

*Approved by Director: Dr. Guy Vallaro*

A. **PURPOSE:**

The Division of Scientific Services utilizes one domain to run and maintain the LIMS system (Laboratory Information Management). The LIMS system is JUSTICETRAX LIMS PLUS (JT). The system is used for evidence management from case number assignment to chain of custody tracking and in some disciplines for case reporting.

The JusticeTrax system is maintained on one SQL Server running two separate databases, two domain controllers and one file server. In 2014 the two JusticeTrax systems were merged; two databases are maintained. Controlled Substance and Toxicology cases prior to January 2014 must be searched through the section specific database. All cases received after January 1, 2014, regardless of the section, can be found on the merged database.

B. **RESPONSIBILITY:**

System Administrator: is responsible for maintaining both servers including the domain and LIMS capabilities.

LIMS Administrator: is responsible for the upkeep to the JusticeTrax system and to aid users of the system as issues arise. The LIMS and System Administrators act as backup to each other.

Laboratory Administrative Manager (LAM): is responsible to oversee the operations of the LAN and LIMS via the system administrators.

All DSS Employees: are responsible to use LIMS as appropriate for the work assigned and to use the LAN (Local Area Network) and Internet features as appropriate to the job, adhering to state of CT computer/internet use guidelines.

C. **PROCEDURE:**

1. LIMS/LAN General Information:

- a. The LIMS system is served by two central server units, located in a secure room, the servers are maintained by the System Administrator. The room conditions are those to provide proper environmental conditions for the servers.
- b. To protect the overall systems, only the designated System Administrator and specified designees will have authorization and the necessary passwords to work on the server unit or conduct system administrator functions.
  - i. LAN and LIMS passwords will be issued by the LIMS or System Administrator, as appropriate.
  - ii. Security classifications will be issued by the System Administrator on the LAN and by the LIMS administrator for LIMS. This will be commensurate with an individual's responsibilities, as determined by the Director or their designee.

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- iii. Addition, deletion, or modification of any software contained on a networked computer is prohibited without prior authorization from the System Administrator.
  - (a) Note the nature of the work in some areas, such as Multi-Media and Computer Crimes may require specialized software based on case specifications. This is allowed based on guidance in the unit procedures.
- c. To protect the records within the LIMS system, the system is set up to back-up to a tape system daily. These tapes are transferred to Building 3 of the complex monthly, a log will be maintained documenting this transfer. The system administrator is responsible to maintain this system.
- d. All problems and questions concerning the LAN and LIMS systems should be directed to the System Administrator or LIMS Administrator.
- e. Thumb drives, discs or other storage devices should be scanned for viruses if they have been used on a computer not belonging to the DSS before opening any documents or programs.
2. Security of the LAN and LIMS systems: the DSS protects the systems from unauthorized access through the use of assigned user names and secure passwords. In general only DSS employees have access to these systems.
  - a. The only outside vendor allowed access, per the Director, is the JusticeTrax company for product updates. This is only allowed under supervision by the LIMS Administrator or their designee.
  - b. LAN Security:
    - i. To access the LAN system individual user names and passwords are used. User names are assigned by the system administrator with a generic password; employees must change this password. And it is expected that these will be kept secure.
      - (a) When creating a password it must be at least 9 characters long and contain a mix of letters, and numbers. The system will direct the user as to the needed number of characters.
      - (b) Employees should periodically update their passwords.
    - ii. Users with access to the LAN can access documents and create documents using the various security features.
  - c. LIMS Security:
    - i. To access the LIMS system individual user names and passwords are used. User names are assigned by the System Administrator or LIMS Administrator with a generic password; employees must change this password. LIMS passwords must be securely maintained.

