

<http://www.daz3d.com/forums/discussion/67986/tutorial-bryce-instancing-without-the-instancing-lab>

Fencepost52, 23. December 2015.

**Note:** Use the zoom option in your PDF viewer to enlarge the pictures if desired.

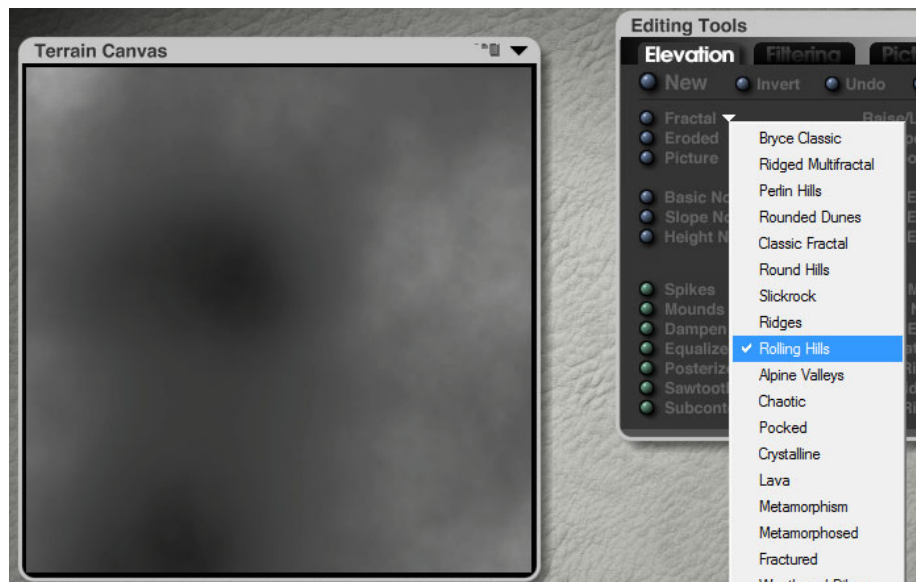
## Tutorial: Bryce Instancing Without the Instancing Lab

The Bryce Instancing Lab is a great tool and really helpful when wanting to place large amounts of geometry within a scene, but has a few quirks that often make it unstable; I've had a number of Bryce scenes crash during the instancing process. So, I began looking for ways to accomplish the same thing, but without the Instancing Lab ... a manual instancing of sorts. My search led me to a technique that allows you to instance exactly where you need, at the appropriate scale, and most importantly, without crashes. After several requests, I decided to prepare this tutorial to help others. The process isn't difficult at all, but can be somewhat time consuming. All materials and terrain objects come with Bryce, so nothing special is required. I've included pictures and descriptions so that even a relative Bryce newbie can experiment.

I hope this tutorial is beneficial to you. Lets' begin!

### Step 1

Create a new terrain.



### Step 2

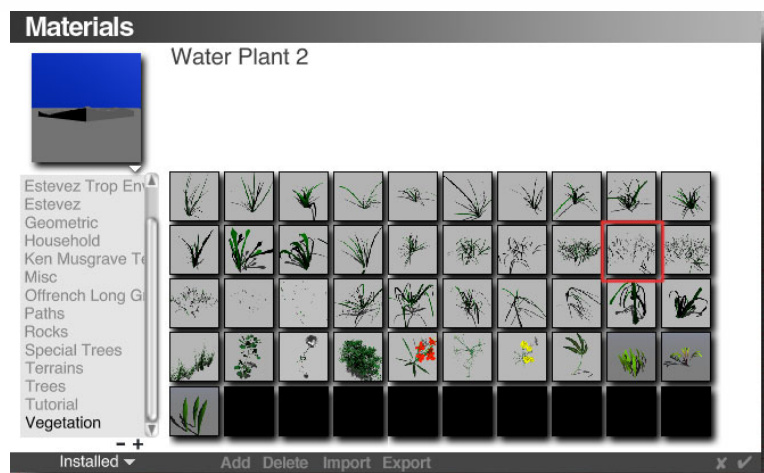
In the Terrain Editor, create a fairly level landscape. I used *Rolling Hills* as shown at right, but

you use whatever you wish. The reason that I suggest a landscape that's somewhat level is that it's easier to learn the techniques until you're familiar enough to use complex terrains. Once you've got a good terrain, scale it and position it as desired.

### Step 3

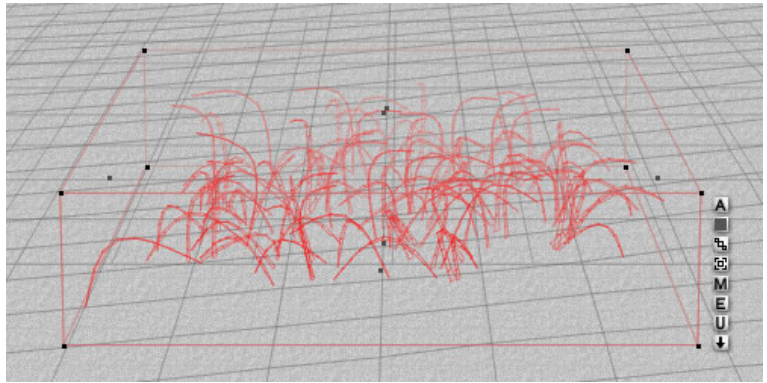
Add some vegetation. Click the little arrow by Create and in the dialog that opens, scroll down to Vegetation and select on that looks good to you.

I'm using *Grass 19*.



### Step 4

It's important that the scale of the grass match your scene. There are no hard and fast rules, but for this tutorial, I scaled the grass to look like so, using the following settings (Object Attributes below at right).



