layer v3 2.0 with optimized parameters in original resolution

For all those of you, who want to get some nice cloud layer 2.0 and 3.0 source files (for further examination), I can recommend to search for the following .tgd scenes and .tgc clips. You find it in the file section at the Planetside forum. This helps a lot!

Cloud Layer 2.0

WarpCloudFormExamples.tgd (by WAS)
Cloud Test 5.tgd (by Blonderator)
helpmetobetterthis.tgc (by Ariel DK)

Cloud Layer 3.0

Easy Cloud Peaks by WASasquatch.tgc (by WAS)
AnvilCloudv3.tgd_02.tgd (by eapilot)

Believe me, I examined many files, but these are the ones you really have to look for, beside Luc's famous Cloud Layer 2 file (luc_clouds_v2.tgd by Luc) which I already mentioned it in the beginning. There are other useful .tgd's out there, but the listed ones are the most important files and clips regarding Cloud Layer 2 and 3.

African Cumulonimbus Supercell Render

After finding the most convincing settings for the intended outcome and for a pleasant viewing result, I designed another neutral scene to start generating simple, but good-looking cloud banks. First some with Cloud Layer v3 clouds, then some with Easy clouds and finally all brought together to shape a cumulonimbus supercell. Yes, you can create a Cumulonimbus Cloud with only one easy cloud, but combining several cloud layers give you more control and will bring in more details.

To make comparisons very easy, I always tend to use the given standard lightning situation in Terragen. I don't like to change the light in the beginning. The same is valid for the atmosphere. The standard atmosphere is quite simple, but useful in the beginning. My way here is to use a more pimped one with higher contrast.

To get a prominent sky view, I mostly tilt the camera 12.5° downwards and use a flat ground. To make it clean and technical, I use an ambient occlusion shader (a simple white shader) for the ground. This way, you pay much more attention to tiny and small details in the sky (while fiddling around with the parameters). But to test my file in a more realistic and natural environment, I use a simple ground shader. Rock, sand or grass to add some details, but not to much, to keep on focussing the sky!

A very clever idea is to activate „Do crop region“ in the Crop Pannel to adjust your parameters and notice more quickly the differences, instead of rendering each time another full frame. I often use 200%-400 magnification, while rendering only the small region of interest at the moment.

I save the current scene and the rendered image as ZULU 1. Then I make my adjustment and save it again as ZULU 2. If you use ALPHA as name, your file will be in the beginning of your directory file list, while ZULU will list it at the end. When you display your image in the explorer, you can use your arrow tab to switch quickly between both images and see the difference between ZULU A and ZULU B.

If I have found perfect parameters or wanna keep an information, I take a screenshot or make a simple .txt text file and save it always with capital letters, followed by the information attached. This way, you notice your information at first glance in your file folder.

I use always the same names in capital letters.
Then I add the information, which I want to keep in mind.
Believe me, it make life more easy !

