LABORATORY ELECTRONIC DATA INTERCHANGE PHASE II (LEDI II) USER MANUAL

LA*5.2*46/LR*5.2*222

Version 5.2

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Department of Veterans Affairs
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Office of Information
Preface

The Veterans Health Information Systems and Architecture (VISTA) Laboratory Electronic Data Interchange (LEDI II) User Manual Version 5.2 for patch LA*5.2*46 and patch LR*5.2*222 provides the Department of Veterans Affairs Medical Center (DVAMC) Information Resource Management (IRM) staff, Laboratory Information Managers (LIMs), and other DVAMC users with a straightforward means for implementing and utilizing the LEDI II software.

The LEDI II User Manual (Patch LA*5.2*46 and LR*5.2*222) focuses on easy-to-follow step-by-step instructions. This user manual consists of the following sections:

**Introduction:** This section conveys the major functions, purposes, and how the software accomplishes the objectives.

**Orientation:** This section defines the symbols and computer screen dialogue used throughout the LEDI II User Manual.

**Package Management:** This section contains mail groups, alerts, security keys, special VA FileMan access codes, and other security measures information included with the LEDI II software release.

**Package Operation:** This section describes what the user needs to know in order to competently operate the LEDI software application and where to access the on-line documentation.

**LEDI II Implementation Instructions:** This section contains detailed setup instructions to successfully implement the LEDI II software application. LEDI II setup instructions **must** be performed in sequence, by IRM and LIM staff. The setup instructions are listed in step-by-step order.

**LEDI II Setup Checklist:** The checklist is provided to ensure that the LEDI II setup implementation process has been completed as instructed in the package operation section of this user manual.

**Glossary:** This section contains the glossary of terms that are related to the LEDI software application.
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Step #5 continues for COLLECTION facility

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Step #6 LIM (host facility): LAB SHIPPING CONFIGURATION file (#62.9) Setup

Host Facility:

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Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option

Step #6 continues for HOST facility

Step #6 continues for HOST facility

Step #6 continues for HOST facility

Step #6 continues for HOST facility
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Introduction

Overview

The Veteran Integrated Service Network (VISN) mission is to consolidate electronic lab test ordering and lab test result reporting throughout all Veterans Affairs (VA) Medical Care Facilities Laboratories within a VISN, between VISNs, and non-VA organizations (i.e., commercial reference laboratories). The existing VISTA Laboratory Electronic Data Interchange (LEDI) software application required modifications and enhancements to accomplish this mission without diminishing the quality of services in patient medical care.

VISTA Laboratory Electronic Data Interchange (LEDI)

The VISTA Laboratory Electronic Data Interchange (LEDI) software provided the Laboratory V. 5.2 software package and Laboratory’s Automated Instrument (AI) software application the following features and functionalities:

- Laboratory Electronic Data Interchange (LEDI) – Electronic Messaging
- Electronic Lab Test Ordering
- Electronic Lab Test Results Reporting
- Bar-code Specimen Accessioning
- Workload

VISTA Laboratory Electronic Data Interchange Phase II (LEDI II)

The VISTA Laboratory Electronic Data Interchange Phase II (LEDI II) software application provides electronic messaging for Lab Test Ordering and Lab Test Results Reporting between VA Health Care Facilities laboratories based on the Health Level Seven (HL7) Version 2.3 Standard Specification and VISTA Health Level Seven (HL7) Version 1.6 Standard Specification. These Specifications are used as the basis for defining VISTA Laboratory Universal Interface (UI) and LEDI HL7 Interface Standard Specification Version 1.2.
Introduction

New Functionality

LEDI II software application provides the following new features and functionality for Laboratory V. 5.2 Package and the Automated Instrument (AI) software applications.

- Laboratory Electronic Data Interchange (LEDI) - Electronic Messaging
- Electronic Lab Test Ordering
- Bar-code Specimen Accessioning
- Electronic Lab Test Results Reporting
- Workload

Patient Lookup

The patient lookup functionality relieves accessioning personnel from manually entering patient’s demographics. The lookup functionality checks the PATIENT file (#2), REFERRAL PATIENT file (#67), and LAB PENDING ORDERS ENTRY file (#69.6) when using bar code scanning. This patient lookup functionality will reduce or eliminate typographical mistakes and decreases the possibility of duplicate entries. The Patient demographics displays the following fields:

⇒ **Full Name**

⇒ **Date of birth (DOB)**

⇒ **Patient Identification (SSN)**

⇒ **Sex**
LEDI II Enhancements and Modifications

Enhancements:

1. Sending/Receiving Laboratory HL7 Messages
   New functionality has been added for sending and receiving Laboratory HL7 orders/results messages with non-VA facilities (Commercial Reference Laboratories).

2. TCP/IP Protocol as a Communication Protocol
   Additional new support is added for TCP/IP protocol as a communication protocol for the transmission of LEDI HL7 messages (i.e., requiring patch HL*1.6*19 to have been successfully installed). The implementation of this communication protocol in lieu of VA MailMan protocol will significantly increase transmission speed of messages and reduce system overhead/storage. Both client and server must coordinate the switch to this new communication protocol transmission method. The following two logical links are established to exchange messages:
   
   - Server (listener) logical link used to receive and process messages.
   - Client logical link used to transmit messages.

3. Building Lab Test Orders
   The process of building orders in the LAB PENDING ORDERS ENTRY file (#69.6) has been enhanced to use information from the LAB SHIPPING CONFIGURATION file (#62.9), to create orders based on the host site’s specified collection sample and urgency.

4. Processing NTE Segments
   The capability to process NTE segments following OBX segments have been enhanced to site-selectable. Comments found attached to specific lab test results are stored as comments. The AUTO INSTRUMENT file (#62.4), CHEM TESTS subfile (#30), REMARK PREFIX field (#19) can be used to specify a comment prefix that is made a part of the comment.
5. Storing Test Reference Ranges
Storing test reference ranges, abnormal flags, and the name of the performing laboratory have been **enhanced** to site-selectable. These parameters are stored as COMMENTS with the results. This information is prefixed with the REMARK PREFIX field (#19), of the AUTO INSTRUMENT file (#62.4).

6. Specifying Final or Incomplete Lab Test Results
The ability to specify whether final or incomplete lab test results are processed has been **enhanced** to site-selectable.

7. New SM40 Shipping Codes
The **new** SM40 shipping code (required shipping information update) has been added to the LAB ELECTRONIC CODES file (#64.061). The SM40 shipping code is used for recording this information in the LAB SHIPPING EVENT file (#62.85).

8. Building a Shipping Manifest
The process for building a shipping manifest has been **enhanced** to allow the user to specify the starting and ending accession numbers to check within an accession area. This feature will shorten the manifest building time when searching a yearly accession area with a large number of accessions. This new feature allows the site to skip the accessions numbers that were completed earlier in the year and no longer need to be checked to determine if any of the tests meet the criteria for building to a manifest.

9. Closing a Shipping Manifest
The process of closing a Shipping Manifest has been enhanced to perform **new** checks for the following required information:

- Each lab test has an order NLT code assigned.
- When shipping to a facility that does not use VA NLT codes for lab test ordering, the appropriate non-VA lab test codes/names is designated for all tests on the Shipping Manifest.
- Site-specified required patient/specimen information is entered.
10. Result (ORU) Messages
LEDII Result (ORU) Messages includes the test interpretation found in LABORATORY TEST file (#60) as a comment (i.e., NTE segment) following the lab test results. Lab test results storage is checked against the VA FileMan input transform for the data name used to store the Lab test results in LAB DATA file (#63). If the lab test results does not pass the VA FileMan input transform check, then an error message is generated via the Lab Universal Interface error reporting process. Result values “canc”, “pending”, or “comment” are stored in LAB DATA file (#63).

11. Result (ORU) Messages
The process that triggers LEDII Result (ORU) Message generation, during lab result verification, has additional checks to confirm that the results being returned to the collecting site match the ordering information from the collecting facility. Patient and specimen identifiers used by the host and collection facilities are checked for expected consistency. When identifiers do not match, the HL7 message transmission will be aborted and an error message generated via the Lab Universal Interface error reporting process. Error messages #40-45 have been added to the LA7 MESSAGE LOG BULLETINS file (#62.485) to support this functionality. These are additional safety checks being incorporated into the software in response to a recent patient safety alert involving the Laboratory V. 5.2 Package.

12. Referral Patient Multi-purpose Accession [LRLEDI] option
LEDII software contains additional support when using the Referral Patient Multi-purpose Accession [LRLEDI] option to accession specimens thru the Laboratory Electronic Data Interface (LEDI). LEDII now builds the LAB PENDING ORDERS ENTRY file (#69.6) with additional information concerning mapping to local host test urgency. This local urgency information, stored in File (#69.6), is utilized when accessioning LEDII specimens at the host laboratory.
Modification

VA FileMan Database Server Call
Laboratory Package V. 5.2 previously used a classical VA FileMan DIE Call when storing comments in LAB DATA file (#63). This VA FileMan DIE Call did not allow the comment to contain a semi-colon “;” character because FileMan used this character to parse fields requiring editing in the DR string. This function has been changed to the VA FileMan Database Server Call, which does not have this restriction. Comments can now contain the semi-colon “;” character.

VISTA BLOOD BANK SOFTWARE V5.2 DEVICE PRODUCT LABELING STATEMENT

12. June 10, 1999

VISTA Laboratory Package patches LA*5.2*46/LR*5.2*222 contain no changes to software controlled by VHA DIRECTIVE 99-053, titled VISTA BLOOD BANK SOFTWARE.
Flow Chart

Laboratory Electronic Data Interchange (LEDI) Flow Chart

Collection Facility

Specimen Collection

Specimen Accession

Send out Lab Tests To Host Facility

Collection Facility Normal Processing

Host Facility

Specimen Tubes/Shipping Manifest

Collection Facility Orders Pending

Host Facility Specimen Receiving

Specimen Accession

Status Message

Specimen Analysis

Lab Test Results

Collection Facility Patient

Host Facility Patient Data

HL7 Messaging

Auto-Instrument File

Lab Test Results Pending Acceptance by Collection Facility

Collection Facility Patients Verified Lab Test Results
Introduction
Orientation

This section defines the symbols and computer screen dialogue used throughout the LEDI II User Manual.

Computer Dialogue

The computer dialogue appears in Courier font, no larger than 10 points.
Example: Courier font 10 points

User Entry Response

User entry response appears in boldface type Courier font, no larger than 10 points.
Example: Boldface type

Return Symbol

User response to computer dialogue is followed by the <RET> symbol, which appears in Courier font, no larger than 10 points, and bolded.
Example: <RET>

Tab Symbol

User response to computer dialogue is followed by the <Tab> symbol, which appears in Courier font, no larger than 10 points bold.
Example: <Tab>

Bracket Symbol

The bracket symbols [ ] are used for notations within the computer screen dialogue.
Example: [ ]
References

The following references may be helpful when installing and implementing the LEDI II software application:

- Kernel Systems Manual V. 8.0
- Kernel Toolkit V. 7.3
- Laboratory Universal Interface Patch LA*5.2*17-Patch LR*5.2*65 V. 1.0
- VA FileMan V. 21.0
- VA MailMan V. 7.1
- VISTA Health Level Seven Site Manager & Developer Manual Version 1.6*56
- VISTA Laboratory Health Level Seven (HL7) Interface Standard Specifications V. 1.2
- Health Level Seven Standard Version 2.3.1 © 1997 by the Health Level Seven, Inc.

NOTE: Copies of the HL7 standards are available via the HL7 (VISTA Messaging V. 1.6 Home Page at http://vista.med.va.gov/hl7/)
Package Management

The LEDI II software application consists of the following mail groups, alerts, security keys, VA FileMan access codes, and security information.

Contingency Planning

Each facility using the LEDI II software application must develop a local contingency plan to be used in the event of application problems in a live environment. The facility contingency plan must identify procedures used for maintaining the functionality provided by the software in the event of a system outage.

File Security

LEDII changes and enhancements do not modify any existing file security schemes. New files exported by the patch installation have no file security applied. However, VA FileMan security access L1 code is recommended if file security is deemed necessary by the facilities.

Security Keys

LRDATA key
The LRDATA security key is used to identify personnel that are allowed to edit or change test results that were done by another laboratory. If an associated division did not generate the results, this security key is required to change the results. The Laboratory responsible for the original lab test results must send and edit the LEDI II messages to correct errors.

LRLEDI Security Key
The LRLEDI security key is used to identify users that are charged with the setup and configuration of the LEDI II software functionality. In most instances, the LRLIASON key holder would also hold this key.

NOTE: LEDI II setup options are exported with the LRLEDI security key already assigned.
Electronic Signature

There are no electronic signatures utilized in the VISTA LEDI II software application.

Purging Capabilities

LEDII purging capabilities are provided through the Universal Interface (UI) software. The Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option is used to purge messages in the LA7 MESSAGE QUEUE file (#62.49) when the messages become eligible for purging. This option must be scheduled to run daily, preferably during a period when activity in the Lab Messaging (i.e., UI and LEDI software) is at a minimum. See the Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option description for additional information and functionality. Purging of messages for each configuration can be set in the LA7 MESSAGE PARAMETER file (#62.48) using the Grace Period For Messages field (#3). The Default value is 3 days.

Instrument Interfacing

LEDII is an enhancement to Laboratory V. 5.2 and does not specifically involve instrument interfacing. All electronic communication is via established HL7 procedures for transmitting messages. The VISTA Laboratory HL7 Interface Standards have been enhanced to accommodate expanded messaging capability.

Remote Systems

Remote systems are defined as any computer system sending to and receiving HL7 messages from the Host laboratory computer system. In VA-to-VA configurations – this can be within the same system (i.e. multidivisional sites), or it can be from one system to another system, (i.e. non-related sites). In the case of non-VA computer systems, connection to remote systems is done via Generic Instrument Manager (GIM). The GIM is the remote system, not the non-VA computer system.
NOTE: As of the release date of this software, there is no national solution to implement a laboratory electronic HL7 standard interface to a facility or other entity outside the VA wide area network. National communication security concerns are still being debated by the Department of Veterans Affairs (VA) and are awaiting resolution. At present, a VA medical center, which intends to utilize this software in conjunction with an interface to a commercial reference laboratory or other non-VA information system entity, will need to coordinate with the vendor an acceptable communication method. Any implementation will need to be approved by the facility and VISN Information Security Officer (ISO) and meet current VA security requirements for external electronic connections. See VHA Directive 6212, Security of External Electronic Connections and VHA Directive 6210, Automated Information Systems (AIS) Security for additional information and guidance. Additional security information may be obtained from the Health Information Security Service (HISS) web page at http://vaww.va.gov/miss/

Implementation of a HL7 messaging interface between the VA VISTA Laboratory package and a non-VA information system consists basically of three parts:

- **VISTA** Laboratory LEDI II software.
- Certified communication software and hardware.
- Non-VA information system capable of sending and receiving Laboratory HL7 order and result messages.

All three parts must be functional to utilize the capabilities of this LEDI II software patch. The implementation, setup, and configuration of vendor provided hardware and software are NOT addressed by this documentation. Consult the vendor provided documentation and instructions to interface to the **VISTA** Laboratory package.

LEDI II utilize the HL7 V. 2.3.1 Standard and the **VISTA** HL V. 1.6 software to transmit and receive HL7 messages via VA MailMan or Transmission Control Protocol/Internet Protocol (TCP/IP). The software transmits unsolicited order and result messages and receives acknowledgments back confirming or opposing the proper delivery of the messages. One order message is transmitted for every manifest or lab delivery to a remote facility system. One result message is sent to each facility per verifying session. To reduce the turn around time and network mail traffic, TCP/IP is recommended as the message delivery medium.
LEDII Mail Groups

The following mail groups are required to successfully utilize the LEDII functionality. LEDII uses VA MailMan or TCP/IP as the medium to transmit and receive data from remote systems.

LAB MESSAGING Mail Group:

This is a general mail group used by the LAB Universal Interface and LEDII software to address alerts when conditions are detected requiring review and/or corrective action. The members of this mail group should, at the minimum, include the LIM and selected Lab and IRM personnel responsible for maintenance and support of the LAB Universal Interface and LEDII software. The software utilizes several Kernel Alerts. These alerts are triggered and sent to members of the LAB MESSAGING mail group for the following conditions:

- When the scheduled tasked Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option or the Start/Stop Auto Download Background Job [LA7 ADL START/STOP] option is run and more than 500 entries are found scheduled for downloading via the Lab Universal Interface an alert is sent notifying members of this condition.

- When the scheduled tasked Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option or the Lab Messaging File Integrity Checker [LA7 CHECK FILES] option is run and LA7 MESSAGE QUEUE file (#62.49) is found to have bad entries and/or cross-references. An alert is sent notifying members of this condition.

