Datacard® XPS Card

Printer Driver™ Guide

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Revision Log
Datacard® XPS Card Printer Driver™ Guide

Revision	Date	Description of Changes
A	June 2012	First release of this document
B	Nov. 2012	4.0 release
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Contents

Chapter 1: About the Printer Driver

The Card Printer Driver uses Microsoft XPS print technology to support printing from currently available applications. This chapter provides a task overview of what the Card Printer Driver does, and a description of the communication between the Card Printer Driver and the card printer.

Supported Operating Systems

The following operating systems are supported by the Card Printer Driver:

- Windows XP

- Windows 7

- Windows 8

- Windows Server 2003

- Windows Server 2008

- Windows Server 2012

For more information on PC and operating system requirements, refer to the printer's *Installation and Administrator's Guide*.

Because the Card Printer Driver supports multiple Windows operating systems, the procedures in this Guide assume you can navigate to the appropriate Windows panels for your system. The Guide describes how to set up and use the Card Printer Driver from the appropriate window (for example, Printer Properties). Operating system-specific exceptions are noted, where necessary.

Driver Task Overview

Once installed, the Card Printer Driver:

1. Receives card data from an application.

2. Processes it for personalizing a card.

3. Optionally, encrypts data transactions with the printer for secure printing.

4. Sends the prepared data to the printer.

5. Checks the printer for card completion.

6. Displays any conditions (messages) associated with the card job.

Printer/Driver Communication

The printer communicates with the PC via the Card Printer Driver using either a USB cable or an Ethernet cable. For both connection types, the printer treats communication as if the PC is connected over a network. If you have multiple printers, each printer has a separate instance of the Card Printer Driver.

- You can update printer settings using the Printer Manager web service. Refer to the printer's *Installation and Administrator's Guide* for more information on using the Printer Manager.

- You can customize applications to communicate with the printer through the Card Printer Driver. If you use a customized application, follow the instructions in your application.

- Secure printing is available on current models of SD, CD, and CE series printers. Print jobs are secured with data protection automatically when the printer is configured to communicate securely. For more information, refer to "Use the Card Printer Driver for Secure Printing" on page 24.

Printer/Driver Communications Over a Network

The Card Printer Driver requires the current printer IP address when it is connected to the printer over a network. Refer to the printer's *User's Guide* for information on how to retrieve the printer's IP address.

When both printer and PC use an organization's network, the network affects the speed of data transmission, and can affect who can use the printer. The network printer can have many PCs connected to it, and each PC can be connected to multiple printers over the network.

Printer/Driver Communications Using a USB Connection

Connecting the printer and a PC using a USB cable automatically creates a local network. Each time another printer is connected to the PC, it creates a new local network for the new printer.

You can connect up to eight printers to a PC using USB cables.

The printer requires a USB 2.0 connection.

Chapter 2: XPS Card Printer Driver Installation

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This chapter provides information about installing the Card Printer Driver.

Before You Install

The Card Printer Driver typically is installed using the installation CD shipped with the printer. You also can install it using a downloaded installation file.

Be aware of the following before installing the Card Printer Driver.

- Load the printer ribbon and cards before installing the Card Printer Driver.

- The Card Printer Driver installation assigns a default printer name. Each printer must have a different name. The installation automatically creates a unique name.

  If your site plans to implement printer sharing, have a printer naming plan in place before installing the Card Printer Driver. You cannot rename a printer after sharing is enabled. Refer to "Use Printer Sharing" on page 26 for more information.

Installation Overview

Basic installation includes the following steps:

1. Select Your Installation Method on page 6

2. Install the Card Printer Driver using one of the following:

   - Install Using the Driver Installation CD on page 7

   - Install Without the Driver Installation CD on page 8

3. Install the driver based on the printer/PC communication method you are using, either USB or a network connection. Refer to "Install the Driver" on page 8.

4. Update your existing driver installation if your driver version is 4.0 or newer. Refer to "Update the Card Printer Driver" on page 15.

Advanced printer setup consists of:

- Connect More Than One Printer on page 22

- Use the Card Printer Driver for Secure Printing on page 24

- Use Printer Sharing on page 26

- Use Printer Pooling on page 31

Select Your Installation Method

Your installation method depends on how many users print to the card printer, the operating system you use to send card data, and other decisions specific to your environment.

Choose from the following installation methods:

Use Driver Installation CD	The printer ships with a CD in the printer carton. In most cases, you install the Card Printer Driver from the CD. Refer to "Install Using the Driver Installation CD" on page 7.
Download the Driver	If you do not have access to the installation CD, download the Card Printer Driver installation file from the website. Refer to "Install Without the Driver Installation CD" on page 8.
Use a USB Connection	Refer to "Install the Driver" on page 8.
Use a Network Connection	Refer to "Install the Driver" on page 8.
Update an Existing Driver	If Card Printer Driver version 4.0 or newer is installed on your PC, you can update the Driver to version 4.1 without uninstalling the previous version. Refer to "Update the Card Printer Driver" on page 15.
Use Secure Printing	Refer to "Use the Card Printer Driver for Secure Printing" on page 24.

Connect to More Than One Printer	Refer to "Connect More Than One Printer" on page 22.
Use Printer Sharing	Printer sharing allows one or more PCs (clients) to print cards to a printer installed on a different PC (host). Refer to "Use Printer Sharing" on page 26.
Use Printer Pooling	A printer pool is a group of printers that act as one printer. Print jobs are sent to the pool and are distributed among the available printers. Refer to "Use Printer Pooling" on page 31 and "Set Up a Printer Pool" on page 34.

Install the Card Printer Driver

This section provides information about installing the Card Printer Driver on a PC running a supported Windows operating system. Refer to "Supported Operating Systems" on page 1 and the printer's *Installation and Administrator's Guide* for complete information on installation requirements.

To begin the Card Printer Driver installation, use the Driver Installation CD, or use a downloaded installation file if the CD is not available.

Then, install the printer based on the printer/PC communication method you are using, either a USB or a network connection. Refer to "Install the Driver" on page 8.

Install Using the Driver Installation CD

The printer ships with the Card Printer Driver Installation CD in the printer carton. In most cases, install the Card Printer Driver from the Installation CD.

1. Log on to the PC as a user with administrator access.

2. Insert the Driver Installation CD in the PC's drive.

3. If the *Autoplay* dialog box displays, click **Run autorun.exe**.

4. When the driver installer *Welcome* page displays, continue with the driver installation. Refer to "Install the Driver" on page 8.

Install Without the Driver Installation CD

Your network might prevent the download or installation of the Card Printer Driver installation file. Ask your network support personnel for help when downloading this file and when installing the Card Printer Driver.

If you do not have access to the Card Printer Driver Installation CD, do the following:

1. Log on to the PC as a user with administrator access.

2. Obtain the driver download file on a portable storage medium and save it to your hard drive. If necessary, download the driver file from the website:

   http://www.datacard.com

   A. Browse to the **Downloads** area of the website (or the Products page for the printer) and select the driver for your printer.

   B. When the File Download dialog displays, click **Save As**.

   C. Choose a location on your PC, such as C:\Temp, and click **Save**.

3. Browse to the location of the file saved in Step 2 on your PC.

4. Double-click the downloaded file. The file has a name similar to **XPSCardPrinter_"version".exe**. The *Welcome* page displays.

5. Continue with Install the Driver.

Install the Driver

The following instructions describe how to install the driver using either a USB or a network connection. Most of the installation procedure is the same for either method; differences are noted where necessary.

Caution: If you are installing the driver with a USB connection, do not connect the USB cable to the printer until instructed. If you start this procedure with the USB cable connected, problems can result.

1. Plug in and power on the printer. Make sure that the cards and ribbon are loaded correctly. The LCD panel displays READY when the printer is completely powered on.

2. On the driver installer *Welcome* page, click **Install a Network Printer** or **Install a USB Printer**.

3. The Card Printer Driver installer displays the license agreement:
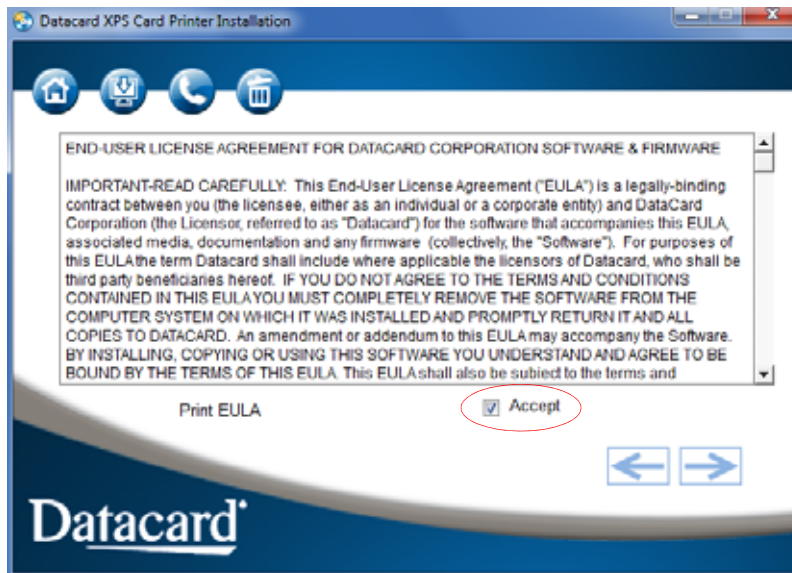
A. Read the license agreement and select **Accept**.

B. Click the blue arrow on the right to continue.

 If you are installing multiple copies of the driver, you only have to accept the license agreement once.

The Card Printer Driver begins loading.
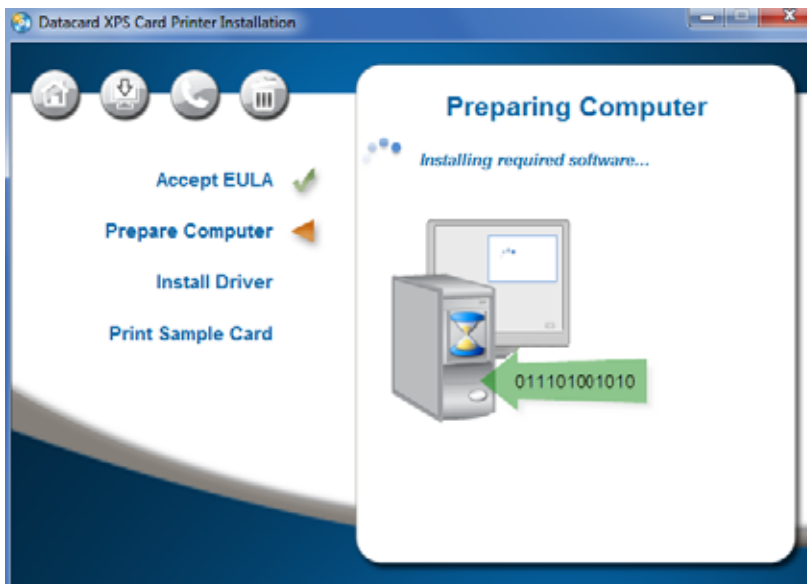
- If you are using a USB connection, continue with .

- If you are using a network connection, skip to .