INFO
SCREENSHOT
REFERENCE
WIKIPEDIA

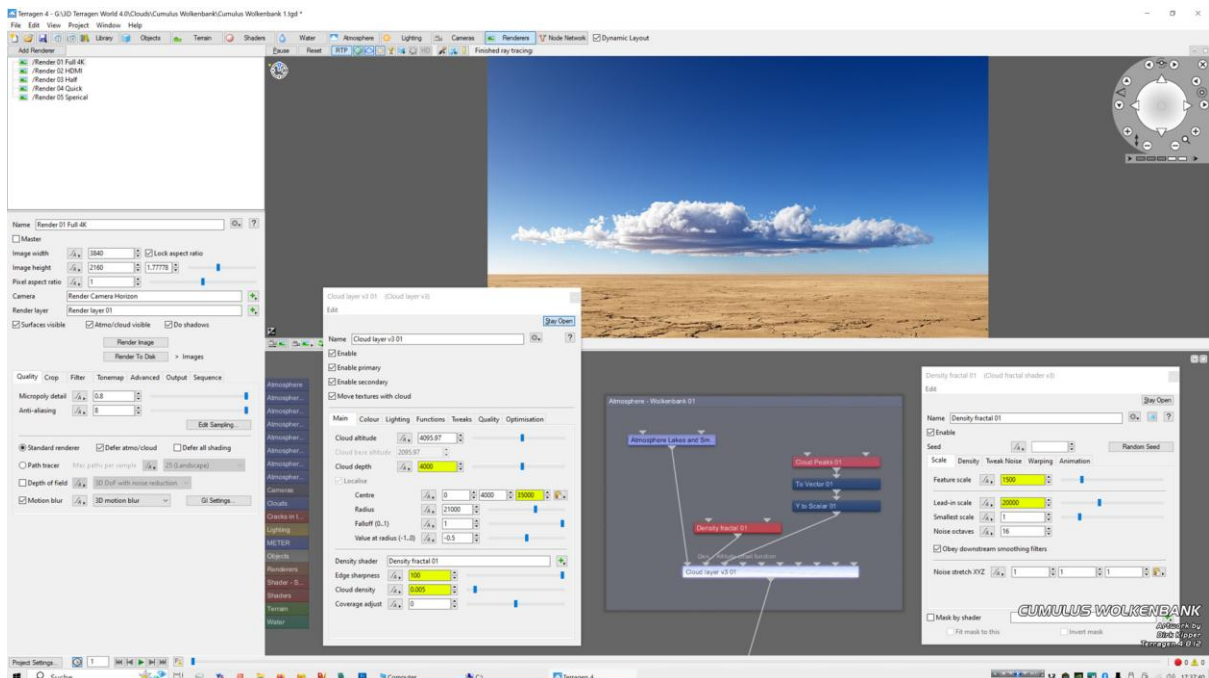
INFO – Cloud colour lighten or darken the cloud, cloud colour should be +/- 100%
SCREENSHOT – Most important cloud setting for a good start, see main tab window
REFERENCE – Cumulonimbus Cloud over Africa
WIKIPEDIA – Cloud types

African Cumulonimbus Supercell Render

After many attempts, I found quite nice settings for a cumulus cloud bank. First I will show you the final render and second, a screenshot with the most important settings. These are yellow marked. This will give you a better start if you will create your own.



Cumulus clouds (Cloud layer v3) by Dirk Kipper



Cumulus clouds (Cloud layer v3) by Dirk Kipper

African Cumulonimbus Supercell Render

The second rendering is one with nearly the same settings. The results looking good, clouds are now a little bit softer and have decreased details. The third render was my attempt to render an identical cloud bank with an Easy cloud layer.