LA7V* Mail Groups:

These mail groups are used by the HEALTH LEVEL SEVEN package for transmitting LEDI HL7 messages when VA MailMan is selected as the HL7 communication protocol. These mail groups are created by the LEDI Setup [LA7V SETUP] option using the LA7V name space concatenated with the receiving facility’s primary station number. For example, to send HL7 messages to Dallas OI Field Office, VA Station Number 170, the LEDI Setup option would create a mail group LA7V 170. Other than the remote member added by the LEDI Setup option, no local or remote members should be added to these mail groups.
Local Mail Groups:

It is highly recommended that each facility designate local mail groups for receiving the “New Results”, “Orders Received”, and the “Error on Message “ alerts associated with the LEDI II software application. Please review the following section on ALERTS for information on the various alerts that are generated by LEDI II.

Alerts

LEDI II software uses the LA7 MESSAGE PARAMETER file (#62.48) for sending alerts to the mail group specified in the Alert Condition subfile (#68.481). The facility should designate a local mail group to use for notification of the alerts. These alerts and the associated mail group are configured using the LEDI Setup [LEDI SETUP] option, within the message configuration section of this option. The following are the three types of alerts that can be turned on for each configuration:

1. **New Results Alert** - notifies members when the Lab Universal Interface software has processed an HL7 message containing test results. An example of this information type of alert is: “Lab Messaging – New results received for LA7V HOST 578”.

2. **Error Alert** - notifies members of error conditions encountered during the processing of a Laboratory Universal Interface message. Recommend that sites utilize the LAB MESSAGING mail group to notify local users of error conditions within the Laboratory Universal Interface/LEDI software. Processing the alert allows the user to view/print the error message and the associated HL7 message. An example of this action type of alert is: “Lab Messaging error #17 on message #246164473”.

3. **New Orders Received Alert** – notifies members when the Laboratory Universal Interface software has received electronic orders related to a collecting facility’s shipping manifest. An example of this information type of alert is: “Lab Messaging - Manifest# 537-20011030-3 received from LA7V COLLECTION 537”.

Package Management
LEDI II Implementation Instructions

This section contains detailed instructions to successfully implement the LEDI II software application. LEDI II setup instructions must be performed in sequence, by IRM and LIM staff. The setup instructions are listed in step-by-step order.

NOTE: A checklist is provided at the end of this implementation section to ensure that the LEDI II implementation process has been completed as instructed in this section.

LEDI II Two-Part Implementation Setup

The LEDI II software application requires the following two-part implementation setup:

Collection facility laboratories must be setup to perform the following:

- Create an electronic Shipping Manifest (i.e., specifying lab tests to be performed by the receiving host facility laboratory).
- Transmit the Shipping Manifest to the host facility laboratory.
- Transport the specimens to the host facility laboratory.

Host facility laboratories must be setup to perform the following:

- Receive the electronic Shipping Manifest List (transmitted by the collection facility laboratory).
- Scan the Shipping Manifest upon specimen arrival at the host facility.
- Bar codes the specimen arrival at the host facility.
- Perform the specified lab tests and verifies the lab test results.
- Transmit lab test results back to the collection facility.
**IRM and LIM Setup Instructions**

**NOTES:**

The collection and host facilities IRM and LIM staff must coordinate the LEDI II implementation setup once the LA*5.2*46 and LR*5.2*222 patches have been installed.

The IRM and LIM staff must perform the LEDI II implementation setup instructions in the sequence specified below.

---

**Step #1 - IRM: INSTITUTION file (#4) Setup**

LEDII software application uses the INSTITUTION file (#4), NAME field (#.01), DOMAIN field (#60), AGENCY CODE field (#95), and the STATION NUMBER field (#99), to identify both the collection and host facilities.

**IRM:** Use VA FileMan [DIUSER], Enter or Edit File Entries [DIEDIT] option to appropriately define the following four fields:

**NAME field (#.01):** Enter the name of the institution for both the host and collection facilities. Applies ONLY for non-VA entries. The Institution Master File maintains nationally controlled entries.

**DOMAIN field (#60) (VA facilities ONLY):** If this field is null the VA facilities must manually add the server to the mail group that is created by the LEDI Setup [LA7V SETUP] option. Using VA MailMan as the HL7 transport protocol is ONLY supported when both collection and host facilities are VA facilities. Other non-VA facilities using VA MailMan for their HL7 message transfer must update the DOMAIN field (#60) for the associated facilities. Updating this field allows the LEDI Setup [LA7V SETUP] option to automatically setup the HL7 remote server for the host or collection facility laboratories.
NOTES:

The LEDI Setup [LA7V SETUP] option also creates an LA7V xxx mail group, (i.e., xxx is the VA facility’s station number). This mail group uses the LA7V namespace concatenated with the receiving facilities primary station number.

If the DOMAIN field (#60) contains data, the LEDI Setup [LA7V SETUP] option automatically adds the HL7 remote server to the MAIL GROUP file (#3.8), REMOTE MEMBERS field (#12).

Facilities using TCP/IP for their HL7 transport protocol will require additional setup of the HL7 links by IRM after the LEDI Setup [LA7V SETUP] option is used to create the necessary HL7 links.

AGENCY CODE field (#95): This field indicates to the LEDI II software whether the facility is a VA or non-VA facility. Applicable only for non-VA entries. The Institution Master File maintains nationally controlled entries. The AGENCY CODE field (#95) should be defined as follows:

- VA Facilities: VA
- Military Facilities (by the appropriate branch of service): AIR FORCE, ARMY, or NAVY
- Indian Health Service: HIS
- Commercial reference laboratories and non-US government health care facilities: OTHER

NOTE: The LEDI Setup [LA7V SETUP] option uses the AGENCY CODE field (#95) to determine the status of the facility and how to setup the LEDI II software application.

STATION NUMBER field (#99) (VA facilities ONLY, unique number): The Institution Master File maintains nationally controlled entries. LEDI II uses the VA facility station number, for configuring VA facilities and creating the Lab Shipping files setup entries using the Lab Shipping Management [LA7S MGR MENU] menu.
Step #2 IRM: Create Local LEDI Mail Groups

**IRM:** Use VA FileMan [DIUSER], Enter or Edit File Entries [DIEDIT] option to create local LEDI mail groups and to add designate members. It is highly recommended that the LIM be designated as a member of all the LEDI mail groups. The LEDI mail groups are also used by the LEDI alert system.

**NOTES:**

**DO NOT** add any local or remote members to the LAV7* mail groups.

**DO NOT** use the LAV7*mail groups for local LEDI alerts.
Step #3 IRM: Schedule the Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option

IRM: Use Taskman Management [XUTM MGR], Schedule/Unschedule [XUTM SCHEDULE] option to schedule the Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option to run daily. This scheduled option will purge all data in the LA7 MESSAGE QUEUE file (#62.49).

Example: Scheduling the Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option to run daily.

```
Select OPTION to schedule or reschedule: LA7TASK NIGHTY<RET> Lab Messaging Nightly Cleanup
    ...OK? Yes/<RET> (Yes)

    Edit Option Schedule
    Option Name: LA7TASK NIGHTY<RET>
    Menu Text: Lab Messaging Nightly Cleanup TASK ID: 8278506

    QUEUED TO RUN AT WHAT TIME: JUL 14, 1997@23:15<RET>

    DEVICE FOR QUEUED JOB OUTPUT: NULL DEVICE;P-OTHER;132;64<RET>

    QUEUED TO RUN ON VOLUME SET:<RET>

    RESCHEDULING FREQUENCY: 1D<RET>

    TASK PARAMETERS:<RET>

    SPECIAL QUEUEING:<RET>

    Exit     Save     Next Page     Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: N
```

```
Variable Name: LA7FIX VALUE: 0
Variable Name: LA7ION VALUE: "IRM DEVELOP LASER1"
Variable Name: LA7LOG VALUE: 1
Variable Name: VALUE:
Variable Name: VALUE:
```
Step #4 LIM: Collection and Host Facilities Information Requirements

Host Facility

The host facility laboratory must provide the collection facility laboratory with the following information requirements:

- Specimen collection requirements
- Schedule of testing
- List of tests for panel tests
- Normal range and critical values
- Patient prep instructions
- Provide a list of National Lab Test (NLT) codes used by the host facility laboratory. (VA Host facility only)

**NOTE:** The Electronic Catalog Menu [LAS7 CATALOG MENU] can be used to produce a list of the host facility NLT codes. This menu is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab Liaison Menu [LRLIAISON].

- NLT order code to be used to order the test
- NLT Result/LOINC codes used to report the results
- Accession Area numeric identifier (VA Host facility only)
- Bar-code symbology and label stock
- Provide the collection facility laboratory with a list of lab tests that are available for processing. **Note:** The Electronic Catalog Menu [LAS7 CATALOG MENU] may also be used to produce a list of the host facility available lab tests requiring processing.
Step #4 continued for HOST facility

- Define and configure a Lab Shipping Configuration entry for each Collection facility laboratory. This configuration determines how the LAB PENDING ORDERS file (#69.6) data is created from the HL7 message containing the electronic Shipping Manifest, what host facility lab tests are ordered, the collection sample, and lab test urgency.

NOTES:

The LEDI II software application allows the host facility laboratory to accession and use the collecting facility’s laboratory unique identifier (UID) bar-coded specimen labels. If the host facility laboratory does not want to re-label specimens, the collection facility laboratory must be assigned a two character NUMERIC IDENTIFIER for the accession area that the collection facility will use for shipping the specimens.

The host facility must not use this NUMERIC IDENTIFIER for any local accessioning. This NUMERIC IDENTIFIER is to be used ONLY by the collection facility laboratory for which it was assigned.

Collection Facility

NOTE: The collection and host facility laboratories must establish which lab tests will be processed.

LIM (collection facility): The host facility laboratory must provide the collection facility laboratory with the following information requirements:

- Provide a list of the NLT codes and specimen requirements used by the host facility laboratory. The Electronic Catalog Menu [LAS7 CATALOG MENU] can be used to produce a list of the host facility NLT codes. This menu is located on the Lab Shipping Management Menu [LA7S MGR MENU] located on the Lab Liaison Menu [LRLIAISON]. (VA Host facility only)
Step #4 continu for COLLECTION facility

**NOTE:** The collection facility may utilize existing lab test entries in the LABORATORY TEST file (#60), providing the entries are compatible with the host facility’s requirements.

- The collection facility must create a Load List to define and accept lab test results transmitted by the host facility. The Load List must contain all of the lab tests that are processed by the host facility laboratory. The host facility can generate a list of their facility lab tests by using the Electronic Catalog Menu [LA7S CATALOG MENU].

**NOTE:** If the host facility will be forgoing relabelling specimens received from the collection facility then the host facility must provide the collection facility with a NUMERIC IDENTIFIER for creating an accession area.

- The collection facility must create an accession area in the ACCESSION file (#68).

**LIM (collection facility):** Using VA FileMan [DIUSER], Enter or Edit [DIEDIT] option assign the NUMERIC IDENTIFIER provided by the host facility to ACCESSION file (#68), NUMERIC IDENTIFIER field (#.4). These specimens/lab tests must be accessioned to that specific accession area.

**NOTE:** If the host facility will be re-labeling the collection facility specimens, then the collection facility may use any accession area for these specimens/lab tests.
Step #5 LIM (collection facility): Lab Shipping Files Setup

Collection Facility:

Collection facility laboratory setting up a host facility laboratory for lab test requests and shipping specimens must configure the following four Lab Shipping files in the order listed below:

1. LAB SHIPPING METHOD file (#62.92) contains the transport method used to ship specimens (i.e., by Courier, Taxi, FEDEX, UPS, etc.).

2. LAB SHIPPING CONDITION file (#62.93) contains entries that describe the conditions under which a lab shipment is transported (i.e., Ambient temperature, Frozen, Refrigerated, etc.).

3. LAB SHIPPING CONTAINER file (#62.91) contains the type of containers that the laboratory uses to ship lab test specimens. There are basically three types of containers used for shipping lab test specimens:

   - **Primary** – specimen is shipped in the original collection container.

   - **Aliquot** - specimen transferred to a tube/jar before shipment.

   - **Packaging** – packaging containers used for holding the specimen containers.

4. LAB SHIPPING CONFIGURATION (#62.9) contains the specimen volume, weight, collection end date/time (collection duration), patient height, and weight. LOINC codes are used to identify patient height, weight, and specimen weight when deemed appropriate.

**NOTE:** Online help is available by entering two question marks (“??”) at the field prompt.
Step #5 continue for COLLECTION facility

Collection Facility:

The LAB SHIPPING METHOD file (#62.92) must be configured first. This file contains the transport method used to ship specimens (i.e., by Courier, Taxi, FEDEX, UPS, etc.).


Example: CME Edit Shipping Method [LA7S EDIT 62.92] option

| Select Lab liaison menu Option: SMGR<RET> Lab Shipping Management Menu |
| Select Lab Shipping Management Menu Option: ?<RET> |
| CFE | Edit Shipping Configuration |
| CTE | Edit Shipping Container |
| CME | Edit Shipping Method |
| CDE | Edit Shipping Condition |
| LSU | LEDI Setup |
| CAT | Electronic Catalog Menu |

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Lab Shipping Management Menu Option: CME<RET> Edit Shipping Method

Select SHIPPING METHOD: ?<RET>

Answer with LAB SHIPPING METHOD NAME
You may enter a new LAB SHIPPING METHOD, if you wish
NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR STARTING WITH PUNCTUATION

Select SHIPPING METHOD: FEDEX<RET>
Are you adding 'FEDEX' as a new LAB SHIPPING METHOD (the 1ST)? Y<RET> (Yes)
NAME: FEDEX/<RET>

Select Lab Shipping Management Menu Option: CME<RET> Edit Shipping Method
Select SHIPPING METHOD: COURIER<RET>
Are you adding 'COURIER' as a new LAB SHIPPING METHOD (the 2ND)? Y<RET> (Yes)
NAME: COURIER/<RET>
Step #5 continued for COLLECTION facility

Collection Facility:

The LAB SHIPPING CONDITION file (#62.93) is the **second** file to be configured. This file contains entries that describe the conditions under which a lab shipment is transported (i.e., Ambient temperature, Frozen, Refrigerated, etc.).

**LIM (collection facility):** Use the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Condition [LA7S EDIT 62.93] option to configure the LAB SHIPPING CONDITION file (#62.93).

**Example:** CDE  Edit Shipping Condition [LA7S EDIT 62.93] option

<table>
<thead>
<tr>
<th>Select Lab liaison menu Option: SMGR&lt;RET&gt;</th>
<th>Lab Shipping Management Menu</th>
</tr>
</thead>
</table>

Select Lab Shipping Management Menu Option: ??<RET>

- CFE  Edit Shipping Configuration
- CTE  Edit Shipping Container
- CME  Edit Shipping Method
- CDE  Edit Shipping Condition
- LSU  LEDI Setup
- CAT  Electronic Catalog Menu

Select Lab Shipping Management Menu Option: CDE<RET>  Edit Shipping Condition
Use this option to setup the Lab Shipping Condition file.

Select SHIPPING CONDITION: ??<RET>
Answer with LAB SHIPPING CONDITIONS NAME
You may enter a new LAB SHIPPING CONDITIONS, if you wish
NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR STARTING WITH PUNCTUATION
Select SHIPPING CONDITION: Room Temperature<RET>
Are you adding 'Room Temperature' as a new LAB SHIPPING CONDITIONS (the 1ST)? No// Y<RET> (Yes)
NAME: Room Temperature//<RET>
ABBREVIATION: RT<RET>
Step #5 continued for COLLECTION facility

Collection Facility:

The LAB SHIPPING CONTAINER file (#62.91) is the third file to be configured by the collecting facility. This file contains the type of containers that the laboratory uses to ship lab test specimens. There are basically three types of containers used for shipping specimens:

- **Primary** – specimen is shipped in the original collection container.
- **Aliquot** - specimen transferred to a tube/jar before shipment.
- **Packaging** – packaging containers used for holding the specimen containers.

**LIM (collection facility):** Use the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Container [LA7S EDIT 62.91] option to configure the LAB SHIPPING CONTAINER file (#62.93).

**Example: CTE  Edit Shipping Container [LA7S EDIT 62.91] option**

```
Select Lab liaison menu Option: SMGR<RET> Lab Shipping Management Menu
Select Lab Shipping Management Menu Option: ?

CFE Edit Shipping Configuration
CTE Edit Shipping Container
CME Edit Shipping Method
CDE Edit Shipping Condition
LSU LEDI Setup
CAT Electronic Catalog Menu

Select Lab Shipping Management Menu Option: CTE<RET> Edit Shipping Container
Use this option to setup the Lab Shipping Container file.

Select SHIPPING CONTAINER: ?<RET>
Answer with LAB SHIPPING CONTAINER NAME
You may enter a new LAB SHIPPING CONTAINER, if you wish
NAME MUST BE 3-30 CHARACTERS, NOT NUMERIC OR STARTING WITH PUNCTUATION
Select SHIPPING CONTAINER: Plastic Tube<RET>
Are you adding 'Plastic Tube' as a new LAB SHIPPING CONTAINER (the 1ST)? No// Y<RET> (Yes)
NAME: Plastic Tube//<RET>
TYPE: ?<RET>
Enter what this container is used for.
Choose from:
1  PACKAGING
2  PRIMARY
3  ALIQUOT
TYPE: 3 ALIQUOT<RET>
```
Step #5 continue for COLLECTION facility

Collection Facility:

The LAB SHIPPING CONFIGURATION file (#62.9) is the fourth and final file to be configured by the collection facility. When configuring this file to send specimens/tests requests to a Commercial Reference Laboratory (i.e., non-VA facility) it is very important that the INSTITUTION file (#4), for the non-VA facility have the AGENCY CODE field (#95) entry defined as “OTHER”. The LEDI II software asks for a three-letter identifier to identify this facility in lieu of the VA station number. During development and testing of the LEDI II software with Commercial Reference Laboratories the following three-letter identifiers were used:

- American Medical Laboratories – AML
- Laboratory Corporation of America – LCA
- Quest Diagnostics, Incorporated - QDI

Commercial Reference Laboratory (i.e., non-VA facility) Setup Example

LIM (collection facility): Use the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Configuration [LA7S EDIT 62.9] option to configure the LAB SHIPPING CONFIGURATION file (#62.9) for a Commercial Reference Laboratory (i.e., non-VA facility).

