# Forms and Bar Code Card P4.2

## User's Guide

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# Overview

Lexmark™ Forms and Bar Code Card lets you print various standard forms and bar codes. Using an algorithm, Forms and Bar Code Card can generate bar codes in either PCL® 5 or PostScript® (PS) emulations.

With PCL 5 emulation, a printer with an installed card is the functional equivalent of HP BarCodes and More font set. It is also a compatible alternative to an HP LaserJet with HP BarDIMM Pro version 3.3a, including the FREESCAPE alternate escape code feature, and Intelligent Mail bar code. Forms and Bar Code Card also provides custom device types for printing with SAPscript in SAP R/3 applications.

Bar code options include the following features:

- OCR-A and OCR-B as bitmap and scalable fonts
- Independently scalable bar heights and widths
- RFID support
- Text embedment with selectable positioning
- Data format verification, with error reporting
- Automatic bar code data compression, when required
- Automatic bar code checksum calculation and character placement, when required
- Automatic placement of special characters, when required
- Built-in flash memory (256MB or more)

Forms options include the following features:

- Storing and printing of forms from a flash memory or printer hard disk
- Built-in RFID support
- Creation of electronic forms to be merged with data
- Sending of merged output through fax and e-mail

**Notes:**

- Forms Composer and Forms Manager are required in creating and managing forms.
- The forms files on Forms and Bar Code Card have the file extensions .lfm and .lff.
- For more information on using RFID when printing forms, see the help documentation for Forms Composer.

## Supported printer models

**Note:** The printer must have at least 1GB memory and must have available storage, such as a flash memory, a hard disk, or an intelligent storage drive.

- Lexmark CS42x, CS52x, CS62x
- Lexmark CS72x
- Lexmark CS73x
- Lexmark CS82x
- Lexmark CS92x
- Lexmark CS94x
- Lexmark CX32x, CX42x, CX52x, CX62x

- Lexmark CX72x
- Lexmark CX73x
- Lexmark CX820, CX825, CX827, CX860
- Lexmark CX92x
- Lexmark CX93x, CX94x
- Lexmark MS52x, MS62x
- Lexmark MS82x
- Lexmark MX32x, MX42x, MX52x, MX62x
- Lexmark MX72x, MX82x
- Lexmark MX93x

# Supported fonts and bar codes

## Supported bar codes

### One-dimensional bar code types and their availability on Forms and Bar Code Card

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| Australia Post 4-State bar code (37-CUST) | ✓ | ✓ |
| Australia Post 4-State bar code (52-FF-MET) | ✓ | ✓ |
| Australia Post 4-State bar code (67-FF-MET) | ✓ | ✓ |
| British Royal Mail 4-State customer code symbol (RM4SCC) | ✓ | ✓ |
| Codabar (USD -4, NW -7, Monarch, Code 2 of 7) | ✓ | ✓ |
| Codabar with mod16 check digit | ✓ | ✓ |
| Code 128 autoswitch | ✓ | ✓ |
| Code 128 A | ✓ | ✓ |
| Code 128 B | ✓ | ✓ |
| Code 128 C | ✓ | ✓ |
| Code 3 of 9 | ✓ | ✓ |
| Code 3 of 9 with check digit | ✓ | ✓ |
| Code 3 of 9 extended | ✓ | ✓ |
| Code 3 of 9 extended with check digit | ✓ | ✓ |
| Code 3 of 9 space encoding | ✓ | x |
| Code 3 of 9 space encoding with check digit | ✓ | x |
| Code 93 | ✓ | ✓ |
| Code 93 extended | ✓ | ✓ |
| Danish PTT 3 of 9 | ✓ | ✓ |
| Dutch Post 4-State bar code | ✓ | ✓ |
| EAN/JAN-8 | ✓ | ✓ |
| EAN/JAN-8 with 2-digit supplemental | ✓ | ✓ |
| EAN/JAN-8 with 5-digit supplemental | ✓ | ✓ |
| EAN/JAN-13 | ✓ | ✓ |

