

SOME CONSIDERATIONS IN DIGITAL PRINT QUALITY IMAGES

N. Edward Berg*

ABSTRACT: (No Paper Submitted)

Capture of Existing Material

- A. Line Art
- B. Photographic Images

The considerations for scanning will be discussed. Sensitivity, accuracy, and jitter all contribute errors in laser scanning. These are discussed in detail. In CCD array scanners, array variations, mechanical positioning and spectral sensitivities all contribute errors. Minimizing techniques to handle these errors are pointed out.

Electronic Editing

Electronic editing of the electronic image presents another challenge since the display never allows direct correspondence between the high resolution print image and the display image. Reflecting editing changes made in the low resolution display file into the high resolution print image files is discussed.

Techniques for enhancing the image quality are discussed in a non-classical manner. New dispersion algorithms are discussed which allow screen density to exceed the normal ten pixel dots equal one screen dot ratio.

Output Considerations

The different output devices all have shortcomings which are discussed in detail. The nonraster typesetter for use other than setting of type, involves defocussing, non-linearities and awkward driving data structures. The raster typesetter has jitter and non-linearities that must be considered. A general graphic imaging device will be described that can print high resolution type, pictures, and artwork in large formats.

*Bedford Computer Corporation