VistA Lab Enhancements – Microbiology

Release: Lab Micro Interface Release 1.0 (combined build for LA*5.2*90 and LR*5.2*474)

Deployment, Installation, Back-out, and Rollback Guide

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Artifact Rationale

This document describes the Deployment, Installation, Back-out, and Rollback Plan for new products going into the VA Enterprise. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities involved in all those activities. Its purpose is to provide clients, stakeholders, and support personnel with a smooth transition to the new product or software, and should be structured appropriately, to reflect particulars of these procedures at a single or at multiple locations.

Per the Veteran-focused Integrated Process (VIP) Guide, the Deployment, Installation, Back-out, and Rollback Plan is required to be completed prior to Critical Decision Point #2 (CD #2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

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1 Introduction

The Installation, Back-out, Rollback Guide defines the ordered, technical steps required to install the product, and if necessary, to back-out the installation, and to roll back to the previously installed version of the product. It provides installation instructions for the VistA Lab Enhancements (VLE) Microbiology project, release Lab Micro Interface Release 1.0.

The releases shall be distributed as follows:
- Lab Micro Interface Release 1.0, Kernel Information and Distribution System (KIDS) build available via Secure File Transfer Protocol (SFTP) from download.vista.med.va.gov

The Lab Micro Interface Release 1.0 is a combined build that contains the LR*5.2*474 and the LA*5.2*90 patches. The combined build will support the electronic bidirectional communication of automated identification and susceptibility testing instruments with the VistA Laboratory Universal Interface (UI) through middleware or a generic instrument manager.

Patch LR*5.2*474 will provide new functionality to the Enter/Verify Data option of the Lab UI package. Three new release actions will now be available to the Technologist with the authority to release results. Results will be available to the applicable authorized clinicians and providers. In addition, the patch will allow a VA Medical Center the option of setting release defaults at the Package or User level.

Patch LA*5.2*90 will provide the constructs necessary to allow Microbiology or MI subscripted tests to be added to an Auto Instrument entry. An enhancement is also included for antibiotic susceptibility result processing which will now allow laboratories the ability to report susceptibilities to antimicrobial agents by utilizing SNOMED CT codes such as Positive and Negative. The handling of variations is also included in the build, such as the reporting of extended-spectrum beta-lactamases or ESBL enzymes that are resistant to most beta-lactam antibiotics. Locally mapped codes using an "L" for code set ID will now be processed for antibiotic susceptibilities.

All of the following SNOMED CT codes shall be supported with the release of patch LA*5.2*90:

- 131196009   Susceptible
- 260357007   Moderately susceptible
- 264841006   Intermediately susceptible
- 30714006   Resistant
- 10828004   Positive
- 260385009   Negative

1.1 Purpose

The purpose of this guide is to provide a single, common document that describes how, when, where, and to whom the Lab Micro Interface Release 1.0 build will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The plan also identifies

resources, communications plan, and rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

1.2 Dependencies

Patch LA*5.2*90 includes the following dependencies:

- LA*5.2*74
- LA*5.2*88

Patch LR*5.2*474 includes the following dependencies:

- LR*5.2*221
- LR*5.2*291
- LR*5.2*416
- LR*5.2*422
- LR*5.2*433
- LR*5.2*453

1.3 Constraints

Security controls will be inherited from VistA and therefore will be fully compliant with National Institute of Standards and Technology (NIST) controls and in compliance with Directive 6500. In addition, Lab Micro Interface Release 1.0 will be 508 compliant and designed to ensure no performance impacts will be experienced in the production environments.

1.4 Orientation

This section addresses package or audience specific notations or directions (e.g., symbols used to indicate terminal dialogues or user responses) for the installation instructions included in this document.

All headings and text in this guide are intentionally formatted flush left, regardless of the heading level, to save space and to make for better readability.

In tables which list mandatory steps (as for installation and post-installation), a column is provided at the right-hand side so that users may check (✔) off the step as it is performed.

1.4.1 Computer Dialogue

The computer dialogue will appear in Courier New 11-point font.
Example: `Courier New font 11 points`

1.4.2 Instructions

Instructions will appear in Arial 11-point font.

Example: Arial font 11 points

1.4.3 User Response

User entry responses will appear in Courier New 11-point font.

Example: `Courier New font 11 points`

In VistA, every response you type must be followed by pressing the **< Return >** key or the **< Enter >** key.

2 Roles and Responsibilities

The deployment, installation, back-out, and roll-back roles and responsibilities are outlined in Table 1 which also lists the teams that will perform the tasks described in this guide.