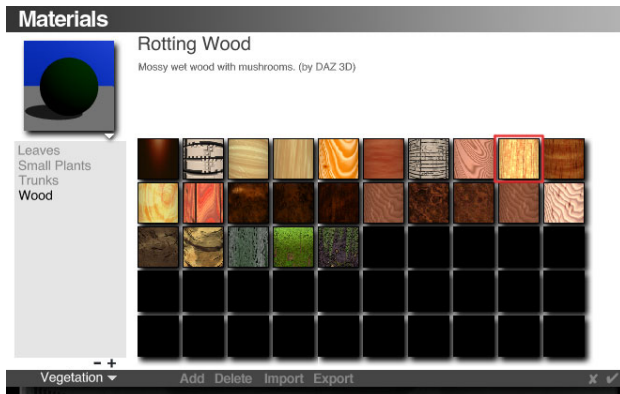
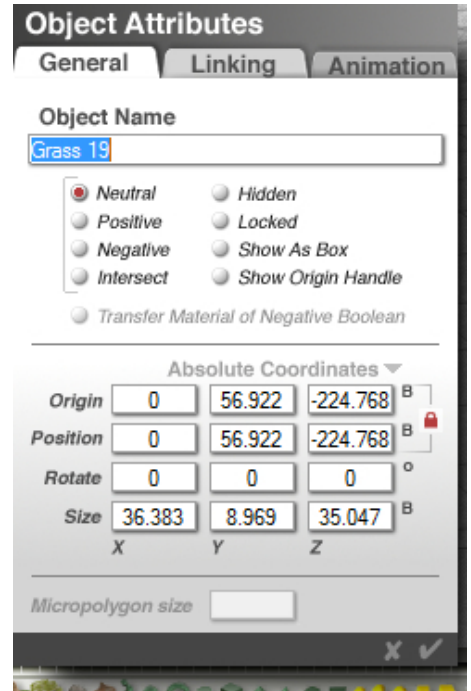
### Step 5

In order for Bryce to instance an object, it must be ungrouped. If your model isn't grouped, you're all set; however, in this case, *Grass 19*, is a grouped object and must be ungrouped. Click on the little "U" as shown to ungroup the model (shown at left).



### Step 6

Let's add a material to our grass. My first grass will be dead. In nature, not everything we see is living. On the Create shelf, click the little arrow next to the Edit menu, in the dialog that appears go to *Vegetation > Wood > Maple Wood* (below left). I don't want ambience in the material and I want the scale (frequency) to be higher and I set the settings like so (below right).

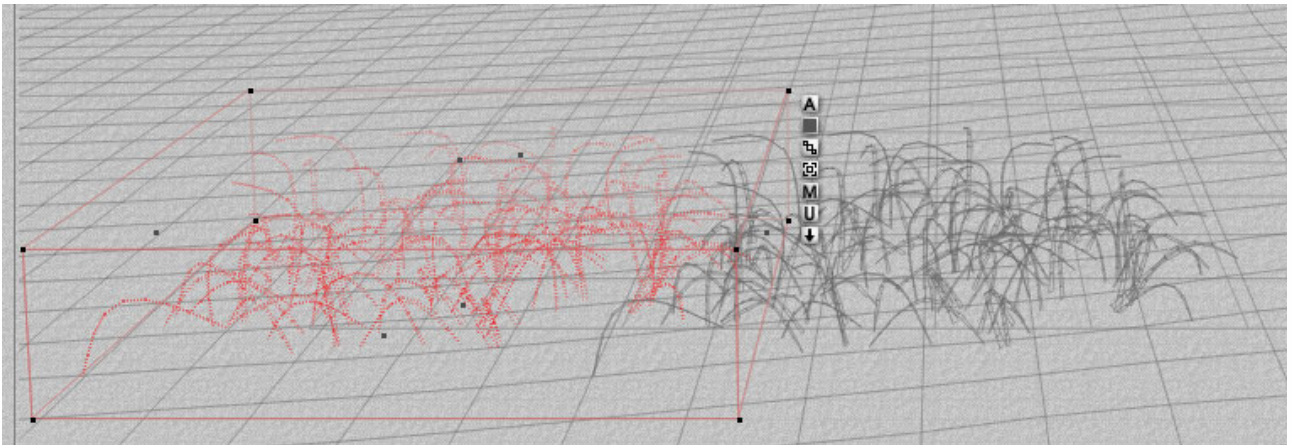
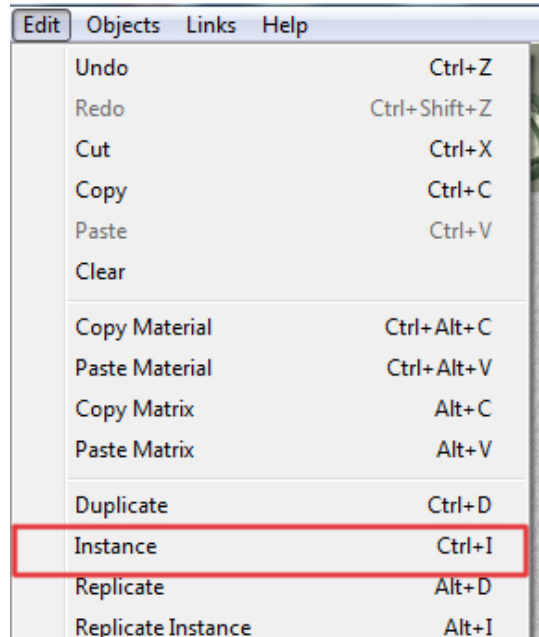


### Step 7

The next step is to create an instance. Go to Edit > Instance (see at right).

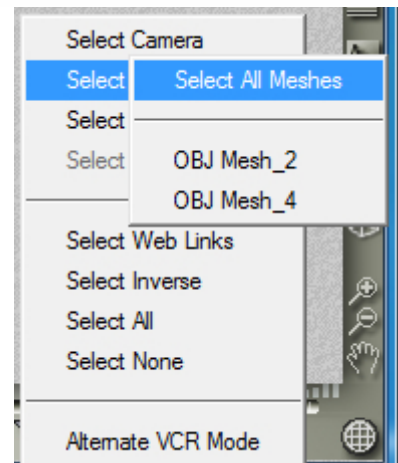
### Step 8

Group the instances and move them away from the originals.