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| EAN/JAN-13 with 2-digit supplemental | ✓ | ✓ |
| EAN/JAN-13 with 5-digit supplemental | ✓ | ✓ |
| EAN 128 | ✓ | ✓ |
| French Postal 3 of 9 A/R | ✓ | ✓ |
| German Postal 2 of 5 Leitcode | ✓ | ✓ |
| German Postal 2 of 5 Identcode | ✓ | ✓ |
| HIBC 39/128 | ✓ | ✓ |
| Interleaved 2 of 5 | ✓ | ✓ |
| Interleaved 2 of 5 with check digit | ✓ | ✓ |
| Intelligent Mail | ✓ | ✓ |
| Industrial 2 of 5 | ✓ | ✓ |
| Industrial 2 of 5 with check digit | ✓ | ✓ |
| ISBN | ✓ | ✓ |
| ISBN+5 | ✓ | x |
| ISSN | ✓ | ✓ |
| ISSN+2 | ✓ | x |
| ISSN+5 | ✓ | x |
| ITF-14 | ✓ | x |
| Japan Post 4-State bar code | ✓ | ✓ |
| Matrix 2 of 5 | ✓ | ✓ |
| Matrix 2 of 5 with check digit | ✓ | ✓ |
| MSI | ✓ | ✓ |
| MSI with mod10 check digit | ✓ | ✓ |
| MSI with mod10 and mod10 check digit | ✓ | ✓ |
| MSI with mod11 and mod10 check digit | ✓ | ✓ |
| Singapore Post 4-State bar code | ✓ | ✓ |
| Swiss Post | ✓ | ✓ |
| UCC 128 | ✓ | ✓ |
| UPC-A | ✓ | ✓ |
| UPC-E | ✓ | ✓ |
| UPC-A with 2-digit supplemental | ✓ | ✓ |

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| UPC-A with 5-digit supplemental | ✓ | ✓ |
| UPC-E with 2-digit supplemental | ✓ | ✓ |
| UPC-E with 5-digit supplemental | ✓ | ✓ |
| USPS PLANET bar code | ✓ | ✓ |
| USPS POSTNET 5-digit ZIP code | ✓ | ✓ |
| USPS POSTNET 9-digit ZIP with 4 code | ✓ | ✓ |
| USPS POSTNET 11-digit Delivery Point Code | ✓ | ✓ |
| USPS Expanded POSTNET | ✓ | x |
| USPS Tray label, 10-digit 2 of 5 | ✓ | ✓ |
| USPS Sack label, 8-digit 2 of 5 | ✓ | ✓ |
| USPS Zebra code | ✓ | ✓ |
| USPS FIM (Face Identification Marking) | ✓ | ✓ |

### Two-dimensional bar code types and their availability on Forms and Bar Code Card

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| Aztec | x | ✓ |
| Codablock F | ✓ | ✓ |
| Data Matrix | ✓ | ✓ |
| MaxiCode | ✓ | ✓ |
| MicroPDF417 | ✓ | ✓ |
| PDF417 | ✓ | ✓ |
| QR | ✓ | ✓ |
| RSS-14 | ✓ | ✓ |
| RSS-14 Expanded | ✓ | ✓ |
| RSS-14 Limited | ✓ | ✓ |
| RSS-14 Stacked | ✓ | ✓ |
| RSS-14 Truncated | ✓ | ✓ |
| Swiss QR Code | ✓ | Not tested |

### Composite bar code types and their availability on Forms and Bar Code Card

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| EAN-8 | ✓ | ✓ |
| EAN/JAN-8 with 2-digit supplemental | ✓ | ✓ |
| EAN/JAN-8 with 5-digit supplemental | ✓ | ✓ |
| EAN-13 | ✓ | ✓ |
| EAN/JAN-13 with 2-digit supplemental | ✓ | ✓ |
| EAN/JAN-13 with 5-digit supplemental | ✓ | ✓ |
| RSS-14 | ✓ | ✓ |
| RSS-14 Expanded | ✓ | ✓ |
| RSS-14 Limited | ✓ | ✓ |
| RSS-14 Stacked | ✓ | ✓ |
| RSS-14 Truncated | ✓ | ✓ |
| UCC-128 | ✓ | ✓ |
| UPC-A | ✓ | ✓ |
| UPC-E | ✓ | ✓ |
| UPC-A with 2-digit supplemental | ✓ | ✓ |
| UPC-A with 5-digit supplemental | ✓ | ✓ |
| UPC-E with 2-digit supplemental | ✓ | ✓ |
| UPC-E with 5-digit supplemental | ✓ | ✓ |