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- ii. PIN (Personal Identification Numbers) are assigned by the LIMS Administrator. These must be changed by each employee and kept secure, PINs must not be shared. PINs represent an electronic signature within LIMS.
    - (a) All evidence transfers (either of complete cases or sub-items) amongst employees are tracked using user name and PIN. The PIN is the basis for secure transfers. Both persons involved in a person to person transfer will use their PINs.
    - (b) Evidence transfers from an individual to a storage location require only the individual to enter their user name and PIN.
  - iii. The System/LIMS Administrator assigns "Roles" in JusticeTrax. The roles designate the areas in JusticeTrax that can be utilized by the employee. The assignment of specific "Roles" is as designated by the Director.
    - (a) Along with the "role" assignments, case results can only be added or changed by the analyst assigned to the case.
  - iv. Currently, data is not transferred electronically via the LIMS outside of the DSS.
3. LAN Features: the LAN systems are set up to provide access to employees based on the needs of their job. There are shared drives and private drives allowing employees to create and access documents.
- a. The internet is set up on a number of computers throughout the facility. All employees have user names and passwords to access these terminals.
    - i. Internet use is limited to job-related purposes. Employees must remember to follow state of CT guidelines for internet use.
4. LIMS Features: Each DSS discipline uses the features of JT to different extents, to best suit the needs of the unit. All units use the case numbering, and evidence transfer features of the system, including those for sub-itemization tracking as needed. As appropriate units will give guidance in how JT is used within the unit. All units use the case milestone tracking features.
- a. Case Numbering: cases received by the DSS are assigned unique case identifiers by the JT system. This alpha numeric designation is the identifier for the evidence for the time it remains in the DSS. The case number is used to identify paperwork and case files associated with the case. The JT system numbering system is set up in the following format:
    - i. XXX-YY-ZZZZZ
    - (a) The first three digits are DSS. The next set of digits (YY) represent the year the case was opened, final set of numbers is the sequential designation for a specific case.

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- (i) Cases entered between 2010 and December 31, 2013 were entered into two separate JusticeTrax systems. For these cases the first two digits are "TX" for the Controlled Substance and Toxicology Laboratories and "ID" for all other units.
- (ii) Controlled Substance and Toxicology cases entered into JusticeTrax (under a separate server) from 1999 to 2010 have "ID" as the two letter designation.
- ii. For older cases (pre-1998) the case number is represented as IDXXLNNNNNDN.
  - (a) "ID" for the Forensic Laboratory.
  - (b) XX indicates the year the case was submitted.
  - (c) L (letter) indicates the month that the case was submitted to the laboratory with (A= January, B= February, C=March, D=April, and so on).
  - (d) NNNN is the sequential case number.
  - (e) D indicates the alphabetic designation of the lab sections as referred in the 2007 Laboratory Quality Manual, section 3, revision 4 (04/2007).
  - (f) The final N- number represents the submitting agency designation as referred in the 2007 Laboratory Quality Manual, section 3, revision 4 (04/2007).
- iii. Other unique identifiers are acceptable for special tracking. DNA Database samples and Breath Alcohol instruments each have unique prefixes allowing for specific tracking. Other unique designators may be used if cases are resubmitted and were part of an old numbering system.
- iv. Once a case number is assigned bar code labels can be generated for the case these are attached to the evidence and can be attached to any paperwork submitted.
- v. Sub-itemization: a JusticeTrax function allows for sub-itemizing case materials with the COC tracking of those items. Specific units which use this function may designate this in their unit specific SOPs. In general, if the sub-item is taking a separate path than the parent item it must be sub-itemed to allow for the Chain of Custody to be accurately represented. Note: this does not relate to substances designated as "work product" or "Aliquots" (see below).
- vi. Once items are separated from a submission and are packaged separately, item number(s) must be designated. Entry of the item number into LIMS should be done at the earliest appropriate and convenient time.
- vii. The item number should be assigned as follows: [submission number] – letter designation [listed below] - [sequential number for each item, if not batched]. For cases that are not shared the JT default designation may be used. The analyst must ensure that no 2 items have the same designation.

