



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Laboratory Label Printer Installation

User's Guide

Version 1.0

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Office of Information Technology
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PREFACE

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

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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 support Printers are:

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

Intermec 3400/4100 Installation Guide

1. 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 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: **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: **^**

There is a "space"
after the "W"

Leave out OPEN
EXECUTE code
for Model 3400

2. 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 4100 PRINTER FOR LAB**

DEVICE \$I: ←

DEVICE VOLUME SET(CPU): ←

DEVICE TYPE: **T** TERMINAL

LOCATION OF TERMINAL: **INTERMEC 4100 PRINTER FOR LAB**

Replace

Select MNEMONIC:

LOCAL SYNONYM:

\$I: //

VOLUME SET(CPU): //

SIGN-ON/SYSTEM DEVICE: **N** NO

Enter the
printer's full path
or the port
number that the
printer will use

Enter your three-character
volume group name

```

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: ^

```

3. *Edit Accession File (#68):*

Enter or Edit File Entries

```

INPUT TO WHAT FILE: DEVICE// 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: ^

```

Only for accession
areas where barcode
labels are used

4. *Edit Laboratory Site File (#69.9):*

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:
PRINT LABELS: YES
LABEL TYPE: 4 (SITE)

```

Select LABORATORY SITE SITE NAME: ^

Enter your Site
Name

5. *Switch Settings*

For Serial ports only

1 (upper): 1 0 0 1 1 0 1 0

2 (lower): 1 0 0 0 0 0 0 0

Note: this is for 9600 baud. Check Intermec Manual for other baud rates.

6. *Cable*

Standard printer connection

7. *Load Output Routine*

In programmer mode, type:

ZL BLRLABLA (for barcode/plain 1x2 labels) or
ZL BLRLABLB (for ten-part labels)

ZS LRLABEL4

8. *Printer Initialization*

Once all connections and files have been set, run the following routine in programmer mode to initialize the printer:

D ^BLRBARA (if using barcode/plain 1x2 labels)

or

D ^BLRBARB (if using ten-part labels)

DEVICE//:

Printer name or for serial connections the port number

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

9. *Test the label printer*

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

10. BLRBARA Analysis

BLRBARA													
	W	*2	*27	C	*3								
		<STX>	Select Advanced Mode		<ETX>								
	W	*2	*27	P	*3								
		<STX>	Enter Program Mode		<ETX>								
	W	*2	E3	F3	*3								
		<STX>	Erase Format 3	Create Format 3	<ETX>								
L1	W	*2	F3	H1	o150,390	f1	c2	h1	w1	d0,35	*3		TEST
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 35	<ETX>		
L2	W	*2	F3	H2	o133,350	f1	c2	h1	w1	d0,14	*3		TOP/SPECIMEN
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 14	<ETX>		
L3	W	*2	F3	H3	o116,350	f1	c2	h1	w1	d0,13	*3		ORDER#
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 13	<ETX>		
L4	W	*2	F3	H4	o160,450	f2	c2	h2	w1	d0,14	*3		ACCESSION
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 2=rotate 180 deg	Font Type 2	Height Mag 2	Line Width 1	data, width 14	<ETX>		
L5	W	*2	F3	H5	o175,418	f2	c2	h1	w1	d0,17	*3		DATE
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 2=rotate 180 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 17	<ETX>		
L6	W	*2	F3	H6	o30,350	f1	c2	h1	w1	d0,7	*3		HRCN
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 7	<ETX>		
L7	W	*2	F3	H7	o30,250	f1	c2	h1	w1	d0,20	*3		LOCATION
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 20	<ETX>		
L8	W	*2	F3	H8	o0,350	f1	c2	h2	w1	d0,21	*3		PT.NAME
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 2	Line Width 1	data, width 21	<ETX>		
L9	W	*2	F3	H9	o115,160	f1	c0	h3	w3	b1	d0,4	*3	STAT
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 0	Height Mag 3	Line Width 3	white letters on black data, width 21	<ETX>		
L10	W	*2	F3	B10	o50,350	f1	c0,1	h60	w2	d0,5	*3		BAR CODE
		<STX>	Edit Format 3	Bar Code Field	Origin	Field Rotation; 1=rotate 90 deg	Code 39 with Check Digit	Height Mag 60	Line Width 2	data, width 5	<ETX>		

11. BLRLABLA Analysis

BLRLABLA									
BAR									Notes
	W	*2	"R"	*3					
		<STX>	Program Mode Exit	<ETX>					
	W	*2	*27 "E3"	*24	!	TESTVAR		*3	
1		<STX>	Format Select: Format 3	<CAN> Clear all Data	CR/LF	Tests		<ETX>	
2	W	*2	!	LRTOP	*3				
		<STX>	CR/LF	Tube Top	<ETX>				
3	W	*2	!	"Order #:"	LRCE	*3			
		<STX>	CR/LF	Order #	<ETX>				
4	W	*2	!	LRACC	*3				
		<STX>	CR/LF	Accession String	<ETX>				
5	W	*2	!	LRDSHRT	*3				
		<STX>	CR/LF	Date	<ETX>				
6	W	*2	!	HRCN	*3				
		<STX>	CR/LF	Health Record Number	<ETX>				
7	W	*2	!	LOCVAR	*3				
		<STX>	CR/LF	Location	<ETX>				
8	W	*2	!	\$E(PNM,1,27)		*3			
		<STX>	CR/LF	Patient Name		<ETX>			
9	W	*2	!	BLRURG	*3				
		<STX>	CR/LF	Urgency	<ETX>				
10	W	*2	!	\$E("000",\$L(LRAN),4)_LRAN			*3		
