

**TYPIST**  
**WORD PROCESSING SYSTEM**  
**INSTALLATION MANUAL**

**POINT**   
**DATA CORPORATION**

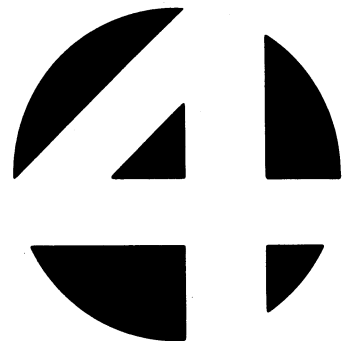


# **POINT 4 DATA CORPORATION**

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## **TYPIST WORD PROCESSING SYSTEM INSTALLATION MANUAL**

**Revision E**



## NOTICE

Every attempt has been made to make this manual complete, accurate and up-to-date. However, all information herein is subject to change due to updates. All inquiries concerning this manual should be directed to POINT 4 Data Corporation.

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# LIST OF EFFECTIVE PAGES

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# PREFACE

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This manual is a guide to installing the TYPYST Word Processing System on the IRIS Operating System. It may be followed step-by-step or, for the more experienced installer, as a reference. Familiarity with the IRIS Operating System is assumed and is necessary to properly configure IRIS to support TYPYST.

The manual consists of three sections, several appendices and an index. Section 1 discusses TYPYST's requirements for IRIS, as well as requirements and recommendations for terminals and printers. Section 2 describes the procedure for configuring IRIS R8 to support TYPYST. Section 3 details the procedures for installing TYPYST and setting up TYPYST ports and initials. The appendices discuss the printer control file, IRIS R7 configuration, U. UTILITIES used during installation, and making TYPYST part of an integrated software package.

## Standard Notations For This Manual

This manual uses the following standard writing conventions.

- User input            User input is always underlined.
- <CTRL-X>                Indicates a control character where X is an alpha key. It is entered by holding down <CTRL>, pressing the indicated alpha key and then releasing both keys. <RETURN> is not required unless otherwise noted.
- <RETURN>                Indicates the key marked RETURN. <RETURN> must be pressed to activate input. <RETURN> is not shown unless it is the only command required or a second <RETURN> is required.
- < ← >  
< → >                    These symbols represent the left and right cursor control keys, which are marked with left and right arrows.

## Related Manuals

Related manuals include:

<u>Title</u>	<u>Pub. Number</u>
TYPIST Manager Manual	AM-150-0021
TYPIST User Guide	AM-150-0019
IRIS Operating System Installation and Configuration Manual	SM-030-0009



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# Section 1

## MINIMUM REQUIREMENTS

---

Certain requirements must be met in order to operate TYPYST under the IRIS Operating System. Various requirements and recommendations concerning terminals and printers must also be considered.

### 1.1 IRIS SYSTEM REQUIREMENTS

The following requirements for the IRIS Operating System must be met:

- IRIS Revision 7.5 or later with an R7A Pico-N  
or  
IRIS Revision 8.1C or later with a TYPYST coded Pico-N for R8
- Minimum partition size of 20000 octal
- Phantom ports enabled (unless spoolers operate on interactive ports)
- \$TERMS drivers enabled
- Mux driver which supports TYPYST, e.g., \$MMUX

## 1.2 TERMINAL REQUIREMENTS

Terminals which will be used for TYPIST must be supported by \$TERMS drivers and include the following features:

- clear screen
- clear to end of screen
- clear to end of line
- cursor addressing
- 24-line by 80-column screen

In addition, the hardware must provide the following features:

- insert line
- delete line

Begin protect, end protect and cursor track mode are not used by TYPIST.

Although POINT 4 does not recommend any specific terminals, the terminals known to meet these requirements include:

- ADDS Regent 40
- Hazeltine 1500, 1510, 1520
- LSI ADM 31
- Soroc 135
- Televideo 912, 920, 925, 950

### 1.2.1 TERMINAL FEATURES

When selecting a terminal to use with your TYPIST Word Processing system, consider the following features. Details which may seem insignificant can make quite a difference to the TYPIST user.

#### 1.2.1.1 Important Keys

The ESCAPE and CTRL keys are used to produce almost every TYPIST edit command. They should be within easy reach from the normal typing position of the operator's hands. Since the CTRL key must be held down like a SHIFT key, it is more important for that key to be easily accessible.

The keyboard should include the following keys:

< --> >	(right arrow)	< ` >	(grave accent mark)
< <-- >	(left arrow)	<LINE FEED>	
<DEL>, <RUB> or <RUBOUT>		<TAB>	

The arrow keys are used to move the cursor right and left along a single line. Their alternatives are <CTRL-L> and <CTRL-H>. Alternative commands are not as easy to use, and are difficult for the beginning user to remember.

The <DEL>, <RUB> or <RUBOUT> key is used to delete one character at a time. There is no alternative for this key. The control, escape, arrow and delete keys should be sufficiently separated so that the user will not mistakenly press the wrong key.

The grave accent key is used for the non-separable space directive to keep words like "Mr. Smith" or "POINT 4" from being separated during editing or formatting.

The <LINE FEED> key is used to move up one line. Its alternative is <CTRL-J>.

The <TAB> key is used to move the cursor to the next tab stop. Its alternative is <CTRL-I>.

The backslash "\" key (not the forward slash) should be lowercase if possible because of its frequent use.

The number pad should be separated from the other keys so the operator can find it quickly and not confuse it with other keys.

#### **1.2.1.2 The Keyboard**

When selecting a terminal, remember that TYPIST users are typists and use the keyboard differently from programmers. Ask a typist (or several typists) to try out any keyboard under consideration.

A sculptured keyboard is helpful, because the operator does not have to look at the keyboard to position his or her hands. Similarly, a keyboard which steps up each row of keys is more useful than one with the keys evenly sloped. Deeper cupping of the inner letters' key caps also helps the operator, especially when typing at a high speed.

Keys should have a definite stroke or tactile feel when pressed. They should not be spongy or hard to press, yet they should not be so responsive that letters are duplicated. An audible click upon contact lets the operator know that contact has been made.

## 1.3 PRINTER RECOMMENDATIONS

Three types of printers may be used to print TYPiST documents: character printers for highest quality output, semi printers for typewriter-quality output, and dumb printers for rough draft output. Character printers are recommended.

### 1.3.1 CHARACTER PRINTERS

A character printer produces high quality TYPiST printouts. It will underline, bold print, subscript, superscript; single, one-and-a-half or double space; and obey the MOVE, LMOVE, GOTO, PITCH and ELITE directives.

Considerations for selecting a character printer are discussed in the following subsections.

#### NOTE

NEC 3510, 5510 and 7710 printer firmware is incapable of setting pitch at 7 characters per inch or less, or inter-line spacing less than 3 lines per inch. Because TYPiST documents will rarely (if ever) approach these extremes, NEC xx10 users will probably not be aware of this limitation. If the value of p in \PITCH p is set to 16 or greater, or the value of N in \LINES N is set to 17 or greater, the directives will be ignored. Lines in which the words/characters would have to spread more than the equivalent of 7 characters per inch or less may fail to be justified.

#### 1.3.1.1 Form Lengths

Determine the form length requirements for the particular installation and then make sure the printer selected is capable of handling it by checking with the printer manufacturer. Consider the types of form lengths TYPiST users will need. For example, they may need to print one or two-inch continuous form labels or on letterhead which is affixed to continuous form paper (with a form length of 10-1/2"). Character printers have different capabilities in this area.



### **1.3.1.2 ASCII Printwheels/Thimbles**

TYPIST uses an ASCII character set. Check with the printer manufacturer to ensure that the desired typestyle(s) is available on ASCII printwheels or thimbles.

### **1.3.1.3 Double Underscore**

If the double underscore will not be used at your installation, another character may be substituted for it.

Appendix A describes how sophisticated programmers can make changes in the printer control file in order to print a substitute character. Appendix B provides a chart of ASCII code values in decimal.

### **1.3.1.4 Bidirectional Form Feeder**

For printing on continuous paper, a bidirectional form feeder is recommended in order to use TYPIST's vertical movement commands. These commands include GOTO, LMOVE, and MOVE. Check with printer manufacturers for availability.

A pinfeed platen is an alternative to a bidirectional form feeder, but is not recommended.

### **1.3.1.5 Acoustic Printer Enclosure**

Acoustic printer enclosures reduce the noise created by character printers and help produce a quieter office environment. They are available for virtually every type of printer.

### 1.3.2 SEMI PRINTERS

Semi printers will not produce high quality word processing output because they lack the capability to produce the functions of the following directives:

<u>Command</u>	<u>Function</u>
BL/RD	switch to black or red ribbon
BO/OB	print in bold print
DN/UP	subscript and superscript
ONE&H	set line spacing to one-and-a-half
PICA/ELITE/PITCH	set intercharacter spacing
GOTO/LMOVE/MOVE	move vertically to print
6LINE/8LINE/LINES	set interline spacing

Semi printers operate like dumb printers, except they are capable of underlining and backspacing.

### 1.3.3 DUMB PRINTERS

Any dumb printer for which an IRIS driver is available may be used for rough drafts and dumped printouts of TYPYST documents. However, dumb printers are not suitable for quality word processing output because they lack the capability to produce the functions of the following directives:

<u>Command</u>	<u>Function</u>
BL/RD	switch to black or red ribbon
BO/OB	print in bold print
BS	backspace
DN/UP	subscript and superscript
DB/BD	double underline
IL/LI	underline/do not underline interword spaces
UL/LU	underline
ONE&H	set line spacing to one-and-a-half
ELITE/PICA/PITCH	set intercharacter spacing
GOTO/LMOVE/MOVE	move vertically to print
LINES/6LINE/8LINE	set interline spacing

## Section 2

# IRIS R8 CONFIGURATION

---

This section describes the procedure for configuring an IRIS R8 System to support TYPYST. Appendix C describes the procedures for configuring an IRIS R7 system to support TYPYST.

### CAUTION!

Back up your current system for protection in case of mistakes. Follow your installation's back-up procedures.

## 2.1 TYPYST DISCSUBS

TYPYST's performance should be optimized by making as many of its discsubs as possible memory-resident.

All TYPYST discsubs are non-extended and none are nested.

The following list of TYPYST discsubs is arranged in order of priority from most to least important. It may be used to determine which discsubs to make memory-resident.

### Discsub Number

160  
164  
162  
163  
171

Memory-resident discsub numbers are entered in the DISCSUB Table at locations 1000 to 1377 in CONFIG. Memory-resident discsubs load at IPL. If too many discsubs are stored in lower memory, a trap 111 may result.

## 2.2 ENABLE PHANTOM PORTS AND TERMS DRIVERS

If phantom ports will be used to run the spoolers and if the phantom port driver (PHA) has not already been enabled, use CHANGE to enable it by changing the name PHA to \$PHA.

TYPIST requires TERMS drivers to be enabled. The correct Terminal Translation Module name for each terminal may be found in the IRIS R8 Peripherals Handbook. Enable the selected Terminal Translation Module as a \$ sign file (i.e., \$TERM.name). The file type is 77001. Enable the system driver TERMS as \$TERMS.

Remember that the phantom ports and TERMS drivers will not be enabled until the next IPL.

### 2.2.1 SHUTDOWN AND IPL

SHUTDOWN and IPL the system in order to make any changes effective. If the IPL is successful, skip to the next section.

