

INSTALLATION NOTES FOR LABORATORY SERVICE PATCH 3 KIDS FORMAT

PREFIX: LR, LA, AND BLR
CURRENT VERSION: 5.2 KIDS PATCH 3 6/07/1999

\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*NOTE\*\*\*\*\*
\* READ THE ENTIRE NOTES FILE PRIOR TO ATTEMPTING ANY INSTALLATION! \*
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1. GENERAL INFORMATION

a). Print all notes/readme files. Because this is only a routine restore process, users other than the lab users may remain on the system. The installation time should take only a few minutes. Only routines are being restored. There is no data added or modified nor are there any changes to the Data Dictionary. We always recommend a complete backup before any patches are installed. Verify that you have a current backup. In the event that you get a CLOBR error during installation, it means that a lab user was running some lab option that is the same routine name that you are restoring. You will need to restart the kids install if the error occurs. Reinstalling the patch is non-destructive but you will be required to remove (delete) the patch numbers LR\*5.2\*1007, LR\*5.2\*1008, and LA\*5.2\*1004 from the INSTALL file (9.7). The PCC link job running in the background (BLRLINK) will need to be stopped by editing the BLR MASTER CONTROL file and changing the LAB LOG TO PCC field from YES to NO. Verify that BLRLINK is not running by doing a system status. Don't forget to change it back to the way it was after the install is finished. Journaling can be left on during the process.

PATCHES 1 through 6 must be installed before this patch is installed. This patch DOES check to see if patches 1-6 have been installed. The patch WILL NOT install if kids lr\_0520.02k and krn\_0800.05k have not been installed. We strongly recommend that you also install krn\_0800.06k which corrects form feed problems identified in the lab package.

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

2. CONTENTS OF DISTRIBUTION

- a). lr\_0520.03n - Notes file for installation of this patch.
b). lr\_0520.03k - Kids Patch routines. Note: This patch will install (routine restore) IHS Patch LA\*5.2\*1004, LR\*5.2\*1007, and LR\*5.2\*1008.

3. REQUIREMENTS

- a). Laboratory Service V 5.2 through Patch 6 (Kids Build lr\_0520.02k).
b). Kernel V 8.0 through Patch 5
c). MSM V 4.4.0
d). Fileman V 21.0 through Patch 6
e). MAS 5.0

4. PATCH DESCRIPTION

This patch is a routine restore patch containing 22 routines. Description of this distribution is listed below. (LR\*5.2\*1001, LA\*5.2\*1001, LR\*5.2\*1002, LA\*5.2\*1002, LR\*5.2\*1003, LA\*5.2\*1003, LR\*5.2\*1004, LR\*5.2\*1005, LR\*5.2\*1006 were released separately and those patch descriptions may be found in the Kids Build module(lr\_0520.02k) found in the notes

file, lr\_\_0520.02n.)

LA\*5.2\*1004 Description Information:

Y2K renovated routine from IV&V is included: LABCX7XX This routine is a direct connect routine and passes DOB in Y2K format.

LR\*5.2\*1007 Description Information:

The routine to clean up old transactions in the IHS LAB TRANSACTION LOG file (BLRCU) defaults to 10 days instead of the recommended 180 days. Doing a routine restore of this patch will overlay the incorrect routine with the routine that has the correct default. This routine is normally run as a taskman utility described below.

The routine to COUNT ACCESSIONED TESTS (LRUPACA) does not form feed properly when the task has been sent to a printer. The routine works properly when displayed to a CRT or with previous releases of the Kernel. The routine has been modified to pass the proper form feed command and is also included. Doing a routine restore of this patch will overlay the incorrect routine with the routine that has the correct form feed process.

LR\*5.2\*1008 Description Information:

DESCRIPTION:

Change to BLRDPT and BLRPARAM:

Addresses the situation where someone enters a Lab option just before BLRLINK times out and subsequently terminates before the person has queued any transactions. BLRLINK will be started if a Lab option is used and BLRLINK is not currently running. This modification will start BLRLINK when a user is exiting a Lab option and BLRLINK is not running.

BLRSLTLR - BLRCDT was undefined in certain situations and when it was not defined LRCDT was, so the fix was to set BLRCDT = LRCDT if BLRCDT was not defined.