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option

```
Select Lab Shipping Management Menu Option: ?<RET>

CFE  Edit Shipping Configuration
CTE  Edit Shipping Container
CME  Edit Shipping Method
CDE  Edit Shipping Condition
LSU  LEDI Setup
CAT  Electronic Catalog Menu ...

Select Lab Shipping Management Menu Option: CFE<RET>  Edit Shipping Configuration
Use this option to setup your Lab Shipping Configuration file.

Select OPTION NAME:   LA7S EDIT 62.9<RET>  Edit Shipping Configuration
```

Edit Shipping Configuration
Step #5 continues for collection facility

**Example:** CFE Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a Commercial Reference Laboratory (non-VA facility).

Select SHIPPING CONFIGURATION: XYZ COMMERCIAL REFERENCE LAB<RET>

Are you adding 'XYZ COMMERCIAL REFERENCE LAB' as a new LAB SHIPPING CONFIGURATION (the 10TH)? No// Y<RET> (Yes)

LAB SHIPPING CONFIGURATION COLLECTING FACILITY: MILWAUKEE, WI<RET> WI VAMC
695 LAB SHIPPING CONFIGURATION HOST FACILITY: XYZ REFERENCE LAB<RET> WI

Select one of the following:<RET>

1 Collecting facility
2 Host facility

Are you editing this entry as the: ??<RET>

Is this entry used by the Collecting facility to ship specimens, or by the Host facility to accept a shipment. This determines which fields are edited in the file.

Select one of the following:

1 Collecting facility
2 Host facility

Are you editing this entry as the: 1<RET> Collecting facility

NAME: XYZ COMMERCIAL REFERENCE LAB Replace<RET>

COLLECTING FACILITY: MILWAUKEE, WI<RET>

COLLECTING FACILITY'S SYSTEM: ??<RET>
The name of the institution, which houses the computer system from which the sender transmitted/sent the order.

COLLECTING FACILITY'S SYSTEM: MILWAUKEE, WI<RET> WI VAMC 695

HOST FACILITY: XYZ REFERENCE LAB<RET>

HOST FACILITY'S SYSTEM: XYZ REFERENCE LAB<RET> WI

NON-VA SYSTEM IDENTIFIER: ??<RET>
If this is used to communicate with a non-VA system, enter the 2-3 character identifier used to name the HL7 application.

NON-VA SYSTEM IDENTIFIER: XYZ<RET>

ACCOUNT NUMBER: 1234XYZ<RET>

TEST CODING SYSTEM: ??<RET>
Answer with type of coding system to use for this configuration.

Choose from:

0 NLT
1 NON-VA
2 LOINC
Step #5 continued for COLLECTION facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option

<table>
<thead>
<tr>
<th>TEST CODING SYSTEM:  ??&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>If orders are being sent to a non-VA facility and the facility can not accept VA test order codes then answer with the type of coding system. &quot;NON-VA&quot; indicates that the other system is using a local coding system. The laboratory shipping software will then use the non-VA test codes entered for each test on this configuration.</td>
</tr>
<tr>
<td>If the non-VA facility can accept VA test codes then answer &quot;NLT&quot; and the software will send VA test order codes.</td>
</tr>
<tr>
<td>VA test order codes are usually NLT codes but in the future will probably be LOINC codes. Selecting &quot;LOINC&quot; is currently not supported. Support will be added in a future version of the LEDI software when LOINC coding has been implemented within VA facilities.</td>
</tr>
<tr>
<td>Choose from:</td>
</tr>
<tr>
<td>- 0 NLT</td>
</tr>
<tr>
<td>- 1 NON-VA</td>
</tr>
<tr>
<td>- 2 LOINC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TEST CODING SYSTEM: 1&lt;RET&gt; NON-VA</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATUS:  ??&lt;RET&gt;</td>
</tr>
<tr>
<td>This field is used to designate whether this shipping configuration is &quot;active&quot;, i.e. selectable by the user for use in building, processing and receipting shipments of laboratory test.</td>
</tr>
<tr>
<td>Choose from:</td>
</tr>
<tr>
<td>- 0 INACTIVE</td>
</tr>
<tr>
<td>- 1 ACTIVE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAB MESSAGING LINK:&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>This field is used to link a shipping configuration with an electronic transmission of shipping manifests. When a shipping manifest is shipped, this field is checked to determine if the software should transmit the orders on the manifest to the host facility. It identifies the entry in the LA7 MESSAGE PARAMETER file #62.8 to use for building and transmitting the manifest.</td>
</tr>
<tr>
<td>Note: leave this field blank when initially setting up configuration. Then after using LEDI Setup option enter the message configuration created in file #62.8.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAB MESSAGING LINK:&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHIPPING METHOD:  ??&lt;RET&gt;</td>
</tr>
<tr>
<td>Enter the method used to transport a shipment.</td>
</tr>
<tr>
<td>Answer with LAB SHIPPING METHOD NAME:</td>
</tr>
<tr>
<td>QUEST COURIER</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHIPPING METHOD: QUEST COURIER&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARCODE MANIFEST:  ??&lt;RET&gt;</td>
</tr>
<tr>
<td>This field determines if site/patient/specimen information is barcoded on the shipping manifest when it has a status of &quot;shipped&quot;.</td>
</tr>
</tbody>
</table>
Step #5 continues for COLLECTION facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option

There are two styles of bar codes. The regular style (code="YES"),
which was released with the original version of Laboratory Electronic
Data Interchange (LEDI), produces a long bar code. If the receiving
site, which is reading these type of bar codes, has problems then
switch to the compact style (code="YES-COMPACT"). This will produce
a shorter bar code.

Choose from:
0    NO
1    YES
2    YES-COMPACT

BARCODE MANIFEST: N<RET>  NO

MANIFEST RECEIPT: ??<RET>
Allows site to have a receipt printed with a shipping manifest when
the status of the manifest is "SHIPPED". This receipt can be used to
record acknowledgment of receipt of the shipment by the courier
service used to transport the specimens to the host facility.

Choose from:
0    NO
1    YES

MANIFEST RECEIPT: Y<RET>  YES

INCLUDE UNCOLLECTED SPECIMENS: ??<RET>
If specimens that are still pending receipt in lab are to build on a
shipping manifest then answer "YES". If only specimens that have been
received in the lab, i.e. have a lab arrival time, are to build then
answer "NO".
If field is blank then default is "NO".

Choose from:
0    NO
1    YES

INCLUDE UNCOLLECTED SPECIMENS: N<RET>  NO

Select TEST/PROFILE: PROSTATIC SPECIFIC ANTIGEN<RET>
Are you adding 'PROSTATIC SPECIFIC ANTIGEN' as
a new TEST/PROFILE (the 1ST for this LAB SHIPPING CONFIGURATION)? No//
Y<RET>  (Yes)

ACCESSION AREA: SENDOUTS// ??<RET>
COLLECTION FACILITIES:<RET>

This field is used to designate the accession area to check when
searching for tests to build onto a shipping manifest. If it is blank
then the building process will skip over this test.

HOST FACILITIES:<RET>
Not used by software at host facilities.
Step #5 continues for COLLECTION facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option

```
ACCESSION AREA: SENDOUTS//<RET>
DIVISION: ??<RET>
    Collecting facilities:<RET>
        If the manifest building process should only build accessions' from a certain division on a manifest then enter the division to screen these accessions. The division used here will be the division associated with the user who created the accession.
        This field will allow a site to screen accessions from multiple divisions, only placing on the manifest an accession from the specified division.

    Host facilities: This field not used.

DIVISION: MILWAUKEE, WI<RET>    WI VAMC 695
SPECIMEN: ??<RET>
    This field is used to determine if a test for a particular specimen type should build on the shipping manifest. If left blank, i.e. no entry then all specimens for this test are eligible for building on a shipping manifest. If a specimen type is entered then the specimen type of the accession must match before the test is eligible for building onto a shipping manifest.

SPECIMEN: SERUM<RET>  OX500
URGENCY: ??<RET>
    COLLECTING FACILITIES:<RET>
        If shipping laboratory tests that are a certain urgency, specify the urgency that must match the test urgency of the accession for the accession/test to be placed on the shipping manifest.

    HOST FACILITIES:<RET>
        This field is used by LEDI software at the host facility to determine the entry in the host site's URGENCY file (#62.05) to use for ordering when the host site has more than one entry in the URGENCY file (#62.05) that maps to the same HL7 PRIORITY.

Example: Host site has three urgencies which map to HL7 PRIORITY: ROUTINE (R).  

<table>
<thead>
<tr>
<th>Entry #</th>
<th>Name</th>
<th>LEDI HL7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>PATIENT WAITING</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>9</td>
<td>ROUTINE</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>10</td>
<td>NO RUSH</td>
<td>ROUTINE</td>
</tr>
</tbody>
</table>
```
Step #5 continues for COLLECTION facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a Commercial Reference Lab (non-VA facility).

If there is no mapping defined for this field, then the LEDI software will use the last entry in the URGENCY file that maps to HL7 PRIORITY: ROUTINE (R); workload urgencies are excluded. In this case the test would be ordered with a URGENCY of NO RUSH.

If the host site enters a mapping in this field, i.e. ROUTINE then the test will be ordered using the host site's entry for ROUTINE in the URGENCY file when the HL7 PRIORITY matches.

Choose from:

1. STAT
2. PATIENT WAITING
3. PRE-OP
4. CRITICAL
5. ZZADMIT
6. ZZOUTPATIENT
7. ZZPURPLE TRIANGLE
8. ROUTINE

URGENCY: 9<RET> ROUTINE
SPECIMEN CONTAINER: ??<RET>
COLLECTING FACILITIES:<RET>

The container used to hold the specimen. This could be the original collection container or a tube/vial/jar that the specimen is transferred to prior to shipment to another facility. It is the container that actually hold/contains the specimen.

HOST FACILITIES:

This field is presently not used by LEDI software at the host facility.

Choose from:

Plastic Tube
Primary tube
STERILE CUP
STOOL CUP-SENDOUT

SPECIMEN CONTAINER: Primary tube<RET>

SHIPPING CONDITION: ??<RET>
COLLECTING FACILITIES:<RET>

This field describes under what temperature/environmental condition the specimen is to be shipped. Examples would be frozen, refrigerated, or ambient temperature.
Step #5 continues for COLLECTION facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a Commercial Reference Lab (non-VA facility).

HOST FACILITIES: <RET>

This field is presently not used by LEDI software at the host facility.

Choose from: <RET>
Ambient/Room Temperature
FROZEN
Refrigerated

SHIPPING CONDITION: Refrigerated

PACKAGING CONTAINER: ?? <RET>

COLLECTING FACILITIES: <RET>

This field is used to determine what packaging container a test's specimen container is placed in when the specimen is being shipped to another facility.

HOST FACILITIES: <RET>
This field is presently not used by LEDI software at the host facility.

Choose from: <RET>
Box, Container

PACKAGING CONTAINER: Box, Container<RET>

REQUIRE PATIENT HEIGHT: ?? <RET>

Allows site to specify that the patient's height is sent with an order for this test. Patient's height will be prompted for and printed on manifest.

Choose from: <RET>
0 NO
1 YES

REQUIRE PATIENT HEIGHT: N<RET> NO

PATIENT HEIGHT UNITS: ?? <RET>

Units used to measure the patient's height. Select an entry from the LAB ELECTRONIC CODE file (#64.061) that are measurements.

PATIENT HEIGHT UNITS:<RET>

PATIENT HEIGHT CODE: ?? <RET>

Select the appropriate LOINC code to identify the patient's height.
**Step #5 continues for COLLECTION facility**

**Example: CFE** Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a **Commercial Reference Lab** (non-VA facility).

<table>
<thead>
<tr>
<th>PATIENT HEIGHT CODE: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRE PATIENT WEIGHT: ??&lt;RET&gt;</td>
</tr>
<tr>
<td>Determines if the patient's weight is required to be sent in the HL7 ORM order message and printed on the shipping manifest. Actual shipping and/or electronic transmission of a shipping manifest will check for entry of the patient's weight and prevent release if absent.</td>
</tr>
<tr>
<td>Choose from:</td>
</tr>
<tr>
<td>0  NO</td>
</tr>
<tr>
<td>1  YES</td>
</tr>
<tr>
<td>REQUIRE PATIENT WEIGHT: &lt;RET&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PATIENT WEIGHT UNITS: ??&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units used to measure the patient's weight. Select an entry from the LAB ELECTRONIC CODE file (#64.061) that are measurements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PATIENT WEIGHT UNITS: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATIENT WEIGHT CODE: ??&lt;RET&gt;</td>
</tr>
<tr>
<td>Select the appropriate LOINC code to identify the patient's weight.</td>
</tr>
<tr>
<td>PATIENT WEIGHT CODE: &lt;RET&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REQUIRE COLLECTION VOLUME: ??&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determines if the specimen's collection volume is required to be sent in the HL7 ORM order message and printed on the shipping manifest. Actual shipping and/or electronic transmission of a shipping manifest will check for entry of the specimen's collection volume and prevent release if absent.</td>
</tr>
<tr>
<td>Choose from:&lt;RET&gt;</td>
</tr>
<tr>
<td>0  NO</td>
</tr>
<tr>
<td>1  YES</td>
</tr>
<tr>
<td>REQUIRE COLLECTION VOLUME: &lt;RET&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLLECTION VOLUME UNITS: ??&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units used to measure the specimen's collection volume. Select an entry from the LAB ELECTRONIC CODE file #64.061) that is a measurement.</td>
</tr>
</tbody>
</table>
Step #5 continues for COLLECTION facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a Commercial Reference Lab (non-VA facility)

COLLECTION VOLUME UNITS:<RET>
COLLECTION VOLUME CODE: ??<RET>
   Enter the appropriate LOINC code to identify the specimen's collection volume.

COLLECTION VOLUME CODE:<RET>
REQUIRE COLLECTION END D/T: ??<RET>
   Determines if the specimen's collection end date/time is required to be sent in the HL7 ORM order message and printed on the shipping manifest. Actual shipping and/or electronic transmission of a shipping manifest will check for entry of the specimen's collection end date/time and prevent release if absent.

Choose from:<RET>
  0    NO
  1    YES
REQUIRE COLLECTION END D/T:<RET>
COLLECTION DURATION UNITS: ??<RET>
   Units used to calculate the specimen's collection duration. Select an entry from the LAB ELECTRONIC CODE file (#64.061) that is a measurement and relate to time.

COLLECTION DURATION UNITS:<RET>
COLLECTION DURATION CODE: ??<RET>
   Enter the appropriate LOINC code to identify the specimen's collection duration.

COLLECTION DURATION CODE:<RET>
REQUIRE COLLECTION WEIGHT: ??<RET>
   Determines if the specimen's collection weight is required to be sent in the HL7 ORM order message and printed on the shipping manifest. Actual shipping and/or electronic transmission of a shipping manifest will check for entry of the specimen's collection weight and prevent release if absent.
Step #5 continues for COLLECTION facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option used to setup a Commercial Reference Lab (non-VA facility).

Choose from:<RET>
0    NO
1    YES

REQUIRE COLLECTION WEIGHT:<RET>

COLLECTION WEIGHT UNITS: ??<RET>
Units used to measure the specimen's collection weight.
Select an entry from the LAB ELECTRONIC CODE file
( #64.061) that is a measurement.

COLLECTION WEIGHT CODE: ??<RET>
Enter the appropriate LOINC code to identify
the specimen's collection weight.

COLLECTION WEIGHT CODE:<RET>

NON-VA TEST ORDER CODE: ??<RET>
Collecting facilities:<RET>

If sending test orders to a non-VA facility use this field to store
the test order codes used by the non-VA system. It will be used when the TEST
CODING SYSTEM field (#.14) is set to "NON-VA".

Host facilities:<RET>

If receiving test orders from a non-VA collecting facility that does
not use VA NLT codes use this field to map the collecting facilities test
order codes to the corresponding VA test.

NON-VA TEST ORDER NAME: ??<RET>
Collecting facility:<RET>

If sending test orders to a non-VA facility use this field to store
the test order name used by the non-VA system. The lab software will identify
the test name on the non-VA system when orders are transmitted electronically.
uses this field. It will be used when the TEST CODING SYSTEM field (#.14) is
set to "NON-VA".