Table 1: Roles and Responsibilities

ID	Team	Phase / Role	Tasks
1	Field Operations (FO)	Deployment	Plan and schedule deployment (including orchestration with vendors).
2	FO	Deployment	Determine and document the roles and responsibilities of those involved in the deployment.
3	FO	Deployment	Test for operational readiness.
4	FO	Deployment	Execute deployment.
5	FO	Installation	Plan and schedule installation.
6	FO	Installation	Ensure authority to operate and that certificate authority security documentation is in place.
7	FO	Installation	Validate through facility point of contact to ensure that IT equipment has been accepted using asset inventory processes.
8	FO	Installations	Coordinate training.
9	FO	Back-out	Confirm availability of back-out instructions and back-out strategy.
10	FO	Post Deployment	Hardware, Software and System Support.

3 Deployment

The Microbiology (Micro) Initiative is a collaborative solution between the VistA Laboratory Enhancement (VLE) Team and Clinical Laboratory personnel. This solution provides Micro Laboratory Technologists a system that integrates with the existing VistA Microbiology system.

A National Release is planned for January 2017 after testing has been successfully completed at two Test Sites.

Deployment will be performed by Local Facility staff and supported by team members from one or more of the operations organizations: Enterprise Systems Engineering (ESE), Field Operations (FO), Enterprise Operations (EO), and/or others.

3.1 Site Preparation

Each site must prepare for the deployment, installation, and implementation of the Micro capabilities. The extent for which they must prepare will vary based upon the sites current processes.

The following table describes preparation required by the site prior to deployment.

Table 2: Site Preparation

Site/Other	Problem/Change Needed	Features to Adapt/Modify to New Product	Actions/Steps	Owner
All	Determine changes to current processes.	Existing Micro MDRO and Instrument interface procedures.	Evaluate how new processes differ from current processes and adapt training accordingly.	Micro Technologists, Laboratory Information Managers (LIMs), Facility Business Owners
Sites using a VistA Micro currently.	Evaluate configuration changes that will need to be made to adapt to new Micro enhancements.	Existing Order Menus, Order Sets, and Quick Orders.	If using Generic Lab or Consult Order Types, determine if there are ordering menus, sets, and/or quick orders that need to be modified.	Micro Technologists, LIMs, Facility Business Owners

3.2 Software

The following table describes software specifications required at each site prior to deployment for the Lab Micro Interface Release 1.0.

Table 3: Software Specifications

Required Software	Manufacturer	Other
The following prerequisite release is required for the Lab Micro Interface Release 1.0: • **Lab Auto Release 1.0** (LR*5.2*458 and LA*5.2*88)	Not applicable.	Local OI&T staff will provide the assistance needed to ensure that the users have the latest patches and upgrades required for the build.
Data Innovations Instrument Manager (IM) version 8.13.03 or greater.	Data Innovations	Local OI&T staff and Data Innovations support will provide the assistance needed to ensure that the users have version 8.13.03 or greater of the IM for the utilization of the full functionality in the Lab Micro Interface Release 1.0 build.
VA Hybrid Health Level Seven (HL7) driver v8.00.0018 or greater.	Not applicable.	Local OI&T staff will provide the assistance needed to ensure that the users have the latest HL7 driver.

3.3 Communications

Technicians will use email and conference calls for communication during the deployment; email and/or conference calls will be utilized to notify the stakeholders of the successful release of the product.

4 Pre-Installation and Installation Preparation Instructions

This section provides pre-installation and installation preparation instructions for the Lab Micro Interface Release 1.0 build.

4.1 Platform Installation and Preparation

The Lab Micro Interface Release 1.0 installation must be coordinated with the Laboratory Automated Data Processing Application Coordinator (ADPAC) at each site.

4.2 Installation Timing Recommendation

The Lab Micro Interface Release 1.0 may be loaded with users on the system if the Lab Interface related activities have been halted, which includes, but is not limited to, the following:

- Editing of an Auto Instrument file entry.
- Turning off the Auto Downloading process to prevent the building and downloading of a Load/Worklist to the Instrument Manager.

- Shutting down all LA7UI logical links and any other HL7 process (HLZTCP or HLLP processes) to prevent the processing of result messages from the IM.

4.2.1 Estimated Timing

The installation will take less than 5 minutes.

4.2.2 Kernel Patches

Kernel patches must be current on the target system to avoid problems loading and/or installing this patch.

4.2.3 Global Growth

There is no significant change to global growth.

4.3 Download and Extract Files

The product and associated documentation will be available via the National Patch Tracking Module in FORUM and the SOFTWARE.DIR directory at the OI&T Field Offices listed below.

- Albany   ftp.fo-albany.med.va.gov
- Hines   ftp.fo-hines.med.va.gov
- Salt Lake City   ftp.fo-slc.med.va.gov

The preferred method is to retrieve the file(s) using Secure File Transfer Protocol (SFTP) from download.vista.med.va.gov, which transmits files from the first available SFTP server.

