

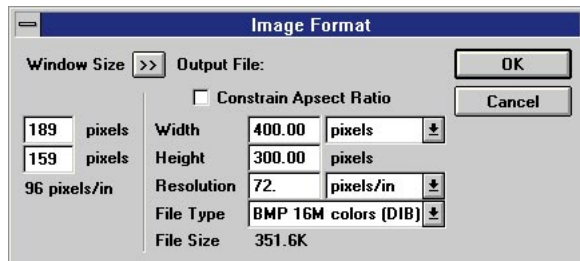
15 simple Things

Working with a Typestry window



You might want to make your project window the same size as your final rendered image so you'll see things at the correct scale. To make a Pixar Typestry window a particular size:

1. Select Image Format from the Render menu. This brings up the Image Format dialog.



2. Under Window Size, type in the dimensions you'd like to use.
3. Click on OK.

Warning: If you render to a file rather than to the

screen, the dimensions used are those under Output File instead of Window Size. If you want these to be the same, just click on the ">>" button. This loads the Window Size dimensions into the Output File dimensions.

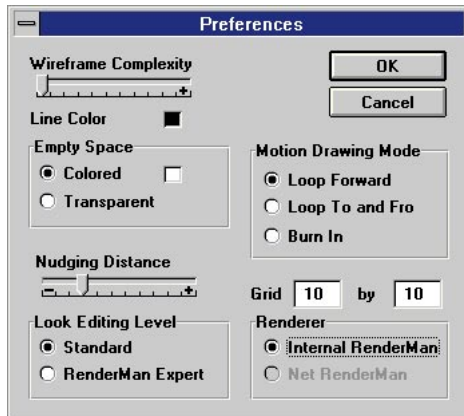
Resizing a window

You can make a window any size that will fit on your screen. You do this in the usual way, by dragging the side or corner you wish to move. However, when you resize it, it may have a slightly different shape when you're done. If you need to fix the shape so it matches what it was, just select Fix Aspect Ratio from the Window menu.

Basic Preferences

Some items in the Preferences dialog are useful at any time. This is available by selecting Preferences from the File menu. These are described here. For a description of the Motion Drawing Mode see the Animation chapter in the section on "Rendering an animation."





Wireframe Complexity. This controls the accuracy with which letters are displayed. Setting the accuracy higher slows down screen redraw.

Line Color. This controls the color of the wireframe lines in your window. Just click on the box and pick a color from the color picker. Be sure to make this contrast with the Empty Space color (see below), otherwise you won't see the lines against the background.

Empty Space. In the project window, the Colored button controls the color of the background on which the wireframe lines are drawn. In a rendering, it controls any “empty” areas in the image: those not covered by a wall, floor, or letters. Just click on the box and pick a color from the color picker.

Choosing Transparent will have the effect of making these areas look black, but in fact, they'll be completely transparent when used by programs that support an alpha channel.

Nudging Distance. When you use the Move, Rotate, Scale, and Skew tools you can use the arrow keys on your keyboard to affect the selected object in small increments. This control sets the size of an increment.

Look Editing Level. Some Looks have many controls. These are what you see in the Edit Look dialog. By clicking on RenderMan Expert you can see some parameters that are normally hidden from view. These low-level parameters, at the heart of the RenderMan shading model, act somewhat differently from the other parameters. You can get along perfectly well without ever touching them. If you're still interested, they are described in “RenderMan Expert Parameter Information for the Adventurous” in the Editing Looks chapter.

Grid. This sets the number of grid lines you see in the grid displayed in the project window by the Toggle Grid command under the Edit menu.

Rendering Gamma. Gamma is like the Contrast adjustment on your monitor. If your monitor is adjusted to your liking, but the Browser images and your rendered images look too dark or too light,

adjust the Gamma setting to compensate. You can also use this to simulate the look of another monitor. If you'll be displaying images on a different monitor, you may need to adjust your images so they look good there, rather than on your monitor. Use this setting to do so.

Note: If you need to change the Gamma for just a few renderings, use the Gamma control in the Custom Quality dialog and render using the Custom quality. Normal renderings won't be affected.

Printing

To print an image, just select Print from the File menu. If the image was rendered to the screen, it gets printed at the size and resolution you see on your screen. (This means the resolution will often be 96 pixels, or dots, per inch.)