Cumulus clouds (Cloud layer v3) by Dirk Kipper

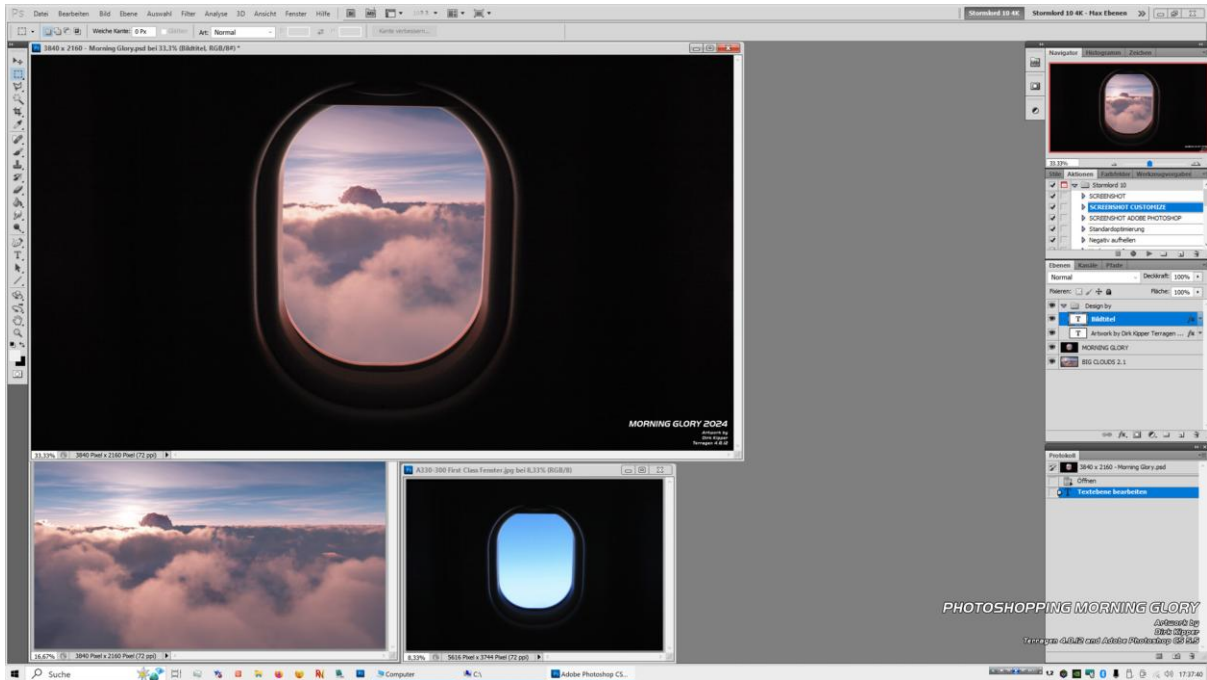


Cumulus clouds (Easy clouds) by Dirk Kipper

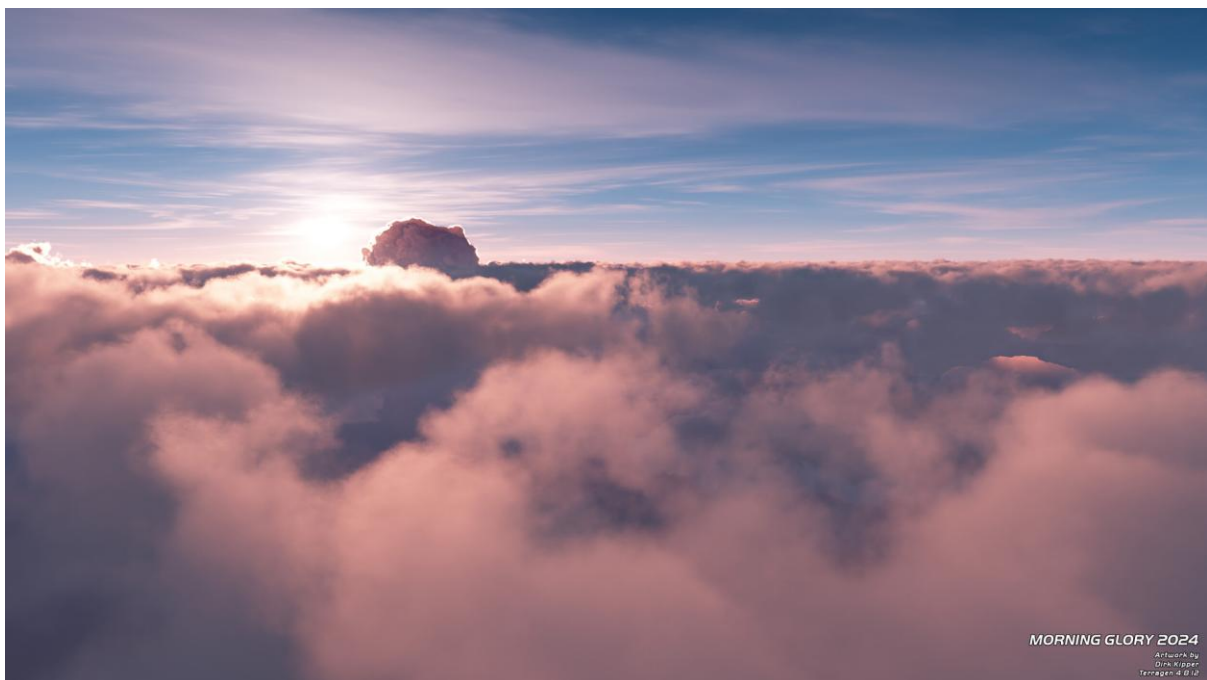
African Cumulonimbus Supercell Render

The difference between both types is, that you can plug in a density shader into the Cloud layer v3 density shader slot. You don't have this option with Easy clouds. Nevertheless you can achieve very realistic and pleasant looking results.

Equipped with good starter scenes and a little bit more experience, I played with an Easy cloud layer in combination with two Cloud layers v2. I rendered an out of the aircraft window view. The sea of clouds was then retouched into a real photo.