XPS Card Printer Driver Installation

4. When prompted, connect the printer to the PC with a USB cable, as shown on your screen.
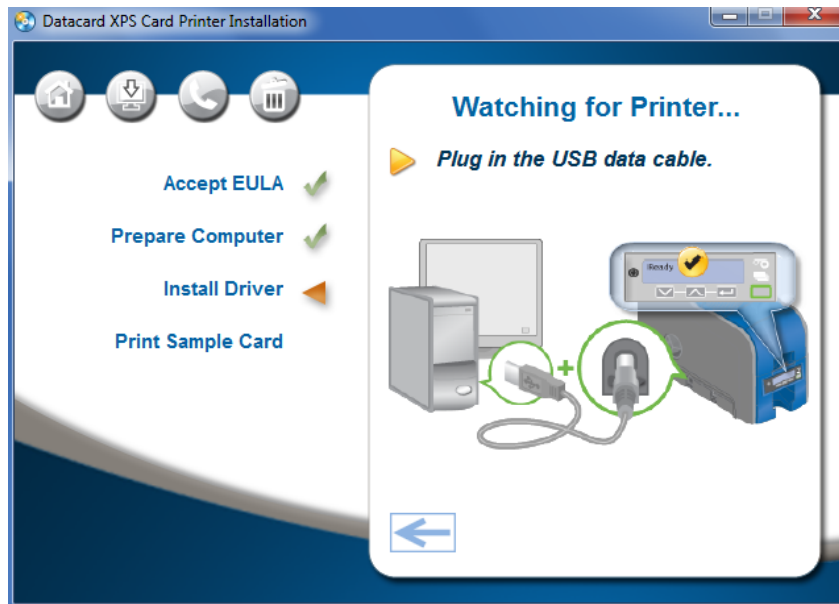
The Card Printer Driver searches for the printer and connects the PC and printer, displaying the **Installing USB Driver** page.

Continue with .

5. Connect the printer to the network with an Ethernet cable.
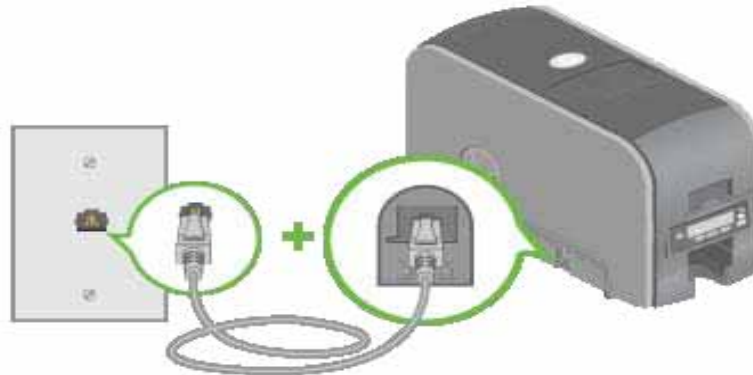
6. Use the printer LCD screen menu system to retrieve the printer's IP address. Refer to your printer's *User's Guide* for details on obtaining the IP address.

7. Enter the IP address.

   A. Exit the menu system on the printer.

    Make sure that **READY** displays and the **USER** button on the front panel glows green.

   The *Installing Network Driver* window displays on your PC.
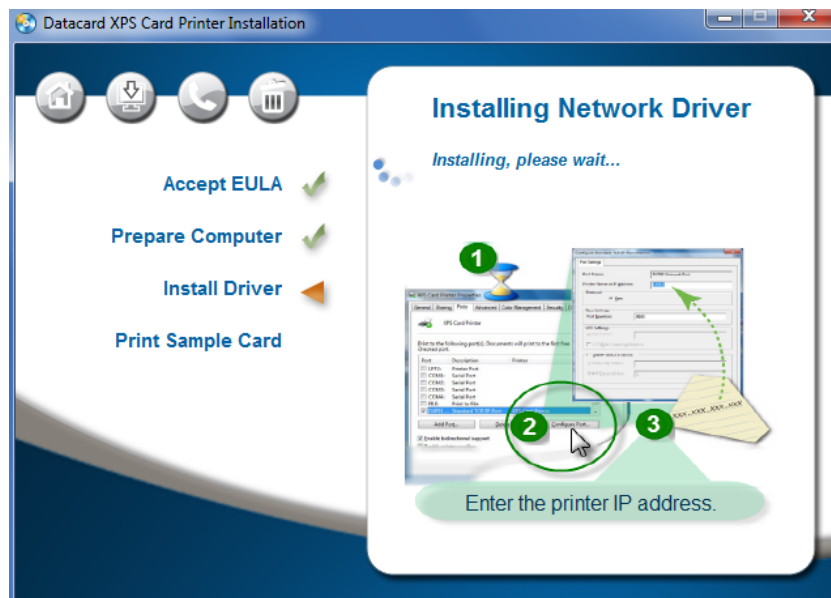
B. When the installer displays the *Printer Properties Ports* tab, click **Configure Port** and type the IP address in the **Printer Name or IP Address** field on the *Port Settings* window.
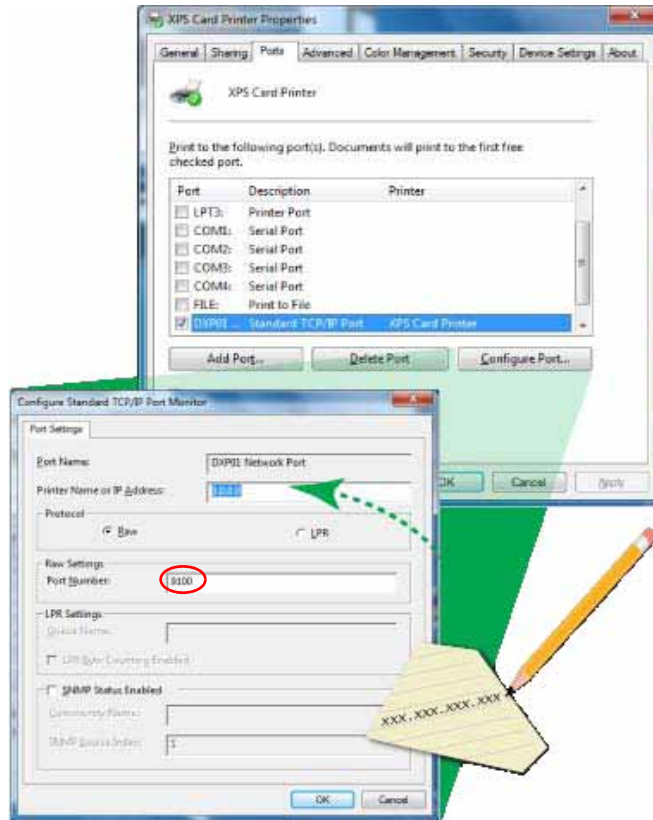
In some cases, the Port Number changes when you enter the printer's IP address. The printer uses Port 9100. If a number other than 9100 displays in the **Port Number** field, delete the number and enter 9100.

8. Click **OK** on the *Port Settings* window to save your settings and close the window. Then, click **Close** on the *Ports* tab to close the *Printer Properties* window.

Continue with .

9. If you have ID software installed on your computer, the *Install the Plug-In* screen displays as part of the Card Printer Driver installation. Click **Yes** and follow the installation instructions to install the XPS Card Printer plug-in.
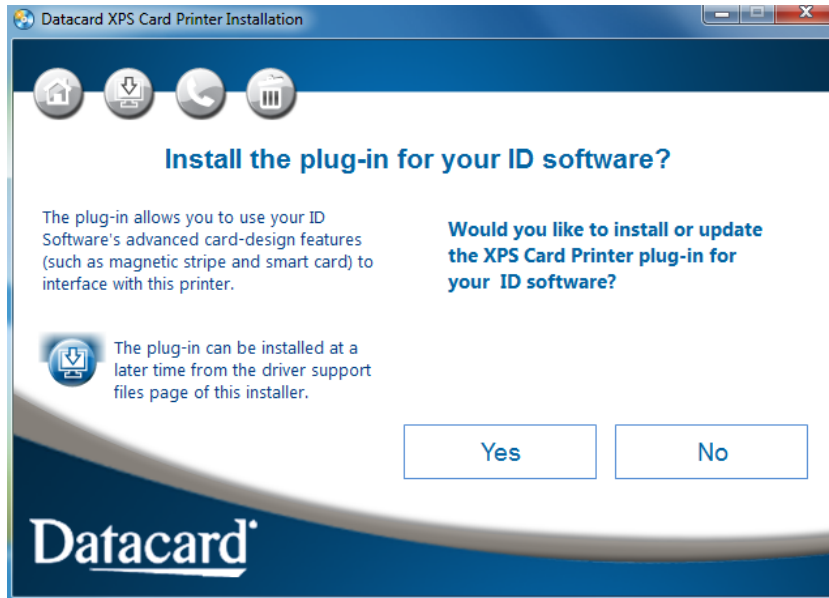
When the Card Printer Driver and any plug-in software are installed, the *Installation Complete* page displays.
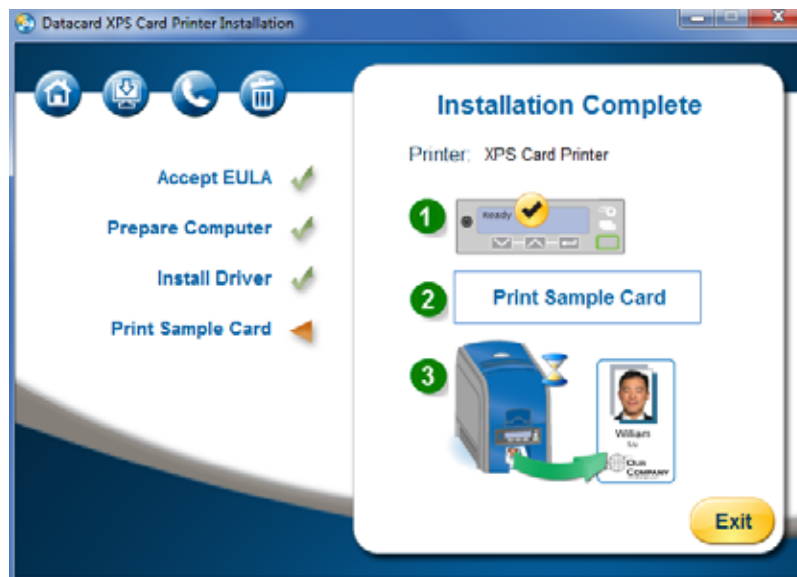
10. Test your printer by printing a sample card. Make sure that **READY** displays on the LCD screen, and click **Print Sample Card**.

For complete information on how to print a sample card or a printer test card, refer to the printer's *User's Guide*.

11. If necessary, you can install additional support files. Click the second icon (upper left) on the **Welcome** page, and select the items you want to install (such as legacy support files for enhanced backward compatibility). Refer to "Install Support Files" on page 20 for more information.

Update the Card Printer Driver

If you currently use the Card Printer Driver version 4.0 or newer, you can update to Driver version 4.1 without having to remove all installed printers and reinstall the new driver. Use the Card Printer Driver update process to install the new version. The updated Card Printer Driver retains your printing preferences and selections from the previous version.

To find the Card Printer Driver version installed on your PC, open the **XPS Card Printer Properties** window and click the **About** tab.

If the Card Printer Driver version installed on your PC is older than 4.0, you must uninstall the current driver and install the new driver.