### Step 9

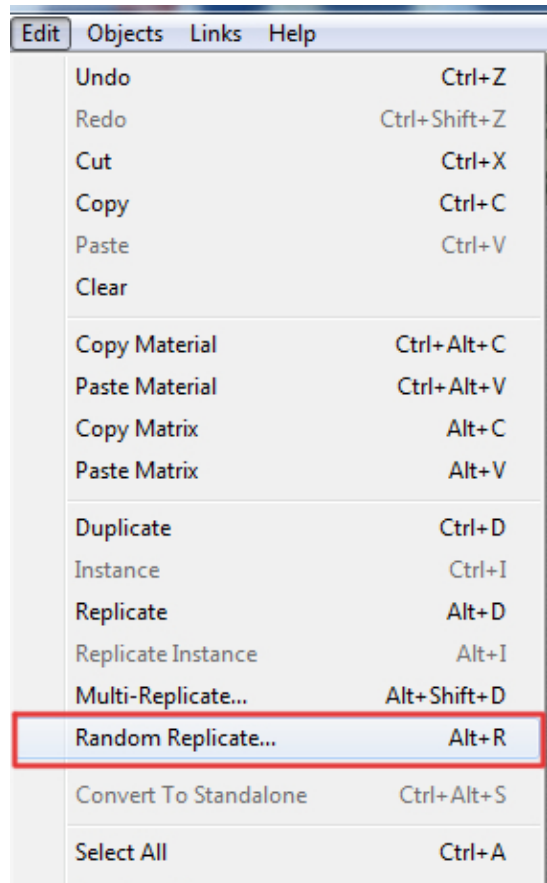
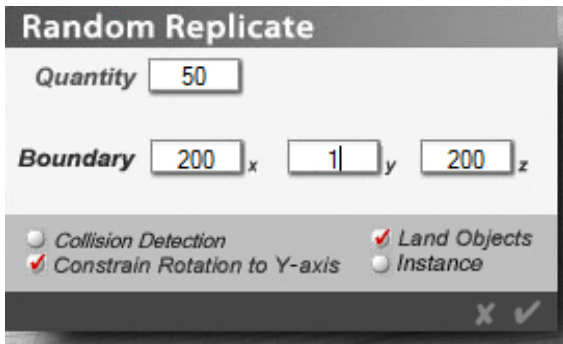
I don't like to use the original meshes anymore, but I do keep them in the scene out of the way. Select the original grass meshes, in this case there are 2 meshes, group them and move them out of view of the camera.



### Step 10

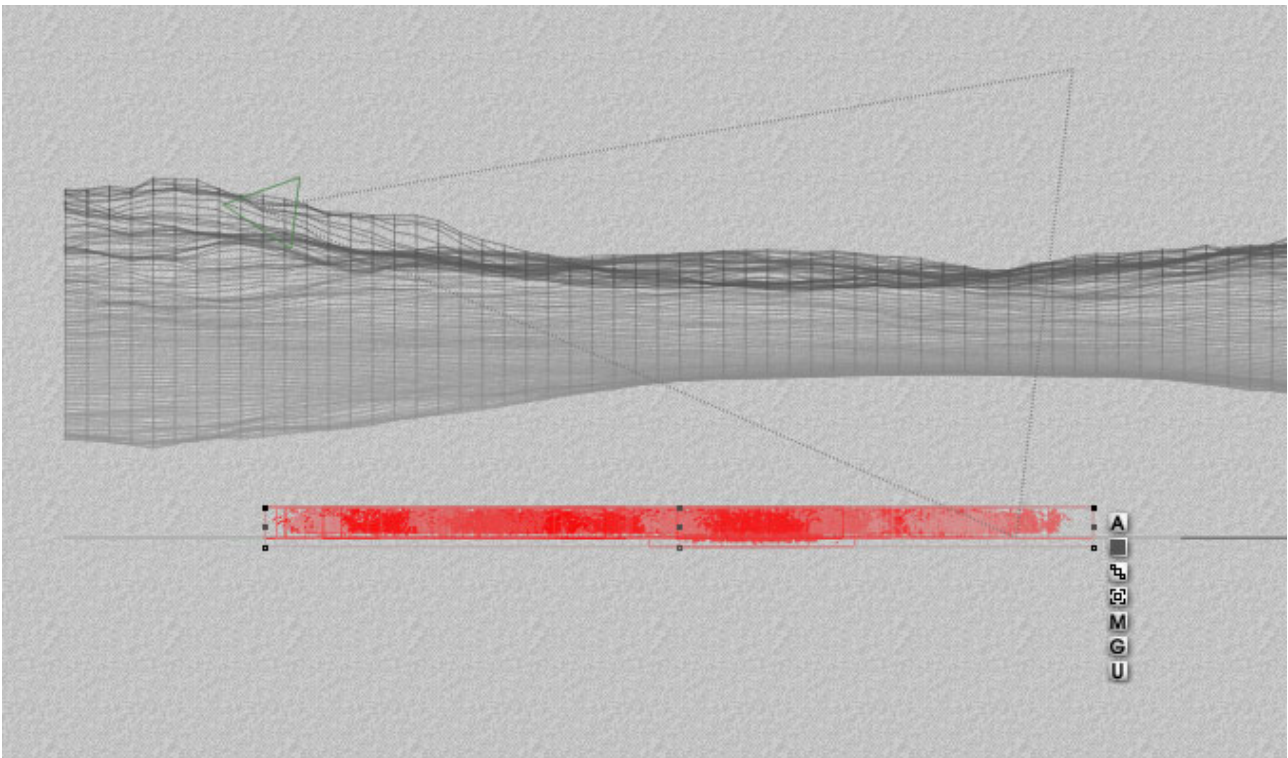
Now let's make some magic. Go to the Edit Menu and choose Random Replicate. This will allow us to instance a specific number within a specified boundary (see at right).

