

LDMS Training Guide for AIS Specimens

LDMS (Windows)

Contents

Specimen Management	4
Overview of Specimen Management Screen	4
The Participant Grid.....	4
The Primary Grid	5
The Aliquot Grid	5
Details Buttons	5
Exercise 1: Specimen Entry with Preload	6
Condition codes.....	7
Volume Condition codes	7
Other Condition Codes	7
Exercise 2: Using condition codes	7
Exercise 3: Incomplete Draw	8
Searching for Specimens	9
Labels Module	10
Storage Management.....	11
Storage Overview	11
Exercise 1: Adding containers into Storage	11
Exercise 2: Adding specimens in Bulk Add.....	12
Exercise 3: Searching for specimens in Storage	13
Exercise 4: Using barcodes to locate a specimen's position.....	13
Exercise 5: Container Details button	13
Part 1: Rename container.....	13
Part 2: Marking a Storage Item for Shipping	14
Reports	15
Exercise 1: Specimens Not in Storage Report.....	15
For Evening Shift.....	15
For Day Shift	15
Common issues.....	15
Exercise 2: Resolving a duplicate entry	16
Exercise 3: Specimen Log Report (QNS report)	16
Exercise 4: Time to Freeze QA/QC Summary	17
Shipping.....	18
Shipping Overview.....	18
Exercise 1: Create a new shipping batch	18
Exercise 2: QC shipping batch.....	19
Exercise 3: Shipping file and documents	19
Exercise 4: PDF copy of manifest and container report	20
Exercise 5: Storage clean up	20
Part 1: Removing shipped specimens.....	20
Part 2: Renaming the box	21

Test Result Entry Module (TREM)	22
Exercise 1: Adding the Household Tester ID.....	22
Exercise 2: Generating worksheets	22
Filters.....	23
Exercise 3: Adding Results	24
Part 1: QA results.....	24
Part 2: Geenius results	24
[Optional] Exercise 4: QA Discrepancy	25
Backing up the LDMS.....	26
LDMS User Support	26
Appendix I: Storage overview.....	27
Appendix II: Preloads.....	1
Appendix III: LDMS Lab Numbers	1

Specimen Management

REFER TO QUICK REFERENCE GUIDE FOR SPECIMEN MANAGEMENT

Overview of Specimen Management Screen

Find OPID: Load

	Group	PID	TYPE1	ID1	TYPE2	ID2	TYPE3	ID3	Visit	Unit	OPID	CLINIC	Detail
1	AIS			NG0000001	Country	NIGERIA	HIVRT	POS	1.00	DVL		NG000	Details
2													Details
3													Details
4													Details
5													Details
6													Details

Participant Grid

Spec. Date: 28/May/2024 Recd. Time: 06:30 Exp. Date: Export ID:

☐ Remote ☐ Imported Import date:

VQA Culture Derivative Enter Specimen ID

of Tubes: Primary Type: BLD Other Spec ID: Spec. Time: Add Delete

Specimen #	Global Spec ID	Primary	Additive	Volume	Units	Spec Time	Time	Time Unit	Cond	Other Spec Id	Details
1	500V24001126	BLD	EDT	1.00 ML		06:00			SAT		D

Primary Grid

of Aliquots: 0 Vol: 0 Units: Derivative: Sub Add/Der: Other Spec ID: Add Delete Modify Clear

Specimen	Global Spec ID	Primary	Add	Der	Sub Add/Der	Volume	Units	Cond	Other Spec Id	Group/ID	Details
1	500V24001127	BLD	EDT	DBS	N/A	1.00 CRD		SAT		AIS/NIGERIA	LD
2	500V24001127	BLD	EDT	DBS	N/A	1.00 CRD		SAT		AIS/NIGERIA	LD

Aliquot Grid

The Participant Grid

- **ID1:** The participant identifier (**PTID**). Validation checks run on this field.
 - 9 characters in length (**NGXXXXXX** format, NG=country code)
 - **Scanned** into field from Specimen Tracking Form label
- **ID2:** Country code; auto-selected based on PTID scanned
- **ID3:** HIVRT; hard-coded list of HIV status codes [POS, NEG, IND)
 - Indicated on Specimen Tracking Form
- **Visit:** auto-populated by preload.
 - Visit code 1.0
 - Visit code 1.1 *for very, very rare redraws*
- **Visit Unit:** auto-populated by preload.
 - PVL (plasma viral load)
 - DVL (DBS viral load)
- **Clinic:** IDs for satellite labs in each country (NG001, NG002, etc., where NG=country code)

The Primary Grid

- **Control H:** This action can be performed on the preloaded combo boxes (e.g., Primary, Additive, etc.) in Specimen Management, to display a full description of the information
- **Specimen Date:** Date collected from participant; indicated on Specimen Tracking Form label
- **Specimen Time:** Enter the time the sample was collected from the participant; indicated on Specimen Tracking Form label
- **Condition:** The condition of the primary will be defaulted to SAT (satisfactory).
- **Global Specimen ID**
 - Unique identifier
 - Used in Shipment QA/QC
 - No two sample tubes should ever have the same Global Specimen ID on label

Primary Global Specimen ID: FEQ007TD-00

Aliquot Global Specimen ID: FEQ007TD-01

The Aliquot Grid

- **Reprint Labels:** In right-click menu, select Print Labels for All Aliquots or Selected Aliquots
 - When using the selected aliquot feature double check the global specimen id
- **Condition:** Condition codes are used in the event not all expected specimens are collected or if the amount of specimen is less than expected. The condition of the aliquot will be defaulted to SAT (satisfactory). Adjust as necessary, see section below for further explanation.

