

WANG

OIS and VS Peripherals

Customer Software Release Notice

OIS and VS Peripherals, Release 6.7C.01
OIS and VS Peripherals System Software, Release 1.0C
OIS and VS Peripheral Utilities, Release 3.5A



OIS and VS Peripherals

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OIS and VS Peripherals, Release 6.7C.01

**OIS and VS Peripherals System Software,
Release 1.0C**

OIS and VS Peripheral Utilities, Release 3.5A

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WANG

**WANG LABORATORIES, INC.
ONE INDUSTRIAL AVE., LOWELL, MA 01851 TEL. (617) 459-5000, TWX 710-343-6769, TELEX 94-7421**

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PREFACE

This Customer Software Release Notice provides information about OIS and VS Peripherals, Peripherals System Software, and Peripheral Utilities.

This notice is organized in the following manner:

- Chapter 1 is an overview; it includes software and hardware requirements and installation procedures.
- Chapter 2 describes OIS and VS Peripherals, Release 6.7C.01, including information on restrictions, enhancements, and operation improvements that are provided with this release.
- Chapter 3 describes OIS and VS Peripherals System Software, Release 1.0C, detailing the system files that are required to operate printers.
- Chapter 4 explains OIS and VS Peripheral Utilities, Release 3.5A. These utilities are used to change printer default conditions, assign character set numbers, manipulate printer translation tables, and create a Laser Imaging System (LIS) font.

This notice refers frequently to the following documents:

Printer Software Administration Guide (715-0173)
OIS Software Installation Guide (715-0634) with updates through Addendum 2

Other relevant documents include the following:

VS System Administrator's Reference (800-1144-02)
Wang Professional Computer Series Indexer User's Guide (715-0471)
PIC File Server User's Guide (715-0229)
Model 5533/5535 Bidirectional Matrix Printer User Manual (700-6594)
OIS Model 5574 Band Printer User Manual (700-6878)

Model 5581 WD Twin-Head Daisy Printer User Manual (700-5588)
Model 6581W Daisy Printer Procedures Summary Card (700-5257)
Model 6581W Daisy Printer User Manual (700-5176)
Model 6581WC Wide Carriage Printer User Manual (700-5138)
Model LPS-12 Laser Printing System User Manual (700-7198)
Model LIS-12 Laser Imaging System User's Guide (700-9037)
Wang Professional Computer Integrated Word Processing Reference Guide(715-0179A)
Model SSF-20 Single-Sheet Feeder User Manual (700-8699)
Wang Model LPS8 Laser Printing System User's Guide (715-0326)
Intelligent Image Printer Model IP41D User Manual (700-5929)
OIS Intelligent Image Printer Model IP41D Operator Guide (700-5928)
DW/20 Series Daisy Printer User Manual (700-7073)
Model DW/OS-55 Daisy Printer User Manual (700-8095)
Model 5577 High-Density Matrix Printer User Manual (700-7125)
Model DSF-55 Dual Sheet Feeder User Manual (700-8605)
Envelope Feeder User Manual (700-6252)
Model ET-1 Envelope Tray Summary Card (700-0015)
Model DSF-77 Dual Sheet Feeder User Manual (700-8690)
OIS-PTR20 Daisy Printer User Manual (700-8314)
Model 5521 Line Printer User Manual (700-4327)
Model 5541W Daisy Printer User Manual (700-4790)
WP 5541WC Wide Carriage Printer User Manual (700-4789)
WP Twin Sheet Feeder User Manual (700-4664)
PM015 User Manual (715-0430)
Model SSF-40 Single-Sheet Feeder Installation and Operation Instructions (715-0451)
PM019 User's Manual (715-0335)
LIS-24 Laser Imaging System User Guide (715-0443)

CHAPTER 1 OVERVIEW

1.1 SOFTWARE REQUIREMENTS

Release 6.7C.01 of Peripherals is available in either an OIS version or a VS version. Software prerequisites for Release 6.7C.01 are defined separately for the OIS and VS systems.

OIS

If you are using Release 10.5, 10.A, or 10.H of the OIS Operating System, dependencies that exist between Release 6.7C.01 of Peripherals and other OIS software products are defined in the OIS Software Installation Guide.

If you are using OIS Operating System, Release 9.92, 9.E2 or later, the following software packages are required with Release 6.7C.01:

- OIS Word Processing, Release 4.4 or later
- Control Functions, Release 4.H or later

Customers with WISE (Wang Inter-System Exchange) hardware require WISE software Release 4.B or later.

If your OIS Operating System is prior to Release 9.92 or 9.E2 it cannot be used with Release 6.7C.01 of Peripherals.

Before installing this release of Peripherals it is recommended that you obtain the current version of the OIS Operating System from WangDirect (800-225-0234) or your dealer. If you have questions concerning the compatibility of other software products with OIS Peripherals Release 6.7C.01 or OIS Operating System 10.5, 10.A, or 10.H, call your Regional Support Center or dealer.

VS

Release 6.7C.01 of VS Peripherals is supported on the VS with the Operating System 6.40.00 or later. It requires the following software:

- VS/IIS Word Processing, Release 1.64.14 or later
- FINSTALL, Release 1.05.00

PC/APC/PIC

To use Release 6.7C.01 of OIS and VS Peripherals with a PC/APC or PIC that is attached to an OIS or VS, the following software must be installed on the PC/APC or PIC:

- PIC Core software, Release 2.0, including PIC Indexer, Release 2.0
- PCWP/IWP, Release 2.6 or later
- PC Operating System 2.02
- APC Operating System 2.5

If your PC/APC/PIC is attached to an OIS, that OIS must have Word Processing, Release 4.4 or later installed.

If your PC/APC/PIC is attached to a VS, that VS must have VS IIS, Release 4 or later installed.

1.2 HARDWARE REQUIREMENTS

OIS

This release of OIS Peripherals can be installed on the following systems: OIS 40, 50, 60, 70, and 100 series, 105, 115, 125A, 130A-E, 140, and 145. It is not supported on the OIS 125 or OIS 130.

To install Peripheral Utilities, you must have a minimum of 32K of workstation memory.

To run Peripheral Utilities, you need a workstation with 64K of memory.

VS

This release of VS Peripherals can be installed on any VS system.

To run Peripheral Utilities, you need a workstation with 64K of memory.

PC/APC/PIC

To use a printer attached to the host VS or OIS system, you must have either a PC with 256K memory or a PC/APC with PIC option. The system must include the following:

- 768K memory (minimum)
- image monitor
- Text/Image/Graphics card
- Memory expansion card to provide a maximum of 768K memory
- Winchester disk drive

NOTE

To connect a PC/APC/PIC to an OIS or a VS the following hardware and software are required:

PC-PM041-OA or PC-PM141-OA PC Alliance/OIS LCO (includes software)

PC-PM041-VS or PC-PM141-VS PC VS LCO (includes software)

For PC/APC Word Processing or Integrated Word Processing document printing on the OIS or VS, you must have a printer with at least 64K memory. Printers that meet this requirement are:

- The Wang Daisy Printers 13.2-inch 6581W-1, 6581WC-1 and the DW/OS-20
- The Wang Daisy Printer DW/OS-55
- The Model 5577 high-density matrix printer
- The Model 5574-1 line band printer
- The Laser Printing System models LPS8 and LPS-12
- The Laser Imaging Systems LIS-12 and LIS-24

For OIS 40/50/60/70 only, the following printers meet this requirement:

- OIS-PTR20 Daisy Printer
- OIS-PM015 Daisy Printer
- OIS-PM019 multifunctional matrix printer

NOTE

Only an LIS-12 or LIS-24 printer can print a PIC image or graph. If you send a PIC image or graph to any other printer, it results in a blank area of the document where the graph or image should be.

1.3 DEVICES SUPPORTED

Release 6.7C.01 of OIS and VS Peripherals supports the following devices:

Daisy Printers

- Model T400
- Model 6581W, 6581W-1
- Model 6581WC, 6581WC-1
- Model 5581WD wide carriage, dual-head
- Model DW/OS-20
- Model 7582WT tempest
- Model DW/OS-55
- OIS-PTR20 internal printer on OIS 40/50/60/70 systems
- OIS-PM015 internal printer on OIS 40/50/60/70 systems

Matrix Printers

- Model 5533,
- Model 5535, 5535-1
- Model 5521W
- Model 5531W
- Model 5577 high-density printer
- OIS-PM019 multifunctional internal printer on OIS 40/50/60/70 systems

Line Printers

- Model 5571 chain printer
- Models 5574 and 5574-1 band printers

Page Printers

- Model IP41D Intelligent Image Printer
- Model LPS8 and LPS-12 Laser Printing Systems
- Model LIS-12 and LIS-24 Laser Imaging Systems

Accessories

- Twin-sheet feeder on the Wang 6581W daisy printer and the Model 5577 matrix printer
- Dual-sheet feeder and envelope tray on the Wang 7582T tempest daisy, DW/OS-55 daisy, and 5577 matrix printer
- Envelope feeder on the Wang 13.2-inch 6581W, 6581W-1 daisy printer
- Single sheet feeder for the OIS-PTR20, OIS-PM015, and OIS-PM019
- Unidirectional forms tractor for the OIS-PM019
- Bidirectional forms tractor for the OIS-PM019
- Cut sheet guide for the OIS-PM019
- Forms tractor FT-1 for the 6581W, 6581W-1 daisy printer
- Bidirectional forms tractor BFT-1 for the 6581W, 6581W-1 daisy printer and the Model 5577 matrix printer
- Bidirectional forms tractor BFT-2 for the 6581WC, 6581WC-1 daisy printer
- Bidirectional forms tractor BFT-55 for the DW/OS-55 daisy printer

1.4 OIS INSTALLATION

On OIS, note the following installation information:

- If the last Peripherals release you were using is prior to 6.5B, or if you want to install the new printer translation table, printer parameter file, and font files, you must do the following: Delete the old translation table (PRINT.TRANS.0), the printer parameter file (PRINT.DEFAULT.0), and the font files (PRTFONT.xxx) before installing software. Note that font files are used only with the 5577 matrix printer and laser printers.
- The new translation table (PRINT.TRANS.0) and printer parameter file (PRINT.DEFAULT.0) that are a part of Release 6.7C.01 are not installed on the system volume unless the old table and file have been deleted. They do not install over an existing translation table or parameter file.