Below are the settings I used. Notice that I didn't check the "Instance" option. We already created an instance, now we're just making bunches of them. By selecting the "Land Objects" option, all of our instances will be placed on the ground (with the exception of the original). After the instances are made, I select the original instance and move it to the ground with the rest of them.

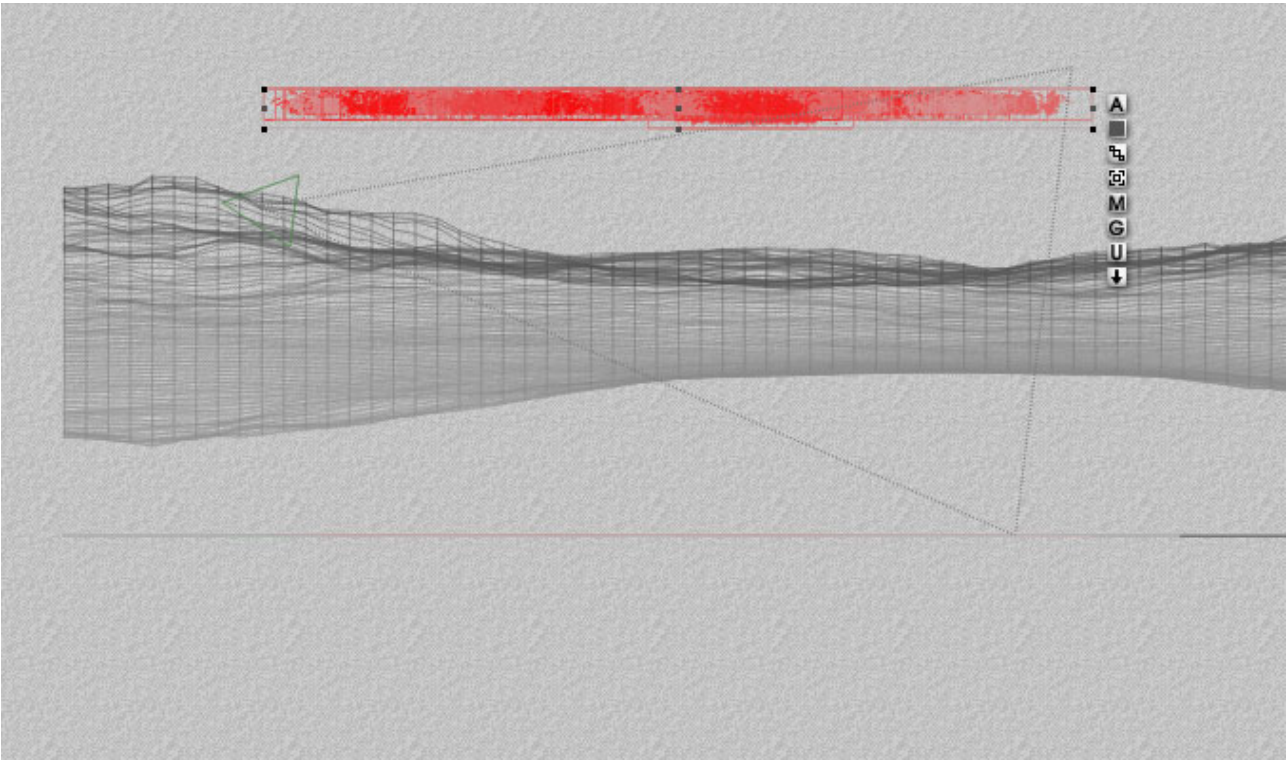


### Step 11

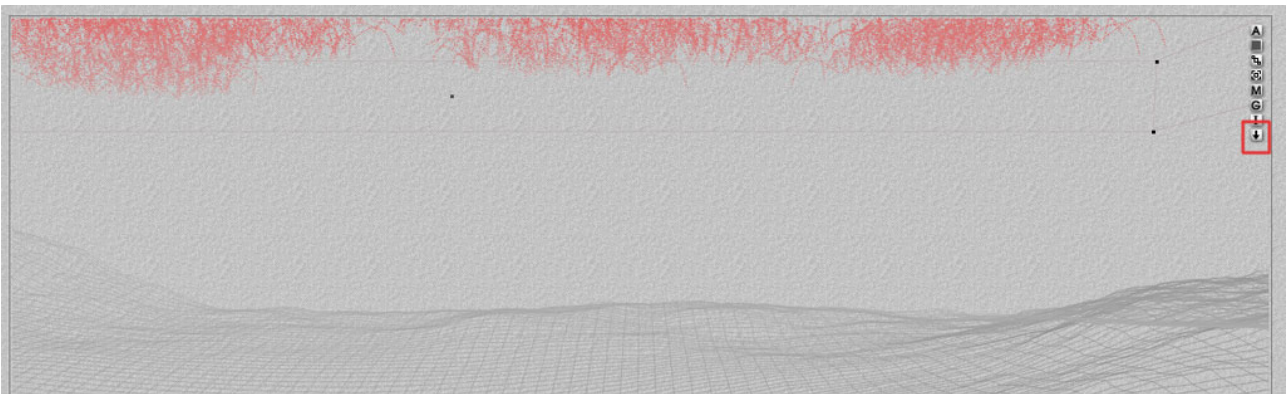
In the side view (keyboard shortcut 3), I select all of the instances (make sure they're ungrouped, which is vital for placement of the objects on the terrain.).