Details Buttons

The screenshot displays the Specimen Management interface. At the top, there is a 'Find OPID' field and a 'Load' button. Below this is a table with columns: Group, TYPE1, ID1, TYPE2, ID2, TYPE3, ID3, Visit, Unit, OPD, CLINIC, and Detail. The table contains six rows of data. Below the table is a section for specimen details including 'Spec. Date', 'Rec. Date', 'Exp. Date', 'Rec. Time', 'Export ID', 'Remote', 'Imported', 'Import date', 'VGA', 'Culture Derivative', and 'Enter Specimen ID'. Below this is a section for 'Primary Type' with a dropdown menu and a 'Spec. Time' field. Below this is a table with columns: Specimen #, Global Spec ID, Primary, Additive, Volume, Units, Spec Time, Time, Time Unit, Cond, Other Spec ID, and Details. The table contains two rows of data. Below the table is a section for 'Aliquot' with a dropdown menu and a 'Spec. Time' field. Below this is a table with columns: Specimen #, Global Spec ID, Primary, Add, Der, Sub Add/Der, Volume, Units, Cond, Other Spec ID, Group/ID, and Details. The table contains two rows of data. Red arrows point to the 'Details' button in the Primary grid and the 'Details' button in the Aliquot grid.

Primary Details Button

- **Comments:** Enter applicable comments
- **Condition** - If the condition of the primary tube is anything other than satisfactory, select the proper code from the Condition box.

Aliquot Details Button

- **Condition** - If the condition of the primary tube is anything other than satisfactory, select the proper code from the Condition box.
- **Comments**: Enter applicable comments

Note: The Aliquot Details dialog box collects and displays all the information from other modules of LDMS in one menu

Exercise 1: Specimen Entry with Preload

The Data Managers for PHIS3 have worked with Frontier Science to add preloads to the LDMS which assist in specimen entry. The preload will make entries for all expected specimens based on the age of the participant and the draw type indicated on the sample tracking form. In this example the preload will be triggered when the user moves from the ID3/HIVRT field.

The screenshot displays the LDMS Specimen Entry interface. At the top, there is a 'Find OPID' field and a 'Load' button. Below this is the 'Participant Grid' with columns for Group, TYPE1, ID1, TYPE2, ID2, TYPE3, ID3, Visit, Unit, OPID, CLINIC, and Detail. The first row is highlighted with a red border, showing Group: AIS, TYPE1: PID, ID1: NG00000002, TYPE2: Country, ID2: NIGERIA, TYPE3: HIVRT, ID3: NEG, Visit: 1.00 PVL, Unit: PVL, OPID: NG000, and CLINIC: NG000. Below the Participant Grid is a section for specimen entry with fields for Spec. Date (28/May/2024), Recd. Date (28/May/2024), Exp. Date, Recd. Time (06:30), Export ID, and buttons for Remote, Imported, Import date, VOA, Culture Derivative, and Enter Specimen ID. Below this is the 'Specimen Grid' with columns for Specimen #, Global Spec ID, Primary, Additive, Volume, Units, Spec Time, Time, Time Unit, Cond, Other Spec Id, and Details. The first row is highlighted with a red border, showing Specimen #: 500/24001129, Global Spec ID: BLD, Primary: EDT, Additive: EDT, Volume: 10.00 ML, Units: ML, Spec Time: 06:30, Time: 06:30, Time Unit: SAT, Cond: SAT, Other Spec Id: SAT, and Details: D. Below the Specimen Grid is the 'Aliquot Grid' with columns for # of Aliquots, Vol, Units, Derivative, Sub Add/Der, Other Spec ID, Add, Delete, Modify, and Clear. The first row is highlighted with a red border, showing # of Aliquots: 0, Vol: 0, Units: ML, Derivative: BLD, Sub Add/Der: EDT, Other Spec ID: BLD, Add: Add, Delete: Delete, Modify: Modify, and Clear: Clear.

1. In the **Participant Grid**, enter the following information


Group AIS
PID scan into field from Specimen Tracking Form
Country auto-selected based on PTID scanned
HIVRT HIV field results (POS, NEG, IND)

The preload menu will appear. Select the preload in the dropdown menu, click **OK**.

Visit Value/ Visit Units determined by preload
Clinic satellite lab ID (NG001, where NG=country)

2. In the **Primary Grid**, enter the following information from the Specimen Tracking Sheet

Specimen Date
Received Date
Received Time
Specimen Time

3. Click the **Add**  button on the LDMS toolbar.
4. Click **Enroll** in the message box that appears.
5. Click **OK** in the Save message.
6. In the labels menu, Select a format and label size, and then click **Yes** on the dialog box.

The Crystal Reports window will open displaying the specimen labels.

Repeat this exercise for other specimens on your training Sample Tracking form. Disregard any draw issues at this time we will discuss this in the next exercises.

Condition codes

The condition code will always default to **SAT (Satisfactory)**. Any specimen collection that deviates from the expected draw on the specimen tracking form is recorded by adjusting the condition codes and adding comments. Comments are recorded in the Details menu.

Volume Condition codes:

SNC (Sample not Collected): Add Comments in the Details button to explain why

QNS (Quantity not Sufficient): use for empty plasma samples and empty DBS cards

For extra labels / tubes - return these to LDMS tech, so records can be updated with the QNS condition code

SHV (Short Volume): use as follows:

- **Plasma:** <0.8 mL *Note: Always need 1.2 mL aliquot #1 for Viral Load testing*
- **DBS cards:**
 - 3-5 spots: SAT
 - 1-2 spots: SHV
 - 0 spots: QNS

Other Condition Codes:

- HEM – Hemolyzed
- CLT – Clotted
- LIP – Lipemic


Exercise 2: Using condition codes

After processing the specimens, issues may come to light on the quality and/or quantity of the samples. In this example, after processing one of the plasma aliquots could not be created and another is <0.8 ml.

1. Select one of the participant's accessioned in Exercise 1.

PTID: _____

2. For plasma aliquot 3 (ie. -03) the volume is 0.5 ml. Which condition code should you use? _____

3. **Update** the condition code for aliquot -03
4. Plasma aliquot 4 is empty as the technologist did not have enough sample to create it. Which condition code should you use? _____
5. **Update** the condition code for aliquot -04
6. **Review** the pop up messages
7. Click the **Save**  button on the LDMS toolbar.
8. In the Print Labels menu, click **No**.

Exercise 3: Incomplete Draw

During an adult venous draw the vein collapses and only the 4 mL tube was collected. The patient refused a second draw. The following is entered in LDMS:

1. In the **Participant Grid**, enter the following information


Group	AIS
PID	scan into field from Specimen Tracking Form
Country	NIGERIA
HIVRT	HIV field results (POS, NEG, IND)

The preload menu will appear. Select the **AIS NG VEN 15 4ML ONLY** preload

Visit Value/ Visit Units	determined by preload
Clinic	satellite lab ID (NG001)

2. In the **Primary Grid**, enter the following information from the Specimen Tracking Sheet

Specimen Date
Received Date
Received Time
Specimen Time

3. Enter a comment in the Primary Details button and cascade noting the refused draw and your initials.
4. Click the **Add**  button on the LDMS toolbar.
5. Click **Enroll** in the message box that appears.