If you want to keep your currently installed printer fonts, character set numbers, any translation table changes, and already defined printer parameters, do not delete them, but simply leave them on the system volume.

- When you have completed installing software, and have deleted the translation table (PRINT.TRANS.0), any changes that were made to that table are gone. You must make any changes that you want to apply to the newly installed translation table through Peripheral Utilities. You must also install any optional fonts.
- If you are using Release 9.E2, 10.H, or 10.A of the OIS Operating System on an OIS 40, 50, 60, or 70 refer to the section titled Installation Procedure for systems with OIS Release 9.E2, 10.H, and 10.A in this chapter.
- If you are using Release 9.92 or 10.5 of the OIS Operating System on OIS 100 systems, refer to the section titled "Installation Procedure for Systems with OIS Releases 9.92 and 10.5" in this chapter.

Installation Procedure for Systems with OIS Release 9.92 and 10.5

Before you begin the installation procedure, make sure that you have all of the items in the list that follows. Each piece of software is followed by its diskette volume name, in parentheses, and its part number.

- Printer Software Administration Guide (715-0173)
- Peripherals System Software (SP27610C) 703-3366H
- Peripherals I (SP01067C) 703-2063Z
- Peripherals II (SP04267C) 703-2064AC
- LPS8 Auto-Enclosure Font (BL10067C) 703-3420C
- 5577 Auto-Enclosure Font (HD10067C) 703-2104BC
- LPS-12 Auto-Enclosure (LA10067C) 703-2105W
- LIS-12/LIS-24 Auto-Enclosure Font (IM10067C) 703-2484J
- LIS-12/LIS-24 Printer Microcode (SP02907D) 703-2483M
- Peripheral Utilities (SP01635A) 703-1184H
- Stroke Fonts (SP139023)

If you are missing any of the above items, contact the party from whom you ordered the product (WangDirect, your Wang sales representative or Wang dealer).

To install your OIS Peripherals Software, perform the following steps:

1. Select Control Functions from the DOS menu and then press EXECUTE. The Control Functions menu appears.
2. Select Install Software Package and press EXECUTE.
3. When the prompt "Mount Installation Disk in Drive 01 and Press EXECUTE" appears, place the Peripherals System Software diskette (SP27610C) into the central drive and press EXECUTE. The first Install Software Package menu appears.

4. The system displays the name of the volume that you specified during the last initialization. If it is not the system volume, enter the system volume name.
5. Press EXECUTE. The Second Install Software Package menu appears.
6. Press EXECUTE. The message "Installation in Progress" appears.
7. After the software is installed, the following prompt appears: "Press EXECUTE to Run Again or CANCEL to Terminate." Press EXECUTE.
8. The prompt "Change Disk in Drive 01 and Press EXECUTE" appears. Select the next diskette for installation. Insert the diskettes in the drive in the order listed below. Press EXECUTE each time you insert a diskette, and then go to Step 4. Repeat the procedure.
 - a. Peripherals I (SP01067C)
 - b. Peripherals II (SP04267C)

NOTE

During installation of your Peripherals II diskette, the system displays a menu listing printers supported by this release, except those that have an auto-enclosure diskette. Press INSERT to install each printer that is on your OIS system or press DELETE to bypass each printer that your OIS system does not support.

- c) If you have an LPS8 printer, insert LPS8 Auto-Enclosure Font (BL10067C).
- d) If you have a 5577 printer, insert 5577 Auto-Enclosure Font (HD10067C).
- e) If you have an LPS-12 printer, insert LPS-12 Auto-Enclosure Font (LA10067C).
- f) If you have an LIS-12/LIS-24 printer, insert LIS-12/LIS-24 Auto-Enclosure Font (IM10067C) and then the LIS-12/LIS-24 Printer Microcode (SP02907E).
- g) For LIS-12/24 PIC image printing insert Stroke Fonts (SP139023).
- h) If you have any optional font diskettes, install them now.

i) Peripheral Utilities (SP01635A)

NOTE

During installation of your Peripheral Utilities diskette, the system displays a menu in which you indicate whether you want to run the utility from the diskette or add it to the menu. Use the INSERT and DELETE keys to select the option you want and then press EXECUTE. Peripheral Utilities can be run only from a workstation with 64K memory.

Installation Procedure for Systems with OIS Release 9.E2, 10.H, and 10.A

Before you begin the OIS installation procedure, make sure that you have all of the items in the list that follows. Each piece of software is followed by its diskette volume name, in parentheses, and its part number.

- Printer Software Administration Guide (715-0173)
- Peripherals System Software (SS27610C) 733-3114I
- Peripherals I (SS01067C) 733-2906S
- Peripherals II (SS04267C) 733-2907V
- LPS8 Auto-Enclosure Font (BS10067C) 733-3147C
- 5577 Auto-Enclosure Font (HS10067C) 733-2948R
- LPS-12 Auto-Enclosure Font (LS10067C) 733-2949P
- LIS-12/LIS-24 Auto-Enclosure Font (IS10067C) 733-3031J
- LIS-12/LIS-24 Printer Microcode (SS02907E) 733-3055L
- OIS-PM019 Auto-Enclosure (CS10067C) 733-3148D
- Peripheral Utilities (SS01635A) 733-2932G
- Stroke Fonts (SS139023)

If you are missing any of the above items, contact the party from whom you ordered the product (WangDirect, your Wang sales representative or Wang dealer).

To install your software on OIS, perform the following steps:

1. Select Control Functions from the DOS menu and press EXECUTE.
2. Select Install Software Package and press EXECUTE.
3. When the prompt "Mount Installation Disk in Drive 03 and Press EXECUTE" appears, place the Peripherals System Software diskette (SS27610C) into the central drive and press EXECUTE. The first Install Software Package menu appears.
4. The system displays the name of the volume that you specified during the last initialization. If it is not the system volume, enter the system volume name.

Press EXECUTE. The Second Install Software Package menu appears.

5. Press EXECUTE. The message "Installation in Progress" appears.
6. After the software is installed, the following prompt appears: "Press EXECUTE to Run Again or CANCEL to Terminate." Press EXECUTE.
7. The prompt "Change Disk in Drive 03 and Press EXECUTE" appears. Select the next diskette for installation. Insert the diskettes in the drive in the order listed below. Press EXECUTE each time you insert a diskette, and then go to Step 4. Repeat the procedure.
 - a. Peripherals I (SS01067C)
 - b. Peripherals II (SS04267C)

NOTE

During installation of your Peripherals II diskette, the system displays a menu listing all Wang-supported printers, except those that have an auto-enclosure diskette. To select, press INSERT in front of the printers for which you want to install software; press DELETE beside the name of each printer your system does not support.

- c) If you have an LPS8 printer, insert LPS8 Auto-Enclosure Font (BS10067C).
- d) If you have a 5577 Printer, insert 5577 Auto-Enclosure Font (HS10067C).
- e) If you have an LPS-12 printer, insert LPS-12 Auto-Enclosure font (LS10067C).
- f) If you have an LIS-12/LIS-24 printer, insert LIS-12/LIS-24 Auto-Enclosure Font (IS10067C) and then the LIS-12/LIS-24 Printer Microcode (SS02907E).
- g) If you have an OIS-PM019 printer, insert OIS-PM019 Auto-Enclosure (CS10067C).
- h) For LIS-12/24 PIC image printing, insert Stroke Fonts (SP139023).
- i) If you have any optional font diskettes, install them now.
- j) Peripheral Utilities (SS01635A).

NOTE

During installation of your Peripheral Utilities diskette, the system displays a menu in which you indicate whether you want to run the utility from the diskette or add it to the menu. Use the INSERT and DELETE keys to select the option that you want and then press EXECUTE. Peripheral Utilities can be run only from a workstation with 64K memory.

1.5 VS INSTALLATION

This release of VS Peripherals is customer installable. To install the software, perform the steps listed below. Note that if you have VS Alliance on your system, this release of peripherals software is not customer installable.

Installing the Peripherals Software

1. To install VS Peripherals using the media provided, run the BACKUP program and perform a RESTORE, specifying the SYSTEM IPL volume in the VOLUME field.

Specify CLEAR = NO on the OUTPUT screen. (Be sure to specify CLEAR = NO on the OUTPUT screen, or all other files on that volume will be lost.)

Specify DUPFILES = SCRATCH on the BACKUP screen.

If you are restoring from diskettes, the BACKUP program prompts you to mount the next diskette(s). Continue this process until all files are copied to the SYSTEM volume.

2. When the End of Job screen appears, press (PF16) or (ENTER) to terminate the BACKUP procedure.
3. Dismount the media or last diskette.

Replacing the Printer Translation Table and Currently Installed Fonts

You can replace the printer translation table catalog and the fonts currently on your system with the printer translation table and the default font that is part of Release 6.7C.01. To do this, perform the procedure described below after you have completed the Installing the Peripherals Software procedure described in this section. Because some font libraries (@3xxxxxN) included in this release may not be in a previous release, you must perform this procedure in order to use them.

Note that if you are using VS Operating System 7.0 or later, the fonts being replaced in this process are those also used for Data Processing. These fonts must be reinstalled if you want to use them to print Data Processing material.

1. If the file WSPRTRN exists in library @SYSTEM@, scratch the file WSPRTRN.
2. Rename the file WSPRTRX in library @SYSTEM@ to WSPRTRN.

WSPRTRX must be renamed to WSPRTRN to obtain the default font for the 5577, LPS8, LPS-12 and the LIS-12/24 printers. Renaming this file replaces the previous printer translation table and any modifications contained therein. It also replaces any fonts previously installed with the default font contained in this release.

Installing a New Type of Printer, or Adding New Fonts

If you are installing a new type of printer not previously used on this system, or if you are adding new fonts, perform this procedure after completing the Installing the Peripherals Software and Replacing the Printer Translation Table and Currently Installed Fonts procedures described in this section.

