

Latent Print Section

Entering and Searching Prints in Case AFIS

1. **Scope**

This document outlines the procedures required to enter and search unidentified/questioned friction ridge detail against known friction ridge detail in IDEMIA's Case AFIS system.

2. **Introduction**

Case AFIS is a tool available to the latent print section to assist in searching unidentified/questioned friction ridge detail against known friction ridge detail that is associated with a case. Known impressions submitted as part of a case can be imported into the system and any unidentified/questioned friction ridge detail can be searched against them. Case AFIS uses the same matcher algorithm as the IDEMIA AFIS/NGI system currently in use by the latent print section.

3. **Entry and Searches**

- 3.1 A step by step process on how to enter prints in Case AFIS is provided in the IDEMIA Case AFIS User Guide.
- 3.2 A new case can be created or additional knowns and/or unidentified/questioned impressions can be added to an existing case using the Case Explorer screen.
- 3.3 Enter the laboratory case number, or other identifying information, into the "Case ID" field when adding a new case. No spaces or hyphens can be used in this field.
- 3.4 Add case descriptors if desired.
- 3.5 Enter, encode, and search the known and unidentified/questioned impressions per the IDEMIA Case AFIS User Guide. Case AFIS is not networked. Impressions are entered into Case AFIS as a digital image file via an external storage device.
- 3.6 Impressions may be searched multiple times with varying encoding. If a search is conducted with limiting parameters, these parameters will be noted in the case record.
- 3.7 Testing of Case AFIS has shown that it is best when the minutiae that is plotted is clear and relatively unambiguous. When there might be overlapping ridge detail, every effort should be taken to accept minutiae that is unambiguously related to the area of ridge detail of interest in the search. Just like AFIS and NGI, Case AFIS does not need a large quantity of minutiae for a search, but it needs correctly plotted minutiae for best results. What is accepted is left to the discretion of the personnel performing the search.

4. **Reviewing Search Results**

- 4.1 Search results are accessed through the "Summary" screen.

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- 4.2 Any search results ready for verification are in the “Pending Verification” drawer. Refer to the IDEMIA Case AFIS User’s Manual for instructions on verifying the search results.
 - 4.3 Case AFIS marks all search results above a score of 3500 as “IDENT” (green check mark), any results less than 3500 are marked as “NON-IDENT.” This is a relatively arbitrary threshold. Regardless of whether the system marks a candidate as “IDENT” or “NON-IDENT”, each search result must be manually verified by the examiner.
 - 4.4 Case AFIS search results require manual verification.
 - 4.4.1 Verification decisions are recorded using a button at the bottom right corner of the known image box. The button can appear as a small red “X” if Case AFIS has labeled the search result as a “NON-IDENT” or a green check mark if Case AFIS has labeled it as an “IDENT”.
 - 4.4.2 After manual verification, select the appropriate option from those given in the drawer.
 - 4.5 The nature of Case AFIS is such that two or more copies of the same friction ridge detail can appear in the search results (e.g. f9 and s9, the rolled and slapped versions of the left ring finger). When this happens, only one of the copies of the friction ridge detail need be marked as “IDENT” in the search results.
- 5. Documentation**
- 5.1 The case record and report will reflect which prints were searched in the Case AFIS system and the results of the search.
 - 5.2 Use of the annotation capabilities in Case AFIS are at the discretion of the examiner. If Case AFIS is used to annotate comparisons a copy of the annotation must be retained in the case folder. Additional annotations using Photoshop are optional.