Table 4: Files for Retrieval

File Name	Contents	Retrieval Format
LAB_MICRO_INTERFACE_ RELEASE_1_0.KID	Host File containing ASCII	ASCII
LAB_MICRO_INTERFACE_ RELEASE_1_0_DOCS.ZIP	VLE Micro_Lab_Micro_Interface_Release_1.0_ Technical_Manual VLE Micro_Lab_Micro_Interface_Release_1.0_ User_Guide VLE Micro_Deployment_Installation_Roll Back_Back Out_Guide	Binary

4.4 Access Requirements and Skills Needed for the Installation

This guide is written with the assumption that the reader is experienced or familiar with the following:

- VistA computing environment
- VA FileMan data structures and terminology
- Microsoft Windows

Local or Regional OI&T staff will coordinate the patch installation with the Laboratory Information Manager (LIM) at each site. The Local or Regional OI&T staff have the necessary access and skill set to conduct the installation.

4.5 Pre-Installation and System Requirements

The Lab Micro Interface Release 1.0 installation must be coordinated with the Laboratory Automated Data Processing Application Coordinator (ADPAC) to ensure that all Lab Interface related activities are halted.

4.6 Installation Procedure

Follow the instructions outlined in the Table below to install the software.

Table 5: M Code Installation Instructions

Step #	Description	✔
1	Access the `KIDS` menu (`XPD MAIN`).	
2	From the `KIDS` menu, select the `Installation` menu.	
3	From the `Installation` menu, select option #1: `Load a Distribution`.	
4	When prompted, '`Enter a Host File:`', select `LAB_MICRO_INTERFACE_RELEASE_1_0.KID`	
5	When prompted, '`Want to Continue with Load? YES//`', respond "`Yes`".	
6	When prompted, '`Want to RUN the Environment Check Routine? YES//`' respond "`Yes`".	
7	From the `Installation` menu, select option #2, `Verify Checksums in Transport Global`.	
8	When prompted '`Select INSTALL NAME:`' respond '`LA*5.2*90`'	

Step #		Description	✔
9		When prompted 'Want each Routine Listed with Checksums: Yes//' respond "Yes"	
	a	Verify the following routine information for LA*5.2*90:	

		`LA7VHLU6  Calculated   58736241`
		`LA7VIN2A  Calculated   34485992`
		`LA7VIN7   Calculated   83943151`
		`LA7VIN7A  Calculated   61187996`
		`LA7VIN7B  Calculated   65792075`
		`LA90A     Calculated    5670536`	

	b	Verify the following routine information for LR*5.2*474:	

		`LRMIEDZ2  Calculated   72283385`
		`LRVR0     Calculated  154172378`
		`LRVRMI2   Calculated   36282264`
		`LRVRMI2A  Calculated   78602425`
		`LRVRMI3   Calculated   26756120`
		`LRVRMI4   Calculated   39771458`
		`LRVRMI4A  Calculated   96471289`	

10		From the Installation menu, select option #3, Print Transport Global	
11		When prompted 'Select INSTALL NAME:' respond 'LA*5.2*90'	
12		When prompted 'Select one of the following:" respond "1" for Print Summary.	
13		When prompted 'Want each Routine Listed with Checksums: Yes//' respond "Yes"	
14		From the Installation menu, select option #4, Compare Transport Global to Current System.	
15		When prompted 'Select INSTALL NAME:' respond 'LA*5.2*90'	
16		When prompted 'Select one of the following:" respond "2" for Second line of Routines only.	
17		From the Installation menu, select option #5: Backup a Global Transport.	
18		When prompted 'Select INSTALL NAME:' respond 'LA*5.2*90'	
19		From the Installation menu, select option #6: Install Package(s).	
20		When prompted 'Select INSTALL NAME:' respond 'LA*5.2*90'	
21		When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//', respond "NO".	
22		When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//', respond "NO".	

Step #	Description	✔
23	When prompted `'Want KIDS to INHIBIT LOGONs during the install? NO//'`, respond `"NO"`.	
24	When prompted `'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//'`, respond `"NO"`.	
25	If prompted `'Delay Install (Minutes): (0 - 60): 0//'`, respond `"NO"`.	
26	After receiving the message `'Install Completed'`, print out the Install for both the LA*5.2*90 and the LR*5.2*474 patches. From the `KIDS` menu, select the `Utilities` menu.	
27	From the `Utilities` menu, select `Install File Print`.	
28	When prompted `'Select INSTALL NAME:'` respond `'LA*5.2*90'`	
29	From the `Utilities` menu, select `Install File Print`.	
30	When prompted `'Select INSTALL NAME:'` respond `'LR*5.2*474'`	
31	Save all printouts.	

