

# **IPDS Supplement**

- 1 Getting Started
- 2 Using Web Image Monitor
- 3 Accessing User Tools
- 4 Appendix

#### Introduction

This manual contains detailed instructions and notes on the operation and use of this machine. For your safety and benefit, read this manual carefully before using the machine. Keep this manual in a handy place for quick reference.

#### **Important**

Contents of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

#### **Notes**

This manual covers all models, and therefore contains functions and settings that may not be available for your model.

Functions and supported operating systems may differ from those of your model.

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# Manuals for the IPDS card

Refer to the manuals that are relevant to what you want to do with the IPDS card.

## **∰**Important

☐ Adobe Acrobat Reader/Adobe Reader must be installed in order to view the manuals as PDF files.

#### IPDS Supplement (IPDS.pdf)

Explains about how to configure the IPDS card for the machine, and about items selectable from the Web browser.

#### ❖ IPDS Printing Configuration Guide (IPDS\_CONF.pdf) \*English Only Explains about environment necessary for connecting the mainframe to the machine, and performing IPDS printing.

❖ IPDS Technical Reference (IPDS\_TEC.pdf) \*English Only Explains about commands necessary for IPDS printing.

### Note

☐ For details about the necessary environment, and installation of the IPDS card and machine, consult your sales or service representative. For details about necessary environment and operation of the mainframe, consult IBM.

# How to Read This Manual

## **Symbols**

This manual uses the following symbols:

#### **MARNING:**

Indicates important safety notes.

Ignoring these notes could result in serious injury or death. Be sure to read these notes. They can be found in the "Safety Information" section of About This Machine.

#### **CAUTION:**

Indicates important safety notes.

Ignoring these notes could result in moderate or minor injury, or damage to the machine or to property. Be sure to read these notes. They can be found in the "Safety Information" section of About This Machine.

## **#Important**

Indicates points to pay attention to when using the machine, and explanations of likely causes of paper misfeeds, damage to originals, or loss of data. Be sure to read these explanations.

#### Note

Indicates supplementary explanations of the machine's functions, and instructions on resolving user errors.

### 

This symbol is located at the end of sections. It indicates where you can find further relevant information.

### []

Indicates the names of keys that appear on the machine's display panel.

## 

Indicates the names of keys on the machine's control panel.

# 1. Getting Started

# **About IPDS**

IPDS (Intelligent Printer Data Stream) is a page printing format for IBM mainframe and client computers. This machine can perform IPDS printing if the IPDS card is installed. ď

# 2. Using Web Image Monitor

# List of the Setting Items

If you install the IPDS card to the machine, following Web Image Monitor items can be viewed or modified depending on the selected mode on the Web browser. Select one of the following modes to log on Web Image Monitor:

- User mode: logged on as a user
- · Administrator mode: logged on as an administrator

### Note

☐ For details about Web Image Monitor, see the manual explaining the network functions provided by the supplier or Web Image Monitor Help.

## Configuration

#### **Printer**

Menu	User mode	Administrator mode
Printer Basic Settings	Read	Read/Modify
IPDS Form List	Read	Read/Modify
Reset IPDS Fonts	None	Read/Modify

### Note

☐ "IPDS Menu" will appear in Printer Basic Settings.

#### **Network**

Menu	User mode	Administrator mode
IPv4	Read	Read/Modify

### Note

☐ "IPDS" and "IPDS Port Number" will be displayed.

#### Security

Menu	User mode	Administrator mode
Network Security	None	Read/Modify

### Note

☐ "IPDS" will be displayed.

# 3. Accessing User Tools

# **User Tools Settings**

When the IPDS card is installed, IPDS print settings become available and will appear on the control panel.

#### ❖ List / Test Print

• IPDS Font List Prints a list of IPDS-supported fonts.

## **∅** Note

- $\square$  IPDS Font List is printed on A4  $\square$  or 8 1/2" × 11"  $\square$  size paper, so load them into Tray 1.
- ☐ For details about printing lists, see the manual explaining how to print lists provided by the supplier.

#### ❖ Maintenance

Reset IPDS Fonts
 Use this page to delete all IPDS captured fonts.

#### Note

 $\hfill \square$  Only the Machine Administrator can reset IPDS fonts.

