

RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **IHS Laboratory Reporting System**

(LR)

## Installation Guide and Release Notes AUR

Version 5.2 Patch 1055 June 2024

Office of Information Technology Division of Information Technology

## Table of Contents

1.0	Release Notes1					
2.0	Installa	ition Notes	2			
	2.1	Contents of Distribution	2			
	2.2	Required Resources	2			
	2.3	Before You Begin: Installation Issues	Z			
3.0	Installa	ition Instructions	3			
	3.1	Pre-Installation Instructions	3			
	3.1.1	RPMS Configuration Settings	3			
	3.2	KIDS Installation	3			
	3.2.1	Steps for LR Version 5.2 Patch 1055 KIDS Build	. 3			
4.0	RPMS	Configuration	. 4			
	4.1	Assign Security Keys	4			
	4.2	Assign Menu Options	4			
	4.3	Site Parameter Setup [SP]				
	4.3.1	Find Medication Routes [FMR]				
	433	Medication Route Setup [MR]	.0			
	4.3.4	Display AU Site Parameters [SPD]	. 8			
5.0	BLRAM	I Ensemble Production Installation	10			
	5.1	BLRAM <rpms> Namespace Creation</rpms>	10			
	5.2	Create Business Partner Entry	15			
	5.3	Import BLRAM Production	17			
	5.3.1	Auto Start Production	20			
	5.4	Namespace configuration	21			
	5.4.1	Global Mapping	21			
	5.4.2 5.4.3	Package Mapping	23			
	5.5	Configure the Production	25			
	5.5.1	Business Operations	26			
	5.6	Start the Production	28			
6.0	Installa	ition Configuration	30			
7.0	Export	Testing	31			
	7.1	Schedule Initial Extracts	31			
	7.1.1	Initial Lab Export (AREX)	31			
	7.1.2	Initial Pharmacy Export (AUEX)	32			
8.0	Initiate	the NHSN Onboarding Process	33			
9.0	Sample	e Installations	34			

	9.1	Sample RPMS KIDS Install	34
Setup	Checkl	ist	41
Gloss	ary		12
Acron	ym List		43
Conta	ct Infor	nation	14

## **Revision History**

Version	Date	Author	Section	Page Number	Summary of Change
1.0	December 2023	Skip Squires	All	All	Initial version
1.01	February 2024	Team	All	All	Updates for KIDS and Ensemble installation samples, etc.
1.02	March 2024	Team	All	All	Updates for alpha
1.03	April 2024	Team	All	All	Updates for beta
1.04	May 2024	Skip Squires	All	All	SQA feedback and beta feedback

## 1.0 Release Notes

The Lab Reporting System v5.2 p1055 is designed to identify and report on resulted microbiology lab tests and antibiotic medication administered and recorded in the Indian Health Service (IHS) Resource and Patient Management System (RPMS) and exported to files on a monthly schedule. Once these results are identified and summarized, the application will generate files consisting of a series of Health Level Seven (HL7) messages in a format that can be submitted to the National Health and Safety Network (NHSN) per the AUR Antimicrobial Reporting specifications.

A second component of the application is an Ensemble production that will generate ARO microbiology lab detail reports, ARO summary reports and AUP summary reports into an export directory for these HL7/XML files. The sites can then upload them to NSHN.

This document consists of installation instructions for the LR v5.2 p1055 national release.

**Important**: Read this entire document prior to attempting any installation.

## 2.0 Installation Notes

Prefix:	LR
<b>Current Version</b> :	5.2
<b>Current Patch</b> :	1055

## 2.1 Contents of Distribution

Table 2-1: Distributed files and descriptions

File	Description
lr0520.55k	RPMS KIDS Build
BLRAMinstall.xml	Ensemble Production Installation File
lr0520.55i.pdf	Installation Guide
lr0520.55u.pdf	User Manual
lr0520.55t.pdf	Technical Manual

### 2.2 Required Resources

- Kernel (XU) v8.0 p 1020 or higher
- FileMan (DI) v22 p 1020 or higher
- LR v5.2 through p 1054
- ATX v5.1 p 51
- APSP v7.0 p 1034
- Caché v2017.2 or later with Ensemble

## 2.3 Before You Begin: Installation Issues

Make a copy of this distribution for off-line storage. Print all notes/readme files.

It is recommended that the terminal output during the installation be captured using an auxport printer attached to the terminal at which you are performing the software installation. This will ensure a printed audit trail if any problems should arise.

A backup of the RPMS database is not required.

## 3.0 Installation Instructions

### 3.1 Pre-Installation Instructions

#### 3.1.1 RPMS Configuration Settings

Prior to the installation, you will need to obtain the following settings needed to configure the RPMS BLRAM Configuration. All these values will be entered in Section 4.0 except for NHSN Site OID which will be generated by the BLRAM application. It may be helpful to track this NHSN Site OID, but you do not need to enter it.

Table 3-1: BLRAM Site Configuration Attributes

Attribute	Value
NHSN Assigned Facility OID	1.111.222.333.580

**Note:** This is the Pre-Production OID from NHSN assigned to IHS for testing purposes. Please use your site's NHSN Assigned Facility OID in the Site Parameters when officially submitting to NHSN.

### 3.2 KIDS Installation

#### 3.2.1 Steps for LR Version 5.2 Patch 1055 KIDS Build

- 1. Enter the RPMS namespace.
- 2. Load and install the distribution into KIDS using **Option 1** on the **KIDS Installation Menu**.
- 3. Verify the load using **Option 2** on the **KIDS Installation Menu**.

Note: Consider using **Options 3** and **4** on the **KIDS Installation Menu** to print and compare the transport.

- 4. Install the distribution using **Option 6** on the **KIDS Installation Menu**.
- 5. For results, use the KIDS Install File Print option to view/print the LAB REPORTING v5.2 Patch 1055 entry.

## 4.0 **RPMS** Configuration

Following the KIDS installation, you will need to configure the application for your site based on the following sections for the ARO microbiology tests performed at your site. Please consult with your Lab Informaticist, if necessary. Specific Lab configuration details can be provided during the install and onboarding process.

## 4.1 Assign Security Keys

**BLRZ F6 AM/AU MENU :** This key unlocks the main Antimicrobial Use and Resistance Reporting (F6) menu and should be assigned to an any personnel who will be tasked with performing or monitoring the Antimicrobial Resistance Reporting System or Antimicrobial Use Reporting System exports.

**BLRAMZMENU**: This key unlocks the Antimicrobial Resistance Reporting System ... [BLRAMMENU]. This key should be given to any personnel who will be tasked with supporting the Antimicrobial Resistance Reporting System exports.

**BLRAUZMENU**: This key unlocks the Antimicrobial Use Reporting System ... [BLRAUMENU]. This key should be given to any personnel who will be tasked with supporting the Antimicrobial Use Reporting System exports.

**BLRZ AUAM SITE PARAMETER**: This key unlocks the Site Parameter Setup ... [BLRAU SITE PARAMETER MENU]. This key should be given to any personnel who will be tasked with supporting the Antimicrobial Use and Resistance Reporting functionality.

**BLRZ F6 ALERTS MG EDIT**: This key unlocks the option to update the Mail Group with users who should receive alerts for this application.

**BLRZAURTEST**: This key unlocks the Antimicrobial Use Reporting System and Antimicrobial Resistance Reporting System option Date Range Option for Internal Testing [TEST]. This key should be given to any personnel who will be tasked with supporting the internal testing of the Antimicrobial Use and Resistance Reporting System exports.

## 4.2 Assign Menu Options

**BLR F6 AM/AU MENU**: This is the main AR/AU menu and should be assigned to any personnel who will be tasked with performing or monitoring the Antimicrobial Resistance Reporting System or Antimicrobial Use Reporting System exports. This option is locked with security key BLRZ F6 AM/AU MENU. This menu option has 4 sub-menus/options:

**BLRAMMENU**: This is the main Antimicrobial Resistance (AR) menu. It is locked with security key BLRAMZMENU and should be assigned to any personnel who will be tasked with performing or monitoring the Antimicrobial Resistance Reporting System exports.

