Digital Element

Verdant™

For Adobe Photoshop

Tutorial:

Basic Tree Creation

Lights and Shadows

Working with Layers

Making Tree Groups

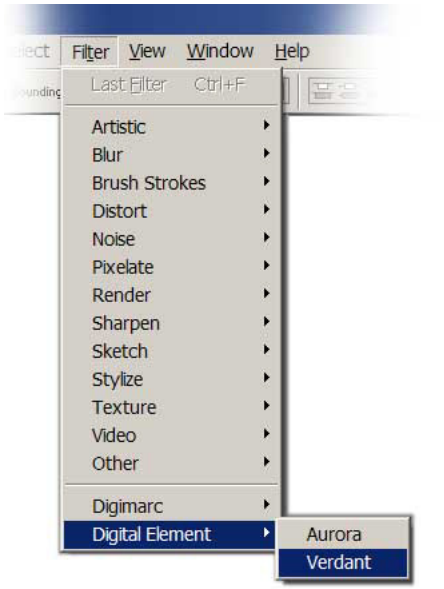
Custom Tree Group Patterns

Verdant

In this tutorial we'll explore a few methods and techniques for getting the optimum results from the Verdant plug-in for Photoshop. If you want to follow along with the sample image *Photo_01.jpg* used in the tutorial, it can be downloaded along with this .pdf document.

Here is the photographic image we'll be working with in this tutorial:

1. Let's start with the file *Photo_01.jpg*. Open it in Photoshop, and then launch the Verdant plug-in from **Filters > Digital Element > Verdant**.



2. In order to optimize our redraw speeds, let's work in **Wireframe mode** initially.

3. We're going to populate the image's open area with several new trees. Ideally, we should try to match them with one of the trees already visible in the image. Let's choose *Weeping Willow 1* or *Weeping Willow* 2 from the Presets by scrolling down and double-clicking on its image.

4. Use the Move Forward/Backward, Move Up/Down and Move Left/Right tools to position the tree. Place it in the background, not too close to the camera. Depending on the last angle used, you may also need to adjust the tree's Rotation to match the angle in the photograph.

If you need more precise control over your tree's placement and rotation parameters, you can manually enter these values by double-clicking on the numeric displays at the bottom of the Main Viewport.

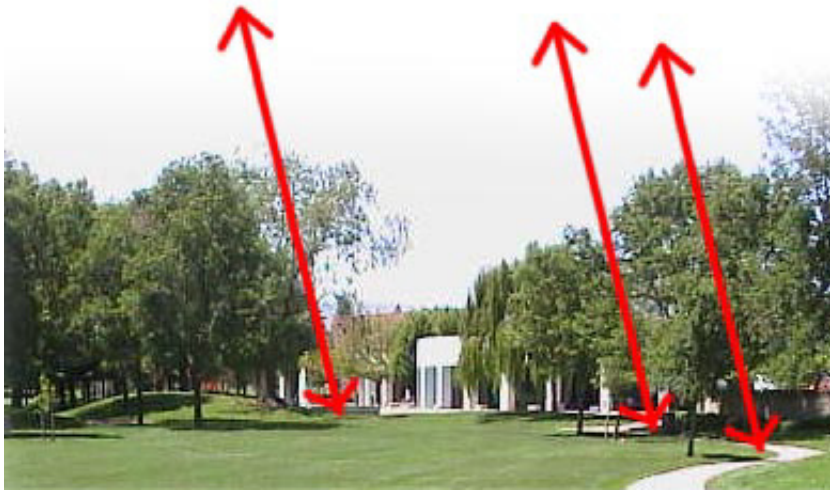
5. Once you've got the tree placed, switch to **Preview mode** so you can adjust the **Appearance settings** and view the changes.

Change these Appearance settings:

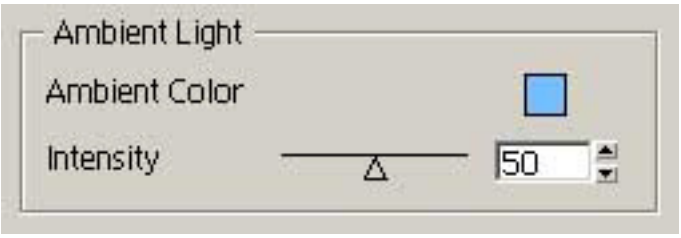
- Reduce **Trunk Radius** from 50 to 25
- Increase **Leaves: Length** from 6 to 12
- Increase **Leaves: Greenery** from 70 to 90
- Increase **Leaves: Number** from 50 to 70
- Increase **Branch: Cell Length** from 50 to 60
- Increase **Branch: Grow Chaos** from 70 to 100

6. Now let's work with the Lights to match the lighting in the background photograph. If we take a moment to examine the trees and their shadows, we can deduce the position of the sun as being above, to the left and slightly behind the camera's position. This is the position that we will try to approximate with our Lights in Verdant.

Approximate position of Light Source



7. Let's change the **Ambient Light color**.

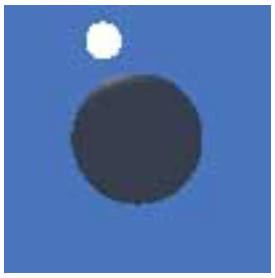


Note that the shadowed areas in the photograph are actually illuminated with a very diffuse blue-ish light. The blue of the sky above our setting causes this. Overcast conditions would feature a more gray-ish ambient color.