Note: The same condition code rules apply after processing. If aliquots are short volume or QNS, the specimen record will be updated

Searching for Specimens

Use one of the following methods to search for specimens in your lab database

Scanning an LDMS-generated barcode

1. The user must be in the specimen management screen
2. Choose one of your aliquots created during the exercise above.
3. Scan the barcode



Navigation buttons


Browse feature

Browse Specimens

Specimen #:	<input type="text"/>	Other Spec ID:	<input type="text"/>	Global Spec ID:	<input type="text"/>	Clinic:	<input type="text"/>
Group:	<input type="text" value="AIS"/>	OPID:	<input type="text"/>	Visit:	<input type="text"/>	Visit Type:	<input type="text"/>
Type 1:	<input type="text" value="SPEC. DATE"/>	Type 3:	<input type="text"/>	Primary:	<input type="text"/>		
ID 1:	<input type="text"/>	ID 3:	<input type="text"/>	Additive:	<input type="text"/>		
Type 2:	<input type="text"/>	Type 4:	<input type="text"/>	Derivative:	<input type="text"/>		
ID 2:	<input type="text"/>	ID 4:	<input type="text"/>				

Spec. Id	Global Spe...	Prim...	Addi...	Deriva...	Volume	Specimen D...	Visit	PID/ID1	Prot/ID2
----------	---------------	---------	---------	-----------	--------	---------------	-------	---------	----------

☐ Show Aliquots

1. Click the **Browse** button  on the LDMS toolbar
2. Set the **Group** field to AIS
3. In the **Type 1** field select **Spec Date**
4. In the **ID1** field select a **Spec Date** from the exercises above
5. Click **Run**

Labels Module

Use this module to create duplicate DBS labels for the outside of the polybags.

4

1

Group: AIS

	Description	Max Ro...
Barcode Label 24	1 3/16 x 7/8 CHAVI	7
Barcode Label 25	1 X 1/2 i label	4
Barcode Label 26	1 3/16 x 1 7/16 - 3 across i label	7
Barcode Label 27	1 1/16 x 1 1/16	7
Barcode Label 28	1" x 2.75" - Brady 300 MVP - Vertical	7
Barcode Label 29	.9" x 1" LabXpert X-156-492	7
Barcode Label 30	.9" x 1.75" SATO 5 Across	7
Barcode Label 31	1.8" x .6" - Lab 245	7
Barcode Label 32	.875 X 1.75 5 Across	7
Barcode Label 33	1.75" x .93"	7
Barcode Label 34	2.75" x 1" - Brady 300 MVP - Horizontal	7
Barcode Label 35	1" x 1.75" - 4 across	5
Dot Matrix 1	1" x 3/4"	7
Dot Matrix 2	1.75" x 1"	8
Dot Matrix 3	15/16" x 15/16" - Full Sheet	8
Dot Matrix 4	15/16" x 15/16" - 6 column	8

2

Field:
Operator:
Value:

3

Add
Modify
Delete

	Field	Operator	Value
1	Received Date	=	20240530
2	Derivative	=	DBS

Format: PHIA Barcode Barcode Content: LDMS Standard

Data Item	Len...	R...	Col
<input checked="" type="checkbox"/> Additive	3	5	2
<input checked="" type="checkbox"/> Clinic ID	6	3	2
<input checked="" type="checkbox"/> Derivative	3	5	3
<input checked="" type="checkbox"/> Global Spec ID	17	1	1
<input type="checkbox"/> Group	15		
<input type="checkbox"/> Harvest Date	10		
<input checked="" type="checkbox"/> ID 1 (PID)	9	2	1
<input type="checkbox"/> ID 2 (Protocol)	6		
<input checked="" type="checkbox"/> ID 3 (SID)	15	3	1
<input type="checkbox"/> OPID	15		
<input type="checkbox"/> Other Specimen ID	17		
<input checked="" type="checkbox"/> Primary	3	5	1
<input type="checkbox"/> Received Batch ...	8		
<input type="checkbox"/> Received Date	10		
<input type="checkbox"/> Ship Batch No.	8		
<input checked="" type="checkbox"/> Spec Date	10	4	1
<input type="checkbox"/> Spec Time	15		

1. In the **Group** drop down menu, select **AIS**

2. Enter the search criteria:

Field: Received Date

Operator: '='

Value: Current Day

Field: Derivative

Operator: '='

Value: DBS

3. Click **Add** after each **Value** is set

4. Click **Execute**.


The external labels window will appear with all of the DBS specimens received that day, click print and close window.

Storage Management

REFER TO QUICK REFERENCE GUIDE FOR STORAGE MANAGEMENT


Storage Overview

The Storage module is separated into several pages. These tabs are listed below with a brief description of the functions contained in that page.

- **Main View:** Allows you to view the contents of freezers, levels and containers, and to add boxes into storage.
 - By clicking on the + sign, a level can be expanded to see its components
 - Dependent upon the level - box or rack - the Execute button  displays a 2-D view of that level
- **Move:** Allows you to move specimens and containers from one storage unit to another.
- **Configuration/ Freezer Cfg:** The Storage Structure has already been configured by PHIS3 administration.
- **Bulk Add** – Allows you to add a large group of specimens to storage.
 - Specimen barcodes can also be scanned for direct add to a container
 - Highlight the desired box name, then scan the specimen barcode
- **Search:** Allows you to find the exact storage positions of specimens and print a report of their location.
This feature only searches for specimens currently stored.

Exercise 1: Adding containers into Storage

Containers must be added in the LDMS in order to assign storage positions to the samples. When racks are filled the box names can be adjusted to note the current container in the rack position. All PHIS3 boxes must be labeled with the colored labels provided by the study on the top and bottom of the container.