Host facility: <RET>
Not used - mapping of non-VA tests coding systems
for test order codes is via NON-VA TEST ORDER CODE
field (#5.1).

NON-VA TEST ORDER CODE: XYZ-GLU123<RET>
Select TEST/PROFILE:
Step #5 continues for COLLECTION facility

LIM (collection facility): Use the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Configuration [LA7S EDIT 62.9] option to configure the LAB SHIPPING CONFIGURATION file (#62.9) for a VA Facility.

Example: CFE: Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility.

Select Lab Shipping Management Menu Option: ?<RET>

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFE</td>
<td>Edit Shipping Configuration</td>
</tr>
<tr>
<td>CTE</td>
<td>Edit Shipping Container</td>
</tr>
<tr>
<td>CME</td>
<td>Edit Shipping Method</td>
</tr>
<tr>
<td>CDE</td>
<td>Edit Shipping Condition</td>
</tr>
<tr>
<td>LSU</td>
<td>LEDI Setup</td>
</tr>
<tr>
<td>CAT</td>
<td>Electronic Catalog Menu</td>
</tr>
</tbody>
</table>

Select Lab Shipping Management Menu Option: CFE<RET> Edit Shipping Configuration<RET>

Select Lab Shipping Management Menu Option: ?<RET>

Select SHIPPING CONFIGURATION: ?<RET>

Do you want the entire 11-Entry LAB SHIPPING CONFIGURATION List? <RET>

You may enter a new LAB SHIPPING CONFIGURATION, if you wish
Answer must be 3-30 characters in length.

Select SHIPPING CONFIGURATION: DALLAS OIFO SENDOUTS<RET>

Are you adding 'DALLAS OIFO SENDOUTS' as a new LAB SHIPPING CONFIGURATION (the 12TH)? No// Y<RET> (Yes)

LAB SHIPPING CONFIGURATION COLLECTING FACILITY: ?<RET>

Select the institution which will be collecting and shipping lab test specimens.
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 290-Entry INSTITUTION List? <RET>
LAB SHIPPING CONFIGURATION COLLECTING FACILITY: MILWAUKEE, WI<RET> WI VAMC 695
LAB SHIPPING CONFIGURATION HOST FACILITY: ?<RET>
Select the institution which will be the Host facility receiving the lab test shipment.
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 290-Entry INSTITUTION List? <RET>
LAB SHIPPING CONFIGURATION HOST FACILITY: DALLAS OIFO<RET> TX ISC 170

Select one of the following:<RET>

<table>
<thead>
<tr>
<th>Number</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Collecting facility</td>
</tr>
<tr>
<td>2</td>
<td>Host facility</td>
</tr>
</tbody>
</table>
Step #5 continues for COLLECTION facility

Example: CFE: Edit Shipping Configuration [LA7S EDIT 62.9] option

<table>
<thead>
<tr>
<th>Are you editing this entry as the: ?&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this entry used by the Collecting facility to ship specimens, or by the Host facility to accept a shipment. This determines which fields are edited in the file.</td>
</tr>
<tr>
<td>Select one of the following:</td>
</tr>
<tr>
<td>1  Collecting facility</td>
</tr>
<tr>
<td>2  Host facility</td>
</tr>
<tr>
<td>Are you editing this entry as the: 1&lt;RET&gt; Collecting facility</td>
</tr>
<tr>
<td>NAME: DALLAS OIFO SENDOUTS Replace&lt;RET&gt;</td>
</tr>
<tr>
<td>COLLECTING FACILITY: MILWAUKEE, WI//&lt;RET&gt;</td>
</tr>
<tr>
<td>COLLECTING FACILITY'S SYSTEM: ?&lt;RET&gt;</td>
</tr>
<tr>
<td>Institution which has collector's computer system. Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION</td>
</tr>
<tr>
<td>Do you want the entire 290-Entry INSTITUTION List?&lt;RET&gt;</td>
</tr>
<tr>
<td>COLLECTING FACILITY'S SYSTEM: MILWAUKEE, WI&lt;RET&gt; WI VAMC 695</td>
</tr>
<tr>
<td>HOST FACILITY: DALLAS OIFO//&lt;RET&gt;</td>
</tr>
<tr>
<td>HOST FACILITY'S SYSTEM: ?&lt;RET&gt;</td>
</tr>
<tr>
<td>Institution which has host's computer system. Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION</td>
</tr>
<tr>
<td>Do you want the entire 290-Entry INSTITUTION List?&lt;RET&gt;</td>
</tr>
<tr>
<td>HOST FACILITY'S SYSTEM: DALLAS OIFO&lt;RET&gt; TX ISC 170</td>
</tr>
<tr>
<td>STATUS: ? &lt;RET&gt;</td>
</tr>
<tr>
<td>Enter the status of this sending/receiving combination. Choose from:</td>
</tr>
<tr>
<td>0  INACTIVE</td>
</tr>
<tr>
<td>1  ACTIVE</td>
</tr>
<tr>
<td>STATUS: A&lt;RET&gt; ACTIVE</td>
</tr>
<tr>
<td>LAB MESSAGING LINK: &lt;RET&gt;</td>
</tr>
<tr>
<td>SHIPPING METHOD: ?&lt;RET&gt;</td>
</tr>
<tr>
<td>Enter the method used to transport a shipment. Answer with LAB SHIPPING METHOD NAME: QUEST COURIER&lt;RET&gt;</td>
</tr>
<tr>
<td>SHIPPING METHOD: QUEST COURIER&lt;RET&gt;</td>
</tr>
<tr>
<td>BARCODE MANIFEST: ??&lt;RET&gt;</td>
</tr>
<tr>
<td>This field determines if site/patient/specimen information is barcoded on the shipping manifest when it has a status of &quot;shipped&quot;.</td>
</tr>
<tr>
<td>There are two styles of bar codes. The regular style (code=&quot;YES&quot;), which was released with the original version of Laboratory Electronic Data Interchange (LEDI), produces a long bar code. If the receiving site, which is reading these type of bar codes, has problems then switch to the compact style (code=&quot;YES-COMPACT&quot;). This will produce a shorter bar code.</td>
</tr>
</tbody>
</table>
Step #5 continues for the COLLECTION facility

Example: CFE: Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility

<table>
<thead>
<tr>
<th>Choice from:</th>
<th>0</th>
<th>NO</th>
<th>1</th>
<th>YES</th>
<th>2</th>
<th>YES-COMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARCODE MANIFEST:</td>
<td>2&lt;RET&gt;</td>
<td>YES-COMPACT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MANIFEST RECEIPT:</td>
<td>??&lt;RET&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Allows site to have a receipt printed with a shipping manifest when the status of the manifest is "SHIPPED". This receipt can be used to record acknowledgment of receipt of the shipment by the courier service used to transport the specimens to the host facility.

<table>
<thead>
<tr>
<th>Choose from:</th>
<th>0</th>
<th>NO</th>
<th>1</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANIFEST RECEIPT:</td>
<td>1&lt;RET&gt;</td>
<td>YES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INCLUDE UNCOLLECTED SPECIMENS:</td>
<td>??&lt;RET&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If specimens that are still pending receipt in lab are to build on a shipping manifest then answer "YES". If only specimens that have been received in the lab, i.e. have a lab arrival time, are to build then answer "NO".

If field is blank then default is "NO".

<table>
<thead>
<tr>
<th>Choose from:</th>
<th>0</th>
<th>NO</th>
<th>1</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCLUDE UNCOLLECTED SPECIMENS:</td>
<td>N&lt;RET&gt;</td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select TEST/PROFILE:</td>
<td>?&lt;RET&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You may enter a new TEST/PROFILE, if you wish Enter the laboratory test that is used by this shipping configuration.

Answer with LABORATORY TEST NAME, or LOCATION (DATA NAME), or PRINT NAME

Do you want the entire 1359-Entry LABORATORY TEST List? Select TEST/PROFILE: THEOPHYLLINE<RET>

Are you adding 'THEOPHYLLINE' as a new TEST/PROFILE (the 1ST for this LAB SHIPPING CONFIGURATION)? No// Y<RET> (Yes)

ACCESSION AREA: ??<RET> COLLECTION FACILITIES:<RET>

This field is used to designate the accession area to check when searching for tests to build onto a shipping manifest. If it is blank then the building process will skip over this test.
**Step #5 continues for COLLECTION facility**

**Example:** CFE: Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility.

```plaintext
HOST FACILITIES:<RET>
Not used by software at host facilities.

ACCESSION AREA: SENDOUTS<RET>
DIVISION: ??<RET>
Enter the accession's division (?? - additional help).
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 290-Entry INSTITUTION List?<RET>
DIVISION: ??<RET>
Collecting facilities:<RET>

If the manifest building process should only build accessions' from a certain division on a manifest then enter the division to screen these accessions. The division used here will be the division associated with the user who created the accession. This field will allow a site to screen accessions from multiple divisions, only placing on the manifest an accession from the specified division.

Host facilities: This field not used.

DIVISION: MILWAUKEE, WI     WI     VAMC     695
SPECIMEN: ??<RET>
This field is used to determine if a test for a particular specimen type should build on the shipping manifest. If left blank, i.e. no entry then all specimens for this test are eligible for building on a shipping manifest. If a specimen type is entered then the specimen type of the accession must match before the test is eligible for building onto a shipping manifest.

SPECIMEN: SERUM<RET>       0X500
URGENCY: ?? <RET>
COLLECTING FACILITIES:<RET>
If shipping laboratory tests that are a certain urgency, specify the urgency that must match the test urgency of the accession for the accession/test to be placed on the shipping manifest.
```
Step #5 continues for the COLLECTION facility

Example: CFE: Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility

HOST FACILITIES:<RET>

This field is used by LEDI software at the host facility to determine the entry in the host site's URGENCY file (#62.05) to use for ordering when the host site has more than one entry in the URGENCY file (#62.05) that maps to the same HL7 PRIORITY.

Example: Host site has three urgencies which map to HL7 PRIORITY: ROUTINE (R).

<table>
<thead>
<tr>
<th>Entry #</th>
<th>Name</th>
<th>LEDI HL7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>PATIENT WAITING</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>9</td>
<td>ROUTINE</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>10</td>
<td>NO RUSH</td>
<td>ROUTINE</td>
</tr>
</tbody>
</table>

If there is no mapping defined for this field, then the LEDI software will use the last entry in the URGENCY file that maps to HL7 PRIORITY: ROUTINE (R); workload urgencies are excluded. In this case the test would be ordered with a URGENCY of NO RUSH.

If the host site enters a mapping in this field, i.e. ROUTINE then the test will be ordered using the host site's entry for ROUTINE in the URGENCY file when the HL7 PRIORITY matches.

Choose from:

1  STAT
2  PATIENT WAITING
3  PRE-OP
4  CRITICAL
5  ADMIT
6  OUTPATIENT
7  PURPLE TRIANGLE
9  ROUTINE

URGENCY: 9<RET> ROUTINE
SPECIMEN CONTAINER: ??<RET>
COLLECTING FACILITIES:<RET>

The container used to hold the specimen. This could be the original collection container or a tube/vial/jar that the specimen is transferred to prior to shipment to another facility. It is the container that actually hold/contains the specimen.
Step #5 continues for COLLECTION facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility.

HOST FACILITIES:  
This field is presently not used by LEDI software at the host facility.

SPECIMEN CONTAINER:  Primary tube
SHIPPING CONDITION:  ??
COLLECTING FACILITIES:  
This field describes under what temperature/environmental condition the specimen is to be shipped. Examples would be frozen, refrigerated or ambient temperature.

HOST FACILITIES:  
This field is presently not used by LEDI software at the host facility.

SHIPPING CONDITION:  Refrigerated
PACKAGING CONTAINER:  ??
COLLECTING FACILITIES:  
This field is used to determine what packaging container a test's specimen container is placed in when the specimen is being shipped to another facility.

HOST FACILITIES:  
This field is presently not used by LEDI software at the host facility.

PACKAGING CONTAINER:  Box, Container
REQUIRE PATIENT HEIGHT:  ??  
Allows site to specify that the patient's height is sent with an order for this test. Patient's height will be prompted for and printed on manifest.

Choose from:  
0  NO
1  YES
REQUIRE PATIENT HEIGHT:  n
PATIENT HEIGHT UNITS:  ??
Units used to measure the patient's height.
Select an entry from the LAB ELECTRONIC CODE file (#64.061) that are measurements.
**Step #5 continues for COLLECTION facility**

**Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Patient Height Units: Select the appropriate LOINC code to identify the patient's height.</td>
</tr>
<tr>
<td></td>
<td>Patient Height Code: Enter the appropriate LOINC code.</td>
</tr>
<tr>
<td></td>
<td>Require Patient Weight: Yes/No. Determines if the patient's weight is required to be sent in the HL7 ORM order message and printed on the shipping manifest.</td>
</tr>
<tr>
<td></td>
<td>Patient Weight Units: Kilograms. Select the appropriate LOINC code.</td>
</tr>
<tr>
<td></td>
<td>Patient Weight Code: Enter the appropriate LOINC code.</td>
</tr>
<tr>
<td></td>
<td>Require Collection Volume: Yes/No. Determines if the specimen's collection volume is required to be sent in the HL7 ORM order message and printed on the shipping manifest.</td>
</tr>
<tr>
<td></td>
<td>Collection Volume Units: Select an entry from the LAB ELECTRONIC CODE file (#64.061) that is a measurement.</td>
</tr>
</tbody>
</table>
Step #5 continues for COLLECTION facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility.

<table>
<thead>
<tr>
<th>COLLECTION VOLUME UNITS: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLECTION VOLUME CODE: ??&lt;RET&gt;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLLECTION VOLUME CODE: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRE COLLECTION END D/T: ??&lt;RET&gt;</td>
</tr>
</tbody>
</table>

Choose from: <RET>
0  NO
1  YES

| REQUIRE COLLECTION END D/T: n<RET> NO |

<table>
<thead>
<tr>
<th>COLLECTION DURATION UNITS: ??&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLECTION DURATION CODE: ??&lt;RET&gt;</td>
</tr>
</tbody>
</table>

Units used to calculate the specimen's collection duration. Select an entry from the LAB ELECTRONIC CODE file (#64.061) that is a measurement and relate to time.
Step #5 continues for COLLECTION facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option used to configure a VA Facility

```
COLLECTION DURATION CODE:<RET>
REQUIRE COLLECTION WEIGHT: ??<RET>
    Determines if the specimen's collection weight
    is required to be sent in the HL7 ORM order
    message and printed on the shipping manifest.
    Actual shipping and/or electronic transmission
    of a shipping manifest will check for entry of
    the specimen's collection weight and prevent
    release if absent.

    Choose from:<RET>
    0     NO
    1     YES

REQUIRE COLLECTION WEIGHT: n<RET> NO
COLLECTION WEIGHT UNITS: ??<RET>
    Units used to measure the specimen's collection weight.
    Select an entry from the LAB ELECTRONIC CODE file
    ( #64.061) that is a measurement.

COLLECTION WEIGHT UNITS:<RET>
COLLECTION WEIGHT CODE: ??<RET>
    Enter the appropriate LOINC code to identify
    the specimen's collection weight.

COLLECTION WEIGHT CODE:<RET>
Select TEST/PROFILE:<RET>
```
Step #6 LIM (host facility): LAB SHIPPING CONFIGURATION file (#62.9) Setup

Host Facility:

Host facility laboratory setting up a collection facility laboratory to receive electronic orders must configure ONLY the LAB SHIPPING CONFIGURATION file (#62.9). This file is used to define the two members (institutions) that have a relationship. File #62.9 groups both facilities (collection/host facilities), describes the specimen ID used, types of tests/specimens being shipped, identifies the collection/host facility, if the collection/host facilities are linked electronically, and if the collection/host facilities are on the same computer system. Additionally, the LAB SHIPPING CONFIGURATION file (#62.9) allows the host facility to map local tests, urgencies, and specimen types to incoming orders from the collection facilities. This mapping enables the appropriate host facility test to be ordered when the specimen shipment arrives at the host facility.

Commercial Reference Laboratory (non-VA facility) Setup

LIM (host facility): Select the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Configuration [LA7S EDIT 62.9] option to configure the LAB SHIPPING CONFIGURATION file (#62.9) for a Commercial Reference Laboratory (non-VA facility).

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option

```
Select Lab Shipping Management Menu Option: CFE<RET>

  CFE  Edit Shipping Configuration
  CTE  Edit Shipping Container
  CME  Edit Shipping Method
  CDE  Edit Shipping Condition
  LSU  LEDI Setup
  CAT  Electronic Catalog Menu ...

Select Lab Shipping Management Menu Option: CFE<RET> Edit Shipping Configuration

Select SHIPPING CONFIGURATION: XYZ COLLECTING LAB<RET>

  Are you adding 'XYZ COLLECTING LAB' as
  a new LAB SHIPPING CONFIGURATION (the 11TH)? No//Y<RET> (Yes)
  LAB SHIPPING CONFIGURATION COLLECTING FACILITY: XYZ<RET>REFERENCE LAB WI
  LAB SHIPPING CONFIGURATION HOST FACILITY: MILWAUKEE<RET> WI VAMC 695
```
Step #6 continues for HOST facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a Commercial Reference Laboratory (non-VA facility).