5 Back-Out Procedure

The build does not make any changes that would affect the operational state of the software and platform settings. The functionality in the Lab Micro Interface Release 1.0 build will not be available until the installation process has been successfully completed.

5.1 Back-Out Strategy

During installation, if the option to back up routines was run as directed, 'Backup a Transport Global', then routines have the ability to be restored from the "backup" MailMan message that was generated. However, the KIDS installation process does not perform a restore of other VistA components, such as data dictionary, cross-reference, and template changes, etc.

Prior to attempting a back-out of the software, please contact the VA Help Desk at 1-855-673-4357 for support or assistance.

5.2 Back-Out Considerations

The LIM and the Chief of Pathology have the authority to order the back-out.

5.3 Back-Out Criteria

Criteria for a back-out includes, but are not limited, to the following:

    a.   Failed baseline testing.

b. Non-recoverable software error.

5.4 Back-Out Risks

No back-out risks have been determined at this time.

5.5 Authority for Back-Out

The LIM and the Chief of Pathology have the authority to order the Back-out Procedure.

5.6 Back-Out Procedure

The need for a back-out is highly unlikely, however if it is required, please contact the Product Support team for assistance.

6 Rollback Procedure

The LR*5.2*474 and LA*5.2*90 patches (part of the combined build, Lab Micro Interface Release 1.0) as well as any installed dependent patch changes that follow these releases need to be taken out in reverse of the order in which they were installed; routines and data dictionary modifications and populated data must also be rolled back in reverse order.

Please contact the VA Help Desk at 1-855-763-4357 for support or assistance regarding roll-back procedures.

6.1 Rollback Considerations

No rollback considerations have been determined at this time.

6.2 Rollback Criteria

The only criteria for a rollback that has been determined at this time is that the installation failed baseline testing.

6.3 Rollback Risks

The only risk determined at this time is the possibility of downtime which would only effect the users of the Laboratory package.

6.4 Authority for Rollback

The LIM, the Lab Manager, and the Chief of Pathology have the authority to require the rollback and accept the risks.

6.5 Rollback Procedure

The need for a rollback is highly unlikely, however if it is required, please contact the Product Support team for assistance. The rollback procedure will require Lab downtime and a reinstall of any previous KIDS versions.

Appendix A: Examples of Auto Instrument File and Load / Worklists

Figure 1 below displays examples of the AUTO INSTRUMENT file (#62.4) and LOAD / WORKLIST pairs for the BD EpiCenter™ and bioMérieux Myla™ software and the BD Bactec™, Dade MicroScan™, and bioMérieux Vitek™ systems.

Note: For more information on configurations with applicable middleware and analyzers, consult the manufacturer of the product(s).

