

Standard Guide for Printing Method Effects on Facial Comparisons



WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy-to-understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a proposed standard.

WHAT IS THE PURPOSE OF THIS PROPOSED STANDARD?

This guideline provides a basic overview of common printing processes, their characteristics, and potential impacts on facial image comparison. Printing processes will introduce artifacts or result in the loss of facial details.

The type of printer used to produce a facial image can result in a range of printer effects that may impact features that are considered during a facial image comparison. When used as a guide, this standard should help the examiner differentiate between printing effects and details intrinsic to the face.

WHY IS THIS PROPOSED STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

This guideline draws attention to how printing processes can affect visual information in printed facial images. By providing detailed descriptions of the most common printing methods used for facial images—including the physical printing processes, color outputs possible, printing substrates (papers), and levels of resolution possible—in conjunction with helpful illustrations, this standard presents practitioners with information and a visual reference that is intended to clarify the distinctions between the processes and their visual effects.

This OSAC Proposed Standard has been sent to ASTM International (ASTM) for further development and publication. Get involved as a member or by providing public comment.

HOW IS THIS PROPOSED STANDARD USED, AND WHAT ARE THE KEY ELEMENTS?

This standard is used as a guide for examiners to maximize their understanding of the effects of printing processes on the appearance of facial images. This standard recommends attempting to retrieve the original source image. If this is not possible, the standard recommends conducting an image analysis prior to beginning a comparison. Identifying whether or not an image was printed may assist the examiner in identifying the suitability of the image for a morphological comparison. Understanding the common image printing processes will assist in identifying potential printing effects and their potential limitations on any comparison performed.

A description and high-resolution scan of a printed facial area and eye area shows the visual effects of these six commonly used printing processes:

- Conventional and Digital Photographic printers
- Laser Toner
- Inkjet (a.k.a. Bubble Jet)
- Thermal Transfer
- Dye Sublimation
- Laser Engraving



Image: Courtesy of FISWG "Effects of Printing Methods on Facial Images Used for Comparisons," Version 1.0