#### ❖ IPDS Menu

Menu Item	Description
Tray Form	Specify an IPDS form for each paper tray.
	For each paper tray, select the form you want to allocate to it.
Emulation Mode	Specifies the emulation mode.
	Native (Default)
	• 4028
Print Mode	Specifies the print mode.
	Standard
	• Enhanced (Default)
Default Code Page	Specifies the default code page. The default value is "037".
	037 US, Canada, Netherlands, Portugal
	038 US English ASCII
	260 Canadian French
	273 Austrian/German
	274 Belgium
	276 Canadian French

Menu Item	Description
Default Code Page	277 Danish/Norwegian
	278 Finnish/Swedish
	280 Italian
	281 Japanese
	284 Spanish
	285 UK English
	286 Austrian/German (alternate)
	287 Danish/Norwegian (alternate)
	288 Finnish/Swedish (alternate)
	290 Japanese/Katakana
	297 French
	420 Arabic
	423 Greek
	424 Hebrew
	500 Belgium, Switzerland / International
	870 Latin 2 Multilingual
	871 Icelandic
	875 Greek
	880 Cyrillic
	892 OCR - A
	893 OCR - B
	905 Turkish
	1025 Cyrillic
	1026 Turkish
	The following code pages include the Euro character:  1140 - US, Canada, Netherlands, Brazil, Portugal  1141 - Austrian/German  1142 - Danish/Norwegian  1143 - Finnish/Swedish  1144 - Italian  1145 - Spanish  1146 - UK English  1147 - French  1148 - Belgium, Switzerland/International
	• 1149 - Icelandic

Menu Item	Description
Default FGID	Specifies the default FGID (Font Typeface Global Identifier), which identifies the printer's default resident font. The default FGID is 416 (Courier 10 point).
	To display a list of the fonts and FGIDs that the printer supports, print out the list of IPDS resident fonts. For details about printing lists, see the manual explaining how to print lists provided by the supplier.
	3 OCR B
	11 Courier 10
	12 Prestige Pica
	18 Courier Italic 10
	19 OCR A
	46 Courier Bold 10
	85 Courier 12
	86 Prestige Elite
	92 Courier Italic 12
	111 Prestige Elite Bold
	112 Prestige Elite Italic
	159 Boldface
	164 Prestige PSM Roman Medium
	203 Gothic Text
	221 Prestige 15
	223 Courier 15
	254 Courier.17 ss
	256 Prestige 17
	281 Letter Gothic
	283 Gothic Text
	290 Gothic Text
	304 Katakana Gothic
	305 OCR A
	306 OCR B
	318 Prestige Bold
	319 Prestige Italic
	400 Letter Gothic
	404 Letter Gothic Bold
	416 Courier Roman Medium 10
	420 Courier Roman Bold

Menu Item	Description
Default FGID	424 Courier Italic Medium
	428 Courier Italic Bold
	432 Prestige
	2304 Helvetica Roman Medium
	2305 Helvetica Roman Bold
	2306 Helvetica Italic Medium
	2307 Helvetica Italic Bold
	2308 Times New Roman Medium
	2309 Times New Roman Bold
	2310 Times New Roman Italic Medium
	2311 Times New Roman Italic Bold
	5687 Times Roman
	5707 Times Roman Bold
	5815 Times Roman Italic
	5835 Times Roman Bold Italic
	20224 Boldface
Characters Per Inch	Specifies the number of characters per inch (pitch) for the default font. Valid values are 5.0 to 30.0 in units of one tenth of an inch. The default value is 10.0.
Valid Printable Area Check	<ul> <li>Turns valid printable area checking on or off.</li> <li>On (Default) The printer checks for pixels that fall outside the intersection of the logical and physical pages. If there are pixels outside the area and error reporting has been set using the "IPDS Exception Handling Control" command, the printer reports an error to the host. </li> <li>Off The printer does not report pixels outside the valid printable area.</li> </ul>
Page	<ul> <li>Whole (Default)         IPDS whole page. The printer does not move or compress the page. This is the preferred method; all page positioning and formatting is done at the application level on the host. The [Print], [Comp1], and [Comp2] commands may alter the appearance of the page, or may not be compatible with earlier products (for example, 3116, 3916), especially if these options are used in combination with duplex and other IPDS Menu page format adjustments. The [Print], [Comp1], and [Comp2] commands are included to allow line printer jobs to fit onto pages where "Edge to Edge" printing is not possible; we do not recommend you use them to create new applications.     </li> </ul>