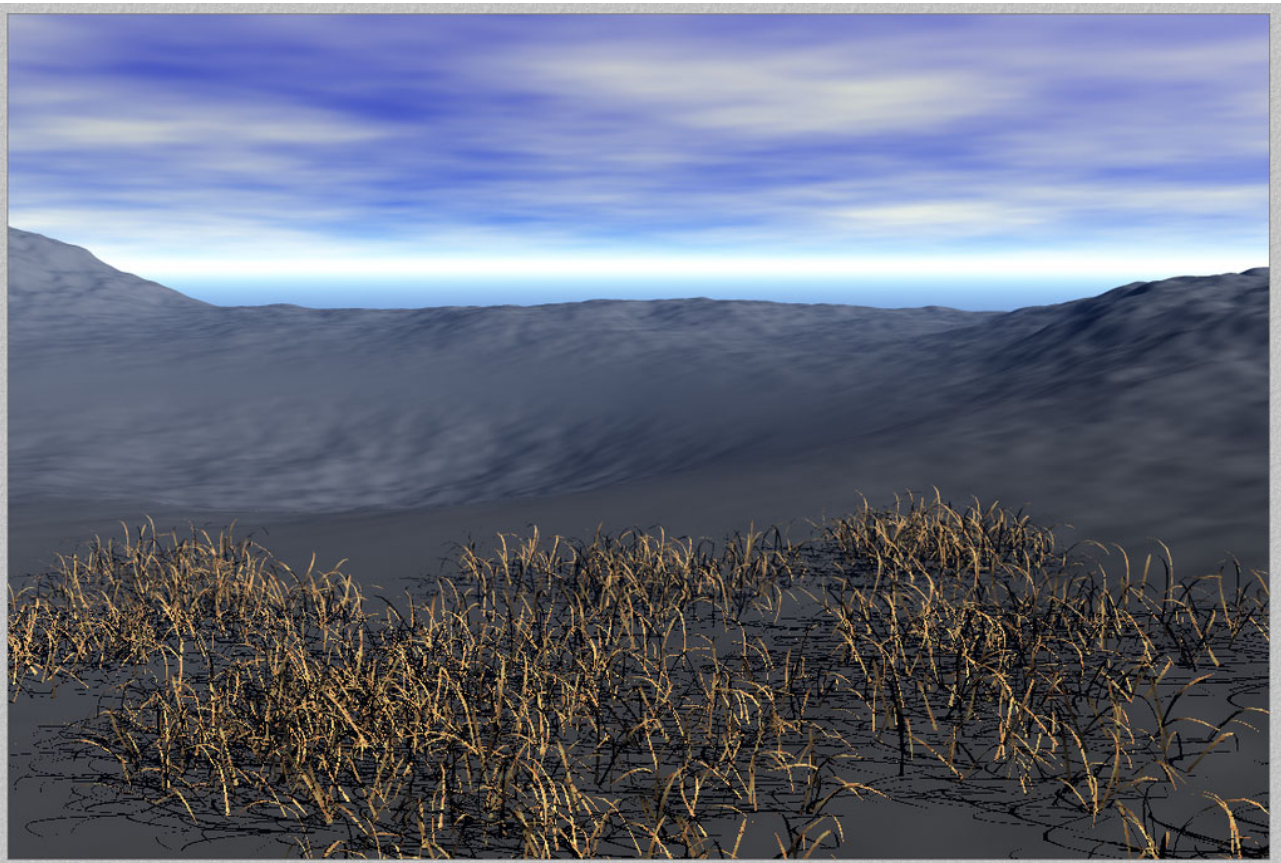
Move the selected instances above the terrain (see below).



Go back to your original camera view and move the grass cluster horizontally as desired. Click on the little arrow next to the grass cluster to place on the terrain. Once placed, you'll need to lower the objects slightly so they're within the terrain because Bryce will place them based on their bounding box, not the actual geometry. **Make sure after the grass is in place you group it. If you don't do this, you'll have a hard time selecting all of the grass if you need to make changes.**



This image has been resized to fit in the page. Use the zoom option in your PDF viewer.  
Below is a quick render.



### Step 12

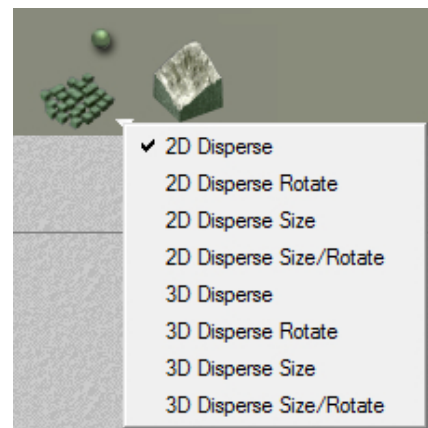
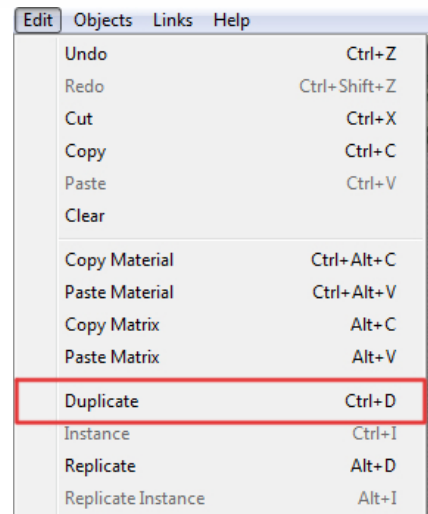
Let's make some more grass. I'm going to reuse the same cluster that I just created, but will modify the material. Select the instanced cluster and go to Edit > Duplicate.