### Font-based bar code types and their availability on Forms and Bar Code Card

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| Code 128 bitmap regular | PCL emulation only | x |
| Code 128 bitmap wide | PCL emulation only | x |
| Code 128 scalable regular | PCL emulation only | x |
| Code 128 scalable narrow | PCL emulation only | x |
| Code 128 scalable wide | PCL emulation only | x |
| Code 3 of 9 bitmap | PCL emulation only | x |
| Code 3 of 9 scalable half inch regular | PCL emulation only | x |
| Code 3 of 9 scalable one inch regular | PCL emulation only | x |
| Code 3 of 9 quarter inch regular | PCL emulation only | x |

| Type | Availability on Forms and Bar Code Card | |
|---|---|---|
| | PCL and PS emulation bar codes | Forms Merge bar codes |
| Code 3 of 9 small high regular | PCL emulation only | x |
| Code 3 of 9 small low regular | PCL emulation only | x |
| Code 3 of 9 small medium regular | PCL emulation only | x |
| Code 3 of 9 slim regular | PCL emulation only | x |
| Code 3 of 9 wide regular | PCL emulation only | x |
| Interleaved 2 of 5 bitmap | PCL emulation only | x |
| Interleaved 2 of 5 scalable regular | PCL emulation only | x |
| Interleaved 2 of 5 scalable thin | PCL emulation only | x |
| OCR-A | PCL emulation only | x |
| OCR-B digits regular | PCL emulation only | x |
| UPC tall | PCL emulation only | x |
| UPC tall narrow | PCL emulation only | x |
| UPC tall thin | PCL emulation only | x |
| UPC half | PCL emulation only | x |
| UPC half narrow | PCL emulation only | x |

# Supported fonts

To obtain the PCL 5 emulation escape sequences used to select these fonts, print the font list using the printer control panel. For more information, see the printer *User's Guide*.

| Font | Type | Resides |
|---|---|---|
| Architext CMC7 | Scalable | On the option card |
| CMC7 | Scalable | On the option card |
| Code 3 of 9 (4.69) | Bitmap | On the option card |
| Code 3 of 9 (8.11) | Bitmap | On the option card |
| Electrical symbols | Scalable | On the option card |
| Euro and other currency symbols | Scalable | On the option card |
| Line Draw | Bitmap | On the option card |
| Manufacturing symbols | Scalable | On the option card |
| MICR | Scalable | On the option card |
| OCR-A | Bitmap | On the option card |
| OCR-A | Scalable | On the option card |
| OCR-B | Bitmap | On the option card |
| OCR-B | Scalable | On the option card |

| Font | Type | Resides |
|---|---|---|
| OCR-B in Bubbles | Scalable | On the option card |
| Roman Pillar | Scalable | On the option card |
| Roman Pillar Italic | Scalable | On the option card |
| Roman Pillar Bold | Scalable | On the option card |
| Roman Pillar Bold Italic | Scalable | On the option card |
| Roman Pillar5 | Scalable | On the option card |
| UPC 10mil | Bitmap | On the option card |
| UPC 13mil | Bitmap | On the option card |

# SAP support

When used in PCL 5 emulation mode, SAP ERP software has built-in support for many of the functions provided by Forms and Bar Code Card.

## Installing SAP device types

**Note:** You must be the SAP Basis administrator to install SAP devices.

1. Start transaction SE38.
2. Execute report RSTXSCRP to load the device type. For example, ZLXFORM2.
3. Type the name of the device type in the Object Name field.

   **Note:** Do not include the .pri extension.
4. Select **IMPORT** mode, and then press the **F8** button (execute).
5. Reset the SAPscript cache:
   a. Call transaction SE38.
   b. Execute the report RSTXDELL, using `client = '*'`.
6. Reset the character code cache:
   a. Start transaction SP12.
   b. Click **character sets** > **Conf buffer (CCC)** > **Invalidate CCC**.

   **Note:** The reset procedure is valid only on the actual instance, so you must connect on the instance where the spool work process is running.
7. Restart the spool work process:
   a. Highlight the spool work process SPO.
   b. Click **Process** > **cancel without core**.