1. Highlight a level to add the new container to.
2. Click the **Add**  button on the LDMS toolbar.
3. Click **Container**.
4. The Storage Add dialog box appears. Select either **PHIS3 Plasma** or **PHIS3 DBS** box
5. Enter number of boxes
6. Type in the box name from the colored labels on the container:

Please enter a name for the container.

Name:

PLA-P NG1 XX201 0024

OK Cancel

<Sample Type> dash<HIVRT result> <aliquot*> <clinic ID> <Box #>

Examples: PLA-P NG1 XX203 0028 PLA-N XX203 0074 (XX=country)

*Aliquot number is for positive samples only (CC200BPL-02, is aliquot 2)

7. The **Position Selection Menu** appears. The options are:

- **Put Here** – Choose the exact location for the specimen or container.
- **Automatic** – Allow the LDMS to choose the next available position based on the fill order of the level or container. You will be prompted each time if storing multiple specimens or containers.
- **Auto All** – Allow the LDMS to choose the next available position of all the selected specimens or containers based on the fill order of the level or container.

Container position selection

Put Here Automatic Auto All Start here

	1	2	3	4	5
A					
B					
C					
D					
E					

POSITIVE PLASMA AL1

This rack is configured to hold containers of any type.

Cancel

Exercise 2: Adding specimens in Bulk Add

Main View Container View Move Configuration Freezer Cfg **Bulk Add** Compress Search Transactions

Storage Structure

Storage	Coordinates
-80 FREEZER	
-80 FREEZER PLASMA	
[-] AIS SAT LAB FREEZER	
[-] SHELF 1 POSITIVE PLASMA	
[-] SHELF 2 POSITIVE DBS	
[-] SHELF 3 NEGATIVE PLASMA	
[-] AIS RACK 1	
[-] PLAN ZW001 001	A.005
[-] PLAN	A.004
[-] PLAN	A.003
[-] PLAN-NGE0000 0001	A.002
[-] PLAN-KE000 0001	A.001
[-] AIS RACK 2	
[-] AIS RACK 3	
[-] SHELF 4 NEGATIVE DBS	
[-] CHEST	
[-] LIQUID NITROGEN TANK	
[-] MADELEINE TEST	
[-] PHIA FREEZER 1 POSITIVE	
[-] TEST	

Storage Options

☒ Set Frozen Date/Time to Current Date/Time

☐ Skip Volume and Frozen Date/Time Adjustment

☒ Automatically Assign Positions

OK

Global Spec ID: Spec ID: Group: Visit: Visit Unit: Other ID: Clinic: Type 1: Type 3: ID 1: ID 3: Type 2: Type 4: ID 2: ID 4: Primary: Derivative: Batch: Additive: Sub Add/Der: Batched: Test Ordered: Receiver:

Row	Spec ID	Global Spec ID	Other Spec ID	Prim	Add	Der	Sub A	Volume	ID1	OPID	VID	Draw Da
View Results												


Details Simple Search Options

1. Set Storage **Options** to **Automatically Assign Positions**, Set **Frozen Date/Time** should already be selected
2. **Highlight** the Box you wish to add specimens
3. **Scan** specimen barcode with your scanner, place item into container

Exercise 3: Searching for specimens in Storage

Use the Storage **Search** tab to search for the exact position of specimens in storage.

Freezer	Level	Container	Position	ID1	Spec ID	Global Spec ID	Primary	Additive	Derivative	Sub-Add Der	SpecDate	Group	
AIS SAT LAB FREEZER	SHELF 3 NEGATIVE PLASMA	AIS RACK 3	PLAN	001.D	NG123456	500V24001122	DE0007T2-04	BLD	EDT	PL1	N/A	07/May/2024	AIS
AIS SAT LAB FREEZER	SHELF 3 NEGATIVE PLASMA	AIS RACK 3	PLAN	001.A	NG123456	500V24001122	DE0007T2-01	BLD	EDT	PL1	N/A	07/May/2024	AIS
AIS SAT LAB FREEZER	SHELF 3 NEGATIVE PLASMA	AIS RACK 3	PLAN	001.B	NG123456	500V24001122	DE0007T2-02	BLD	EDT	PL1	N/A	07/May/2024	AIS
AIS SAT LAB FREEZER	SHELF 4 NEGATIVE DBS	AIS RACK 3	DBS-N	001.001	NG123456	500V24001125	CE0007T9-01	BLD	EDT	DBS	N/A	07/May/2024	AIS
AIS SAT LAB FREEZER	SHELF 3 NEGATIVE PLASMA	AIS RACK 3	PLAN	001.C	NG123456	500V24001122	DE0007T2-03	BLD	EDT	PL1	N/A	07/May/2024	AIS
AIS SAT LAB FREEZER	SHELF 4 NEGATIVE DBS	AIS RACK 3	DBS-N	002.001	NG123456	500V24001125	CE0007T9-02	BLD	EDT	DBS	N/A	07/May/2024	AIS

1. Set the **Group** field to AIS
2. In the **Type 1** field select PTID
3. In the **ID1** field enter in a PTID from the sample tracking form
4. Click **Run**
5. Click the **Report** button  on the LDMS toolbar.
6. **Close** the Crystal Reports window.

Exercise 4: Using barcodes to locate a specimen's position

The LDMS barcode can be scanned to locate a specimen in the storage structure on the **Main View** tab.

1. Go to the **Main View** tab in Storage
2. **Scan** a specimen barcode


Exercise 5: Container Details button

Use the Details button at the bottom of the Storage Structure to rename the container and mark containers to ship.

Part 1: Rename container

1. Click to **select** the box added in Exercise 1
2. Click **Details**
3. Enter a new name for the container/box in the **Name** field
4. Click **Modify**

Part 2: Marking a Storage Item for Shipping

1. **Highlight** a container with specimens
2. Click **Details**
3. Click **Mark to Ship**. An envelope icon  appears next to the storage container that has been marked for shipping.

Mark full boxes with "X" on box label

Notes on Marking to Ship:

Once a storage item is marked for shipping, its contents cannot be modified.

To change the contents of a marked container: Open the details menu, click Unship (the envelope icon will disappear). The contents of the box can be changed.