BLRLINK1 - If the condition is met that the Institution mismatch error was to be set for a transaction an additional check was performed that would get the first transaction associated with the current accession number and the site code ( DUZ(2) ) was extracted and inserted into the offending transactions DUZ(2) field. So if an accession number is ordered by someone logged into the correct institution then all subsequent transactions will be filed into the PCC without error.

LRMINNEW - Modification allows a user to be able to review the micro results if the user has the micro key or the supervisor key.

LRORD - Disabled the code that was preventing the list of test to print if there are more than 40 tests in the test ordering group.

BLRFLTL - Intermittently messages regarding problems with the AOT cross-reference are sent as bulletins. This problem has been outstanding since the beginning of the implementation of LR version 5.2. It has been hard to investigate the causes of this because it is difficult to reproduce in our development UCI. The problem is most likely to surface when running on a machine that is running at processing capacity. It appears that in this environment there are windows of time where file entries are not completely set, specifically the cross-references and the main part belonging to the IHS Lab Transaction Log. The solution to this problem was to write a procedure that will iteratively attempt to find a specific cross-reference until the cross-reference appears. Adjustments to this procedure were done experimentally by increasing the number of iterations. During an iteration the procedure will traverse reverse

lr\_0520\_03n.txt

chronologically the AOT cross-reference until there is a match on the order sequence number, the test (these two are subscripts of the cross-reference) and the order number (a field in a transaction). If no match is found the process hangs a second and then looks for the original time entry in the cross-reference.

BLRLINK and BLRFLTL - A write to V File rejected message is logged intermittently. A bulletin can be issued in the Lab to Pcc link process in two situations: the foreground when the transaction is created or updated, and in the background, when the batch BLRLINK routine processes the transaction. The bulletin described here was sent from the foreground when an edit was attempted by a routine when at the instant the background job was in the process of editing the same transaction. The solution was to lengthen the timeout period for the locks of a transaction entry in both the foreground and background routines, BLRFLTL and BLRLINK, respectively.

BLRLRRD - Fixed bug where patients' results were missing due to an inconsistently built cross-reference. This was related to the provider name length in the database changing from a length of 25 to 20. The correction had to compensate for this discrepancy.

LRABG - Will be deleted from the site. This is a PRETTY PRINT routine that was hard coded for test BLD GAS and is not used in IHS.

LRABG1 - Will be deleted from the site. See above.

LRAC2, LRAC2A, LRAC3, LRAC6, LRAC9, LRACS2, LRACS3, LRACSUM1, LRACSUM3, LRACSUM5, LRACSUM6 - Corrects the Horizontal Cum Date and Comment print to correctly show the comment character that is referenced.

LRAPQACN, LRAPQAFS, LRAPQAMR - Corrects a hard coded century indicator and makes these routine Y2K compliant.

LRCENDE1 - corrects the DELETE TEST from GIVEN ACCESSION option to allow the EA option to default to the correct entry. The routine was patched according to the VA issues with the IG team but VA patch 225 undoes the fix. VA will issue a new patch that meets the IG issue.

LRLABELA - Fixes the collection date and time display for a specific brand of barcode label printer.

BLRLABEL, BLRLABEL7 - Fixes the collection date and time display and the DOB display for the T-410 barcode printer. The format length must be downloaded to the printer. The CDT was increased to display Y2K DT. DOB also shows in Y2K format. (If you are using the above printer you will need to save your old LRLABEL4 routine and then ZL BLRLABEL ZS LRLABEL4 to get the 4 digit date displayed for DOB and collection D/T)

LRMI EDZ2, LRMI V2 - The century indicator was hardcoded and has been corrected to show the proper. This value is used in the accession number.

LRDATEDH - This routine is being deleted when the patch is installed. The routine has not option call nor is it called by any routine. It is being deleted to comply with the Y2K requirements.

BLRDBG - Sets the BLRLINK variable to allow PCC entry to bypass screen for site/specimen.

ENVIRONMENT CHECK : BLR1008E

5. INSTALLATION INSTRUCTIONS

lr\_0520\_03n.txt

- a). Log in as a system manager and go to programmer mode. Turn OFF the Lab link to PCC using example 2 or example 5 below. D ^XUP and choose for the option KERNEL INSTALLATION AND DISTRIBUTION
- b). Choose option INSTALLATION, and LOAD the kids patch lr\_0520.03k
- c). Install the patch choosing LR\*5.2\*1007 See example process below.
- d). Verify that the patch installed properly by displaying the installed patches in the Utility menu
- e). Turn the Lab link back on using example 3 or example 5 below.