Figure 1: Examples of Auto Instrument File and Load / Worklists

```
Auto Instrument: EPICENTER


NUMBER: 285                            NAME: EPICENTER
  LOAD/WORK LIST: BACTEC FX
  ENTRY for LAGEN ROUTINE: Accession cross-reference
  CROSS LINKED BY: IDE                 MESSAGE CONFIGURATION: LA7UI3
  METHOD: BACTEC                       DEFAULT ACCESSION AREA: MICROBIOLOGY
  OVERLAY DATA: YES                    STORE REMARKS: YES
NUMBER: 1                              TEST: BLOOD CULTURE
  UI TEST CODE: STDANF                 ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
NUMBER: 2                              TEST: MYCOLOGY CULTURE
  UI TEST CODE: MYCFLYTIC              ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
  FILE BUILD ENTRY: EN                 FILE BUILD ROUTINE: LA7UID
  AUTO DOWNLOAD: YES                   SHORT ACCESSION # LENGTH: 5
  AUTO RELEASE: NO                     WKLD METHOD: BACTEC 9240
  WKLD CODE METHOD NAME: BACTEC 9240   WKLD CODE SUFFIX: .7103


Load/Worklist: BACTEC FX


NAME: BACTEC FX                        LOAD TRANSFORM: UNIVERSAL
  TYPE: TRAY,CUP                       CUPS PER TRAY: 10
  FULL TRAY'S ONLY: NO                 INCLUDE UNCOLLECTED ACCESSIONS: NO
  USER ACCESS AUTHORIZATION: LRVERIFY  DATE OF SETUP: JUN 13, 2016
PROFILE: BLOOD CULTURE                 ACCESSION AREA: BLOOD CULTURE
  UID VERIFICATION: ANY ACCESSION AREA STORE DUPLICATE COMMENTS: NO
  DEFAULT REFERENCE LABORATORY: TAMPA VAMC
  AUTO RELEASE: NO
TEST: BLOOD CULTURE                    BUILD NAME ONLY: NO
TEST: MYCOLOGY CULTURE                 BUILD NAME ONLY: NO
PROFILE: MYCOLOGY CULTURE              ACCESSION AREA: FUNGAL
  UID VERIFICATION: ANY ACCESSION AREA DEFAULT REFERENCE LABORATORY: TAMPA VAMC
  AUTO RELEASE: NO
TEST: MYCOLOGY CULTURE                 BUILD NAME ONLY: NO
  WKLD METHOD: BACTEC 9240             WKLD CODE METHOD NAME: BACTEC 9240
  WKLD CODE SUFFIX: .7103              MAJOR ACCESSION AREA: MICROBIOLOGY
  LAB SUBSECTION: BLOOD CULTURE


Auto Instrument: VITEK MS
```

```
NUMBER: 286                              NAME: VITEK MS
  LOAD/WORK LIST: VITEK MS
  ENTRY for LAGEN ROUTINE: Accession cross-reference
  CROSS LINKED BY: IDE                   MESSAGE CONFIGURATION: LA7UI3
  METHOD: VITEK                          DEFAULT ACCESSION AREA: MICROBIOLOGY
  OVERLAY DATA: YES                      STORE REMARKS: YES
NUMBER: 1                                TEST: BLOOD CULTURE
  UI TEST CODE: C                        ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
NUMBER: 2                                TEST: CULTURE & SUSCEPTIBILITY
  UI TEST CODE: C                        ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
NUMBER: 3                                TEST: MYCOLOGY CULTURE
  UI TEST CODE: C                        ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
NUMBER: 4                                TEST: CULTURE & SUSCEPTIBILITY
  UI TEST CODE: o2-Final Organism Name   ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: NO
  FILE BUILD ENTRY: EN                   FILE BUILD ROUTINE: LA7UID
  MICRO INTERPRETATION CHECK: CHECK BOTH FILE AND INSTRUMENT INTERPRETATION OVER
WRITE WITH FILE                          AUTO DOWNLOAD: YES
  SHORT ACCESSION # LENGTH: 5            AUTO RELEASE: NO
  WKLD METHOD: VITEK AMS                 WKLD CODE METHOD NAME: VITEK AMS
  WKLD CODE SUFFIX: .7087

Load/Worklist: VITEK MS
NAME: VITEK MS                           LOAD TRANSFORM: UNIVERSAL
  TYPE: SEQUENCE/BATCH                   CUPS PER TRAY: 0
  FULL TRAY'S ONLY: NO                   EXPAND PANELS ON PRINT: NO
  INCLUDE UNCOLLECTED ACCESSIONS: NO     USER ACCESS AUTHORIZATION: LRVERIFY
  DATE OF SETUP: JUL 15, 2016
PROFILE: CULTURE                         ACCESSION AREA: MICROBIOLOGY
  UID VERIFICATION: ANY ACCESSION AREA   STORE DUPLICATE COMMENTS: NO
  DEFAULT REFERENCE LABORATORY: TAMPA VAMC
  AUTO RELEASE: NO
TEST: BLOOD CULTURE                      BUILD NAME ONLY: NO
TEST: MYCOLOGY CULTURE                   BUILD NAME ONLY: NO
TEST: CULTURE & SUSCEPTIBILITY           BUILD NAME ONLY: NO
  WKLD METHOD: VITEK AMS                 WKLD CODE METHOD NAME: VITEK AMS
  WKLD CODE SUFFIX: .7087                MAJOR ACCESSION AREA: MICROBIOLOGY
  LAB SUBSECTION: MICROBIOLOGY

Auto Instrument: VITEK II

NUMBER: 287                              NAME: VITEK II
  LOAD/WORK LIST: VITEK II
  ENTRY for LAGEN ROUTINE: Accession cross-reference
  CROSS LINKED BY: IDE                   MESSAGE CONFIGURATION: LA7UI3
  METHOD: VITEK                          DEFAULT ACCESSION AREA: MICROBIOLOGY
  OVERLAY DATA: YES                      STORE REMARKS: YES
NUMBER: 1                                TEST: CULTURE & SUSCEPTIBILITY
  UI TEST CODE: C                        ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
NUMBER: 2                                TEST: BLOOD CULTURE
  UI TEST CODE: C                        ACCEPT RESULTS FOR THIS TEST: YES
```

```
    DOWNLOAD TO INSTRUMENT: YES
NUMBER: 3                               TEST: MYCOLOGY CULTURE
  UI TEST CODE: C                       ACCEPT RESULTS FOR THIS TEST: YES
  DOWNLOAD TO INSTRUMENT: YES
  FILE BUILD ENTRY: EN                  FILE BUILD ROUTINE: LA7UID
  AUTO DOWNLOAD: YES                    AUTO RELEASE: NO
  WKLD METHOD: VITEK                    WKLD CODE METHOD NAME: VITEK
  WKLD CODE SUFFIX: .7015
```