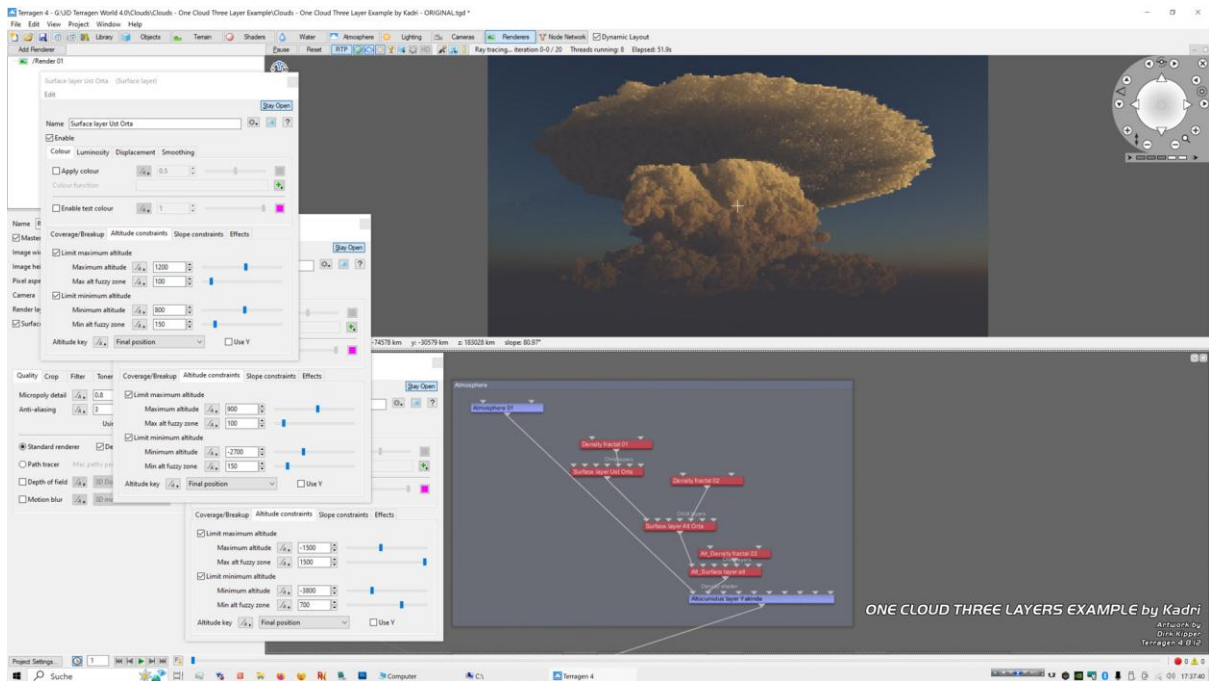
Photoshopping „Morning Glory“



Morning Glory 2024 by Dirk Kipper

African Cumulonimbus Supercell Render

The next step is to build a nice cumulonimbus cloud tower. Kadri has shown an elegant basic method to get three layers with only one cloud layer. Basically, he uses three surface layers with Altitude constraints stacked in the Density shader slot.



One Cloud Three Layer Example by Kadri

In the cloud library, you can find his original example.
„One cloud 3 layers basic example_Kadri.tgd“

<https://planetside.co.uk/forums/index.php/topic,3691.msg299874.html#msg299874>

African Cumulonimbus Supercell Render

Using this method, I designed a nice atomic cloud just for fun, which can be seen in the next image. I also designed a first cumulonimbus in a neutral scene. Both were designed with a single Cloud layer v2 after the „One Cloud Three Layer“ method.



Atomic cloud by Dirk Kipper
(One Cloud Three Layer with Cloud Layer v2)



First cumulonimbus cloud test by Dirk Kipper
(One Cloud Three Layer with Cloud Layer v2)

African Cumulonimbus Supercell Render

But because I like to have more control, I decided to build up another cumulonimbus by mixing Cloud layer v3 and an Easy cloud layer. I think this way, I can gain more overall control and bring in more fine and subtle details.



Cumulonimbus supercell by Dirk Kipper
(Three Cloud Layer v3 and one Easy cloud on top)