**BLRAUMENU**: This is the main Antimicrobial Use (AU) menu. It is locked with security key BLRAUZMENU and should be assigned to any personnel who will be tasked with performing or monitoring the Antimicrobial Use Reporting System exports.

**BLRAU SITE PARAMETER MENU**: This is the menu option used to update the site parameters for both the AR and AU reporting and should be assigned to any personnel who will be tasked with updating the Antimicrobial Use and Resistance Reporting System configuration settings.

**MGE F6 ALERTS MAIL GROUP EDIT**: This option is used to update the Mail Group with users who should receive alerts for this application. This option is locked with security key BLRZ F6 ALERTS MG EDIT.

### 4.3 Site Parameter Setup [SP]

Use the **SP** option on the **Antimicrobial Use and Resistance Reporting menu** to access the Site Parameter Setup sub menu. The sub menu provides options to allow users to review the existing site parameters, as well as, assign NHSN codes to their site wards and medication routes, in use at the site.

#### 4.3.1 Site Parameter and Ward Setup (NHSN Codes) [WS]

Use the **WS** option on the **Site Parameter Setup menu** to review existing Wards defined for the site and assign NHSN Location codes to Wards which will be reported to NHSN via the AUR functionality. Additionally, users can create a new entry for the site and save the NHSN assigned Facility OID in the site parameters. Enter the data similar to those values as shown in Figure Figure 4-1.

Select Site Parameter Setup Option: WS Site Parameter and Ward Setup (NHSN Codes) This option is used to map WARDS, the ER and Observation Units to NHSN Location Codes and enter your site ID. Each Ward, the ER and Observation units must be assigned an appropriate NHSN location code. The site parameters will be pre-populated with all Wards defined in the RPMS Ward Location file. If a Ward is not active you can leave the NHSN code blank. Only Wards that are assigned an NHSN location code will be reported.

```
Enter the ANTIMICROBIAL USE SITE: 2021 DEMO HOSPITAL (INST)
HEADQUARTERS
WEST ALBUQUERQUE 01 HOSPITAL 8993
...OK? Yes// <return> (Yes)
EMERGENCY ROOM NHSN CODE: Emergency Department//
OBSERVATION NHSN CODE: 24-Hour Observation Area//
NHSN ASSIGNED FACILITY OID: 1.111.222.333.580//
The next screen will present all Wards and associated NHSN codes.
```

Figure 4-1: Sample Interaction to Update Site Parameters for Antimicrobial Use and Resistance Reporting (F6)

Select the reporting site and enter EMERGENCY ROOM NHSN CODE (1108-0), OBSERVATION NHSN CODE (1162-7) and the NHSN ASSIGNED FACILITY OID (1.111.222.333.580), then press Y(ES) to continue and assign appropriate NHSN codes to all other Wards to be reported as shown in Figure 4-2.

Upda	ate Ward NHSN Codes WARD	Mar 25,	2024 10:42 NHSN CODE	2:45 Page: 1 of 1	
1) 2)	ICU WARD f6 SWING BED		1027-2	Medical Critical Care	
3) 4) 5) 6) 7) 8) 9) 10)	CHH INPATIENT MEDICAL WARD f6 MULTI SERVICE EAST GENMED WEST SOUTH OBGYN INPATIENT FLOOR NEWBORN ICU		1060-3	Medical Ward	
11) 12) 13) 14) 15)	GENERAL MEDICINE PEDIATRIC WARD f6 MEDICAL WEST CZ CHH WARD POST SURGERY		1076-9	Pediatric Medical Ward	
S	Enter ?? for more ac Select Ward	ctions	Q Qu:	it	

Figure 4-2: Listing of Wards Mapped to NHSN Location Codes

#### 4.3.2 Find Medication Routes [FMR]

The **FMR** option can be used to identify the medications routes used at the site. This list can be used with the MR option to map those medication routes that need to be reported to NHSN. Queuing the process is recommended to allow the search complete without the user waiting for an undetermined amount of time.

This option is used to scan the BCMA, IV Med and Unit Dose medication files

to find all Medication Routes used with Antimicrobial drugs (VA DRUG CLASS AM\*). Those that are found will be put into the Medication Route site parameter so they can be assigned an NHSN code. This process could take up to an hour depending on how large those files are so it is recommended that you queue to run in the background. BLRAU ANTIMICROB USE SITE: 2021 DEMO HOSPITAL (INST) HEADQUARTERS WEST ALBUQUERQUE 01 HOSPITAL 8993 ...OK? Yes// (Yes) Won't you queue this ? Y// NO <CR> to continue:

Figure 4-3: Sample Interaction to Find Medication Routes Used at the Site to be Mapped

#### 4.3.3 Medication Route Setup [MR]

The **MR** option can be used to map the medication routes identified in the **Find Medication Routes in Use** option to the four values that NHSN wants the site to report on. The user will be asked to select the site for reporting and then in the ListMan, the user will select a medication route from the list and if it can be categorized as *Digestive tract*, *Intramuscular*, *Intravascular*, or *Respiratory tract*,

```
Select Site Parameter Setup Option: MR Medication Route Setup
This option is used to map Medication Routes to NHSN Codes.
The site parameters have been pre-populated with common Medication Routes
used in BCMA, the IV Pharmacy System and Unit Dose for drugs with a
VA Drug Class indicating it is an Antimicrobial drug.
This list must be mapped to the codes below. You can add additional
Medication Routes to the list.
The 4 codes are:
    - Digestive tract route
                               2522-1
    - Intramuscular route (IM) 78421000
    - Intravascular route (IV) 47625008
    - Respiratory tract route 2523-9
Do you wish to continue? Y// ES
BLRAU ANTIMICROB USE SITE: 2021
                               DEMO HOSPITAL (INST)
                                                         HEADOUARTERS
WEST
                     01
    ALBUQUERQUE
                                HOSPITAL 8993
        ...OK? Yes// (Yes)
Update Med Route NHSN Codes Mar 25, 2024 10:43:03
                                                         Page: 1 of 1
   MED ROUTE
                                         NHSN CODE DESCRIPTION
1) ORAL
                                          2522-1
                                                   Digestive tract
                                                   Digestive tract
2) J TUBE
                                          2522-1
```

Installation Guide and Release Notes AUR June 2024

**RPMS** Configuration

3)	G TUBE	2522-1	Digestive tract
4)	RECTAL	2522-1	Digestive tract
5)	INTRAVENOUS	47625008	Intravascular
6)	INTRAMUSCULAR	78421000	Intramuscular
7) 8) 9)	TOPICAL INHALATION IV PIGGYBACK	2523-9 47625008	Respiratory tract Intravascular
10)	IV PUSH	47625008	Intravascular
11)	ORAL PO	2522-1	Digestive tract
U	Enter ?? for more actions Update NHSN Code AD Add Medicati	lon Route Q	Quit

Figure 4-4: Display of Medication Routes with NHSN Codes Assigned

#### 4.3.4 Display AU Site Parameters [SPD]

This menu option allows the user to review the existing site parameters saved for the AUR reporting functionality. Select the Site to display the site parameters for reporting to NHSN including the NHSN Assigned Facility OID. Enter the site at the prompt as indicated in **bold** in Figure 4-5.

```
Select Antimicrobial Use and Resistance Reporting (F6) <TEST ACCOUNT>
Option: SP
 Site Parameter Setup
  SPD Display AU Site Parameters
WS Site Parameter and Ward Setup (NHSN Codes)
  MR Medication Route Setup
  FMR Find Medication Routes Used
Select Site Parameter Setup <TEST ACCOUNT> Option: SPD Display AU Site
Parameters
Display ANTIMICROBIAL USE SITE PARAMETERS
Select BLRAU ANTIMICROB USE SITE PARAMETERS: ?
   Answer with BLRAU ANTIMICROB USE SITE PARAMETERS:
   2021 DEMO HOSPITAL (INST)
Select BLRAU ANTIMICROB USE SITE PARAMETERS: ??
  2021 DEMO HOSPITAL (INST)
Select BLRAU ANTIMICROB USE SITE PARAMETERS: 2021 DEMO HOSPITAL (INST)
HEA
OUTPUT BROWSER
                              Jan 19, 2024 13:20:04 Page: 1 of 2
Antimicrobial Use Site Parameter Display
                   ANTIMICROBIAL USE REPORT SITE PARAMETERS
Site: 2021 DEMO HOSPITAL (INST)
```