Load/Worklist: VITEK II

```
NAME: VITEK II                          LOAD TRANSFORM: UNIVERSAL
  TYPE: SEQUENCE/BATCH                  CUPS PER TRAY: 0
  FULL TRAY'S ONLY: NO                  EXPAND PANELS ON PRINT: NO
  INCLUDE UNCOLLECTED ACCESSIONS: NO    USER ACCESS AUTHORIZATION: LRVERIFY
  DATE OF SETUP: SEP 16, 2016
PROFILE: CULTURE                        ACCESSION AREA: MICROBIOLOGY
  UID VERIFICATION: ANY ACCESSION AREA  STORE DUPLICATE COMMENTS: NO
  DEFAULT REFERENCE LABORATORY: TAMPA VAMC
  AUTO RELEASE: NO
TEST: CULTURE & SUSCEPTIBILITY          BUILD NAME ONLY: NO
TEST: BLOOD CULTURE                     BUILD NAME ONLY: NO
TEST: MYCOLOGY CULTURE                  BUILD NAME ONLY: NO
  WKLD METHOD: VITEK AMS                WKLD CODE METHOD NAME: VITEK AMS
  WKLD CODE SUFFIX: .7087               MAJOR ACCESSION AREA: MICROBIOLOGY
  LAB SUBSECTION: MICROBIOLOGY
```