If the IPL results in a memory overflow (trap 111), check the contents of lower memory. Refer to the IRIS Installation and Configuration Manual for procedures to correct a trap 111.

After making necessary modifications, SHUTDOWN and IPL again.

## 2.3 CONFIGURE WORD PROCESSING PRINTER

A driver must be set up for the word processing printer. TYPYST requires a letter quality printer for highest quality printouts. Please see section 1.3 for printer specifications.

This section describes the procedure for configuring a character printer. GUIDE.LPT may be used to produce a list of octal values which must be entered in the driver control table. Refer to the IRIS Installation and Configuration Manual if necessary.

### 2.3.1 RUN GUIDE.LPT

Figure 2-1 displays GUIDE.LPT prompts and appropriate responses. If your response to the prompts will not vary from those shown, skip to Section 2.3.2. The arrows in Figure 2-1 indicate the responses which may be changed. If your system has more than eight MUX ports and a port number greater than seven (octal) is used for the printer, or if the string to be output after a close will vary from l4, run GUIDE.LPT to produce a correct list of octal values to be entered into the driver control table.

Run GUIDE.LPT (if necessary) by entering GUIDE.LPT at the IRIS system prompt and either print the list on an existing printer or carefully copy it manually.

#### NOTE

The location numbers are not all in sequential order.

#### CAUTION

Do not use Line Feed or Carriage Return on open because they will not be included in the page line count, and can cause inconsistency between the first and subsequent pages of TYPYST printouts.

\$LPT must be set up so that Carriage Return is not translated into any other code, because Carriage Return may be part of a multiple-character sequence. Carriage Return and multiple Carriage Returns must not be changed. The printer must be set to perform an automatic Line Feed on Carriage Return.

IS YOUR PRINTER RUNNING THROUGH A POINT 4 MUX (Y/N) ? Y  
IS YOUR PRINTER A TTY40 (Y/N) ? N  
HAVE YOU SPECIFICALLY CHANGED YOU MUX'S FIRST PCB ADDRESS ? N  
WHICH PHYSICAL MUX PORT (OCTAL, ORIGIN 0) IS THE PRINTER ON ? 3

SET UP THIS PORT AS NON-INTERACTIVE IN THE ATRIB TABLE OF \$MMUX.  
(SEE 7.3 MANAGER MANUAL PG.A6-4) USE THE PROPER PCW WORD FOR YOUR  
PRINTER (SEE 7.3 MANAGER MANUAL PG. 11-4)

DO YOU WISH TO PRINT ZERO IN PLACE OF OH AND VISA VERSA ? (Y/N) N

THIS DRIVER OFFERS YOU GREAT FLEXIBILITY IN THE TYPES OF PRINTERS IT CAN  
RUN. DIFFERENT PRINTERS HAVE DIFFERENT REQUIREMENTS IN ORDER TO START  
PRINTING (OPEN), END PRINTING (CLOSE), DUMP ONE LINE (CR), DUMP A BLANK  
LINE (MULTIPLE CR), AND DELAY AFTER SPECIAL CHARACTERS (E.G. FORM FEED)

IN ORDER TO SPECIFY THE PARTICULAR STRING TO HANDLE EACH CASE, PLEASE  
GIVE THE OCTAL VALUE OF EACH STRING CHAR, ENDING EACH LIST WITH A -1.

PLEASE ENTER THE STRING TO BE OUTPUT AFTER AN OPEN.  
STRING CHAR: -1

PLEASE ENTER THE STRING TO BE OUTPUT AFTER A CLOSE.  
STRING CHAR: 14  
STRING CHAR: -1

PLEASE ENTER THE STRING TO BE OUTPUT INSTEAD OF A CR.  
STRING CHAR: 15  
STRING CHAR: -1

PLEASE ENTER THE STRING TO BE OUTPUT INSTEAD OF A MULTIPLE CR.  
STRING CHAR: 15  
STRING CHAR: -1

PLEASE ENTER THE TIMING STRING TO DELAY AFTER SPECIAL CHARS.  
STRING CHAR: -1

OUTPUT WHERE (L=PRINTER/CR=HERE) ? L

ONLY TWO  
RESPONSES  
WHICH  
MAY  
VARY

Figure 2-1. Sample GUIDE.LPT Run For Character Printer

### 2.3.2 ENTER GUIDE.LPT VALUES INTO DRIVER CONTROL TABLE

Use DSP to enter the octal values shown in Figure 2-2 or those listed by GUIDE.LPT. The listing gives specific instructions.

#### NOTE

The location numbers are not all in sequential order.

Upon completion, exit DSP and IPL the system to make the changes effective, as instructed by GUIDE.LPT.

GET INTO DSP AND ENTER THE FOLLOWING COMMAND:

F\$LPT

IMPORTANT: NEXT, DUMP STARTING AT 32206. YOU SHOULD SEE:

32206:25 32670

IF THE ABOVE CONTENTS ARE NOT EXACTLY AS SHOWN, DO NOT PROCEED!  
YOU SHOULD INSURE THAT YOU HAVE ENABLED THE CORRECT VERSION OF \$LPT.

YOU SHOULD INSURE YOU HAVE A BACKUP OF YOUR OPERATING SYS.  
IF/WHEN THE ABOVE IS CORRECT/SATISFIED, ENTER THE FOLLOWING CHANGES:

```
32201 : 32663
32312 : 0
32377 : 66140 *
32402 : 177770
32403 : 177771
32404 : 177773
32405 : 177775
32406 : 177777
32647 : 0
32652 : 3
32653 : 177777
32654 : 14
32655 : 177777
32656 : 15
32657 : 177777
32660 : 15
32661 : 177777
32662 : 177777
32663 : 0
32664 : 0
32665 : 0
32666 : 177777
32667 : 177777
```

NOW, EXIT DSP, SHUTDOWN AND RE-IPL THE SYS TO MAKE THE CHANGES EFFECTIVE.

\*PORT NO. (ORIGIN 0)

```
0 66000
1 66040
2 66100
3 66140
4 66200
5 66240
6 66300
7 66340
```

Figure 2-2. List Produced By GUIDE.LPT

### 2.3.3 SET UP PCW IN \$MMUX

Enter DSP and set up the Port Control Word in \$MMUX for a character printer, following Figure 2-3 for MARK 5/8 or Figure 2-4 for MARK 3. In both examples, 1 is the number of character printers being set up, the following value is the PCW, and 205 is the buffer size in octal. The values provide a 132-column print line, and the setup assumes that a buffer full status line is connected from the printer back to the MUX port at pin 20. For additional information on setting up PCWs, please see the IRIS Installation and Configuration Manual.

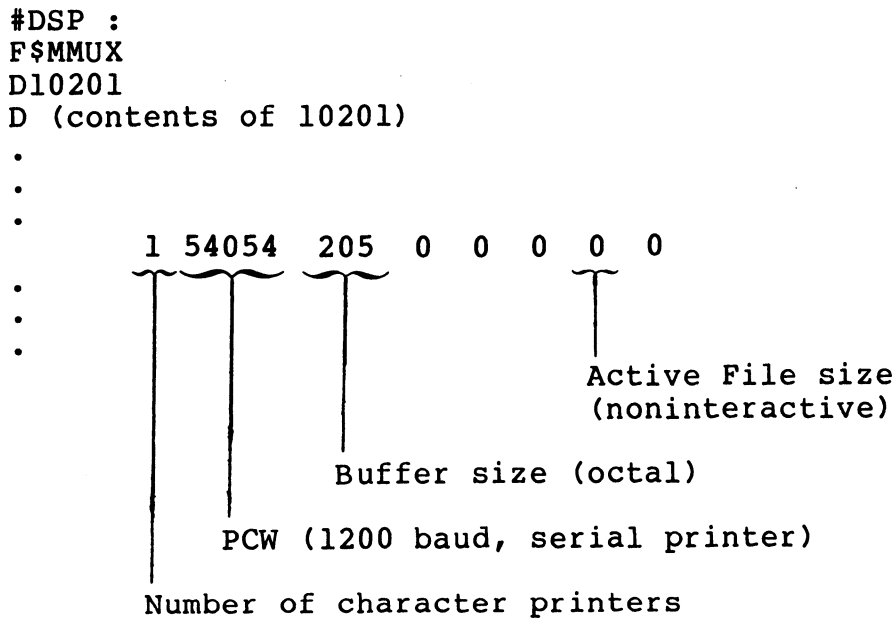
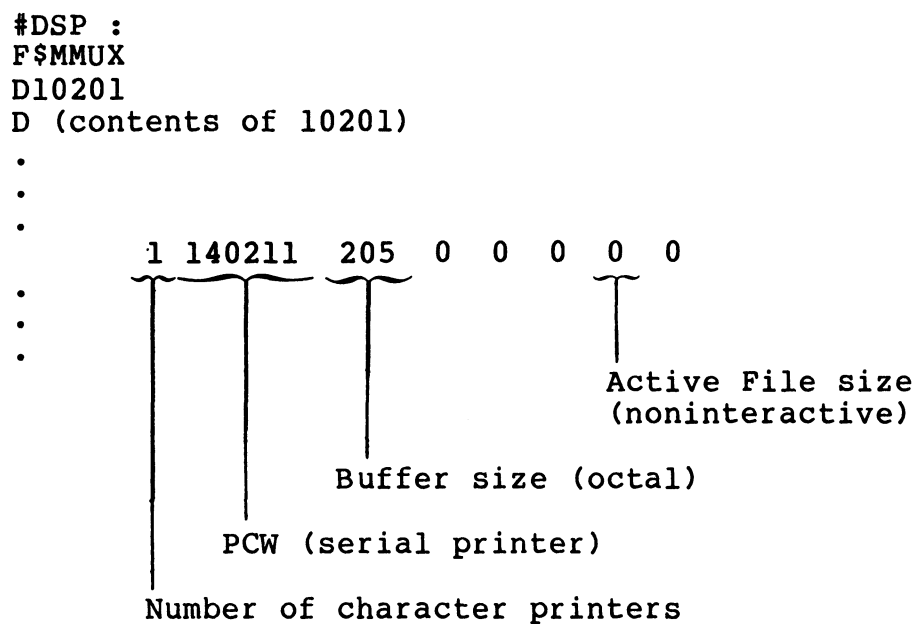


Figure 2-3. Example of Setting Up \$LPTn Port in \$MMUX For Character Printer on MARK 5/8

