U.S. Department of Justice
Federal Bureau of Investigation
Criminal Justice Information Services Division

The Universal Latent Workstation/Version 6.4

The Universal Latent Workstation (ULW) is an interoperable and interactive software tool developed for latent print examiners. With a single encoding, the software improves the ability to exchange latent friction ridge images involving various Automated Fingerprint Identification Systems (AFIS) - including the FBI's Next Generation Identification (NGI) System. While the software itself does not establish connectivity to these systems, the ULW translates a latent image into a neutrally compatible format for searching. The ULW software is provided at no cost to authorized criminal justice agencies.

ULW Enables a Latent Print Examiner to:

- Upload a latent print image from a scanner, digital camera, or disk file
- Enhance latent print images
- Create an EBTS compliant Latent Fingerprint Feature Search (LFFS) or Latent Fingerprint Image Search (LFIS) file
- Compare the latent image to candidate images in the Search Result Latent (SRL) response
- Manage the search, image request, and response transactions
- Read and display American National Standards Institute/National Institute of Standards and Technology (ANSI/NIST) formatted records

The NEW CAPABILITIES included in this release of the ULW, which may be used immediately are:

- Combine NGI SRLs and latent searches into a single file from within Latent Editor (LE)
- Name of Designated Repository (NDR), Number of Candidates Returned (NCR), and Number of Images Requested (NIR) options on search submission from within Transaction Manager (TM)
- Optimized support for large/palm images
- Increased speed when loading images using "View Images" in Transaction Manager (TM)
- IRQ+ option for Next Generation Identification (NGI) Search Results – Latent (SRLs) allowing for entry of Universal Control Number (UCN), Biometric Set Identifier (BSI), and Friction Ridge Position (FGP)
- The display of specific columns in Comparison Tool (CT) are saved across sessions
- Allow the user to specify the Request Features Record (RFR) default (currently set as "false")
- Allow the user to turn Biometric Decision Responses (BDECs) on/off
- Ability to view Type-17 (Iris) and Type-20 (Source Representation Data Record) images in Latent Editor (LE)
- Compression algorithm enhancements allowing ULW to open more images
- Increased Region Of Interest (ROI) vertices for greater markup accuracy
- "Entire Image is ROI" option for Region Of Interest (ROI) markup when using Extended Feature Set (EFS) profiles.

An upgrade to the current IAFIS, the FBI's Next Generation Identification (NGI) System includes the introduction of an automated palmprint matching capability. This enables criminal justice agencies to search latent palmprints obtained from crime scenes against centralized repositories, enhancing law enforcement's ability to solve crime. ULW Version 6.4 will support the expanded latent search services and improved matching accuracy provided by NGI Increment 3. Users are encouraged to upgrade to ULW Version 6.4 to maximize the benefits provided by NGI.

The **NGI CAPABILITIES** included in the latest release can be enabled by first coordinating with FBI CJIS and then selecting the "NGI Enabled" checkbox within ULW's Latent Editor Program Settings. New capabilities and enhancements include:

- Increased file penetration limit to 50% average for fingerprints*
- Removal of the ridge counting requirement
- Improved Unsolved Latent File (ULF) management based on automated notifications of ULW user's decisions

- Automated ULW feedback that will enable NGI system performance tuning
- Implementation of Extended Feature Sets (EFS)
- Submitted latent prints (finger or palm) can be searched against the centralized National Palm Print System (NPPS)
- Search criminal, civil, and ULF records
- User may request NGI return of Type-9 EFS formatted features and matching minutiae records associated with the returned images
- User may request images from multiple arrest cycles by including BSI in IRQ transactions

**File penetration restriction is completely lifted in extreme cases where no filter parameters (i.e., pattern class, gender, finger number) are known; however, it is recommended that filters be applied when known/appropriate.*

ULW Installation and Support:

To download the latest version of the ULW software, please visit **www.fbibiospecs.org**. Click on the 'Latent Print Services' tab then click the 'Download ULW Software' button to submit your request. Once approved, a link will be sent via e-mail to initiate the download. The downloaded file is a self-installing executable. Administrator privileges are required for installation of the software. ULW help files provide the encoding steps and show examples of friction ridge feature placement. To request assistance for the first encoding via teleconference, please contact: **ulw@leo.gov**.

Connectivity:

Latent connectivity is coordinated through the Customer Service Group of the **FBI/CJIS** Biometric Services Section. To request connectivity, please contact the Customer Service Group at **liaison@leo.gov** or **(304) 625-5590**.

ULW Training:

The **FBI/CJIS** Division offers a full complement of ULW training opportunities, including a hands-on 16-hour course, an 8-hour course, conference workshops, and special request training designed to meet the needs of the requesting agency. For inquiries regarding ULW software training, please contact the Biometric Technology Training Team at **BTTT@leo.gov** or **(304) 625-4980**.

System Resources:

ULW Software can be downloaded (CD available upon request) at no cost to an authorized requestor; however, the user must have a computer, scanner, and Internet access:

Recommended:

- Microsoft Windows 7 with Service Pack 1, Microsoft Windows 8.1 Operating Systems (OS)
- 2 GHz dual-core or faster processor
- 4 GB of RAM
- Video card/monitor capable of displaying "true color" or 65 K colors with minimum resolution of 1280 x 1024
- TWAIN-compliant scanner capable of scanning at 1000 ppi

Minimum:

- Internet access
- Microsoft Vista with Service Pack 2, Microsoft Windows XP with Service Pack 3
- .NET Framework 4.0 Client Profile
- 2 GHz processor
- 2 GB of RAM
- 657 MB of available hard disk space for ULW install only (987 MB including Ground Truth files)
- Video card/monitor displaying 65 K colors with minimum resolution of 1024 x 768
- TWAIN-compliant scanner capable of scanning at least 500 ppi

NOTE: All Windows users are encouraged to update their OS with any available Service Pack due to the enhanced security, functionality, and features provided.

Latent Services Support:

For assistance with latent services, please contact the Latent and Forensic Support Unit at **latentsupport@leo.gov** or **(304) 625-5868**.

For additional information, please visit
www.fbibiospecs.org/Latent/Latent PrintServices.aspx
or email *ulw@leo.gov*

Criminal Justice Information Services Division
1000 Custer Hollow Road
Clarksburg, WV 26306