8. In order to see our light and shadow adjustments, we'll need to switch from Preview Rendering mode to **Production Rendering mode**. This may create some lengthy redraw times, so don't be discouraged in Verdant seems to slow down at this point.

With Production Rendering mode selected, go to the Lights tab and enable **Shadows**. To keep our render times to a minimum, reduce the shadow **Quality** setting from the default value of 25 to 1. You can restore these settings once our shadow angle is set.

9. Adjust the **Light Position** so that the light is above and to the left, and just behind the position of the camera. This may take a little finessing.



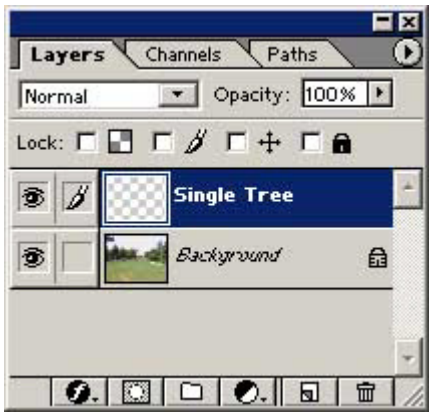
10. Once you've got the shadow falling right, click the **Preview** button Your image should look something like the sample image. Click the **Close** button to return to the Verdant interface.

11. Click **Ok** to apply Verdant's settings to the photograph.

12. Photoshop's **Layers** feature offers selective control of the various parts of your image, as you build and edit it. Although Verdant can add trees to individual Layers in Photoshop, it's better to initially work with the fixed *Background* layer. This allows you to view the image and match placement and lighting conditions between the photograph and your new trees.

13. With your photograph still open in Photoshop, **Undo** the changes you just made in Verdant.

14. Add a new layer in Photoshop, and name it *Single Tree*.



15. With the *Single Tree* layer selected, return to Verdant. Ctrl+F will reapply the most recent Filter. Verdant also saves its settings between applications. Notice that the Main Viewport now shows your tree against a checkered background. This is the content of the *Single Tree* layer; when you click the **Ok** button, the tree and its layer will appear over the *Background* layer.

16. Save your Photoshop file.

Building your image in this way will give you maximum flexibility and control over your composite image (for example, if you want to make post-render changes to the tree and its shadow, but leave the rest of the photograph unchanged). If you wish, restore your Shadow Quality settings to 25 or higher (remember, this will extend your render times).

17. Select the *Background* layer, and reopen Verdant (Ctrl+F).

18. Change the view mode from **Production Rendering** back to **Wireframe**. This will minimize our initial redraw times.

19. Select **Groups Mode**, then click on the **Groups** control tab.

20. Let's create an arcing array of trees. In the **Patterns** set, select *pattern_8*.

21. As before in Single Tree mode, take some time to place and rotate the tree group. You may also want to adjust the **Field of View (FOV)** variable; this recreates the subtle optical distortion created by some wide-angle camera lenses. This phenomenon, while common in many photographs, usually goes unnoticed when a single vertical object (like a tree, for example) is visible in the foreground. However, a group of such objects tends to draw attention to this distortion. Adjusting FOV values allows for more control and a closer match between the Verdant and the photograph.

22. It is recommended that the **Move Up/Down** and **Rotate X** tools be used in conjunction when placing the tree group.

23. If you wish to obtain results similar to the example in this tutorial, try applying the following values:

FOV:	54	**Number of Trees**:	8
X:	6.59	**Position Seed**:	17629
Y:	-3.29	**Tree Spacing**:	60
Z:	40.11		
Ax:	356.70		
Ay:	68.80		

24. Apply these settings and render them on the *Background* layer.

Keep in mind that the rendering time will be longer, because Verdant will be creating multiple trees instead of just one. Applying this tutorial's settings on a Pentium 4 processor with 1Gb of RAM, created a render time of approximately 4 minutes.

25. **Undo** the render. Add a new layer in Photoshop, and name it *Tree Group*. Reapply Verdant on this layer, and **Save** your Photoshop file.

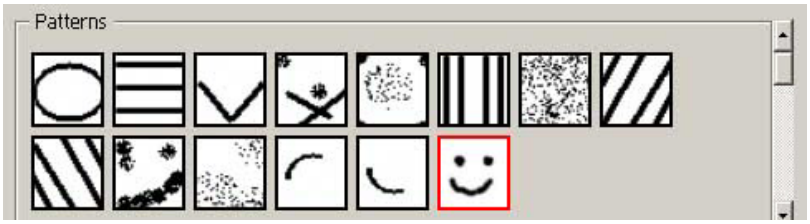
26. Verdant allows you to make and load custom image files, for use as group patterns. This would be useful in a situation where you need to control the placement of your trees, but don't have time to place each tree individually. To make a custom pattern, create a **New File** in Photoshop. Make the image 44 pixels wide by 45 pixels high, and set the **Image Mode** to **Grayscale**.

27. Now use Photoshop's paint tools to create a pattern.

28. Save the file as a 24-bit BMP, using this folder path:

Photoshop/Plug-Ins/Adobe Photoshop Only/Digital Element/Verdant/patterns

29. Close the file and restart Photoshop. The new pattern button will appear along with the other patterns.



30. Double-click on the pattern to apply it to your tree group. Click **Preview** or **Ok** to see the finished result.

This concludes our first Verdant tutorial.

As with any graphics program, exploration is key to learning the finer points of Verdant's toolsets and their effective uses. Future tutorials will delve further into more advanced techniques, and into methods for using Verdant in conjunction with other plug-ins.

Until then, Happy exploring!