      **Note:** The spool work process automatically restarts after a few seconds or on the next interrupt.

## Modifying the formats and default settings of device types

1. Start transaction SPAD.
2. Click **Full Administration** > **Device Types**.
3. Double-click the device type.
4. Click **Format**, and then double-click the format that you want to modify.
5. Click **Change**.
6. Double-click **Printer Initialization**, and then remove the number sign (#) from the beginning of each needed line.
7. Click **Save** > **Save**.

# Using Visual Bar Code Designer

This application lets you select the bar code symbology and enter data to be encoded, and then prompt the software to generate the bar code.

## Supported Microsoft Windows operating systems

- Windows 7
- Windows Vista
- Windows XP
- Windows 2000
- Windows NT 4.0
- Windows 98

## Installing Visual Bar Code Designer

1. Insert the *Software and Documentation* CD.
2. From the Designer subdirectory, run **setup-vbd.exe**.
3. Review and accept the license agreement.
4. Select the folder where you want to install the application.
5. Follow the instructions on the computer screen.

## Generating bar code data

Visual Bar Code Designer generates the PCL emulation escape sequences, PCL HEX, or PostScript emulation command sequences for bar codes. These data can be used within an application, SAP device type, or as a file to test print the bar code using Forms and Bar Code Card.

1. Click  or **Start**.
2. Click **Programs** or **All Programs**, and then select **Visual Bar Code Designer**.
3. Double-click the bar code symbology you want from the “Barcode list” window.
4. Modify the bar code settings if necessary.
5. From the Edit menu, copy the data stream that you want, and then paste the text string in your application.

**Notes:**

- After the bar code data is generated, the test bar code can be printed by clicking the Print icon in the toolbar. The image of the bar code prints on any printer, including those without a Forms and Bar Code Card installed. The test bar code may be suitable for scanning.
- For more information, click the Visual Bar Code Designer Help menu, or see the *Forms and Bar Code Card Technical Reference Manual*.

# Creating and managing forms

## Forms overview

Electronic-forms solutions integrate both electronic and hard-copy documents, and let you create custom forms to create a dynamic document workflow for any business. The forms can be either printer based or server based. You can quickly design electronic forms, store them on a printer, or automatically merge them with text files, and then print, fax, e-mail, or archive the output.

The electronic-forms solutions contain different modules that automate workflow processes. These modules include Forms Composer and Forms Manager.

### Forms Composer and Forms Manager

**Note:** Forms Composer and Forms Manager are required software programs that can be purchased separately.

Forms Composer is a design tool that offers the following features:

- Easy-to-use graphical user interface to create forms and map data to the forms
- Importing of existing PDF documents for compatibility
- Creation of documents for printer-based and server-based technologies

The Data pane of Forms Composer allows mapping variable data that comes from the host system. You can set the paper size and input text before downloading the form to the printer flash memory or printer hard disk. After a form is designed and is in the printer, data can be sent directly from your host computer over a TCP/IP network, through a USB connection to the printer, through a parallel card to the printer, or through a serial card to the printer. Forms and Bar Code Card then merges the data with the correct form using predefined activation conditions.

Activation conditions are defined as triggers that let you select the correct formset on the printer memory or printer hard disk. You can define activation conditions when designing your form in Forms Composer or creating a forms directive. Every time you create a new form for a data set, you are creating a project which you must upload to a printer with both flash memory and Forms and Bar Code Card installed.

Forms Manager downloads and manages formsets on printers where Forms and Bar Code Card is installed. You can add formsets to printers, retrieve printer information, and view saved files on the printer. Using Forms Manager, you can also upgrade the Forms and Bar Code Card firmware on the printer.

Forms and Bar Code Card has firmware that automatically merges the data with the correct form design (formset) and prints the completed form. The host data stream can be SAP RDI, ASCII, or double-byte data encoded in GBK, UTF-8, or UTF-16. Forms and Bar Code Card uses TrueType fonts and Adobe Font Manager (AFM) to generate PDF output.

## Forms Card menu

After the Forms and Bar Code Card is installed, more menu items are added to the standard printer menus. These items can be found in the Forms Card menu on the Embedded Web Server.