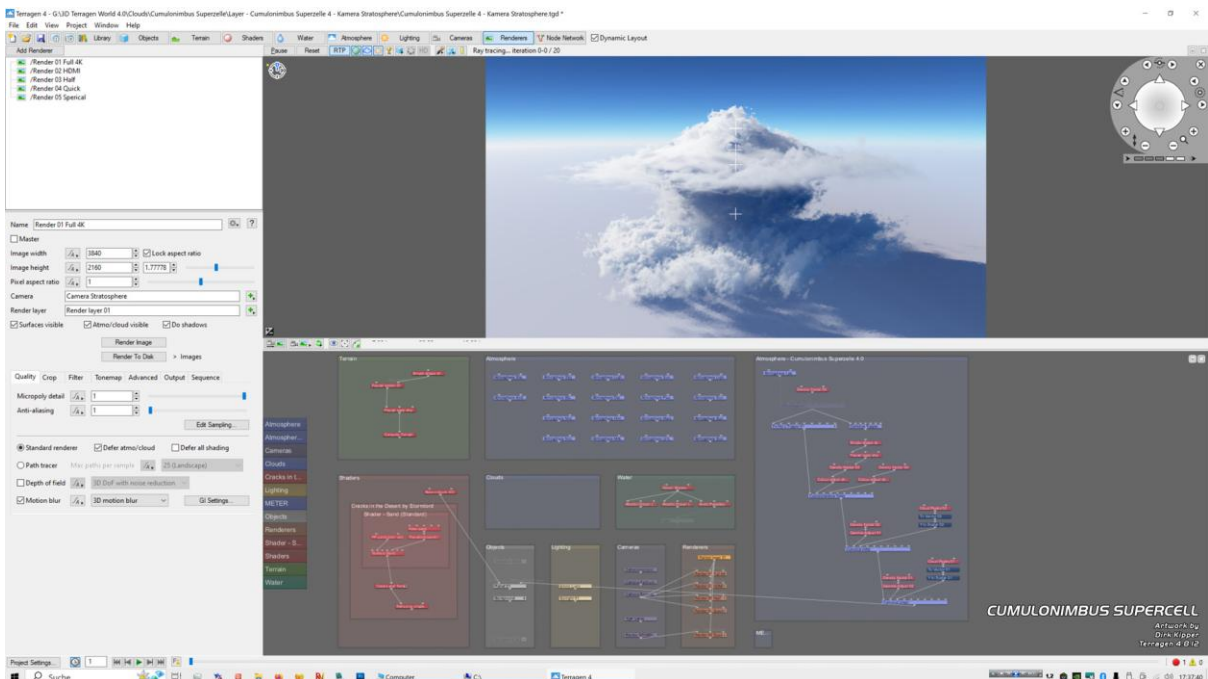


Cumulonimbus supercell rendered in a neutral environment by Dirk Kipper

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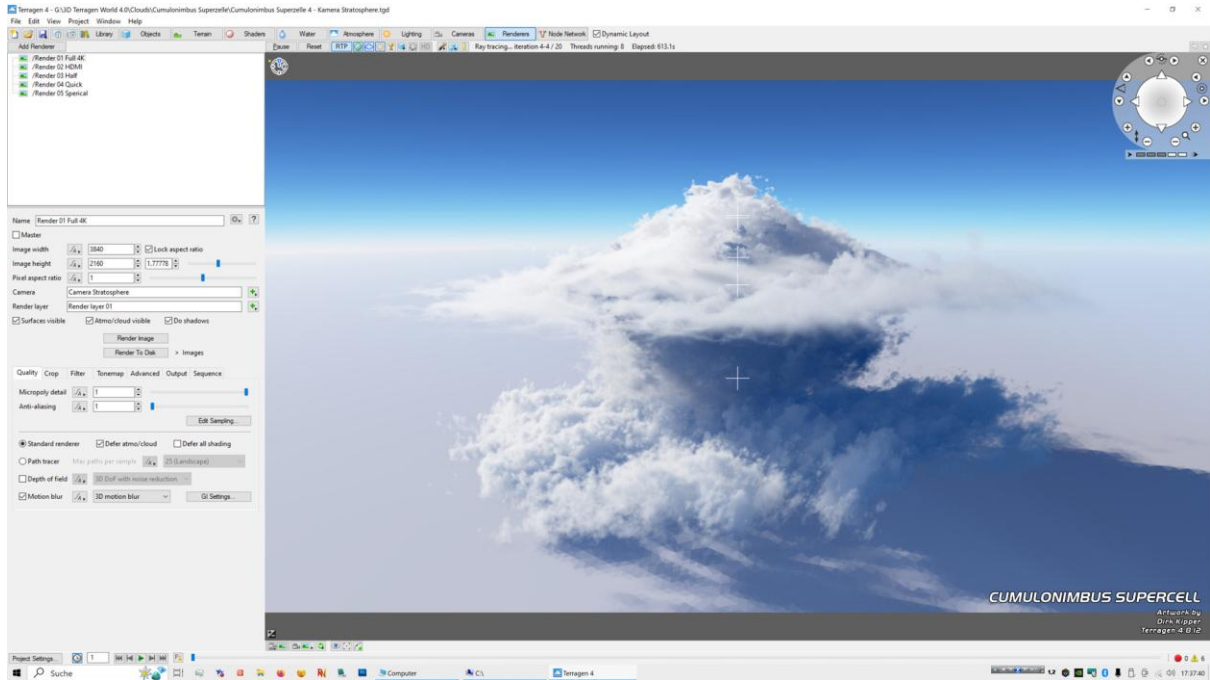
Cumulonimbus supercell rendered against a black background by Dirk Kipper