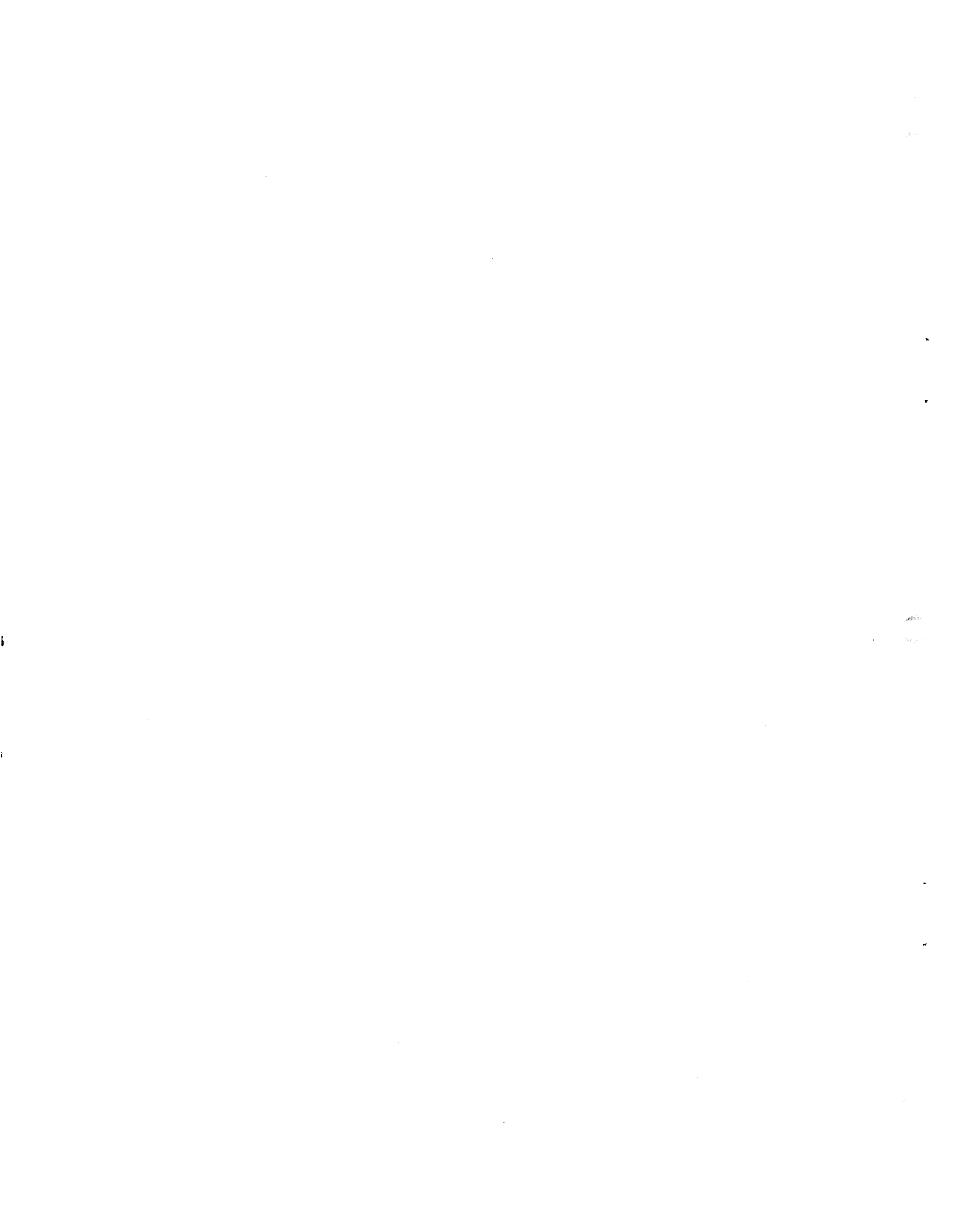




**Figure 2-4. Example of Setting Up \$LPTn Port in \$MMUX For Character Printer on MARK 3**

#### 2.3.4 SHUTDOWN AND IPL

SHUTDOWN and IPL your system to make all changes effective.



## **Section 3**

# **INSTALLING TYPIST**

---

This section details the procedure for installing TYPIST and setting up TYPIST ports and initials.

It consists of three subsections. The procedures in the first subsection must be performed from the IRIS Manager Account; those in the second subsection must be performed from the appropriate IRIS Account; and those in the third subsection must be performed from the TYPIST Manager's Initials.

### **3.1 FROM THE IRIS MANAGER ACCOUNT**

The procedures in this section include creating IRIS accounts for TYPIST users, creating a TYPIST chain program, copying TYPIST files onto the module logical unit, and running system generation programs. These procedures must be performed from the IRIS Manager Account.

#### **3.1.1 CREATE IRIS ACCOUNTS FOR TYPIST USERS**

IPL the system and log on to the IRIS Manager Account (0,1 on LU/0).

Create an IRIS Account for TYPIST Users. More than one account may be set up, depending on your needs. POINT 4 recommends that one IRIS account be set up for each TYPIST user or group of users. For example, one IRIS account might be set up for each department.

### 3.1.2 CREATE A TYPIST CHAIN PROGRAM

Since TYPIST users may be assigned to any system logical unit except LU/0, a BASIC program should be stored on LU/0 to allow users to access TYPIST by entering "TYPIST". Follow the example below to create the program:

```
#BASIC
NEW
10 CHAIN "lu/TIP.000.vvvv"
<CTRL-C>
#SAVE <33>0/TYPIST
SAVED !! CHECK CODE = nnnnn
```

where lu is the number of the logical unit on which TYPIST modules are stored and vvvv is the current revision level.

### 3.1.3 COPY TYPIST ONTO THE SYSTEM

This section describes the procedures for loading TYPIST software onto the system, copying the TYPIST files to appropriate logical units and changing the files' protection codes to appropriate values.

#### 3.1.3.1 Load TYPIST Software

Load the TYPIST software onto the system, following the procedures appropriate for the media on which the software was provided.

### 3.1.3.2 Copy TYPIST Files to the Module Logical Unit

This subsection describes how to copy appropriate TYPIST BASIC program files and text files onto the module logical unit. The module logical unit is the logical unit where TYPIST programs are to reside; it is usually LU/5.

Use U.COPY to copy the files. Please refer to Appendix D for a detailed description of U.COPY. Enter the designated responses at the prompts. User input is underlined. Use the (P)age command if necessary until the end of each file list is reached. Enter "E" to execute.

1. The TYPIST BASIC files which begin with the prefix TIP must be copied to the module logical unit. Respond to each prompt as indicated below.

```
FILE PREFIX:  TIP
TYPE OF FILE(S):  B
SOURCE LOGICAL UNIT:  1 (number of the LU containing
                        TYPIST files)
DEST. LOGICAL UNIT:  5 (the module LU number)
```

The system prompts

ARE ALL OF THE ABOVE SELECTION CRITERIA CORRECT (Y/N)?

When Y (yes) is entered, the system transfers the TYPIST BASIC program files to the module logical unit.

When the last file has been copied, the program asks whether the user wants to copy more files. Enter "Y" for Yes.

2. All text files beginning with the prefixes TIPIST.4 and TIPIST.6 must be copied to the module logical unit. Respond to each prompt as indicated below.

```
FILE PREFIX:  appropriate prefix
                (TIPIST.4 or TIPIST.6)
TYPE OF FILE(S):  T
SOURCE LOGICAL UNIT:  1 (number of the LU containing
                        TYPIST files)
DEST. LOGICAL UNIT:  5 (the module LU number)
```

When the last file has been copied, the program asks whether more files are to be copied. Enter "Y" for Yes.

3. Repeat step 2 for the TIPIST.6 text files.

When the TIPIST.4 and TIPIST.6 text files have been copied, the program asks whether more files are to be copied. Enter "Y" and proceed to the next subsection.

### 3.1.3.3 Copy TYPIST Files to Logical Units to be Configured

This subsection describes how to copy the appropriate TYPIST files to each logical unit which is to be configured for TYPIST.

1. The text files prefixed by TIPIST.2 and TIP.P... must be copied to each logical unit to be configured for TYPIST. Respond to each prompt as indicated below, where n is the number of a logical unit to be configured for TYPIST.

FILE PREFIX: appropriate prefix (TIPIST.2  
or TIP.P...)  
TYPE OF FILE(S): T  
SOURCE LOGICAL UNIT: 5 (TYPIST module LU number)  
DEST. LOGICAL UNIT: n (number of LU to be configured)

When the last file has been copied, the program asks whether more files are to be copied. Enter "Y" for Yes.

2. Repeat step 6 for the TIP.P... text files.
3. When the TIPIST.2 and TIP.P... files have been copied, the program asks whether more files are to be copied. If more logical units are to be configured for TYPIST, enter "Y" and copy the TIPIST.2 and TIP.P... text files onto each LU to be configured.

When the TIPIST.2 and TIP.P... text files have been copied onto each LU to be configured for TYPIST, the program asks whether more files are to be copied. Enter "N" for no, and proceed to the next subsection.

### 3.1.3.4 Change The Protection Codes of Files on the Module Logical Unit

U.COPY automatically assigns a protection code of 77 to the files it creates by copying. The protection codes of the copied files must now be changed to appropriate values.

This subsection describes how to change the protection codes of the appropriate TYPIST BASIC program files and text files which have been copied onto the module logical unit.

Use U.CHANGE to change the protection codes. Please refer to Appendix D for a detailed description of U.CHANGE. Enter the designated responses at the prompts. User input is underlined. Use the (P)age command if necessary until the end of each file list is reached. Enter "E" to execute.

1. All the TYPIST BASIC program files except TIP.3.6.vvvv and TIP.5.5.vvvv (where vvvv is the current revision level) must be changed to protection code 33. Respond to each prompt as indicated below.

```
FILE PREFIX: TIP
TYPE OF FILE(S): B
SOURCE LOGICAL UNIT: 5 (TYPIST module LU number)
NEW PROTECTION CODE: 33
```

#### CAUTION

The programs TIP.3.6.vvvv and TIP.5.5.vvvv (where vvvv is the current revision level) must be erased from the list of files to be changed before the change is executed. Their protection codes must remain 77.

When the last file has been changed, the program asks whether more files are to be changed. Enter "Y".

2. The protection codes of the text files beginning with the prefixes TIPIST.4 and TIPIST.6 must be changed to 22. Respond to each prompt as indicated below.

```
FILE PREFIX: appropriate prefix
                (TIPIST.4 or TIPIST.6)
TYPE OF FILE(S): T
SOURCE LOGICAL UNIT: 5 (TYPIST module LU number)
NEW PROTECTION CODE: 22
```

When the last file has been copied, the program asks whether more files are to be changed. Enter "Y".

3. Repeat step 2 for the TIPIST.6 text files.

When the protection codes of the TIPIST.4 and TIPIST.6 text files have been changed, the program asks whether the user wants to change more files. Enter "Y" and proceed to the next subsection.

### 3.1.3.5 Change Protection Codes of Files on LUs to be Configured

This subsection describes how to change the protection codes of the appropriate TYPIST text files which have been copied onto each logical unit to be configured for TYPIST.

1. The protection codes of the TIPIST.2 text files which were copied to each logical unit configured for TYPIST must be changed to 22. Respond to each prompt as indicated below, where n is the number of a logical unit to be configured for TYPIST.

FILE PREFIX: TIPIST.2  
TYPE OF FILE(S): T  
SOURCE LOGICAL UNIT: n (number of an LU to  
be configured)  
NEW PROTECTION CODE: 22

2. When the last file has been changed, the program asks whether more files are to be changed. If the TIPIST.2 files have been copied onto other logical units, enter "Y" and change the protection code of the TIPIST.2 files on each logical unit.

When the protection codes of the TIPIST.2 files on every logical unit have been changed, the program asks whether more files are to be changed. Enter "Y".

3. The protection codes of the TIP.P... text files which were copied to each logical unit configured for TYPIST must be changed to 0. Respond to each prompt as indicated below, where n is the number of a logical unit to be configured for TYPIST.

FILE PREFIX: TIP.P...  
TYPE OF FILE(S): T  
SOURCE LOGICAL UNIT: n (number of an LU to  
be configured)  
NEW PROTECTION CODE: 0

4. When the last file has been changed, the program asks whether more files are to be changed. If the TIP.P... files have been copied onto other logical units, enter "Y" and change the protection code of the TIP.P... files on each logical unit.