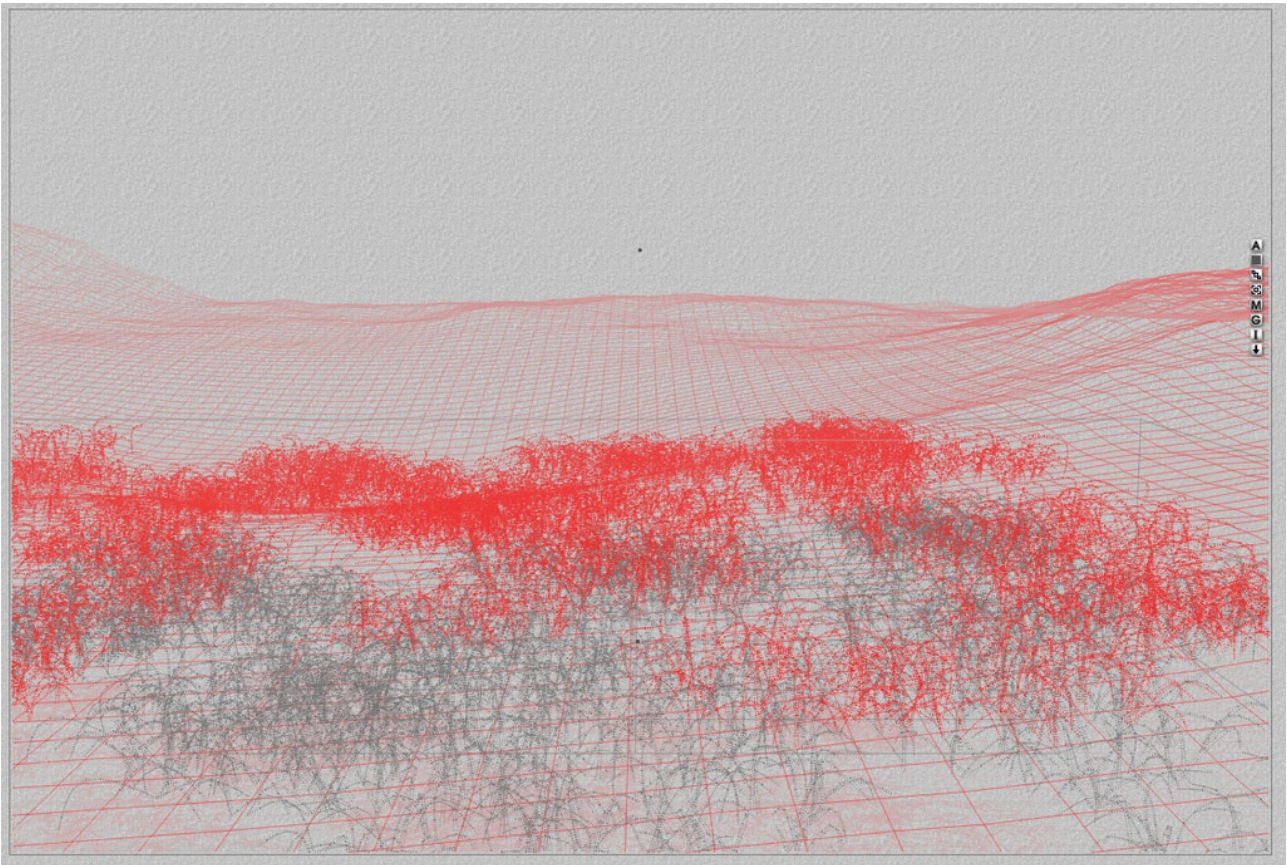
Here you can change the material (I used a green one from the Vegetation Material section), move the instances around using the 2D Disperse tool (See picture at lower right. Make sure to ungroup before using), scale, etc.

### Step 13

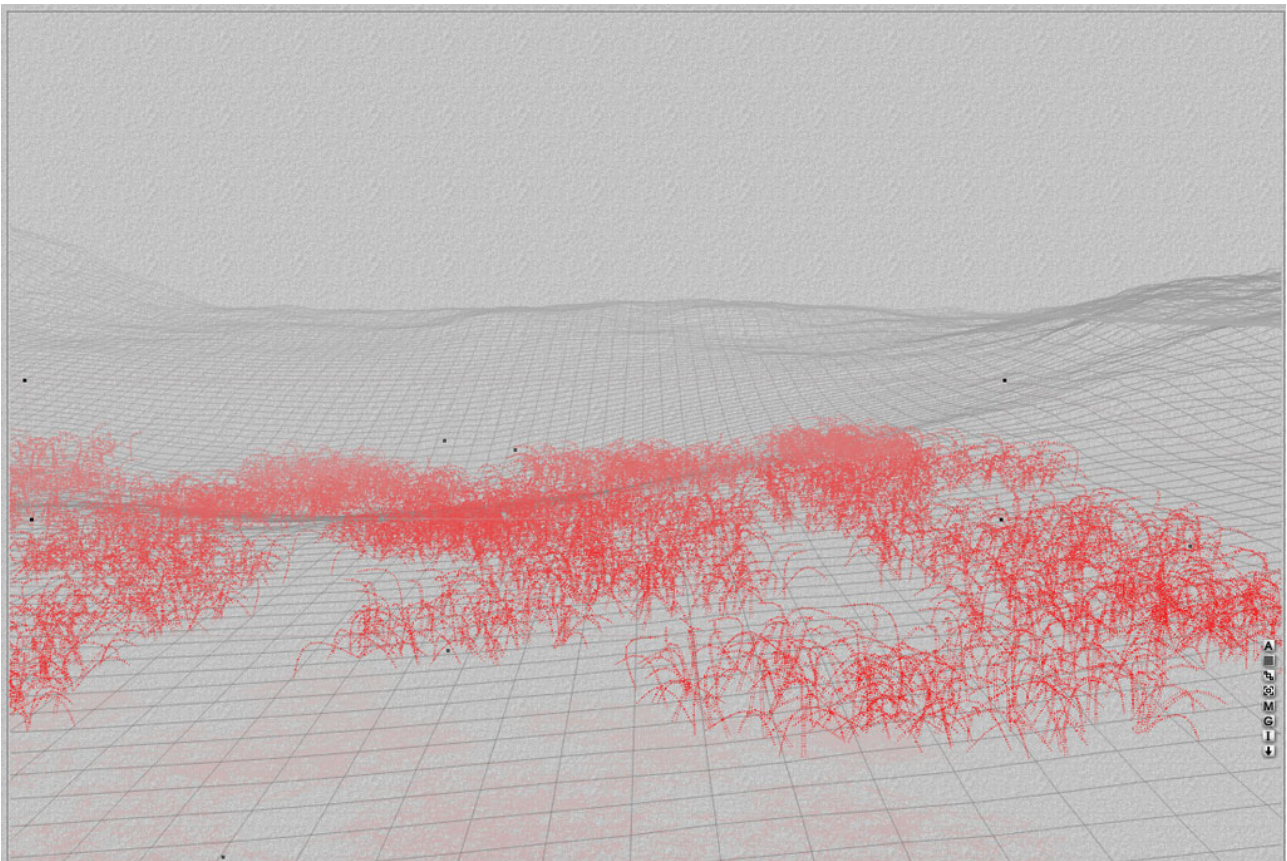
Once you have it the way you want, we need to place it on the terrain because if you moved it around it might not look right. There is a catch, however. If I were to tell you to just redo the placement steps above, the original grass instances would create a "barrier" when Bryce tries to put the grass on the terrain, making some of the grass objects floating. But, there is a way around it and I'll show you how ... I won't leaving you hanging <<< See what I did there?! 😊

