SDFI Secure Digital Forensic Imaging

Secure Beyond Reasonable Doubt®

SDFI Forensic Photography PhotoDocumentation Protocol

2024

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Introduction

PhotoDocumentation of physical areas on the human body is part of the forensic documentation process. Upon signed consent, the forensic examiner should collect a series of digital images based on that person's history and perform a professional physical assessment.

This document introduces forensic examiners to the process of digital forensic imaging. This includes the best methods for collecting, handling, managing and delivering forensic digital images to professionals working in outside agencies (e.g. law enforcement officers, prosecutors, experts, consultants).

Recommended Equipment:

- Protective portable camera case (meets or exceeds IP67 • MIL C-4150J • Def Stan 81-41/STANAG 4280).
- Digital SLR camera capable of capturing RAW files (with appropriate accessories depending on camera used).
- Hand-held camera remote.
- Foot-pedal-controlled camera remote.
- Low-profile, quick-release camera stand with ball-head function.
- Photomacrographic scales.
- Windows 7/10-based computer (64-bit with 6 GB RAM) with 1500GB (1.5TB) or greater of accessible storage space. (A secured computer network is best and never the Cloud!)
- Computer software and storage capable of reading/managing vast amounts of image files.
- Computer software capable of securing and encrypting vast amounts of digital images and video at AES 256-bit federal military-level encryption standards.
- High-speed connection to the Internet (not less than 4096kbps download and 4096kbps upload).
- Secure File Portal technologies.
- 24-inch or larger HDTV or screen with an HDMI connector.

The forensic examiner must acquire consent from the person, parent or guardian per program, organization or jurisdictional policy and must follow any local, state and federal rules and regulations before obtaining any photographs.

The forensic examiner should also check and test the camera system and settings prior to use (e.g. flash and camera batteries, flash mounted correctly, memory card loaded, camera stand setup, remote foot pedal in place, etc.).

The very **FIRST** picture serves as a starting bookend. A bookend identifies each exam/case as unique (see below). If pictures of a full body are needed, use visible body landmarks and overlap each picture. NEVER TURN THE CAMERA SYSTEM SIDEWAYS! As an example, here is a person fully clothed:

- Take a full-frame **head shot,** from above the head to the neckline or thereabout, clearly showing the person's facial features.
- Take an **upper body picture,** from neckline to waistline or thereabout, clearly showing overlap from the last picture taken. Take this picture from a lower stance.
- Take an **upper body midriff picture,** from waistline to just above the knees or thereabout, clearly showing overlap from the last picture taken. Kneel down to take the rest of the pictures in order to maintain a 90-degree angle for all images.
- Take a **lower body picture**, from just above the knees to mid-shin or thereabout, clearly showing overlap from the last picture taken. Remember to kneel and bend to take this picture.
- Take a **lower leg picture showing both feet**, from mid-shin to below both feet or thereabout, clearly showing overlap from the last picture taken. Remember to kneel and bend to take this picture.

Repeat this *overlapping photographic storyboard* for the left, right and back sides, if needed.

SDFI® Bookend Cards are FREE.
Send an e-mail request to Sales@SDFI.com.