Before starting the update, be aware of the following:

- The **Update the Driver** button does not display if any of the following are true:

    - You are installing the Card Printer Driver for the first time.

    - The installed Card Printer Driver is older than version 4.0, or is the same version or newer than the driver you are updating.

    - You uninstalled the current Card Printer Driver.

    - A shared printer client Card Printer Driver is installed on the PC.

- If you want to remove the current Card Printer Driver from your PC, click the **Remove the Driver** icon and follow the instructions. The installer **Welcome** page then displays with the Install buttons enabled.

- If you are updating the Card Printer Driver on the host system with shared clients, you can update the shared printer host. Refer to "Update a Shared Printer" on page 18 for information on updating the client systems.

- You can update a printer pool.

The Card Printer Driver update requires that you restart your computer. Plan to perform the update at a time that does not interfere with your production schedule.

1. Log on to the PC where the Card Printer Driver is installed.

2. Insert the Driver Installation CD or double-click the downloaded installation file.

   The Card Printer Driver Installer *Welcome* page displays.

3. Click **Update the Driver**. The *Update the Driver* page displays.
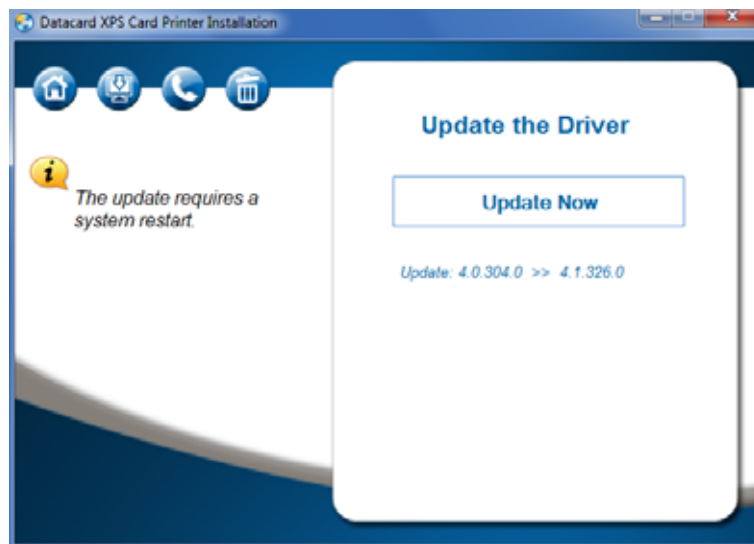
4. Click **Update Now** to start the update process.

5. The *Update Complete* page displays. Click **Restart Now** to restart your computer and complete the update.
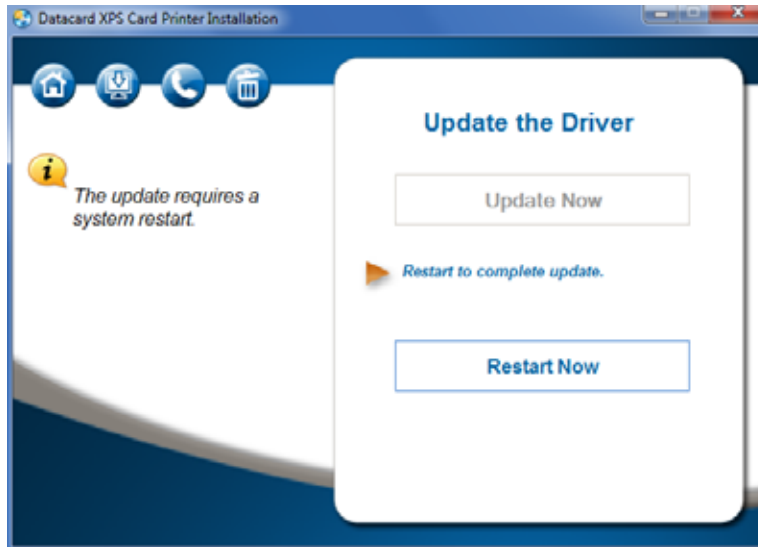
If the update fails to complete, the *Update Failed* dialog box displays. Click Remove Driver to remove the driver from your PC. You then can install the driver as a new install (refer to "Install the Driver" on page 8),

Update a Shared Printer

If you use printer sharing, the host PC and all client PCs must be at the same version of the Card Printer Driver to work properly. Depending on the operating system installed on the host and client PCs, one of the following can occur:

- The Card Printer Driver on the client PC is updated automatically after you restart the host after it is updated.

- The Card Printer Driver on the client PC must be updated manually. If the driver on the client PC requires a manual update, the text "Needs new driver" displays when you select the printer on the ***Devices and Printers*** window on the client PC. (*Windows XP users:* Open Windows Print Manager and check the Status column to see messages.)

Update a Client PC Manually

To update the Card Printer Driver on a client system that requires a manual update, do the following.

You might need to restart the client PC before proceeding with the following steps. If the Update Driver option displays when you select the printer, you do not need to restart the PC.

1. Open the ***Devices and Printers*** window on the client PC.

2. Select the printer. The text "Needs new driver" displays next to the printer name and Update Driver displays on the menu bar.

3. Select **Update Driver**.

4. On the ***Do you trust this printer*** dialog box, click **Install Driver**.

   The updated Card Printer Driver is installed on the client PC.

5. Press **F5** to refresh the ***Devices and Printers*** window to clear the "Needs new driver" message.

Verify the Client Update

After the client PC has been updated with the new Card Printer Driver version, verify that the update completed properly and that your settings and preferences were not changed.

1. Open the *Devices and Printers* window on the client PC and right-click the printer.

2. Select either **Printer properties** or **Printing preferences** and select the *About* tab.

3. Verify that the driver version is correct.

4. Check your printer properties settings and printing preferences and verify that they are correct.

5. Print sample cards to confirm that cards print successfully.

Install Support Files

1. Insert the Card Printer Driver Installation CD and follow the prompts. The *Card Printer Installation* window displays.

   You can use the Driver Installation CD or the file downloaded from the website.

2. Select the *Install driver support items* icon at the top of the installation window (see right).

   The support items window displays.

3. Select each of the support options you want to install and click **Install now**. You can select from the following options

   - **Windows XP driver support**—For shared printers at Windows XP client PCs only. You must install the Windows XP driver support files on the client PC.

   - **Magnetic stripe fonts**—Select this option if the shared printer client PC is processing magnetic stripe cards using magnetic stripe fonts.

- **Printer Plug-in**—Install the XPS Card Printer plug-in for your ID software, if necessary. A wizard displays and guides you through the plug-in installation.

- **Legacy Support**—Select this option if you have an application that uses fonts or files from older generation desktop printers. Install the Legacy Support files if you plan to use custom user-defined bitmaps for topcoat application as it installs the required bitmap files. Refer to "Use a User-Defined Topcoat Bitmap" on page 70 for more information.

4. After you install the needed support files, close the *Card Printer Installation* window.

Install User Documentation

Install the card printer documentation files from the separate documentation CD. The document set consists of:

- *Quick Install Guide*

- *XPS Card Printer Driver Guide*

- *User's Guide*

- *Installation and Administrator's Guide*

- *OpenCard Data Format Guide*

- *Software Development Kit (SDK) Programmer's Reference Guide*

Advanced Setup

Advanced setup options help you set up your installation to fit your operation's needs. Advanced setup includes the following:

Connect More Than One Printer

There are several options for connecting more than one printer to a PC. You can connect to several printers installed on an Ethernet network, or connect multiple printers to a PC with USB cables.

Use the following guidelines to install more than one printer with USB cables:

- Connect and install one printer at a time. The PC cannot run more than one installation program at a time.

- You can connect up to eight printers to a PC with USB cables.

- If you need to connect two card printers to a PC with one USB port, use an independently powered, high-speed USB hub (USB 2.0) to which both printers can connect. Do not daisy-chain multiple hubs. (Self-powered hubs are recommended.)

- Each printer must remain powered on and in the **READY** state during installation.

Install Additional USB Printers

For each USB printer installed after the initial USB installation, do the following:

1. Load supplies and power on the printer before starting the installation. Refer to the printer's *User's Guide* for the steps to load cards and ribbon.

2. Log on to the PC as a user with administrator access.

3. Connect the **READY** printer to the PC with a USB cable.

4. The operating system detects the new device and begins installation. Depending on your system's current setup, what you see during the installation process varies.

- A pop-up window may display during installation.

  If the operating system does not display a pop-up window within a few minutes, check all cables and connections to the printer, and then look at the PC's **Printers** window to determine whether the icon for the new printer displays. The software sometimes installs without displaying the pop-up window.

- The operating system usually uses the existing Card Printer Driver files to install the driver for this printer. Insert the Driver Installation CD only if you are prompted for it.

Print to More Than One Printer From One PC

When you print to more than one printer from one PC, keep the following in mind:

- Keep track of the printer names. When messages display, the title bar of the message box displays the name of the printer that issued the message.

- Select the printer to use from within the card production application. Card jobs are sent to the selected printer even if more than one card printer is attached to the PC.

- Each printer has its own icon in the Printers window, and each printer has separate **Properties** and **Printing Preferences** windows. Settings are not shared among printers.

- Do not mix non-secure and secure printers on PCs that require secure printing.

Use the Card Printer Driver for Secure Printing

Secure printing encrypts print commands and card data and transmits the information securely from the PC to the printer.

When the Card Printer Driver detects that the printer is enabled for secure communications, it encrypts the data before sending it to the printer.

Secure Printing Overview

Communication with the printer can use one of three protocols. These protocols are named for the printer command language protocols used to send card print data between the Card Printer Driver and the printer.

Protocol	Secure/Non-Secure
DPCL (first-generation)	Non-Secure
DPCL2 (second-generation)	Non-Secure
DPCL2 Secure	Secure

The Card Printer Driver automatically uses the most secure protocol the printer is configured to support. The protocol used by the printer displays on the **Printer Properties>Printer Status** tab. The Card Printer Driver also reports the protocol information to applications via the driver SDK.

Non-secure printing is activated automatically for printers that do not have secure printing capability or are not configured to use secure printing. Non-secure printing does not encrypt the data sent to the printer.

The Card Printer Driver uses DPCL2Secure as the printer's secure communications protocol. Printers are shipped with secure printing enabled. You can disable (or enable) DPCL2Secure communication through the Printer Manager web service. Refer to the printer's *Installation and Administrator's Guide* for complete information on using Printer Manager.

Printers that provide only DPCL or DPCL2 non-secure printing may be part of your network. Be sure to identify which printers provide secure printing and which provide non-secure printing. Do not install or share non-secure printers on PCs where secure printing is required.

Set Up Secure Printing

Do the following to set up secure printing:

1. Install a printer that supports secure printing. Refer to the printer's *Installation and Administrator's Guide* for a list of hardware and software requirements.

2. Install and set up the Card Printer Driver. Refer to "Install the Driver" on page 8.

3. If necessary, use the Printer Manager web service to enable secure printing. Sign on as a WebAdmin and select **Printer Setting >Behavior.** Select **Enabled** for the **DPCL2Secure** option. Refer to the printer's *Installation and Administrator's Guide* for complete information on using Printer Manager.

4. Restart the printer and computer for the setting to take effect.

5. Connect your secure printers to the host and client PCs.

   After secure printing is set up, the Card Printer Driver automatically detects and uses secure printing during card production.

