



J11 Standards for the Examination of Documents Using a Digital Workspace

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Learning Overview: The goal of this presentation is to explore published consensus standards in the field of forensic document examination to highlight procedures and considerations in these standards as they relate to conducting examinations of digital representations of test items. The intent is to show that although many of the standards were written with the examination of physical items in mind, the standards are equally applicable to digital representations and digital workflow processes for these same types of test items.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by ensuring attendees will have a more comprehensive understanding of current Forensic Document Examination (FDE) standards and how they apply in a digital workspace.

Early forensic examination of documents relied on the physical examination of documents combined with photographic techniques. Some of these photographic techniques were efforts to more easily note and compare features. Photo enlargements provided more detail for gross comparisons; photomicrography illustrated finer details observed; and photographic superimposition gave the early FDE a method for overlaying and comparing test items that may share a common source. Other photographic techniques were used to conduct direct examinations of test items. This includes manipulating exposure and the use of alternate light sources with different barrier filters to reveal differing compositions of inks or substrates, and using transmitted light sources for the comparison of various substrates. These photographic techniques were eventually supplanted by the use of photocopiers, then scanners for some tasks and digital photography for other tasks previously accomplished by traditional “wet” photography. While the method of image capture has changed, many of the current standards were written with the traditional physical comparison methodology in mind (e.g., printing digital images to make comparisons). In the traditional methodology, the FDE examines the test items and makes notes of the observations. Even though the traditional physical model was the practice during the writing of many of the current forensic document examination consensus standards, they can equally be applied to a digital comparison workflow.

In a digital comparison workflow, many of the tasks previously accomplished by physical examination and/or photography can be easily completed with digital representations of the test items. An example of this is examination and association of writing indentations in paper. In the traditional workflow, the FDE examines the document with oblique lighting and/or processes the document with an Electrostatic Detection Device (EDD) and makes a physical transparency lift. The results are then physically compared to the suspected source writing and the FDE notes the common characteristics to determine source attribution. In a digital workflow, the same oblique lighting and EDD examination are conducted; however, it is only a digital image of the results that are compared to digital images of the suspected source of the impressions.

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