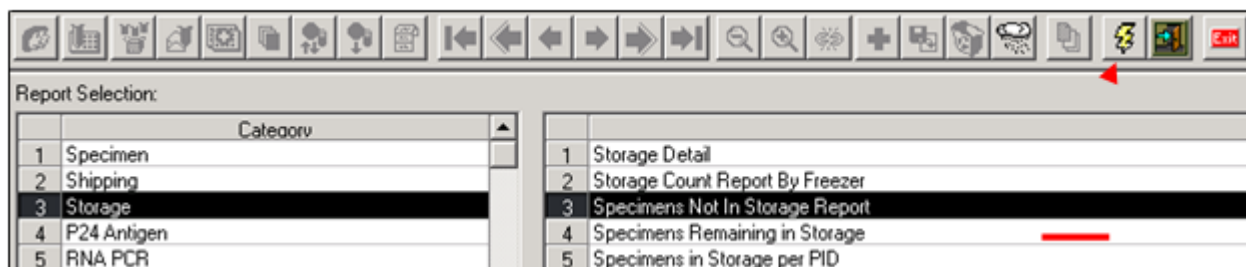
The LDMS will not allow a storage item that has already been added to a shipping batch to be marked for shipment

Reports

The Reports module contains many pre-defined reports separated by category.

Exercise 1: Specimens Not in Storage Report

Generate this report every day. Reconcile until all specimens have a storage location or the status code is updated to QNS or SNC.



Specimens Not in Storage Report

Searched on: Group = AIS

Group/Prot: AIS NIGERIA

Specimen ID	Global Spec ID	Pid/Id1	Spec Date	Pri	Add	Der	Sub A/D	Vid	Volume	Condition
500V24001044	AEQ007M6-01	NG000006	06/May/2024	BLD	EDT	PL1	N/A	1.00 PVL	1.20 ML	SAT
500V24001044	AEQ007M6-02	NG000006	06/May/2024	BLD	EDT	PL1	N/A	1.00 PVL	1.20 ML	SAT
500V24001044	AEQ007M6-03	NG000006	06/May/2024	BLD	EDT	PL1	N/A	1.00 PVL	1.20 ML	SAT
500V24001044	AEQ007M6-04	NG000006	06/May/2024	BLD	EDT	PL1	N/A	1.00 PVL	1.20 ML	SAT
500V24001045	AEQ007M6-05	NG000006	06/May/2024	BLD	EDT	DBS	N/A	1.00 PVL	1.00 CRD	SAT
500V24001045	AEQ007M6-06	NG000006	06/May/2024	BLD	EDT	DBS	N/A	1.00 PVL	1.00 CRD	SAT
500V24001047	AEQ007MF-01	NG000007	06/May/2024	BLD	EDT	PL1	N/A	1.00 PVL	1.20 ML	SAT

For Evening Shift

1. In Report Selection:
Category: Storage
Report: [3] Specimens Not in Storage
2. Enter the following search criteria:
Field: Derivative
Operator: '='
Value: PL1
3. Click **Add**
4. Click **Execute**

For Day Shift

After DBS cards have been scanned in, click the **Execute** button to run the report with **NO** search criteria


Common issues

1. Specimens are on processing bench
2. Empty aliquots not set to QNS
3. Duplicate entry in Specimen Mgmt

- Specimens missed scanning in Bulk Add

Exercise 2: Resolving a duplicate entry

When reviewing the Specimens Not in Storage Report a set of specimens is included on the report. There are no specimens left on the bench and it is very likely a duplicate entry. Follow the steps below to reconcile the report.

- In Specimen Management, Click the **Browse** button  on the LDMS toolbar
- Set the **Group** field to AIS
- In the **Type 1** field select PTID
- In the **ID1** field enter the PTID from the Specimens Not in Storage report
- If two sets of specimens are present, open one of the records and see if the specimens are stored.
- For the unstored specimens, Set the **Primary** condition code to **SNC** (cascade to aliquots)
- Open **Primary Details** window and enter a comment noting this was a duplicate entry
- If there is another primary (ie. 10 and 4 ml draw) update this specimen
- Rerun the Specimens Not in Storage report

Exercise 3: Specimen Log Report (QNS report)

This report provides the user with a list of all aliquots the lab has logged into their LDMS with the condition code QNS for a specific date.

Specimen Log Report										
Searched on: Group = AIS, Condition = QNS										
PID/ID1	Group/Prot	SID/ID3	VID	Clinic	OPID					
NG123456	AIS NIGERIA	POS	1.00 DVL	NG000						
Primary Spec ID	Global Spec ID	Spec Time	Spec Date	Rec Date	Primary Volume/Unit	Time/Time Unit	Other Spec ID	Comments		
500V24001131	GEQ007TQ-00	06:00	30/May/2024	30/May/2024	1.00 ML					
Aliq Spec ID	Global Spec ID	Other Spec ID	Pri/Add	Der / Sub	Current Volume	Cond	Grp/Prot	Test(s) Ordered	Shipped	Comments
500V24001132	GEQ007TQ-01		BLD/EDT	DBS / N/A	1.00 CRD	QNS	AIS NIGERIA	None	No	
500V24001132	GEQ007TQ-02		BLD/EDT	DBS / N/A	1.00 CRD	QNS	AIS NIGERIA	None	No	
Total Number Of Aliquots :										2

- In Report Selection:
Category: Specimen
Report: [3] Specimen Log Report
- Enter the following search criteria:
Field: Specimen Date
Operator: '='
Value: current date

Field: Condition
Operator: '='
Value: QNS
- Click **Add**
- Click **Execute**

Exercise 4: Time to Freeze QA/QC Summary



This report provides the user with a summary of the Draw Dates and Times, Frozen Dates and Times, Specimen Types and the calculated amount of time from the time of draw to the freezing start time. This report should be run for plasma specimens.

PHIA Time To Freeze QA/QC Summary									
Searched on: Specimen Date = 03/Dec/2018									
Note: Time to freeze values marked with an asterisk (*) are higher than the expected value (1440 minutes)									
Patid	Draw date	Draw time	Frozen Date	Frozen Time	Time to freeze (minutes)	Tech	Additive	Derivative	Comments
HT112233	03/Dec/2018	09:15	03/Dec/2018	22:00	765		EDT	PL1	
HT123456	03/Dec/2018	09:25	03/Dec/2018	22:00	755		EDT	PL1	

1. In Report Selection:
Category: PHIA
Report: [1] PHIA Time to Freeze QA/QC Summary
2. Enter the following search criteria:
Field: Specimen Date
Operator: '='
Value: current date
3. Click **Add**
4. Click **Execute**
5. In the pop-up window select **Plasma** and click **OK**.