## Merge Mode settings

- **Merge Mode**
  - **Enabled**—If Forms Merge Mode is enabled, then the merged output is printed.
  - **Disabled**—If Forms Merge Mode is disabled, then the Forms Card passes all received data to the printer. No attempt is made to merge data onto a formset.
  - **Data Capture**—Write incoming data stream to a file on the printer storage device.
  - **Archive and Print**—Print and archive merged PDF files in the formsmerge or archive directory. This option is available only when the printer hard disk is installed and the card is configured to use the printer hard disk for formsets.
  - **Archive only**—Archive merged PDF files in the formsmerge or archive directory. This option is available only when the printer hard disk is installed and the card is configured to use the printer hard disk for formsets.
- **Data Capture Target**—This option is available only when Data Capture is enabled.
  - **Disk | Flash**— Save merged PDF Files to a printer hard disk or a portable storage device. This option is available when Data Capture is enabled.
  - **Thumbdrive**—This option is available only when a flash drive is inserted into the printer. Before saving files, make sure that a formsmerge directory exists in the flash drive.

## Print Port and Filter settings

- **Network Port**, **USB Port**, **Parallel Port**, or **Serial Port**—Select to use the formsmerge code to process all data sent to the network, USB, or parallel or serial port. Otherwise, the data file is printed as determined by the basic printer language setting.
- **Network Filter**, **USB Filter**, **Parallel Filter**, or **Serial Filter**—Select whether to run incoming forms jobs through the selected filter before Forms and Bar Code Card processes it.

  **Note:** The availability of Parallel Filter and Serial Filter depends on your printer model

  ### List of filter options

  **Note:** Some options may not be available depending on your printer model.

  - **Disabled**—Indicate that all data filters are off.
  - **NULL**—Remove all null characters.
  - **AS400**—Remove extraneous lines of data due to AS400 formatting.
  - **PCL**—Remove all PCL emulation escape sequences and leave plain text.
  - **ZPL**—Remove Zebra Programming Language (ZPL) directives.
  - **ZPL-F**—This value is the same as ZPL, except it uses “@” as the escape character instead of “^.”
  - **OFIS**—Remove all Optra Forms™ initialization strings.
  - **OFIS+NULL**—Remove all null characters and all Optra Forms initialization strings.
  - **AS400+OFIS**—Remove extraneous lines of data due to AS400 formatting and all Optra Forms initialization strings.
- **Local Port Timeout**—Allow users to select a timeout value from 1 to 100 for forms jobs that come in on any of the local ports. The default value is 10 seconds.

  **Notes:**

  - This setting does not apply to forms jobs sent to the network ports.

- When formsmerge is active on a local port, a job times out when triggered by the Local Port Timeout or the Printer Timeout. This activity terminates the current job as if an “End of Form” character has been reached.

### Copy Formsets settings

**Note:** Make sure that a formsmerge directory exists in the flash drive.

- **Copy Replace Duplicates**—Copy and replace existing formats of the same name from a flash drive.
- **Copy Do Not Replace**—Cannot copy formsets with duplicate names from a flash drive.

### Miscellaneous settings

- **Print All Forms**—Print all formset information found on Forms and Bar Code Card.

  **Notes:**

  - If a PPF file exists for the formset, then the tray and output bin information is read from the PPF file and listed under the PPF file name.
  - If both a printer hard disk and a flash memory are installed, then both total size and available size for the flash memory are shown. Only the forms on the user flash are accessible.
- **Error Page Print**—Print an error page when Forms and Bar Code Card encounters an error.

## Bar code menu

The bar code menu is also available on the Embedded Web Server.

- **Alt ESC Code**—A bar code function that allows the use of an alternate escape character when processing PCL emulation escape sequences.
  - **On**—Uses an alternate escape code character in addition to the default escape code character.
  - **Off**—Uses the default escape code character.
- **ESC Character**—When Alt ESC Code is set to On, the value defined in this setting is used in addition to the default escape character.
  - 126 (~)
  - 34 (“)
  - 35 (#)
  - 36 ($)
  - 47 (/)
  - 63 (?)
  - 92 (\)
  - 123 ({)
  - 124 (|)
  - 125 (})

## Storing forms on the printer

To store forms on the printer, an optional flash memory or printer hard disk must be installed. When it is installed, use Forms Manager to interact with the optional flash memory or printer hard disk.

Use Forms Manager to do the following:

- Store forms on the flash memory or printer hard disk.
- Erase all forms from the flash memory or printer hard disk.
- View all forms currently stored on the printer.

