



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Laboratory 5.2

Label Printers Installation

User Support Guide

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Preface

The purpose of this guide is to provide the IHS Lab Support Specialist and Developer a single document that contains the setup guides and some Intermec Programming Language analysis for the Lab Label printers supported by IHS.

1.0 Introduction

This user's guide is designed to bring together the disparate documentation regarding the IHS/OIT supported Lab Label Printers into one document.

The supported Printers are:

- Intermec 3400/4100
- Intermec 7421/PC41
- Microcom 410

2.0 Intermec 3400/4100 Installation

2.1 Printer Routines

Note that Lab Label Printer routines come in pairs. There is always an initialization routine and a print routine.

2.1.1 BLRBARA: The Intermec 3400/4100 Initialization Routine

The initialization routine for Intermec 3400/4100 printers is the BLRBARA routine.

2.1.2 BLRLABLA: The Intermec 3400/4100 Print Routine

The print routine for Intermec 3400/4100 printers is the BLRLABLA routine.

2.2 Create a new Terminal Type

It may be necessary to create a new terminal type. Use FileMan to create the new terminal type in the Terminal Type (# 3.2) dictionary:

```
VA FileMan Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: TERMINAL TYPE//
EDIT WHICH FIELD: ALL//

Select TERMINAL TYPE NAME: P-INTERMEC 4100
Are you adding 'P-INTERMEC 4100' as a new TERMINAL TYPE (the 159TH)? No// Y
(Yes)
SELECTABLE AT SIGN-ON: N NO
RIGHT MARGIN: 80
FORM FEED: #
PAGE LENGTH: 16
BACK SPACE:
*OLD XY CRT:
XY CRT:
OPEN EXECUTE:
OPEN EXECUTE DESCRIPTION:
  1>
CLOSE EXECUTE:  ^
```

2.3 Edit Device file (#3.5)

Using FileMan, create a new device in the Device (# 3.5) dictionary:

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: LAB DATA// 3.5 DEVICE (140 entries)
EDIT WHICH FIELD: ALL//

Select DEVICE NAME: LABLABEL
Are you adding 'LABLABEL ' as a new DEVICE (the 71ST)? No// Y (Yes)
  DEVICE LOCATION OF TERMINAL: INTERMEC 4100 PRINTER FOR LAB
  DEVICE $I: <Enter the full network Printer Path>
  DEVICE VOLUME SET(CPU): <Enter the volume group name>
  DEVICE TYPE: T TERMINAL
LOCATION OF TERMINAL: INTERMEC 4100 PRINTER FOR LAB
  Replace
Select MNEMONIC:
LOCAL SYNONYM:
$I: //
VOLUME SET(CPU): <Volume group name>//
SIGN-ON/SYSTEM DEVICE: N NO
TYPE: TERMINAL//
SUBTYPE: P-INTERMEC 4100
ASK DEVICE: Y YES
ASK PARAMETERS: Y YES
ASK HOST FILE:
ASK HFS I/O OPERATION:
QUEUING:
OUT-OF-SERVICE DATE:
NEAREST PHONE:
KEY OPERATOR:
MARGIN WIDTH:
PAGE LENGTH:
SUPPRESS FORM FEED AT CLOSE: Y
SECURITY: ^

```

2.4 Edit Accession File (#68)

It is only necessary to edit those accession areas where labels will be used.

2.4.1 ALTERNATE LABEL ENTRY Field

It is necessary to enter the Entry point of the Print routine in this field. For the 3400/4100 printers it is **EN**.

2.4.2 ALTERNATE LABEL ROUTINE Field

It is necessary to enter the print routine's name in this field. For the 3400/4100 printers, this is **BLRLABLA**.

2.4.3 BAR CODE PRINT field

This field must be set to **YES**.

2.4.4 Example

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: OPTION// ACCESSION
    1  ACCESSION                               (12 entries)
    2  ACCESSION TEST GROUP                     (7 entries)
CHOOSE 1-2: 1 ACCESSION                       (12 entries)
EDIT WHICH FIELD: ALL// BAR CODE PRINT
THEN EDIT FIELD: ALTERNATE LABEL ENTRY
THEN EDIT FIELD: ALTERNATE LABEL ROUTINE
THEN EDIT FIELD:

Select ACCESSION AREA: CHEMISTRY
BAR CODE PRINT: YES YES
ALTERNATE LABEL ENTRY: EN
ALTERNATE LABEL ROUTINE: BLRLABLA

Select ACCESSION AREA:

```

2.5 Edit Laboratory Site File (#69.9)

If this is the first time the site has used Lab Labels, then the Laboratory Site file must be edited.

2.5.1 PRINT LABELS field

The PRINT LABELS field must be set to **YES**.

2.5.2 LABEL TYPE field

The LABEL TYPE field must be set to **SITE FILE**.

2.5.3 Example

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: OPTION// LABORATORY SITE   (1 entry)
EDIT WHICH FIELD: ALL// PRINT LABELS
THEN EDIT FIELD: LABEL TYPE
THEN EDIT FIELD:

Select LABORATORY SITE SITE NAME:                <Enter site name>
PRINT LABELS: YES YES
LABEL TYPE: SITE FILE SITE FILE

```



```
Select LABORATORY SITE SITE NAME: ^
```

2.6 Initialization Option

It is strongly advised that an option be created and placed upon the BLRMENU so that the Laboratory Personnel will be able to re-initialize the printer whenever necessary.

2.6.1 Create New Option

The first step is to create the new option in the Option (#19) file:

```
VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: LABORATORY TEST// 19 OPTION (9632 entries)
EDIT WHICH FIELD: ALL//

Select OPTION NAME: BLR STARTUP FOR INTERMEC 3400
  Located in the BLR (IHS LABORATORY) namespace.
  Are you adding 'BLR STARTUP FOR INTERMEC 3400' as
  a new OPTION (the 9633RD)? No// Y (Yes)
  OPTION MENU TEXT: Will reinitialize the Intermec 3400 printer
MENU TEXT: Will reinitialize the Intermec 3400 printer
  Replace
OUT OF ORDER MESSAGE: ^TYPE
TYPE: RUN run routine
Select ITEM: ^ROUTINE
ROUTINE: BLRBARA
HEADER: ^DESCRIPTION
DESCRIPTION:
  No existing text

==[ WRAP ]==[ INSERT ]=====< DESCRIPTION >===== [ <PF1>H=Help ]====
This option will run the BLRBARA routine that will re-initialize an Intermec
3400/4100 printer.

<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====

HELP FRAME:
PRIORITY: ^

Select OPTION NAME:
```

2.6.2 Add new Option to the BLRMENU

The next step is to add the new option to the BLRMENU:

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: LABORATORY TEST// OPTION
    1  OPTION                               (9633 entries)
    2  OPTION SCHEDULING                     (20 entries)
CHOOSE 1-2: 1 OPTION                       (9633 entries)
EDIT WHICH FIELD: ALL// MENU
    1  MENU (multiple)
    2  MENU TEXT
CHOOSE 1-2: 1 MENU (multiple)
    EDIT WHICH MENU SUB-FIELD: ALL//
THEN EDIT FIELD:

Select OPTION NAME: BLRMENU           IHS Lab Main Support Menu
Select ITEM: BLR CHANGE URGENCY// BLR STARTUP FOR INTERMEC 3400 Will
reinitialize the Intermec 3400 printer
  Are you adding 'BLR STARTUP FOR INTERMEC 3400' as
  a new MENU (the 25TH for this OPTION)? No// Y (Yes)
  MENU SYNONYM: 3400
  SYNONYM: 3400//
  DISPLAY ORDER:
Select ITEM:

Select OPTION NAME:

```

2.7 Initialize the Printer

Use the new option on the BLRMENU to initialize the printer:

```

Select OPTION NAME: BLRMENU           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
FAL     Find ALL PCC Link Errors from Lab
STP     Stop/restart Lab to PCC Transaction Processor
MSTR    Enter/edit BLR MASTER CONTROL FILE
POV     Purpose of Visit Compliance Report
3400    Will reinitialize the Intermec 3400 printer
BZY     IHS Taskman Busy Device Rpt
CHGU    Change Order Urgency
CLR     Clear BLR errors from error log
CUM     IHS CUMULATIVE MENU ...
ETP     LA7 Message Queue Error Messages to Purgeable
ILUM    IHS LOINC/UCUM MENU ...
LOI     IHS Lab Package LOINC Percentage Report
LVP     IHS Lab Version & Patch Report
MMR     Lab Description Abbreviation Report
NLO     Lab Tests Without LOINC Entries Report

```

```

                Press 'RETURN' to continue, '^' to stop:
RBE      Clear ALL BLR Errors from Error Log
REFL     Reference Lab Main Menu ...
SHDR     State Health Dept Report

Select IHS Lab Main Support Menu Option: 3400 Will reinitialize the
Intermec 3400 printer
DEVICE: HOME// LABLABEL

        Barcode Formating Program Queued

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
FAL      Find ALL PCC Link Errors from Lab
STP      Stop/restart Lab to PCC Transaction Processor
MSTR     Enter/edit BLR MASTER CONTROL FILE
POV      Purpose of Visit Compliance Report
3400     Will reinitialize the Intermec 3400 printer
BZY      IHS Taskman Busy Device Rpt
CHGU     Change Order Urgency
CLR      Clear BLR errors from error log
CUM      IHS CUMULATIVE MENU ...
ETP      LA7 Message Queue Error Messages to Purgeable
ILUM     IHS LOINC/UCUM MENU ...
LOI      IHS Lab Package LOINC Percentage Report
LVP      IHS Lab Version & Patch Report
MMR      Lab Description Abbreviation Report
NLO      Lab Tests Without LOINC Entries Report
RBE      Clear ALL BLR Errors from Error Log
REFL     Reference Lab Main Menu ...
SHDR     State Health Dept Report

Select IHS Lab Main Support Menu Option:

```

If everything has been set up correctly, the pause light will flash on and off as the routine format is loaded into the printer.

2.8 Test the Label Printer

Use the Reprint an Accession Label option found in the Accessioning Menu to check that the labels have been formatted correctly.

3.0 Intermec PC41 or 7421 Installation

3.1 Printer Routines

Note that Lab Label Printer routines come in pairs. There is always an initialization routine and a print routine.

3.1.1 BLRBARC: The Intermec 7421/PC41 Initialization Routine

The original initialization routine for Intermec 7421/PC41 printers is the BLRBARC routine.

3.1.2 BLRLABC: The Intermec 7421/PC41 Print Routine

The original print routine for Intermec 7421/PC41 printers is the BLRLABC routine.

3.2 Create a new Terminal Type

It may be necessary to create a new terminal type in the Terminal Type (#3.2) Dictionary.

3.3 Edit Terminal Type File (#3.2)

```
VA FileMan Version 21.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: TERMINAL TYPE//
EDIT WHICH FIELD: ALL//

Select TERMINAL TYPE NAME: P-INTERMEC 7421
Are you adding 'P-INTERMEC 7421' as a new TERMINAL TYPE (the 159TH)? No// Y
  (Yes)
SELECTABLE AT SIGN-ON: N NO
RIGHT MARGIN: 80
FORM FEED: #
PAGE LENGTH: 16
BACK SPACE:
*OLD XY CRT:
XY CRT:
OPEN EXECUTE: W *2,*27,"P;C3,1D,0E,1F,1F,19,13,08,1C,11,11,11,11,1C,08,19,1F,11,
09,01,1E;R;","*3
OPEN EXECUTE DESCRIPTION:
  1>
CLOSE EXECUTE: ^
```