Select the new instanced grass and the terrain only.



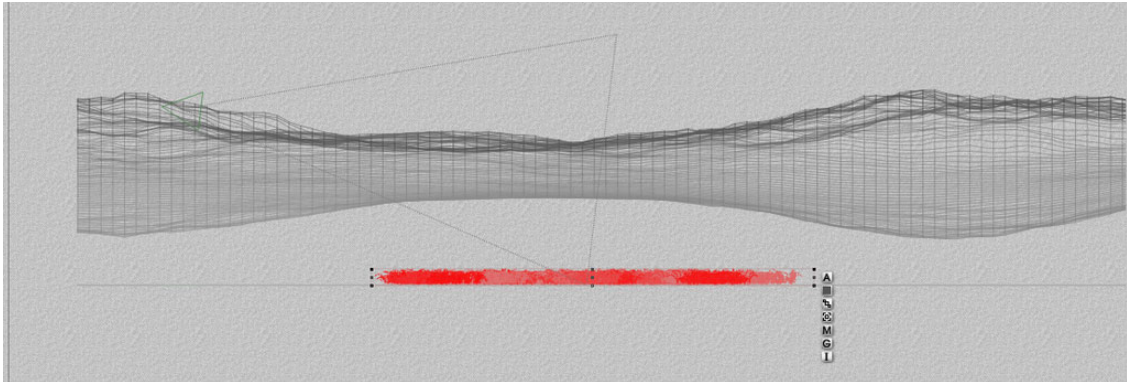


Now let's hide the original grass instances so it's no longer a barrier. To do that, select the Solo Selection On/Off tool in the bottom right-hand corner of the Bryce screen (see at right). Your original instances and everything else that was not selected is temporarily hidden from view.



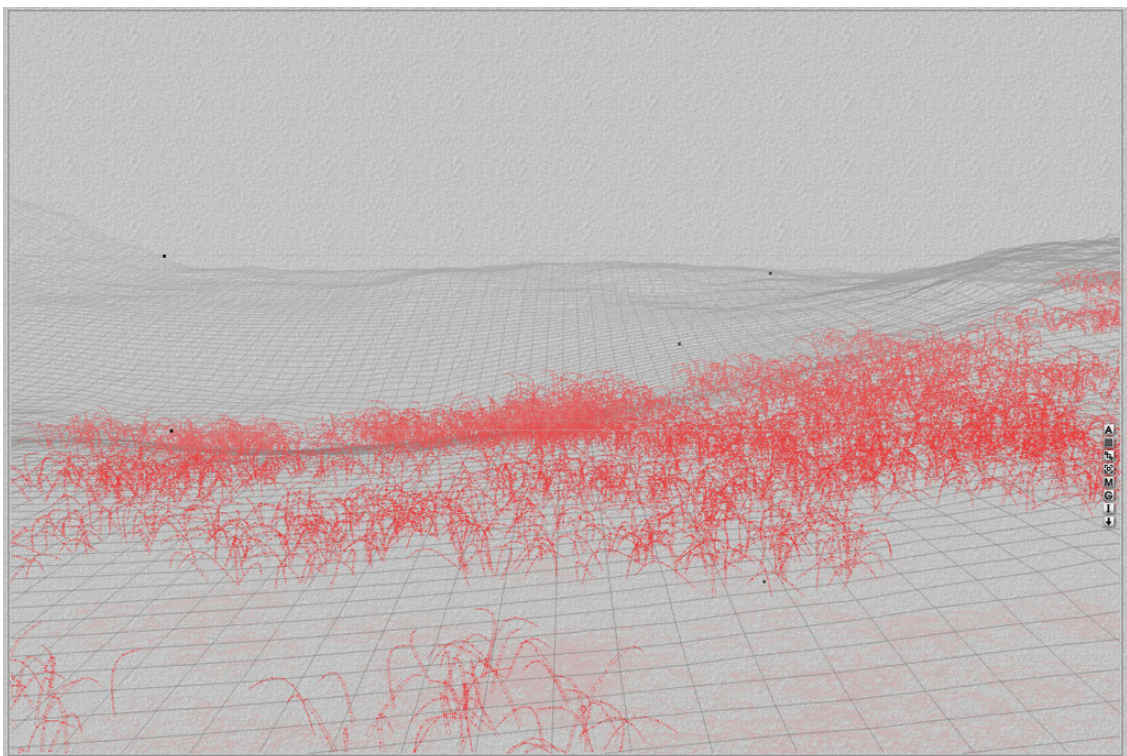
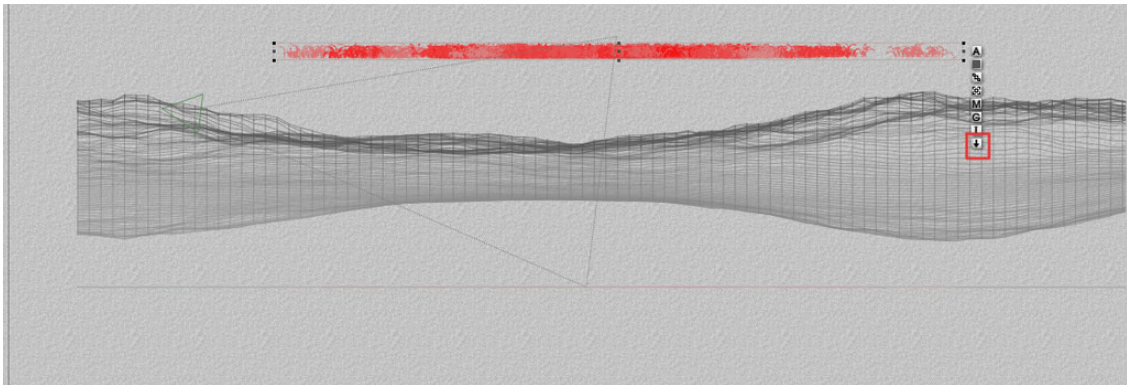
### Step 14