# Capturing raw data for mapping

Capturing raw data is necessary to properly map data to forms. For more information, see the help documentation for Forms Manager.

1. In Forms Manager, select your printer from the Printer list.
2. Click **Printer** > **Properties**.
3. From the Mode section of the Printer Properties dialog, select **Data Capture**, and then click **Apply**.
4. Send the data file to the printer.
5. Refresh the printer in Forms Manager.

   To retrieve the data file, select it.

# Printing forms from a flash drive

The Create Flash File option in Forms Manager is used to add one or more formsets to printers that are not attached to the network. The flash file allows Forms Manager to communicate with these printers. The flash file created contains everything needed to add the formsets to the printer. You can save the file to a flash drive and then access it through the USB port on the printer.

For more information on creating flash files, see the help documentation for Forms Manager.

**Notes:**

- If formsets on the flash drive, the printer memory, or the printer hard disk contain the same activation conditions, then the formsets on the flash drive are used when those conditions are met.
- This function is supported only on printers with a USB port.

# Identifying the version of forms on Forms and Bar Code Card

Do either of the following:

- Print a menu settings page. The current version of forms is listed under Installed Features. For more information on printing a menu settings page, see the printer *User's Guide*.
- Select the printer in Forms Manager, and then view the printer properties.

  **Note:** Forms Manager is also used when upgrading the Forms and Bar Code Card firmware.

# Font limitations

Windows fonts often contain more characters than the installed printer fonts. As a result, the printer may not print all the characters on a form. This is usually a problem only for characters that fall outside of the 0–255 character code range for nonstandard code pages. Print a sample form to check whether all the characters you want are printed.

# Troubleshooting

## The printer does not respond after installation

### Make sure that the option card is installed correctly

Turn the printer off, and then reinstall the option card. For more information, see the installation sheet that came with the Forms and Bar Code Card kit.

## Forms Manager cannot detect the printer

Try one or more of the following:

### Check printer connections

Make sure that:

- The printer is turned on.
- The power cord is plugged into the printer and into a properly grounded electrical outlet.
- The printer is not plugged into any surge protectors, uninterruptible power supplies, or extension cords.
- The printer is securely connected to the computer, print server, or other network access point.
- You have resolved any error messages on the printer control panel display.

### Make sure that the printer is connected to the network

The printer must be on the network and must match the IP or DNS name of the network.

## International fonts do not print as expected

The international font set on the client computer does not match the font set on Forms and Bar Code Card.

### Switch to one of the fonts available on Forms and Bar Code Card

The following international fonts are recommended for forms printed on a printer with an installed Forms and Bar Code Card:

Intl-Univers
Intl-CG Times
Intl-Courier
ArialMT
Times New RomanPSMT

# Mismatched fonts in Forms Composer and on printed forms

Try one or more of the following:

### Make sure that Forms Composer and the printer are configured properly

Make sure that the workflow properties for the data stream have been properly configured. For more information, see the help documentation for Forms Composer.

For information on configuring network settings, see the documentation that came with the printer.

### Check that font mapping has not been altered in Forms Composer

The fonts.dat file in the Forms Composer directory specifies which fonts are used for font families with nonstandard names. The format for the information contained in the fonts.dat file follows the convention **`font name, regular, bold, italic, bold italic`**. These entries specify which fonts Forms Composer uses under which circumstances.

For example, an entry for the Bookman font family in the fonts.dat file might read **`Bookman, Bookman, Bookman Demi, Bookman Italic, Bookman Demi Italic`**. In this example, Forms Composer uses the font Bookman Demi for all instances of Bookman in boldface

**Note:** The fonts.dat file only specifies usage for font families with nonstandard names. For example, Courier, which uses Courier, Courier Bold, Courier Italic, and Courier Bold Italic are not listed.

To check or alter the fonts.dat file:

1. From the Forms Composer directory, use a text editor to open **fonts.dat**.
2. Make necessary changes to the file.
3. Save the file as fonts.dat into the same directory.

### Check that font mapping has not been altered on the printer

Forms and Bar Code Card relies on font mapping to specify which fonts are used under which circumstances. The information is contained in the manager.upr file that resides in the Forms Manager directory. When you add a printer to Forms Manager, the manager.upr file is written to it.