1. Install the font diskettes using FINSTALL, as needed, to support printing on the 5577, LPS8, LPS-12, and LIS-12/24 printers. You can run FINSTALL at the operator's console; select RUN Program or Procedures from the Command Processor screen.
2. If you are adding an LPS-12, or LIS-12/24 to an existing VS/IIS print system, you must update the WSPRTRN file. To do this, run the LIS-12/24 Font Auto-Creation Utility. This converts LPS-12 fonts to the LIS-12/24 format (if there are LPS-12 fonts to be converted) and updates the WSPRTRN file.

Access the LIS-12/24 Font Auto-Creation Utility by selecting WP Utilities, Run Program or Procedure, and running the START program in library PUTIL using a 64K VS Combined workstation. Refer to the Printer Software Administration Guide for more information.

3. Using a 64K Combined workstation, run program START in library PUTIL from the SYSTEM volume to assign character set values to print fonts. Run START from WP Utilities, Run Program or Procedure.

Adding a New Printer

If you are adding a new printer, perform this procedure after completing the Installing the Peripherals Software procedure described in this section.

1. Run GENEDIT to add the printer to the configuration file for the VS system.
2. IPL the system.

Refer to the VS System Administrator's Reference for more information on this procedure.

CHAPTER 2
OIS AND VS PERIPHERALS, RELEASE 6.7C.01

2.1 INTRODUCTION

This chapter describes OIS and VS Peripherals, Release 6.7C.01, including media contents, enhancements new with this release, operation improvements since the last release, and printer functions.

2.2 MEDIA CONTENTS

Table 2-1 indicates the amount of memory that each file requires.

Table 2-1. Memory Requirements of Peripheral Files

File	Amount of Memory
Printer software	250K maximum ^a
LIS-12/LIS-24 printer operating microcode	100K
Translation table	22K (when installed)
Default file for each printer	13K (minimum)
Model 5577 matrix printer fonts	17K each
LPS-12 laser printer fonts	121K each
LIS-12/LIS-24 laser imaging fonts	50K each
LPS8 laser printer fonts	3/4K each

^aThis amount varies based on user selections.

Table 2-2 shows the size of each peripheral file (in 1,024-byte units) and describes its contents. On the VS, all but one of these files is in library WSPRINT; the remaining file, WSPRTRN is in library @SYSTEM@.

Table 2-2. Size and Contents of Peripheral Files

OIS File Name	VS File Name in Library WSPRINT	Size	Content
PRINT.PROGRAM	PROGRAM	71K	Printer applications code
PRINT.STARTUP ^a	STARTUP	13K	Document startup code
PRINTER3	PRINTER3	13K	Text file startup Type 3 printers
PRINTER4	PRINTER4	13K	Text file startup Type 4 printers
PRINT.DEFAULT.0	DEFAULT0	3K	Default printer parameters
PRINT.MESSAGES	MESSAGES	3K	Printer messages
PRINT.MSG.T404	MSGT404	2K	DW/OS-20 messages
PRINT.GNRCV2	GNRCV2	7.5K	Generic device driver
PRINT.TRANS.0	WSPRTRN ^b	22K	Translation table catalog (WSPRTRX)
PRINT.LASER226	LASER226	13K	PCWP/PWP entry program
PRINT.IWPSTART	IWPSTART	4K	PCWP/IWP startup code
PRINT.PCWP64	PCWP64	4K	PCWP/IWP text processing overlay
PRINT.IMG64	IMG64	27K	PIC Image processing overlay
PRINT.VDI64	VDI64	4K	VDM Graph processing overlay
^a This OIS file name is PRINT.START100 if OIS-SCI-TY is installed. ^b This VS file is in Library @SYSTEM@.			

Table 2-3 provides a list of OIS and VS files and the corresponding sizes and contents of each. Installation of the files in Table 2-3 is optional.

Table 2-3. Optional Peripheral Files

OIS File Name	VS File Name in Library WSPRINT	Size	Content
PRINT.SPC2405	SPC2405 ^a	4K	OIS-PM015 driver
PRINT.SPC2315	SPC2315 ^a	4K	OIS-PM019 driver
PRINT.T300.OBJ	T300#OBJ	4K	5535, 5533, 5521W, 5531W driver
PRINT.T304.OBJ	T304#OBJ	4K	5574 driver
PRINT.T303.OBJ	T303#OBJ	7K	Image printer driver
PRINT.T306.OBJ	T306#OBJ	10K	5577 driver
PRINT.T309.OBJ	T309#OBJ	7K	LPS-12 driver
PRINT.T313.OBJ	T313#OBJ	11K	LIS-12/LIS-24 driver
PRINT.T314.OBJ	T314#OBJ	5K	5574-1 driver
PRINT.T316.OBJ	T316#OBJ	12K	LPS8 driver
PRINT.T400.OBJ	T400#OBJ	4K	T400 daisy driver
PRINT.T401.OBJ	T401#OBJ	4K	Wang daisy driver
PRINT.T403.OBJ	T403#OBJ	6K	Wang twin-head daisy driver
PRINT.T404.OBJ	T404#OBJ	8K	DW/OS-20 driver
PRINT.T406.OBJ	T406#OBJ	5K	OIS-PTR20 driver
PRINT.T407.OBJ	T407#OBJ	9K	DW/OS-55 driver
PRINT.T2400.OBJ	T2400OBJ	5K	Two-font T400 daisy driver
PRINT.T2401.OBJ	T2401OBJ ^a	5K	Two-font Wang daisy driver
PRINT.Z401.OBJ	Z401#OBJ	4K	Wang daisy with DSF driver
PRINT.Z2401.OBJ	Z2401OBJ	4K	Two-font Wang daisy with driver
PRINT.T313.IPL	T313#IPL		LIS-12/24 operating microcode
PRINT.T302.OBJ			5571 Driver

^aThese files correspond to certain OIS files and are not operational on the VS.

2.3 ENHANCEMENTS NEW WITH THIS RELEASE

- PCWP/IWP printing is supported on the OIS and VS systems. You can print PCWP or IWP documents with PIC graph or image references, PIC image documents, or Virtual Device Metafile (VDM) graphs, which PIC users can create using Wang Integrated Data Base.

Refer to the Wang Professional Computer Series Indexer User's Guide and the PIC File Server User's Guide for information on queuing a document, a graphics file, or an image to an OIS or VS from a PC/PIC.

- PC Text File printing is supported on all 64K OIS and VS print devices.

2.4 ADDITIONAL ENHANCEMENTS

The following enhancements were made in Release 6.6E for OIS and 6.6C.01 for VS and are repeated here for your reference:

- Laser Printing System Model LPS8 is supported.
- The OIS-PM019 multifunctional matrix printer is supported on the OIS 40, 50, 60, and 70 systems.
- The OIS-PM015 daisy printer is supported on the OIS 40, 50, 60, and 70 systems.
- The Laser Imaging System Model LIS-24 is supported.
- The LIS-12 and LIS-24 printers have the following capabilities:
 - They can print 64 lines of text on an 11-inch (279-mm) page instead of 63.
 - You can use the bold feature for expanded print or bold print. (Refer to the Printer Software Administration Guide.)
 - You can set up the Change Paper message in Automatic or Manual mode. Automatic mode works the same as it did in the previous release. Manual mode causes the printer to ignore all paper change conditions except the underscored stop code (occurrences of the Change Paper command) and depleted paper supplies. (Refer to the Printer Software Administration Guide.)
 - Print jobs are offset-stacked.
 - If you use the new PRINT.TRANS.0 or WSPRTRN file, the 10-pitch Courier Landscape font is included and it is assigned Character Set 2 in the initial installation. (10-pitch Courier Portrait font is Character Set 1.)

- The underscored stop code is supported in Standard WP.
- The Autoclear function is supported. If the printer stops to allow a change of paper, but the paper does not get changed within approximately 10 minutes, printing resumes.
- The LIS-24 printer supports
 - Both Portrait and Landscape printing on 11-inch by 17-inch (279 mm by 432 mm) domestic paper and on A3 international paper.
 - Images and graphs on half a page of 11-inch by 17-inch (279-mm by 432-mm) domestic paper and on A3 international paper. This half page size measures 8 1/2-inches by 11-inches (216 mm x 279 mm). Note that the printer reserves a 1/4-inch border area around the image. The maximum size of a printed image or graph is 8-inches by 10.667-inches.

2.5 OPERATION IMPROVEMENTS FROM THE LAST RELEASE

The following improvements were made in Release 6.6E for OIS and 6.6C.01 for VS and are repeated here for your reference:

All Printers in General

- If a superscripted character is the first character on the second line of an indented paragraph, the superscripted character prints correctly.

Line Printers

- When printing a VS print file, if you deselect the printer and press TOP OF FORM, the printer no longer displays an illegal status code.

5577 Printer

- The printer justifies text properly.
- If you request that the Catalog Display List be printed on a Model 5577 printer, and you deselect the printer, press TOP OF FORM, and then reselect the printer, the printer does not stop functioning.
- When the printer encounters an underscored stop code and stops so that you can change the paper, you can cancel the print request.

- If you cancel a print request while the printer is deselected, you do not have to wait for the printer to be reselected for the cancellation to be completed.
- If a document contains a stop code but there is no secondary character set, the printer ignores the stop code and continues using the primary character set.
- When using a Proportional Space font and printing a line that has many superscripts and subscripts, the 5577 now produces correct horizontal spacing.

DW/OS-20 Printer

- If text following a stop code is underscored, the printer processes the stop code correctly.

DW/OS-55 Printer

- If you press COMMAND and the space bar (required space) in the first line of text and you are printing the document with proportional spacing, the printout stays within the margins; it does not exceed the right margin.
- If you select Standard Forms on multiple documents and then press TOP OF FORM after the first document is printed, the paper advances as it should; the printer does not print the entire page on the first line.
- The printer justifies text correctly.
- When a dual-sheet feeder is attached, the printer can print super- and subscripts properly on line 60 or greater.