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\*\*\*\*\* Example Installation Script: \*\*\*\*\*

Log into your production UCI and enter into programmer mode. At the programmer prompt do the following:

>D ^XUP

Setting up programmer environment  
Terminal Type set to: C-VT320

```
Select OPTION NAME: KERNEL
  1  KERNEL 5.0 FOR SITE MANAGERS  XUVERSI ON5-HELP          Kernel 5.0 for Site
e Managers
  2  KERNEL INSTALLATION & DISTRIBU  XPD MAIN              Kernel Installation & D
istri bution System
  3  KERNEL MANAGEMENT MENU  XUKERNEL                    Kernel Management Menu
  4  KERNEL NEW FEATURES HELP  XUVERSI ONEW-HELP          Kernel New Features H
elp
  5  KERNEL SIGN-ON CONTEXT  XUS SIGNON                    Kernel sign-on context
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 2  XPD MAIN          Kernel Installation & Di stri buti on System
```

```
Edi ts and Di stri buti on ...
Uti li ti es ...
Instal lati on ...
```

Select Kernel Installation & Distribution System Option: Installation

- 1 Load a Distribution
- 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 Option: 1 Load a Distribution  
Enter a Host File: lr\_0520.03k

KIDS Distribution saved on Jun 02, 1999@12:55:18  
Comment: Lab LR1007, 1008 & LA1004 Kids Patches 6/2/99 fje

This Distribution contains Transport Globals for the following Package(s):  
LR\*5.2\*1007  
Want to Continue with Load? YES//

Loading Distribution...

Want to RUN the Environment Check Routine? YES//

LR\*5.2\*1007

Will first run the Environment Check Routine, BLR1007E

LA\*5.2\*1004

Will first run the Environment Check Routine, BLR1004E

LR\*5.2\*1008

Will first run the Environment Check Routine, BLR1008E

Use INSTALL NAME: LR\*5.2\*1007 to install this Distribution.

- 1 Load a Distribution
- 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 Option: 6 Install Package(s)

Select INSTALL NAME: LR\*5.2\*1007                      Loaded from Distribution                      Loaded from Distribution    6/2/99@12:59:02

=> Lab LR1007, 1008 & LA1004 Kids Patches 6/2/99 fje ; Created on Jun 02,

This Distribution was loaded on Jun 02, 1999@12:59:02 with header of Lab LR1007, 1008 & LA1004 Kids Patches 7/1/1999 LAB5.2 fje ; Created on Jun 02, 1999@12:55

:18

It consisted of the following Install(s):

LR\*5.2\*1007

LA\*5.2\*1004

LR\*5.2\*1008

LR\*5.2\*1007

Will first run the Environment Check Routine, BLR1007E

Checking for Kernel Patch 1005...

Checking for Patch 1006...

Environment Check is Ok ---

Install Questions for LR\*5.2\*1007

LA\*5.2\*1004

Will first run the Environment Check Routine, BLR1004E

Checking for Kernel Patch 1005...

Checking for LA 5.2 Patch 1003...

Environment Check is Ok ---

Install Questions for LA\*5.2\*1004

LR\*5.2\*1008  
Will first run the Environment Check Routine, BLR1008E

Checking for Kernel Patch 1005...

Checking for LR 5.2 Patch 1006...

Environment Check is Ok ---

Install Questions for LR\*5.2\*1008

\*\*\*\*\* NOTE: Next answer should be NO \*\*\*\*\*  
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES// NO  
Want to MOVE routines to other CPUs? 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//

Install Started for LR\*5.2\*1007 :  
Jun 02, 1999@12:56:42

Installing Routines:  
Jun 02, 1999@12:56:43

Updating Routine file...

Updating KIDS files...

LR\*5.2\*1007 Installed.  
Jun 02, 1999@12:56:43

Install Started for LA\*5.2\*1004 :  
Jun 02, 1999@12:56:43

Installing Routines:  
Jun 02, 1999@12:56:44

Updating Routine file...

Updating KIDS files...