Select a sample type to report on.

SampleType

Plasma

OK

Cancel

Shipping

REFER TO QUICK REFERENCE GUIDE FOR SHIPPING

Use the Shipping module to batch specimens for shipping, prepare shipping files, view shipping history and print shipping related reports.


Shipping Overview

The Shipping module is separated into several pages. These tabs are listed below with a brief description of the functions contained in that page.

- **View Shipment:** displays history of shipments, generate Manifest Report and Container Report, and generate LDMS shipping file
- **Setup Shipment:** this tab is used to search your lab database for marked containers to ship. Only boxes marked to ship will be available to add to your shipment
- **Shipment Destination:** select your country's central lab in the drop down menu or typing the lab number
- **Import:** This tab is used by the Central Lab to Process the shipment
- **Shipment QA/QC:** This tab will display the container contents. The user will scan the LDMS barcode to ensure the physical item matches the item on the manifest


Exercise 1: Create a new shipping batch

Generate shipping batches each day to limit number of boxes being shipped. Follow these guidelines when setting up a new batch:

- 12 or less boxes per batch
 - One batch for NEG plasma boxes
 - One batch for NEG DBS boxes
 - One batch for all POS specimens
1. In the **View Shipments** tab, select the bottom, blank row from the batch listing
 2. Change to the **Setup Shipment** tab. At the prompt box, select **Storage Items**
Note: If you click the wrong button, use the **Refresh** button to return to the prompt box
 3. To add a storage item to the batch, click to highlight the marked storage item in the **Items Marked in Storage** listing and click **Add to Batch**. One or more containers may be highlighted at one time.
 4. Change to the **Shipment Destination** tab.
 5. Under **Lab Number** type in the **Central Lab ID** of _____
 6. Select a contact at the laboratory.
 7. Set a contact at sending lab.
 8. Click the **Add**  button on the LDMS toolbar.

Exercise 2: QC shipping batch

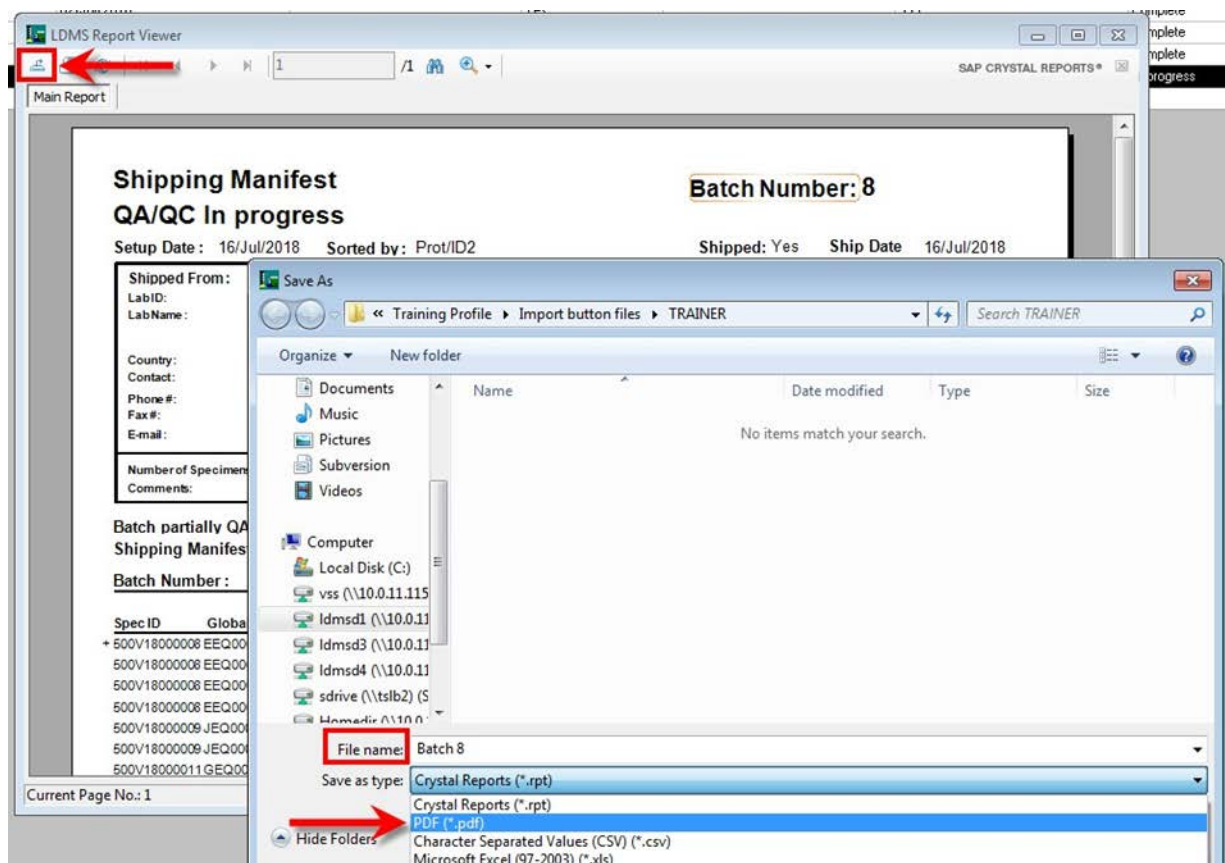
This process confirms the shipment contents by using the LDMS barcode

1. Use the manifest report button in **View Shipment** tab to create dummy manifest report and close – **Do not print**
2. Change to **QA/QC** tab
3. Enter in **Tech initials**
4. Start in the first container on the batch and **scan** the following positions
 - **Plasma** – A1, C2, F4, G9
 - **DBS** – one random card each box
5. **Continue** to next container and repeat
6. Click the **Save**  button
7. The View Shipment tab will always display **In Progress**
8. Perform QC on any remaining batches

Exercise 3: Shipping file and documents

1. Select **LDMS** from the **Shipment Type** box.
2. Click **Ship**. The Attention message appears.
3. Click **OK**. A message appears asking you to verify that you wish to ship the batch.
4. Click **Yes** to create the shipment, or click No.
5. Select the appropriate temperature from the **Select Temperature** menu and click **OK**. The Select Drive dialog box appears.
6. Click **C:** and click **OK**. (This file will later be transferred to a thumb drive)
7. At the success message click **OK**.
8. Generate the required paperwork. Only the first page is printed. See next exercise
 - a. Highlight the batch. Click **Manifest Report**. The Shipping Manifest appears.
 - b. **Close** the Crystal Reports window.
 - c. Click **Shipping Container Report**. The Shipping Box Report appears.
 - d. **Close** the Crystal Reports window.