**RPMS** Configuration

NHSN ASSIGNED FACILITY OID: 1.111.222.333.580								
EMERGENCY DEPARTMENT NHSN CODE: 1108-0 Emergency Department								
OBSERVATION NHSN CODE: 1162-7 2	4-Hour Observati	on Area						
WARDS								
GEN WARD	1060-3	Medical Ward						
ICU WARD	1027-2	Medical Critical Care						
PEDS WARD	1076-9	Pediatric Medical Ward						
MEDICATION DOUTES								
ORAL.	2522-1	Digestive tract						
G TUBE	47625008	Intravascular						
RECTAL	2522-1	Digestive tract						
INTRAVENOUS	47625008	Intravascular						
INTRAMUSCULAR	78421000	Intramuscular						
RIGHT EYE								
BOTH EARS	78421000	Intramuscular						
INHALATION	2523-9	Respiratory tract						
IV PIGGYBACK	47625008	Intravascular						
INTRAVASCULAR	47625008	Intravascular						
ORAL PO	2522-1	Digestive tract						
INHALATION NEBULIZER	2523-9	Respiratory tract						
Enter ?? for more action	ns	>>>						
+ NEXT SCREEN - PR	EVIOUS SCREEN	Q QUIT						

Figure 4-5: Display site parameters

## 5.0 BLRAM Ensemble Production Installation

### 5.1 BLRAM<RPMS> Namespace Creation

1. Log on to the System Management Portal.



Figure 5-1: System Management Portal window

2. Click System Administration > Configuration > System Configuration > Namespaces.

		Configuration »	System Configuration »	Memory and Startup
	Home	Security »	Connectivity »	Namespaces
		Licensing »	Mirror Settings »	L( Navigate to this item.
Å	HealthShare	Encryption »	Database Backup »	Remote Databases
(-)		Enterprise Manager	CSP Gateway Management	Journal Settings
			SQL and Object Settings »	
$\bigcirc$	DeepSee		Device Settings »	
			National Language Settings »	
0			Zen Reports »	
00	Ensemble		Additional Settings »	
	System Operation			
	oystem operation			
	System Explorer			
	System Administration			

Figure 5-2: System Management Configure Namespaces selection

3. The Namespace dialog displays.



Figure 5-3: Namespace dialog

4. Click Create New Namespace.



Figure 5-4: Create New Namespace button

5. The Create New Namespace Form displays.

Menu	Home   About   Help   Logout	System > Co	onfigura	ition > Namespaces > N	ew Namespace			
New Na	mespace*		Server: User:	HQABQDITDDEHR1 shenderson	Namespace: %S Licensed to: OIT	YS -EHR1-DEV	This is a l Instance:	Development Sy HEALTHSHARE
Save	e Cancel							
Use the	form below to create a new i	namespac	ce:					
	Name of the	namespace	BLF	RAMCMBA Jired.				
		Copy from		~				
The def	ault database for Globals in this nam	nespace is a	•	Local Database Remote Database				
	Select an existing database	for Globals	Requ	uired.		<ul> <li>Create</li> </ul>	New Datal	base
The defa	ult database for Routines in this nan	nespace is a	•	Local Database Remote Database				
	Select an existing database f	for Routines				Create	New Datal	base
Crea	ate a default Web application for this	namespace						
	Copy namespace ma	ppings from		~				

Figure 5-5: Create New Namespace Form dialog

- 6. Type the name of the **BLRAM namespace** to be created. Typically, this will be "BLRMA" + the namespace acronym of the production RPMS namespace. In the example, **CMBA** is the production RPMS namespace.
- 7. Make sure that the Local Database option is selected for the Globals database.

8. Click Create New Database. The Database Wizard opens.

Database Wizard				×
Database Wizard			User: sh Namespace:	nenderson %SYS
This wizard will help you create a new database.				
Enter the name of your database BLRAMCMBA				
Required. Database directory F:\BLRAMCMBA Directory does not exist! Please change if you do not wish t	the directory be created	Brow	se	
	Back Next	Finish Ca	ncel	Help

Figure 5-6: Database Wizard window

- 9. Enter the name of the **BLRAM database** to be created.
- 10. Enter the **directory location** for the BLRAM database to be created.

**Note:** You can also click **Browse** to locate the database directory name.

11. Click **Next**. The **Database Wizard Details** dialog displays. If encryption is available on your system, check the **Encrypt Database** check box, otherwise simply accept the default setting.

Database Wizard		×
Database Wizard		User: shenderson Namespace: %SYS
Enter details about the database.		
Initial Size (MB)	1 This determines how big the initial database will be.	
Block size for this database will be	8KB  Block size is the size of the blocks that the databases uses.	
Journal globals?	Yes  Select 'Yes' to journal globals in this database.	
Encrypt database?	No V Select 'Yes' to create an Encrypted Database.	
	Back	Next Finish Cancel Help

Figure 5-7: Database Details dialog

12. Click Next to accept all default values. The Database Resource dialog displays.

Database Wizard					×
Database Wizard				Us Namespac	er:shenderson :e:%SYS
Database resources control access to the contents of Caché databases.					
What Is the Database Resource for This Database?					
I want to ● Use the default resource, %DB_%DEFAULT ○ Use an existing resource ○ Create a new resource Database Resource %DB_%DEFAULT ✓					
	Back	Next	Finish	Cancel	Help

Figure 5-8: Database Resource dialog

13. Select the appropriate resource or click **Next** to accept the default resource. The **Database Wizard Completion** dialog displays.



Figure 5-9: Database Wizard Completion dialog

14. Click Finish to create the new database. You return to the Namespace Form.

**Note:** You do not need to copy any namespace mappings on this dialog.

- 15. Ensure Local Database is selected for the Routines database.
- 16. Use the same database for **Routines** as was used for Globals.
- 17. Ensure the Make this a Health Share namespace check box is selected.

New Namespace*	Server: HQABQDITDDEHR1 User: shenderson	Namespace: %SYS This is a De Licensed to: OIT-EHR1-DEV Instance:	velopment System HEALTHSHARE
Save Cancel			
Use the form below to create a new namespac	e:		
Name of the namespace	BLRAMCMBA Required.		
Copy from	~		
The default database for Globals in this namespace is a	<ul> <li>Local Database</li> <li>Remote Database</li> </ul>		
Select an existing database for Globals	BLRAMCMBA Required.	Create New Databas	se
The default database for Routines in this namespace is a	<ul> <li>Local Database</li> <li>Remote Database</li> </ul>		
Select an existing database for Routines	BLRAMCMBA	Create New Databas	se
Create a default Web application for this namespace			
Copy namespace mappings from	~		
Make this a Health Share namespace			

Figure 5-10: Completed Namespace form dialog

18. Click **Save**. The namespace is created once the window displaying all default mappings displays with no errors.



Figure 5-11: Display Default Mappings without errors window

19. Click Close. The Current Namespaces window displays.

## 5.2 Create Business Partner Entry

1. Starting from the **Home System Management Portal** select **Ensemble**, then the **BLRAM namespace** you just created from the list of namespaces.