Cumulonimbus supercell by Dirk Kipper
Four Cloud layers v3 stacked up step by step

Adjusting some parameters brings in a much more dramatic shape on top. So this Cumulonimbus cloud tower looks very cool now, and it fits my high expectations!

African Cumulonimbus Supercell Render



Cumulonimbus supercell by Dirk Kipper
(Screenshot in Terragen)



Cumulonimbus supercell by Dirk Kipper

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Cumulonimbus supercell „Point of View“ renderings by Dirk Kipper



Cumulonimbus supercell rendered against a black background by Dirk Kipper

The rendering against a neutral black background shows all the details in splendor.
This baby looks really nasty!

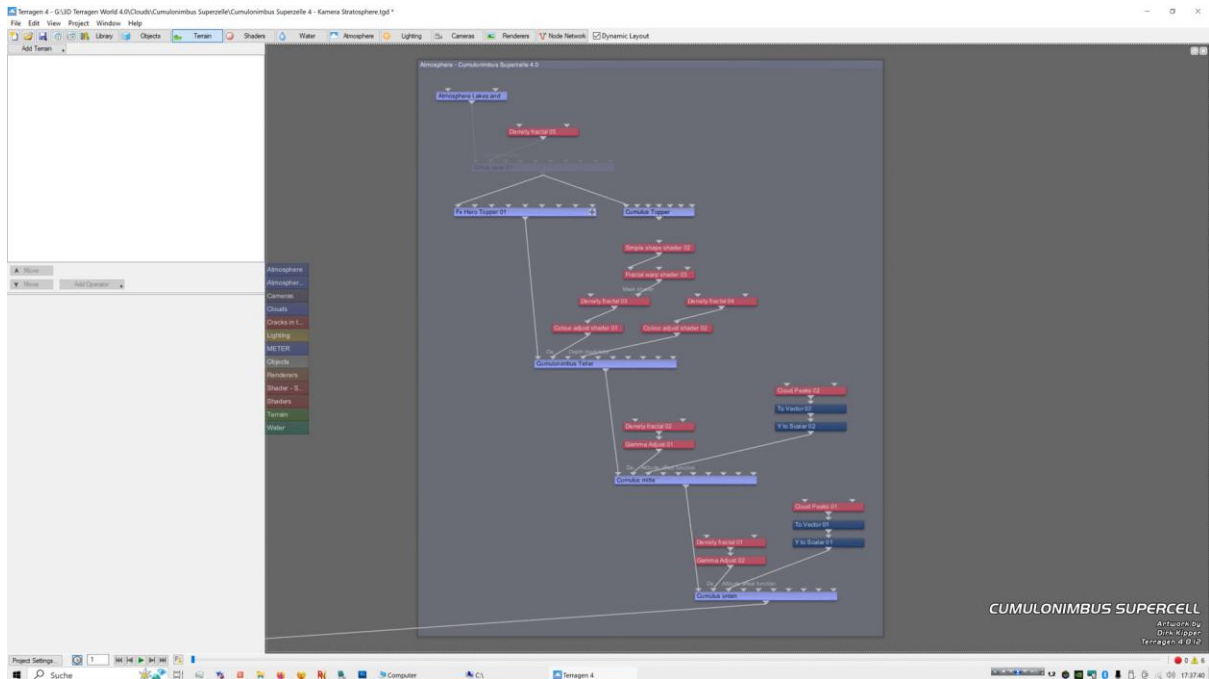
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Cumulonimbus Supercell 2024 by Dirk Kipper

**What a view!
Awesome !!!**

African Cumulonimbus Supercell Render



Cumulonimbus supercell by Dirk Kipper
Shader Tree Design

Please allow me to present you here the basic setup for this really nasty shaped Cumulonimbus supercell. You see four Cloud layers v3, which are stacked up. If you intend to design your own cumulonimbus cloud tower following this design, I would recommend doing it carefully step by step. Start with a base and try to find good parameters for this single Cloud Layer. Then go on with the second to build up your Cumulonimbus cloud tower.