Select one of the following:<RET>
1 Collecting facility
2 Host facility

Are you editing this entry as the: 2<RET> Host facility

Select one of the following: <RET>
0 Do NOT copy
1 Another Shipping Configuration
2 Test Catalog - LABORATORY TEST File #60

Copy a test profile from: Do NOT copy/<RET>
NAME: XYZ COLLECTING LAB/<RET>
COLLECTING FACILITY: XYZ REFERENCE LAB/<RET>
COLLECTING FACILITY'S SYSTEM: XYZ REFERENCE LAB<RET> WI

HOST FACILITY: MILWAUKEE, WI/<RET>
HOST FACILITY'S SYSTEM: MILWAUKEE, WI MILWAUKEE, WI WI VAMC 695<RET>
NON-VA SYSTEM IDENTIFIER: ??<RET>
If this is used to communicate with a non-VA system, enter the 2-3 character identifier used to name the HL7 application.

NON-VA SYSTEM IDENTIFIER: XYZ<RET>
TEST CODING SYSTEM: ??<RET>
Answer with type of coding system to use for this configuration.
Choose from:
0 NLT
1 NON-VA
2 LOINC
TEST CODING SYSTEM: 1<RET> NON-VA
SPECIMEN CODING SYSTEM: ??<RET>
Answer with type of coding system to use for this configuration.
Choose from:
0 HL7 TABLE 0070
1 LOCAL-NON HL7
SPECIMEN CODING SYSTEM: ??<RET>
If orders are received from a non-VA facility and the facility can not transmit HL7 specimen codes from HL7 table 0070 then answer with the type of coding system "LOCAL".
**Step #6 continues for HOST facility**

**Example: CFE**  Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a Commercial Reference Laboratory (non-VA facility).

Choose from: <RET>
0   HL7 TABLE 0070
1   LOCAL-NON HL7

SPECIMEN CODING SYSTEM: 1 <RET> LOCAL-NON HL7

STATUS: ??
This field is used to designate whether this shipping configuration is "active", i.e. selectable by the user for use in building, processing and receipting shipments of laboratory test.

Choose from:
0   INACTIVE
1   ACTIVE

STATUS: A <RET> ACTIVE

COLLECTING FACILITY'S SPEC ID: ?? <RET>
This field is used to determine the source of the specimen id (Lab UID) used to identify a specimen. It is used by the Host facility when accessioning tests requests from Collecting facilities to determine if the Host facility needs to generate a new specimen id/label or use the specimen id/label from the Collecting facility.

If both the Collecting and Host facilities on operating on the same computer system then select #3 - SAME SYSTEM.

Choose from:
0   COLLECTING FACILITY
1   HOST FACILITY
3   SAME SYSTEM

COLLECTING FACILITY'S SPEC ID: 0<RET> COLLECTING FACILITY

LAB MESSAGING LINK: <RET>

Select TEST PROFILE: PROSTATIC SPECIFIC ANTIGEN <RET>

Are you adding 'PROSTATIC SPECIFIC ANTIGEN' as a new TEST PROFILE (the 1ST for this LAB SHIPPING CONFIGURATION)? No// Y<RET> (Yes)

TEST PROFILE ACCESSION AREA: CHEMISTRY
1   CHEMISTRY
2   CHEMISTRY MISC

CHOOSE 1-2: 1<RET> CHEMISTRY

TEST PROFILE SPECIMEN: SERUM 0X500

URGENCY: ?? <RET>

COLLECTING FACILITIES: <RET>

If shipping laboratory tests that are a certain urgency, specify the urgency that must match the test urgency of the accession for the accession/test to be placed on the shipping manifest.
Step #6 continued for HOST facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a Commercial Reference Laboratory (non-VA facility).

<table>
<thead>
<tr>
<th>Entry #</th>
<th>Name</th>
<th>LEDI HL7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>PATIENT WAITING</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>9</td>
<td>ROUTINE</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>10</td>
<td>NO RUSH</td>
<td>ROUTINE</td>
</tr>
</tbody>
</table>

If there is no mapping defined for this field, then the LEDI software will use the last entry in the URGENCY file that maps to HL7 PRIORITY: ROUTINE (R); workload urgencies are excluded. In this case the test would be ordered with a URGENCY of NO RUSH.

If the host site enters a mapping in this field, i.e. ROUTINE then the test will be ordered using the host site's entry for ROUTINE in the URGENCY file when the HL7 PRIORITY matches.

Choose from:
1  STAT
2  PATIENT WAITING
3  PRE-OP
4  CRITICAL
5  ZZADMIT
6  ZZOUTPATIENT
7  ZZPURPLE TRIANGLE
9  ROUTINE

URGENCY: 9 ROUTINE
HOST COLLECTION SAMPLE: SERUM??
Enter the collection sample to be associated with this test.
HOST COLLECTION SAMPLE: ??
COLLECTING FACILITIES: 

This field is presently not used by LEDI software at the collecting facility.
Step #6 continues for HOST facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a Commercial Reference Laboratory (non-VA facility).

<table>
<thead>
<tr>
<th>HOST FACILITIES: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>This field is used by host facility laboratories to designate the collection sample to be used when processing electronic orders for this test/specimen combination. It is used to build the order in file # 69.6, LAB PENDING ORDERS, with the test/specimen/collection sample that the host facility uses.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOST COLLECTION SAMPLE: BLOOD&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-VA TEST ORDER CODE: PSA123//??&lt;RET&gt;</td>
</tr>
<tr>
<td>Collecting facilities:</td>
</tr>
<tr>
<td>If sending test orders to a non-VA facility use this field to store the test order codes used by the non-VA system. It will be used when the TEST CODING SYSTEM field (.14) is set to &quot;NON-VA&quot;.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Host facilities: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>If receiving test orders from a non-VA collecting facility that does not use VA NLT codes use this field to map the collecting facilities test order codes to the corresponding VA test.</td>
</tr>
</tbody>
</table>

| NON-VA TEST ORDER CODE: PSA123//<RET> |
| NON-VA TEST ORDER NAME: PSA// ??<RET> |
| Collecting facility: |
| If sending test orders to a non-VA facility use this field to store the test order name used by the non-VA system. The lab software will identify the test name on the non-VA system when orders are transmitted electronically. It will be used when the TEST CODING SYSTEM field (.14) is set to "NON-VA". |

<table>
<thead>
<tr>
<th>Host facility: &lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used - mapping of non-VA tests coding systems for test order codes is via NON-VA TEST ORDER CODE field (#5.1).</td>
</tr>
</tbody>
</table>

| NON-VA TEST ORDER NAME: PSA// <RET> |
| NON-VA SPECIMEN CODE: SERUM//??<RET> |
| Collecting facilities: not applicable |
Step #6 continues for HOST facility

**Example:** CFE Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a Commercial Reference Laboratory (non-VA facility).

<table>
<thead>
<tr>
<th>Host facilities:</th>
<th>&lt;RET&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>If receiving test orders from a non-VA facility that does not used HL7 Table 0070 Specimen Source this field is used to store the specimen name used by the non-VA system. It is based on the value of field SPECIMEN CODING SYSTEM (.15) and only used if LOCAL-NON HL7 is selected.</td>
<td></td>
</tr>
<tr>
<td>NON-VA SPECIMEN CODE: SERUM//</td>
<td>&lt;RET&gt;</td>
</tr>
<tr>
<td>NON-VA SPECIMEN NAME: SERUM//??</td>
<td>&lt;RET&gt;</td>
</tr>
<tr>
<td>Collecting facilities: not applicable</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Host facilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>If receiving test orders from a non-VA facility that does not used HL7 Table 0070 Specimen Source this field is used to store the specimen name used by the non-VA system. It is based on the value of field SPECIMEN CODING SYSTEM (.15) and only used if LOCAL-NON HL7 is selected.</td>
</tr>
<tr>
<td>NON-VA SPECIMEN NAME: SERUM</td>
</tr>
</tbody>
</table>
| Select TEST/PROFILE: | <RET>
Step #6 continues for HOST facility

VA Facility Setup

LIM (host facility): Use the Lab Shipping Management [LA7S MGR MENU] menu, Edit Shipping Configuration [LA7S EDIT 62.9] option to configure the LAB SHIPPING CONFIGURATION file (#62.9) for a VA facility.

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option

Select Lab Shipping Management Menu Option: Edit Shipping Configuration<RET>
Select SHIPPING CONFIGURATION:DALLAS OIFO COLLECTING<RET>
Are you adding 'DALLAS OIFO COLLECTING' as a new LAB SHIPPING CONFIGURATION (the 13TH)? No/<Y<RET> (Yes)
LAB SHIPPING CONFIGURATION COLLECTING FACILITY:?<RET>
Select the institution which will be collecting and shipping lab test specimens.
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 290-Entry INSTITUTION List?<RET>
LAB SHIPPING CONFIGURATION COLLECTING FACILITY:DALLAS OIFO TX ISC 170
LAB SHIPPING CONFIGURATION HOST FACILITY:MILWAUKEE, WI

Select one of the following:<RET>
1 Collecting facility
2 Host facility

Are you editing this entry as the:2<RET> Host facility

Select one of the following:<RET>
0 Do NOT copy
1 Another Shipping Configuration
2 Test Catalog - LABORATORY TEST File #60

Copy a test profile from: Do NOT copy//<RET>
NAME: DALLAS OIFO COLLECTING Replace<RET>
COLLECTING FACILITY: DALLAS OIFO//<RET>
COLLECTING FACILITY'S SYSTEM: DALLAS OIFO TX ISC 170
HOST FACILITY: MILWAUKEE, WI//<RET>
HOST FACILITY'S SYSTEM: ?<RET>
Institution which has host's computer system.
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 290-Entry INSTITUTION List?<RET>
HOST FACILITY'S SYSTEM: MILWAUKEE, WI<RET> WI VAMC 695
STATUS: A<RET>ACTIVE
COLLECTING FACILITY'S SPEC ID:?<RET>
Select the source of the specimen id provided by the collector.
Step #6 continues for HOST facility

Example: CFE Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a VA facility.

Choose from:
0 COLLECTING FACILITY
1 HOST FACILITY
3 SAME SYSTEM

COLLECTING FACILITY'S SPEC ID: 0<RET> COLLECTING FACILITY

Select TEST/PROFILE: THEOPHYLLINE<RET>

Are you adding 'THEOPHYLLINE' as a new TEST/PROFILE (the 1ST for this LAB SHIPPING CONFIGURATION)? No// Y (Yes)

URGENCY: 

Collecting facility - if only certain urgencies are shipped, specify the accession's test urgency. Host facility - see field description (??) for information.

Select regular urgencies only. Workload urgencies are excluded.

Answer with URGENCY, or NUMBER

Do you want the entire URGENCY List?<RET>

URGENCY: ??<RET>

COLLECTING FACILITIES:

If shipping laboratory tests that are a certain urgency, specify the urgency that must match the test urgency of the accession for the accession/test to be placed on the shipping manifest.

HOST FACILITIES:

This field is used by LEDI software at the host facility to determine the entry in the host site's URGENCY file (#62.05) to use for ordering when the host site has more than one entry in the URGENCY file (#62.05) that maps to the same HL7 PRIORITY.

Example: Host site has three urgencies which map to HL7 PRIORITY: ROUTINE (R).

<table>
<thead>
<tr>
<th>Entry #</th>
<th>Name</th>
<th>LEDI HL7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>PATIENT WAITING</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>9</td>
<td>ROUTINE</td>
<td>ROUTINE</td>
</tr>
<tr>
<td>10</td>
<td>NO RUSH</td>
<td>ROUTINE</td>
</tr>
</tbody>
</table>

If there is no mapping defined for this field, then the LEDI software will use the last entry in the URGENCY file that maps to HL7 PRIORITY: ROUTINE (R); workload urgencies are excluded. In this case the test would be ordered with a URGENCY of NO RUSH.
Step #6 continues for HOST facility

Example: CFE  Edit Shipping Configuration [LA7S EDIT 62.9] option is used to configure a VA facility.

If the host site enters a mapping in this field, i.e. ROUTINE then the test will be ordered using the host site's entry for ROUTINE in the URGENCY file when the HL7 PRIORITY matches.

Choose from:<RET>
1  STAT
2  PATIENT WAITING
3  PRE-OP
4  CRITICAL
5  ADMIT
6  OUTPATIENT
7  PURPLE TRIANGLE
9  ROUTINE

URGENCY: ROUTINE
HOST COLLECTION SAMPLE: ??<RET>
COLLECTING FACILITIES:<RET>

This field is presently not used by LEDI software at the collecting facility.

HOST FACILITIES:<RET>

This field is used by host facility laboratories to designate the collection sample to be used when processing electronic orders for this test/specimen combination. It is used to build the order in file # 69.6, LAB PENDING ORDERS, with the test/specimen/collection sample that the host facility uses.

HOST COLLECTION SAMPLE: SERUM??<RET>
Enter the collection sample to be associated with this test.
HOST COLLECTION SAMPLE: BLOOD
1  BLOOD   BLOOD   CULTURE SET
2  BLOOD   BLOOD   GREEN
3  BLOOD   SERUM   RED
4  BLOOD   PLASMA   GREEN
5  BLOOD   PLASMA   LAVEN W/DYE

Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5:  3<RET>   BLOOD   SERUM   RED
Select TEST/PROFILE:<RET>
Step #7 LIM: LEDI II Setup for Laboratory Auto-Instruments and HL7 Environment

The LEDI Setup [LA7V SETUP] option allows the LIM to setup a collection and/or host facility laboratory Auto-Instruments and HL7 environment. This option is located on the Lab Shipping Management [LA7S MGR MENU] menu of the Lab Liaison [LRLIAISON] menu.

The LEDI software application is using the INSTITUTION file (#4), DOMAIN field (#60), to route HL7 messages to the collection and host facilities when VA MailMan is used as the HL7 transport protocol.

The collection facility’s STATION NUMBER must be defined in the host facility INSTITUTION file (#4), DOMAIN field (#60), when VA MailMan is used as the HL7 transport protocol.

The host facility’s STATION NUMBER must be defined in the collection facility INSTITUTION file (#4), DOMAIN field (#60), when VA MailMan is used as the HL7 transport protocol.

NOTES:

Multi-divisional facilities should ONLY use the LEDI Setup option for the primary facility. All other facilities within a multi-divisional facility will use the primary facility to transmit and receive HL7 messages.

If the collecting facility is a division of a multi-divisional facility then setup the primary facility’s system as the collecting facility.

If the host facility is a multi-divisional facility then setup the primary facility’s system as the host facility.
Step #7 continues - LEDI II Setup for Laboratory Auto-Instruments and HL7 Environment

NOTE: The two-institution names used in the following screen displays are examples ONLY. Do NOT use these two institutions host or collection facility.

Example: LSU LEDI Setup

Select Lab liaison menu Option: SMGR <RET> Lab Shipping Management Menu

Select Lab Shipping Management Menu Options: ?<RET>

  CFE    Edit Shipping Configuration
  CTE    Edit Shipping Container
  CME    Edit Shipping Method
  CDE    Edit Shipping Condition
  LSU    LEDI Setup
  CAT    Electronic Catalog Menu

Select Lab Shipping Management Menu Option: LSU<RET> LEDI Setup

------------------------------------------------------------------------------
LEDI Setup
------------------------------------------------------------------------------

COLLECTION Labs: Use option #1 to setup HOST labs.
HOST Labs     : Use option #2 to setup COLLECTION labs.

1. Add/Edit HOST Lab
2. Add/Edit COLLECTION Lab

Enter a number (1-2): ?<RET>

Option #1 will setup HOST site auto-instruments, HOST site message configuration, and HOST and COLLECTION sites HL7 environment.

Option #2 will setup COLLECTION site auto-instruments, COLLECTION site message configuration, and COLLECTION and HOST sites HL7 environment.

Option #1 and #2 SHOULD be used by sites that are both a HOST and a COLLECTION site.

Enter a number (1-2): 1<RET>
Step #7 continues

| 1. DALLAS CIOFO (LA7V HOST 170) |
| 2. BIRMINGHAM, AL. (LA7V HOST 521) |
| 3. HINES, IL (LA7V HOST 578) |
| 4. MILWAUKEE, WI (LA7V HOST 695) |
| 5. Add HOST Lab |

Enter a number (1-5): ? <RET>

Enter a '5' to create a new HOST lab.
Enter a number between 1 and 5.

Enter a number (1-5): 5<RET>

| 1 1. HOST Lab: <RET> |
| 2. Logical Link (MailMan or TCP/IP): <RET> |
| 3. Auto Instrument: <RET> |

Enter a number (1-3): ?<RET>

Enter a '1' to create the HL7 environment along with the Auto-Instrument and LA7 Message Configuration.
Enter a '2' to create the link between the HOST and COLLECTION labs.
Enter a '3' to identify the list of test you expect back from the HOST lab.
Enter a '4' to configure the LA7 MESSAGE PARAMETER file.
Enter a '5' to identify the type of Error Conditions you wish to receive for this Auto-Instrument.