	IVIC.
Home	The %SYS namespace does not support Ensemble Please select a different namespace.
HealthShare	Available Ensemble namespaces AGMPITEHRA AGMPITEHRB
O DeepSee	AGMPITEHRC AGMPITEHRD AGMPITEHRE
<b>Solution</b> Ensemble	BCOMTEHRE BLRAMCMBA
System Operation	BMW BMWTEHRA BMWTEHRB
System Explorer	BMWTEHRD BMWTEHRE BMWTEHRF
System Administration	CCDATEHRA CCDATEHRB CCDATEHRC

Figure 5-12: In this instance we select Ensemble then BLRCMBA Namespace window

2. Select Ensemble | Configure | Business Partners.

<b>A</b>	Configure »	Production
Home	Build »	Business Partners
	View »	Cree Navigate to this item.
HealthShare	List »	Schedule Specs
(•)	Monitor »	Data Lookup Tables
	Manage »	System Default Settings
DeepSee	Interoperate »	Enterprise Systems
•	Test »	Public-Service Registry
$\wedge$		External-Service Registry
60 Ensemble		Message Bank Link

Figure 5-13: Business Partner selection window

					Business Partner Viewer
Business Partner Profiles	Partner Name	Description	Primary Contact	Phone	Partner Name
define information about the	No Results				
organizations and applications					Required. Must be unique.
system					Description
- yelenni					f6 antimicrobial reporting
					Primary Contact
					Name
					CMBA
					Title
					antimicrobial
					Email address
					someone@ihs.gov
					Phone Number
					555.333.2424
					Mobile Phone Number
					Notes
					Alternate Contact
					Save Remove

Figure 5-14: Business Partner data entry window

- 3. Enter the appropriate information as provided by the business partner into the **Partner** screen.
- 4. Click Save.

### 5.3 Import BLRAM Production

1. Return to the **Home** page and select **System Explorer** | **Classes**.

	Nelcome	, shenderson	Server: HQABQDITDDEHR User: shenderson	Namespace: BLRAMCMBA Sw Licensed to: OIT-EHR1-DEV	itch This is a Development System Instance: HEALTH SHARE
/iev	v: [ [			Search:	
		Hama	Classes		
		Home	SQL		
	-		Routines		
	Ä	HealthShare	Globals		
	(-)		Tools »		
			iKnow »		
	$\mathbf{O}$	DeepSee			
	0	-			
	00	Ensemple			
		System Operation			
		System Explorer			
		Suctom Administration			
		System Auministration			

Figure 5-15: Classes selection window

2. Ensure you're in the newly created BLRAM namespace, that the namespace selected is the **BLRAMCMBA**, select the **Import** button.

Classes	Server: HQABQDITDDEHI User: shenderson	2 Namespace: BLRAMCMB This is a Develor Licensed to: OIT-EHR2-DEV Instance: HEA	opment System ALTHSHARE
Compile Export Impor	t Delete Routines Globals	Refresh: Off O on 10 sec	
Lookin: «	Page size: 0 Results: 1000+ Page:  c .c.	1 » > of 1 view doc in new window	
Namespace 🗸	Name	Date	Size
BLRAMCMB 🗸	Ens.AbstractDelegate.cls	2021-04-15 15:53:02	1142 Documentation

Figure 5-16: Select Import within the BLRAM\* namespace

3. Enter the **path** and **filename** to the BLRAMinstall.xml production file.

Import Classes	RERAMCMRA This is a Develop
Import Classes	User: shenderso Namespace: BLRAMCMB,
Import classes to namespace BLRAMCMBA.	
Import from a File or a Directory:	
Enter the path and name of the import file:	
G:\BLRAM\Exports\BLRAMinstall.xml	Browse
Compile imported items Compile flags cuk Run import in the background (Highly recommended for importing large files.)	
Back	Next Import Cancel

Figure 5-17: Import Classes dialog

4. Click **Next**. Ensure all the items are selected.

	Server HOARODITADEHR			Леч
•	Import Classes		User: sh Namespace: BLR/	iend AMC
Select	items you wish to import.			
<ul><li>✓</li></ul>	Item	Exists	Last Modified	
🛃 BLP	RAM.CCDA.AD.cls	Yes	2013-01-14 11:23:14.124812	
🛃 BLP	RAM.CCDA.ADXP.cls	Yes	2013-01-14 11:23:14.246905	
SLP	RAM.CCDA.ANY.cls	Yes	2019-10-14 12:33:14.996036	
SLP	RAM.CCDA.ANYNonNull.cls	Yes	2017-09-21 14:35:27.409674	
SLP	RAM.CCDA.ActClass.cls	Yes	2013-01-14 10:23:18.250985	
C BLP	RAM.CCDA.ActClassComposition.cls	Yes	2013-01-14 10:23:18.25295	
C BLR	RAM.CCDA.ActClassCondition.cls	Yes	2013-01-14 10:23:18.255005	
🛃 BLR	RAM.CCDA.ActClassContract.cls	Yes	2013-01-14 10:23:18.257651	
SLR	RAM.CCDA.ActClassControlAct.cls	Yes	2013-01-14 10:23:18.260534	
SLR	RAM.CCDA.ActClassDocument.cls	Yes	2013-01-14 10:23:18.263491	
🛃 BLR	RAM.CCDA.ActClassEntry.cls	Yes	2013-01-14 10:23:18.266232	
🛃 BLR	RAM.CCDA.ActClassExtract.cls	Yes	2013-01-14 10:23:18.268123	
🛃 BLR	RAM.CCDA.ActClassFinancialContract.cls	Yes	2013-01-14 10:23:18.270118	
🛃 BLR	RAM.CCDA.ActClassObservation.cls	Yes	2013-01-14 10:23:18.271981	
🛃 BLR	RAM.CCDA.ActClassObservationSeries.cls	Yes	2013-01-14 10:23:18.273896	
🛃 BLR	RAM.CCDA.ActClassOrganizer.cls	Yes	2013-01-14 10:23:18.275813	
SLR	RAM.CCDA.ActClassPublicHealthCase.cls	Yes	2013-01-14 10:23:18.277786	
SLR	RAM.CCDA.ActClassROI.cls	Yes	2013-01-14 10:23:18.27967	
SLR	RAM.CCDA.ActClassRoot.cls	Yes	2013-01-14 10:23:18.28156	
SLP	RAM.CCDA.ActClassSupply.cls	Yes	2013-01-14 10:23:18.283462	
	AM CCDA ActClinicalDocument cle	Yes	2013-01-14 10:23:18.285383	-
SI BLR	CANLOODA. Actolinical Document. cis			

Figure 5-18: Import Classes select items dialog

- 5. Click Import.
- 6. Ensure that the load finished successfully and click **Done**.

Import result:		
Commiling pouting RLDAW Dood Depressors RuildDecMossagesDeseived 1	-	
Compiling Fourine BLAM. Dead Decesses. BuildDochessagesReceived.1		
Compiling Fouring BLPAM Productions Buildbor Synchronized Paraness 1		
Compiling class BLPAM Prod Build DIL add Test		
Compiling class BLRAM Prod. Build DTL create APOdetail		
Compiling class BLRAM Prod Build DTL add Specimen		
Compiling class BLRAM Prod Build DTL create ARCsummary		
Compiling class BLRAM Prod Build DTL create AllPsummary		
Compiling coutine BLRAM.Prod.Build.DTL.add.Test.1		
Compiling routine BLRAM.Prod.Build.DTL.create.ABOdetail.1		
Compiling routine BLRAM Prod. Build, DTL, add Specimen, 1		
Compiling routine BLRAM.Prod.Build.DTL.create.AROsummary.1		
Compiling routine BLRAM.Prod.Build.DTL.create.AUPsummary.1		
Compiling class BLBAM. Prod. Processes. BuildDoc. Context		
Compiling class BLRAM.Prod.Processes.BuildDoc.Thread1		
Compiling table BLRAM Prod Processes BuildDoc.Context ResponseHandlers		
Compiling table BLRAM Prod Processes BuildDoc.Context		
Compiling table BLRAM Prod Processes BuildDoc.Thread1		
Compiling table BLRAM Prod Processes BuildDoc.Thread1 ChildThreads		
Compiling table BLRAM Prod Processes BuildDoc.Thread1 PendingResponses		
Compiling table BLRAM Prod Processes BuildDoc.Thread1 SyncResponses		
Compiling routine BLRAM.Prod.Processes.BuildDoc.Context.1		
Compiling routine BLRAM.Prod.Processes.BuildDoc.ContextResponseHandlers		
Compiling routine BLRAM.Prod.Processes.BuildDoc.Thread1.1		
Compiling routine BLRAM.Prod.Processes.BuildDoc.Thread1ChildThreads.1		
Compiling routine BLRAM.Prod.Processes.BuildDoc.Thread1PendingResponses		
Compiling routine BLRAM.Prod.Processes.BuildDoc.Thread1SyncResponses.1	- 1	
Load finished successfully.	-	
	-	
<		
Back Next Import	) [ Do	Don