Exercise 4: PDF copy of manifest and container report



1. **Highlight** the batch. Click **Manifest Report**. The Shipping Manifest appears.
2. In the Crystal Reports window. Click the **Export** button.
3. In the Save As window. **Go to** the folder in the C:\ drive with the LDMS Shipping file
4. **Change Save as type to PDF**
5. **Enter filename:** Batch [Shipment number] manifest
6. Click **Save**. Close Crystal Report window.
7. **Highlight** the batch. Click **Container Report**. Repeat process to save PDF.

Exercise 5: Storage clean up

Part 1: Removing shipped specimens

After the specimens are shipped their positions in storage are reserved. Before a new box can be added to the rack, the shipped specimens must be removed.

1. In **Storage**, click the **Search** tab.
2. Click **Shipped Check**. The Ship Check dialog box appears.
3. Leave the **date range** blank
4. Click **OK**. The Storage dialog box appears notifying you that there are currently specimens in storage that have been shipped within the specified range of dates, and confirming if you wish to remove the specimens from storage.

5. Click **Yes**.

Part 2: Renaming the box

After a box is shipped to the central lab, its position in the rack is now empty. When it is time to add a new box into that position, use the details button to change the box name.

1. Click to **select** the shipped box.
2. Click **Details**
3. Type in the name from the box label in the **Name** field
4. Click **Modify**

Test Result Entry Module (TREM)

REFER TO QUICK REFERENCE GUIDE FOR TREM

This module manages the lab workflows of the Household Tester QC, Pima, and Geenius bench. The LDMS will calculate which specimen's need further testing, provide worksheets, and capture the results.

Exercise 1: Adding the Household Tester ID

Each PTID entered in the LDMS will be given a row in the TREM. After adding the Household Tester ID for the PTID, the LDMS will calculate which specimens must be sent to the QC bench.


Select a template: AIS SATELLITE Load Results

Optional Filter Criteria:

PID	HIVRT	VID	Household Tester	QA	QA Tester	Geenius Tester	HBV/Syphilis Tester	Final Result	QA Discrepancy	CD4 Tester	CD4 Done
			not set								

Uploaded ID1/Global Spec ID Filter File: <none> HCV Tester

Load Filter File Unload Filter File Clear Filters


1. From the **Tools** menu select **Test Result Entry**
2. In the **Results Tab**, select the **template** in the drop down menu.
Note: The user will be entering data in the Results tab. The Template tab is for PHIS3 admin use only.
3. In **Filter Criteria**, set the **Household Tester** filter to 'not set'
4. Click **Load Result**
5. Refer to your **specimen tracking form**. Add the **household tester id** to each PTID
6. Click the **Save**  button

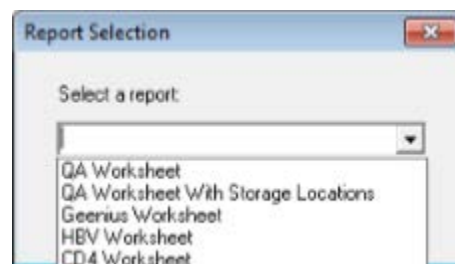
	PTID	HIVRT	VID	Household Tester	QA	Geenius Tester	QA Tester	CD4 Done	CD4 Tester	CD4	Geenius	Determine	Uniqold	Final Result
1	1999999	NEG	PVL	ABC123	Y			N			N/A			
2	1888888	NEG	PVL	ABC123	Y			N			N/A			
3	7777777	NEG	PVL	ABC123	Y			N			N/A			
4	6666666	POS	PVL	ABC123	Y			Y						
5	5555555	NEG	PVL	ABC123	Y			N			N/A			
6	4444444	POS	PVL	ABC123	Y			Y						

Exercise 2: Generating worksheets

Worksheets are created to organize and record the test results at the bench. These are then returned to the LDMS and entered into the system.

1. If starting from previous exercise, click **Clear Filters**
2. Click **Load Results**

3. Click the **Report** button  on the LDMS toolbar.
4. From the menu select one of the following reports:
 - a. QA Worksheet
 - b. Geenius Worksheet
4. Click **OK**
6. The Crystal Reports window will open. We will not be printing the worksheets for this exercise. Close after viewing worksheet



Filters

As the study progresses, the number of participants in the TREM will grow. It will be necessary to use the filters in order to organize and manage the increasing number of rows.

Optional Filter Criteria

PTID	HIVRT	VID	Household Tester	QA	QA Tester	Geenius Tester	HBV/Syphilis Tester	Final Result	QA Discrepancy	CD4 Tester	CD4 Done
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Uploaded ID1/Global Spec ID Filter File: <none>

Household Tester: Displays all specimens by the unique Household Tester ID; not set will display new specimens that need Household Tester to be entered

QA/QA Tester: QA status is Y or N; QA Tester displays all specimens by unique tester ID; For entering QA results, set QA status to Y and QA tester to not set. After loading results, click the PTID header to sort (see image)

QA Discrepancy: QA discrepancy is Y or N; setting the filter to Y will show all specimens with a discrepancy and the remaining QA fields (Report Date, Time) can be completed once the lab supervisor has been notified.

Geenius: Set Geenius Tester to not set, then click twice on the HIVRT header to bring the POS specimens to the top

After setting the filters, **apply** them to the list by clicking **Load Results**.