LIS-12 Printer

- If there is a system printer error or another problem that causes the printer to stop functioning, the printer engine does not go into sleep mode (i.e., you do not have to wait for the printer engine to warm up before you can resume printing). The sleep condition had prevented system recovery from the error condition.
- If you deselect and then reselect the printer, it becomes operational immediately.
- Fill patterns for graphs are correct.

- If you cancel a print job while the printer is indicating that you should change the paper, the printer does not issue a "Malfunction" message.
- There is no problem if you deselect the printer while the paper tray is empty.
- Symbols do not print above the line of text. Version 1.2 of the Symbol font diskettes corrected this problem. You can order the diskette from WangDirect.
- When you use Form 2 with a summary, paper is taken from the correct bin.
- If the printer runs out of paper when printing the last page of a document, and paper is added, the "change paper" condition is cleared, the printer finishes the job, and the last page of the document is printed.
- When auto-enclosure fonts are installed, they are assigned character set numbers.
- The printer cancels print requests when instructed to do so; it does not display the error message "Unable to Open Job File".
- If the printer is not used for awhile, you do not have to re-IPL it.
- If text overflows to another page, the first two lines of text on the overflow page are spaced correctly.

LPS8 Page Printer

- You can use 10-pitch Courier font to print European characters.
- If you open and then close the cover of the printer, the change font light stays on; it no longer turns off.
- The printer no longer intermittently ceases to operate when connected to a serial IOP, or when several large documents are queued to print and one print job is cancelled.

LPS-12 Page Printer

- On an OIS, when you print CP/M® list files, the printout is single-spaced, not double-spaced.
- You can print text files with a new 15-pitch font. A new Letter Gothic font permits you to have eight lines per inch. You can order this 15-pitch text font from WangDirect through the Wang Custom Graphics Order Kit for the LPS-12.

- When the auto-enclosure fonts are installed using the new print translation table catalog (PRINT.TRANS.0 on OIS, WSPRTRN on VS), they are assigned character set numbers.
- If you use more than one pitch, the printer uses the current pitch to calculate the format line. The printer interprets stop codes correctly.
- When printing with a 15-pitch Landscape font, each page is not followed by a blank page.
- If the printer runs out of paper on the next to last page of a document, and paper is added, the "change paper" condition is cleared, and the last page is printed.

2.6 CONDITIONS AND PROCEDURES

This section describes conditions you should be aware of as well as specific problems that may arise and how to handle them.

PCWP/IWP Printing

- To print a PC Word Processing (PCWP) or Integrated Word Processing (IWP) file (as well as any externally referenced object) on an OIS or VS, the file or object must first be on a mounted disk on the host OIS or VS system. You must first attach to the system. Refer to the Wang Professional Computer Series Integrated Word Processing Reference Guide for information on attaching to an OIS or VS and creating or copying the file or object on a mounted disk.
- You must queue a document, graphics file, or an image from a PIC to print on an OIS or VS. Refer to the Wang Professional Computer Series Indexer User's Guide and the PIC File Server User's Guide.
- If you are queuing an image or graph as a separate entity, the image or graph may reside on the Winchester disk. If, however, you are queuing an IWP document that contains references to images or graphs, the document, images and/or graphs must be on a mounted disk on the host OIS or VS.
- PCWP/IWP printing requires a printer with at least 64K memory. Refer to Section 1.2 for more information, including a list of suitable printers.

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- If you are printing an image or a graphics (VDM) file as a separate entity, you must use an LIS-12/24 printer. If you use a printer other than an LIS-12/24 to print an IWP document that contains images and the document prints with blank areas where the images should be.

VS/IIS Printing

During printing of WP documents, files are placed in a library called "MAILBOX" on the system disk. User programs should not access this library for any reason. The library "MAILBOX" should have a protection class of blank. Note that this library is also used by other applications such as WP Plus, as well as VS Alliance.

All Printers in General

If you experience a problem similar to one described in a "Condition" sentence below, follow the advice given in the corresponding "Procedure" sentence.

Condition: Print Menu. Making an invalid entry on a Print menu (e.g., page length of zero, or print page zero) causes adverse results (e.g., a blank page prints or the daisy printer locks).

Procedure: If the printer locks, turn it off and then turn it on again.

Condition: Stop Codes. When you print a document that contains stop codes, some printers may have adverse results.

Procedure: Specify two character set numbers in the Print menu.

Condition: Scripts. If a line has superscripts or subscripts, the printer prints the superscript, then the line of text, and then the subscript.

Because printers move paper only in the forward direction, inserting a format line that has different line spacing will cause a subscript on the next line to print incorrectly.

Procedure: Use Quarter or Half-line spacing to get the desired printout.

Condition: Line Width. Format lines are associated with pitch values. When you insert a format line, it has the pitch value that is in effect at that location.

When the printer calculates the width of a line, it multiplies the number of spaces in the format line by the width of a space for that pitch.

Procedure: When you change the pitch, you must insert a new format line. Do not change the pitch in a header or footer.

Condition: Text Files. When you print text files, if you select Standard in the Forms field of the Print menu, the printer may deselect many times before printing.

Procedure: Select Continuous in the Forms field.

Condition: Draft Mode. If a document does not have a footer and you print it in draft mode, printing may stop part way down each page.

Procedure: Even though there is no footer, enter the number of lines per page in the Footer Starting Line field of the Print menu; that way printing continues to the end of the pages.

Condition: Character Sets. When the printer begins printing a new page, it always uses the primary character set, even if a secondary character set was in effect on the previous page.

Procedure: If you want the printer to continue using the secondary character set, enter a stop code at the beginning of the new page.

Condition: SELECT. If you repeatedly press the SELECT button, the printer may stop functioning.

Procedure: If the printer stops functioning, turn it off and then turn it on again.

Condition: Page Length. If you specify a page length of 1 on the Word Processing Print menu, the lines of text print on top of each other.

Procedure: If you want only one line per page, insert a page break after each line.

Condition: Line Spacing. If you specify a line space of 0 in the Word Processing Print menu, lines of text in word wraparound mode print one after the other instead of overlaying each other.

Procedure: If you want line spacing of zero, press RETURN at the end of each line.

Condition: Page Counter. After the printer prints page 9,999, the page counter restarts at number :000.

Procedure: None.

Condition: Line Feed. If there is a control code Hex(0A) in a text file but there is no text on that line preceding the control code, there is one less line feed than requested.

Procedure: Precede the control code with text.

Condition: Tabular Text. If a text file contains tabular text and there is a left margin, the text is not printed correctly.

Procedure: Set the left margin at zero.

Condition: Footer. If a footer contains a return and the document is queued to print in draft mode, the printer releases an extra sheet of paper after each page.

Procedure: For all printers (except the LPS-12), remove the return from the footer. This is not necessary on the LPS-12.

With a DW/OS-20, turn the printer off and then on again.

Condition: Header. If a header is single-spaced and the previous page ends with double spacing, the header does not print in the correct location.

Procedure: At the end of the previous page include a single-spaced format line that ends with a return character.

Condition: Overflow. If you change the pitch from Page 1 to Page 2 and the text overflows to Page 3, the overflow is not justified correctly.

Procedure: To prevent overflow, move the page break or reformat the document.

Dual-Sheet Feeders

Condition: Dual-Sheet Feeder. If you specify a nonstandard paper size in the Paper Length field of the Word Processing Print menu, the system interprets it as the next higher standard size. This may result in an incorrect left margin setting or an "Illegal Width" message.

If the printer is not an LIS-24 or a DW/OS-55, and you specify a size larger than 84 (the maximum length), the default is 84.

On an LIS-24, if you specify a size larger than 84, the printer defaults to 97 and switches to the big paper bin, even if Form 1, Form 2, or Standard is selected.

Procedure: Specify the paper lengths appearing in Table x-x in Appendix A. Note that the feeder supports only one size paper per print request.

Condition: Page Length. On a DW/OS-55, if there is a dual-sheet feeder and you specify a page length of more than 84, the printer does not default to 84.

Procedure: Do not specify a page length of more than 84.

Condition: Print Menu. On DW/OS-55, if you specify 'Continuous' in the Forms field of the print menu, the printer takes paper from the lower tray first. Printer documentation states that the upper tray is first.

Procedure: None.

All Page Printers

Condition: Text Files. When you print a text file, the default character set is 1.

Procedure: None.

LIS-12/LIS-24 Page Printers

Condition: Paper Changing. If you open the front cover unnecessarily before changing paper, the printer controller cannot receive status information about the tray latch.

Procedure: To continue printing, disengage and reengage the tray latch after you close the front cover.

Condition: Error Recovery Process. If you operate the printer controls (the top panel controls or the paper cassette latch) immediately after the printing engine halts, you may create new recovery conditions.

Procedure: After the engine halts, wait briefly before continuing.

LPS8 Page Printer

Condition: Dual Columns. When printing dual columns without a summary, if the first character is a stop code, the printer issues an "Illegal Width" message.

Procedure: Print the document with a summary or put a command space after the stop code.

Condition: Overflow. When text overflows to the next page, spacing between the first and second lines of text on the overflow page may be compressed.

Procedure: Reformat your document.

Condition: Overflow. If there is subscripted text on line 64 of an 11-inch page, an overflow will occur.

Procedure: Reformat your document as needed to avoid subscripted text on line 64.

LPS-12 Page Printer

Condition: Bold Printing. Bold printing is line-oriented. A line cannot be printed in bold unless the first character on that line is bold.

Procedure: To print a line in bold, make the first character bold.

Condition: Bold Printing. The printer makes characters bold by printing them twice their normal height, so text may overflow to the next page.

Procedure: When you determine your page layout, remember that bold text requires two lines.

Condition: Paper Supply. After status code C4 (check paper cassettes) appears and you add paper, status code CL appears.

Procedure: Press the C (CLEAR) button to resume printing.

Condition: Page Width. If a document page is wider than the printer paper, text wraps to the next line and a character is not printed.

Procedure: Reformat the document or change the Left Margin field in the Print menu to a smaller value.

Condition: Overflow. If you print a page that contains more than 64 lines of text, text overflows to the next page; the printer may print a blank page or a page that contains a minimal amount of text.

Procedure: Reformat the page to contain 64 or fewer lines.