When the protection codes of the TIP.P... files on every logical unit have been changed, the program asks whether more files are to be changed. Enter "N" and proceed to the next section.



#### **3.1.4 SYSTEM GENERATION**

This subsection describes the procedures for entering information in the system generation table, configuring LUs and authorizing and configuring ports.

Before beginning this section, decide which LUs and ports are to be configured for TYPiST and the number of blocks on each LU to be allocated to TYPiST.

### 3.1.4.1 System Generation Program

To access the system generation program, at the system prompt(#), enter

lu/TIP.3.1.vvvv

where lu is the number of the logical unit on which TYPDIST program modules are stored and vvvv is the current revision level.

The system generation program requests the information shown in the prompts column of Table 3-1. Enter the appropriate response as described in the response column. Default responses are indicated by bold type. Responses may be edited using the following commands:

<DEL>	delete one character
<CTRL-T>	insert one space
<CTRL-A>	move to beginning of line
<CTRL-X>	move to end of line
< -->	(right arrow) move one character right
<CTRL-L>	alternative for right arrow
< <-->	(left arrow) move one character left
<CTRL-H>	alternative for left arrow
<ESC>	move back to the previous entry

All of these commands are standard TYPDIST input commands.

Press <RETURN> to enter the correct response when it is visible.

The program checks for discrepancies in the responses to the Title, License Number, and Check Sum prompts. If they do not agree, the program displays an error message and positions the cursor at the title. Check the License Sheet to determine where the error is. Correct entries may be bypassed by pressing <RETURN> until the incorrect response is reached. Only the incorrect response must be edited or re-typed.

If an invalid response is made to any of the other prompts, an error message is displayed and the cursor is returned to the entry prompt.

When all of these responses have been entered, the program asks:

Is all the above correct? (Y/N)

If "N" is entered, the cursor is returned to the Default Ruler prompt. Press <ESC> to move backward through the entries until the incorrect entry is reached. Only the incorrect entry must be edited or re-typed. Press <RETURN> to move forward through the prompts.

If "Y" is entered, the program goes on to configure logical units, as described in the next section.

**TABLE 3-1. SYSTEM GENERATION PROMPTS**

Prompt	Response
Title:	The Installation title, taken from the License Sheet, must be entered <u>exactly</u> as received from POINT 4.
License #:	The license number, taken from the License Sheet, is unique for each TYPiST installation.
Check Sum:	The checksum, taken from the License Sheet, is used to detect typographical errors in the Title or License number.
Programs LU:	Number of the logical unit where TYPiST program modules are stored.
Max Edit Size:	<p><b>4300</b>            Maximum number of characters allowed in the edit buffer. This figure is related to the size of the partition, and is based on the size of the buffer remaining after loading the TYPiST editor. Use this default value unless one of the following conditions is true:</p> <ol style="list-style-type: none"> <li>1. For IRIS R7: the maximum BASIC program size is greater than 7774 (which is the minimum required for TYPiST). In this case, "Max Edit Size" may be increased by 512 characters per increase of 256 words in the maximum BASIC program size.</li> <li>2. For IRIS R8: the maximum BASIC program size is greater than 7887 (which is the minimum required for TYPiST). In this case, "Max Edit Size" may be increased by 512 characters per increase of 256 words in the maximum BASIC program size.</li> </ol> <p>"Max Edit size" is limited to 7999 decimal and may NEVER be changed.</p>

**TABLE 3-1. SYSTEM GENERATION PROMPTS (Cont)**

Prompt	Response
Lines Per Inch:	6 or 8 Other values may be entered. The entry must be between 2 and 48.
Char Per Inch:	10 or 12 Other values may be entered. The entry must be between 5 and 120.
Page Length:	9 inches (54 lines at 6 lines per inch). This excludes skip and footer, and includes header. Other values may be entered. The entry must be between 1 and 166.
<p data-bbox="206 856 479 888">Default Ruler:</p> <p data-bbox="206 930 1395 945">-----</p> <p data-bbox="536 982 1395 1113">Default is a ruler of 65 dashes. This may be changed by entering a new ruler of up to 150 characters. See the TYPYST User Guide for ruler construction.</p>	

### 3.1.4.2 Configure Logical Units

The logical units must now be configured.

The system asks for the number of a logical unit to configure for TYPIST by displaying:

Seq.	LU	Disc Blocks	Average Pages Per Document
------	----	-------------	----------------------------

Enter the number of an active nonzero logical unit to be configured for TYPIST. Enter a single LU number, not a range or a list. At least one logical unit must be configured for TYPIST.

The next prompt requests an estimate of the number of blocks TYPIST may use (on this logical unit). The system uses this number and the average number of pages per document to calculate the initial sizes of the HED and DIR files. The blocks are not actually allocated nor are they limited to this estimate. It then calculates the number of documents possible on the logical unit. The size of the HED and DIR files may be changed later if necessary. When estimating this number, consider the size of the logical unit and the size of any other contents of the LU. Enter the number of blocks you estimate TYPIST will need.

The following prompt requests the average number of pages per document, and offers 2.5 as the default. The default value may seem small, but it is appropriate for most installations. The number entered here is used along with the specified number of TYPIST blocks to calculate the size of the HED and DIR files; it does not prevent the creation of documents larger than the average specified here.

If a larger number is entered as the average number of pages, the system will calculate that fewer documents are possible on the system and will build a smaller HED file. If the installation's documents actually are smaller than expected, there may not be enough indexed entries in the HED and DIR files. These files may be enlarged at a later time by using the programs TIP.5.6.vvvv and TIP.5.7.vvvv (where vvvv is the current revision level), but entering a small number (like the default value) is recommended. Press <RETURN> to accept an average 2.5 pages per document, or enter an appropriate number.

The system then prompts for another logical unit.

Enter the number of another logical unit on which TYPIST is to be configured, or enter zero to terminate.

The program allows up to 10 logical units to be entered. (If more are desired, the program may be run again.) Press <ESC> to move backward through the list to edit the early entries. If you move backward and enter zero on a previous line, logical units specified on the later lines will not be configured for TYPIST.

### 3.1.4.3 Authorize Ports

The ports must now be authorized so that they may be configured.

When all logical units on which TYPIST is to be configured have been entered, the system displays

Seq.	Port Range	Logical Unit List
	From To	LU, LU,...

Enter the number of a port to be authorized to run TYPIST, or a range of ports.

Press <RETURN> to accept the default of ALL to run TYPIST from all LUs configured for TYPIST, or enter the appropriate logical unit number(s). A maximum of ten logical units may be entered.

The system then prompts for another port range.

Enter the number of another port authorized to run TYPIST, a range of ports, or zero to exit.

Press <ESC> to move backward through the list to edit the early lines.

### 3.1.4.4 TYPIST Builds Files

When all ports authorized to run TYPIST have been entered, the system asks

Ready to build files? (Y/N)

When "Y" is entered, the system displays a series of progress messages as it creates the TYPIST files on the specified logical units.

If TYPIST.1.PRT or TIPIST.1.QUE files already exist on the system, it will ask whether the file should be overwritten. Enter "Y" to overwrite it; "N" to save the file; or <ESC> to return to the IRIS system prompt.

If the creation of any file fails, the system will ask for permission to continue the configuration of the rest of the specified logical units. Press <RETURN> to continue or <ESC> to terminate.

Upon completion, the program displays

PROCESS COMPLETED

and the system prompt is displayed.

## 3.2 FROM THE APPROPRIATE IRIS ACCOUNT ID

The following two programs are used to authorize more ports than those authorized during system generation and to configure each port. Both programs must be run under an IRIS Account assigned to the logical unit from which each port will operate when running TYPiST. Log off the IRIS Manager Account and log back on under an IRIS Account ID on the correct logical unit, as instructed in the following sections.

### 3.2.1 AUTHORIZE NEW PORTS

This program is used to authorize any ports not included during system generation. It may be run at any time. If all the necessary ports have been authorized, skip to section 3.2.2.

Log on to the appropriate IRIS Account ID. When the system displays the system prompt, enter

```
#lu/TIP.3.3.vvvv
```

where lu is the module logical unit containing all TYPiST programs and vvvv is the current revision level. The system displays

```
New TYPiST port number: xx
```

where xx is the current port number, and is offered as a default response. It may be accepted or changed. If the port has already been authorized, the system displays:

```
Port already activated
```

Otherwise, the system displays:

```
Port Control File Built  
Channel 2 File built  
Channel 6 File built
```

```
Port activated
```

The new TYPiST port has now been authorized.

### 3.2.2 CONFIGURE THE PORTS

This program configures each port for its type of terminal. It defines the sequences to be used for insert and delete lines and defines the special digits. The system generation program sets appropriate values for LSI ADM 31 and Televideo 912, 920, 925, and 950 terminals by default. Ports using these terminals need not be configured if the system generation program has been run and there are no changes in terminal types.

Log on to the appropriate IRIS Account ID. At the system prompt (#), enter

lu/TIP.3.2.vvvv

where lu is the module logical unit containing all TYPYST programs and vvvv is the current revision level. The system displays:

Port number (0-for exit) :xx

where xx is the current port number, and is offered as a default response. It may be accepted or changed. The system then displays:

Enter char values, terminate with 0  
For insert line:

Find the appropriate values for the terminal in the following table or in the terminal handbook. The values listed below are in decimal. The asterisked (\*) terminal types are configured by the system generation program.

Enter the first number under "Insert Line" and press <RETURN>; enter the second number and press <RETURN>; enter a "0" and press <RETURN>. The zero indicates the end of the sequence. Each sequence may not exceed six characters, not including the zero.

<u>Terminal</u>	<u>Insert Line</u>	<u>Delete Line</u>
Adds Regent 40	155 205	155 236
Hazeltine 1500, 1510, 1520	254 154	254 147
LSI ADM 31*	155 197	155 210
Televideo 912*, 920*, 925*, 950*	155 197	155 210

When the insert line values have been entered, the system displays:

For delete line:

Enter the first number under "Delete Line" and press <RETURN>; enter the second number and press <RETURN>; enter a "0" and press <RETURN>. The zero indicates the end of the sequence. The system then displays:

Special Digits # \$ -, (



When numbers are entered using the numeric tabset, these characters may be entered on the integer side of the point without affecting numerical alignment (whether or not the point is actually entered).

Accept the special digits by pressing <RETURN> or change them by entering new characters. In European installations, the comma is usually replaced with a period. The characters need not be the same for every terminal.

When the information has been entered, the cursor returns to the port number. Enter the appropriate port number to configure another port, or enter "0" to exit the program.

### 3.3 FROM THE TYPIST MANAGER'S INITIALS

The procedures in this section include setting up TYPIST User Initials and passwords and assigning a spooler for each printer. These operations must be completed before new TYPIST users can begin to use TYPIST and print documents.

The installation process automatically sets up the TYPIST Manager's Initials "... " (three periods) and password "TYPIST" on each logical unit configured for TYPIST. The TYPIST Manager's Initials are accessible from each IRIS Account ID configured for TYPIST.

TYPIST user initials must be set up under the IRIS Account ID from which those user initials are to be accessed. The user initials should be set up from the TYPIST Manager's Initials.

Spoolers must be assigned under any IRIS Account ID configured for TYPIST. They should be assigned from the TYPIST Manager's Initials.