3.4 Edit Device file (#3.5)

```

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: TERMINAL TYPE// DEVICE          (70 entries)
EDIT WHICH FIELD: ALL//

Select DEVICE NAME: LABLABEL
Are you adding 'LABLABEL ' as a new DEVICE (the 71ST)? No// Y (Yes)
  DEVICE LOCATION OF TERMINAL: INTERMEC PC41 PRINTER FOR LAB
  DEVICE $I:                               <Enter the full path printer name>
  DEVICE VOLUME SET(CPU):                   <Enter the character volume group name>
  DEVICE TYPE: T TERMINAL
LOCATION OF TERMINAL: INTERMEC PC41 PRINTER FOR LAB
  Replace
Select MNEMONIC:
LOCAL SYNONYM:
$I: //
VOLUME SET(CPU): <Volume group name> //
SIGN-ON/SYSTEM DEVICE: N NO
TYPE: TERMINAL//
SUBTYPE: P-INTERMEC 7421
ASK DEVICE: Y YES
ASK PARAMETERS: Y YES
ASK HOST FILE:
ASK HFS I/O OPERATION:
QUEUING:
OUT-OF-SERVICE DATE:
NEAREST PHONE:
KEY OPERATOR:
MARGIN WIDTH:
PAGE LENGTH:
SUPPRESS FORM FEED AT CLOSE: Y
SECURITY: ^

```

3.5 Edit Accession File (#68)

It is only necessary to edit those accession areas where labels will be used.

3.5.1 ALTERNATE LABEL ENTRY Field

It is necessary to enter the Entry point of the Print routine in this field. For the 3400/4100 printers it is **EN**.

3.5.2 ALTERNATE LABEL ROUTINE Field

It is necessary to enter the print routine's name in this field. For the 3400/4100 printers, this is **BLRLABLA**.

3.5.3 BAR CODE PRINT Field

This field must be set to **YES**.

3.5.4 Example

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: OPTION// ACCESSION
    1  ACCESSION                               (12 entries)
    2  ACCESSION TEST GROUP                     (7 entries)
CHOOSE 1-2: 1  ACCESSION                       (12 entries)
EDIT WHICH FIELD: ALL// BAR CODE PRINT
THEN EDIT FIELD: ALTERNATE LABEL ENTRY
THEN EDIT FIELD: ALTERNATE LABEL ROUTINE
THEN EDIT FIELD:

Select ACCESSION AREA: CHEMISTRY
BAR CODE PRINT: YES  YES
ALTERNATE LABEL ENTRY: EN
ALTERNATE LABEL ROUTINE: BLRLABLC

Select ACCESSION AREA:

```

3.6 Edit Laboratory Site File (#69.9)

If this is the first time the site has used Lab Labels, then the Laboratory Site file will need to be edited.

3.6.1 PRINT LABELS Field

The PRINT LABELS field must be set to **YES**.

3.6.2 LABEL TYPE Field

The LABEL TYPE field must be set to **SITE FILE**.

3.6.3 Example

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: OPTION// LABORATORY SITE      (1 entry)
EDIT WHICH FIELD: ALL// PRINT LABELS
THEN EDIT FIELD: LABEL TYPE
THEN EDIT FIELD:

Select LABORATORY SITE SITE NAME:                <Enter site name>
PRINT LABELS: YES  YES
LABEL TYPE: SITE FILE  SITE FILE

Select LABORATORY SITE SITE NAME: ^

```

3.7 Initialization Option

It is strongly advised that an option be created and placed upon the BLRMENU so that the Laboratory Personnel will be able to re-initialize the printer whenever necessary.

3.7.1 Create New Option

The first step is to create the new option in the Option (#19) file:

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: LABORATORY TEST// 19 OPTION (9632 entries)
EDIT WHICH FIELD: ALL//

Select OPTION NAME: BLR STARTUP FOR INTERMEC 7421
  Located in the BLR (IHS LABORATORY) namespace.
  Are you adding 'BLR STARTUP FOR INTERMEC 3400' as
  a new OPTION (the 9633RD)? No// Y (Yes)
  OPTION MENU TEXT: Will reinitialize the Intermec 7421 printer
MENU TEXT: Will reinitialize the Intermec 3400 printer
  Replace
OUT OF ORDER MESSAGE: ^TYPE
TYPE: RUN run routine
Select ITEM: ^ROUTINE
ROUTINE: BLRBARC
HEADER: ^DESCRIPTION
DESCRIPTION:
  No existing text

==[ WRAP ]==[ INSERT ]=====< DESCRIPTION >===== [ <PF1>H=Help ]====
This option will run the BLRBARC routine that will
re-initialize an Intermec 7421 printer.