Figure 5-19: Import Classes–Done window

#### 5.3.1 Auto Start Production

1. Return to the **Management Portal Home page**, ensure you're in the newly created BLRAM namespace, **select Ensemble->Manage->Auto-Start Production**.

vveicome, snenae	rson	User: shenderson	Licensed to: OIT-EHR2-DEV	Instance:	HEALTHSHARE	
View:					Search:	
		Configure »	Purge Management Data			
Home	Home	Build »	Auto-Start Production			
		View »	Local Archive Manager			
A Health	Share	List »	Workflow »			
	onaro	Monitor »	Publish & Subscribe			
		Manage »	Deployment Changes »			
💽 DeepS	ee	Interoperate »				
		Test »				
<b>G</b> Ensen	nble					
Syster	n Operation					
Syster	n Explorer					
Syster	m Administration					

Figure 5-20: Ensemble > Manage > Auto-Start Production menu option

2. From the drop down list you should see BLRAM.Prod.Production, select this value and then the **Apply** button.

	User: shenderson	Licensed to: OII-EHR2-DEV	Instance: HEALIHSHARE
Apply			
Choose a production to start automatically of	on Ensemble startup, the	en click Apply:	
BLRAM.Prod.Production		<b>_</b>	
BLRAM.Prod.Production			

Figure 5-21: Ensemble > Manage > Auto-Start Production menu option

#### 5.4 Namespace configuration

#### 5.4.1 Global Mapping

1. Starting from Home Management Portal, select System Administration->Configuration->System Configuration->Namespaces.

View:	View: Search:								
		Configuration »	System Configuration »	Memory and Startup					
	Home	Security »	Connectivity »	Namespaces					
		Licensing »	Mirror Settings »	Local Databases					
	HealthShare	Encryption »	Database Backup »	Remote Databases					
(-)	neuritonare	Enterprise Manager	CSP Gateway Management	Journal Settings					
			SQL and Object Settings »						
	DeepSee		Device Settings »						
			National Language Settings »	-					
	Ensemble		Zen Reports »	-					
000			Additional Settings »						
¢	System Operation								
	System Explorer								
	System Administration								

Figure 5-22: Namespace configuration selection window

2. Select the **Global Mappings** option from the BLRAM Namespace that you created earlier in the process.



Figure 5-23: Global Mapping selection window

3. Select the **New** button.

Global Mappings		Server: HQAB User: shende	QDITDDEHR2	Namespace: % Licensed to: O	SYS	This is a D Instance:	evelopment System HEALTHSHARE
New Save Change	Discard Changes	s Cance					
The global mappings for r	namespace BLRAMC	VB are disp	layed below	r.			
Filter: Page size:	0 Max rows: 1000	Results: 1	12 Page: Ic o	∝ <mark>1</mark> » ⇒∣ of 1			
Global	Subscript	Database					
%SYS		CACHESYS	Edit	Delete			
%SYS	("HealthShare")	HSSYS	Edit	Delete			

Figure 5-24: Select the New button for Global Mappings

4. Enter your **RPMS** namespace into the **Global Database Location** field, enter **BLRTMP** into the **Global Name** field. Then select **OK**.

Map a new global in namespace	e BLRAMCMB	
Global Database Location	CMBA Required.	
Global Name	BLRTMP Required	]
Global Subscripts to be Mapped	Subscript reference must begin with an open parenthesis.	Click here to see examples
Advanced Settings		

Figure 5-25: Map a new global in the namespace

- 5. Once complete, click Save Changes.
- 6. You should now see an entry for the BLRTMP global mapped to your RPMS namespace.

Global Mapping	<u>j</u> s	Server: HQAB User: shende	QDITDDEHR2 Na rson Lio	amespace: %SYS censed to: OIT-EHR2-D	This is a [ EV Instance:	Development System HEALTHSHARE
New Sav	ve Changes Discard Change	s Cance				
The global map	pings for namespace BLRAMC	MB are disp	aved below:			
Filter:	Page size: 0 Max rows: 1000	Results: 1	13 Page:  < << <mark>1</mark>	>>>) of 1		
Global	Subscript	Database				
%SYS		CACHESYS	Edit De	lete		
%SYS	("HealthShare")	HSSYS	Edit De	lete		
» BLRTMP		CMBA	Edit De	lete		

Figure 5-26: New entry within the **Global Mapping** list.

7. Select Cancel, you will be returned to the Namespaces screen.

#### 5.4.2 Routine Mapping

1. Select the **Routine Mappings** option from the RPMS Namespace.

	Create New Namespace ORefresh: Off On 10 sec							
Cur	rent Names	paces and t	their default	databases f	for globals ar	nd routines:		
Filte	r: CMBA	Page size: 0	Max ro	ows: 1000	Results: 7 Pag	je:  < << <mark>1</mark> >> >	of 1	
	Namespace	Globals	Routines	Temp Storage				
	AGMPICMBA	AGMPICMBA	AGMPICMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	<b>BCOMCMBA</b>	BCOMCMBA	BCOMCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	BLRAMCMBA	BLRAMCMBA	BLRAMCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	BMWCMBA	BMWCMBA	BMWCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	CCDACMBA	CCDACMBA	CCDACMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	CMBA	CMBA	CMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	ERXCMBA	ERXCMBA	ERXCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete

Figure 5-27: Routine Mappings link

2. Select the **New** button.

Routine Mapping	gs	Sen Use	/er: HQABQDI r: shenderso	TDDEHR2	Namespace: % Licensed to: C	6SYS DIT-EHR2-DEV	This is a Instance:	Developmen HEALTHSH	t System IARE
New Sav	e Changes Di	scard Changes	Cancel						
The routine map	pings for names	pace CMBA are d	isplayed be	low:					
Filter:	Page size: 0	Max rows: 1000	Results: 15	Page:   < «	1 >> ⇒) of 1				
Routine	Туре	Database							
%DT*		CMBA	Edit	[	Delete				
%HOSTCMD		CMBA	Edit	[	Delete				

Figure 5-28: Routine Mappings new button

3. Enter the new BLRAM<**RPMS**> namespace into the **Routine Database** Location field, enter **BLRAMRTN** into the **Routine Name**. Then select **OK**.

Routine Database Location	BLRAMCMBA Required.	•
Routine Name	BLRAMRTN Required.	



4. Once complete click Save Changes

Routine Mappings*		Server: HQAE User: shend	QDITDDEHR2 Na erson Lie	amespace: %SYS censed to: OIT-EHR2-DEV	This is a D Instance:	evelopment System HEALTHSHARE
New Save Change	es Discard Cha	nges Cance	I			
Item(s) changed. Click 'Save Ch	anges' to save into the	Configuration file	or 'Discard Change	s' to discard all changes.		
The routine mappings for	namespace CMB	A are displayed	below:			
Filter: BLRAM Page size:	0 Max rows:	1000 Results:	2 Page:  < - « 1	» ⇒ of 1		
Routine	Type Database	e				
BLRAMRTN	BLRAMC	MBA <u>I</u>	dit Delet	<u>e</u>		

Figure 5-30: Enter Routine Database Location and Routine window

#### 5.4.3 Package Mapping

- 1. Select **Cancel**, you will be returned to the Namespaces screen.
- 2. Select the **Package Mappings** option from the RPMS Namespace.