To check or alter the manager.upr file for a particular printer:

1. From the Forms Manager\Fonts directory, use a text editor to open **manager.upr**.
2. Make necessary changes to the file.
3. Save the file as manager.upr into the same directory, and then delete the manager.bak file.
4. From Forms Manager, delete the printer and its associated files, and then add the printer you just deleted.

**Note:** For more information on adding and deleting printers, see the help documentation for Forms Manager.

### Use fonts in Forms Composer that match those on Forms and Bar Code Card

### Install matching fonts on Forms and Bar Code Card

For more information on installing fonts, see the help documentation for Forms Manager.

## Form did not merge

### Remove unnecessary characters from the beginning of the form

A blank page prints because the first element on the page is the character for form feed or carriage return. Form feed or carriage return characters at the beginning of a data stream cause the printer to skip to the next page. As a result, the print job or page activation conditions may be missed.

## Form is printed in plain text

Try one or more of the following:

### Review the activation conditions in Forms Composer

Use Forms Composer to set up activation conditions for the form.

### Make sure that the formsmerge function is not deactivated by Forms Manager

From Forms Manager, open the Printer Properties menu to activate formsmerge.

## Cannot fax or e-mail merged output

### Make sure that the workflow properties for the data stream are configured properly

For more information, see the help documentation for Forms Composer.

For information on configuring network settings, see the printer *User's Guide*.

## Characters appear as boxes in PDFs viewed with Acrobat Reader

Acrobat Reader may not correctly display all characters in archived and e-mailed attachments.

### Use a different program to view PDFs

Merged output and preview output should match exactly. If boxes appear instead of characters in PDFs, switching to a different PDF viewer (such as Foxit Reader, available from www.foxitsoftware.com) should solve the problem.

# Cannot see complete list of supported forms

**Use Forms Manager to view all forms stored on the optional flash memory card or the printer hard disk**

# Data filters are not working

**Check the Data Filters menu to see if the filter that you want is enabled**

# Cannot add new forms

Try one or more of the following:

**Delete unused forms**

**Defragment the flash memory**

The flash memory may be full. You can access the defragmentation feature from the Printer Properties in Forms Manager.

**Disable Printer Job Language (PJL) File Access Control**

1. Open a web browser, and then type the printer IP address.
2. From the Embedded Web Server, select **Settings** > **Print** > **Setup**.
3. Clear the **PJL Access Control** check box, and then click **Save**.

# Bar codes do not print as expected

Try one or more of the following:

**Make sure that the option card is compatible with the printer**

**Make sure that the option card is installed**

1. Print a menu settings page.
2. In the Printer Information section, check that the Forms and Bar Code Card option is listed.

**Note:** For more information on printing a menu settings page, see the printer *User's Guide*.

### When using a PCL 5 emulation print driver, make sure that the escape sequence used to generate the bar code is constructed properly

The escape sequence must begin with Esc and contain the #T parameter (not case sensitive) for the bar code to be generated. Default values are used for parameters not explicitly defined in the sequence.

## Cannot generate bar codes using PCL emulation print drivers

The option card does not support bar code printing with PCL XL or HPGL/2 emulation print drivers. Only printing with PCL 5 emulation is supported.

### Disable advanced features using a PCL XL emulation print driver

1. From a Windows-based application, open the Print Properties dialog.
2. Click the **Graphics** tab.
3. From the Graphic mode list, select **Auto select**.

## Unexpected results after printing a bar code

Try one or more of the following:

### Make sure that the PCL 5 emulation escape sequences are complete

Immediately follow the PCL 5 emulation escape sequences that generate bar codes with an escape sequence that specifies a normal text font. For example, Esc`(s0p12h0s0b4099T` returns the text to 12-pitch Courier with fixed pitch spacing immediately following the embedded bar code.

### Make sure that all parameters needed are fully specified

Parameter values are not retained for subsequent bar code PCL 5 emulation escape sequences. Each time a bar code is generated, fully specify all parameters needed for each bar code.

Default values are used for any unspecified parameters.

## Printed bar code is unreadable

### Make sure that Print Quality settings are not too dark or too light

Print Resolution and Toner Darkness settings can affect the quality of printed bar codes. From Print Properties, adjust the Print Quality settings before printing another bar code.

### Check the paper

Use only paper that meets printer specifications. For more information, see the documentation that came with the printer.

# Notices

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February 2023

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