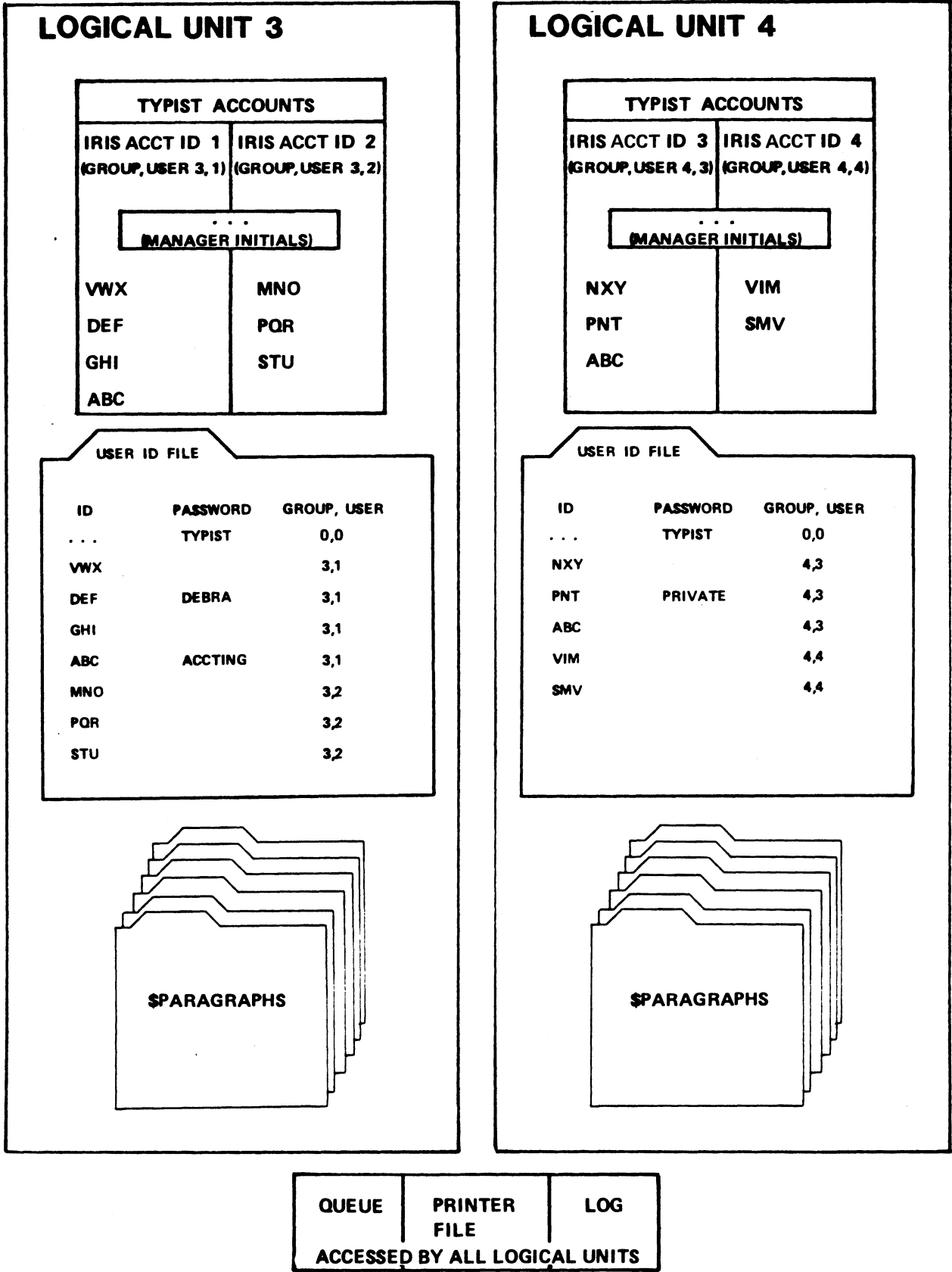
#### 3.3.1 SET UP USER INITIALS AND PASSWORDS

User initials must be set up under the appropriate IRIS account ID. They should be set up under the TYPIST Manager's Initials. Assigning user passwords is optional.

Figure 3-1 diagrams the relationships between logical units, IRIS Account IDs, and TYPIST Manager and User Initials; shows each LU's dollar paragraphs; and displays the contents of each LU's User ID File.

Each logical unit:

- may be considered a completely independent TYPIST system (except for the queue, printer and log files)
- may have one or more IRIS Account IDs
- has one set of TYPIST Manager Initials, which are always "...", and which may be accessed from any of that LU's IRIS Account IDs
- may be given a distinct TYPIST Manager Password
- may have a unique set of \$paragraphs



**Figure 3-1. IRIS/TYPIST Account Relationships**

Each IRIS Account ID:

- may have one or more TYPIST User Initials which are accessed through it

Each LU's User ID File:

- maintains each TYPIST account's user initials, password (if any), and group/user number. Because each LU has only one user ID file, user initials may not be duplicated on a given LU.

Log on to the IRIS Account from which the TYPIST User Initials will be accessed. (If various TYPIST User Initials will be accessed from different IRIS Accounts, you must log on to each IRIS Account to set up its TYPIST User Initials.)

Enter TYPIST, and then enter the TYPIST Manager's Initials and password. When the Main Menu appears, enter option 3, Special Functions Menu. Enter option 3 of the Special Functions Menu, User Id Utility. The system displays:

Password:

Enter the TYPIST Manager's password, and select option 2, "Create New User Id." from the menu that appears. The system displays:

New User Initials:

Enter three letters for the new user's initials. (If the user has only two initials, add a period to the initials, e.g., LC.). When the initials are entered, the menu reappears.

Repeat the process to create additional User Ids.

If a password is desired for each user, enter option 4, Change User Password. The system displays:

Id.:

Enter the appropriate User Id., and the system displays:

New Pw:

Enter a maximum of 12 characters as the new password, and the menu reappears.

Option 5, "List IDs and Passwords" may be used to check your entries.

### 3.3.2 ASSIGN SPOOLERS TO PRINTERS

An option of the Printer Assignments Menu is used to assign one or more spoolers to each printer. This function should be performed from the TYPIST Manager's Initials under any IRIS Account ID configured for TYPIST.

Remain on any TYPIST Manager Account and select option 3, "Special Functions", from the Main Menu. When the Special Functions Menu appears, select option 8, "Printer Assignments". Select option 3, "Add a New Printer".

On entry to this option, the Manager Password is requested above the menu. Enter the correct TYPIST Manager Password.

The name to be assigned to the spooler is requested. Enter an appropriate name. The name should be easily distinguishable to the TYPIST users from any other printer names. The first spooler defined automatically becomes the default printer.

Name:

The device to which the spooler directs output is then requested. This is the name by which IRIS accesses the device. This output device is usually a printer such as \$LPT.

Device:

The number of the port on which the spooler will operate is then requested. The port assigned to the spooler is usually a phantom port. This is the port where the spooler operates, NOT a device which receives output.

Port:

The type of printer is then requested.

Type:

TYPIST supports the following printer types:

NEC - for NEC 3515, 5515, and 7715 printers\*

NEC10 - for NEC 3510, 5510, and 7710 printers\*

QUME - for QUME Sprint 55 and compatible printers\*

DIABL - for DIABLO and compatible printers\*

SEMI - for dumb printers which are capable of backspacing and underlining

DUM - for matrix-type, dumb character printers having no special features

\*These are character printers.

Enter the appropriate printer type. The module is then requested:

Module:

This is the print module to be used by the spooler. Enter TIP.100 as the module, and the Printer Assignments Menu appears.

TYPIST is now completely installed.

# **APPENDICES**





# Appendix A

## CHANGING THE PRINTER CONTROL FILE

---

This appendix is intended for sophisticated programmers who need to make changes in the printer control file in order to allow use of an alternate character set, printing of foreign currency signs and double underlining. The printer control file contains the information telling the spooler which characters to recognize as input and which codes to output to the printer. It is shipped from POINT 4 in the format ideal for most installations. This appendix suggests several ways to alter this file in the rare instance that changes are required.

The printer control file should be edited only by competent programmers. All areas of the file that may be edited are specified in this appendix. It is not advisable to change anything in the printer control file that is not specifically mentioned in this appendix.

One printer control file exists for each printer type assigned to the TYPDIST system. The files are on the module logical unit where all TYPDIST modules are stored. The file name is always

TYPDIST.4.printer

where printer is any one of the TYPDIST-supported printer types. Section 3.3.2 discusses the printer types supported by TYPDIST.

The printer control file is read only when the spooler is initiated. Changes to the printer control file will not become active until after the spooler is next initiated.

The printer control file shown in Figure A-1 is a sample file for a NEC printer. The upper portion of the file lists the TYPDIST commands the spooler recognizes as input and their internal representations. The lower portion lists the ASCII codes (in decimal) which the spooler outputs to the printer. These ASCII codes may be interpreted by the printer as characters to be printed or as commands. The ASCII codes and their decimal values are shown in Appendix B.

The changes described here involve the lower portion of the file. In this file, up to six ASCII codes (in decimal) may be specified to be transmitted to the printer when the spooler recognizes certain characters as input. These codes may be changed to allow the printing of special characters.

	820101	release date	
	105	revision number	
TYPIST COMMANDS RECOGNIZED AS INPUT	01\PAUSE02\HEAD03\FOOT04\HEADE05\FOOTE06\SKIP07\TEXT08\NOTEXT		
	09\THROW10\NOTHROW11\NUMBER12\PNUM13\CENTRE14\NOCENTRE15\SINGLE16\ONE&H		
	17\DOUBLE18\LINE19\PITCH20\JUST21\NOJUST22\MOVE23\DENT24\DENTE		
	25\BAR26\NOBAR27\NONUMBER28\PAGLEN29\ADDR30\PICA31\ELITE32\6LINE33\8LINE		
	13\CENTER14\NOCENTER34\FILL35\NOFILL36\LMOVE37\GOTO		
	*		
	01\UL02\LU03\BO04\OB05\LI06\IL07\IL08\BS09\UP10\DN00\OV00\VO13\RD14\BL		
	15\DB16\BD		
	*		
		160	one tick
	140 141	page throw	
	155 138	up one tick - escape line-feed	
	138	down one tick - line feed	
	155 159	set HMI	
	155 158	the VMI lead in	
1	014	shift in	
	015	shift out	
	155 179	graphics on - esc 3	
	155 180	graphics off - esc 4	
	*		
ASCII CODES OUTPUT TO PRINTER	130 131 132 133 134 135	the actual horizontal increments	
	136 137 138 139 140 141	must be in six's	
	142 143 144 145 146 147	used also for verticals	
	148 149 150 151 152 153		
	*		
	2	163	pound sign
		252	double underline - not used in rl.0
	3	000	overstrike - not used in rl.0
		252	bar character
		*	
	11		
	15	maximum number of extra ticks	
	01\PRINT02\ENVEL		

Figure A-1. Sample Printer Control File

The three areas of this file described below may be changed by a competent programmer. These areas are marked on the sample file shown in Figure A-1.

1. The first area contains the codes for shifting in and out of an alternate character set. These codes will be transmitted to the printer when the spooler recognizes the commands \RD and \BL. The codes may be modified to shift between red and black ribbons on printers having this capability. The actual codes to be specified will depend on the printer.
2. The second area contains the code for printing the pound sign (#). This may be modified to print foreign currency signs. When the spooler recognizes the pound sign (#) as the first character of a word, it transmits the specified codes to the printer. The actual codes to be specified will depend on the printer and character set.
3. The third area contains the code for printing the double-underline character. This is currently set to print a space, and may be modified if your printer has the double-underline capability. The codes specified here will be transmitted to the printer when the spooler has recognized the command \DB and underlining is initiated. The actual codes to be specified will depend on the printer and the character set.