		<STX>	CR/LF	Bar Coded Accession Number			<ETX>		
	W	*2	23	15	S30	12	*3		
		<STX>	<ETB> Print	<SI>	Print speed, set	<FF>	<ETX>		

Intermec PC41 or 7421 Installation Guide

1. 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: ^

There is a "space"
after "W"

2. 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 7421 PRINTER FOR LAB

DEVICE \$I:

DEVICE VOLUME SET(CPU):

DEVICE TYPE: **T** TERMINAL

LOCATION OF TERMINAL: **INTERMEC 7421 PRINTER FOR LAB**

Replace

Select MNEMONIC:

LOCAL SYNONYM:

\$I: //

VOLUME SET(CPU): //

SIGN-ON/SYSTEM DEVICE: **N** NO

TYPE: TERMINAL//

Enter the
printer's full path
or the port
number that the
printer will use

Enter your three-character
volume group name

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. **Edit Accession File (#68)**

Only for accession
 areas where barcode
 labels are used

Enter or Edit File Entries

INPUT TO WHAT FILE: DEVICE// **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: **^**

4. **Edit Laboratory Site File (#69.9):**

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:
 PRINT LABELS: **YES**
 LABEL TYPE: **4** (SITE)

Enter your Site
 Name

Select LABORATORY SITE SITE NAME: **^**

5. **Switch Settings:**

Factory settings are the default.

6. *Cable*

Standard printer connection

7. *Load output routine*

In programmer mode, type:

ZL BLRLABLC (for barcode/plain 1x2 labels) or
ZL BLRLABLD (for ten-part labels)

ZS LRLABEL4

8. *Printer Initialization*

Once all connections and files have been set, run the routine in programmer mode to set up the printer:

D ^ BLRBARC (if using barcode/plain 1x2 labels)

or

D ^BLRBARD (if using ten-part labels)

DEVICE// : ←

Printer name or for serial
connections the port number

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

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 formatted correctly.

10. BLRBARC Analysis

BLRBARC													
	W	*2	*27	C	*3								
		<STX>	Select Advanced Mode		<ETX>								
	W	*2	*27	P	*3								
		<STX>	Enter Program Mode		<ETX>								
	W	*2	E3	F3	*3								
		<STX>	Erase Format 3	Create Format 3	<ETX>								
L1	W	*2	F3	H1	o150,490	f1	c2	h1	w1	d0,35	*3		TEST
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 35	<ETX>		
L2	W	*2	F3	H2	o133,450	f1	c2	h1	w1	d0,14	*3		TOP/SPECIMEN
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 14	<ETX>		
L3	W	*2	F3	H3	o116,490	f1	c2	h1	w1	d0,13	*3		ORDER#
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 13	<ETX>		
L4	W	*2	F3	H4	o160,585	f2	c2	h2	w1	d0,14	*3		ACCESSION
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 2=rotate 180 deg	Font Type 2	Height Mag 2	Line Width 1	data, width 14	<ETX>		
L5	W	*2	F3	H5	o200,553	f2	c2	h1	w1	d0,17	*3		DATE
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 2=rotate 180 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 17	<ETX>		
L6	W	*2	F3	H6	o30,490	f1	c2	h1	w1	d0,7	*3		HRCN
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 7	<ETX>		
L7	W	*2	F3	H7	o30,390	f1	c2	h1	w1	d0,20	*3		LOCATION
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 1	Line Width 1	data, width 20	<ETX>		
L8	W	*2	F3	H8	o0,490	f1	c2	h2	w1	d0,21	*3		PT.NAME
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 2	Height Mag 2	Line Width 1	data, width 21	<ETX>		
L9	W	*2	F3	H9	o170,340	f1	c0	h3	w3	b1	d0,4	*3	STAT
		<STX>	Edit Format 3	Human Readable Field	Origin	Field Rotation; 1=rotate 90 deg	Font Type 0	Height Mag 3	Line Width 3	white letters on black	data, width 21	<ETX>	
L10	W	*2	F3	B10	o50,500	f1	c0,1	h60	w2	d0,5	*3		BAR CODE
		<STX>	Edit Format 3	Bar Code Field	Origin	Field Rotation; 1=rotate 90 deg	Code 39 with Check Digit	Height Mag 60	Line Width 2	data, width 5	<ETX>		

Microcom 400 Installation Guide

1. 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-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: **^**

2. Edit Device file (#3.5):

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:

DEVICE VOLUME SET(CPU):

DEVICE TYPE: **T** TERMINAL

LOCATION OF TERMINAL: **MICROCOM 400 PRINTER FOR LAB LABELS**

Select MNEMONIC:

LOCAL SYNONYM: **LABLABEL**

\$I: // (local port number)

VOLUME SET(CPU): //

SIGN-ON/SYSTEM DEVICE: **N** NO

TYPE: TERMINAL//

SUBTYPE: **P-MICROCOM 400**

Enter the printer's full path or the port number that the printer will use

Enter your three-character volume group name

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: **^**

3. *Edit Accession File (#68):*

Only for accession areas where barcode labels are used

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: **^**

4. *Edit Laboratory Site File (#69.9):*

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: **←**
 PRINT LABELS: **YES**
 LABEL TYPE: **4** (SITE)

Enter your Site Name

Select LABORATORY SITE SITE NAME: **^**

5. *Switch Settings*

Factory settings are the default.

6. Cable

Standard printer serial connection

7. Load output routine

In programmer mode, type:

```
ZL BLRLABEL
```

```
ZS LRLABEL4
```

8. Test label printer

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