<=====T=====T=====T=====T=====T=====T=====T=====T=====T>=====

HELP FRAME:
PRIORITY: ^

Select OPTION NAME:

```

3.7.2 Add new Option to the BLRMENU

The next step is to add the new option to the BLRMENU:

```

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: LABORATORY TEST// OPTION
  1 OPTION (9633 entries)
  2 OPTION SCHEDULING (20 entries)
CHOOSE 1-2: 1 OPTION (9633 entries)
EDIT WHICH FIELD: ALL// MENU
  1 MENU (multiple)

```

```

2 MENU TEXT
CHOOSE 1-2: 1 MENU (multiple)
EDIT WHICH MENU SUB-FIELD: ALL//
THEN EDIT FIELD:

Select OPTION NAME: BLRMENU IHS Lab Main Support Menu
Select ITEM: BLR CHANGE URGENCY// BLR STARTUP FOR INTERMEC 7421 Will
reinitialize the Intermec 3400 printer
Are you adding 'BLR STARTUP FOR INTERMEC 3400' as
a new MENU (the 25TH for this OPTION)? No// Y (Yes)
MENU SYNONYM: 7421
SYNONYM: 7421//
DISPLAY ORDER:
Select ITEM:

Select OPTION NAME:

```

3.8 Initialize the Printer

Use the new option on the **BLRMENU** to initialize the printer:

```

Select OPTION NAME: BLRMENU 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
FAL Find ALL PCC Link Errors from Lab
STP Stop/restart Lab to PCC Transaction Processor
MSTR Enter/edit BLR MASTER CONTROL FILE
POV Purpose of Visit Compliance Report
7421 Will reinitialize the Intermec 7421 printer
BZY IHS Taskman Busy Device Rpt
CHGU Change Order Urgency
CLR Clear BLR errors from error log
CUM IHS CUMULATIVE MENU ...
ETP LA7 Message Queue Error Messages to Purgeable
ILUM IHS LOINC/UCUM MENU ...
LOI IHS Lab Package LOINC Percentage Report
LVP IHS Lab Version & Patch Report
MMR Lab Description Abbreviation Report
NLO Lab Tests Without LOINC Entries Report
RBE Clear ALL BLR Errors from Error Log
REFL Reference Lab Main Menu ...
SHDR State Health Dept Report

Select IHS Lab Main Support Menu Option: 7421 Will reinitialize the
Intermec 7421 printer
DEVICE: HOME// LABLABEL

Barcode Formating Program Queued

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
FAL    Find ALL PCC Link Errors from Lab
STP    Stop/restart Lab to PCC Transaction Processor
MSTR   Enter/edit BLR MASTER CONTROL FILE
POV    Purpose of Visit Compliance Report
7421   Will reinitialize the Intermec 7421 printer
BZY    IHS Taskman Busy Device Rpt
CHGU   Change Order Urgency
CLR    Clear BLR errors from error log
CUM    IHS CUMULATIVE MENU ...
ETP    LA7 Message Queue Error Messages to Purgeable
ILUM   IHS LOINC/UCUM MENU ...
LOI    IHS Lab Package LOINC Percentage Report
LVP    IHS Lab Version & Patch Report
MMR    Lab Description Abbreviation Report
NLO    Lab Tests Without LOINC Entries Report
RBE    Clear ALL BLR Errors from Error Log
REFL   Reference Lab Main Menu ...
SHDR   State Health Dept Report
```