Condition: 12-Pitch Consideration. When printing in 12 pitch, a tab terminating a center graphic may be one tab position before its intended location.

Procedure: Include a space before the tab.

Condition: Terminating Printout. You cannot cancel a print job while the printer is deselected.

Procedure: Make sure that the printer is selected.

IP41D Page Printer

Condition: Landscape Font. If the Landscape font is the primary character set, and the page length you specify in the Print menu is less than the actual number of lines in the page, text overflows to the next page or overlays text on the current page.

Procedure: Enter as the page length the number of lines in the page.

Matrix Printers

Condition: Paper Jams. If there is a severe paper jam, matrix printers may lock or print improperly.

Procedure: Turn the printer off and then on again.

Condition: No Feeder. If there is no feeder and you print on the top or bottom three lines of a page, the quality of the printout may be poor.

Procedure: Use continuous paper, or do not print on the top or bottom three lines of a page.

Condition: Exceeding 132 Characters. On Models 5521, 5531-1, 5531-2, and 5535, if you select other than 10 pitch from the WP print menu, a line exceeding 132 characters will not cause the print job to terminate with an "Illegal Width" message.

Procedure: Always select 10 pitch from the WP print menu to insure that a job will terminate with an "Illegal Width" message if a line exceeds 132 characters.

5521W Matrix Printer

Condition: Printout Completion. After completing a print request, the printer deselects.

Procedure: Manually reselect the printer so it can print the next request.

5577 Matrix Printer

Condition: Dual Columns. In a dual-column document with a header, if you do not press return at the end of the header and the header format line is too wide, the document does not print correctly and the printer stops functioning.

Procedure: If there is no return as the last character of the header, and the printer stops functioning, add a return to the header. If this does not solve the problem, turn the printer off and then on again.

Condition: Switching fonts. If you switch between Draft and High Density fonts within a document, adverse results occur.

Procedure: Do not attempt to switch between these fonts within a document.

Daisy Printers

Condition: Translation Table. Using the OIS-PTR20 character set number with other printers may cause unpredictable results.

Procedure: To avoid unpredictable results, do not use the OIS-PTR20 character set with other printers.

The translation table for active daisy printer character sets appears in Table A-7.

Condition: Centering. Daisy printers center text one character to the left of the correct position.

Procedure: Include a space before the text.

DW/OS-20 Daisy Printer

Condition: Change Paper Indicator. If a document's footer contains a return and you requested that the document print in draft mode, the printer feeds an extra sheet of paper after each printed page. The printer stops printing after the first printed page that has a footer, deselected, and the change paper indicator lights up.

Procedure: Turn off the printer and then turn it on again. Take the return out of the footer, or, do not print in draft mode.

DW/OS-55 Daisy Printer

Condition: No Feeder. If there is no feeder and you print on the top or bottom three lines of a page, the quality of the printout may be poor.

Procedure: Use continuous paper, or do not print on the top or bottom three lines of a page.

Condition: Secondary Character Set. If the last print request used the same character sets as the current print request, the printer uses the secondary character set when it begins the second printout.

Procedure: Do not change print wheels between print requests.

6581W and 6581W-1 Daisy Printers

Condition: Changing Daisy. If you have a twin-sheet feeder that has stopped so you can change the daisy wheel, and you complete the change, move the carriage to the right, close the cover, and press TOP OF FORM, the paper jams.

Procedure: Do not press TOP OF FORM after changing the daisy, and try to avoid moving the carriage.

Condition: Two Character Sets. When you are using two character sets, the CHANGE DAISY indicator lights up after the first document prints and before the next document prints.

Procedure: Press SELECT twice.

2.7 RESTRICTIONS

All Printers in General

- TOP OF FORM. If you press TOP OF FORM while a printer is deselected internally (i.e., out of ribbon, malfunctioning, encounters a stop code, etc.), the printer does NOT reprint the paper. This feature applies only when the user manually deselected.
- Centering in a Text File. If you enter a tab in a text file and then center the text, the text is centered between the tab and the end of the line.

- Dual-Sheet Feeder. When you print Landscape style on standard or DIN A4 paper, use the paper tray in Bin 2.
- Decimal Alignment. Decimal alignment is not supported in superscripts or subscripts.
- Differences in Printer Output. Printed output may not look exactly like the display screen due to differences in the printer fonts and hardware. This is especially true if a line has control codes such as superscripts, subscripts, or notes, or if you hyphenated or globally hyphenated a document before printing it.
- Line Calculations. When a printer calculates the paper length and the line on which the footer begins, it uses six lines per inch even if you specified eight lines per inch.
- Canceling an Active Print Job. If a printer has buffers (e.g., Models LPS-12, LIS-12/LIS-24, LPS8, OIS-PM015, OIS-PM019) and you cancel a printout while it is printing, the printer may be slow to respond.

With the OIS-PM015, when you request that the printout be resumed (by pressing SELECT, TOP OF FORM, and SELECT), the printout may begin at the next page instead of at the page currently printing.

- Superscripts. The number of lines that fit on a printed page is limited by the amount of space the printer reserves for superscripts. Line printers reserve the top line of each page; daisy and page printers reserve the top quarter line.
- Lines per Inch. If you specify line spacing of less than single line spacing in the format line (such as 0 for zero line spacing, Q for quarter line spacing, or H for half line spacing), the number of lines per inch printed is the same whether 6- or 8-lines per inch is selected. (If you specify a line space value of 1 or greater, the number of lines printed per inch depends on whether 6- or 8-lines per inch was selected.)

5577 Matrix Printer

- Text Files. Text file printing defaults to character set 1.

LPS-12 Page Printer

- Portrait and Landscape Fonts. A document cannot have both Portrait and Landscape type styles on the same page.

5574 and 5574-1 Line Printers

- Alarm Button. If you press the ALARM button, up to a line and a half of text may not print.
- Top of Form. If you press the ON LINE and TOP OF FORM buttons simultaneously while the printer is printing, the printer restarts the page but does not advance to the top of the form. Reprint the whole job.
- Lines per Inch. The 5574 prints at 6-lines per inch only.

5581WD Daisy Printer

- Twin-Head Daisy. Twin-head daisy printers do not advance the ribbon when printing one character per line per head. Also, these printers do not support 8-lines per inch printing.

2.8 SITUATIONS TO BE CORRECTED IN A SUBSEQUENT RELEASE

This section describes situations you should be aware of that will be corrected in a subsequent release.

General Information

- Blank Lines. If a page has numerous blank lines, the page may not be formatted correctly and text may shift upward. For example, if a page has text only on lines 01 and 67, the text in those two lines is printed on the same line.
- Stop Codes. If a document contains stop codes, character printers may deselect before printing footers or the second column of a dual-column print request.
- Merge Print. When you are doing a merge print, if you specify a page number higher than the number of variables, the printer releases blank pages.
- Line Width. If the width of a line on the screen differs from the width of a line on a printed page and you request double underscoring or overstriking, unexpected results may occur. (Screen width is controlled by format lines, and page width is controlled by the size of the paper.)
- Dual Columns. If you request several copies of a document that has dual columns, the printer stops printing after page 3 or later of the first copy.

- Overflow. If you requested in the Print menu that eight lines be printed per inch and there are too many lines to fit on a page, the overflow prints at six lines per inch.
- Overflow. When text overflows to another page, the document formatting may be disrupted.
- Proportionally Spaced. In a proportionally spaced document, if the following unusual conditions exist, a character may be lost: 1) two lines are separated by a word break and the second line has no word breaks and exceeds the format line length; 2) the width of the last character on the line exceeds the width of the word break; 3) the remaining space on the line is less than the width of a word break. To correct this, place a return in the document at the word break preceding the lost character.
- Page Breaks. The daisy printer ignores page breaks when the following conditions exist: 1) Two format lines are separated only by a note and a page character; 2) the note has wider spacing than the page; 3) the first line of the page associated with the note has a superscript in it; (4) you select Without Notes in the Print menu.
- Paper Jams. If there is a paper jam on a laser printer, a page of text may not print.
- Subscripts. If there is subscripted text on line 64 of an 11-inch (27.9-cm) page, the text overflows to the next page.

IP41D Page Printer

- Tabs. When you print in 12-pitch, a tab that terminates a center may be placed one tab stop before its intended position.
- Pages per Minute. The IP41D prints 15 pages per minute.

LIS-12/LIS-24 Page Printers

- Landscape. When printing Landscape style, if the first character on a page is double-underlined, text is printed with a strike-through character.
- Paper Cassette Handle. If you move the paper cassette handle during printing, the paper may jam or you may lose data.

- Paper Size. If you have different size paper in the upper and lower paper trays, you can select the page length you want in the Print menu without causing the C4 status code to display. To do this you must select the Unit Standards option from the main Peripheral Utilities menu, and then select Manual Paper Change instead of Automatic Paper Change. Refer to the Printer Software Administration Guide for more information. You can use Form 1 for 11-inch (279-mm) paper and Form 2 for 14-inch (356-mm) paper. The default paper length is 11 inches for both trays.

LPS8 Page Printer

- Multipage Documents. If a multipage document is queued to print with the standard forms option and the paper bin is empty, a "Change Paper" message is issued for the second page of the document. If you cancel the job and add paper, the printer releases a blank sheet and does not issue a cancellation message.

LPS-12 Page Printer

- Spacing. When spacing other than single spacing is used, the first line of text starts in the wrong physical location on the page.
- Stop Code. If there is an underscored stop code, the printer does not display a C4 status code.
- Paper Cassette Handle. If you move the paper cassette handle during printing, the paper may jam or you may lose data.
- 15-Pitch Landscaped Font. When printing with 15-pitch Landscaped font, if scripted text follows a line of underscored spaces or is on the same line as the underscored spaces, the printer may not print some text.
- Device Control. If you turn the bin lever to add paper, a Malfunction activity code displays in "Device Control" until a job is queued and printing.
- Illegal Width. When an illegal width condition occurs, the line wordwraps to the next line, and one character is lost.

5535 Matrix Printer

- Bold. The printer intermittently over-bolds bold text in dual column.

