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Section 10

General Guidelines for Photographing Footwear Impressions

Introduction

The purpose of this document is to describe the proper method of photographing footwear evidence by qualified personnel.

Recommended Equipment

- Professional camera, minimum 35mm or digital SLR with a minimum eight (8) megapixel native resolution, with interchangeable lenses, manual override for exposure and focus.
- Detachable flash with a six (6) foot extension cord or a flash with remote capabilities to allow for side lighting.
- Macro lens capable of filling the frame with the footwear impression
- Remoter shutter release
- Sturdy tripod mount capable of various angles and positions
- Artificial light sources (e.g., floodlights, flashlights)
- Level/Angle finder
- Suitable B&W and color negative film or digital storage media
- Flat rigid scales
- Photographic log
- Reflector
- Device for blocking ambient light

Procedure for Footwear Impression Photography¹

A typical standard operating procedure should include the following:

1. Locate the visible impressions to be photographed.

¹Reference SWGTREAD Guide for the Forensic Documentation and Photography of Footwear and Tire Impressions at the Crime Scene

2. Prepare photographic log or worksheet as per agency policy.
3. Select suitable film or digital storage media.
4. Once the overall, midrange and close-up views of the area have been documented without scales and markers, photograph the overall and midrange views of the area with identifying markers and scales using appropriate lighting.
5. To document details of the impression for examination, photograph close-up views of the impression with identifiers and scales using appropriate lighting. Each image must fill the frame with the impression and scales:
 - a) Mount the camera on a tripod with the focal plane parallel to the impression.
 - b) Manually focus on the bottom of the impression and close aperture to maximize depth of field (e.g. set aperture to f16 or f22).
 - c) If using digital camera, set camera to the highest resolution and uncompressed or with lossless compression (e.g. RAW or TIFF).
 - d) In addition to the close-up photographs of the entire impression, take multiple overlapping exposures mapping the entire footwear impression.
 - If the impression is in a brightly lit area, such as an area directly lit by the sun, it may be necessary to shade the impression.
 - Light each overlapping section of the impression to bring out maximum detail. Separate close-up images of the heel and toe box area should be taken.
 - e) Multiple exposures using various settings/bracketing and lighting techniques may be required. A minimum of three images should be taken with oblique lighting at least 100 degree increments around the entire footwear impression. Height of the light source should be sufficient to capture the detail in the bottom of the impression. Distance of the light source should be established to ensure even lighting. If the impression is in a brightly lit area, such as an area directly lit by the sun, it may be necessary to shade the impression.
 - f) If impression is processed (e.g. with fingerprint powder or chemicals), re-photograph after each process

REFERENCE LIST

SWGIT and SWGIT/SWGDE documents can be found at:

www.swgit.org

Section	Title
Section 1	Overview of SWGIT and the Use of Imaging Technology in the Criminal Justice System
Section 2	Considerations for Managers Migrating to Digital Imaging Technology
Section 3	Guidelines for Field Applications of Imaging Technologies in the Criminal Justice System
Section 4	Recommendations and Guidelines for Using Closed-Circuit Television Security Systems in Commercial Institutions
Section 5	Guidelines for Image Processing
Section 6	Guidelines and Recommendations for Training in Imaging Technologies in the Criminal Justice System
Section 7	Best Practices for Forensic Video Analysis
Section 8	General Guidelines for Capturing Latent Impressions Using a Digital Camera
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Section 10	General Guidelines for Photographing Footwear Impressions
Section 11	Best Practices for Documenting Image Enhancement
Section 12	Best Practices for Forensic Image Analysis
Section 13	Best Practices for Maintaining the Integrity of Digital Images and Digital Video
Section 14	Best Practices for Image Authentication
Section 15	Best Practices for Archiving Digital and Multimedia Evidence (DME) in the Criminal Justice System
Section 16	Best Practices for Forensic Photographic Comparison
Section 17	Digital Imaging Technology Issues for the Courts
SWGIT/SWGDE	Proficiency Test Program Guidelines
SWGIT/SWGDE	Guidelines and Recommendations for Training in Digital and Multimedia Evidence
SWGIT/SWGDE	Recommended Guidelines for Developing Standard Operating Procedures
SWGIT/SWGDE	Glossary of Terms