Auto Instrument: MICROSCAN
```
NUMBER: 95               NAME: MICROSCAN
  LOAD/WORK LIST: MICROSCAN
  ENTRY for LAGEN ROUTINE: Accession cross-reference
  CROSS LINKED BY: IDE        MESSAGE CONFIGURATION: LA7UI1
  METHOD: MICROSCAN          OVERLAY DATA: YES
  STORE REMARKS: YES
NUMBER: 1                TEST: CULTURE, ABSCESS
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
  STORE REMARKS: YES          ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 2                TEST: CULTURE, ASPIRATE
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
  STORE REMARKS: YES          ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 3                TEST: CULTURE, BLOOD
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
  STORE REMARKS: YES          ACCESSION AREA: BLOOD CULTURES
NUMBER: 4                TEST: CULTURE, BODY FLUID
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
  STORE REMARKS: YES          ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 5                TEST: CULTURE, TISSUE
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
  STORE REMARKS: YES          ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 6                TEST: CULTURE, BONE
  UI TEST CODE: ID          DOWNLOAD TO INSTRUMENT: YES
```

```
   STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 7                 TEST: CULTURE, BONE MARROW
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 8                 TEST: CULTURE, BRONCHIAL
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 9                 TEST: CULTURE, CATHETER TIP
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 10                TEST: CULTURE, CSF
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 11                TEST: CULTURE, EAR
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 12                TEST: CULTURE, EYE
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 13                TEST: CULTURE, GC
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 14                TEST: CULTURE, SPUTUM
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 15                TEST: CULTURE, STOOL
 UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 16                TEST: CULTURE, URINE
 UI TEST CODE: ID             ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES       STORE REMARKS: YES
 ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 17                TEST: CULTURE, WOUND-DEEP
 UI TEST CODE: ID             DOWNLOAD TO INSTRUMENT: YES
 STORE REMARKS: YES              ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 18                TEST: CULTURE, WOUND-SUPERFICIAL
 UI TEST CODE: ID             ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES       STORE REMARKS: YES
 ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 19                TEST: PRE-PROSTATE BIOPSY RECTAL SCREEN
 UI TEST CODE: ID             ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES       STORE REMARKS: YES
 ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 20                TEST: MDRO SCREEN
 UI TEST CODE: ID             ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES       STORE REMARKS: YES
 ACCESSION AREA: MICROBIOLOGY CDD
NUMBER: 21                TEST: .CULTURE, THROAT
```

```
   UI TEST CODE: ID            DOWNLOAD TO INSTRUMENT: YES
   STORE REMARKS: YES
   FILE BUILD ENTRY: EN          FILE BUILD ROUTINE: LA7UID
   AUTO DOWNLOAD: YES            WKLD METHOD: MICROSCAN
   WKLD CODE METHOD NAME: MICROSCAN     WKLD CODE SUFFIX: .7038


Load/Worklist: MICROSCAN

NUMBER: 109                NAME: MICROSCAN
 LOAD TRANSFORM: UNIVERSAL       TYPE: SEQUENCE/BATCH
 CUPS PER TRAY: 0          FULL TRAY'S ONLY: NO
 VERIFY BY: ACCESSION           SUPPRESS SEQUENCE #: NO
 INCLUDE UNCOLLECTED ACCESSIONS: NO   DATE OF SETUP: NOV 12, 2016
 FIRST TRAY: 1             STARTING CUP: 1
 LAST TRAY: 1             BUILDING IN PROGRESS: NO
PROFILE: BLOOD CULTURE          ACCESSION AREA: BLOOD CULTURES
 UID VERIFICATION: ANY ACCESSION AREA
TEST: CULTURE, BLOOD           BUILD NAME ONLY: NO
PROFILE: MICROBIOLOGY          ACCESSION AREA: MICROBIOLOGY CDD
 UID VERIFICATION: ANY ACCESSION AREA
TEST: CULTURE, ABSCESS         BUILD NAME ONLY: NO
TEST: CULTURE, ASPIRATE        BUILD NAME ONLY: NO
TEST: CULTURE, BODY FLUID       BUILD NAME ONLY: NO
TEST: CULTURE, BONE          BUILD NAME ONLY: NO
TEST: CULTURE, BONE MARROW       BUILD NAME ONLY: NO
TEST: CULTURE, BRONCHIAL        BUILD NAME ONLY: NO
TEST: CULTURE, CATHETER TIP       BUILD NAME ONLY: NO
TEST: CULTURE, CSF           BUILD NAME ONLY: NO
TEST: CULTURE, EAR           BUILD NAME ONLY: NO
TEST: CULTURE, EYE           BUILD NAME ONLY: NO
TEST: CULTURE, GC           BUILD NAME ONLY: NO
TEST: CULTURE, SPUTUM          BUILD NAME ONLY: NO
TEST: CULTURE, STOOL          BUILD NAME ONLY: NO
TEST: CULTURE, TISSUE          BUILD NAME ONLY: NO
TEST: CULTURE, URINE          BUILD NAME ONLY: NO
TEST: CULTURE, WOUND-DEEP        BUILD NAME ONLY: NO
TEST: CULTURE, WOUND-SUPERFICIAL     BUILD NAME ONLY: NO
TEST: MDRO SCREEN           BUILD NAME ONLY: NO
TEST: PRE-PROSTATE BIOPSY RECTAL SCREEN
 BUILD NAME ONLY: NO
TEST: .CULTURE, THROAT          BUILD NAME ONLY: NO
 WKLD METHOD: MICROSCAN          WKLD CODE METHOD NAME: MICROSCAN
 WKLD CODE SUFFIX: .7038         MAJOR ACCESSION AREA: MICROBIOLOGY CDD

Auto Instrument: MYLA

NUMBER: 602                NAME: MYLA
```

```
LOAD/WORK LIST: IMB
ENTRY for LAGEN ROUTINE: Accession cross-reference
CROSS LINKED BY: IDE          MESSAGE CONFIGURATION: LA7UI4
METHOD: MYLA               DEFAULT ACCESSION AREA: IBACTERIOLOGY
OVERLAY DATA: YES            STORE REMARKS: YES
NUMBER: 1                 TEST: BLOOD CULTURE (AEROBE,ANAEROBE)
 UI TEST CODE: C           ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES      STORE REMARKS: YES
 ACCESSION AREA: IBLOOD CULTURE
NUMBER: 2                 TEST: C&S (AEROBIC) + GRAM STAIN
 UI TEST CODE: CGS          ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES      STORE REMARKS: YES
 ACCESSION AREA: IBACTERIOLOGY
NUMBER: 3                 TEST: GRAM STAIN
 UI TEST CODE: GS          ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES      STORE REMARKS: YES
 ACCESSION AREA: IBACTERIOLOGY
NUMBER: 4                 TEST: C&S (AEROBIC CULTURE/SUSCEPT)
 UI TEST CODE: CNS          ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES      STORE REMARKS: YES
 ACCESSION AREA: IBACTERIOLOGY
NUMBER: 5                 TEST: AFB CULTURE & SMEAR
 UI TEST CODE: AFB          ACCEPT RESULTS FOR THIS TEST: YES
 DOWNLOAD TO INSTRUMENT: YES      ACCESSION AREA: IMYCOBACTERIUM
NUMBER: 6                 TEST: C&S (URINE CULTURE)*NE,IC
 UI TEST CODE: UCS          DOWNLOAD TO INSTRUMENT: YES
 ACCESSION AREA: IBACTERIOLOGY
 FILE BUILD ENTRY: EN       FILE BUILD ROUTINE: LA7UID
 AUTO DOWNLOAD: YES         AUTO RELEASE: NO


Load/Worklist: IMB

NUMBER: 247               NAME: IMB
 LOAD TRANSFORM: UNIVERSAL       TYPE: SEQUENCE/BATCH
 CUPS PER TRAY: 0           FULL TRAY'S ONLY: NO
 EXPAND PANELS ON PRINT: NO       INCLUDE UNCOLLECTED ACCESSIONS: NO
 USER ACCESS AUTHORIZATION: LRVERIFY
PROFILE: IMB               ACCESSION AREA: IBACTERIOLOGY
 UID VERIFICATION: ANY ACCESSION AREA  STORE DUPLICATE COMMENTS: YES
 DEFAULT REFERENCE LABORATORY: IOWA CITY HCS
 AUTO RELEASE: NO
TEST: BLOOD CULTURE (AEROBE,ANAEROBE)  BUILD NAME ONLY: NO
TEST: C&S (AEROBIC) + GRAM STAIN     BUILD NAME ONLY: NO
TEST: GRAM STAIN             BUILD NAME ONLY: NO
TEST: C&S (AEROBIC CULTURE/SUSCEPT)    BUILD NAME ONLY: NO
TEST: ANAEROBIC CULTURE         BUILD NAME ONLY: NO
TEST: C&S (URINE CULTURE)*NE,IC     BUILD NAME ONLY: NO
 WKLD METHOD: MANUAL MICRO       WKLD CODE METHOD NAME: MANUAL MICRO
```

```
WKLD CODE SUFFIX: .7000        MAJOR ACCESSION AREA: IBACTERIOLOGY
LAB SUBSECTION: IBACTERIOLOGY


Load/Worklist: IBC (a second one used for MYLA)


NUMBER: 390                NAME: IBC
 LOAD TRANSFORM: UNIVERSAL        TYPE: SEQUENCE/BATCH
 CUPS PER TRAY: 0            FULL TRAY'S ONLY: NO
 EXPAND PANELS ON PRINT: NO        INCLUDE UNCOLLECTED ACCESSIONS: NO
 USER ACCESS AUTHORIZATION: LRVERIFY
PROFILE: IBC                ACCESSION AREA: IBLOOD CULTURE
 UID VERIFICATION: ANY ACCESSION AREA  STORE DUPLICATE COMMENTS: YES
 DEFAULT REFERENCE LABORATORY: IOWA CITY HCS
 AUTO RELEASE: NO
TEST: BLOOD CULTURE (AEROBE,ANAEROBE)  BUILD NAME ONLY: NO
TEST: FUNGAL BLOOD CULTURE*NE,IC      BUILD NAME ONLY: NO
TEST: AFB CULTURE & SMEAR          BUILD NAME ONLY: NO
 WKLD METHOD: MANUAL MICRO        WKLD CODE METHOD NAME: MANUAL MICRO
 WKLD CODE SUFFIX: .7000        MAJOR ACCESSION AREA: IBLOOD CULTU
```