- Dual Columns. If you are printing dual column and you specify zero in the format line to create overstrikes, the line spacing is incorrect.
- Different Paper Size. If jobs use different size paper and the twin-sheet feeder is attached, the printer deselects and does not illuminate the CHANGE PAPER indicator.
- Bold and Justified Text. If text is both bold and justified, 10-pitch and 12-pitch draft fonts do not print correctly. Random words are blurred.
- Dual-Sheet Feeder. When you use the envelope attachment on the dual-sheet feeder, it is recommended that you do not print return addresses on envelopes.
- Text Without Spaces. If you are printing a long line of text without spaces using a 15-pitch or PS font, some of the text on the line may be lost.

Daisy Printers

- Stop Codes. If the printer encounters a stop code, the printer deselects and illuminates the CHANGE DAISY indicator before printing a footer or the next column of a dual-column print request.

6581W Daisy Printer

- Scripts. The printer does not print a solid line of proportionally-spaced characters that contain subscripts and/or superscripts (i.e., there must be spaces between the characters).
- Dual Columns. If you specify zero in the format line to create overstrikes, the line spacing is incorrect.

DW/OS-55 Daisy Printer

- Secondary Character Set. If you are using a secondary character set and the previous line ended with a return and used both character sets, the printer may print a line of text starting at the right margin.
- Dual-Sheet Feeder. When there is a dual-sheet feeder, the printer does not flag an illegal width until a 10-pitch line has 87 characters or a 15-pitch line has 199 characters; it should flag the lines at 86 and 198 characters, respectively.

- Dual-Sheet Feeder. If your printer has a dual-sheet feeder and there is more than one superscripted character on line 60, the first character is not scripted.
- Dual-Sheet Feeder. The printer will accept paper from only Bin 1 in the following situation: You have a dual-sheet feeder and have selected Form 2; when the printout is completed, both bins are empty; you then submit a job that uses Continuous forms.
- Networking. When you use Wang Systems Networking to send files from the VS system to the OIS system, the printer does not start printing until you deselect and then reselect the printer.
- Stop Codes. If a page contains multiple underscored stop codes and you cancel the print request when the printer is deselected, you must turn the printer off and then on. It is recommended that you do not have more than one underscored stop code on a page.
- File Transfer. When you transfer files from a VS system to an OIS system and print from a Landscape tray on a dual-sheet feeder, the left margin moves to the right. An "Illegal Width" message appears.
- Printer Output. The printer is not a direct replacement of the 6581W or the 5577 printer. Print results may vary slightly.

Line Printers

- Line Spacing. Line printers cannot do fractional line spacing. If you specify fractional spacing, the printer uses the next full line.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical tools employed.

3. The third part of the document presents the results of the study, showing the trends and patterns observed in the data. It includes several tables and graphs to illustrate the findings.

4. The fourth part of the document discusses the implications of the results and provides recommendations for future research. It highlights the areas that need further investigation and the potential applications of the findings.

5. The fifth part of the document concludes the study and summarizes the key findings. It reiterates the importance of the research and the contributions it has made to the field.

6. The sixth part of the document provides a list of references and sources used in the study. It includes books, articles, and other relevant materials that have informed the research.

7. The seventh part of the document contains the appendix, which includes additional data, tables, and figures that are not included in the main text. It provides a comprehensive overview of the raw data and the calculations used.

8. The eighth part of the document is the index, which provides a quick reference to the various sections and topics covered in the document. It is designed to facilitate navigation and searching for specific information.

9. The ninth part of the document is the glossary, which defines the key terms and concepts used throughout the study. It ensures that all readers have a clear understanding of the terminology.

10. The tenth part of the document is the bibliography, which lists all the sources cited in the study. It provides a complete record of the research materials used.

11. The eleventh part of the document is the list of figures, which provides a detailed description of each figure and its location in the document. It helps readers to quickly find the visual data they are interested in.

12. The twelfth part of the document is the list of tables, which provides a detailed description of each table and its location in the document. It helps readers to quickly find the tabular data they are interested in.

CHAPTER 3
OIS AND VS PERIPHERALS SYSTEM SOFTWARE, RELEASE 1.0C

3.1 INTRODUCTION

The Peripherals System Software contains system files that are required to operate printers. This chapter describes the Peripherals System Software for Release 1.0C.

On the OIS, the Peripherals System Software comes with OIS Peripherals, Charter and WP Plus Peripherals. If you install any of these, make sure you use the latest release of Peripherals System Software, since only the latest release can be used with all of these products.

3.2 MEDIA CONTENTS

Release 1.0C of OIS Peripherals System Software is on a diskette labeled OIS Peripherals System Software, Release 1.0C, SP27610C/SS27610C.

For the VS, the VS Peripherals System Software is part of the VS Peripherals package.

The software listed in Table 3-1 occupies approximately 657 sectors.

Table 3-1. Peripherals System Software Files

OIS File Name	VS Library	VS File Name	Blocks	Description
SLVSPEC.T406	WSPRINT	T406#SLV	4	OIS-PTR20 software for device service routines
SLVSPEC3	WSPRINT	SLVSPEC3	16	DOS.BATCH (Batch Handler) device service routines
SLVSPEC.T313	WSPRINT	T313#SLV	12	LIS-12 power-up diagnostics
SLVSPEC.T315	WSPRINT	T315#SLV	8	PM019 matrix printer software
SLVSPEC.T316	WSPRINT	T316#SLV	12	LPS8 software
SLVSPEC.T3FF	WSPRINT	T3FF#SLV	12	Type 3 printer software
PRINT.T307.IPL	WSPRINT	T307#IPL	76	5577 IPL code
PRINT.T309.IPL	WSPRINT	T309#IPL	80	LPS-12 IPL code
SLVSPEC4	WSPRINT	SLVSPEC4	8	Type 4 printer software
SLVSPEC.T404	WSPRINT	T404#SLV	16	DW/OS-20 power-up diagnostics
SLVSPEC.T405	WSPRINT	T405#SLV	4	PM015 software for device service routines
SLVSPEC.T407	WSPRINT	T407#SLV	8	DW/OS-55 power-up diagnostics
SLVSPEC.T4FF	WSPRINT	T4FF#SLV	8	6581W software for device service routines
PRINT.T407.IPL	WSPRINT	T407#IPL	24	DW/OS-55 IPL code
PRINT.TT.FONTLOAD	WSPRINT	TT	1	File for single-font and auto-enclosure diskette
PRINT100.PM07STYL	PRINT100	PM07STYL	28	Installs font into the TRANS.Txxx font catalog
PRINT100.OLDSTYL	PRINT100	OLDSTYL	16	Installs font into the PRINT.TRANS.0 font catalog
PRINT200.PM07STYL	PRINT200	PM07STYL	28	Not applicable
PRINT200.OLDSTYL	PRINT200	OLDSTYL	24	Not applicable

(continued)

Table 3-1. Peripherals System Software Files (continued)

OIS File Name	VS Library	VS File Name	Blocks	Description
PRINT100.PRTFT	PRINT100	PRTFT	44	Lets single-font diskettes convert PRTFONT font files to WP Plus font files
PRINT100.SYSPRTFT	PRINT100	SYSPRTFT	44	Lets Peripheral utilities convert PRTFONT font files to WP Plus font files
PRINT200.PRTFT	PRINT200	PRTFT	76	Not applicable
PRINT200.SYSPRTFT	PRINT200	SYSPRTFT	76	Not applicable
FT.MAP	FT	MAP	4	WP Plus font software
UPDATE.EXC	UPDATE	EXC	24	Updates translation table for LIS-12, LPS8, and PM019 auto-enclosure diskettes
UPDATE.200EXC	UPDATE	200EXC	24	Updates translation table for LIS-12, LPS8, and PM019 auto-enclosure diskettes
FT.MASTER	FT	MASTER	10	Font software
FT.OBJ.MESSAGES	FT	OBJ	45	Font software

3.3 RESTRICTIONS

Please note the following:

- When the high-density matrix printer has a twin sheet feeder and is feeding paper, do not select or deselect the printer.
- International characters on a daisy or band printer that is nonfont-loadable print as spaces.

3.4 OPERATION IMPROVEMENTS SINCE THE LAST RELEASE

General Information

- Text files that contain revisions to previously specified print parameters (i.e., lines per page, character set, margins, etc.) now print properly.
- If word wraparound occurs from an indented line to the next line, and the first word of the next line has a script in it, an error may occur.

5577 Printer

- When a model 5577 printer is configured as a WP only printer on a VS, all pages of a document, including the last page, eject properly. Also, the 5577 no longer emits a high pitch whistle between print jobs.
- When using a Proportional Space font and printing a line that has many superscripts and subscripts, the 5577 now produces correct horizontal spacing.
- The 5577 now prints a double underline as two distinct lines instead of a thick single underline.
- When printing with a 15-pitch Landscape font, each page is not followed by a blank page.

LPS-12 Page Printer

- If a paper jam occurs, the printer no longer loses or overprints pages.
- If a document page contains only a center graphic, the printer does not print a blank page. To print a blank page, be sure there is nothing on the page.

CHAPTER 4 OIS AND VS PERIPHERAL UTILITIES, RELEASE 3.5A

4.1 INTRODUCTION

This release of Peripherals Utilities was included in OIS Peripherals, Release 6.6E and VS Peripherals Utilities, Release 6.6C.01.

Peripheral Utilities let you do the following:

- Alter printer default conditions on a system-wide or unit basis
- Assign character set numbers
- Create, modify, and delete printer translation tables
- Create a Laser Imaging System (LIS-12/LIS-24) font on the user's system or on a single-font diskette

Release 3.5A of the OIS Peripheral Utilities software is on a single diskette labeled OIS Peripheral Utilities, Release 3.5A, SP01635A/SS01635A.

The VS Peripherals Utilities software is part of the VS Peripherals package.

You need a 64K workstation to run Peripheral Utilities.

4.2 MEDIA CONTENTS

On the OIS, if you run Peripheral Utilities from a diskette, the system temporarily installs the files that appear in Table 4-1 on the System disk.