#### **CAUTION**

Do not alter any part of the file not specifically discussed here.



# Appendix B

## ASCII CODES IN DECIMAL

000	NUL	<CTRL-@>	032	BLANK	064	@	096	`
001	SOH	<CTRL-A>	033	!	065	A	097	a
002	STX	<CTRL-B>	034	"	066	B	098	b
003	ETX	<CTRL-C>	035	#	067	C	099	c
004	EOT	<CTRL-D>	036	\$	068	D	100	d
005	ENQ	<CTRL-E>	037	%	069	E	101	e
006	ACK	<CTRL-F>	038	&	070	F	102	f
007	BEL	<CTRL-G>	039	'	071	G	103	g
008	BKSP	<CTRL-H>	040	(	072	H	104	h
009	HTAB	<CTRL-I>	041	)	073	I	105	i
010	LF	<CTRL-J>	042	*	074	J	106	j
011	VTAB	<CTRL-K>	043	+	075	K	107	k
012	FF	<CTRL-L>	044	,	076	L	108	l
013	CR	<CTRL-M>	045	-	077	M	109	m
014	SO	<CTRL-N>	046	.	078	N	110	n
015	SI	<CTRL-O>	047	/	079	O	111	o
016	DLE	<CTRL-P>	048	0	080	P	112	p
017	XON	<CTRL-Q>	049	1	081	Q	113	q
018	AUXON	<CTRL-R>	050	2	082	R	114	r
019	XOFF	<CTRL-S>	051	1	083	S	115	s
020	AUXOFF	<CTRL-T>	052	2	084	T	116	t
021	NAK	<CTRL-U>	053	5	085	U	117	u
022	SYN	<CTRL-V>	054	6	086	V	118	v
023	ETB	<CTRL-W>	055	7	087	W	119	w
024	CAN	<CTRL-X>	056	8	088	X	120	x
025	ENDMD	<CTRL-Y>	057	9	089	Y	121	y
026	SUB	<CTRL-Z>	058	:	090	Z	122	z
027	ESC	<CTRL-[>	059	;	091	[	123	{
028	F SEP	<CTRL-\>	060	<	092	\	124	
029	G SEP	<CTRL-]>	061	=	093	]	125	}
030	R SEP	<CTRL-^>	062	>	094	^	126	~
031	U SEP	<CTRL-_>	063	?	095	_	127	DEL



# Appendix C

## IRIS R7 CONFIGURATION

---

This appendix describes the procedure for configuring an IRIS R7 system to support TYPiST.

### CAUTION!

Back up your current system for protection in case of mistakes. Follow your installation's back-up procedures.

### C.1 TYPiST DISCSUBS

We recommend that as many TYPiST discsubs as possible be made memory-resident. The TYPiST discsubs are numbered 32, 66, 100 and 125.

Memory-resident discsub numbers are entered in the DISCSUB Table at locations 1000 to 1377 in CONFIG. Memory-resident discsubs load at IPL.

## C.2 ENABLE PHANTOM PORTS AND TERMS DRIVERS

If phantom ports will be used to run the spoolers, and if the phantom port driver (PHA) has not already been enabled, use CHANGE to enable it by changing the name PHA to \$PHA.

TYPIST requires TERMS drivers to be enabled. The correct Terminal Translation Module name may be found in the IRIS R7.5 Peripherals Handbook. Enable the selected Terminal Translation Module as a \$ sign file (i.e., \$TERM.name). Enable the system driver TERMS as \$TERMS.

Remember that the phantom ports and TERMS drivers will not be enabled until the next IPL.



## C.3 CHECK THE ACTIVE FILES SIZES

In order for TYPYST to operate with IRIS, the active files' partition size (PSIZ) must be set or increased to at least 20000 octal by taking the following steps. If PSIZ is not at least 20000 octal, TYPYST will not operate on your system.

### C.3.1 CHECK THE PARTITION SIZE

Enter the CONFIG file using DSP, and display location 400. If the content of 401 is less than 20000 (octal), change it to 20000. Otherwise, retain the existing value and skip to section C.3.4. Always doublecheck any locations which are changed by displaying the contents of the altered location. A summary of these steps follows:

```
#DSP<CTL-E>key<CTRL-E> (where key is the password)
FCONFIG
D400 (Escape after a few lines)
401: 20000 (increase partition size)
```

If your system has a lower memory partition, complete the following; otherwise, proceed to section C.3.2.

Note the contents of location 402. If they equal 0 (zero), skip to section C.3.2. Otherwise, display location 607, and note its contents. The value to be entered in location 400 should equal the revised contents of 401 plus the contents of 607 (all in octal). A summary of these steps follows:

```
D607 (Escape after a few lines)
400:nnnnn
```

where nnnnn equals (contents of 607) + (contents of 401). For example,

```
Contents of 607 = 20600
New contents of 401 = 20000
nnnnn = 40600
```

In this example, 40600 would be entered at location 400.

#### NOTE

Locations 402 (NPLC) and 403 (NPUC) may have to be changed. Please see the IRIS Installation and Configuration Manual.

### C.3.2 CHECK THE PHANTOM PORTS' ACTIVE FILE SIZES

Using DSP, check the phantom ports' active file size, as in this summary

F\$PHA  
D10201 (Escape after a few lines)  
Daaaaa (Escape after a few lines)

where aaaaa is the address shown at location 10201, and is the pointer to the attributes table. If the Active File size (cell 6) in the port attributes table is less than 40, increase it to 40; otherwise, retain the current value. Cell 6 is in the seventh column of the table. For further information, see the IRIS Installation and Configuration Manual.

### C.3.3 CHECK \$MMUX'S ACTIVE FILE SIZE

Using DSP, check the Active File size of all interactive ports in \$MMUX, as in the following summary

F\$MMUX  
D10201 (Escape after a few lines)  
Dbbbbbb (Escape after a few lines)

where bbbbb is the address shown at location 10201, and is the pointer to the attributes table. If the active file size (cell 6) in the table is less than 40, increase it to 40; otherwise, retain the current value. Cell 6 is in the seventh column of the table. Interactive ports have a nonzero value.

### C.3.4 CHECK REX'S ACTIVE FILE SIZE

Using DSP, check the active file size of the I/O handler, REX, as in this summary

FREX  
D200 (Escape after a few lines)  
Dcccccc (Escape after a few lines)

where ccccc is the address shown at location 200. If the active file size (cell 6) is less than 40, increase it to 40; otherwise, retain the current value. Again, cell 6 is in the seventh column of the table.

Exit DSP.

### C.3.5 SHUTDOWN AND IPL

SHUTDOWN and IPL the system in order to make all the changes effective. If the IPL is successful, skip to the next section.

If the IPL results in a memory overflow (trap 111), check the contents of lower memory. Refer to the IRIS Manager Manual for procedures to correct a trap 111.

After making necessary modifications, SHUTDOWN and IPL again.

If the following message appears

PORT n NOT OPTIMIZED

where n is a port number, the problem may be corrected by taking the following steps:

1. Run CLEANUP on logical unit zero.
2. IPL the system. If the IPL is successful, skip to Section C.4.
3. Copy some files from logical unit zero to another logical unit. We recommend copying text files or BASIC programs.
4. Kill, on LU/0, the files which were copied.
5. Run CLEANUP on logical unit zero.
6. IPL the system.

## C.4 CONFIGURE WORD PROCESSING PRINTER

A driver must be set up for the word processing printer. TYPYST requires a letter quality printer for highest quality printouts. Please see section 1.3 for printer specifications.

This section describes the procedure for configuring a character printer. GUIDE.LPT may be used to produce a list of octal values which must be entered in the driver control table. Refer to the IRIS Installation and Configuration Manual if necessary.

### C.4.1 RUN GUIDE.LPT

Figure C-1 displays GUIDE.LPT prompts and appropriate responses. If your response to the prompts will not vary from those shown, skip to Section C.4.2.

The arrows in Figure C-1 indicate the responses which may be changed. If your system has more than eight MUX ports and a port number greater than eight is used for the printer, or if the string to be output after a close will vary from 14, run GUIDE.LPT to produce a correct list of octal values to be entered into the driver control table.

Run GUIDE.LPT (if necessary) by entering GUIDE.LPT at the IRIS system prompt and either print the list on an existing printer or carefully copy it manually.

#### NOTE

The location numbers are not all in sequential order.

#### CAUTION

Do not use <LINEFEED> or <RETURN> on open because they will not be included in the page line count, and can cause inconsistency between the first and subsequent pages of TYPYST printouts.

\$LPT must not translate <RETURN> into any other code, because <RETURN> may be part of a multiple character sequence. <RETURN> and multiple <RETURN>s must not be changed, and the printer must have an automatic <LINEFEED> on <RETURN> enabled.

```

IS YOUR PRINTER RUNNING THROUGH A POINT 4 MUX (Y/N) ? Y
IS YOUR PRINTER A TTY40 (Y/N) ? N
HAVE YOU SPECIFICALLY CHANGED YOU MUX'S FIRST PCB ADDRESS ? N
WHICH PHYSICAL MUX PORT (OCTAL, ORIGIN 0) IS THE PRINTER ON ? 3
SET UP THIS PORT AS NON-INTERACTIVE IN THE ATRIB TABLE OF $MMUX.
(SEE 7.3 MANAGER MANUAL PG.A6-4) USE THE PROPER PCW WORD FOR YOUR
PRINTER (SEE 7.3 MANAGER MANUAL PG. 11-4)
DO YOU WISH TO PRINT ZERO IN PLACE OF OH AND VISA VERSA ? (Y/N) N
THIS DRIVER OFFERS YOU GREAT FLEXIBILITY IN THE TYPES OF PRINTERS IT CAN
RUN.  DIFFERENT PRINTERS HAVE DIFFERENT REQUIREMENTS IN ORDER TO START
PRINTING (OPEN), END PRINTING (CLOSE), DUMP ONE LINE (CR), DUMP A BLANK
LINE (MULTIPLE CR), AND DELAY AFTER SPECIAL CHARACTERS (E.G. FORM FEED)
IN ORDER TO SPECIFY THE PARTICULAR STRING TO HANDLE EACH CASE, PLEASE
GIVE THE OCTAL VALUE OF EACH STRING CHAR, ENDING EACH LIST WITH A -1.
PLEASE ENTER THE STRING TO BE OUTPUT AFTER AN OPEN.
STRING CHAR: -1
PLEASE ENTER THE STRING TO BE OUTPUT AFTER A CLOSE.
STRING CHAR: 14
STRING CHAR: -1
PLEASE ENTER THE STRING TO BE OUTPUT INSTEAD OF A CR.
STRING CHAR: 15
STRING CHAR: -1
PLEASE ENTER THE STRING TO BE OUTPUT INSTEAD OF A MULTIPLE CR.
STRING CHAR: 15
STRING CHAR: -1
PLEASE ENTER THE TIMING STRING TO DELAY AFTER SPECIAL CHARS.
STRING CHAR: -1
OUTPUT WHERE (L=PRINTER/CR=HERE) ? L

```

ONLY TWO  
RESPONSES  
WHICH  
MAY  
VARY

Figure C-1. Sample GUIDE.LPT Run For Character Printer

## C.4.2 ENTER GUIDE.LPT VALUES INTO DRIVER CONTROL TABLE

Use DSP to enter the octal values shown in Figure 2-2 or those listed by GUIDE.LPT. The listing gives specific instructions.