	Create New	/ Namespac	ce 🕠 F	Refresh: 🖲 Of	ff Oon 10	sec		
Curre	ent Names	paces and f	their default	databases f	for globals ar	nd routines:		
Filter:	CMBA	Page size: 0	Max ro	ows: 1000	Results: 7 Pag	je:  ⊂ « <mark>1</mark> »> >	of 1	
	Namespace	Globals	Routines	Temp Storage				
	AGMPICMBA	AGMPICMBA	AGMPICMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	BCOMCMBA	BCOMCMBA	BCOMCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	BLRAMCMBA	BLRAMCMBA	BLRAMCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	BMWCMBA	BMWCMBA	BMWCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	CCDACMBA	CCDACMBA	CCDACMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	<u>CMBA</u>	CMBA	CMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete
	ERXCMBA	ERXCMBA	ERXCMBA	CACHETEMP	Global Mappings	Routine Mappings	Package Mappings	Delete

Figure 5-31: Enter Routine Database Location and Routine window

3. Select the **New** button.

Routine Mappings	Sei	rver: HQABQE er: shenders	OITDDEHR2	Namespace: Licensed to:	%SYS OIT-EHR2-DEV	This is a D Instance:	evelopment System HEALTHSHARE
New Save Changes D	iscard Changes	Cancel					
The souting mennings for some		lianlaured b	alaur				
The routine mappings for names	pace CivibA are c	isplayed b	elow.				
Filter: Page size: 0	Max rows: 1000	Results: 15	Page:   < ‹‹	1 ≫ ⇒ of 1			
Routine Type	Database						
%DT*	CMBA	Ed	t	Delete			
%HOSTCMD	CMBA	Ed	t	Delete			

Figure 5-32: Enter Routine Database Location and Routine window

 Enter the new BLRAM<RPMS> namespace into the Routine Database Location field, enter BLRAM.Prod.Util into the Package Name. Then select OK.

Package Map	pping
Edit package mapping in na	amespace CMBA
Package Database Location	BLRAMCMBA
Package Name	BLRAM.Prod.Util

Figure 5-33: Enter Routine Database Location and Routine window

5. Once complete, click Save Changes.

Package Mappings*	Server: HQABQDITDDEHR2 User: shenderson	Namespace: %SYS Licensed to: OIT-EHR2-	This is a Development System DEV Instance: HEALTHSHARE
New Save Changes Discard	Changes Cancel		
Item(s) changed. Click 'Save Changes' to save in	to the Configuration file or 'Discard Ch	anges' to discard all chan	ges.
The package mappings for namespace	CMBA are displayed below:		
Filter: BLRAM Page size: 0 Max ro	ows: 1000 Results: 1 Page:   < <	: <mark>1</mark> ≫ → of 1	
Package Databa	ase		
» BLRAM.Prod.Util BLRAM	VCMBA Edit	Delete	

Figure 5-34: Enter Routine Database Location and Routine window

### 5.5 Configure the Production

 Return to the Home->Ensemble->Configure page and select Production. Be sure the Namespace is the BLRAM<RPMS> namespace you just created and used during the XML Import.

Welcome, shenderson	Server: HQABQDITDDEHR2 User: shenderson	Namespace: BLRAMCMBA_Switch This is a Development System Licensed to: OIT-EHR2-DEV Instance: HEALTH SHARE
View:		Search:
Home	Configure »	Production
	Build »	Business Partners
	View »	Credentials
HealthShare	List »	Schedule Specs
	Monitor »	Data Lookup Tables
	Manage »	System Default Settings
DeepSee	Interoperate »	Enterprise Systems
	Test »	Public-Service Registry
		External-Service Registry
5 Ensemble		Message Bank Link
System Operation		
System Explorer		
System Administration		

Figure 5-35: Configure the Production window

2. Select **OPEN**.

BLRAM.Prod.Production	Server: HQABQDITDDEHR2 Nam User: shenderson Lice	espace: BLRAMCMB Switch This is a Development System 1sed to: OIT-EHR2-DEV Instance: HEALTHSHARE		HealthShare
View:	Start Stop	O Refresh: ○on ●off Sort: Name Status N	√umber	Production Configuration
Production Stopped		Category: All V Le	gend Production Settings Pro	oduction Settings
Services 🔹	Processes 👲	Operations 💮	Sett	ings Queue Log Messages Jobs Actions
<ul> <li>Alert</li> </ul>	<ul> <li>BuildDocuments(s)</li> </ul>	EmailAlert	004	ango docor cog mocodges roos recents
Receive Job information	Ens.Alert	Save Doc	A	pply 🔻 🗐 Search:
				Informational Settings
				Description
				This Ensemble Production facilitates the receiving of
			-	Basic Settings

Figure 5-36: Enter Routine Database Location and Routine window

#### 3. Select BLRAM.Prod.Production.

Finder Dialog						×
View:		Sort: Name	Date	Search	]	Finder
Production	BLRAM »	<u>^</u>	Prod »	<u>^</u>	Production	^
Select a class from the options on the right	HS »					
					Cancel	ок

Figure 5-37: Select BLRAM production window

#### 5.5.1 Business Operations

#### 5.5.1.1 EmailAlert

1. Select the **EmailAlert** BO from the right side of the left pane and then the Settings tab, the first tab within the right-side pane.



Figure 5-38: EmailAlert Operation Configuration window

- 2. If the value of the SMTP Server or Port field(s), within the Basic Settings group, are incorrect for your site, please update with the correct values.
- 3. Within the Additional Settings group, update the recipient/Cc/Bcc field(s) with the email addresses of individuals that need to be notified if an issue occurs within the BLRAM Production. Separate each address with a semicolon, for ease of maintenance the use of group email addresses are recommended.
- 4. Place a string value within the From field of the Additional Settings group, with the following format.

BLRAM-<facility ID>@donotreply.domain.org

(Example)

BLRAM-9999@donotreply.ihs.gov

5. Click **Apply** before moving to the next BO.

#### 5.5.1.2 Save Doc

1. Select the **Save Doc** BO from the right side of the left pane and then the Settings tab, the first tab within the right-side pane.

BLRAM.Prod.Production	Server: HQABQDITDDEHR2 Namespace: E User: shenderson Licensed to: C	LRAMCMBA Switch This is a Development System NT-EHR2-DEV Instance: HEALTHSHARE	n	HealthShare
View: Star	Stop Q	Refresh: O ON  Off Sort: Name St	tatus Number	Production Configuration
Production Stopped Services ⊕ Receive Job Information	Processes  Puid Document(s) Ens Alert	Category: [All V Operations + Save Doc	Legend Production Settings (	Save Doc Settings Queue Log Messages Jobs Action Acycly V & Search Enabled External Registry ID File Path C :BLAM/CreatedFiles) C :B

Figure 5-39: Enter Routine Database Location and Routine window

- 2. Set the value of the **File Path** field to a directory, if a different location is to be used when saving the antimicrobial files.
- 3. Click Apply.

### 5.6 Start the Production

1. Once you have entered and confirmed the configuration settings, click Start.

BLRAM.Prod.Production	Server: HQABQDITDDEHR2 Namespa User: shenderson Licensed	ce: BLRAMCMBA_Switch This is a Development System lo: OIT-EHR2-DEV Instance: HEALTHSHARE		HealthShare
View:	Start Stop	Refresh: O on @ off Sort: Name Status Number		Production Configuration
Protections Stepped Services - Receive Job Information	Processes O Build Document(s) Ens Alert	Category (AI  Operations a) Legend Operations Save Doc	Production Settings Settings Settings Page Page Settings Page	b information be Log Messages John Actions be Search ings val mfg Names unnen(s) V

Figure 5-40: Start the Production window

All buttons should turn green.

BLRAM.Prod.Production	Server: HOABQDITDDEHR2 Namespace: BLRA User: shenderson Licensed to: OIT-E	MCMBA Switch This is a Development System HR2-DEV Instance: HEALTHSHARE		HealthShare
View:	Start Stop Q Ref	resh: O ON I Off Sort: Name Status Number	Pr	oduction Configuration
Production Running Services	Processes 🚽	Category: All   Legend  Operations	Production Settings Receive Job information	ation
Receive Job information	<ul> <li>Build Document(s)</li> <li>Ens Alert</li> </ul>	<ul> <li>EmailAlert</li> <li>Save Doc</li> </ul>	Settings Queue Log Me Apply V B Search Basic Settings	issages Jobs Actions
			Enabled	

Figure 5-41: Production Running displays in green

A button that is not green indicates something is wrong with that item. It could be an incorrect configuration setting, or it could indicate that the connection is unavailable. Use the **Log** tab for the red item to obtain an indication of the issue.

The BLRAM production is now installed and running.