LA\*5.2\*1004 Installed.  
Jun 02, 1999@12:56:44

Install Started for LR\*5.2\*1008 :  
Jun 02, 1999@12:56:44

Installing Routines:  
Jun 02, 1999@12:56:48

Updating Routine file...

Updating KIDS files...

LR\*5.2\*1008 Installed.  
Jun 02, 1999@12:56:48

Install Completed

- 1 Load a Distribution
- 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 Option:

- Edits and Distribution ...
- Utilities ...
- Installation ...

Select Kernel Installation & Distribution System Option: Utilities

- Build File Print
- Install File Print
- Convert Loaded Package for Redistribution
- Display Patches for a Package
- Purge Build or Install Files
- Rollup Patches into a Build
- Update Routine File
- Verify a Build
- Verify Package Integrity

Select Utilities Option: Display Patches for a Package

Select PACKAGE NAME: LR

- 1 LR63 1ST TIME INSTALL LR63
- 2 LR LAB SERVICE LR
- 3 LRDJOB AUTOMATED LAB INSTRUMENTS LA

CHOOSE 1-3: 2 LAB SERVICE LR

Select VERSION: 5.2// 11-01-97

Do you want to see the Descriptions? NO//

DEVICE: HOME//

PACKAGE: LAB SERVICE Jun 02, 1999 12:57 pm PAGE 1

PATCH # INSTALLED INSTALLED BY

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VERSION:	5.2	DEC 18, 1997	
1001	DEC 15, 1998		LOUGHRAN, MI KE
1002	DEC 15, 1998		LOUGHRAN, MI KE
1003	DEC 15, 1998		LOUGHRAN, MI KE
1004	DEC 15, 1998		LOUGHRAN, MI KE
1005	JUN 17, 1998		CHVATAL, CHRISTINE
1006	DEC 15, 1998		LOUGHRAN, MI KE
1007	JUN 02, 1999		EVANS, F. J.
1008	JUN 02, 1999		EVANS, F. J.

Build File Print  
Install File Print  
Convert Loaded Package for Redistri bution  
Display Patches for a Package  
Purge Build or Install Files  
Rollup Patches into a Build  
Update Routine File  
Verify a Build  
Verify Package Integri ty

Select Utili ties Opti on: Display Patches for a Package

Select PACKAGE NAME: LA

- 1 LAB MESSAGING LA7
- 2 LAB SERVICE LR
- 3 LAB SITE CODE LB
- 4 LA AUTOMATED LAB INSTRUMENTS LA

CHOOSE 1-4: 4 AUTOMATED LAB INSTRUMENTS LA

Select VERSION: 5.2// 11-01-97

Do you want to see the Descripti ons? NO//

DEVICE: HOME//

PACKAGE:	AUTOMATED LAB INSTRUMENT	INSTALLED	INSTALLED BY
VERSION:	5.2	DEC 18, 1997	
1001		DEC 10, 1997	LOUGHRAN, MI KE
1002		SEP 08, 1997	LOUGHRAN, MI KE
1003		DEC 15, 1998	LOUGHRAN, MI KE
1004		JUN 02, 1999	EVANS, F. J.

Build File Print  
Install File Print  
Convert Loaded Package for Redistri bution  
Display Patches for a Package  
Purge Build or Install Files  
Rollup Patches into a Build  
Update Routine File  
Verify a Build  
Verify Package Integri ty

Select Utili ties Opti on:

YOU HAVE COMPLETED THE INSTALLATION  
\*\*\*\*\*

Exampl e 2: TO TURN OFF THE LINK TO PCC USING FILEMAN:

D P^DI

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: BLR MASTER CONTROL//

EDIT WHICH FIELD: ALL// LAB LOG TO PCC

THEN EDIT FIELD:

Ir\_0520\_03n.txt  
Select BLR MASTER CONTROL SITE: Enter your site name  
LAB LOG TO PCC: YES// N NO

Select BLR MASTER CONTROL SITE:  
Check system status to verify that BLRLINK is not running.