Use Printer Sharing

You can share a printer over a network using Microsoft File and Printer Sharing.

Shared printing includes a host PC and up to 10 client PCs. The printer is connected to a host PC that has the Card Printer Driver installed. Client PCs then print to the shared printer over a network. Client PCs do not have the same level of access to the Card Printer Driver as the host PC.

Printer Sharing Requirements

Before sharing a printer over a network, make sure that the following requirements are met:

- Each PC that uses the printer must be connected to the same network, workgroup, or domain.

  Windows XP does not support sharing between computers on a domain.

- The host and the client PC must be using the same type of processor, either 32- or 64-bit.

- The host PC must be configured and enabled for sharing.

- The host PC must remain on at all times with the Windows operating system running.

- The host PC must grant permissions for users that print to the shared printer.

- When multiple user accounts are configured on a shared printer client, we recommend that users log on and off when switching from one account to another. Using the Windows "Switch User" feature keeps multiple user accounts logged on and may cause issues when viewing messages from the printer.

- If you need to rename a printer, do it before you enable printer sharing.

  Renaming shared printers is not supported. Do not change printer names after sharing is enabled. If you rename a shared printer, print requests may fail and reinstallation may be necessary.

Supported Operating Systems

The Card Printer Driver supports the following host and client operating system combinations. See the appropriate appendix for printer sharing setup information for your host and client systems.

Host	Client	Refer to
64-bit: Windows 7 Windows 8	64-bit: Windows 7 Windows 8	Appendix A: Windows 7 and Windows 8 Printer Sharing
Windows XP, 32-bit	Windows XP, 32-bit	Appendix B: Windows XP Printer Sharing
Windows Server 2003, 32-bit	32-bit: Windows XP Windows 7 Windows 8	Appendix C: Windows Server 2003 Printer Sharing
64-bit: Windows Server 2008 Windows Server 2012	64-bit: Windows 7 Windows 8	Appendix D: Windows Server 2008 and 2012 Printer Sharing

Tips for Host PC and Client PC Users

The user at the host PC has more control over the printer. The host PC typically is located near the printer and is used by administrator-level users. This section describes some tasks performed at the host PC.

Understanding these tips for setting up and managing shared printers can help you install and change your printer setup for your operation's unique needs.

Feature	Printer Sharing Tips
Host PC Users:	
Manage print queue	Use the Windows Print Manager to manage print jobs.
Secure printing	To ensure secure printing, make sure that: • The printer you install and share is a secure printer. • Secure printing is enabled in Printer Manager. Refer to "Use the Card Printer Driver for Secure Printing" on page 24.
Security permissions for shared printers	Set up a Windows group account with the users who have the same printer security permissions. For more information, refer to: "Set Up Group Accounts for Using Shared Printers" on page 31.
View message boxes	To set up accounts to view message boxes. • Enable printer sharing on the Windows Printer Properties **Sharing** tab. • Set up applicable user accounts on the Windows Printer Properties **Security** tab. Select the **Print** and the **Manage this printer** permissions for each user or group. Selecting both of these settings lets individual users or groups print and view Message boxes from their PCs, except as noted below. **Windows XP or Windows Server 2003 host:** Client PCs cannot view message boxes. These client PCs must open the Windows Print Manager. Users of these client PCs may need to resolve printer errors at the printer.

Feature	Printer Sharing Tips
View printer status, supplies, and card counts	For more information, refer to the following topics: • Printer Status Tab on page 44 • Card Counts Tab on page 48 • Supplies Tab on page 49 (**Windows XP:** Users can view this information only at the host PC. This information is not available from a client PC.)
Client PC Users:	
Client Card Design Printing Preferences	Client PC users have different options for high-resolution printing. • Client PC users don't have the *Always use best possible* resolution setting. • Client PC Users must choose the supported resolution under Custom. Refer to *"Configure PC Printing Preferences for Sharing"* on page 30.
Allow printing and viewing of message boxes	Client PC users may be able to view printer messages. The buttons on message boxes let users resolve some issues without going to the printer. Refer to the "Configure Security" section in the appendix for your operating system.
All PC Users:	
Clear error messages on the printer or host PC	If you clear the error at the printer's LCD screen, the error message on the PC closes automatically and removes the error message from the Windows Print Manager.
Print to shared printers in interactive mode	Host and client PCs cannot use shared printers in interactive mode. This restriction prevents using operations such as magnetic stripe read or smart card personalization.
Update job status in the Windows Print Manager	If the Windows Print Manager is already open, press **F5** to update the current print job status in the window.

Feature	Printer Sharing Tips
Use device naming rules for shared printers	Don't rename a shared printer. Doing so means all connected printers may need to be reinstalled at the host and client PCs. **Note:** Renaming printers after implementing printer sharing is not supported.
Submit jobs using the driver SDK	Shared printers are not supported for jobs submitted using the driver Software Development Kit (SDK). For more information on using the SDK, refer to the printer's *Windows Driver Software Development Kit Programmer's Reference Guide.*

Configure PC Printing Preferences for Sharing

When you use printer sharing, settings on the client PC must be configured to match the settings of the host PC. Print quality from the client PC may be affected if the Windows printing preferences are not the same on the host PC and the client PC.

Use the *Printing Preferences* window to set up your printing preferences. Refer to "Design Tasks in Windows Printing Preferences" on page 59 for complete information on how to set up printing preferences.

Keep the following in mind when using printer sharing:

- When you set up the host PC, write down the settings you specify in the *Printing Preferences* window. You use these settings when you set each client PC's printing preferences.

- The host PC automatically detects and selects the ribbon type. The client PC does not automatically detect the type of ribbon installed in the printer. Instead, it defaults to YMCKT ribbon and 300 x 300 dpi resolution. If you select to use a Split Ribbon option on the host PC, select the same option on the client PC. Refer to "Print Cards Using Split-Ribbon Color Printing" on page 66.

- Select the same topcoat and print blocking options for the front side and back side print areas. Refer to "Print Area Tab" on page 69.

- Set the print resolution on the client PC using the same setting you selected for the host PC print resolution. Refer to "Print Mode Tab" on page 77.

Set Up Group Accounts for Using Shared Printers

If you want to define which users can both print cards and view message boxes, we recommend that you create a group account. Assign the client user accounts allowed to use the printer to the group account. Then, using the shared printer's Printer Properties *Security* tab, select the **Print** and **Manage this printer** permissions to allow the group to print and display Message boxes.

For more information, refer to the Microsoft documentation on setting up group accounts and printer security permissions, and the following instructions for your configuration:

* Appendix A: Windows 7 and Windows 8 Printer Sharing

* Appendix B: Windows XP Printer Sharing

* Appendix C: Windows Server 2003 Printer Sharing

* Appendix D: Windows Server 2008 and 2012 Printer Sharing

Use Windows Print Manager

The Windows Print Manager is one tool available for managing print jobs across your host and

client systems. Do not confuse the Windows Print Manager (shown) with the printer's Printer Manager web service.
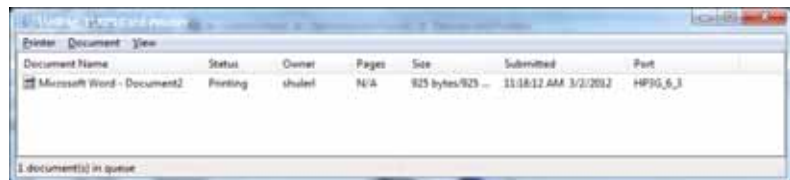
If the Windows Print Manager is already open, press **F5** to update the current print job status in the Print Manager window.

Use Printer Pooling

Printer pooling is used in card production environments in which an application prints to a group of printers. The user chooses to print to the pool and the pool distributes the print jobs to the next available printer.

Printer Pooling Requirements

Printer pooling requires that you set up all printers in a pool with the same basic setup except as noted below. The setup includes connecting printers using an Ethernet cable only, using the same ribbons, and setting up for non-interactive printing.

All printers in a printer pool must have the same:	With:
Model number **Examples:** A pool includes: Only SD260L models OR Only SD360 models OR Only SD800 models	The same printing features installed, as outlined in this table. **Note** Do not place non-secure printers in pools where secure printing is needed. For more information about secure printing, refer to "Use the Card Printer Driver for Secure Printing" on page 24.
Supplies	The same settings applied. For information on defining printer ribbon settings, resolution, and other print settings, refer to "Design Tasks in Windows Printing Preferences" on page 59.
Network cable type—Ethernet only	No USB-connected printers. Printer pooling is **not supported** for USB-connected printers.
Non-interactive printing requirements	No direct, printer-to-PC processing is permitted. Interactive print processing requires a connection to a printer, which is not possible when using a pooled printer. **Note** Smart card and magnetic stripe read commands cannot be processed on printers in a pool.
Printer Manager settings and magnetic stripe values	Refer to the printer's *Installation and Administrator's Guide* for more information.

For instructions to set up printer pooling, refer to "Set Up a Printer Pool" on page 34.

Operating Systems Supported for Printer Pooling

Printer pooling is supported on all Card Printer Driver-supported operating systems. For more information on supported operating systems, refer to the printer's *Installation and Administrator's Guide*.

Tips for Printer Pooling

Feature	Tip for Printer Pooling
Error messages	Messages display the name of the main printer named during the Card Printer Driver installation, rather than the name of the specific printer in error. - To locate the printer with the error condition, look at each printer in the pool for warning indicators or LCD messages. - Card jobs are held at the printer with the error condition. All subsequent card jobs print to other printers in the pool. The printer with the error is not used by the pool until the error condition is corrected. - After correcting the error at the printer, resume or cancel the print job using the error message on the PC.
Printer Pooling information	Printer status, card count, and supplies information typically shown in the Windows **Printer Properties** window is not available to printers belonging to a printer pool. For these printers, the **Printer Status** tab displays the status as "Printer pooling," which indicates that the printer belongs to a printer pool. Use Printer Manager to view card counts, supply information, and the status of individual printers in the pool. Refer to the printer's *Installation and Administrator's Guide* for information about using Printer Manager.
Shared Printers	Shared printers can be part of a printer pool.

Feature	Tip for Printer Pooling
Print Sample Card and Magstripe Test Card not available	The Print Sample Card and Magstripe Test Card buttons on the **Printer Properties** window **Status** tab are not available for a printer belonging to a printer pool. Print sample cards or test cards from the LCD panel on the printer.
Printer pool print queues	A printer that cannot process jobs continues to have jobs assigned to it by the pool controller. The Card Printer Driver does not determine if each printer in the pool is ready to receive card jobs. Remove printers that are not available from the pool until they are functioning and ready to receive print jobs: 1. To remove a printer from the pool, open the **Printer Properties** window and click the **Ports** tab. 2. Remove the check from the port assigned to the printer. Some software, such as Microsoft Office (for example, Word, Excel, Access), sends multiple-card (batch) files as a single print job. In this case, the pool sends all cards in the batch to the same printer. Software designed specifically for card production sends each card in the batch as a single print job. The printer pool distributes single print jobs among the available printers.

Set Up a Printer Pool

The following instructions describe how to set up printer pooling for all supported Windows operating systems. Operating system-specific differences are noted, where necessary. The screens shown may differ slightly from those on your system

1. Install the first network printer on the host PC. Refer to "Install the Driver" on page 8.

2. Connect each additional printer you want to include in the pool to the network using an Ethernet cable.

XPS Card Printer Driver Installation

3. Write down the IP address of each printer. Refer to your printer's *User's Guide* for details on obtaining the IP address.