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- (a) Sub-items from a single submission can be batched if the items are not to be immediately analyzed or transferred to another unit. Batched items can be given the same item designation.
- (b) Sub-items that are designated as aliquots (example: a small portion of powder substance isolated from a larger portion for analysis in the CS unit) need not be transferred in JT if aliquot remains in the custody of the analyst performing the testing.
- (c) Extracted items are considered "Work Product" is not considered evidence in the Toxicology Unit or FB/DNA section and do not require chain of custody transfers in JT.
- (i) Item numbers assigned to the sub-items should be issued according to the following letter designation scheme, which *indicates the unit generating evidence & the item number*:

1. Letter Designation

<u>Letter Designation</u>	<u>Unit</u>
A	Arson
D	Questioned Documents
E	Explosives/Chemistry
F	Firearms
S	Forensic Biology NOT DNA ONLY
G	DNA ONLY
Y	Gunshot residue
Z	Trace (paint.)
I	Imprints
L	Latent Prints
T	Tool marks
M	Multi-Media
C	Computer Crimes Unit
RPT	All units Report designation

Note: The above listed scheme is used when evidence is to be transferred between units. See Forensic Biology SOPs for the itemization of sexual assault kits.

Examples: #3-S2 indicates that the sample contained material that was removed by the Forensic Biology unit from submission #003 and is the second sample taken by Forensic Biology from that submission.

#3-L indicates the Latent Fingerprint unit removed one or more samples from submission #003 and these samples were batched for computer record purposes, since no transfer to another unit or individual examination of the items took place.

Note: Units may choose to eliminate the hyphens so #3Z2 is the equivalent of #3-Z2; this does not represent a deviation.

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- b. Evidence Tracking: cases entered into the LIMS system are tracked from person to person or person to/from storage locations using JT. Each transaction is listed in the Chain of Custody section for the case. This tracks who/where the case came from and at what date and time and to whom/where it went. Any individual involved in a transfer will use their PIN to secure the transfer; an X next to a name on a transfer indicates that a PIN was used. The COC can be printed at any time from JT.
- i. JT allows for the generation of evidence receipts when a case is first submitted to the laboratory and when it is returned to the submitting agency. These receipts are signed by the ECO and the submitting agent. A copy of the receipt goes to the submitting agent and the original goes into the case file maintained in the Evidence Control unit.
- (a) Samples received by mail, email or fax (such as DUI Urine samples, Breath Alcohol conversions or Latent Prints) will have a receipt generated, however there will be no signature under the submitting agency.
- ii. The “note” box in the Evidence Transfer field is to be used if there is an unusual circumstance associated with the transfer. This will not be used for commonplace evidence transfers. The note box can only accommodate 30 characters so the note may need to be simple such as “see notes in the case synopsis” or “see note in case file”, with a note added to the appropriate location.
- The use of the note field will make it clear when the chain of custody is reviewed or printed that there is something outstanding/notable concerning the chain of custody.
- (a) Example of when the note function should be used:
- A Deputy Director needs to reassign evidence to a new analyst. The evidence is in the custody of an analyst that is on extended leave. The Deputy Director should add a note as to why the transfer is being performed without the original analysts PIN.
- Or
- There is an error in the chain of custody. An analyst thought they transferred evidence to a storage location but they did not and it is discovered at a later date. The analyst should add a note such as “transfer error see synopsis”.
- c. Case Assignment: cases are assigned, generally by Evidence Receiving or Case Management, to a specific unit by choosing the various analytical modules. Once assigned to a unit the case can be assigned to a specific analyst with in the unit. Assignment is generally done by the Lead or their designee.
- i. Once a case is assigned to an analyst only that analyst can enter results for the case.