Deselect the terrain and only the grass instances will be selected. Click the down arrow next to the group, to drop the instances to the ground. As before, go into side view (keyboard shortcut 3)



Make sure your instances are on the ground and **ungrouped**.

Lift the instances above the terrain and click the down arrow next to the group to place them on the terrain.



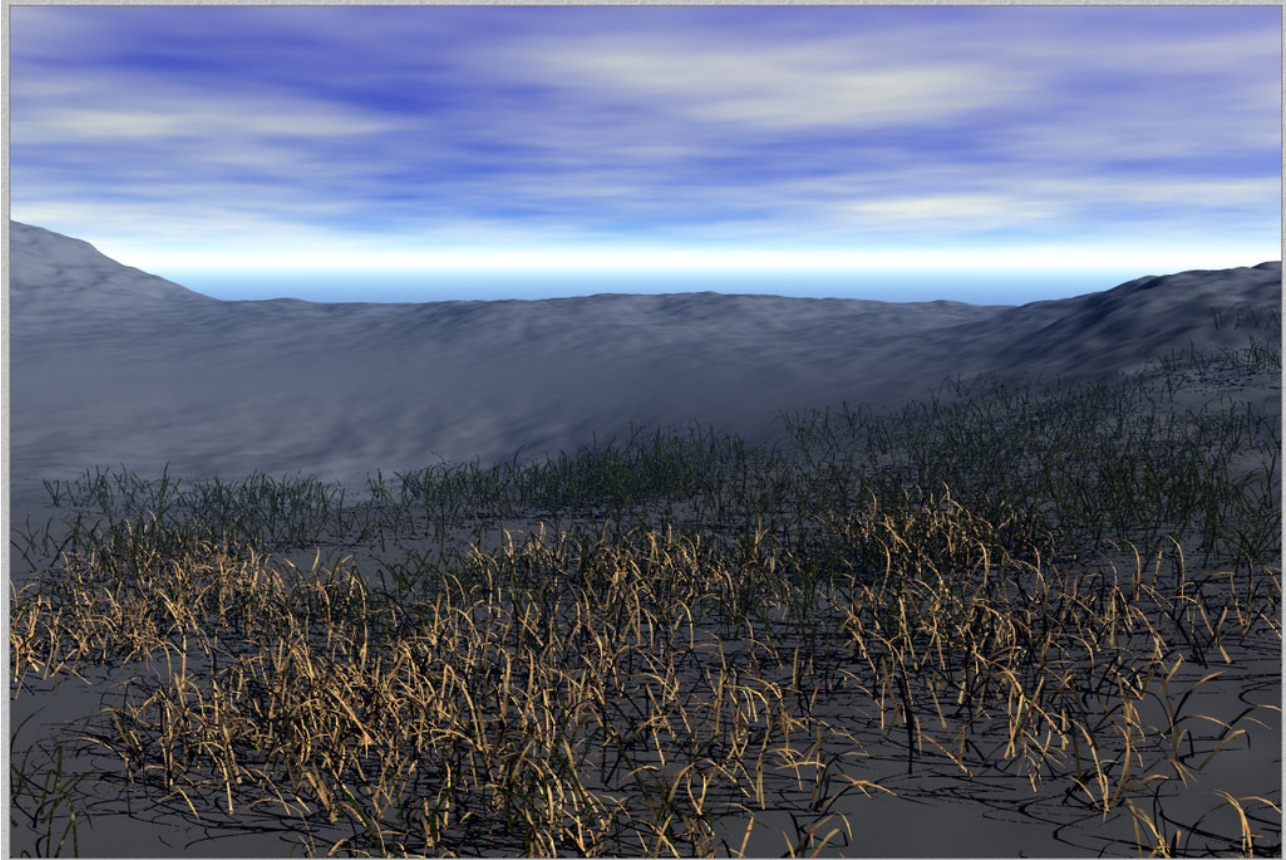
### Step 15

Now that your grass has been placed, Group it so you can easily select the group later. Next, click again on the Solo Selection On/Off button to unhide the hidden objects.



Continue doing the steps above until your landscape is populated with grass (or trees, primitives, objects, etc.)

You're finished! How did you do? Here's a final render of what I've done so far.



All images have been resized to fit in the page. Use the zoom option in your PDF viewer.

I hope the tutorial was beneficial and will help you in making more complex scenes. If I wasn't clear about something, please let me know and I'll modify the tutorial accordingly.

Cheers and Happy Bryce-ing!

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### **Tutorials to use the Instancing Lab**

How to use the Instancing Lab in Bryce 7.1 Pro — A complete tutorial by Rashad Carter

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Instancing Lab Tutorial Parts 1 to 6 Completed by Kine\_magik

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