### NOTE

The location numbers are not all in sequential order.

Upon completion, exit DSP and IPL the system to make the changes effective, as instructed by GUIDE.LPT.

ENTER DSP AND TYPE THE FOLLOWING:

F\$LPT

FIRST, DUMP STARTING AT 10206. YOU SHOULD SEE:

10206:25 65230

IF THE ABOVE CONTENTS ARE NOT CORRECT AS SHOWN, DO NOT PROCEED. CHECK THAT YOU HAVE ENABLED THE CORRECT VERSION OF \$LPT.

IF CORRECT, ENTER THE FOLLOWING CHANGES:

```
10201 : 10663
10312 : 0
10377 : 66140 •
10402 : 177770
10403 : 177771
10404 : 177773
10405 : 177775
10406 : 177777
10647 : 0
10652 : 3
10653 : 177777
10654 : 14
10655 : 177777
10656 : 15
10657 : 177777
10660 : 15
10661 : 177777
10662 : 177777
10663 : 0
10664 : 0
10665 : 0
10666 : 177777
10667 : 177777
```

NOW EXIT DSP & DO AN IPL TO MAKE THE CHANGES EFFECTIVE.

•PORT NO. (ORIGIN 0)

```
0 66000
1 66040
2 66100
3 66140
4 66200
5 66240
6 66300
7 66340
```

Figure C-2. List Produced By GUIDE.LPT

### C.4.3 SET UP PCW IN \$MMUX

Enter DSP and set up the Port Control Word in \$MMUX for a character printer, following Figure C-3 for MARK 5/8 or Figure C-4 for MARK 3. In both examples, 1 is the quantity of character printers being set up, the following value is the PCW word, and 205 is the buffer size in octal. The values provide a 132-column print line, and the setup assumes that a buffer full status line is connected from the printer back to the MUX port at pin 20. For more details on setting up PCWs, please see the IRIS Manager Manual.

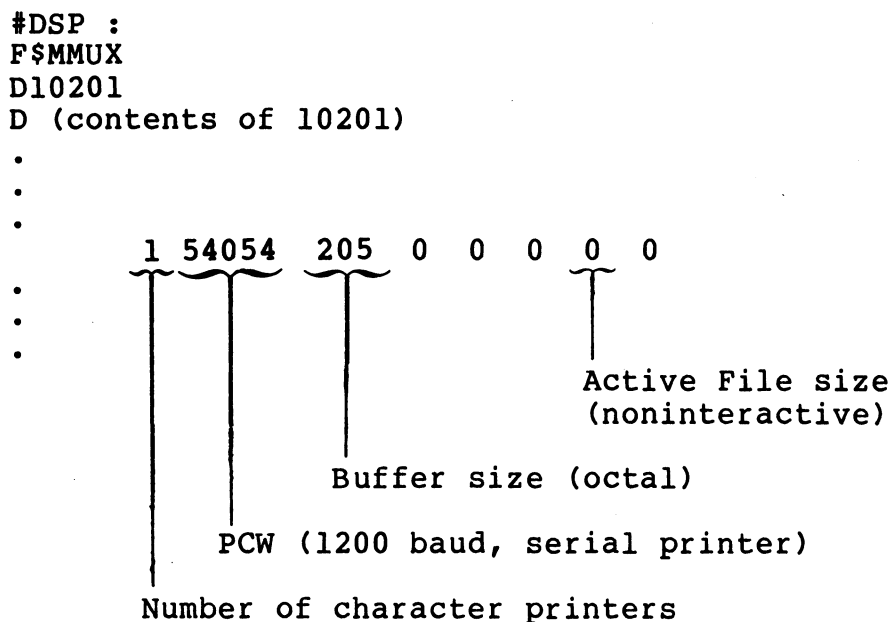


Figure C-3. Example of Setting Up \$LPTn Port in \$MMUX For Character Printer on MARK 5/8

```

#DSP :
F$MMUX
D10201
D (contents of 10201)

```

```

.
.
.
.
.
.
.

```

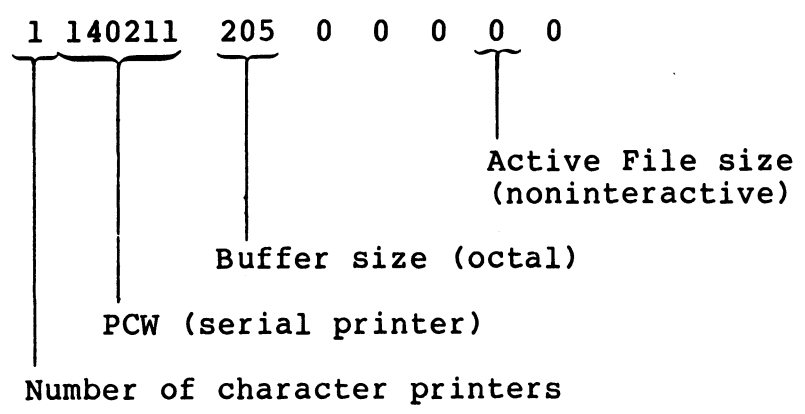


Figure C-4. Example of Setting Up \$LPTn Port in \$MMUX For Character Printer on MARK 3

#### C.4.4 SHUTDOWN AND IPL

SHUTDOWN and IPL your system to make all changes effective.



# Appendix D

## U. UTILITIES USED DURING TYPIST INSTALLATION

---

U.KILL, U.COPY, and U.CHANGE are used during TYPIST installation to delete, copy, and change selected files collectively. Each of these utilities allows the user to enter a file prefix and file type as selection criteria. All files meeting the selection criteria are displayed in groups of 36 for review by the user.

The commands "A", "E", "P", "R", "W" and "nn" may be used to modify the list. <RETURN> activates each command. These commands are described below.

<u>Command</u>	<u>Function</u>
A	All - Erases all file names on the current screen. None of the files erased will be affected by the processor, and so will not be deleted, copied, or changed.
E	Execute - Invokes the processor. When this is selected, the U. utility will be executed and the files will be deleted, changed, or copied.
P	Page - Stores the filenames left on the screen, and then displays the next 36 selected filenames.
R	Restart - Redisplays the current screen as it was before any erasure(s).
W	Wrap - Stores those filenames left on the screen, and restarts the selection process with the first group of 36 filenames.
nn	The item number preceding a filename - Erases filenames from screen so that they will not be affected by the processor.
?	Calls out a HELP module.

If the files to be erased have consecutive numbers on the screen, the range may be specified by placing a hyphen between the beginning and ending number (e.g., 3-15).

Several numbers may be entered at the same time but they must be separated by a space or comma (e.g., 11, 13, 15).

Two HELP modules are available from each of the U. utilities. The first guides the user in selection of file parameters and offers examples of a completed set of selection criteria. The second HELP module contains a detailed description of the modification commands and helps the user in the final selection of files to be deleted, changed or copied.

## D.1 U.KILL UTILITY

The following is a step-by-step description of the U.KILL utility.

### D.1.1 FILE REVIEW AND SELECTION

If U.KILL is resident on either LU/0 or the user's assigned LU, at the system prompt (#), enter:

U.KILL

If the utility resides on another LU, enter the command in the form:

nn/U.KILL

where "nn" = the number of the logical unit on which U.KILL resides.

U.KILL then displays the following:

PORT NUMBER: X FILE DELETION FACILITY U.KILL 1.1 MM/DD/YY

FILE(S) PREFIX: \_\_\_\_\_

TYPE OF FILE(S): \_\_\_\_\_

LOGICAL UNIT: \_\_\_\_\_

COMMENT: ENTER A (?) AT ANY TIME FOR HELP  
COMMAND:  
MESSAGE:

The user may enter the first HELP module at this point by entering "?" in the first position of any field. Explanations of the various options for the requested parameters will then appear.

Pressing <ESC> at the first field aborts the U.KILL utility. Pressing <ESC> while in an entry field aborts the current entry and returns to the previous field.

The three lines at the bottom describe the interaction of user and system. COMMENT displays system prompts for the user, COMMAND is for user input, and MESSAGE displays error and guide messages from the system.

File selection prompts are in the center of the display. They are:

**FILE(S) PREFIX:** specify the beginning characters of filenames to be deleted. The default (i.e., pressing <RETURN>) lists all files except those limited by subsequent parameter entries. This is most helpful when naming conventions have been used to group files into categories.

**TYPE OF FILE(S):** specify the IRIS file type by entering "B" for BASIC, "T" for Text files, etc. The default (pressing <RETURN>) selects all files which meet the other parameters.

**LOGICAL UNIT:** specify the LU number where the files to be deleted reside. The default (pressing <RETURN>) assumes the user's own LU.

After the parameters have been selected, the utility displays:

ARE ALL THE ABOVE SELECTION CRITERIA CORRECT (Y/N) ?

"N" returns the user to the selection display; "Y" causes the system to begin the file selection process while displaying these messages:

BUILDING WORK FILE, DO NOT DISTURB!

FILE INITIALIZATION IN PROCESS, DO NOT DISTURB!

When initialization is complete, the system displays lists of the specified files in groups of 36 for review and modification by the user.

Only those files that remain on the screen after the review and selection process is complete will be deleted.

### D.1.2 U.KILL EXECUTION

Examine all pages of the selected files before entering the "E" (Execute) command. As each file is processed, the utility displays:

DELETED

When the last file has been deleted, the utility asks whether the user wants to delete more files. "Y" returns to the first screen to delete more files. "N" terminates the utility and returns to the system command prompt (#).

## D.2 U.COPY UTILITY

The following is a step-by-step description of the U.COPY utility.

### D.2.1 FILE REVIEW AND SELECTION

If U.COPY is resident on either LU/0 or the user's assigned LU, at the system prompt (#), enter:

U.COPY

If the utility resides on another LU, enter the command in the form:

nn/U.COPY

where "nn" = the number of the logical unit on which U.COPY resides.

U.COPY then displays the following:

PORT NUMBER: X FILE COPY FACILITY U.COPY 1.1 MM/DD/YY

FILE(S) PREFIX: \_\_\_\_\_

TYPE OF FILE(S): \_\_\_\_\_

SOURCE LOGICAL UNIT: \_\_\_\_\_

DEST. LOGICAL UNIT: \_\_\_\_\_

COMMENT:

COMMAND:

MESSAGE:

The user may enter the first HELP module at this point by entering "?" in the first position of any field. Explanations of the various options for the requested parameters will then appear.

Pressing <ESC> at the first field aborts the U.COPY utility. Pressing <ESC> while in an entry field aborts the current entry and returns to the previous field.

The three lines at the bottom describe the interaction of user and system. COMMENT displays system prompts for the user, COMMAND is for user input, and MESSAGE displays error and guide messages from the system.

File selection prompts are in the center of the display. They are:

- FILE(S) PREFIX:** specify the beginning characters of the filenames to be copied. The default (pressing <RETURN>) lists all files except those limited by subsequent parameters. This is particularly helpful when naming conventions have been used to group files into categories.
- TYPE OF FILE(S):** specify the IRIS file type by entering "B" for BASIC, "T" for Text files, etc. The default (pressing <RETURN>) selects all files which meet the other parameters.
- SOURCE LOGICAL UNIT:** specify the LU number where the files to be copied reside. Enter that LU's number. The default (pressing <RETURN>) assumes the user's own LU.
- DEST. LOGICAL UNIT:** specify the number of the LU to which the files are to be copied. Enter the appropriate number. There is no default for this field, so a response must be entered.