## 6.0 Installation Configuration

- 1. Log on to the System Management Portal and select System Operation > Task Manager > New Task.
- 2. Set the following values within the Task Scheduler Wizard first screen.

Table 6-1: Task Scheduler, Task Name, Message Purge

Task name	Message Purge
Description	Purge Messages older than 14 days
Namespace to run task in	The namespace used for the BLRAM production (example: BLRAMCMBA)
Task type	Ens.Util.Tasks.Purge
KeepIntegrity	check this box
NumberOfDaysToKeep	14
TypesToPurge	All Types
Task priority	Priority Normal
Run task as this user	_SYSTEM
Leave the default values for the remainder of fields for this screen	

3. Select Next and set the following values within the Task Scheduler Wizard second screen.

Table 6-2: Task Scheduler Wizard

How often do youtask?	Weekly Every 2 weeks Check the Sunday box
Start Date	Leave default populated value
End Date	Leave blank
Run once at this time	03:00:00

4. Select finish.

## 7.0 Export Testing

### 7.1 Schedule Initial Extracts

Before scheduling the recurring task, you should run initial extracts for both Lab and Pharmacy data by using the **AREX** option on the **BLRAM Export Menu** (**BLRAMMENU**) and then the **AUEX option on the BLRAU Export Menu** (**BLRAUMENU**), respectively. Due to the potential size of the files to be created, please queue this process to run in the background. Once the files are created, please contact the OIT AUR Team in order to selectsamples of these initial AREX Export and AUEX Export to batch messages for testing with the NHSN pre-production portal.

### 7.1.1 Initial Lab Export (AREX)

The **AREX** option is used to generate an export of microbiology and lab test results for antimicrobial resistance to the export directory configured in the BLRAM Ensemble Production. During the export process, lab results are compiled and then submitted to the Clinical Document Architecture (CDA) document generator to create Antimicrobial Resistance Option (ARO) Numerator and Summary Reports in CDA format (HL7 v3) documents. Once all labs are identified, output files will automatically be created and written to the export directory.

```
Select Antimicrobial Resistance Reporting System Option: AREX Generate
Antimicrobial Resistance Transmission
This option will generate a transmission of Antimicrobial Resistance
Reporting transactions for the previous month.
You may "^" out at any prompt and will be asked to confirm your entries
prior to generating the transmission.
The date range for this run is Feb 2024. Feb 01, 2024 to Feb 29, 2024.
In order to accurately calculate the patient days and admissions, the ADT
Census must be Recalculated up through Feb 29, 2024
The computer database location for this run is 2021 DEMO HOSPITAL (INST).
Do you want to continue? N// YES
Generating New Log entry.
Do you want to QUEUE this to run at a later time? N// O
Generating Antimicrobial Resistance transactions.
                                                    (21)
Updating log entry.
```

#### Figure 7-1: Sample Interaction to Generate an Antimicrobial Resistance Transmission

#### 7.1.2 Initial Pharmacy Export (AUEX)

The process of generating the AUP Summary reports may take several minutes to complete after this option is executed. Users will not see the output files in the export directory until the CDA document generation has completed, even though the user has been brought back to the menu. A log entry is then created in the **BLRAU EXPORT LOG** file.Initial Pharmacy Extract (AUEX).

The AUEX option is used to generate an export of antimicrobial pharmacy data for antimicrobial use to the export directory configured in the BLRAM Ensemble Production. During the export process, medication administration data is compiled and then submitted to the CDA document generator to create Antimicrobial Use Reporting (AUP) Summary Reports in CDA format (HL7 v3) documents. Once all medications administered are identified, output files will automatically be created and written to the export directory.

The process of generating the AUP Summary reports may take several minutes to complete after this option is executed. You will not see the output files in the export directory until the CDA document generation has completed, even though you have been brought back to your menu. A log entry is then created in the **BLRAU EXPORT LOG** file.

```
Select Antimicrobial Use Reporting System Option: AUEX Generate
Antimicrobial Use Report
This option will generate a transmission of an Antimicrobial Use
Report for a specified month/year.
You may "^" out at any prompt and will be ask to confirm your entries
prior to generating the transmission.
The date range for this run is Feb 2024. Feb 01, 2024 to Feb 29, 2024.
The computer database location for this run is 2021 DEMO HOSPITAL (INST).
Do you want to continue? N// YES
Generating New Log entry.
Do you want to QUEUE this to run at a later time? N// O
Generating Antimicrobial Use report. ... hold on .
Updating log entry.
RUN TIME (H.M.S): 0.0.3
```

Figure 7-2: Sample Interaction to Generate an Antimicrobial Use Report Extract

## 8.0 Initiate the NHSN Onboarding Process

Following the successful test exports, it is recommended that your site work with the IHS OIT AUR Team to initiate the onboarding process with NHSN which is the entity that will be receiving these export files. This process is separate from the RPMS and Ensemble install process and documented separately. Please reach out to the OIT AUR Team to work through these tasks. The OIT AUR Team will help validate the file format before completing the transition from pre-production mode to production mode.

## 9.0 Sample Installations

### 9.1 Sample RPMS KIDS Install

```
NOTE: This example install was done on a development system, which
        is why the "was loaded" message appears.
Select OPTION NAME: XPD MAIN
                                 Kernel Installation & Distribution System
         Edits and Distribution ...
         Utilities ...
          Installation ...
          Patch Monitor Main Menu ...
Select Kernel Installation & Distribution System <TEST ACCOUNT> Option:
INSTALLation
         Load a Distribution
  1
   2
         Verify Checksums in Transport Global
  3
         Print Transport Global
  4
         Compare Transport Global to Current System
  5
        Backup a Transport Global
  6
         Install Package(s)
         Restart Install of Package(s)
         Unload a Distribution
Select Installation <TEST ACCOUNT> Option: 1 Load a Distribution
Enter a Host File: G:\EXPORT\lr 0520.55k
KIDS Distribution saved on May 17, 2024@10:01
Comment: IHS Lab Patch LR*5.2*1055
This Distribution contains Transport Globals for the following Package(s):
Build LR*5.2*1055 has been loaded before, here is when:
     LR*5.2*1055 Install Completed
                  was loaded on Feb 20, 2024@13:21:55
     LR*5.2*1055 Install Completed
                   was loaded on Feb 20, 2024@13:27:10
     LR*5.2*1055 Install Completed
                   was loaded on Mar 12, 2024@05:20:56
     LR*5.2*1055 Install Completed
                   was loaded on Mar 13, 2024@07:20:47
     LR*5.2*1055 Install Completed
                   was loaded on Mar 13, 2024@11:13:39
     LR*5.2*1055 Install Completed
                   was loaded on Apr 18, 2024@05:19:05
     LR*5.2*1055 Install Completed
                   was loaded on Apr 19, 2024@05:18:35
     LR*5.2*1055 Install Completed
                   was loaded on Apr 23, 2024@05:37:39
     LR*5.2*1055 Install Completed
                   was loaded on Apr 23, 2024@13:05:33
      LR*5.2*1055
                   Install Completed
                   was loaded on Apr 24, 2024@14:01:52
     LR*5.2*1055
                   Install Completed
                   was loaded on Apr 24, 2024@14:14:14
     LR*5.2*1055 Install Completed
```