```
Select IHS Lab Main Support Menu Option:
```

If everything has been set up correctly, the pause light will flash on and off as the routine format is loaded into the printer.

3.9 Test Label Printer

Test the label printer by using the Reprint an Accession Label option found in the Accessioning Menu to check that the labels have been formatted correctly.

4.0 Other Intermec label Routines

There are other routines developed for the Intermec printers.

4.1 BLRIPLU Routines for Barcoded UIDs

Two routines were developed for printing a barcoded UID without utilizing any binary code in the hope that it would alleviate some issues regarding print queues and binary code.

Because these routines do not use binary code they can be used by any Intermec printer that can recognize the Intermec Printing Language (IPL) commands. This includes Intermec 3400, the PC41, the 7421, etc. See the printer specifications to determine if a printer can interpret IPL.

4.1.1 BLRIPLUI: The Initialization Routine

The BLRIPLUI routine is the initialization routine. It must be run first in order to format the printer for the data from the print routine.

4.1.1.1 Horizontal Shift Line Label: PROGINIT

This routine also has a special line label, PROGINIT, that allows the user to specify a horizontal "shift" of the label.

4.1.1.2 Option File

The BLRIPLUI routine should be entered in the ROUTINE field of the option on the BLRMENU that initializes a printer.

For example, the BLR STARTUP FOR INTERMEC PC41:

```
NAME: BLR STARTUP FOR PC41
MENU TEXT: Will re-initialize PC41 if turned off.
TYPE: run routine                      CREATOR: KRING,MICHAEL
DESCRIPTION: This option will use BLRIPLUI to re-initialize a PC41 Lab
Label printer if it is turned off.
ROUTINE: ^BLRIPLUI                     SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: WILL RE-INITIALIZE PC41 IF TUR
```

Note that if the PROGINIT line label is needed to "shift" the label horizontally, the entry in the option file should be similar to the following:

```
NAME: BLR STARTUP FOR PC41
MENU TEXT: Will re-initialize PC41 if turned off.
TYPE: run routine                      CREATOR: KRING,MICHAEL
DESCRIPTION: This option will use PROGINIT^BLRIPLUI to re-initialize a
PC41 Lab Label printer if it is turned off.
ROUTINE: PROGINIT^BLRIPLUI            SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: WILL RE-INITIALIZE PC41 IF TUR
```

4.1.2 BLRIPLUP: The Print Routine

The print routine must be entered in the ALTERNATE LABEL ROUTINE field in the Accession file for all accessions for which a label will be printed.

For example, the following CHEMISTRY accession area has the field filled in.

AREA: CHEMISTRY	
LR SUBSCRIPT: CHEM, HEM, TOX, RIA, SER, etc.	
CLEAN UP: DAILY	ACCESSION TRANSFORM: DAILY
PRINT ORDER: 1	ABBREVIATION: CH
*LAB SECTION: CHEMISTRY	BAR CODE PRINT: YES
LAB DIVISION: CLINICAL PATHOLOGY	ACC CODE: S LRAD=DT
NUMERIC IDENTIFIER: 10	TYPE OF ACCESSION NUMBER: LONG
ALTERNATE LABEL ROUTINE: BLRIPLUP	

4.1.3 ACCESSION FILE: Type of Accession Number

For the UID to print, the TYPE OF ACCESSION NUMBER field must be set to LONG.

4.2 BLRIPLZ Routines for Barcoded Accession Numbers

Two routines were developed for printing a barcoded Accession Number without utilizing any binary code in the hope that it would alleviate some issues regarding print queues and binary code.

Because these routines do not use binary code they can be used by any Intermec printer that can recognize the Intermec Printing Language (IPL) commands. This includes Intermec 3400, the PC41, the 7421, etc. See the printer specifications to determine if a printer can interpret IPL.

4.2.1 BLRIPLZI: The Initialization Routine

The BLRIPLZI routine is the initialization routine. It must be run first in order to format the printer for the data from the print routine.

4.2.1.1 Horizontal Shift Line Label: PROGINIT

This routine also has a special line label, PROGINIT, that allows the user to specify a horizontal "shift" of the label.

4.2.1.2 Option File

The BLRIPLZI routine should be entered in the ROUTINE field of the option on the BLRMENU that initializes a printer.

For example, the BLR STARTUP FOR INTERMEC PC41:

```

NAME: BLR STARTUP FOR PC41
MENU TEXT: Will re-initialize PC41 if turned off.
TYPE: run routine                      CREATOR: KRING,MICHAEL
DESCRIPTION: This option will use BLRIPLZI to re-initialize a PC41
Lab Label printer if it is turned off.
ROUTINE: ^BLRIPLZI                     SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: WILL RE-INITIALIZE PC41 IF TUR

```

Note that if the PROGINIT line label is needed to "shift" the label horizontally, the entry in the option file should be similar to the following:

```

NAME: BLR STARTUP FOR PC41
MENU TEXT: Will re-initialize PC41 if turned off.
TYPE: run routine                      CREATOR: KRING,MICHAEL
DESCRIPTION: This option will use PROGINIT^BLRIPLZI to re-initialize a
PC41 Lab Label printer if it is turned off.
ROUTINE: PROGINIT^BLRIPLZI             SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: WILL RE-INITIALIZE PC41 IF TUR

```

4.2.2 BLRIPLZP: The Print Routine

The print routine must be entered in the ALTERNATE LABEL ROUTINE field in the Accession file for all accessions for which a label will be printed.

For example, the following CHEMISTRY accession area has the field filled in:

```

AREA: CHEMISTRY
LR SUBSCRIPT: CHEM, HEM, TOX, RIA, SER, etc.
CLEAN UP: DAILY                        ACCESSION TRANSFORM: DAILY
PRINT ORDER: 1                          ABBREVIATION: CH
*LAB SECTION: CHEMISTRY                  BAR CODE PRINT: YES
LAB DIVISION: CLINICAL PATHOLOGY         ACC CODE: S LRAD=DT
NUMERIC IDENTIFIER: 10                   ALTERNATE LABEL ROUTINE: BLRIPLZP

```

5.0 Microcom 400 Installation Guide

5.1 Printer Routine

The Microcom printer is the "exception to the rule" that printer routines come in pairs. The Microcom printer has only one routine associated with it, the BLRLABEL routine.

5.2 Edit Terminal Type File (#3.2)

```

VA FileMan Version 22.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: TERMINAL TYPE//
EDIT WHICH FIELD: ALL//

Select TERMINAL TYPE NAME: P-MICROCOM 400
Are you adding 'P-MICROCOM 400' as a new TERMINAL TYPE (the 159TH)? No// Y
  (Yes)
SELECTABLE AT SIGN-ON: N NO
RIGHT MARGIN: 80
FORM FEED: $C(12)
PAGE LENGTH: 60
BACK SPACE: $C(8)
*OLD XY CRT:
XY CRT:
OPEN EXECUTE: D OPEN^LRLABEL4
OPEN EXECUTE DESCRIPTION:
  1>
CLOSE EXECUTE: ^

```

5.3 Edit Device file (#3.5)

```

VA FileMan Version 22.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: DEVICE//      (70 entries)
EDIT WHICH FIELD: ALL//

Select DEVICE NAME: LABLABEL BAR
Are you adding 'LABLABEL BAR' as a new DEVICE (the 71ST)? No// Y (Yes)
  DEVICE LOCATION OF TERMINAL: FACIT T410 PRINTER FOR LAB
  DEVICE $I:                                     <Enter full path printer name>
  DEVICE VOLUME SET(CPU):                       <Enter volume group name>
  DEVICE TYPE: T TERMINAL
LOCATION OF TERMINAL: MICROCOM 400 PRINTER FOR LAB LABELS
Select MNEMONIC:
LOCAL SYNONYM: LABLABEL
$I: //
VOLUME SET(CPU): //
SIGN-ON/SYSTEM DEVICE: N NO

```