If you need a higher resolution, you'll need to render the image to a file and print it from some other application, like Photoshop, that deals with resolution in conjunction with printing.

Printing a bitmap (like a rendered image) at screen resolution can result in poor quality — if the printer's good enough you can see lots of jaggy screen pixels in the image. To avoid this you need an image with more resolution, so its pixels are small enough to escape detection.

Image resolution

Of course, it's simple to change the resolution using the Image Format dialog under the Render menu. However, if you're planning to use a resolution higher than the screen resolution when you render an image to file, before you can fill in the resolution number sensibly you should decide what you're going to do with the image.

If you're going to print, the rule of thumb is to use a resolution that is between 1.5 and 2 times the linescreen (also referred to as screen frequency) you'll be using, no matter whether you're going to a laser printer or a Linotronic. You may need to check with your printer to know exactly what number to use for your purposes (newsletter, magazine, etc.). Some commonly used linescreen values are 50–60 for a laser printer, and 133 or 150 for pretty good or pretty darned good quality on a printing press.

So, for example, let's say you're using your laser printer for doing tests. The linescreen is around 50 or 60. This means the lower limit on resolution is 1.5x50, or 75; the upper limit would be 2x60, or 120. So setting the resolution to 100 pixels per inch would probably give you pretty good results.

At the other end of the spectrum, if you want the highest quality in a job to be printed on a printing press you'll need to render at something like 300 pixels per inch. This would be two times a line-



screen of 150 lpi, or about 1.7 times a linescreen of 175.

Here's a real-world example. The images in this manual were printed using a linescreen of 150. On the next page are four images with different resolutions. Draw your own conclusions.

Slides are a much higher-resolution medium than print. If you're going to turn your images into slides either directly, or by including them in a presentation prepared in another application you'll need to use a resolution that's around 750 pixels per inch. (If you're using 35mm slides, be sure you've used that setting in the Render menu's Image Format dialog).

Resolution tradeoffs

You may want to temper your decisions about what resolution to use based on some practical considerations, like disk space and rendering time.

Simple arithmetic reminds us that going from an image, say, 100 pixels on a side to one with 300 pixels on a side involves going from 10,000 to 90,000 (not 60,000!) total pixels. This means that the renderer has not 3, but 9 times as much work to do, and will take correspondingly longer. It also means that the file it produces may require about 9 times the disk space!

Of course, this works both ways. If you can afford to use a lower resolution you'll reap the rewards of speedier rendering times and lower disk space requirements.

The bottom line

The bottom line is that you should really do your own tests to determine what resolutions you're happy with for different purposes, and how low you can go to conserve space and time without compromising quality too much.

Image contrast

If you only see your images on your own monitor, and never print them out, you don't need to worry about this issue. But if that's not the case...

There's a problem with images. An image can look different on different monitors, and it looks different printed on paper than it does displayed on-screen. One part of the problem has to do with the colors in the image, but there's no easy way to correct for color variation. The other part of the problem is how bright or dark the image seems, and this we can control. (If you look closely, it's actually mainly the image's contrast that varies, but hey, who looks that closely?)

100 pixels/inch



150 pixels/inch



225 pixels/inch



300 pixels/inch



If your image looks too dark (or too light) on somebody else's monitor, or when it prints, you can do two things:

- fiddle with the printer, or the Contrast knob on the monitor (if there is one), or
- render the image with a different Gamma setting. You would set this in the Custom Quality dialog under the Render menu, and then use the Custom rendering quality.

Unfortunately, there's no good way to know ahead of time exactly what Gamma setting to use — you'll have to experiment. Higher numbers make the rendered image have less contrast (effectively making it brighter), while lower numbers have the opposite effect.

On the opposite page is an image with 3 different contrast settings. The one at the top used 1.0 for Gamma, while the one on the bottom used 2.0. The one in the middle used 1.5.

A note for the gamma-savvy

If you're someone who can and does change your monitor's settings, you may want to change the way the little example images appear in the Browser. Their gamma is set in the file *t2browsr.ini* in the [Options] section on the line beginning "BrowserGamma". It's set to 1.4 by default.



Thank
You