Menu Item	Description
Page	<ul> <li>Comp1 This command uses the "Print Page" command as its base, and compresses the spacing between text lines generated by the "IPDS Begin Line" command. Its primary purpose is to compress "Begin Line" command text data onto pages that have unprintable borders.</li> <li>Comp2 This command uses the "Print Page" command as its base, and compresses "IPDS Begin Line" command text (see Comp1) and the data of the following vertical text positioning commands: "Absolute Move Baseline", "Relative Move Baseline", "Draw B Axis Rule", and "Draw I Axis Rule".</li> </ul>
	Alignment problems can occur if you select [Comp1] or [Comp2], and print jobs that mix text with images, graphics, or bar codes. Problems can occur if text positioning commands are used to move across text or into non-text (image, graphic, or bar code) areas. Both [Comp1] and [Comp2] reduce the line spacing of text only and have no effect on non-text data. To minimize alignment problems, select [Comp1], because "Begin Line" commands are not normally used to move across or into non-text areas. If, however, the application you want to compress does not use the "Begin Line" command, select [Comp2].  Print IPDS print page. If the page origin is within the unprintable area, the origin of the page is moved to the inside edge of the nearest unprintable area border. If the origin violates the unprintable area on two edges, it is moved to the nearest inside corner of the unprintable area. If the origin violates only one edge of the unprintable area, the origin is adjusted to avoid that area only. If a location adjustment is made, the printed page is shifted in the direction of the adjustment. There is no compression, so data on the opposite edge may be pushed off the page.
	Note  For the "Print" command to function, the [Edge to Edge]
	setting must be set to [Off]. Any data placed in this unprintable area is lost. Also, [Print] will not function on media overlays (overlays that are part of the base page, not the overlays included in the variable print data).
Edge to Edge	<ul> <li>Turns "Edge to Edge" printing on or off.</li> <li>Off (Default) The printer maintains a border of 2 mm (0.078 in) on the leading edge, but prints to all other page borders.</li> <li>On The printer allows printing up to the physical page size.</li> </ul>

Menu Item	Description
Edge to Edge	<ul> <li>✓ Note</li> <li>□ prevent toner accumulating inside the printer, we recommend leaving [Edge to Edge] set to [Off] for IPDS, and setting it to [On] only when necessary.</li> </ul>
	☐ The "Edge to Edge" IPDS Menu item affects IPDS data only.
Font Substitution	<ul> <li>Turns font substitution on or off.</li> <li>Off (Default) If a job requests a font that is not loaded on the printer, the printer generates an IPDS NACK (Negative Acknowledgement) message and the host holds the job. </li> <li>On If a job requests a font that is not loaded on the printer, the printer uses a substitute font.</li> </ul>
Caching	<ul> <li>Specifies whether or not to use caching for repeated overlays.</li> <li>On The printer uses caching, which provides better performance for jobs with repeated overlays, but uses more memory. </li> <li>Off (Default) The printer does not use caching, which requires less memory but provides less performance for jobs with repeated overlays.</li> </ul>
	<ul> <li>✔ Note</li> <li>□ Overlay caching is recommended for repeated overlays.</li> <li>Overlay caching does not improve performance with non-overlay IPDS data or overlays that are used only once or infrequently.</li> </ul>
Font Capture	<ul> <li>Sets Font Capture processing:</li> <li>On (Default) The printer saves downloaded font resources on its hard disk drive for use beyond the duration of the current power cycle. The IPDS host must provide the "Activate Resource" command with the correct resource identifiers before downloading the font resource to be captured.</li> <li>Off The printer stores downloaded font resources for the duration of one power cycle only.</li> </ul>
Resolution	Specifies the resolution reported to the host in the "IPDS XOA-OPC" command for raster coded fonts and IM1 image support. The [Resolution] menu item also helps determine whether or not a printer-resident raster font is used. For example, 240 dpi raster fonts are activated at the [240 dpi] setting, not at [300 dpi] or [600 dpi]. The [Resolution] setting does not affect outline fonts, nor does it determine which raster fonts can be downloaded to the printer as temporary activation fonts.

Menu Item	Description
Resolution	300 dpi (Default) Reports to the host that the printer supports 300 dpi raster fonts and IM1 images. "Resident" or "Captured" raster fonts of other resolutions are not activated unless a matching "Font Resolution" and "Metric Technology Triplet" is provided with the activation request.
	• 600 dpi Reports to the host that the printer supports 600 dpi raster fonts and IM1 images. "Resident" or "Captured" raster fonts of other resolutions are not activated unless a matching "Font Resolution" and "Metric Technology Triplet" is provided with the activation request.
	240 dpi Reports to the host that the printer supports 240 dpi raster fonts and IM1 images.  "Resident" or "Captured" raster fonts of other resolutions are not activated unless a matching "Font Resolution" and "Metric Technology Triplet" is provided with the activation request.
	• Auto Reports to the host that the printer supports raster fonts of any dpi value and IM1 images. "Resident" or "Captured" raster fonts of other resolutions are not activated unless a matching "Font Resolution" and "Metric Technology Triplet" is provided with the activation request.
	<b>∅</b> Note
	☐ If you select <b>[Standard]</b> for the <b>[Print Mode]</b> setting, the resolution changes to <b>[300 dpi]</b> .
	☐ To set the IPDS resolution to [240 dpi], [600 dpi], or [Auto], you must first set [Print Mode] to [Enhanced]. Enhanced print mode produces optimal print quality; but can slow down the printing of complex jobs.
Graphic Character String	Specifies the Graphic Character String (Graphic Character Sizing) processing method.
	Auto (Default)     Applies the value specified by the [Emulation Mode] item     ([Native] or [4028]).
	Character Scale     Applies 4028 IPDS Emulation. Prints graphics and text     characters by scaling the characters in a currently activated font. Character cell size is defined in the GOCA data stream. Not available for DBCS.
	Font Activation     Applies Native IPDS Emulation. Prints graphics and text characters using a currently activated font at the font's activation size, without scaling. GOCA data stream Character cell size information is ignored.