Enter a number (1-3): 1<RET>
Select INSTITUTION NAME: [Type your host laboratory's institution name]<RET>
Select INSTITUTION NAME: ?<RET>
Answer with INSTITUTION NAME, or STATION NUMBER, or OFFICAL VA NAME, or CURRENT LOCATION
Do you want the entire 289-Entry INSTITUTION List? <RET>
Select INSTITUTION NAME: XYZ REFERENCE LAB WI<RET>
Enter a non-VA code (2-3 alpha character): XYZ<RET>
Select LAB SHIPPING CONFIGURATION NAME: XYZ REFERENCE LAB<RET> WI XYZ COLLECTING LAB
Step #7 continues

XYZ^MILWAUKEE, WI
Setting up the following Host Labs for MILWAUKEE, WI
    Updating HL7 APPLICATION PARAMETER file (#771).
    Adding LA7V HOST XYZ
    Updating PROTOCOL file (#101).
LA7V Receive Results from XYZ
    Located in the LA7 (LAB UNIVERSAL INTERFACE) namespace.
    Adding LA7V Receive Results from XYZ
LA7V Process Results from XYZ
    Located in the LA7 (LAB UNIVERSAL INTERFACE) namespace.
    Adding LA7V Process Results from XYZ
LA7V Order to XYZ
    Located in the LA7 (LAB UNIVERSAL INTERFACE) namespace.
    Adding LA7V Order to XYZ
LA7V Send Order to XYZ
    Located in the LA7 (LAB UNIVERSAL INTERFACE) namespace.
    Adding LA7V Send Order to XYZ
Updating LA7 MESSAGE PARAMETER file (#62.48) for the HOST Lab MILWAUKEE, WI.
    Adding LA7V HOST XYZ
Updating LAB AUTO INSTRUMENT file (#62.4) for HOST Lab MILWAUKEE, WI.
    Adding LA7V HOST XYZ

HL7 v1.6 Environment setup is complete!!
Enter RETURN to continue or '^' to exit:
---------------------------------------------------------------------------
HOST Lab Setup
-------------------------------------------------------------
1. HOST Lab:   MILWAUKEE, WI  (Uneditable)
2. Logical Link (MailMan or TCP/IP):
3. Auto Instrument:
4. Message Configuration: LA7V HOST XYZ
5. Alert Condition:

Enter a number (1-5):  2
-----------------------------------------------------
Logical Link for transmissions to/from MILWAUKEE, WI
Protocol Logical Link
---------- ---------------
LA7V Process Results from XYZ
LA7V Send Order to XYZ

Enter a Logical Link:  (MM/TCP): TCP/IP
Updating HL LOGICAL LINK file (#870).
    Adding LA7V XYZ
Updating the PROTOCOL file (#101).
Step #7 continues

 HOST Lab Setup

1. HOST Lab: REGION 7 ISC,TX (DEMO) (Uneditable)
2. Logical Link (MailMan or TCP/IP): DATA
3. Automated Instrument:
4. GRACE PERIOD FOR MESSAGES:
5. ALERT CONDITION:

Enter a number (1-5): 2

 Logical Link for transmissions to/from REGION 7 ISC,TX (DEMO)

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Logical Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA7V Process Results from 170</td>
<td>LA7V 170 (TCP)</td>
</tr>
<tr>
<td>LA7V Send Query to 170</td>
<td>LA7V 170 (TCP)</td>
</tr>
<tr>
<td>LA7V Send Order to 170</td>
<td>LA7V 170 (TCP)</td>
</tr>
</tbody>
</table>

Enter a Logical Link: (MM/TCP): ?

Enter a code from the list.
Select one of the following:

  MM        MAILMAN
  TCP       TCP/IP

Enter a Logical Link: (MM/TCP): ??

Enter a code from the list.
Select one of the following:

  MM        MAILMAN
  TCP       TCP/IP

Enter a Logical Link: (MM/TCP): ^
**Step #7 continued**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HOST Lab: <strong>MILWAUKEE, WI</strong> (Uneditable)</td>
</tr>
<tr>
<td>2.</td>
<td>Logical Link (MailMan or TCP/IP): DATA</td>
</tr>
<tr>
<td>3.</td>
<td>Auto Instrument:</td>
</tr>
<tr>
<td>4.</td>
<td>Message Configuration: LA7V HOST XYZ</td>
</tr>
<tr>
<td>5.</td>
<td>Alert Condition:</td>
</tr>
</tbody>
</table>

Enter a number (1-5): 3

**Automated Instrument:** LA7V HOST XYZ

**Load/Work List:** SENDOUTS

**Method:** XYZ REF LAB??

*Answer must be 1-10 characters in length*

**Method:** XYZ LAB

**Default Accession Area:** SEND SENDOUTS

**Overlay Data:** Y YES

**Store Remarks:** YES/

Add Chem Tests to the LA7V HOST XYZ Automated Instrument for MILWAUKEE, WI.

**Select Chem Tests:** PSA

<table>
<thead>
<tr>
<th>Number</th>
<th>Test Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PSA PROSTATE SPECIFIC ANTIGEN (AXSYM STUDY)</td>
</tr>
<tr>
<td>2</td>
<td>PSA-% FREE</td>
</tr>
<tr>
<td>3</td>
<td>PSA-TOTAL</td>
</tr>
</tbody>
</table>

**Choose 1-3:** 1 PROSTATE SPECIFIC ANTIGEN (AXSYM STUDY)

Are you adding 'PROSTATE SPECIFIC ANTIGEN (AXSYM STUDY)' as a new Chem Tests (the 1st for this Auto Instrument)? No// Y (Yes)

**Chem Tests Number:** 1/

**Chem Tests Test:** PROSTATE SPECIFIC ANTIGEN (AXSYM STUDY) //

**Test:** PROSTATE SPECIFIC ANTIGEN (AXSYM STUDY)/

**Param 1:**

**UI Test Code:** 89760.0000// PSAXYZ

**Number of Decimal Places:** 1

**Convert Result to Remark:** N NO

**Accept Results for This Test:** Y YES

**Ignore Results Not Ordered:** Y YES

**Remove Spaces From Result:** Y YES

**Store Remarks:** YES// YES

**Remark Prefix:** PSA

**Store Producer's ID:** Y YES

**Store Reference Range:** Y YES

**Store Abnormal Flags:** Y YES
Step #7 continued

---------------------------------------------------------------------
HOST Lab Setup
---------------------------------------------------------------------

1. HOST Lab:  XYZ REFERENCE LAB  (Uneditable)
2. Logical Link (MailMan or TCP/IP): DATA
3. Auto Instrument: DATA
4. Message Configuration: LA7V HOST XYZ
5. Alert Condition:
Enter a number (1-5): 4
Enter a number (1-5): 4

GRACE PERIOD FOR MESSAGES: 30// ??

Grace period determines the number of days that messages for this
configuration are kept on the system before purging when the message
status is "purgable". If this field is left blank, the system assumes 3
days. These messages are found in the LA7 MESSAGE QUEUE file (#62.49).
When messages have status of "error" they remain on the system until
their corresponding error message is removed from the XTMP global by a
KERNEL cleanup task. The messages then become "purgable".

GRACE PERIOD FOR MESSAGES: 30/

LOG ERRORS: ON// ??

If turned on, errors or exceptional conditions that occur during
message processing are stored in the ^XTMP global for review. To review the
log, in programmer mode, type D PRINT^LA7LOG.

Choose from:
0        OFF
1        ON

LOG ERRORS: ON/

MULTIPLE ORDERS: SINGLE ORDER// ??

Determines when building a HL7 message if message should contain only
one patient/order or multiple patients/orders.

Default is multiple patients per message if possible.
This allows site to configure message building when communicating with
a non-VA system that can not handle a message that has more than one
patient in the message. It applies to both order (ORM) and result
(ORU) messages.

When communicating with a VA facility this field can be left blank
(default) or set to 0 - MULTIPLE PATIENTS

If the receiving system can only accept one patient per HL7 message
then select 1 - SINGLE PATIENT. This will place multiple orders or
results for multiple orders in one message but only one patient will
be contained in the message.

If the receiving system can only accept one order per HL7 message then
select 2 - SINGLE ORDER. This will place in the message one order or
the results associated with one order for a single patient.
**Step #7 continued**

Note: An order in the VA is considered those tests found on one accession. What the VA considers as an accession other non-VA systems may refer to as an order.

Choose from:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>MULTIPLE PATIENTS</td>
</tr>
<tr>
<td>1</td>
<td>SINGLE PATIENT</td>
</tr>
<tr>
<td>2</td>
<td>SINGLE ORDER</td>
</tr>
</tbody>
</table>

MULTIPLE ORDERS: 2 SINGLE ORDER

---

**HOST Lab Setup**

1. HOST Lab: REGION 7 ISC, TX (DEMO) (Uneditable)
2. Logical Link (MailMan or TCP/IP): DATA<RET>
3. Automated Instrument: DATA<RET>
4. GRACE PERIOD FOR MESSAGES: 4<RET>
5. ALERT CONDITION:

Enter a number (1-5): 5<RET>

Select ALERT CONDITION: 5<RET>

You may enter a new ALERT CONDITION, if you wish

Enter "1" to receive alerts for new results, a "2" to receive alerts for errors during processing. and "3" when orders are received.

Error on message alert may only be selected if Field #4, LOG ERRORS, is set to "ON".

Choose from:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NEW RESULTS</td>
</tr>
<tr>
<td>2</td>
<td>ERROR ON MESSAGE</td>
</tr>
<tr>
<td>3</td>
<td>ORDERS RECEIVED</td>
</tr>
</tbody>
</table>

Select ALERT CONDITION: NEW (1 NEW RESULTS)<RET>

Are you adding 'NEW RESULTS' as a new ALERT CONDITION (the 1ST for this LA7 MESSAGE PARAMETER)? No//Y (Yes)<RET>

MAIL GROUP: LAB REPORT
Step #8 IRM: Completing the HL7 Environment Setup

The HL LOGICAL LINK file (#870) contains the links used by the HL7 software to send messages. This file stores parameters that define the actions of the lower level protocols and information used within the Systems Link Monitor, which provides the users feedback regarding the status of each link.

IRM: Use the Link Edit [HL EDIT LOGICAL LINKS] option within the Filer and Link Management Options [HL MENU FILER LINK MGT] menu within the HL7 Main Menu [HL MAIN MENU] to edit the HL LOGICAL LINK file (#870), AUTOSTART field (#4.5) in the Logical Link Information section. Set the AUTOSTART field (#4.5) entry to ‘1’ (Enabled) if you want this to start automatically after TaskMan is restarted. Otherwise, these links will need to be manually started using the Start/Stop Links [HL START] option within the Filer and Link Management Options [HL MENU FILER LINK MGT] menu within the HL7 Main Menu [HL MAIN MENU].

1a. TCP/IP Interfaces

NOTE: Please consult the VISTA HEALTH LEVEL SEVEN (HL7) SITE MANAGER & DEVELOPER MANUAL for information on single and multi-threaded listeners.

IRM: Complete the HL7 Environment Setup.

To utilize TCP/IP as the communication protocol the following actions are required:

IRM: Coordinate with the facility that will be receiving and sending LEDI HL7 messages. Both sites need to have installed patch HL*1.6*19. Determine the respective IP addresses and sockets (ports) that both sites will be using to exchange messages. Sockets in the range 10000-20000 are recommended for the Lab HL7 server (listener) from the sites pool of available sockets. See Port Assignments for TCP [DBA TCP PORT ASSIGNMENTS] option on FORUM.
Step #8 continues

In the following (i.e., xxx) is your VA facility number and (i.e., yyy) is the VA facility number of the system you are exchanging HL7 messages with. In the case of non-VA facilities yyy will contain the three-letter identifier specified in the LAB SHIPPING CONFIGURATION file (#62.9), NON-VA SYSTEM IDENTIFIER field (#.11) that relates to this link.

LA7V xxx (listener) is used to receive order/result messages. All facilities that are sending order/result messages will connect to this link to transmit LEDI HL7 messages to your facility. This is why this link should be set to PERSISTENT: NO. Otherwise the link will be tied up and other systems will not be able to connect and transmit messages to you. The client type links will connect to this listener to transmit order/result messages. Collection facilities will receive their test result messages via this link. Host facilities will receive their order messages (shipping manifest) via this link. If the two systems are host and collection labs for each other, then both types of messages will be received via this link. This link will ONLY need to be configured the first time a facility is setting up a TCP/IP connection to another facility. When setting up additional facilities just provide the client facilities with the TCP/IP address and port number that this server is using.

LA7V yyy (client) is used to send order/result messages. This is the link that connects to the other system’s listener (link above) to transmit order/result messages. Collection facilities will transmit their order messages (shipping manifests) via this link. Host facilities will transmit their result messages via this link. If the two systems are both host and collecting labs for each other, then both types of messages will be sent via this link.

IRM: Provide the TCP/IP address/port that the LA7V xxx server will be listening on to the clients that will be connecting to your system. You will also need the TCP/IP address/port of the facility/system you will be transmitting messages to. The other system must support a non-persistent connection.

The LEDI Setup [LA7V SETUP] option populates the HL LOGICAL LINK file (#870), NODE field (#.01), and LLP TYPE field (#2).
Step #8 continues

**IRM:** Edit the following fields within the TCP LLP Parameters section:

On a server logical link these fields:
- **TCP/IP Address:** Null (DSM for OpenVMS); IP address of listener system (Caché for NT)
- **TCP/IP Port:** Port (socket) that your system is listening on.
- **Startup Node:** Sets the startup node for the listener when the link is Autostarted. This setting is honored if a) a Task Manager process is running on the specified startup node, or b) you are an OpenVMS site running TaskMan in a DCL context.
- **TCP/IP Service Type:** Single Listener.
- **Autostart:** If ENABLED, will start up automatically on system boot.

On a client logical link the fields:
- **TCP/IP Address:** IP address of target system you are going to connect to.
- **TCP/IP Port:** Port (socket) that target system is listening on.
- **Persistent:** NO
- **Startup Node:** Set the startup node for the link. This setting is honored if a) Task Manager is running on the specified startup node, or b) you are an OpenVMS site running TaskMan in a DCL context.
- **TCP/IP Service Type:** Client (Sender).
- **Autostart:** If ENABLED, will start up automatically on system boot.

1b. MailMan Interfaces

No additional setup required.

**NOTE:** VA MailMan Interfaces utilizes **only one** Logical Link.
LEDI II Configuration Setup Checklist

This checklist is provided to ensure that all required LEDI II Implementation Setup instructions has been completed.

Checklist for Collection Facility setting up Host Facility

NOTE: Use this checklist to confirm that the LEDI II Step #5 LIM (COLLECTION facility): Lab Shipping Files Setup instructions located in the Implementation Section of this manual has been completed as instructed.

1. Enter the name of the host facility in the INSTITUTION file (#4), NAME field (.01). The Institution Master File maintains nationally controlled entries. [ ]

   If the host facility is a VA Institution, then verify that the: [ ]
   AGENCY CODE field (#95) = “VA” and the
   STATION NUMBER field (#99) = A unique Central Office assigned station number.

   If host facility is a non-VA Institution then verify that the: [ ]
   AGENCY CODE field (#95) = “OTHER” and the
   STATION NUMBER field (#99) = <blank>

2. Setup LAB SHIPPING METHOD file (#62.92). [ ]

3. Setup LAB SHIPPING CONDITION file (#62.93). [ ]
   Use Edit Shipping Condition [LA7S EDIT 62.93] option.

4. Setup LAB SHIPPING CONTAINER file (#62.91). [ ]
   Use Edit Shipping Container [LA7S EDIT 62.91] option.
5. Setup LAB SHIPPING CONFIGURATION (#62.9). [ ]
   Use the Edit Shipping Configuration [LA7S EDIT 62.9] option to configure this
   file. When initially setting up the lab shipping configuration DO NOT edit the
   LAB MESSAGING LINK field (#.07) of this file. This field will be filled in after
   the LEDI Setup option [LA7V SETUP] configures the HL7 interface for this
   configuration. If the host facility is a non-VA facility then determine a three-letter
   identifier to assign in lieu of the VA Station Number.

   **NOTE:** See Step #5 LIM (COLLECTION facility): Lab Shipping Files Setup
   in the Implementation Section of this manual for examples used during software
   testing for several Commercial Reference Laboratories.

