

In-Processing and Friction Ridge Print Photography

Table of Contents

1	SCOPE	2
2	EQUIPMENT/MATERIAL/REAGENTS	2
3	IN-PROCESSING PHOTOGRAPHY PROCEDURES	2
3.1	Security Requirements	2
3.2	Contamination Control.....	3
3.3	Evidence Transfer	3
3.4	Image Capture of Evidence.....	4
3.4.1	Photography Station Setup.....	4
3.4.2	Image Capture Settings	4
3.4.3	Quality Control	4
3.4.4	Image Capture	4
3.4.5	Object Captures.....	5
3.4.6	Images from External Sources	5
3.4.7	Image Storage	6
4	FRICTION RIDGE PRINT PHOTOGRAPHY PROCEDURES	6
4.1	Camera Performance Checks	6
4.2	Silver Halide Printer Performance Checks and Maintenance	6
5	IMAGE STORAGE	6
6	LIMITATIONS	7
7	SAFETY	7
8	REVISION HISTORY	8

In-Processing and Friction Ridge Print Photography

1 SCOPE

These procedures apply to photographers working in the Evidence Management Unit (EMU) performing in-processing photography, friction ridge print photography and forensic photography requests in support of the FBI Laboratory. During in-processing photography, digital images of improvised explosive device-related evidence are captured/recorded and uploaded to a reference database. During friction ridge print photography, digital images are captured/recorded in support of Friction Ridge Discipline casework.

2 EQUIPMENT/MATERIAL/REAGENTS

- Anti-virus software
- Digital camera
- Digital image retention software
- Digital processing software
- General laboratory supplies
- Laboratory Information Management System (LIMS)
- Lights
- Personal protective equipment (e.g., gloves, face masks, lab coats)
- Photography stand or tripod
- Readable device
- Recordable device
- Silver Halide Printer

3 IN-PROCESSING PHOTOGRAPHY PROCEDURES

In-processing photographic images captured by EMU photographers record the condition and appearance of evidence after it has been inventoried by EMU personnel. Since these images are used to record the overall appearance of the evidence, they are not intended to be used for forensic analysis and are not considered evidence.

3.1 Security Requirements

- A. Access to the digital image retention software is controlled. EMU photographers require a unique user-name and password for access.
- B. Anti-virus software scans are utilized prior to transferring images from the digital image retention software to FBINET for full system anti-virus protection.
 1. A virus scan must be conducted on all digital media using the current anti-virus software on the FBINET computer. No image file(s) may be uploaded to FBINET prior to performing a complete virus scan of the file(s).

3.2 Contamination Control

Refer to EVDC-320 – Minimizing Contamination for additional contamination control procedures.

- A. Prior to beginning work on a case, any equipment in the immediate area around the photography stage must be thoroughly cleaned and prepared as described in EVDC-320 Sections 3.2.A, 3.2.A.2 and 3.2.B.
 - 1. To minimize cross-contamination of biological and other trace materials, background paper and gloves must be changed when photographing items removed from different proximal packaging. This applies to all evidence assigned to disciplines where examinations can be negatively impacted by cross-contamination.
- B. Evidence that will undergo Explosives Chemistry or DNA examinations should not be photographed outside its proximal packaging before those examinations are conducted. If necessary, images of this evidence outside its proximal packaging can be captured after Explosives Chemistry and/or DNA examinations are complete.
- C. Evidence that will undergo Trace examinations may be photographed outside its proximal packaging prior to examinations being conducted if doing so will not impact Trace examinations.
 - 1. Evidence such as hair/fibers should not be photographed outside its proximal packaging prior to Trace examinations to prevent potential loss and/or contamination. If necessary, images of this evidence outside its proximal packaging can be captured after Trace examinations are complete.

3.3 Evidence Transfer

All evidence transfers will be conducted in accordance with the FBI Laboratory's Operations Manual (LAB-200) Section 1.3 and EVDC-330 - Transfer and Storage of Evidence.

- A. Priority items of evidence will be delivered directly to the photographer or placed in the appropriate evidence storage location. Non-priority items of evidence will be transferred to the appropriate evidence storage location while waiting for photography.
- B. After all the evidence items in a non-Legacy case have been photographed, the photographer will enter the required information into the appropriate LIMS to record photography is complete.
- C. The photographer will repackage all evidence in a manner to prevent loss, cross-transfer, or contamination after photography is complete. The container will be placed under proper seal before processing the next case.

- D. All non-priority evidence will be transferred to the appropriate evidence storage location after photography is complete. Priority evidence will be transferred directly to the appropriate personnel or placed in the appropriate evidence storage location. All transfers will be recorded in the appropriate LIMS as necessary.

3.4 Image Capture of Evidence

3.4.1 Photography Station Setup

- A. The photographer will use the designated computer to create a folder in the current photo file management program.
- B. The photographer will open the designated camera control program and set the path to store images in the designated folder
- C. Prior to beginning work on a case and as images are captured, the photographer will follow the contamination control procedures referenced in [Section 3.2](#).

3.4.2 Image Capture Settings

- A. In-processing digital images will be captured in JPEG 8 bit and image size may not be smaller than 4 megapixels. The photographer will ensure the correct date/time is set on the digital camera.