\*\*\*\*\* Example 3: TO TURN ON THE LINK TO PCC:

D P^DI

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: BLR MASTER CONTROL//  
EDIT WHICH FIELD: ALL// LAB LOG TO PCC  
THEN EDIT FIELD:

Select BLR MASTER CONTROL SITE: Enter your site name  
LAB LOG TO PCC: NO// Y YES

Select BLR MASTER CONTROL SITE:

\*\*\*\*\* Example 4: TO REMOVE INSTALLED PATCHES TO ALLOW REINSTALLATION

Select OPTION: eNTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: INSTALL//  
EDIT WHICH FIELD: ALL// .01 NAME  
THEN EDIT FIELD:

Select INSTALL NAME: LR\*5.2\*1008 Install Completed Install Completed 6/  
2/99@12:56:48  
=> Lab LR1007, 1008 & LA1004 Kids Patches 6/2/99 fje ; Created on Jun 02,  
NAME: LR\*5.2\*1008// @  
SURE YOU WANT TO DELETE THE ENTIRE 'LR\*5.2\*1008' INSTALL? Y (Yes)

Select INSTALL NAME: LR\*5.2\*1007 Install Completed Install Completed 6/  
2/99@12:56:43  
=> Lab LR1007, 1008 & LA1004 Kids Patches 6/2/99 fje ; Created on Jun 02,  
NAME: LR\*5.2\*1007// @  
SURE YOU WANT TO DELETE THE ENTIRE 'LR\*5.2\*1007' INSTALL? Y (Yes)

Select INSTALL NAME: LA\*5.2\*1004 Install Completed Install Completed  
6/2/99@1  
2:56:44  
NAME: LA\*5.2\*1004// @  
SURE YOU WANT TO DELETE THE ENTIRE 'LA\*5.2\*1004' INSTALL? Y (Yes)

Select INSTALL NAME:

\*\*\*\*\* Example 5: TURNING ON/OFF THE LINK USING MENU MANAGEMENT

>D ^XUP

Setting up programmer environment  
Terminal Type set to: C-VT100

Select OPTION NAME: LRM  
1 LRMENU Laboratory DHCP Menu  
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                                lr__0520_03n.txt
2   LRMI          Microbiology menu
3   LRMI ACC1     Long form accession list for microbiology
4   LRMI BL       Batch accessioning
5   LRMI CROLOGI N Accessioning, standard (Microbiology)
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1  LRMENU          Laboratory DHCP Menu

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1   Phlebotomy menu ...
2   Accessioning menu ...
3   Process data in lab menu ...
4   Quality control menu ...
5   Results menu ...
6   Information-help menu ...
7   Ward lab menu ...
8   Anatomic pathology ...
9   Blood bank ...
10  Microbiology menu ...
11  Supervisor menu ...
BLR  IHS Lab Main Support Menu ...
LSM  Lab Shipping Menu ...

```

Select Laboratory DHCP Menu Option: BLR IHS Lab Main Support Menu

```

LS   Link Transaction Processor Status
INQ  Inquire into the IHS LAB Transaction Log
FLD  Search Transactions for PCC LINK DISABLE Error
RSN  Requeue by Sequence Number
RST  Requeue Transaction by Sort Template
CPT  Enter/edit IHS Lab CPT File
RES  Enter/edit IHS LAB Review Code File
ACT  Enter/edit IHS LAB CPT Action Code File
MSTR Enter/edit BLR MASTER CONTROL FILE
FALL Find ALL PCC Link Errors from Lab

```

Select IHS Lab Main Support Menu Option: MST Enter/edit BLR MASTER CONTROL FILE

```

Select BLR MASTER CONTROL SITE: DULCE HEALTH CENTER          ALBUQUERQUE
      JICARILLA          10
      ...OK? Yes// (Yes)

```

```

SITE: DULCE HEALTH CENTER//
LAB LOG TRANSACTION: YES//
LAB LOG TO PCC: NO// Y YES
LOG PAT DATA ONLY: YES//
GUI LAB ORDER SEND PAT: ^

```

Select BLR MASTER CONTROL SITE:

```

LS   Link Transaction Processor Status
INQ  Inquire into the IHS LAB Transaction Log
FLD  Search Transactions for PCC LINK DISABLE Error
RSN  Requeue by Sequence Number
RST  Requeue Transaction by Sort Template
CPT  Enter/edit IHS Lab CPT File
RES  Enter/edit IHS LAB Review Code File
ACT  Enter/edit IHS LAB CPT Action Code File
MSTR Enter/edit BLR MASTER CONTROL FILE
FALL Find ALL PCC Link Errors from Lab

```

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Select IHS Lab Main Support Menu Option:

You are now finished with the installation

6. POINT OF CONTACT

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