6. When setting up an electronic link (HL7 interface) to the host facility laboratory
   use the LEDI Setup [LA7V SETUP] option to add/edit a host lab. This option will
   setup the Lab and HL7 files for the HL7 interface to the host facility. [ ]

7. If using HL7 TCP/IP interface have IRM complete the HL LOGICAL LINK file
   (#870) setup. [ ]

8. If an electronic link (HL7 interface) has been setup for this host facility then use
   Edit Shipping Configuration [LA7S EDIT 62.9] option to edit the LAB
   MESSAGING LINK field (#.07) to link the shipping configuration to the HL7
   interface. Select the message configuration “LA7V HOST xxx” (i.e., xxx is the VA
   station number of the host facility or the three-letter identifier previously
   assigned for a non-VA facility). The LEDI Setup [LA7V SETUP] option will
   attempt to fill in this field. However, if you have multiple shipping configurations
   for the same collection and host facility you will need to manually setup these
   configurations. [ ]
Checklist for Host Facility setting up Collection Facility

NOTE: Use this checklist to ensure that Step #6 LIM (HOST facility): LAB SHIPPING CONFIGURATION file (#62.9) Setup located in the Implementation section of this manual has been completed.

1. Enter/configure the collecting facility entry in INSTITUTION file (#4). The Institution Master File maintains nationally controlled entries. [ ]

   If the collecting facility is a VA institution then verify that: [ ]
   AGENCY CODE field (#95) = “VA”
   STATION NUMBER field (#99) = Unique Central Office assigned station number.

   If the collecting facility is a non-VA institution then verify that: [ ]
   AGENCY CODE field (#95) = “OTHER”
   STATION NUMBER field (#99) = <blank>

2. Setup SHIPPING CONFIGURATION file (#62.9). [ ]
   Use Edit Shipping Configuration [LA7S EDIT 62.9] option.
   Specify, “Host facility”, when asked how the configuration is being edited.
   Add local lab tests that the Collecting facility will be shipping, specifying local collection sample and urgency to use to build the LAB PENDING ORDERS ENTRY file (#69.6) entries. If collecting facility is a non-VA facility then determine a three-letter identifier to assign in lieu of the VA Station Number. See Step #5 LIM: Lab Shipping Files Setup above for suggested values of some commercial reference laboratories.

3. If setting up an electronic link (HL7 interface) to the collection lab use LEDI Setup [LA7V SETUP] option to add/edit a collection lab. This option will setup the Lab and HL7 files for the HL7 interface to the collection facility. [ ]

4. If using HL7 TCP/IP interface then have IRM complete the HL LOGICAL LINK file (#870) setup. [ ]
Package Operation

This section contains information regarding the VISTA LEDI II Installation Guide and User Manual retrieval formats and on-line access locations. The LEDI II new and modified menus and options descriptions are also included in this section.

LEDII Documentation Retrieval Formats

LEDII Installation Guide and User Manual files are exported in the following formats:

<table>
<thead>
<tr>
<th>File Names</th>
<th>Contents</th>
<th>Retrieval Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAB_LEDI_II_IG.PDF</td>
<td>LABORATORY ELECTRONIC DATA</td>
<td>BINARY</td>
</tr>
<tr>
<td>LAB_LEDI_II_UM.PDF</td>
<td>LABORATORY ELECTRONIC DATA</td>
<td>BINARY</td>
</tr>
</tbody>
</table>

LEDII Documentation Retrieval Locations

NOTE: All sites are encouraged to use the File Transfer Protocol (FTP) capability. Use the FTP address “download.vista.med.va.gov” (without the quotes) to connect to the first available FTP server where the files are located.

LEDII Installation Guide and User Manual files are available on the ANONYMOUS.SOFTWARE directories at the following Office of Information Field Offices (OIFOs): (LAB_LEDI_II_IG.PDF and LAB_LEDI_II_UM.PDF).

<table>
<thead>
<tr>
<th>OI FIELD OFFICE</th>
<th>FTP ADDRESS</th>
<th>DIRECTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALBANY</td>
<td>ftp.fo-albany.med.va.gov</td>
<td>[ANONYMOUS.SOFTWARE]</td>
</tr>
<tr>
<td>HINES</td>
<td>ftp.fo-hines.med.va.gov</td>
<td>[ANONYMOUS.SOFTWARE]</td>
</tr>
<tr>
<td>SALT LAKE</td>
<td>ftp.fo-slc.med.va.gov</td>
<td>[ANONYMOUS.SOFTWARE]</td>
</tr>
</tbody>
</table>
Website Locations:

The VISTA LEDI II Installation Guide (i.e., LAB_LEDI_II_IG.PDF and LAB_LEDI_II_IG.DOC) and LEDI II User Manual (i.e., LAB_LEDI_II_UM.PDF and LAB_LEDI_II_UM.DOC) in Portable Document Format (PDF) and MS Word (DOC) Format are available at the following VISTA Intranet locations:

Laboratory Version 5.2 Home Page:
http://vista.med.va.gov/ClinicalSpecialties/lab/

VISTA Documentation Library (VDL):
http://vista.med.va.gov/vdl/
LEDII New and Modified Options

The following options were created or modified to accommodate LEDII new functionality:

**LEDII New Options**

**Edit Required Test Information [LA7S MANIFEST TEST REQ INFO] option**
This option allows a user to enter/edit information that is required to be sent with a Lab test when it is shipped. Examples can be the total volume of urine collected for a timed urine test, weight of specimen collected, duration of specimen collection, patient height, and weight.

**Retransmit LEDII Lab Results [LA7S RESULTS RETRANSMIT] option:**
This new option allows a user at a host facility to select one or more accessions that were received from other LEDII collection facility and retransmit test results associated with the accession(s) to the sending/collecting facility via HL7 messaging.

These two new options are located on the Lab Shipping Menu [LA7S MAIN MENU], which is located on the Laboratory DHCP Menu [LRMENU].

**LEDII Modified Options**

**Print LEDII Pending Orders [LA7S PENDING PRINT LEDII] option:**
This option is used by the host facility to print a collection facility LEDII shipping manifest report from the host facility’s LAB PENDING ORDERS ENTRY file (#69.6). This option can be used to reprint a shipping manifest report, which is lost or damaged during shipping. The user is prompted to enter the shipping manifest number, which prints a barcoded-shipping manifest report containing all of the patients entered for that manifest. The new shipping manifest report format is similar to the regular shipping manifest report received from the collection (shipping) facility.

**Display Lab Universal Interface Message [LA7 PRINT LAB UI MESSAGE] option:**
The logic used to print error messages associated with a UI message is modified to prompt the user when the Kernel Browser should be used to display a form message. If the browser is not selected then a standard “scroll and roll” display of the selected message(s) is produced. This option is located on the Lab Universal Interface Menu [LA7 MAIN MENU]. This submenu is located on the Lab Interface Menu [LA INTERFACE].
LEDII Menus and Options

LEDII software application contains two menus; the Lab Shipping Management Menu [LA7S MGR MENU] is assigned to the LIM, and Lab Shipping Menu [LA7S MAIN MENU)) is assigned to the user. The Lab Universal Interface Menu [LA7 MAIN MENU] and Accessioning Menu [LR IN] are also exported with this release. The following charts contain detailed descriptions of all menus and options exported by this release:

Lab Shipping Management Menu [LA7S MGR MENU]

The Lab Shipping Management menu [LA7S MGR MENU] contains all implementation related options available for the LIM.

<table>
<thead>
<tr>
<th>LEDI Menu Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lab Shipping Management Menu [LA7S MGR MENU]</strong></td>
<td>This submenu can be found on the Lab liaison menu [LRLIAISON] containing the following options:</td>
</tr>
</tbody>
</table>
| Edit Shipping Configuration [LA7S EDIT 62.9] option | This option sets up the LAB SHIPPING CONFIGURATION file (#62.9).  
  See example in the Implementation section Step #5. |
| Edit Shipping Container [LA7S EDIT 62.91] option | This option sets up the LAB SHIPPING CONTAINER file (#62.91).  
  See example in the Implementation section Step #5. |
| Edit Shipping Method [LA7S EDIT 62.92] option | This option sets up the LAB SHIPPING METHOD file (#62.92).  
  See example in the Implementation section Step #5. |
| Edit Shipping Conditions [LA7S EDIT 62.93] option | This option sets up the LAB SHIPPING CONDITIONS file (#62.93).  
  See example in the Implementation section Step #5. |
| LEDI Setup [LA7V SETUP] option | This option sets up the HL7 and Lab Auto Instrument environment for a HOST or COLLECTION system. This option also sets up entries in the:  
  • HL7 APPLICATION PARAMETER file (#771)  
  • HL LOGICAL LINK file (#870)  
  • HL LOWER LEVEL PROTOCOL PARAMETER file (#869.2)  
  • PROTOCOL file (#101)  
  • AUTO INSTRUMENT file (#62.4)  
  • LA7 MESSAGE PARAMETER file (#62.48)  
  See examples in the Implementation section Steps #6 and #7. |
**Electronic Catalog Menu [LA7S CATALOG MENU]**

This menu contains the options that maintain, produce, and print the laboratory test available for the collection site to order.

<table>
<thead>
<tr>
<th>LEDI Menu Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic Catalog Menu [LA7S CATALOG MENU]</strong></td>
<td>This submenu is located on the Lab Shipping Management Menu [LA7S MGR MENU] consisting of the following options:</td>
</tr>
<tr>
<td>Electronic Catalog Information Entry [LA7S CATALOG ENTRY] option</td>
<td>This option allows the user to enter laboratory test information for the electronic catalog.</td>
</tr>
<tr>
<td></td>
<td><em>For an example, see the Option Examples section.</em></td>
</tr>
<tr>
<td>View Individual Electronic Catalog Entry [LA7S VIEW INDIVIDUAL ENTRY] option</td>
<td>This option allows the user to view or print an individual entry in the Electronic Test Catalog.</td>
</tr>
<tr>
<td></td>
<td><em>For an example, see the Option Examples section.</em></td>
</tr>
<tr>
<td>Electronic Catalog Print [LA7S PRINT CATALOG] option</td>
<td>This option allows the user to produce a report of all catalog entries.</td>
</tr>
</tbody>
</table>
Lab Shipping Menu [LA7S MAIN MENU]

The Lab Shipping [LA7S MAIN MENU] Menu contains 10 options, including two new options (i.e., Retransmit LEDI Lab Results [LA7S RESULTS RETRANSMIT] and Edit Required Test Information [LA7 MANIFEST TEST REQ INFO]). The following charts include a detailed description of the existing LEDI options and the two new LEDI II options:

<table>
<thead>
<tr>
<th>LEDI Menu Options</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lab Shipping Menu [LA7S MAIN MENU]</strong></td>
<td>The Lab Shipping Menu [LA7S MAIN MENU] contains all the workload related options available to the LIM. This submenu is located on the Laboratory DHCP [LRMENU] menu consisting of the following 10 options:</td>
</tr>
<tr>
<td>Add/Remove a Shipping Manifest [LA7S MANIFEST TEST ADD/ REMOVE] option</td>
<td>This option allows a test to be added or removed from an “Open” shipping manifest.</td>
</tr>
<tr>
<td>Build Shipping Manifest [LA7S MANIFEST BUILD] option</td>
<td>This option builds specimens on to a shipping manifest.</td>
</tr>
<tr>
<td>Cancel a Shipping Manifest [LA7S MANIFEST CANCEL] option</td>
<td>This option cancels an open shipping manifest. All tests are removed and made available for building on another shipping manifest.</td>
</tr>
<tr>
<td>Close/Ship a Shipping Manifest [LA7S MANIFEST CLOSE/SHIP] option</td>
<td>This option marks a shipping manifest as closed and/or shipped.</td>
</tr>
<tr>
<td>Edit Required Test Information [LA7 MANIFEST TEST REQ INFO] option</td>
<td>This new option allows a user to enter/edit information required to be sent with a lab test when it is shipped. Examples can be the total volume of urine collected for a timed urine test, weight of specimen collected, duration of specimen collection, patient height and weight.</td>
</tr>
</tbody>
</table>
**Lab Shipping [LA7S MAIN MENU] Menu continued**

<table>
<thead>
<tr>
<th>LEDI Menu Options</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Status Report [LA7S ORDER STATUS REPORT] option</td>
<td>This report allows the user to produce a report based on selected criteria.</td>
</tr>
<tr>
<td>Print LEDI Pending Orders [LA7S PENDING PRINT LEDI] option</td>
<td>This option is used to print a collecting facility’s LEDI shipping manifest from the host facility’s LAB PENDING ORDER ENTRY (#69.6) file. This option could be used to reprint a shipping manifest lost or damaged during shipment. The user is prompted for the shipping manifest number. The option will then print a barcoded-shipping manifest containing all of the patients on that manifest. The format is similar to the regular shipping manifest received from the collecting (shipping) facility.</td>
</tr>
<tr>
<td>Print Shipping Manifest [LA7S MANIFEST PRINT] option</td>
<td>This option allows the user to print a shipping manifest list for lab specimens sent outside the facility to a reference lab.</td>
</tr>
<tr>
<td>Retransmit LEDI Lab Results [LA7S RESULTS RETRANSMIT] option</td>
<td>This new option allows a user at a host facility to select one or more accessions that were received from other LEDI collecting facilities and retransmit results associated with the accession(s) to the sending/collecting facility via HL7 messaging.</td>
</tr>
<tr>
<td>Retransmit Shipping Manifest [LA7S MANIFEST RETRANSMIT] option</td>
<td>This option allows the users to retransmit a shipping manifest electronically to the host facility. Manifest needs to be in status of “SHIPPED” to be able to select and the shipping configuration associated with the manifest must be “ACTIVE”.</td>
</tr>
</tbody>
</table>
Lab Messaging Nightly Cleanup [LA7TASK NIGHTY] option

This is a stand-alone option that should be scheduled to run daily via TaskMan as a scheduled task.

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Messaging Nightly Cleanup</td>
<td>This is tasked option is used to check the integrity of the LA7 MESSAGE QUEUE file (#62.49), and to purge messages that are eligible for purging.</td>
</tr>
<tr>
<td>[LA7TASK NIGHTY] option</td>
<td>This option should be tasked daily, preferably during a period when activity in the Lab Messaging (that is, Universal Interface, LEDI) package is at a minimum.</td>
</tr>
<tr>
<td></td>
<td>Before the purge of LA7 MESSAGE QUEUE file (#62.49), an integrity check is performed. The integrity check can be run with a couple of switches.</td>
</tr>
<tr>
<td></td>
<td>LA7FIX = 0 - do not fix errors</td>
</tr>
<tr>
<td></td>
<td>1 - do fix errors</td>
</tr>
<tr>
<td></td>
<td>LA7LOG = 0 - do not log errors in XTMP global</td>
</tr>
<tr>
<td></td>
<td>1 - do log errors in XTMP global</td>
</tr>
<tr>
<td></td>
<td>LA7ION = name of device to print error report if set to log errors (LA7LOG=1)</td>
</tr>
<tr>
<td></td>
<td>These parameters can be setup by TaskMan if the site defines them when scheduling the task.</td>
</tr>
<tr>
<td></td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td>Edit Option Schedule Option Name: LA7TASK NIGHTY</td>
</tr>
<tr>
<td></td>
<td>VARIABLE NAME: LA7FIX VALUE: 0</td>
</tr>
<tr>
<td></td>
<td>VARIABLE NAME: LA7ION VALUE: &quot;IRM DEVELOP LASER1&quot;</td>
</tr>
<tr>
<td></td>
<td>VARIABLE NAME: LA7LOG VALUE: 1</td>
</tr>
<tr>
<td></td>
<td>If errors are found, an alert is sent to members of the mail group “LAB MESSAGING” notifying them that errors were detected. If logging of errors occurred then alert recipients will be able to print or view error log from the alert system. Alternatively the error report can be printed using the Print Lab Messaging Integrity Check Report [LA7 PRINT INTEGRITY CHECK] option. The integrity report can be run alone using Lab Messaging File Integrity Checker [LA7 CHECK FILES] option. For an example, see the Implementation section Step #3.</td>
</tr>
</tbody>
</table>
Lab Universal Interface (LA7 MAIN MENU) Menu

The Lab Universal Interface Menu [LA7 MAIN MENU] contains one modified option for the release of LEDI II. This menu is located on the Lab Interface Menu [LA INTERFACE]:

<table>
<thead>
<tr>
<th>LAB UI Menu Options</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Universal Interface Menu (LA7 MAIN MENU)</td>
<td>The Lab Universal Interface Main Menu contains options to setup, manage and use the Lab Universal Interface. This submenu is located on the Lab interface Menu [LA INTERFACE] containing one modified option:</td>
</tr>
<tr>
<td>Display Lab UI Message [LA7 PRINT LAB UI MESSAGE] option</td>
<td>This option logic used to print error messages associated with a UI message is modified to prompt the user when the Kernel Browser should be used to display a message. If the browser is not selected then a standard “scroll and roll” display of the selected message(s) is produced.</td>
</tr>
<tr>
<td>Download to UI [LA7 ADL SEND] option</td>
<td>This option fixes the logic to handle alphanumeric UIDs when building listing of accession to schedule for downloading.</td>
</tr>
<tr>
<td>Lab Messaging File Integrity Checker [LA7 CHECK FILES] option</td>
<td>This option performs the following checks: *Integrity of LA7 MESSAGE QUEUE file (#62.49). *Entries having proper cross-references and cross-references pointing to the correct entry. *Fixes bad entries. *Provides a printed report of errors found.</td>
</tr>
<tr>
<td>Print Lab Messaging Integrity Check Report [LA7 PRINT INTEGRITY CHECK] option</td>
<td>This option prints a Lab Messaging Integrity Check Report.</td>
</tr>
<tr>
<td>Start/Stop Auto Download Background Job [LA7 ADL START/STOP] option:</td>
<td>This option adds a display of the current number of accessions awaiting checks to determine if the accession meets the criteria for downloading to an instrument.</td>
</tr>
</tbody>
</table>
Accessioning [LR IN] Menu

The Accessioning menu [LR IN] is located on the Laboratory DHCP menu [LRMENU].