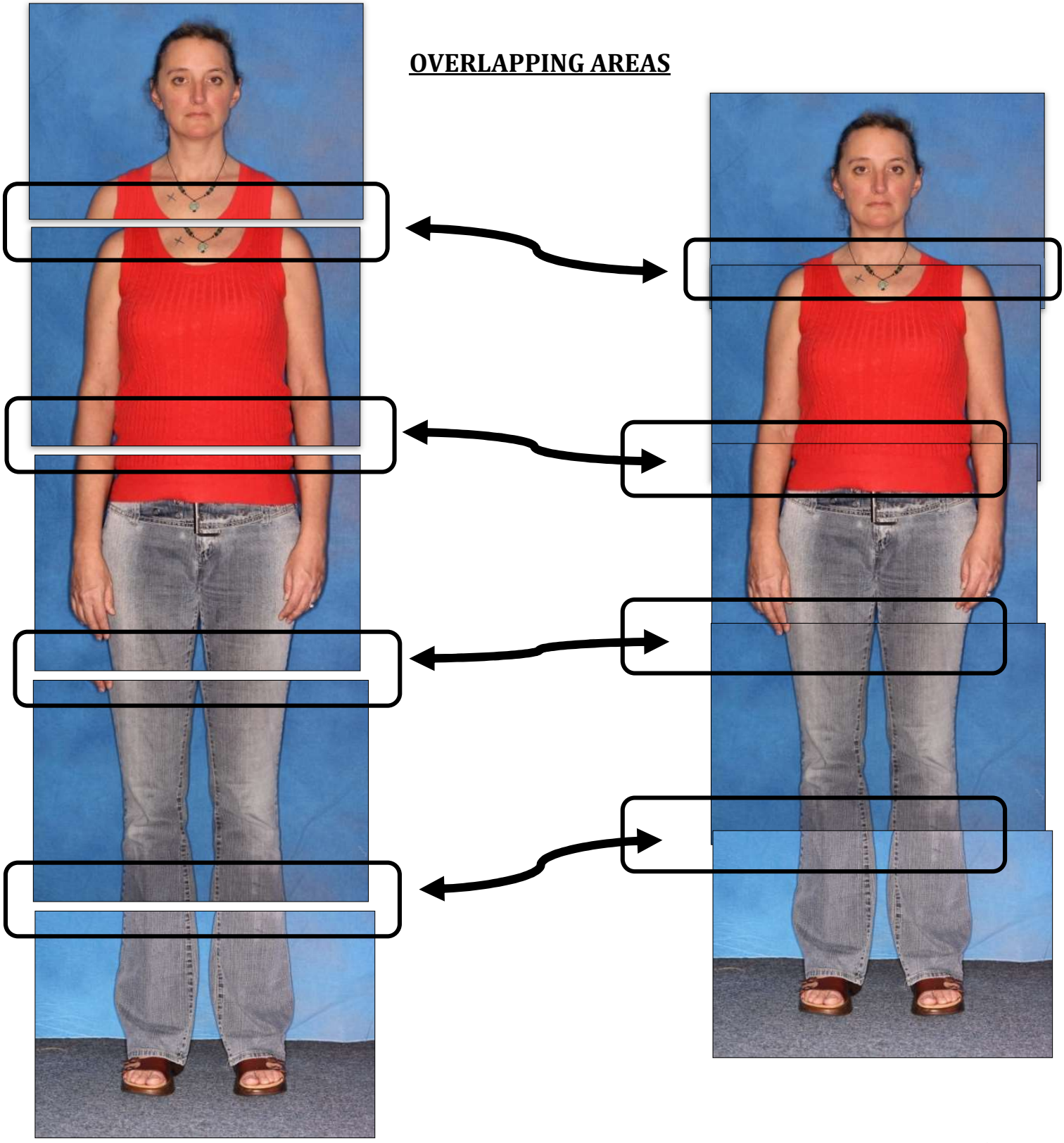
Include your name, title, name of your organization and how many you need along with your street mailing address and a phone number.


SDFI®-TeleMedicine SDFI = Secure Digital Forensic Imaging
SDFI® Secure Beyond Reasonable Doubt® *www.SDFI.com*

INSTRUCTIONS:
(1.) Fill out this "SDFI® Bookend Card" completely.
(2.) Take a picture of this SDFI® Bookend Card BEFORE AND AFTER each photographic session.
(3.) Add the used card to the forensic collection kit or shred and destroy it.
SDFI® Bookend cards are provided and shipped for free. Contact Support@SDFI.com to request more "Bookend Cards".

Date:
Name:
Case #:
Photographer:
ID Record #:
D.O.B:(mm/dd/yy) or **Age:**

Overlapping Photographic Storyboard



All non-genital images should be documented as overlapping photographic storyboards **AFTER** completing the overall full body pictures, front, left side, right and back sides, dressed and undressed, as indicated by history and assessment. Continue with mid-distance area pictures.

NOTE: If an individual has multiple areas that need to be photographed, take a mid-distance picture, then IMMEDIATELY follow with close-up and extreme close-up pictures. Create an overlapping photographic storyboard for each area. An example is shown on page eight.

CONTINUE with:

- Medium-distance picture(s) identifying/showing obvious physical landmarks while still showing the **area in the center of the picture**. This mid-distance picture is taken approximately 50% closer to the person compared to the overall pictures shown here.

Mid-Distance Example: Mid-distance picture of upper chest showing right arm, right shoulder, neck and general area.

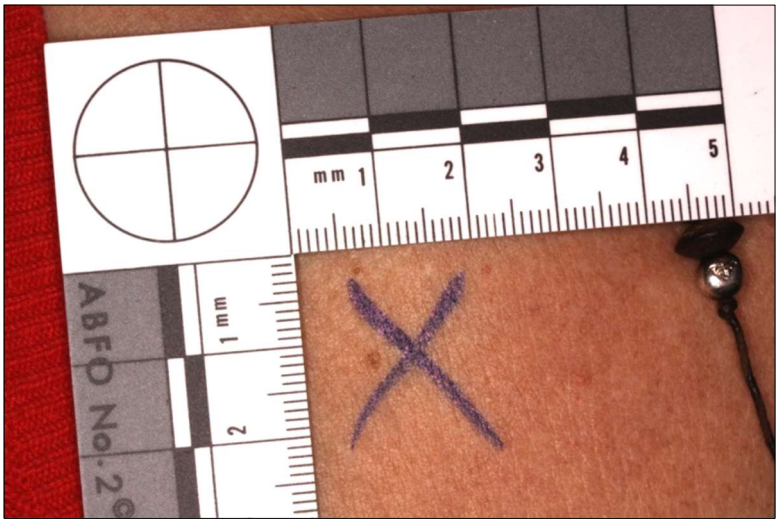
Mid-Distance picture of upper chest showing right arm, right shoulder, neck and area.

