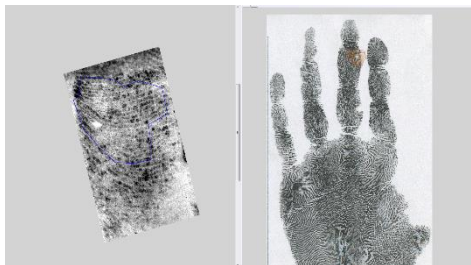


LatentSleuth: Empowering Latent Print Examiners

Sciometrics has developed a revolutionary tool to aid Latent Print Examiners (LPEs) called LatentSleuth. This powerful tool for latent print comparison and evaluation is designed to assist LPEs in **comparing latent prints** to known suspect reference prints, victim elimination sets, and candidates returned from AFIS searches. LatentSleuth offers the possibility to **reduce case backlog** and **increase match rates** for difficult latent prints.

LatentSleuth relies on innovative techniques for matching unlike those found in other fingerprint tools on the market today. LatentSleuth is a novel method for latent-to-reference matching that fully leverages ridge skeletons, is rotationally independent, and effectively handles distortion caused by “elasticity of skin” and other factors. The end result is a mapping between the latent and each reference print being compared. Using ridge skeletons supports a unique detailed warp analysis providing improved placement and visualization. These technologies allow for searching, matching, and examination of more challenging latent prints, including those that are small, distorted, or having few characteristics (minutiae points, cores, deltas).



Unlike a conventional AFIS system, LatentSleuth is not restricted to comparing against standard rolls, flats, and palms. Matching can also be performed against tips, and phalangeal areas of the fingers.

LatentSleuth produces very accurate overlays of the latent print onto each reference print, providing precise placement information for the LPE. The information provided by the overlay eliminates much of the time spent by the LPE searching for the correct orientation and placement of the latent print during the comparison phase of the ACE-V process. The overlay is especially important for latent prints that do not provide sufficient information to determine orientation and/or anatomical origin which often occurs with very small latent prints. Much of the skill and experience required by LPEs involves the evaluation phase where they must “make the call” whether the latent matches, does not match or is insufficient to make a determination. Off-loading the searching process to a computer algorithm maximizes the time spent on the most specialized task for which LPEs are specially trained.

LatentSleuth provides a complete set of side-by-side analysis and annotation tools for the LPE to evaluate the prints, record their findings, and build case documentation. LatentSleuth can export the generated overlays for use by other applications in the LPE workflow. LatentSleuth also features the ability import fingerprint cards, and manage reference prints for one or more cases. Finally, since LatentSleuth focuses the LPEs attention on the most likely matching candidates and identifies the proper placement of the latent on each reference print, the work load can be dramatically reduced. The implication is that the candidate list size need no longer be restricted to 10 to 20 candidates. The candidate list can be increased to 100, 200, or more with little increase in LPE workloads. This will result in a higher percentage of successful matches and fewer missed identifications.

LatentSleuth Benefits

- **Optimizes LPE time** by focusing on making decisions from matched overlays instead of latent print searching
- **Reduces LPE fatigue** by enabling calls on non matches to be made more quickly
- **Significantly expands** available comparison information for even minimal minutiae point and small size latent prints.
- **Provides Enhanced visualization** tools to aid analysis, decision making, and documentation.