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- d. Rush Levels can be designated through JT, in general rush levels will be annotated in LIMS by a member of Case Management:
- i. Rush Level 1: The highest level expedited case. In general, the results may be associated with a public safety issue or a flight risk. These cases are approved by the Division of Scientific Services Director. Based on the needs associated with the case, analysts may need to work outside of normal laboratory hours. Typical turn-around time for these cases is less than 48 hours.
  - ii. Rush Level 2: A case that is approved by the Division of Scientific Services Director or the appropriate Deputy Director to be expedited and prioritized. The priority is based on the specific needs associated with the case. These cases may require the analyst to work a minimal amount of time outside the normal laboratory working hours. Typical or expected turn-around time is less than one week or the time needed to meet judicial expectations.  
  
The time frame for rush cases is guidance, it is understood that when case materials must cycle through multiple units this may extend the process. The Deputy Directors are responsible to track this flow to assure timely analysis.
- e. Case Reporting: some DSS units use templates which are set within JT for case reports, other units generate laboratory reports using templates created as word documents. The JT reporting features include evidence description, and results. The current crystal reports are set to download demographics for the case into the report format. Units using word reports will save all reports in an electronic read only format in a secure accessible location on the server once the report is administratively reviewed. Whenever possible case reports will be linked to JusticeTrax.
- f. Case reports are, in general, sub-itemized in JusticeTrax and a bar code will be generated for the report (see GL-11 for exceptions to this process).
- g. Milestones: this section allows for the tracking of the progression of a case, cases can be called up and using this function a lead or other analyst can determine what stage of analysis the case is in. The milestones are:
- i. Unassigned
  - ii. Assigned
  - iii. Findings entered
  - iv. Draft complete
  - v. Technical review

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vi. Administrative review.

These include the assignment, and completion of the milestones. Milestones are to be updated in real time in JusticeTrax.

- h. Case Synopsis: allows for notations to be added to the case. Communications concerning the case should be annotated here.
  - i. Activity Tracking: JT allows work related activities to be tracked. Analysts can use this to account for time not performing case work, such as court testimony, giving or attending lectures, working on proficiency tests, attending a crime scene, or other activity. The notes section can be used to describe the event and the time attended. All employees will utilize this for subpoena and court activities. (Refer to GL-17)
  - j. Training records: this section allows for the recording training events that have been attended by employees.
  - k. Other tools are available within JT. These may be used as needed based on the needed task.
5. If a component of a case (i.e. case demographics) must be edited in JusticeTrax a note must be added to JusticeTrax in the synopsis area, describing the change(s). Additionally the same information will be added to the main case jacket and the unit case jacket. The person making the edit must ensure that if the edit affects multiple units that they inform all appropriate units; this can be coordinated thru the Case Management unit.
- a. If the case on a whole or multiple submissions of the case is affected, the note is to be placed in the case synopsis with the initials of the person making the edit, and date the edit was made.
  - b. If only a portion of the case was affected (say one submission only) the note may be added to the notes section on the Evidence tab in JusticeTrax.
  - c. In general only the JT administrator or their designees are authorized to make edits to specific fields in JT, edits are approved on a case by case basis and through approval of the LAM or Director. Authorization in JT are defined based on user designations in JT.
  - d. The chain of custody should not be edited. When issues occur to the COC the note function should be used. In the rare case of a JT error the Director may authorize a chain of custody to be edited. The need to edit a COC will be clearly documented/explained in the case synopsis and main case file.
6. Data Archiving:
- a. The System Administrator is responsible to maintain the servers including archiving data as needed. Any files not accessed by a date as designated by the Director, will be copied to the SAN and deleted from the servers. This is done to assure adequate storage space on the servers.

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- b. The SAN is replicated and backed up virtually in increments daily and in full on a weekly basis.
- c. Tapes generated from the back-ups are transferred monthly to the VA in Rocky Hill for storage.
- d. To retrieve information from a file prior to 2012 a request should go to the System Administrator through the Laboratory Administrative Manager.

7. REFERENCES:

- a. JusticeTrax Users Guide

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