Appendix B: Captured Install

The following is an example of a captured install with LA*5.2*90 installed first followed by LR*5.2*474 as part of the installation process for the Lab Micro Interface Release 1.0 build.

Figure 2: Captured Installation

```
Select Installation <TEST ACCOUNT> Option: install Package(s)
Select INSTALL NAME: la*5.2*90      12/20/16@15:20:44
     => LAB MICRO INTERFACE RELEASE 1.0  ;Created on Dec 20, 2016@11:55:47

This Distribution was loaded on Dec 20, 2016@15:20:44 with header of
   LAB MICRO INTERFACE RELEASE 1.0  ;Created on Dec 20, 2016@11:55:47
   It consisted of the following Install(s):
      LA*5.2*90    LR*5.2*474
Checking Install for Package LA*5.2*90
Will first run the Environment Check Routine, LA90A


                       --- Environment Check is Ok ---


Install Questions for LA*5.2*90


Incoming Files:



   62.4      AUTO INSTRUMENT
Note:  You already have the 'AUTO INSTRUMENT' File.

Checking Install for Package LR*5.2*474


Install Questions for LR*5.2*474




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//   HOME(CRT)



                              LR*5.2*474
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

 Installing PACKAGE COMPONENTS:

 Installing PARAMETER DEFINITION

 Installing PARAMETER TEMPLATE
               Dec 20, 2016@15:21:18
```

```
 Updating Routine file...

 Updating KIDS files...

 LR*5.2*474 Installed.
              Dec 20, 2016@15:21:18

 Not a production UCI

 NO Install Message sent
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
          R,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,T
  100%    .              25             50             75                    .
Complete  F,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,G


Install Completed
```