4. Configure the network printers for printer pooling.

   A. Display the ***Devices and Printers*** window for your operating system.

   B. Right-click the card printer icon and select **Printer properties** to display the ***Printer Properties*** window.

   Windows Server 2008 and Windows Server 2012: Select the printer and click **Print server properties** on the menu bar.

   C. Select the ***Ports*** tab**.**

   Windows Server 2008 and Windows Server 2012: On the ***Print Server Properties Ports*** tab, scroll down and highlight the printer to add to the pool. Click **Change Port Settings**.

   D. Click **Add Port**.

   The ***Printer Ports*** window displays (see below).

   E. Select **Standard TCP/IP Port**, and click **New Port**. The ***Add Standard TCP/IP Printer Port Wizard*** page displays.
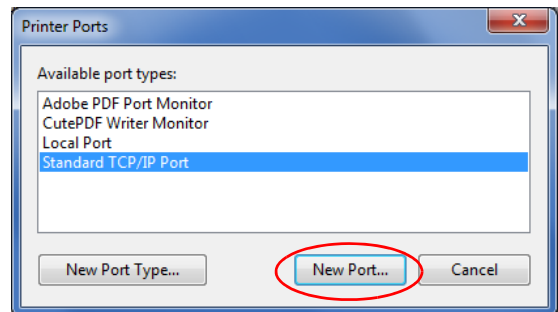
   F. Follow the instructions in the wizard to add the port. Click **Next** to display each step in the wizard.

   G. In the **Printer Name or IP Address** field, enter the name or IP address of the printer you are adding.
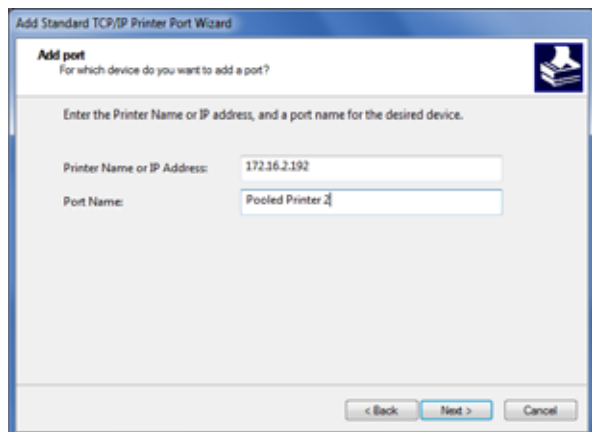
   H. In the **Port Name** field, enter a name, such as Pooled Printer 2.

   I. Click **Next**.

   If the ***Additional Port Information Required*** page displays, select **Custom** and click **Next**.

   J. When the last page of the wizard displays, click **Finish**.

K. Repeat these steps for each printer you want to add to the pool.

L. Close the *Printer Ports* window.

M. Click **Apply** on the Ports tab, if necessary, after all printers and ports have been added.

   Windows Server 2008 and Windows Server 2012: Close the **Print Server Properties** window.

5. Enable printer pooling.

   A. On the *Devices and Printers* window, right-click the printer icon and select **Printer properties**.

   B. Select the *Ports* tab. The list of printer ports displays.

   C. Select the **Port** check box for the printer that you want to represent the pool. (This is the printer that users select when printing to the pool.)
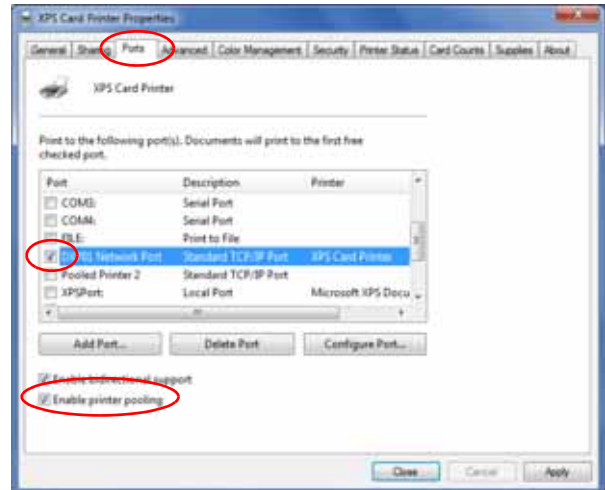
   D. Select **Enable printer pooling**.

   E. Select the **Port** check box next to each port you added and want to be part of the printer pool.

   F. Click **Apply** to save the settings.

6. Click **OK** to close the *Printer Properties* window.

Chapter 3: Card Printer Driver Management Tasks

3

Card Printer Driver managements tasks are accessed through the Printer Properties window.

This chapter provides information about the Card Printer Driver, including:

- Use the Printer Properties Window
- Uninstall the Card Printer Driver on page 51

## Use the Printer Properties Window

The *Printer Properties* window allows you to specify the settings and values that Windows uses to communicate with and manage the printer.

To open the *Printer Properties* window, display the *Printers* window on your system. Right-click the icon for the card printer and select **Printer properties**. Use the Printer Properties tabs to define your printer to the PC.

General Tab

The *General* tab displays when you first open the *Printer Properties* window. It contains basic information about the printer. Click the **Preferences** button to display the *Printing Preferences* window. Refer to "Design Tasks in Windows Printing Preferences" on page 59 for complete information on using the *Printing Preferences* window.
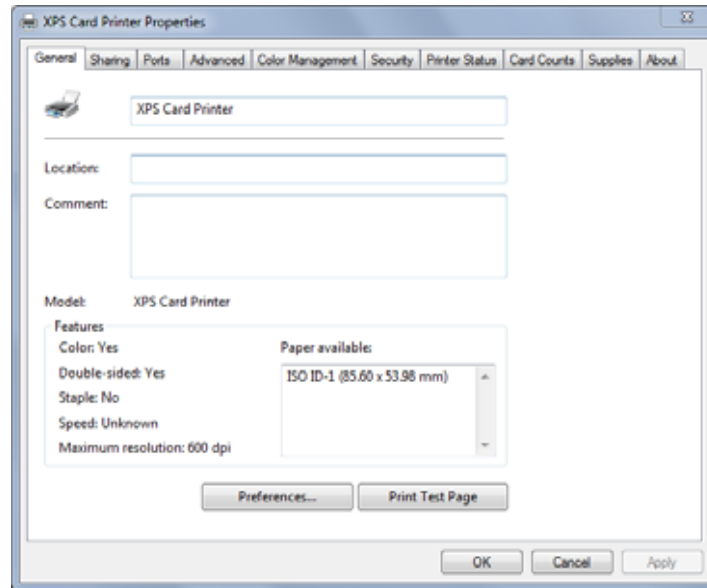
The Print Test Page button prints a Windows test page to check PC communication with the printer. We recommend that you do not use this option. Print a driver sample card from the "Printer Status Tab" on page 44 instead.

Sharing Tab

Use the *Sharing* tab to set up printer sharing using a host PC and up to ten client PCs. Refer to "Use Printer Sharing" on page 26 and the appropriate appendix for your operating system for complete information on setting up printer sharing.

Ports Tab

Use the *Ports* tab to define the IP address of your printer to the PC. Refer to "Install the Driver" on page 8 and "Set Up a Printer Pool" on page 34 for information on defining a port during installation or when setting up a printer pool.

The *Ports* tab of the *Printer Properties* window includes the **Enable Bidirectional Support** check box. The Card Printer Driver always uses bidirectional communication with the printer. Make sure that this option is selected, otherwise all printing from the Card Printer Driver is disabled.

View Network Information

When the printer and PC using the Card Printer Driver are connected using a network, the network settings on the PC and the printer must match.

Use the *Ports* tab on the Card Printer Driver *Printer Properties* window to enter the printer's IP address. Refer to the Port Type section of "Printer Status Tab" on page 44 to view the setting.

If the printer is set to use DHCP (Dynamic Host Configuration Protocol), the IP address of the printer can change when the printer is powered off and powered back on. If this occurs, the Card Printer Driver issues error message 500.

If the printer IP address changes often, use static IP addressing to provide a more reliable connection. Work with your network support group to identify the IP address, subnet mask, and gateway address (if used). Then, refer to the printer's *Installation and Administrator's Guide* for information on setting a static IP address.

Change a Network IP Address

If you are connecting your PC to a new network printer or if the printer IP address has changed, you need to change the IP address that is defined in the *Printer Properties Ports* tab.

Follow the procedure to change the port settings based on the operating system you are using:

- Windows XP, Windows 7, Windows 8, and Windows Server 2003 on page 40

- Windows Server 2008 and Windows Server 2012 on page 41

Windows XP, Windows 7, Windows 8, and Windows Server 2003

1. Open the *Printer Properties* window and select the *Ports* tab.

2. Select the installed network printer you want to change and click **Configure Port**.
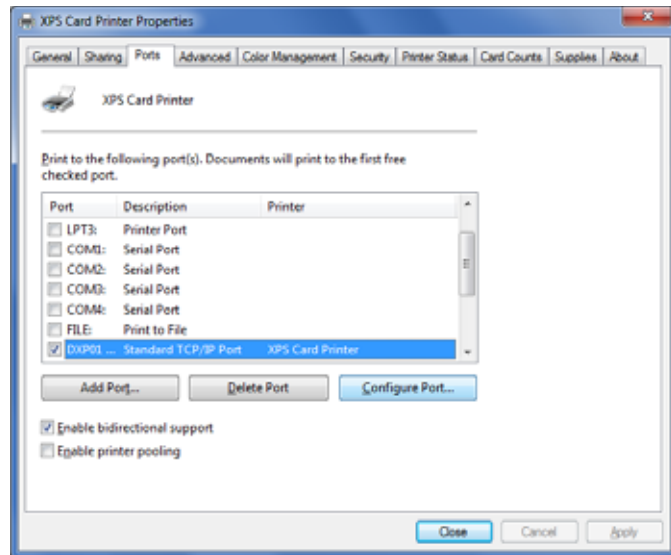
3. On the *Configure Standard TCP/IP Port Monitor* dialog, enter the new IP address for the printer.

4. Click **OK** to save the new settings and then click **Close** on the *Printer Properties* window.

Card Printer Driver Management Tasks
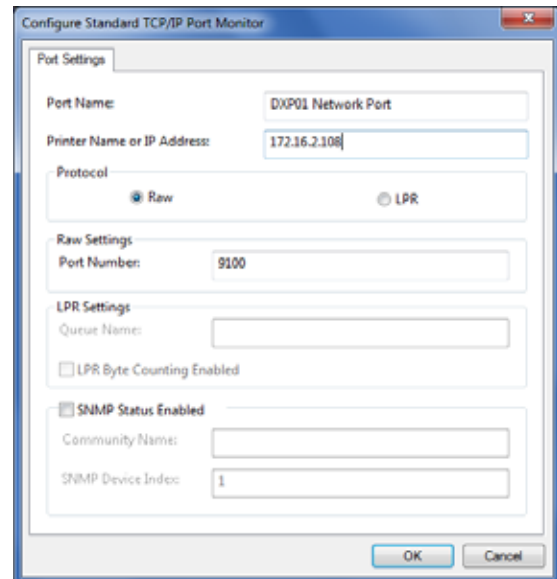
Windows Server 2008 and Windows Server 2012

1. Open the ***Devices and Printers*** window and click the network printer you want to change. Print server properties displays in the menu bar.