```

TYPE: TERMINAL//
SUBTYPE: P-MICROCOM 400
ASK DEVICE: N NO
ASK PARAMETERS: N NO
ASK HOST FILE:
ASK HFS I/O OPERATION:
QUEUING:
OUT-OF-SERVICE DATE:
NEAREST PHONE:
KEY OPERATOR:
MARGIN WIDTH:
PAGE LENGTH:
SUPPRESS FORM FEED AT CLOSE: Y
SECURITY: ^

```

5.4 Edit Accession File (#68)

Only for accession areas where labels are used:

```

VA FileMan Version 22.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: ACCESSION//
EDIT WHICH FIELD: ALL// 5 BAR CODE PRINT
THEN EDIT FIELD:
Select ACCESSION AREA: CH CHEMISTRY
BAR CODE PRINT: YES// Y YES
Select ACCESSION AREA: ^

```

5.5 Edit Laboratory Site File (#69.9)

```

VA FileMan Version 22.0

Select VA FileMan Option: Enter or Edit File Entries

INPUT TO WHAT FILE: LABORATORY SITE//
EDIT WHICH FIELD: ALL// 12 PRINT LABELS
THEN EDIT FIELD: 302 LABEL TYPE
THEN EDIT FIELD:

Select LABORATORY SITE NAME: <Enter site name>
PRINT LABELS: YES
LABEL TYPE: 4 (SITE)

Select LABORATORY SITE SITE NAME: ^

```

5.6 Load Output Routine

Because the BLRLABEL is only one routine, it must overwrite the LRLABEL4 routine at the site. This must be accomplished in programmer mode:

```
ZL BLRLABEL  
ZS LRLABEL4
```

5.7 Test label printer

Use the Reprint an Accession Label option found in the Accessioning Menu to check that the labels have been formatted correctly.

6.0 Unix Notes

Here are some random notes that have been gleaned from various users that may help site managers on Unix systems.

6.1 HP JetDirect

When using an external HP Jetdirect print server it may be necessary to set up the Unix queue to be a generic (ASCII) printer and set the Job attribute print type to p (pass-through).

6.2 Setup Example

```

[TOP]                                     [Entry Fields]
Print queue name                          pala2
Printer name                              hp@pala2

----- Text Print Options -----
DOUBLE SPACING?                          no                +

----- Job Processing Options -----
PAGE NUMBER where printing should begin  [1]                + #
Print file TYPE                           p                  +
Pre-processing FILTER NAME                [1]                +
INITIALIZE printer?                       yes                 +
RESTORE printer?                          no                  +

```

6.3 Device File

In the device file use the “QWI” in the OPEN PARAMETER field for the LABLABEL device.

6.4 Routine Changes

If there is still an issue, it may be necessary change all the exclamation points (!) to \$C(13),\$C(10) in the print routine.

6.5 Device Type

There has been an incident reported that when the \$I was set to lp -dintermec, the Device TYPE should not be set to Terminal but to Other instead. This is because the printer was set without queuing enabled.

Appendix A: Intermec Unix Print Queue Suggestion

The following was copied from the Intermec website:

Question: How can I test my Unix print queue?

Answer: To print successfully from a UNIX print queue (i.e., Solaris 2.8):

- Use a known good label format file (i.e., IPL)
- Command* to use: `lpr -Pserver:printer -t file`

The "-t" switch in the Unix "lpr" command specifies a binary file is to be passed unaltered. The referenced file** is an IPL sample of a Code 128 UCC-SCC barcode and is in a 4" wide by 6" high format. Use the test label that prints with this in mind as the print may go over several labels if the size is smaller than 4" x 6".

* This means there isn't a need to set up a queue on Unix to print to any server:printer on the network unless required by the print method.

** The referenced file is for IPL printers only.

Referenced File:

http://intermec.custhelp.com/cgi-bin/intermec.cfg/php/enduser/fattach_get.php?p_sid=4_npQ7Ih&p_tbl=9&p_id=6613&p_created=1093636797

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