Apple Scanners: Determining Scan Resolution (7/94)

Article Created: 5 July 1994

TOPIC ---

What is the formula to scan images and get the best resolution while keeping the size of the file from getting extremely large?

I am scanning images for printing in a Linotronic at 2400 dpi. When I scan them at 600 dpi, the images are huge. I am trying to minimize the moire patterns.

DISCUSSION --

The moiré pattern is caused by a conflict between the dots that make up the printed picture and the dots that the scanner uses to create the image. This is why the moiré pattern shows up most often when scanning a printed picture from a newspaper or magazine. The Ofoto Software that is bundled with Apple's OneScanner and Color OneScanner is designed to minimize moiré patterns. Scanning directly from a photograph, however, will circumvent the problem entirely.

The following information should help get the best possible results:

Be sure the scanner is set for the device on which you'll be printing or displaying the final version of your scan. The Ofoto scanner software sets the scanning resolution appropriate to that device. Many people think that the highest resolution is always the best, but this is not the case. If, for example, you are printing on a laser printer, and you set the scanner to the high resolution appropriate to a Linotronic printing press, your files will be large, your printing time will be slow, and your scan will be no better than if you had selected the lower resolution. What's important is that the scanning resolution be appropriate for the output device's resolution and image-processing abilities.

Output Device	Appropriate Scanning Resoultion
Monitor	72 dpi
300 dpi laser printer with standard PostScript processing (53 line screen)	100 dpi
600 dpi laser printer with	

```
standard Postscript
processing (85 line screen)                     150 dpi

300 dpi or 600 dpi laser printer
with standard PhotoGrade
processing (106 line screen)                    150 dpi

Separations at 125 line screen                  200 dpi

Separations at 175 line screen                  300 dpi


Support Information Services
Copyright 1994, Apple Computer, Inc


Keywords:  <None>

===================================================================

This information is from the Apple Technical Information Library.

19960215 11:05:19.00
```
Tech Info Library Article Number: 15745