AFTER completing a mid-distance area picture, immediately take ALL close-up pictures related to that one specific area. Repeat the mid-distance and close-up picture process for each non-genital specific area.

CONTINUE with:

- Close-distance or close-up of the area on the person's body, first WITH a measuring device or an object of known size in the picture, then one WITHOUT a measuring device. Stand directly in front of the area and take the pictures at a 90-degree angle.

Close-up showing measuring device and area - note sweater and jewelry landmarks.



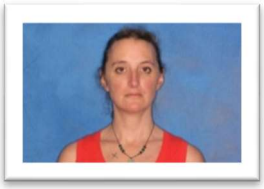
Close-up showing area only.

AFTER completing close-up pictures related to the one specific area, take an EXTREME close-up picture. For areas that are too large for a single extreme close-up, create an overlapping photo storyboard of the one area on that person's body.

CONTINUE with:

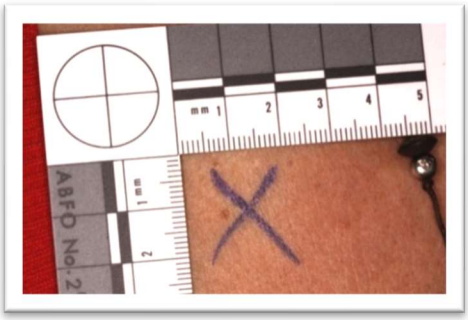
- Extreme close-up picture(s) of the specific area where the specific area fills the viewfinder. Stand directly in front of the specific area and take the picture(s) at a 90-degree angle.

Complete Overlapping Photographic Storyboard (OPS)



- The forensic examiner will capture as many pictures as needed to create an overlapping photographic storyboard for EACH area.

- Images will be deleted from the memory card AFTER they are all transferred to a secure storage area where they become part of the forensic record.



Final Steps in the SDFI Photodocumentation Process

The very **LAST** picture serves as a finishing bookend. A bookend identifies each exam/case as unique (see page 3). Retake a picture of the SDFI® Bookend Card. This indicates an end to this series of pictures.

- After all required pictures have been taken and BEFORE all images are transferred into an encrypted *secure storage area*, the entire series of forensic images will be *auto-renamed* with the use of image management software while still on the memory card.

  Example *file names* are shown below (the file extension, not shown, remains the same):

  Last, First Case# OtherID# Date 001

  Smith, Jane 23452345 SA76867 160928 002

- A unique "person" folder is also created in the encrypted *secure storage area* using the file name, minus the last image number.

- The primary encrypted *secure storage area* is accessed with a long master access passphrase. An example of a long passphrase would be: "the black cat crossed the road on tuesday". With a long passphrase, the security software accesses one or more encrypted *secure storage areas* protected by nothing less than military-grade, federally-approved, AES 256-bit encryption. The passphrase can contain up to 256 characters, upper case, lower case, spaces and any one or more of the special characters displayed on a standard keyboard.

- The entire series of forensic images will be copied over to the encrypted *secure storage area* and into the specifically named *unique folder*. This takes place after image file auto-renaming.

- A visual comparison and image count, with the assistance of the image management software, between the series of images on the memory card and the encrypted *secure storage area,* will confirm that all of the forensic images have been successfully copied.

- After the computer user has confirmed that the forensic images were successfully copied over to the encrypted *secure storage area* and into the *unique folder*, the computer user will use the computer software to delete/erase the forensic images from the memory card. Note: **ONLY** the images temporarily stored on the memory card are deleted during this action.

- Upon receiving a request and/or proper documents, the computer user will access the encrypted storage area and create an independently encrypted, independently passphrase-protected SDFI Secure File containing one unique folder. This single, secure file is protected with AES 256-bit encryption.

- The computer user will upload the SDFI Secure File, using a high-speed Internet connection, to nothing less than another separate AES 256-bit protected SDFI File Portal System. SDFI Secure Files are independently encrypted.

- The computer user will use the SDFI File Portal to send an e-mail containing a "Notification Only" message to the recipient(s). Images are **NEVER** attached to or sent via e-mail.

- Upon receipt of the notification-only e-mail message, the recipient is able to download the SDFI Secure File onto a Windows-based computer.

- After the recipient completes the download, they will be required to call the sender and verbally request the independent one-time-only passphrase that was used to secure the SDFI Secure File. Again, this is a one-time-only passphrase. It is never used twice!

- Upon entering the exact and correct long passphrase into the downloaded SDFI Secure File, the secure file will automatically extract the unique folder that includes forensic images within. The recipient can now view/access the images without restriction. NOTE: The recipient does not need additional software. The SDFI Secure File is a self-decrypting archive that works on Microsoft® Windows computers.

You Can't Get a Refund on Time!®