Installation Guide and Release Notes AUR June 2024

was loaded on Apr 26, 2024@10:12:36 LR\*5.2\*1055 Install Completed was loaded on Apr 29, 2024@08:14:30 LR\*5.2\*1055 Install Completed was loaded on May 01, 2024@23:36:50 LR\*5.2\*1055 Install Completed was loaded on May 17, 2024@09:54:38 OK to continue with Load? NO// YES Distribution OK! Want to Continue with Load? YES// Loading Distribution... LR\*5.2\*1055 Use INSTALL NAME: LR\*5.2\*1055 to install this Distribution. Load a Distribution 1 Verify Checksums in Transport Global 2 3 Print Transport Global 4 Compare Transport Global to Current System 5 Backup a Transport Global Install Package(s) 6 Restart Install of Package(s) Unload a Distribution Select Installation <TEST ACCOUNT> Option: INSTALl Package(s) Select INSTALL NAME: LR\*5.2\*1055 Loaded from Distribution 5/17/24@10:03 :47 => IHS Lab Patch LR\*5.2\*1055 ;Created on May 17, 2024@10:01 This Distribution was loaded on May 17, 2024@10:03:47 with header of IHS Lab Patch LR\*5.2\*1055 ;Created on May 17, 2024@10:01 It consisted of the following Install(s): LR\*5.2\*1055 Checking Install for Package LR\*5.2\*1055 Install Questions for LR\*5.2\*1055 Incoming Files: TOPOGRAPHY FIELD 61 Note: You already have the 'TOPOGRAPHY FIELD' File. IHS LAB CCA §170.315f(6) SNOMED Codes (including data) 90476 Note: You already have the 'IHS LAB CCA \$170.315f(6) SNOMED Codes' File. I will REPLACE your data with mine. 90476.1 BLRAM EXPORT SPECIMEN SNOMED CODES (including data) Note: You already have the 'BLRAM EXPORT SPECIMEN SNOMED CODES' File. I will REPLACE your data with mine. 90476.2 BLRAU EXPORTABLE DRUGS (including data) Note: You already have the 'BLRAU EXPORTABLE DRUGS' File. I will REPLACE your data with mine.

Installation Guide and Release Notes AUR June 2024

9000010.25V MICROBIOLOGY Note: You already have the 'V MICROBIOLOGY' File. 9009026.81BLRAM ANTIMICROBIAL RESISTANCE LOG Note: You already have the 'BLRAM ANTIMICROBIAL RESISTANCE LOG' File. 9009026.82BLRAU ANTIMICROBIAL USE LOG Note: You already have the 'BLRAU ANTIMICROBIAL USE LOG' File. 9009026.83BLRAU ANTIMICROB USE SITE PARAMETERS Note: You already have the 'BLRAU ANTIMICROB USE SITE PARAMETERS' File. 9009026.8301BLRAU NHSN LOCATION (WARD) CODES (including data) Note: You already have the 'BLRAU NHSN LOCATION (WARD) CODES' File. I will REPLACE your data with mine. 9009026.8382BLRAU MEDICATION ROUTE (including data) Note: You already have the 'BLRAU MEDICATION ROUTE' File. I will REPLACE your data with mine. 9009026.84BLRAM EXPORT ITEMS (including data) Note: You already have the 'BLRAM EXPORT ITEMS' File. I will REPLACE your data with mine. Incoming Mail Groups: Enter the Coordinator for Mail Group 'F6 ALERTS': Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO// Want KIDS to INHIBIT LOGONs during the install? NO// Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO// Enter the Device you want to print the Install messages. You can queue the install by enter a 'Q' at the device prompt. Enter a '^' to abort the install. DEVICE: HOME// Virtual LR\*5.2\*1055 Install Started for LR\*5.2\*1055 : May 17, 2024@10:04 Build Distribution Date: May 17, 2024 Installing Routines: May 17, 2024@10:04 Running Pre-Install Routine: PRE^BLRPRE55 LR\*5.2\*1055 Pre Install begins.

Installation Guide and Release Notes AUR June 2024

```
Clearing IHS LAB CCA §170.315f(6) SNOMED Codes (#90476) File
 110
                        220
 330
 440
 550
 660
 770
 880
                        990
  1,109
 . . . .
 1109 entries were in file 90476.
   1109 entries were deleted.
Clearing BLRAM EXPORT SPECIMEN SNOMED CODES (#90476.1) File
                        110
 137
 . . . . . . . . . . . . .
  137 entries were in file 90476.1.
   137 entries were deleted.
Clearing BLRAU EXPORTABLE DRUGS (#90476.2) File
                         96
 96 entries were in file 90476.2.
   96 entries were deleted.
Clearing BLRAM EXPORT ITEMS (#9009026.84) File
                        110
 220
 330
                        440
 550
  660
                        770
 880
 990
 1,100
                       1,109
 . . . .
 1109 entries were in file 9009026.84.
   1109 entries were deleted.
LR*5.2*1055 Pre Install ends.
Installing Data Dictionaries:
     May 17, 2024@10:04:10
Installing Data:
     May 17, 2024@10:04:14
Installing PACKAGE COMPONENTS:
```

Installation Guide and Release Notes AUR June 2024

Installing SECURITY KEY Installing INPUT TEMPLATE Installing MAIL GROUP Installing PROTOCOL Installing LIST TEMPLATE Installing OPTION May 17, 2024@10:04:14 Running Post-Install Routine: POST^BLRPST55 LR\*5.2\*1055 Post Install begins. Adding Option BLRPCCER to BLRMENU. "BLRPCCER" Option Added. Completed Adding BLRPCCER Option to BLRMENU. Adding Option BLRPCCER to BLRMENU V2 REPORTS. "BLRPCCER" Option Added. Completed Adding BLRPCCER Option to BLRMENU V2 REPORTS. Re-indexing APCDT (COLLECTION DATE AND TIME) Cross-Reference on V MICROBIOLOGY..... . . . . . . . . . . . . Re-indexing APATCD (COMPLETE DATE) Cross-Reference on V MICROBIOLOGY..... 

Installation Guide and Release Notes AUR June 2024

Re-indexing
ACD (COMPLETE DATE)
Cross-Reference on V MICROBIOLOGY
•••••••
Re-indexing ORGANISM trigger on V MICROBIOLOGY
Re-indexing ORGANISM trigger on V MICROBIOLOGY.
Re-indexing ORGANISM trigger on V MICROBIOLOGY
Re-indexing ORGANISM trigger on V MICROBIOLOGY.
Re-indexing ORGANISM trigger on V MICROBIOLOGY.
Re-indexing ORGANISM trigger on V MICROBIOLOGY.
Re-indexing ORGANISM trigger on V MICROBIOLOGY
Re-indexing ORGANISM trigger on V MICROBIOLOGY.

Installation Guide and Release Notes AUR June 2024

Re-indexing SITE trigger on V MICROBIOLOGY..... LR\*5.2\*1055 Post Install ends. Updating Routine file... Updating KIDS files... LR\*5.2\*1055 Installed.

Figure 9-1: Sample Installation screen

## Setup Checklist

Process	Resource Responsible	Date Completed
Confirm Lab Test Setup	Lab Staff	
Confirm Pharmacy Setup	Pharmacy Staff	
Setup BLRAM User Access	Site Admin	
Configure BLRAM Export Settings	Designated Staff	
Run Test Export – Previous Month	Designated Staff	
Initiate Onboarding with NHSN	Designated Staff	
Add Locations for NHSN Reporting	Designated Staff	
Upload Export File(s) to NHSN Portal	Designated Staff	

## Glossary

#### Health Level 7

An international standard messaging system for passing data from one site to another. The AU/AU exports format data from RPMS to the NHSN using HL7 messages.

#### Onboarding

In order to attest to the CMS measure, the site will need to register with NHSN to indicate participation in the Patient Safety with the AUR module. The site will receive an NHSN assigned Facility OID to update in the AUR site parameters to allow the upload of the monthly files to NHSN.

## Acronym List

Acronym	Meaning
ARO	Antimicrobial Resistance Option
AUP	Antimicrobial Use
AUR	Antimicrobial Use and Resistance
CDA	Clinical Document Architecture
CDC	Centers for Disease Control and Prevention
DNS	Domain Name System
ELR	Electronic Lab Reporting
FTP	File Transfer Protocol
HAI	Healthcare Associated Infection
HHS	Health and Human Services
HL7	Health Level Seven
ICD	International Classification of Disease
IHS	Indian Health Service
IP	Internet Protocol
LOINC	Logical Observation Identifiers Names and Codes
NHSN	National Health and Safety Network
PCC	Patient Care Component
RPMS	Resource and Patient Management System
SFTP	Secure Shell File Transfer Protocol
SVAP	Standards Version Advancement Process

## **Contact Information**

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

Phone: (888) 830-7280 (toll free)

- Web: <u>https://www.ihs.gov/itsupport/</u>
- Email: itsupport@ihs.gov