After the parameters have been selected, the utility displays:

ARE ALL THE ABOVE SELECTION CRITERIA CORRECT (Y/N) ?

"N" returns the user to the selection display; "Y" causes the system to begin the file selection process while displaying these messages:

BUILDING WORK FILE, DO NOT DISTURB!

FILE INITIALIZATION IN PROCESS, DO NOT DISTURB!

When initialization is complete, the system displays lists of the specified files in groups of 36 for review and modification by the user. If <ESC> is pressed at any time after the first file list is displayed, the utility is aborted and returns to the system prompt (#).

Only those files that remain on the screen after the review and selection process is complete will be copied.

### D.2.2 U.COPY EXECUTION

Examine all pages of the selected files before entering the "E" (Execute) command. As each file is processed, the utility displays:

COPIED

When the last file has been copied, the utility asks whether the user wants to copy more files. "Y" returns to the first screen to initiate another session. "N" terminates the utility and returns to the system command prompt (#).

## D.3 U.CHANGE UTILITY

The following is a step-by-step description of the U.CHANGE utility.

### D.3.1 FILE REVIEW AND SELECTION

If U.CHANGE is resident on either LU/0 or the user's assigned LU, at the system prompt (#) enter:

#### U.CHANGE

If the utility resides on another LU, enter the command in the form

#### nn/U.CHANGE

where "nn" = the number of the logical unit on which U.CHANGE resides.

U.CHANGE then displays the following:

PORT NUMBER: X    FILE CHANGE FACILITY    U.CHANGE 1.1    MM/DD/YY

FILE(S) PREFIX: \_\_\_\_\_

TYPE OF FILE(S): \_\_\_\_\_

SOURCE LOGICAL UNIT: \_\_\_\_\_

NEW PROTECTION CODE: \_\_\_\_\_

COMMENT:

COMMAND:

MESSAGE:

The user may enter the first HELP module at this point by entering "?" in the first position of any field. Explanations of the various options for the requested parameters will then appear.

Pressing <ESC> at the first field aborts the U.CHANGE utility. Pressing <ESC> while in an entry field aborts the current entry and returns to the previous field.

The three lines at the bottom describe the interaction of user and system. COMMENT displays system prompts for the user, COMMAND is for user input, and MESSAGE displays error and guide messages from the system.



File selection prompts are in the center of the display. They are:

- FILE(S) PREFIX:** specify the beginning characters of filenames to be changed. The default (pressing <RETURN>) lists all files except those limited by subsequent parameter entries. This is most helpful when naming conventions have been used to group files into categories.
- TYPE OF FILE(S):** specify the IRIS file type by entering "B" for BASIC, "T" for Text files, etc. The default (pressing <RETURN>) selects all files which meet the other parameters.
- SOURCE LOGICAL UNIT:** specify the LU number where the files to be copied reside. Enter that LU's number. The default (pressing <RETURN>) assumes the user's own LU.
- NEW PROTECTION CODE:** specify the new or the existing protection level for those files which are to be changed. There is no default for this field, so a response must be entered.

After the parameters have been selected, the utility displays:

ARE ALL THE ABOVE SELECTION CRITERIA CORRECT (Y/N) ?

"N" returns the user to the selection display; "Y" causes the system to begin the file selection process while displaying these messages:

BUILDING WORK FILE, DO NOT DISTURB!

FILE INITIALIZATION IN PROCESS, DO NOT DISTURB!

When initialization is complete, the system displays lists of the specified files in groups of 36 for review and modification by the user.

Only those files that remain on the screen after the review and selection process is complete will be changed.

If <ESC> is pressed at any time after the first file list is displayed, the utility will be aborted and returns to the system prompt (#).

### **D.3.2 U.CHANGE EXECUTION**

Examine all pages (the grouping of files) of the selected files before entering the "E" (Execute) command. After this command is entered, the terminal displays a status message as each file is changed in turn.

When the last file has been changed, the system asks if the user wants to change more files. "Y" returns to the first screen to initiate another session. "N" terminates the utility and returns to the system command prompt (#).

# Appendix E

## MAKING TYPIST A PART OF AN INTEGRATED SOFTWARE PACKAGE

---

This appendix is intended for programmers and system analysts who wish to make TYPIST a part of an integrated software package. It provides methods of entering TYPIST from the master menu of the larger package, exiting TYPIST without returning to the IRIS system processor SCOPE, and automatically starting up or shutting down the printer spoolers.

### E.1 TYPIST ENTRY FROM MASTER MENU

To allow users to enter TYPIST from a master menu, ensure that all channels are closed and add the following line to the menu program:

```
10 SIGNAL 3,0
20 PRINT "   ";
30 SIGNAL 3,0
40 CHAIN "0/TYPIST"
```

where the PRINT statement includes three spaces enclosed in quotes, and TYPIST is a program (created in section 3.1.2) on LU/0 which chains to the TYPIST program modules. The PRINT and SIGNAL statements are required to ensure that the IRIS Input/Output Buffer contains exactly three spaces and a terminator. This prevents TYPIST from accessing the last output as type-ahead user initials.

### E.2 TYPIST EXIT TO MASTER MENU OR LOG-OFF

To return to the master menu or automatically log off the system when exiting TYPIST, a program named TIP.CHAIN must be written. The program prevents TYPIST users from accessing the IRIS system processor SCOPE.

When the user exits TYPIST by selecting option 13 from the TYPIST Main Menu or by typing invalid initials on entry into TYPIST, the system chains either to SCOPE or to TIP.CHAIN, if it exists. To ensure that users are not returned to SCOPE when they exit TYPIST, write a program to return to the system's master menu or to automatically log off the system. This program should be stored on each logical unit with TYPIST users on it, or on Logical Unit 0, under the name TIP.CHAIN.

### **E.3 AUTOMATIC SPOOLER INITIATION**

It may be desirable for spoolers to start up and shut down automatically when the system is initiated or shut down. This eliminates the need for TYPDIST users to perform these functions from the TYPDIST Special Functions Menu (see TYPDIST Users Guide).

To provide automatic spooler start-up capability, add the following lines of code to your system start-up routine:

```
10 DM C$ [100]
20 C$="lu/TIP.100.vvvv"
30 P=x
40 CALL 98,P,C$
50 P=y
60 CALL 98,P,C$
70 P=z
80 CALL 98,P,C$
```

where lu is the module logical unit containing all TYPDIST programs; x, y and z are the port numbers specified for the spoolers when TYPDIST was set up; and vvvv is the current revision level. This program must be run from an account whose assigned logical unit is configured for TYPDIST.

Lines such as 30 and 40 of this example must be included for each spooler. If there is only one printer, lines 50 through 80 may be omitted.

### **E.4 AUTOMATIC SHUTDOWN OF SPOOLERS**

To provide automatic spooler shut-down capability, add a line similar to the following for each spooler port to the system shut-down routine:

```
10 SIGNAL 1,P,999,999
```

where P is the port number specified for the spooler when TYPDIST was set up.

Include one statement for each spooler port.

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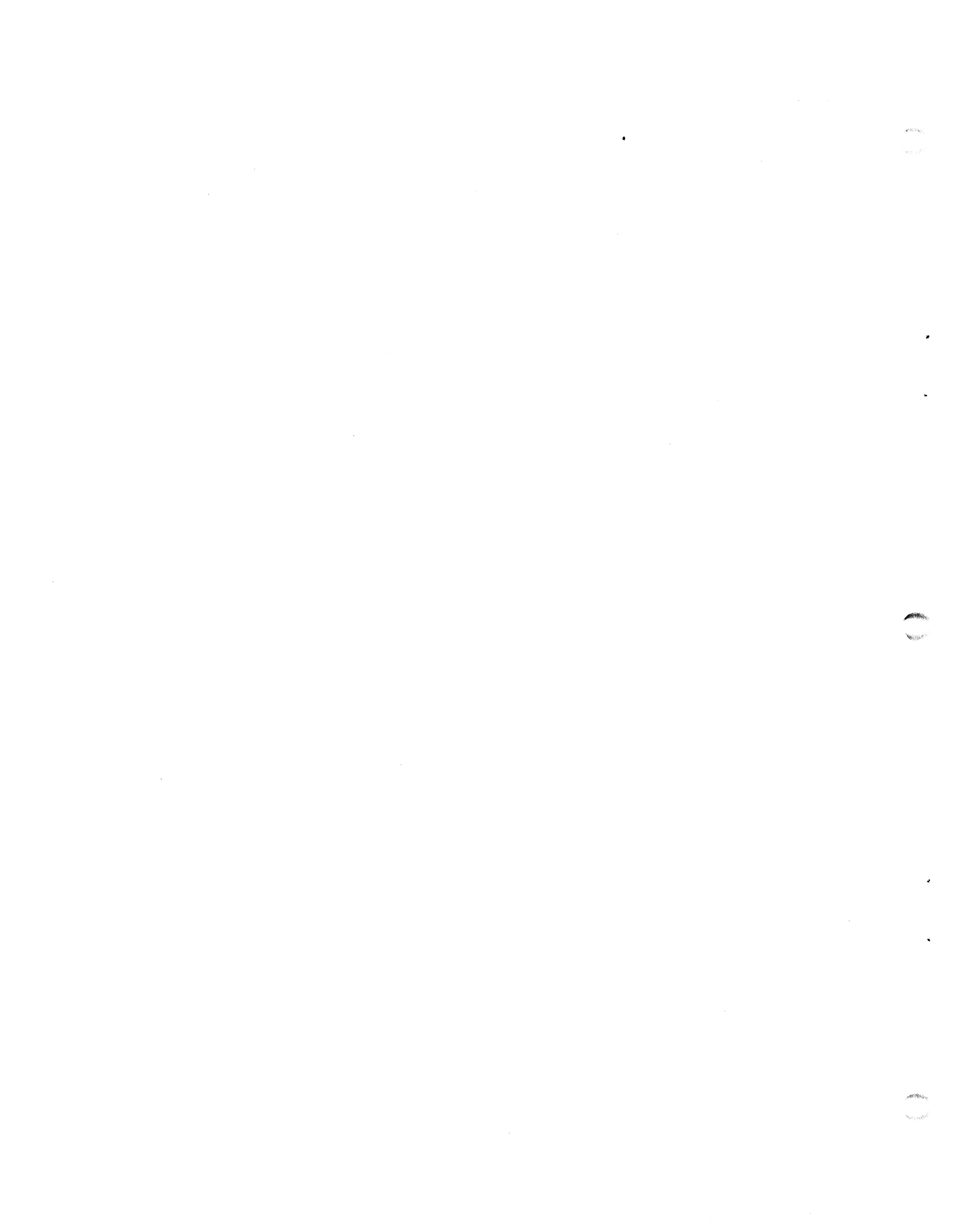
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## COMMENT SHEET

MANUAL TITLE TYPIST Word Processing System Installation Manual

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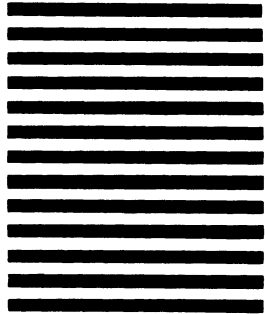
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