

Document Examination: Applications of Image Processing Systems

REFERENCE: Kopainsky B: Document examination: applications of image processing systems; *Forensic Sci Rev* 1:85; 1989.

ABSTRACT: Dealing with images is a familiar business for an expert in questioned documents: microscopic, photographic, infrared, and other optical techniques generate images containing the information he or she is looking for. A recent method for extracting most of this information is digital image processing, ranging from the simple contrast and contour enhancement to the advanced restoration of blurred texts. When combined with a sophisticated physical imaging system, an image processing system has proven to be a powerful and fast tool for routine non-destructive scanning of suspect documents. This article reviews frequent applications, comprising techniques to increase legibility, two-dimensional spectroscopy (ink discrimination, alterations, erased entries, etc.), comparison techniques (stamps, typescript letters, photo substitution), and densitometry. Computerized comparison of handwriting is not included.

KEY WORDS: Digital image processing, infrared techniques, questioned documents.