If you have designed a good-looking Cumulonimbus supercell, you are ready to mix it into your scene. And that's exactly what I am going to do.

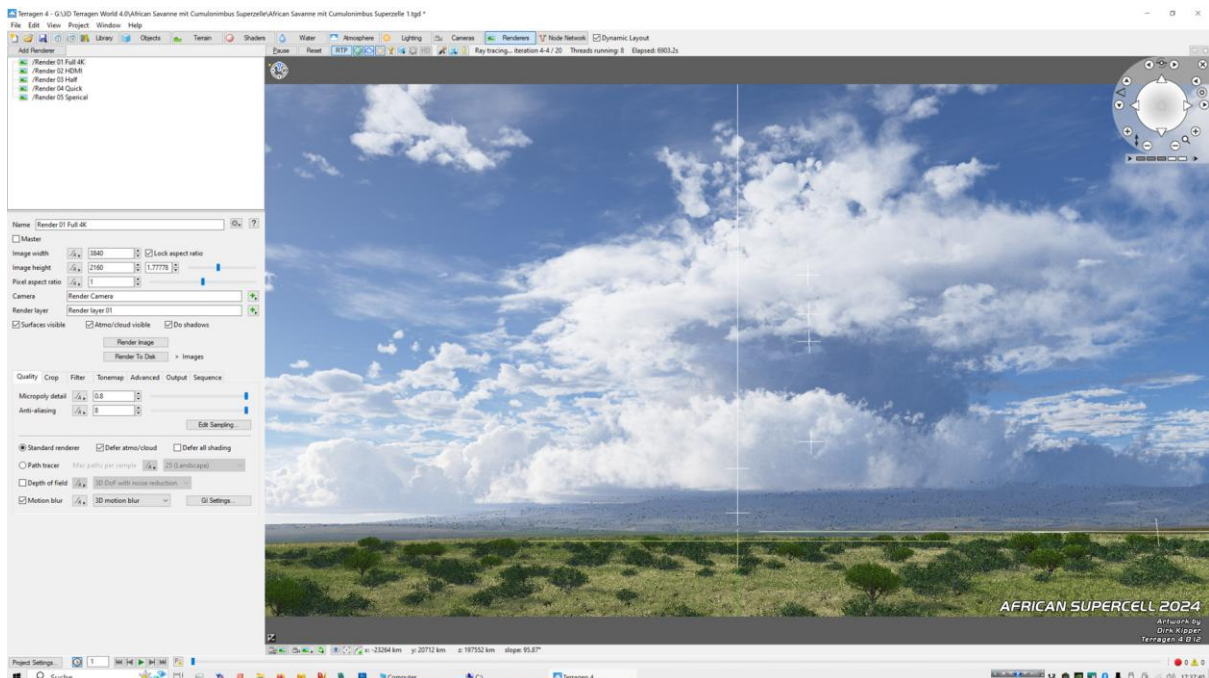
Now I have two gorgeous Cumulonimbus cloud towers to start with. Depending on the Viewpoint, each one has its own advantages. For shots from the ground I can use supercell design one, for more high altitude renderings I would prefer my second, the nasty supercell. But that's optional. With the rich experience gained, I am ready to design very quickly other good-looking supercells in the future. But as I said in the beginning, you have to start somewhere...

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Getting ready for a cumulonimbus scene, I imported my clouds into a simple standard scene to get a first impression of the later outcome. It looks really amazing! In an environment with a flat plane, this should be even better! So an African savanna came to my mind and I platted as a second step my clouds in a new scene.



Cumulonimbus 2024 by Dirk Kipper



African Supercell 2024 by Dirk Kipper
(Terragen Viewport)

African Cumulonimbus Supercell Render



African Supercell 2024 by Dirk Kipper



Cumulonimbus with rhino by Dirk Kipper

African Cumulonimbus Supercell Render

Resources:

Author: Dirk Kipper

www.dirkkipper.de

http://www.dirkkipper.de/Galerie_Terragen/Terragen_02/index.php