2. Click **Print server properties** and select the ***Ports*** tab on the ***Print Server Properties*** window.

3. Scroll down and select the printer whose IP address you want to change. Click **Change Port Settings**.

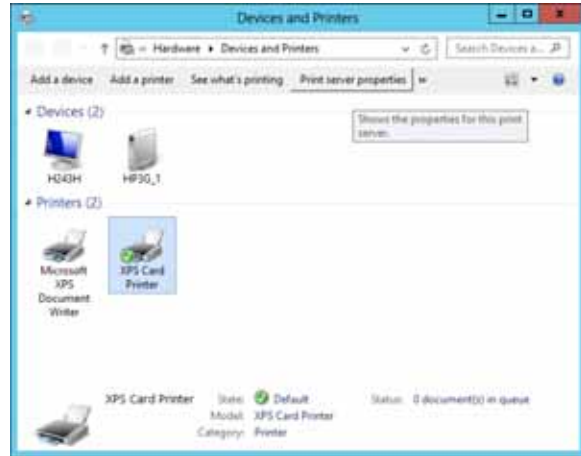4. The ***Print Server Properties*** window displays again. Select the printer again and click **Configure Port**.
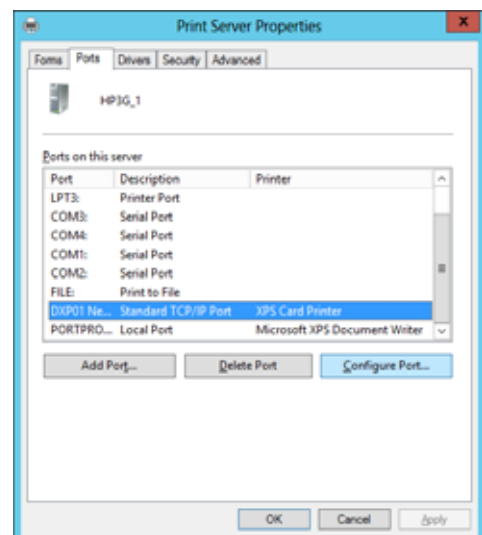
5. On the *Configure Standard TCP/IP Port Monitor* dialog, enter the new IP address for the printer.

6. Click **OK** to save the settings, and then click **Close** on the *Print Server Properties* window.
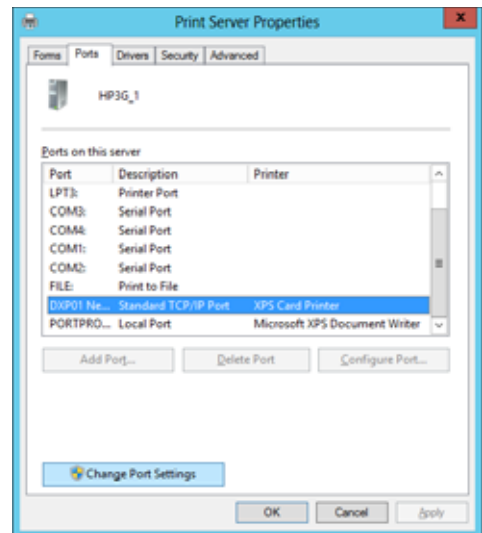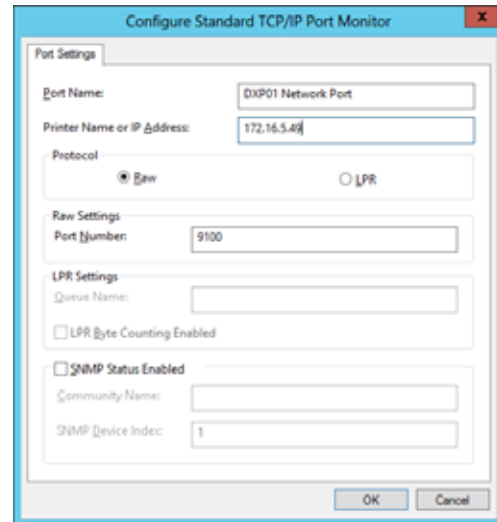

Advanced Tab

The *Advanced* tab contains additional printer settings. We recommend you keep the defaults set when you install the Card Printer Driver.
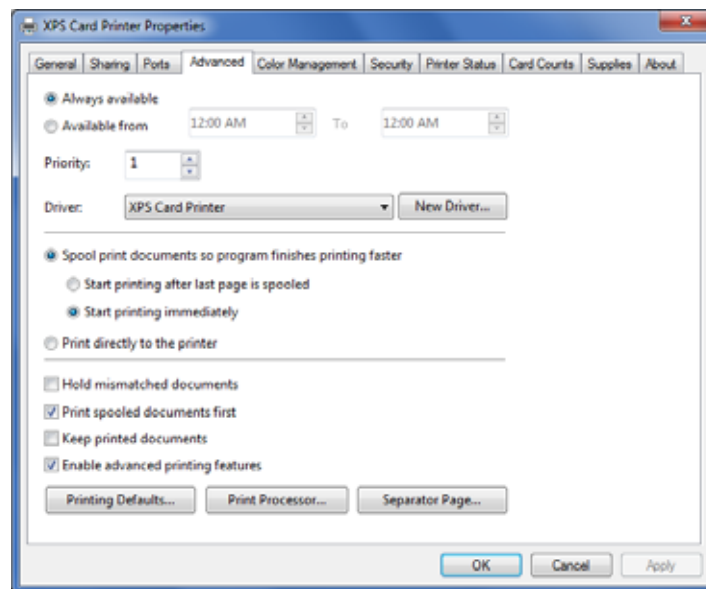
The Card Printer Driver does not support the following options on the *Advanced* tab:

- The **New Driver** button. Use the Card Printer Driver update process to update the driver from Version 4.0 to Version 4.1. Refer to "Update the Card Printer Driver" on page 15 for complete information.

- The Windows 7 and Windows 8 **Keep printed documents** option.

Card Printer Driver Management Tasks

Color Management Tab

Refer to the *Printing Preferences* window "Color Adjustment Tab" on page 74 and the "Color Printing" section of your printer's *Installation and Administrator's Guide* for more information.

Security Tab

Use the Security tab to set printer permissions. If the PC to which the printer is attached has more than one user, set permissions that:

- Give users access to all features of the printer and Card Printer Driver, including messages.

- Display messages to inform users when they need to change the ribbon, load cards, or fix problems.

- Prevent access to the printer by unauthorized users.

1. Log in to the PC as the Creator/Owner (Windows 7, Windows 8) or with Administrator permissions (Windows XP).

2. On the *Printer Properties* window, select the *Security* tab.

   A. Review the Group or User Names list. If the names for which you want to specify permissions do not appear in the list, add the names.

   B. Click **Add** to open the Users and Groups dialog box.

   C. Select a name and click **Add**. Repeat for each name you want to add. When you are done adding names, click **OK** to close the *Users and Groups* dialog box.

3. In the Names list, select the name for which you want to specify permissions.

4. From the Permissions list, select the access for each user or group:

   - To enable printing, select **Allow** for **Print**, **Manage Printer**, and **Manage Documents**.

   - To prevent a user from printing to the card printer, select **Deny** for all permissions.

5. Click **Apply** to save the changes.

6. Repeat steps 3 through 5 to grant access to the printer for other users or groups.

7. Click **OK** to close the *Printer Properties* window.

Printer Status Tab

The *Printer Status* tab displays the printer status, port type, IP address, printer information, and any messages that apply to the printer.

> If you use printer sharing with a Windows XP client:
>
> - The *Printer Status* tab may not display status information about the printer. This does not affect card printing.
>
> - The **Print Sample Card**, **Print Mag Stripe Test Card**, and **Configure Printer** buttons are disabled.

1. On the *Printer Properties* window, select the *Printer Status* tab.

   The date and time the information was retrieved from the printer displays in the lower left area of the tab.

2. Click **Ask Printer for Update** to get the latest information from the printer.

3. You can update printer settings using the printer's Printer Manager web service. Click **Configure Printer** to log into Printer Manager. Refer to your printer's *Installation and Administrator's Guide* for complete information on using Printer Manager.
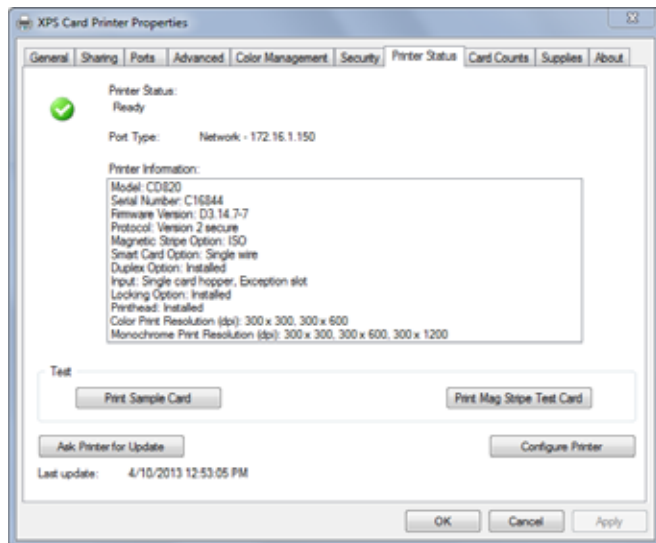
> If your shared printer client PC is connected to the host computer with a USB cable, the **Configure Printer** button on the client does not start Printer Manager. You must configure the printer settings from the host computer.

Printer Status

The printer status can display as one of the following:

Icon	Printer Status
	Ready The printer is not processing a card.
	Suspended The printer was paused or it is processing a card from another PC that has an error.
	Busy The printer is processing a card or a command, or the printer menu system is being used.
	Message The printer has issued a message for a card sent from this PC. The message text displays.
	Initializing The printer is powering on.
	Unavailable The printer is off, is shutting down, or is not connected.

Port Type

The Port Type displays as:

- **USB** for a locally connected printer. The printer IP address also displays.

- **Network** for a printer connected using a network connection. The printer IP address also displays.

Printer Information

The Printer Information box shows the following:

Model   Model name of the printer

Serial Number   Printer serial number assigned at the factory

Firmware Version   Version of the firmware currently running in the printer

Protocol   DPCL protocol used by the driver to communicate with the printer

Option Information Options or features included in this printer

Print a Driver Sample Card

The Card Printer Driver includes a sample card that shows a basic ID card. The card can be printed with any ribbon the printer supports. The sample card verifies that the Card Printer Driver and the printer are communicating. The images and text do not change.

The Card Printer Driver also includes a magnetic stripe test card, available when the printer includes a magnetic stripe option. The magnetic stripe test card verifies that the Card Printer Driver sends magnetic stripe data to the printer and that the printer encodes it. The data cannot be changed.

HINTS & TIPS

- The magnetic stripe data sent by the Card Printer Driver requires that the printer be set to encode the three-track ISO format for a three-track module, or the JIS-II format for the single-track module.

- Many driver settings in the *Printing Preferences* window (such as print area, orientation, copies, and so on) do not apply to the sample card.

If you use printer sharing with a Windows XP client, the **Print Sample Card** and **Print Mag Stripe Test Card** buttons are disabled.