3.4.3 Quality Control

- A. Each photographer will verify the following information is correct on all captured images as appropriate:
 - o Customer number
 - o Laboratory number
 - o Item identifier

3.4.4 Image Capture

- A. Prior to photographing, the photographer will review pertinent information related to the request, evidence, containers, and case information in the appropriate LIMS for accuracy. If a discrepancy is noted, the photographer will contact the appropriate personnel.
 - 1. The photographer must review classification information and ensure that the images are captured following the appropriate classification guidance and stored within the appropriate image retention enclave.
- B. If evidence is identified as containing suspected biological contamination (e.g., mold, blood) or other potentially infectious materials, the item(s) will be photographed in

an appropriate safety hood. If a hood is unavailable, the item(s) will be photographed in its proximal container.

1. Items that present a physical hazard (e.g., flammable, explosive, corrosive, unstable, reactive with water), health hazard (e.g., irritant, corrosive, toxin/poison), or are received as an unknown liquid or solid will be photographed in an appropriate safety hood. If a hood is unavailable, the item(s) will be photographed in its proximal container. Containers of liquids/solids will be photographed unopened.
- C. Each captured image will contain an identification tag and ruler. The Laboratory number and/or customer number and item identifier must be present on the identification tag.
- D. Captured images should provide an unenhanced representation of the evidence item's various characteristics and features, while following the contamination control guidance provided in [Section 3.2](#). Physical modifications to the evidence are not permitted.
1. Object captures shall be retained in the digital image retention software as described in [Section 3.4.1.A](#). These images will be considered the original image(s) for the purposes of accountability.
 2. Images that are considered originals will remain unaltered and be retained. Original captures, whether received from a customer or captured by EMU photographers, may not be deleted or processed for enhancement/improvement of visual appearance.
 3. When digital processing of an image is necessary, a duplicate of the original image(s) will be created and used as a Working Image Copy for digital enhancement to improve the visual appearance of the image as necessary. The final digitally processed image(s) will also be retained.

3.4.5 Object Captures

- A. Exploratory images may be captured and/or deleted as necessary to determine optimal exposure, lighting, and position settings prior to original image capture. Once an original image(s) has been saved, these images will be considered original for the purposes of accountability. Original images will be managed as described in [Section 3.4.4.D](#).

3.4.6 Images from External Sources

- A. The photographer will follow the procedure for full virus scan as found in [Section 3.1.B](#).

- B. Unmodified images downloaded from external sources, such as Terrorist Explosive Device Analytical Center partners and other government agencies, will be saved to the appropriate LIMS. These images will be considered the original image(s) for the purposes of accountability.

3.4.7 Image Storage

- A. The photographer will upload object captures as described in [Section 5](#).

4 FRICTION RIDGE PRINT PHOTOGRAPHY PROCEDURES

EMU photographers capture images to support Friction Ridge Discipline casework. Photographers must follow the applicable friction ridge print photography procedures and will ensure that any applicable Laboratory and EMU procedures are also followed.

4.1 Camera Performance Checks

Friction ridge print photography undergoes a Quality Assurance (QA) review as outlined in FRD-401 - Friction Ridge Print Photography in Casework. The nature of the QA review allows the photographer to ensure camera settings were correct and the camera operated properly during image capture. If any camera performance issues are identified, they will be addressed as appropriate.

4.2 Silver Halide Printer Performance Checks and Maintenance

- A. The Silver Halide Printer's software notifies the user of issues affecting performance and creates a record of performance checks and errors automatically. If an issue is identified, the photographer will follow manufacturer instructions and ensure any necessary adjustments are made.
- B. Printer problems not identified by the printer's software error codes or outside the photographer's expertise will be assessed. Necessary maintenance may be performed by the photographer or a service technician may be contacted if necessary. A log of these actions will be maintained
- C. Additional upkeep (e.g., adding paper) required for the Silver Halide Printer will be performed by the photographer as needed. There is no necessary record keeping associated with these actions.

5 IMAGE STORAGE

- A. Captures may be temporarily stored on media storage devices (e.g., memory card).
- B. Photographers will ensure images which are to be used for evidence documentation or for analysis are permanently stored appropriately.

1. Captures can be permanently stored in a digital image retention system or on a CD or DVD. Permanent digital image retention systems are EXPeRT, ADAMS Web, or Sentinel. Case restrictions or requests from appropriate personnel may limit which method of retention is possible.
2. If there are no case restrictions or special requests/circumstances associated with a case:
 - i. Object shots will be uploaded into EXPeRT as appropriate.
 - ii. If orientation captures are required, the orientation captures will be uploaded into EXPeRT or ADAMS Web as appropriate.
 - iii. Friction ridge captures will be uploaded into ADAMS Web as appropriate.
3. If the above-mentioned storage methods/requirements are not appropriate or cannot be met, the photographer will ensure the situation/special request is documented appropriately.

6 LIMITATIONS

Evidence identified as being contaminated with explosive, biohazard, or other hazardous materials may limit photographic results or ability to capture.

7 SAFETY

Refer to the FBI Laboratory Safety Manual for the following information:

- Biological Safety
- Bloodborne Pathogen Exposure Control Plan
- Hazardous Waste Disposal
- Personal Hygiene
- Personal Protective Equipment
- Safe Work Practices and Procedures

8 REVISION HISTORY

Revision	Issue Date	Changes
05	02/07/2022	Updated latent print to friction ridge print throughout document. Updated verbiage in Section 3 to clarify that in-processing photography in this document applies to those photographs captured by photographers after evidence is inventoried. Updated Section 4.1 to reference the appropriate Friction Ridge Discipline document. Updated formatting to standardized template.
06	04/03/2023	Section 3.4.7 – Updated to point to Section 5. Section 5 – Added section for image storage requirements.