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Color LaserWriter 12/600 PS: Lines Per Inch (1/97)

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TOPIC -----

What is the line screen (lpi) capability of the Color LaserWriter 12/600 PS? Can you change it with programs that can edit the linescreen?

DISCUSSION -----

The default line screen, on the Color LaserWriter 12/600 PS and the Color LaserWriter 12/660 PS printers, is 200 lpi. At that line screen, the printer can image "122 levels of gray." However, Color Photograde changes the line screen based on the type of image and actually gives you more levels of gray (or color to be more precise) and much better image quality through Apple's proprietary technology.

Lighter areas of a file are imaged at a lower line screen (141 lpi) which produce more shades of color, but have a lower image resolution. Darker areas are imaged at a higher line screen which produces fewer shades of color but a higher resolution.

The line screen angle (the angle at which the actual dots are placed) is also changed to try and minimize an effect called "white dropout" which comes up with very light colors and the "white gap" effect that comes up with darker color plates next to each other.

This is done when the image is processed by the ROM of the printer. A file is separated into four color plates and analyzed for image quality. The line screen and angle change so that lighter areas are printed with some color visible, since our eye can see color at low percentages but can not see the actual edges of the colored objects. In darker areas, our eyes can see the edges of objects very well, but have trouble seeing the differences between darker shades of color.

Although the September 1995 "MacUser" article infers that you can change the line screens, Color Photograde overrides any of these settings to produce it's patterns. You may be able to incorporate a line screen into the actual file when you scan it or edit it.

For more information on lpi and dpi see "Printing Differences: Lines Per Inch and Dots Per Inch" and "Apple LaserWriters: Screen Frequency and Gray Levels."

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