If you add Peripheral Utilities as an option to the main OIS Disk Operating System menu, these files are permanently installed on the System disk.

On the VS, the files are installed automatically as part of the peripherals software. Refer to the Printer Software Administration Guide for more information.

On the VS, the library that contains the Peripheral Utility files is PUTIL.

Table 4-1. Peripheral Utility Files

OIS File Name	VS File Name in Library PUTIL	Size (Sectors)	Contents
PUTIL.CHMS	CHMS	18	Message file for character set utilities
PUTIL.CHUT	CHUT	124	Software for character set utilities
PUTIL.COMS	COMS	11	Message file for single-font diskette
PUTIL.COUT	COUT	156	Software for single-font diskette
PUTIL.DEMS	DEMS	14	Message file for printer parameter alteration
PUTIL.FOMS	FOMS	5	Message file for LIS-12/LIS-24 conversion
PUTIL.FOUT	FOUT	144	Software for LIS-12/LIS-24 conversion
PUTIL.MEUT	MEUT	68	Software for main menu mailbox and date format
PUTIL.PRUT	PRUT	80	Software for printer parameter alteration
PUTIL.START	START	4	Peripheral Utilities startup code
PUTIL.UTMS	UTMS	8	Message file for main menu mailbox and date format
PRINT.T307.INSTALL	N/A	15	Install file for matrix fonts

(continued)

Table 4-1. Peripheral Utility Files (continued)

OIS File Name	VS File Name in Library PUTIL	Size (Sectors)	Contents
PRINT.T309.INSTALL	N/A	16	Install file for laser (LIS-12) fonts File that the Install File uses to see if any previous releases of Peripheral Utilities should be deleted from the system
PRINT.PERIPH.UTIL350	N/A	2	

4.3 ENHANCEMENTS NEW WITH THIS RELEASE

- Peripheral Utilities now supports the LPS8 printer.
- Peripheral Utilities now supports the PM019 multifunctional matrix printer.
- Peripheral Utilities now supports the LIS-24 Laser Imaging System.
- Peripheral Utilities now supports the PM015, a 40-character-per-second daisy printer.
- When using an LIS-12/LIS-24 printer, you can select regular bold or expanded bold printing.
- When using an LIS-12/LIS-24 printer, you can select automatic or manual paper handling.

With automatic paper handling, if you change the Forms or Page Length fields in the Print menu, status code C4 appears; the printer stops until you change the paper.

With manual processing, the printer ignores changes in the Forms and Page Length fields and continues processing until it encounters an underscored stop code.

- When you run Release 3.5A of Peripheral Utilities (SP01635A/SS01635A) for a particular printer, the system creates a new default file for that printer. (On the OIS, this file is PRINT.DEFxx; the xx is the printer number in hexadecimal. On the VS, this is file DEFxx in library WSPRINT.) All changes you make to that printer's default file are saved.

4.4 OPERATION IMPROVEMENTS SINCE THE LAST RELEASE

- The correct default file is updated (i.e., in OIS, it is PRINT.DEFAULT.Uxx, and in VS it is Library WSPRINT, file PRPDFUxx where xx is the hexadecimal unit number of the printer).
- When you are using the Single-Font Diskette Update utility and the message "Update in Progress" appears on the screen, no keystrokes are accepted (i.e., you cannot interrupt processing).

Previously, if you pressed SHIFT and CANCEL during execution of the utility, the utility did not finish updating the diskette and you could not update the diskette again.

- If you press CANCEL and then select Character Set Utilities, you can enter 30 characters in the fields of the Copy From Existing Table menu or the Zero All Values menu.

Previously, if you pressed CANCEL, the length of the fields was shortened in those two menus.

- When you run Peripheral Utilities, the correct character set name for landscape auto enclosure appears; it is not preceded by an underlined lowercase b.
- You can run Peripheral Utilities to display a list of available fonts; the "Screen Package Error" message does not appear and workstations remain functional.

4.5 RESTRICTIONS

Please note the following:

- You must run Peripheral Utilities from a 64K workstation.
- When you alter a printer translation table, turn off all printers on the system. If this is not feasible, make sure the printers are idle (i.e., not processing print requests).

- When you modify the system default file, turn off all printers on the system. If this is not feasible, make sure the printers are idle.
- When you modify a printer's default file, the printer must be idle (i.e., it cannot be processing a print request).
- When you use the Single-Font Diskette Update function or the LIS-12/LIS-24 Font Auto-Creation utility, all printers must be idle.
- On an OIS, you can run Peripheral Utilities from a diskette or you can add it to the main Disk Operating System menu.
- On an OIS, if you run Peripheral Utilities from a diskette, control returns to the control functions screen (not to the main menu) upon completion.
- On an OIS, if you previously added Peripheral Utilities to the main menu and then select "Run from Floppy" during the installation procedure, the files that Peripheral Utilities uses are NOT deleted from the System disk when you are finished using the utilities.

If you did not previously add Peripheral Utilities to the main menu, the files are deleted.

- After you run this version of Peripheral Utilities for a specific printer, the system saves changes made to that printer's unit default file in that printer's unit default file. That printer can no longer access changes made to the system default file.
- When you alter a printer's unit default file, the Return Mailbox No. and Date Format Option fields in the system default file are also modified.
- When you enter a unit number in the Return Mailbox No. field or the Enter Unit No. field, you must enter a valid unit number that is left-justified.
- The LIS-12/LIS-24 Font Auto-Creation utility and the Single-Font Diskette Update utility do not create Signature/Logo and other special customer fonts correctly for LIS-12/LIS-24 printers. You can order updated custom fonts from WangDirect.

4.6 SITUATIONS TO BE CORRECTED IN A SUBSEQUENT RELEASE

- In the Word Processing Print Parameter Alteration screen, do not enter zero as a sentence terminator or as a decimal alignment character.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions.

2. It then goes on to describe the various methods used to collect and analyze data.

3. The next section details the results of the study and the conclusions drawn from the data.

4. Finally, the document provides a summary of the findings and offers suggestions for future research.

5. The author concludes by emphasizing the need for continued research in this field.

6. The document is organized into several sections, each focusing on a different aspect of the study.

7. The first section provides an overview of the research objectives and the methodology used.

8. The second section describes the data collection process and the challenges encountered.

9. The third section presents the results of the data analysis and discusses their implications.

10. The fourth section offers a critical evaluation of the study's strengths and limitations.

11. The fifth section provides a detailed discussion of the research findings and their significance.

12. The sixth section discusses the broader context of the research and its contribution to the field.

13. The seventh section offers recommendations for future research and practical applications.

14. The eighth section provides a final summary of the study and its key findings.

15. The document is written in a clear and concise style, making it accessible to a wide range of readers.

16. The author's expertise in the field is evident throughout the document.

17. The document is a valuable resource for anyone interested in this area of research.

18. The author's work has provided a solid foundation for further exploration in this field.

APPENDIX A PAPER SIZES

A.1 PAPER SPECIFICATIONS

It is important that you indicate the correct paper specifications when you print a document. If you put an incorrect value in the Paper Length field of the Print menu, the number of lines per page is affected. Paper sizes and the correct Paper Length field values for the Print menu are listed in Table A-1 for daisy and matrix printers.

Table A-2 gives the paper widths for matrix and daisy printers when Portrait is selected, and Table A-3 gives the paper widths for matrix and daisy printers when Landscape is selected. Table A-4 gives the paper widths for laser printers when Portrait is selected, and Table A-5 gives the paper widths for laser printers when Landscape is selected. Table A-6 is a page length field selection guide for laser printers. Table A-7 gives Daisy Printer character set numbers and print wheel sequences.

Table A-1. Daisy and Matrix Printer Paper Sizes

Paper Size	Print Menu Paper Length ^a
Standard paper	
Portrait 8.50 inches x 11 inches (216 mm x 279 mm)	66
Landscape 11 inches x 8.50 inches (279 mm x 216 mm)	51
Din A4 8.27 inches by 11.69 inches	
Portrait 210 mm x 297 mm	72
Landscape 297 mm x 210 mm	50
Government paper	
8 inches x 10.50 inches (203 mm x 267 mm)	63
Legal paper	
8.50 inches x 13 inches (216 mm x 330 mm)	78
8.50 inches x 14 inches (216 mm x 356 mm)	84
Monarch	64
7.25 inches x 10.50 inches (18.4 cm x 26.7 cm)	
Envelopes - all sizes	36 or less
^a If you put an incorrect value in the Paper Length field of the Print menu, the left margin is affected.	

Table A-2. Portrait Paper Widths for Daisy/Matrix Printers

Paper Width	Number of Characters per Line		
	10 Pitch	12 Pitch	15 Pitch
7.20 in. (182 mm)	72	86	108
4.25 in. (184 mm)	72	87	109
8.00 in. (203 mm)	80	96	120
8.27 in. (210 mm)	82	99	124
8.50 in. (215 mm)	85	102	128

Table A-3. Landscape Paper Widths for Daisy/Matrix Printers

Paper Width	Number of Characters per Line		
	10 Pitch	12 Pitch	15 Pitch
10.00 in. (254 mm)	100	120	150
10.10 in. (257 mm)	101	121	151
10.50 in. (267 mm)	105	126	157
10.83 in. (275 mm)	108	130	162
11.00 in. (280 mm)	110	132	165
11.69 in. (297 mm)	116	140	175
12.40 in. (315 mm)	124	149	186
13.00 in. (330 mm)	130	156	186
14.00 in. (356 mm)	140	168	210

Table A-4. Portrait Paper Widths for Laser Printers

Paper Width	Number of Characters per Line		
	10 Pitch	12 Pitch	15 Pitch
7.20 in. (182 mm)	67	80	100
4.25 in. (184 mm)	67	81	101
8.00 in. (203 mm)	75	90	112
8.27 in. (210 mm)	77	93	116
8.50 in. (215 mm)	80	96	120