To print a sample card:

1. Open the *Printer Properties* window.

2. Select the *Printer Status* tab. If the printer status is not Ready or Busy, determine why the printer is unavailable.

3. To print a sample card, do one of the following:

   - Click **Print Sample Card**.

   - Click **Print Mag Stripe Test Card**.

   The printer picks the card and prints it. If the card does not print, determine the cause of the problem and try to print the sample card again.
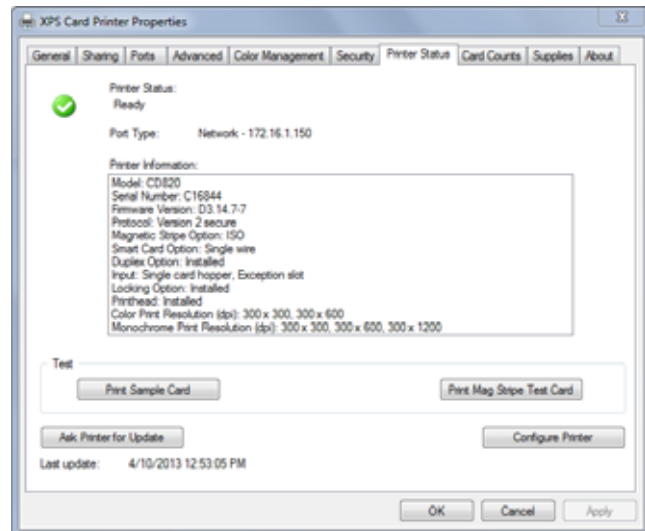
Card Counts Tab

The ***Card Counts*** tab of the ***Printer Properties*** window shows the number of cards that have been processed by the printer.

1. On the ***Printer Properties*** window, click the ***Card Counts*** tab. The tab displays current and total counts.

2. Click **Ask Printer for Update** to see the most recent card counts.
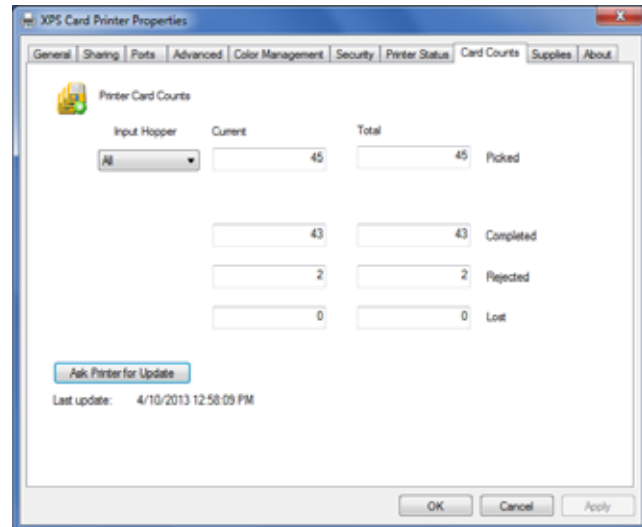
About card counts:

- **Total** shows all the cards the printer has processed.

- **Current** shows all cards printed since the last time the count was reset. Current counts can be reset using Printer Manager.

- The printer only sends updated card counts when you click **Ask Printer for Update**.

- The printer includes cards used for test cards and cleaning cards in the Cards Picked count, but not in Cards Completed count.

- You cannot view card counts from a shared client PC.

- For printers with the optional multi-card hopper, you can select the hopper for which you want to see the Picked card count.

Supplies Tab

The **Supplies** tab of the **Printer Properties** window shows the type of ribbon installed, the estimated percentage of ribbon remaining, and any messages that apply to the supplies and printer.

1. Open the **Printer Properties** window and click the **Supplies** tab.

2. The date and time the information was retrieved from the printer displays in the lower left area of the tab. To get the latest information from the printer, click **Ask Printer for Update**.
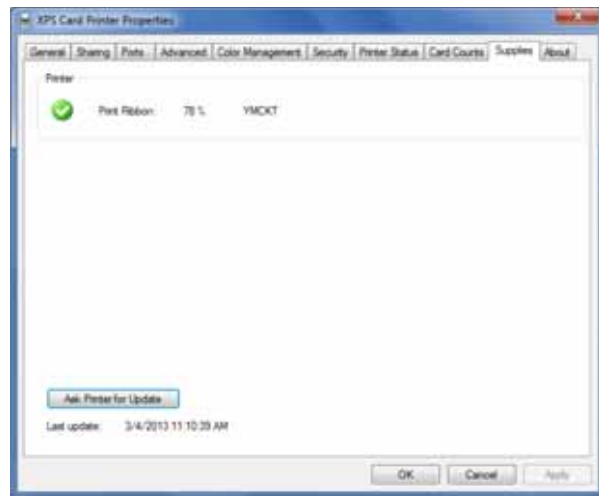
The Card Printer Driver **Supplies** tab shows the following supply information:

Icon	Printer Status
	OK The printer has ribbon, and at least 10% of the roll remains. The percent of ribbon remaining also displays.
	Low The printer has ribbon, and less than 10% of the roll remains.
	Unknown The ribbon is missing or the printer is not processing a card. The estimated percentage of ribbon remaining displays as 0%.
	Ribbon Type For supported ribbons, the type of ribbon, such as YMCKT or K, is shown. ymcKT is short-panel ribbon. If the ribbon is missing or is not a supported ribbon, Missing displays.

About Tab

The *About* tab shows the Card Printer Driver version and any additional information about the driver.

1. On the *Printer Properties* window, click the *About* tab.

2. Click **OK** to close the *Printer Properties* window.
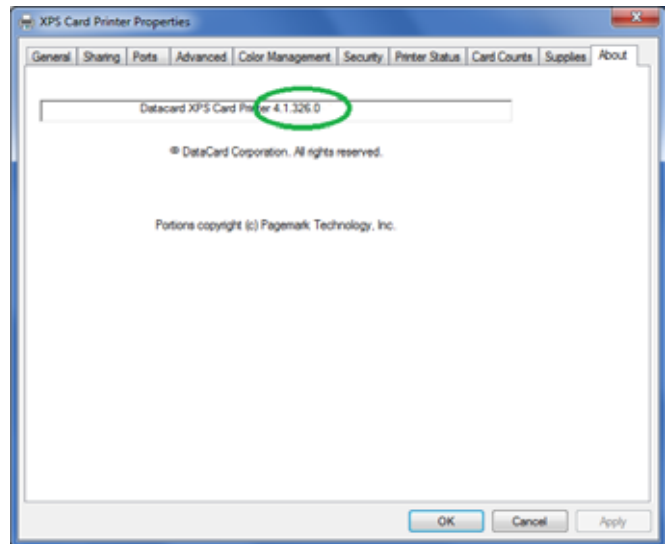
Uninstall the Card Printer Driver

You can uninstall the Card Printer Driver using either of the following methods:

- Uninstall the Driver with the Driver Installation CD or Downloaded File

- Uninstall the Card Printer Driver Without the Driver Installation Media on page 54

You must restart your computer after uninstalling the driver.

Uninstall the Driver with the Driver Installation CD or Downloaded File

1. Log on to the PC as a user with administrator access.

2. Do one of the following:

   - Insert the Driver Installation CD in the PC's drive.

   - Double-click the **XPSCardPrinter_"version".exe** downloaded file.

   The Card Printer Driver install **Welcome** page displays. (If the *AutoPlay* window displays, click **Run autorun.exe**.)

3. Click the wastebasket icon to start the uninstall process.

4. The Remove the Printer Driver from the PC window displays. Click **Remove the Driver**.
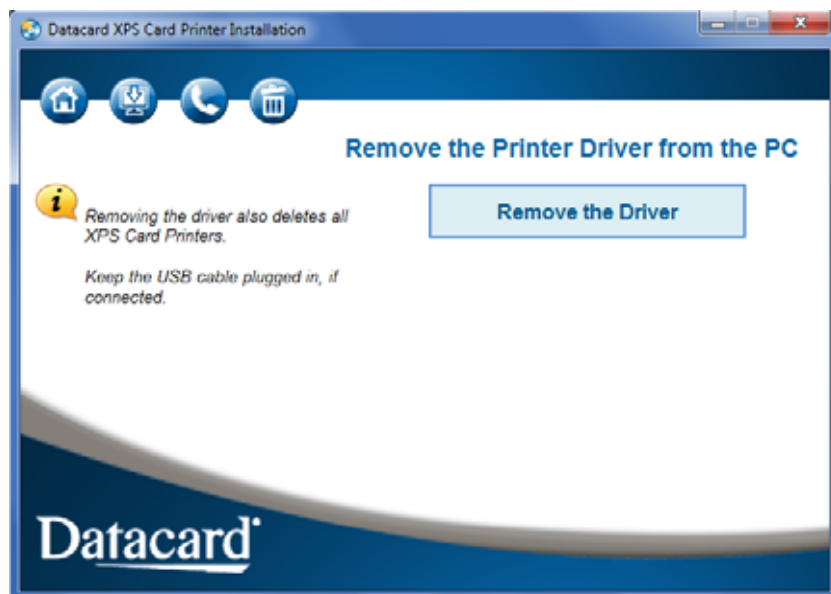
5. The *XPS Card Printer Uninstall* dialog box displays. If the printer uses a USB cable, make sure that the cable is connected to the PC. If the printer connects to an Ethernet network, you can continue with the uninstall. Click **OK** to continue.
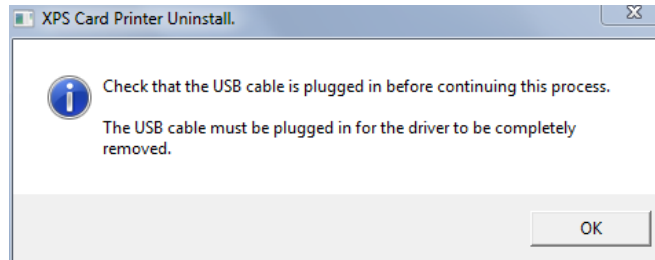
An activity indicator displays as the Card Printer Driver is being removed.
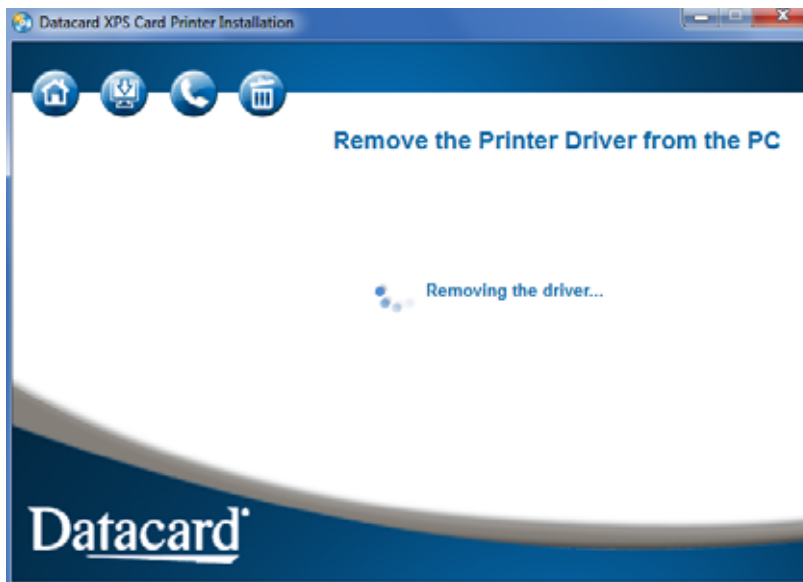
The Driver removed screen displays. If the printer was connected via USB, unplug the USB cable.
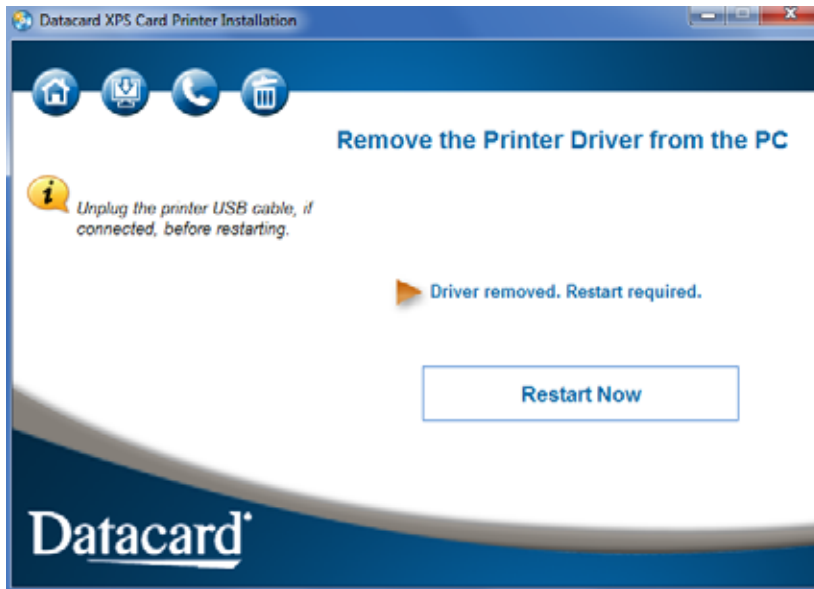
6. Click **Restart Now** to restart your computer to complete the driver removal.

