U.S. Department of Justice
Bureau of Alcohol, Tobacco, Firearms and Explosives

NATIONAL INTEGRATED BALLISTIC INFORMATION NETWORK

NIBIN Server and Software Upgrades and Data Consolidation

Since the last update in the March 2015 newsletter, NIBIN has continued making progress towards the goal of deploying the new TRAX 2.4 and 3.0 software upgrades and the deployment and consolidation of new correlation servers and data concentrators at the Maryland and California ATF facilities. The majority of these deployments will occur over the next several months and continue into early 2016.

Details of these upcoming changes were presented at the NIBIN User Congress and in previous newsletter articles. Additional details will be distributed to the NIBIN user community through upcoming newsletter articles, the NIBIN User's Congress and information distributed to your NIBIN systems.

The TRAX 2.4 and 3.0 software upgrade introduces three new algorithms and new methods of reviewing correlation results resulting in the biggest changes for users in many years. To ensure that these new features are used most effectively, _NIBIN is mandating users complete online training within 30 days of your deployment_. Failure to complete the training within the 30 day window will result in your account being deleted. You will receive an email on the Friday before your Region's upgrade week containing your user ID, password and instructions for logging on the training website.

The TRAX 3.0 upgrade will take 1 week per Region. Forensic Technology will email every site the week before your Region's deployment with the actual days your system will be unavailable to assist with planning your activities.

NIBIN will be sending out regular newsletter articles during these deployment activities to keep our users up to date. Expect to receive new updates every 2-4 weeks with current and timely information.

Phase 1 – New Correlation Server Deployment
Status: **Complete**
Two new high powered correlation servers were deployed at the ATF sites in Maryland and California. Data from the existing 12 servers was copied to the new servers and new data is being replicated daily.

Phase 1a – Data Concentrator Pre-Consolidation
Deployment: April – August 2015
Status: **On Schedule** – 8 of 11 Completed
Consolidate 11 data concentrators to temporary systems at the ATF sites in Maryland and California.

Phase 2 – International Correlation Server (ICS) Upgrades
Status: **Complete**
Additional memory and disk space will be added to the ICS and data prepared for Phase 3.

Phase 3 – TRAX 3.0 and Correlation Server Consolidation
Deployment: August – October 2015
Status: **On Schedule** – Pilot Deployment July-Aug. 2015, Full Deployment Sept.-Nov. 2015
Deploy TRAX version 3.0 and migrate NIBIN sites to the two new correlation servers.

Phase 3a – Create Breech Face Sidelight Signatures for Existing Exhibits
Deployment: October – December 2015
Status: **Not Started**
Create signatures for the hundreds of thousands of existing breech face sidelight images in NIBIN. This processor and server resource intensive task will be accomplished in small batches in the evening hours to minimize disruptions for NIBIN users.
** Existing breech face sidelights will not correlate until their signatures are generated.
New breech face sidelight acquisitions will correlate with post-upgrade acquisitions and with pre-upgrade acquisitions as their sidelight signatures are generated.

Phase 4 – Data Concentrator Consolidation
Deployment: August 2015 – July 2016
Status: **On Schedule** – Acceptance testing scheduled for August 10-14, 2015
Consolidate 27 data concentrators to virtual systems at the ATF sites in Maryland and California.

Phase 5 – Geographical Based Site Data Transfer
Deployment: Q2-4 2016
Status: **Not Started**
Transfer site data so that states and/or geographical regions are located on the same data concentrator. Site data including heritage data had been placed on data concentrators where space permitted, which was not always intuitive for users when trying to find and select sites for manual correlations. The goal is to have all site data for a state on one data concentrator instead of spread among two or more.

Qualifying a NIBIN Technician

The task of cartridge case acquisition can be taught relatively easily and in a short amount of time. However, that is only a small part of what an individual needs to be a qualified NIBIN Technician. The purpose of this short discussion is to assist partner sites in identifying what is needed in qualifying an individual to become an independent NIBIN technician.

The basic training outline would include:
- Firearms – basic operation and functionality of various types of firearms
- Ammunition – determination of caliber and manufacturer related markings
- Firearm produced marking on cartridge cases
  - ◊ Class characteristics
  - ◊ Individual characteristics
  - ◊ Connection between type of firearm and markings left on cartridge cases
  - ◊ Miscellaneous markings that are non-NIBIN related but can assist in acquisition
  - ◊ Cartridge case triage* (if technician will be screening cartridge case evidence)
- Acquisition of cartridge cases into NIBIN
  - ◊ Software manipulation
  - ◊ Imaging using BRASSTRAX™
- Correlation review of images
  - ◊ Software manipulation
  - ◊ Mentored correlation review

This training outline is cumulative and progressive; necessarily building from the first bullet point to later bullet points. It can stop once the acquisition training is complete if the technician will not be required to perform correlation reviews. However, a technician will provide better acquisitions if he or she has a better sense of what will be looked for in the correlation reviews.

That being said, when one seeks to receive acquisition training – whether it be from Ultra-FT, ATF NIBIN Branch or a NIBIN Authorized Trainer (NAT) – it needs to be understood that the acquisition training covers **only** the fourth major bullet point. The agency seeking to have the acquisition training is responsible for ensuring that the preliminary training to include firearms, ammunition and firearm produced markings on cartridge cases is completed prior to the acquisition training.

Upcoming NIBIN Training Courses

Over time, it has become evident that in order for the NIBIN Program to be truly successful, a set of more formalized and different training courses must be developed and offered for its Users. In the past few months, the NIBIN Program has been developing two new training courses and updating those already in use in an effort address this need.

In the past, there has really only been one course that ATF Sites have consistently offered for new Users – the Basic Data Acquisition Training Course. While, from time to time, extra information has been given to people taking this course, its intent is – and has always been – SOLELY to teach people who already have basic (forensic) knowledge regarding firearms how to use what they know in order to properly operate software to acquire images of fired cartridge cases and shotshells for use within a database. This, honestly misses a lot of what Users are expected to accomplish from a holistic perspective. Teaching people to properly enter data but not to (1) necessarily provide guidance about how do it in the most efficient way possible or (2) to teach them how to review and process the data in generating NIBIN Leads certainly leaves a lot to be desired – not only for the User and their site, but for the NIBIN Program as well.

To address the needs of Users, sites, and the NIBIN Program, two new training courses are in the final stages of development and those in existence are in the final stages of being updated to better suit everyone.

- The first course that has been developed is an Evidence Flow and Triage Course. It will provide individuals with strategies and guided practice in dealing with volumes of items in a timely manner regarding IBIS entry.

- The second new course is one regarding the MatchPoint and Data Review. For years, the most that many Users received regarding MatchPoint training was a quick overview of the software. This course will allow for a more thorough overview of the software, provide strategies for reviewing and interpreting data in casework, and provide information about the different toolmarks and characteristics left on a cartridge case that a User will be looking at.

- The two courses being updated are the Data Acquisition Course and the NIBIN Authorized Trainer Course. The general content of both will change a bit to address needs that have arisen and to do a more thorough job in covering the information involved in each.

It should be no secret that a site filled with individuals who use their BrassTRAX system regularly and who have received a higher level of training than just that which is currently received in the basic data acquisition course tends to be one that is more likely to be truly successful within the NIBIN Program. More – or higher quality – training provides people with ways to perform tasks more efficiently and effectively. The NIBIN Program hopes that the development and updating of these courses will provide sites with Users who will be better able to (1) generate a high quality database for everyone in the country to work with and (2) to identify timely, reliable NIBIN Leads for investigators to use on a regular basis to remove active participants in gun crimes (and the sources of their guns) from our community.