Table A-5. Landscape Paper Widths for Laser Printers

Paper Width	Number of Characters per Line		
	10 Pitch	12 Pitch	15 Pitch
10.00 in. (254 mm)	96	115	143
10.10 in. (257 mm)	97	116	144
10.50 in. (267 mm)	101	121	150
10.83 in. (275 mm)	104	125	155
11.00 in. (280 mm)	106	127	158
11.69 in. (297 mm)	112	135	168
12.40 in. (315 mm)	120	144	179
13.00 in. (330 mm)	126	151	188
14.00 in. (356 mm)	136	163	203

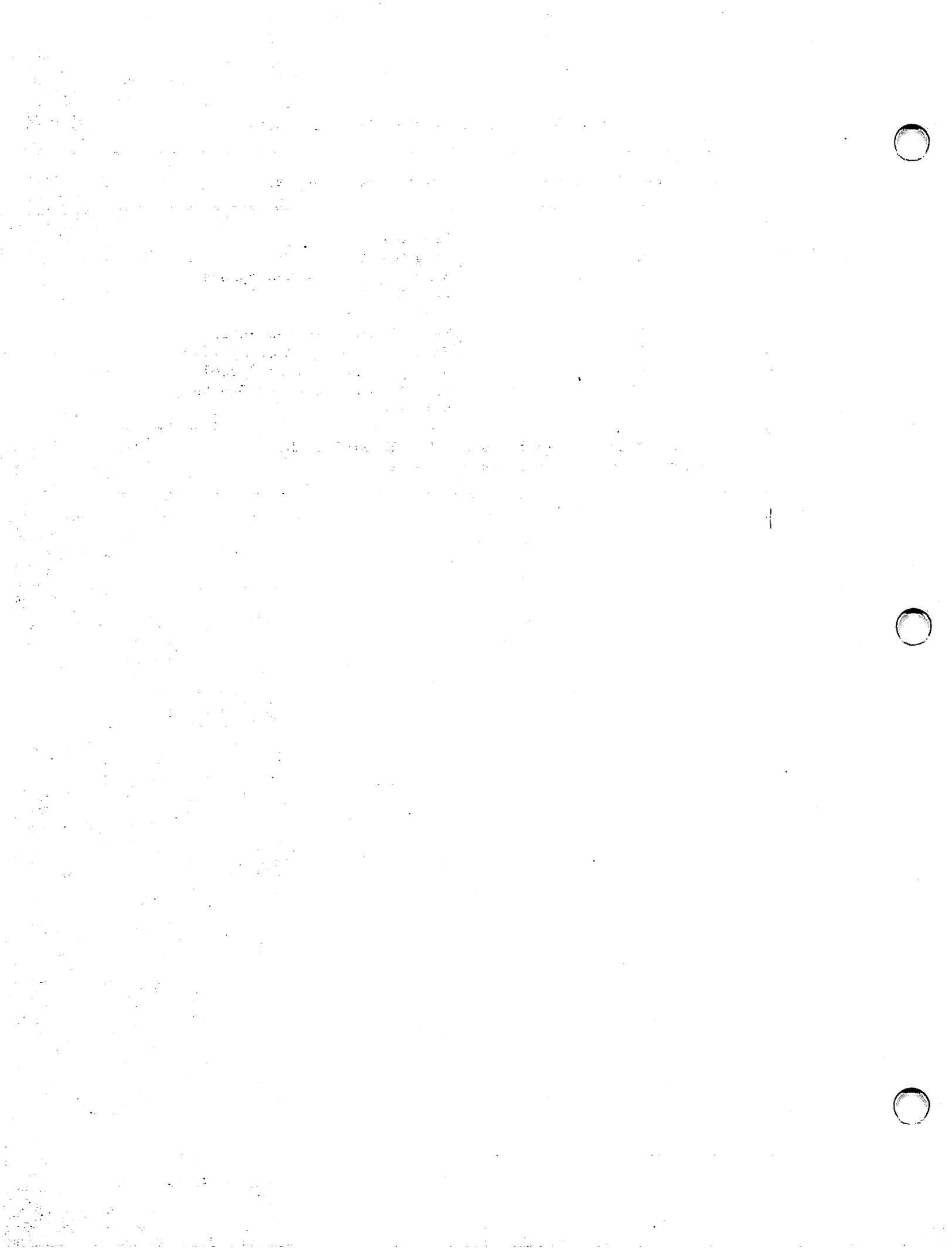
Table A-6. Page Length Field Selection Guide for Laser Printers

Paper Size (inches)	(mm)	Page Length Entry	Number of Lines Printed per Page			
			Portrait lines/inch		Landscape lines/inch	
			6	8	6	8
8.00 x 10.00	203 x 254	58	58	77	45	60
8.00 x 10.50	203 x 267	63	61	81	45	60
7.20 x 10.10	182 x 257	60	58	78	40	53
7.25 x 10.50	184 x 267	64	61	81	40	54
8.50 x 10.83	215 x 275	65	63	84	48	64
8.50 x 11.00	215 x 280	66	64	85	48	64
8.27 x 11.69	210 x 297	72	68	90	46	62
8.50 x 12.40	215 x 315	74	72	96	48	64
8.00 x 13.00	203 x 330	77	76	101	45	60
8.50 x 13.00	215 x 330	78	76	101	48	64
8.27 x 13.00	210 x 330	79	76	101	46	62
8.50 x 14.00	215 x 356	84	81	108	48	64
11.69 x 16.53	297 x 420 ^a	99	96	127	68	90
11.00 x 17.00	280 x 430 ^a	99	96	133	64	85

^aLIS-24 only

Table A-7. Daisy Printer Character Sets

Character Set Number	Print Wheel Sequence
1	U.S. Standard
2	Wang OCR-A
3	Wang 06 - Double Underscore
4	Wang OCR-B
5	Wang Narrator
6	Wang 07 Canadian Sequence
7	Wang 08 - Modified Scientific
8	Wang 11 - Scientific/Symbol
9 ^a	OIS-PTR20 Standard WP OIS 40/ 50/60/70
^a When you print text files on the OIS-PTR20, the printer defaults to Character Set 9.	





Customer Comment Form

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Please rate the quality of this publication in each of the following areas.

	EXCELLENT	GOOD	FAIR	POOR	VERY POOR
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Illustrations — Were they clear and useful?	<input type="checkbox"/>				
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Were there any terms or concepts that were not defined properly? Y N If so, what were they? _____

After reading this document do you feel that you will be able to operate the equipment/software? Yes No
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What errors or faults did you find in the manual? (Please include page numbers) _____

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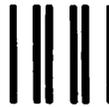
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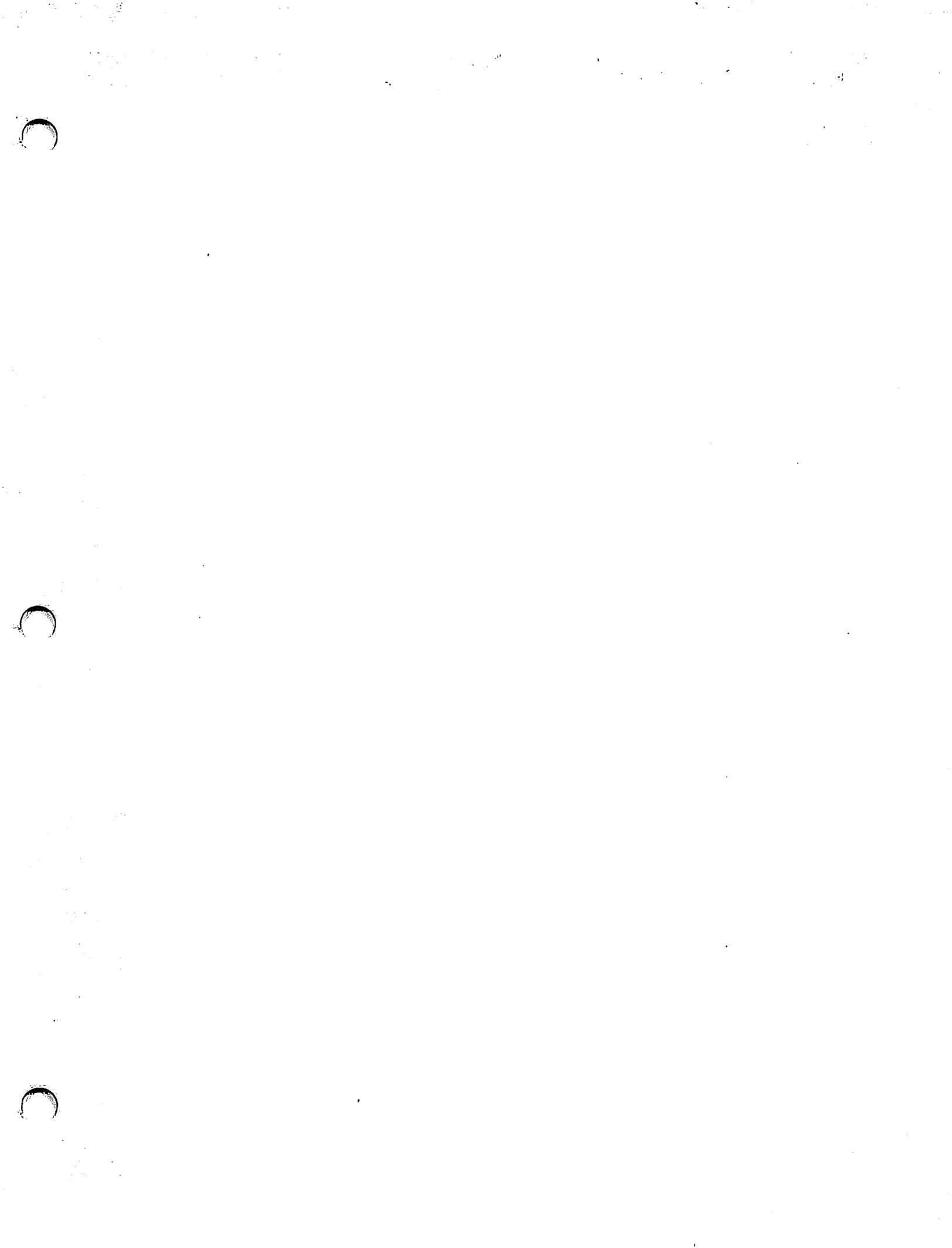
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