<table>
<thead>
<tr>
<th>LEDI Menu Options</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accessioning menu [LR IN]</strong></td>
<td>This submenu is located on the Laboratory DHCP menu [LRMENU] and contains the following option:</td>
</tr>
<tr>
<td>Referral Patient Multi-purpose</td>
<td>This option is used to accession referral patients from another medical center. The patient <strong>must</strong> already exist in the PATIENT file (#2) to be selected. The option will accession the patient into the REFERRAL PATIENT file (#67) if it does not already exist.</td>
</tr>
<tr>
<td>Accession [LRLEDI] option</td>
<td>The user will be prompted for the Unique Identifier. The user will then be able to order tests for that patient.</td>
</tr>
</tbody>
</table>

*For an example, see the Option Examples section.*
LEDI Menu and Option Examples

Electronic Catalog Information Entry [LA7S CATALOG ENTRY]

This option allows the user to enter laboratory test information for the electronic catalog.

**Example: ENT** Electronic Catalog Information Entry option

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT</td>
<td>Electronic Catalog Information Entry</td>
</tr>
<tr>
<td>IND</td>
<td>View Individual Electronic Catalog Entry</td>
</tr>
<tr>
<td>ALL</td>
<td>Electronic Catalog Print</td>
</tr>
</tbody>
</table>

Select Electronic Catalog Menu Option: **ENT** Electronic Catalog Information Entry

Select LABORATORY TEST NAME: **PROSTATE SPECIFIC ANTIGEN**
NAME: PROSTATE SPECIFIC ANTIGEN Replace
NATIONAL VA LAB CODE: Prostate Specific Ag//<RET>
RESULT NLT CODE: Prostate Specific Ag//<RET>
CATALOG ITEM: YES/<RET>
COST: 11.18
PRICE: 22.36
Select SPECIMEN: SERUM/<RET>
   SPECIMEN: SERUM/<RET>
   SP COST: 21.32
   SP PRICE: 32.72
Select SPECIMEN: ^
View Individual Electronic Catalog Entry [La7s View Individual Electronic Catalog Entry]

This option allows the user to view or print an individual entry in the Electronic Test Catalog.

**Example: IND View Individual Electronic Catalog Entry option**

```
ENT     Electronic Catalog Information Entry
IND     View Individual Electronic Catalog Entry
ALL     Electronic Catalog Print

Select Electronic Catalog Menu Option: IND View Individual Electronic Catalog Entry

Select LABORATORY TEST NAME: PROSTATE SPECIFIC ANTIGEN

DEVICE: VIRTUAL TERMINAL

Electronic Test Catalog JUL 10,1997 14:08 PAGE 1

-----------------------------------------------

PROSTATE SPECIFIC ANTIGEN
Collection Tube: BLOOD RED OR GOLD
Ship 1 ml aliquot; Refrigerate
Site/Specimen: SERUM
Snomed: 0X500
Reference Low: 0
Reference High: 4.0
Units: ng/mL

NLT Code: 89760.0000 +Prostate Specific Ag
NLT Result Code: 89760.0000 +Prostate Specific Ag

Default Cost: 11.18 Default Price: 22.36
Specimen: SERUM Specimen Cost: 21.32 Specimen Price: 32.72

-----------------------------------------------
```
Referral Patient Multi-purpose Accession [LRLEDI]

The Host facility laboratory users must record all patient’s demographics and accession the specimens received from the Collection facility laboratory. The Edit Shipping Configuration option is used for recording this data.

The Referral Patient Multi-purpose Accession [LRLEDI] option prompts the user to respond to the question “are you using a bar-code reader?” the user may accept the default of “YES” or type “NO” as a response.

When the default of “YES” (“are you using a bar-code reader?”) is accepted for the Shipping Configuration the user may scan the bar coded Shipping Manifest list (initiated by the Collection facility laboratory). The bar coded Shipping Manifest list contains the patient’s demographics and specimens accessioning data. The Shipping Manifest data are stored in the LAB SHIPPING MANIFEST file (#62.8) or the LAB PENDING ORDERS ENTRY file (#62.9) at the Collection facility.

The selection not to use a bar code reader requires the users to type in the patient’s demographics (i.e., name or social security number) before the specimens can be accessioned. This selection allows typographical mistakes and the possibility of duplicate entries.

Example 1: Manual Accession

```
Select Accessioning menu Option: REF  Referral Patient Multi-purpose Accession
Are you using a barcode reader? YES//NO (No)<RET>
Select Shipping Configuration: WHITE RIVER JUNCTION VAMC<RET>

WANT TO ENTER COLLECTION TIMES? Y/<RET>  (Yes)
Select ACCESSION TEST GROUP:CHEMISTRY<RET>

Select Patient Name -'^M' To enter New Name:G4451<RET>

Searching for a Patient file entry

    Searching for a Referral Patient  GREAT,JOY   FEMALE
04-25-65    017784451
...OK? Yes/<RET>  (Yes)

NAME: GREAT,JOY   SEX: FEMALE   DOB: 04/25/65
IDENTIFIER:017784451<RET>

Is this the correct patient?YES<RET>
```
Enter Remote UID: 5250710001  
[NOTE: You must manually enter the COLLECTION LAB UI Number] LAB Order number: 185<RET>

Choose one (or more, separated by commas) ('*' AFTER NUMBER TO CHANGE URGENCY)
1 Astra  
2 IDEAL  
3 ELECTROLYTES  
4 ACID PHOSPHATASE  
5 ALKALINE PHOSPHATASE  
6 ALBUMIN  
7 AMYLASE  
8 CALCIUM  
9 CHLORIDE  
10 CHOLESTEROL  
11 CO2  
12 CPK  
13 CPK ISOENZYMES  
14 CREATININE  
15 DIR. BILIRUBIN  
16 ETHANOL  
17 GENTAMICIN  
18 GENTAMICIN (PRE)  
19 GENTAMICIN (POST)  
20 GLUCOSE  
21 LDH  
22 LDH ISOENZYMES  
23 MAGNESIUM  
24 OSMOLARITY  
25 PO4  
26 POTASSIUM  
27 PROTEIN,TOTAL  
28 PROTEIN ELECTROPHORESIS  
29 SALICYLATE  
30 SGOT  
31 SGPT  
32 SODIUM  
33 THEOPHYLLINE  
34 TOT. BILIRUBIN  
35 TRIGLYCERIDE  
36 UREA NITROGEN  
37 URIC ACID  
38 PROTEIN (CSF)  
39 LIPID PROFILE  
40 CARDIAC ENZYMES (SGOT,LDH,CPK)  
41 LFTS  
42 ARTHRITIS PROFILE  
43 CX-3A:NA,K,CL,CO2,BUN,CREA,GLU  
44 CX-3B:LYTES,BUN,CREA,GLU,CA

TEST number(s): 8

Other tests? N// Y (Yes)

You have just selected the following tests for GREAT,JOY 017-78-4451

<table>
<thead>
<tr>
<th>entry no.</th>
<th>Test</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CALCIUM</td>
<td>BLOOD</td>
</tr>
<tr>
<td></td>
<td>BLOOD SERUM</td>
<td></td>
</tr>
</tbody>
</table>

All satisfactory? Yes//<RET> (Yes)

LAB Order number: 185

Collection Date@Time: NOW//<RET> (JUL 10, 1997@10:56:30)

PRINT LABELS ON: LABEL PRINTER  
[NOTE: Enter the name of your site’s label printer]

DO YOU WISH TO TEST THE LABEL PRINTER? No//<RET> (No)

ACCESSION: R/CH 0710 17 <5250710001>
CALCIUM  
BLOOD SERUM

Select Patient Name -'^M' To enter New Name: ^
Example 2: Using Bar Code Reader

Select Accessioning menu Option: REF<RET> Referral Patient Multi-purpose Accession

Are you using a barcode reader? YES/<RET>(Yes)
Scan Remote Site Bar code (SM):<RET>
STX^SITE^521^2970623.133509^521-19970623-2^ETX
[NOTE: This response appears after the bar code is scanned]

Select ACCESSION TEST GROUP: CHEMISTRY

Scan Patient/Accession Barcode (PD):<RET>
STX^PD^382486204^521^3471740016^m^2970623.133509^ETX
[NOTE: This response appears after the bar code is scanned]

NAME: FORD,HARRISON SEX: MALE
DOB: 04/01/60 IDENTIFIER: 000000000

LAB Order number: 201
Choose one (or more, separated by commas) (** AFTER NUMBER TO CHANGE URGENCY)

1 CHEM 7 14 CHEM 7, URINE
2 CHEM 20 15 LIPASE
3 URINALYSIS 16 LITHIUM
4 LIVER FUNCTION 17 AMMONIA
5 MAGNESIUM 18 OSMOLARITY
6 PO4 19 OSMOLARITY, URINE
7 LDH 20 PROTEIN, TOTAL
8 ETHANOL 21 LACTIC ACID
9 CPK 22 HDL
10 CHOLESTEROL 23 CO2
11 TRIGLYCERIDE 24 SODIUM
12 ACID PHOSPHATASE 25 GLUCOSE
13 CALCIUM, URINE

You have just selected the following tests for ROGERS, ROY 100-10-1000

entry no. Test Sample
1 MAGNESIUM BLOOD SERUM
2 GLUCOSE BLOOD SERUM

Other tests? N/<RET> (No)

You have just selected the following tests for ROGERS, ROY 100-10-0000

entry no. Test Sample
1 MAGNESIUM BLOOD SERUM
2 GLUCOSE BLOOD SERUM

All satisfactory? Yes/<RET> (Yes)
Example 2: Using Bar Code Reader (continues)

LAB Order number: 201

PRINT LABELS ON: LABELLABEL// <RET>  R7 GP

DO YOU WISH TO TEST THE LABEL PRINTER? No// <RET>  (No)

~For Test: CPK ISOENZYMES PANEL (IMMONO) WR BLOOD SERUM

Enter Order Comment: FIRST SET OF ISO’S SENT  (~FIRST SET OF ISO’S SENT)

OK? Yes// <RET>  (Yes)

ACCESSION:  R/CH 0716 397  <1171970397>
CPK BLOOD SERUM

ACCESSION:  R/SPC 0716 49  <8671970049>
TOTAL CK FOR ISO BLOOD SERUM
CPK MB (NG/ML) BLOOD SERUM
CPK MB INDEX BLOOD SERUM

LAB PROCESSING INSTRUCTIONS: Please freeze sample  [NOTE: This comment is from File #60]

GLUCOSE BLOOD SERUM
GENERAL PROCESSING INST.: Send sample on ice

Scan Patient/Accession Barcode (PD): <RET>
Turnaround times By Urgency [LR TAT URGENCY]

This option generates a report of the turnaround times for selected lab test for selected urgencies.

Example: Turnaround times by Urgency

Select Lab statistics menu Option: TUR

around times By Urgency

LEDI Utility - Urgency Turnaround Time
This option generates a report of the turnaround time for selected lab tests. Enter only those urgencies you want extracted. WKLD urgencies will be included for each normal urgency selected. Enter the test(s) you want the report display.

A detailed report is available to show the data being used to compute the turnaround times.

Regular hours are from 7:01 AM to 5:00 PM
Irregular hours includes all other times, holidays and weekends.

Date to START with: TODAY// <RET> (JUL 16, 1997)
Date to END with: 07/16/97// T (JUL 16, 1997)

Select the laboratory tests to be used in this report --

LABORATORY TEST: GLUCOSE
LABORATORY TEST: <RET>

Urgencies:
STAT
PLEASE DO NOT USE
ROUTINE
Enter all urgencies you want extracted.
URGENCY: STAT
URGENCY: <RET>

Include a detailed report? No// <RET> (No)

DEVICE: HOME// PRINTER [NOTE: Enter the site’s printer name]
### LEDI Management Report - Urgency Turnaround Time

From JUL 16, 1997 To JUL 16, 1997  
Date Printed: JUL 16, 1997@11:25:26

<table>
<thead>
<tr>
<th>Turnaround Time (TAT) - Regular (0701-1700) hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tests</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turnaround Time (TAT) - Irregular hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tests</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>13</td>
</tr>
</tbody>
</table>

**Urgencies:**  
STAT  
WKL - STAT

**Tests:**  
GLUCOSE
### Glossary

The glossary of terms is related to the LEDI II software application:

<table>
<thead>
<tr>
<th><strong>CAP:</strong></th>
<th>College of American Pathologists</th>
</tr>
</thead>
</table>
| **Collection facility:** | The laboratory that collects the patient’s specimen. After the specimen is collected, the Collection facility should:  
*Create an electronic Shipping Manifest (specifying the lab tests to be performed by the Host facility laboratory).  
*Transmit the Shipping Manifest List to the Host facility laboratory.  
*Transport the specimen by carrier to the Host facility laboratory. |
| **Data Fields:** | The information base associated with a segment. |
| **Data Type (DT):** | Restrictions on the contents of the data field as defined by the HL7 Standard. |
| **Electronic Catalog:** | The new Electronic Catalog contains laboratory test available for the collection site to order. |
| **Element Name:** | Globally unique descriptive name for the field. |
| **Host facility:** | The laboratory that receives the patient’s specimen and the electronic Shipping Manifest List (transmitted by the Collection facility laboratory)  
The Host facility performs the following steps:  
*Bar codes the specimen arrival.  
*Performs the specified lab test.  
*Verifies the lab test results.  
*Transmits the lab test results back to the Collection facility. |
<table>
<thead>
<tr>
<th><strong>LEDI:</strong></th>
<th>Laboratory Electronic Data Interchange</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length (LEN):</strong></td>
<td>The maximum number of characters that one occurrence of the data field may occupy.</td>
</tr>
<tr>
<td><strong>NLT:</strong></td>
<td>National Laboratory Test</td>
</tr>
<tr>
<td><strong>Optionally (R/O/C):</strong></td>
<td>Whether the data field is required, optional, or conditional in a segment. The designations are:  *R - required  *O (null) - optional  *C - conditional on the trigger event</td>
</tr>
<tr>
<td><strong>PID:</strong></td>
<td>Patient Identification</td>
</tr>
<tr>
<td><strong>Repetition (RP/#):</strong></td>
<td>Whether the field may repeat. The designations are:  N (null) - for no repetition allowed; Y - the field may (null) - for no repetition allowed; Y - the field may repeat an indefinite or site determined number of times; and (integer) - the field may repeat up to the number of times specified in the integer. The ordinal position of the data field within.</td>
</tr>
<tr>
<td><strong>Segments:</strong></td>
<td>A logical grouping of data fields.</td>
</tr>
<tr>
<td><strong>Shipping Manifest:</strong></td>
<td>The shipping manifest is a printout list of lab specimens sent outside the facility to a reference lab for processing.</td>
</tr>
<tr>
<td><strong>Sequence Number (SEQ):</strong></td>
<td>The ordinal position of the data field within the segment. This number is used to refer to the data field in the text comments that follow the segment definition table.</td>
</tr>
<tr>
<td><strong>Table (TBL#):</strong></td>
<td>This is a table of values that may be defined by HL7 or negotiated between the VISTA Laboratory application and the vendor system.</td>
</tr>
<tr>
<td><strong>TCP/IP:</strong></td>
<td>Transmission Communication Protocol/Internet Protocol</td>
</tr>
<tr>
<td><strong>Trading Partners:</strong></td>
<td>An established relationship between two or more laboratories for receiving and processing lab specimens.</td>
</tr>
<tr>
<td><strong>UI:</strong></td>
<td>Universal Interface</td>
</tr>
<tr>
<td><strong>UID:</strong></td>
<td>Unique Identifier</td>
</tr>
<tr>
<td><strong>VAMC:</strong></td>
<td>Department of Veterans Affairs Medical Center</td>
</tr>
<tr>
<td><strong>VISN:</strong></td>
<td>Veterans Integrated Service Network</td>
</tr>
<tr>
<td><strong>VISTA</strong></td>
<td>Veterans Health Information Systems and Technology Architecture</td>
</tr>
<tr>
<td><strong>VISTA Laboratory UI and LEDI HL7 Interface Standard Specifications V. 1.1:</strong></td>
<td>This document specifies an interface to the VISTA Laboratory software application based upon the Health Level Seven (HL7) Standard. This interface forms the basis for the exchange of healthcare information between the VISTA Laboratory software application and all non-VISTA systems. Especially those non-VISTA systems that generate laboratory result information.</td>
</tr>
<tr>
<td><strong>Workload System:</strong></td>
<td>This is a method of tracking number of LEDI specimens processed.</td>
</tr>
</tbody>
</table>