Menu Item	Description
Bar Code	<ul> <li>Specifies the barcode level protocol.</li> <li>Auto (Default)     Applies the value specified by the [Emulation Mode] item ([Native] or [4028]).</li> <li>4028     Applies 4028 IPDS Emulation.</li> <li>Native     Applies Native IPDS Emulation.</li> </ul>
Box Draw	<ul> <li>Specifies the Box Draw processing.</li> <li>Off (Default)     Uses Symbol Set outline font characters to draw boxes as the font-defined characters.</li> <li>On     Uses special outline fonts to draw Symbol Set box characters. Select [On] to fill gaps caused by special raster fonts that contain extended length box characters (as found in older applications, for example).</li> </ul>
Color Simulation	<ul> <li>Allows you to select how color specification controls are processed on a monochromatic printer.</li> <li>Fidelity (Default)         The printer accepts all color specification controls and simulates unique colors with shades of gray.     </li> <li>Legacy         The printer accepts all color specification controls; but performs only limited color simulation using black.     </li> </ul>
Text Color Simulation	<ul> <li>Specifies how text color specification controls are processed on a monochrome laser printer.</li> <li>On (Default)         <ul> <li>The printer accepts all text color specification controls and simulates the unique colors with shades of gray.</li> </ul> </li> <li>Off         <ul> <li>The printer accepts all text color specification controls; but performs only limited color simulation using black.</li> </ul> </li> <li>Note         <ul> <li>This menu item is available only if [Color Simulation] mode is set to [Fidelity].</li> </ul> </li> </ul>
Suppress Staple Count Nacks	Select whether or not to notify the user when stapling errors occur.  On Off (Default)
Suppress Punch Nacks	Select whether or not to notify the user when punching errors occur.  On Off (Default)

Menu Item	Description
Tray Mapping	Maps the media source (input tray) to an ID the host uses for the media source.
	Auto (Default)
	IPDS Tray  If [IPDS Tray] is selected, enter the tray mapping replacement value for each paper tray, using up to 254 digits.
Corner Staple Angle	<ul> <li>Select [Vertical] or [Slant] for the angle of stapling.</li> <li>Vertical (Default)     Staples vertically.</li> <li>Slant     Staples diagonally.</li> </ul>
Offset	<ul> <li>Specifies whether or not the output is offset (jogged).</li> <li>On (Default)     Output is offset (jogged) when requested by the job.</li> <li>Off     Output is never offset (jogged).</li> </ul>
Default Punch Pattern	Specifies the default number of holes to punch if the punch unit provides a selection (for example, two or four holes).

#### Note

- ☐ [Suppress Staple Count Nacks] and [Corner Staple Angle] appears if the optional staple unit is installed.
- ☐ [Suppress Staple Count Nacks] and [Default Punch Pattern] appears if the optional punch unit is installed.
- ☐ [Tray Form] and [Tray Mapping] appear differently depending on the options installed.
- ☐ [Tray Form] allocates the form specified using Web Image Monitor's [IPDS Form Settings] to the installed tray. For details about IPDS Form Settings, see the Web Image Monitor Help.
- ☐ Tray commands of **[Tray Form]** differ depending on the machine you want to use. For details about selectable tray commands, see "Load Copy Control", IPDS Technical Reference.
- ☐ For details about the control panel settings, see the manual explaining how to specify the control panel settings, provided by the supplier.

# 4. Appendix

# **Precautions**

## **About AFP/IPDS Fonts**

The AFP/IPDS Single Byte Character Set (SBCS) font is stored on the hard disk drive.

### Limitation

IPDS jobs cannot be stored on the document server.

PCL fonts are not accessible via AFP/IPDS, nor can PCL access AFP/IPDS fonts.

PostScript fonts are not accessible via AFP/IPDS, nor can PostScript access AFP/IPDS fonts.

The mainframe or host computer will not be notified of errors that happen before this machine establishes connection with them.

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