Reset the filters by clicking **Clear Filters**

Exercise 3: Adding Results


When the worksheets are returned from the bench, the results are added into the TREM

	PTID	HIVRT	VID	Household Tester	QA	Geenius Tester	QA Tester	CD4 Done	CD4 Tester	CD4	Geenius	Determine	Uniqold	Final Result
1	999999	NEG	PVL	ABC123	Y		XYZ999	N			N/A	NR	N/A	NEG
2	888888	NEG	PVL	ABC123	Y		XYZ999	N			N/A	NR	N/A	NEG
3	777777	NEG	PVL	ABC123	Y		XYZ999	N			N/A	NR	N/A	NEG
4	666666	POS	PVL	ABC123	Y	DEF456	XYZ999	Y	GHI789	1850	P HIV-1	R	R	POS
5	555555	NEG	PVL	ABC123	Y		XYZ999	N			N/A	NR	N/A	NEG
6	444444	POS	PVL	ABC123	Y	DEF456	XYZ999	Y	GHI789	3625	P HIV-1	R	R	POS

Part 1: QA results


- Set the following filters
 - QA** Y
 - QA Tester** Not set
 - PTID** PTID from worksheet
- Check the PTID, and click on the **QA Tester** field and **enter** the **tester ID**.
- Use the tab key to move the cursor to the **first household test**, **enter result**.
- [If needed] Use the tab key to move to the remaining tests and enter results.
- Set the **Final Result**.
- Click the **Save**  button

Part 2: Geenius results

- Set the following filters
 - HIVRT** POS (or IND)
 - Geenius Tester** Not set
- Check the PTID, and click on the Geenius Tester field and enter the tester ID.
- Use the tab key to move the cursor to the Geenius field, select results from drop down menu.
- Click the **Save**  button

[Optional] Exercise 4: QA Discrepancy

If the QA bench findings differ from the household tester, further investigation must occur and a NCE form is completed. Record the date and time the form was completed.

1. For a QA result set a Final Results that differs from the HIVRT.
2. The QA Discrepancy field populates with 'Y'. The QA Report Date and Time fields will open
3. Complete fields. Note: the date format is dd/mmm/yyyy
4. Click the Save  button

Backing up the LDMS

LDMS automatically creates a backup of the database once per day at Noon and places it in:

C:\fstrf\backup

In this folder you will find a file named: **[LabID]_[year][month][day].BK** If there are files in this folder that end with something other than .BK, this indicates the backup has failed. Please contact LDMS User Support.

The most recent file is to be copied daily to a thumb drive provided by PHIS3 administration.



The backup is created automatically but a new file can be generated in the LDMS using the following steps

- Click Administration > Backup Tracking from the LDMS menubar
- Click the Create Backup button in the upper-right corner
- A Windows command prompt window will open. This is the backup tool.
- Wait until the backup tool finishes creating the backup

LDMS User Support

LDMS User Support is available 24/7 except for some US national holidays:

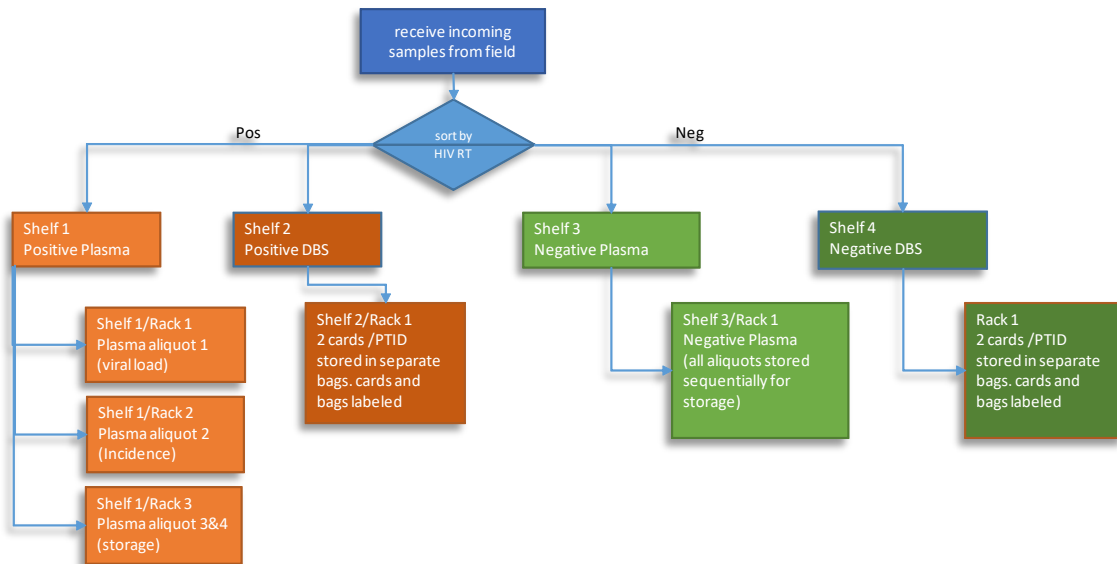
E-mail: ldmshelp@frontierscience.org

Phone: +1 7168340900 x7311

In all communications with LDMS User Support, include the Lab ID, which is printed on the outside of the laptop.

When emailing User Support please cc Uchechukwu Chinedu: uchinedu@phis3project.org.ng

Appendix I: Storage overview



Storage	Coordinates	
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> PLA-P AL1 ZW001 001 PLA-P AL1 ZW001 002 PLA-P AL1 ZW001 003 <ul style="list-style-type: none"> PLA-P AL2 ZW001 001 PLA-P AL2 ZW001 002 PLA-P AL2 ZW001 003 <ul style="list-style-type: none"> PLA-P AL3 ZW001 001 PLA-P AL3 ZW001 002 <ul style="list-style-type: none"> <ul style="list-style-type: none"> PLA-P AL1 ZW001 001 PLA-P AL1 ZW001 002 <ul style="list-style-type: none"> <ul style="list-style-type: none"> PLA-P AL1 ZW001 001 PLA-P AL1 ZW001 002 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> A.005 A.004 A.003 <ul style="list-style-type: none"> A.005 A.004 A.003 <ul style="list-style-type: none"> A.005 A.004 <ul style="list-style-type: none"> <ul style="list-style-type: none"> A.005 A.004 	<ul style="list-style-type: none"> Freezer Shelf Rack Container

Appendix II: Preloads

Country (ID2)	Preload Name	Description

Appendix III: LDMS Lab Numbers

LDMS Lab	Lab Name