Uninstall the Card Printer Driver Without the Driver Installation Media

1. Remove the device.

   From the Windows *Printers* window, right-click the icon for the XPS Card Printer and select **Remove device** from the pop-up menu. The XPS Card Printer icon is removed from the list of printers.
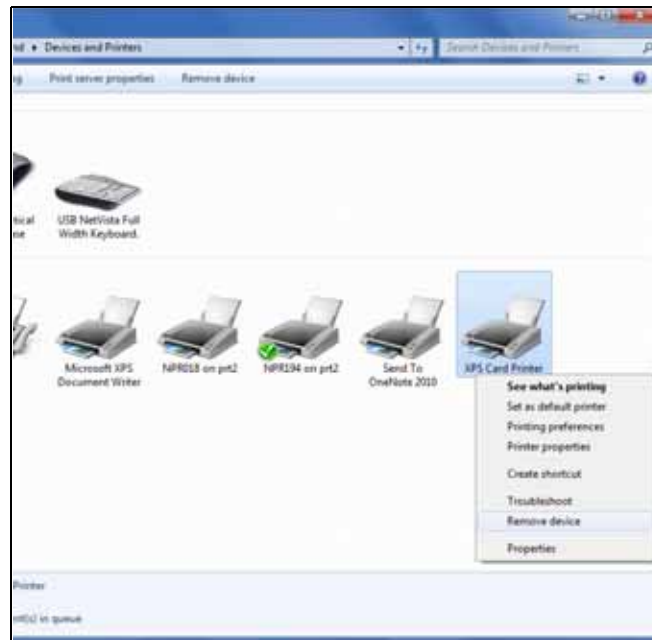
2. Remove the driver from your system. From the Windows Start menu, select **All Programs > Datacard Printers** and click **XPS Card Printer Uninstall**.
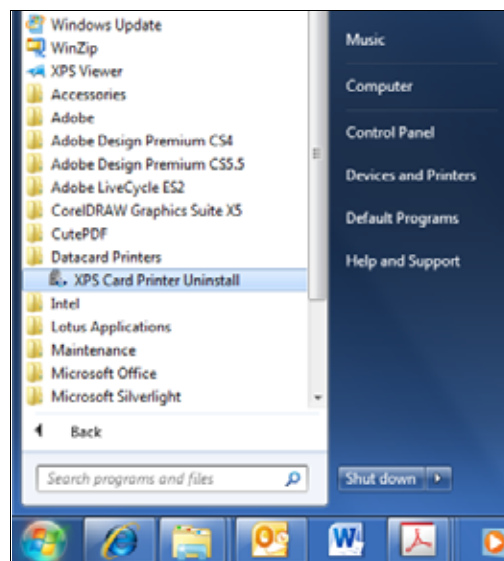
Windows 8 users: On the **Start** screen, select the **XPS Card Printer Uninstall** tile, or type XPS and select **XPS Card Printer Uninstall** from the Search list.

Click **Yes** when asked if you want to allow the program to make changes to your computer.

3.   The **XPS Card Printer Uninstall** dialog box displays. If the printer is connected via USB, make sure that the cable is connected to the PC. If the printer connects to an Ethernet network, you can continue with the uninstall. Click **OK** to continue.
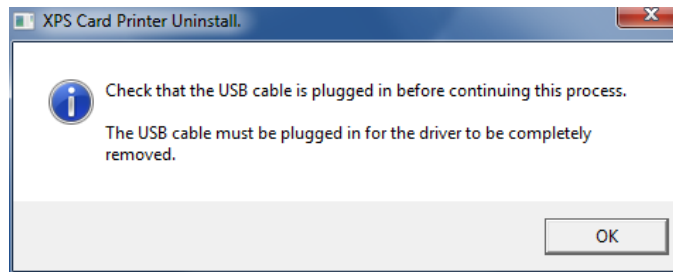
4.   The **XPS Card Printer Uninstall** dialog box displays a warning that no printer activity occurs while the driver files are removed. Click **OK** to continue.
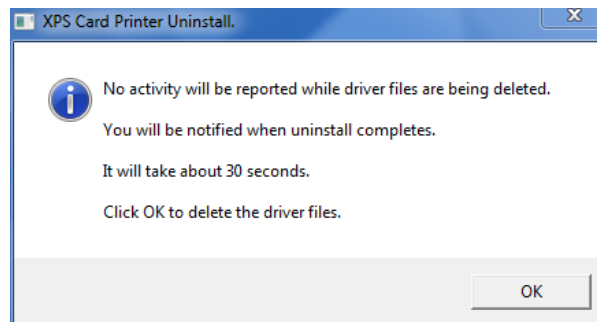
5.   The **XPS Card Printer Uninstall** dialog box displays a message that the Card Printer Driver is uninstalled. Unplug the USB cable, if needed. Click **OK**.
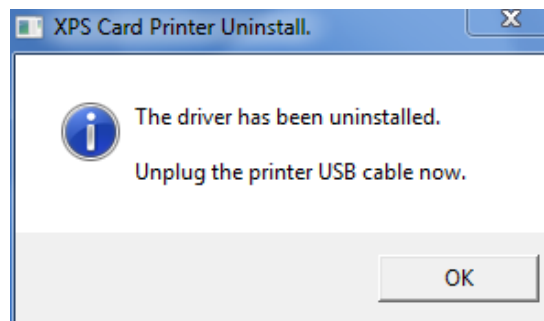
6. Restart your PC following the uninstall. Click **Yes** to restart. Click **No** to restart your PC at a later time.

Card Printer Driver Management Tasks
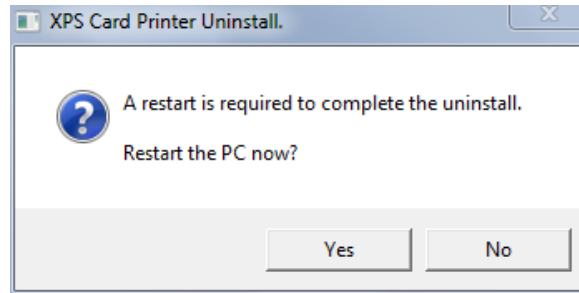
Chapter 4: Card Design Tasks

This chapter provides information about card design tasks you can perform with the Card Printer Driver.

4

Use the following information to fine tune your card design and set up your card printing preferences:

- Change a Card Design
- Design Tasks in Windows Printing Preferences on page 59
- Use Escapes on page 78
- Use Magnetic Stripe Fonts on page 86

Change a Card Design

Card design is the name given to the combined features of the printed cards.

An organization can change:

- The arrangement of card components, such as moving a photo from the center to the left side of the card.

- The source for card components, such as using a different camera for taking photos, or using a new file for a logo.

- The components on the card, such as adding a magnetic stripe, a logo, or a bar code.

Whenever the card design changes, review the settings used for the card. Use this checklist to guide your changes. Always:

- Use high-quality (300 dpi) photos and graphics.

- Print several samples of the updated card design.

- Use cards with a magnetic stripe or bar code in a reader to verify that the data works as expected.

- Check the Color Adjustment settings if you change a graphic on the card, change the camera for taking photos, or change the location where photos are taken. Refer to "Color Printing" in your printer's *Installation and Administrator's Guide* for information about how to improve the appearance on one element on a card.

- Refer to your printer's *Installation and Administrator's Guide* if you are changing a bar code or magnetic stripe.

Design Tasks in Windows Printing Preferences

The *Printing Preferences* window allows you to define how your card prints. To open the *Printing Preferences* window, display the *Printers* window on your system. Right-click the icon for the card printer and select **Printing preferences**. Use the *Printing Preferences* tabs to set up your printing preferences.

Layout Tab

The Layout tab displays when you select **Printing Preferences**. You can select the orientation of the card (either Portrait or Landscape) and specify whether to print on both sides of the card.

The Advanced button displays the *Advanced Options* window, which allows you to define additional printing settings. Refer to for complete information on specifying advanced options.
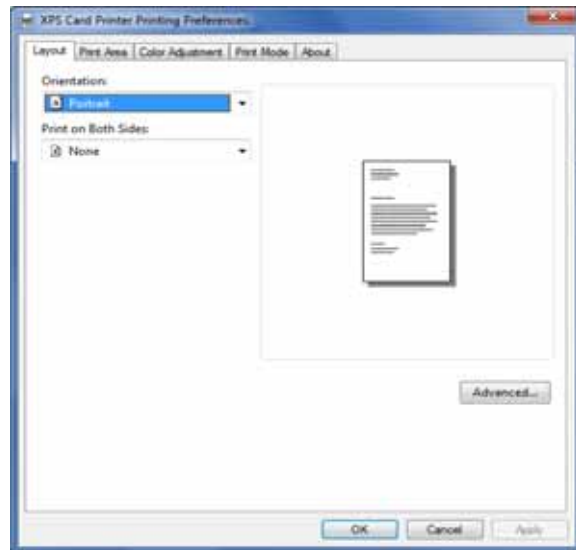
Print on Both Sides of the Card

You can print on both sides of the card using the Card Printer Driver. The method for printing on both sides depends on the printer model.

- Printers that include a **duplex printing** module automatically turn the card to print on both sides. Check the configuration label located on the printer swingarm to determine whether your printer includes a duplex module. Refer to your printer's *User's Guide* for more information on reading the configuration label.

- **Simplex printers** support **manual duplex printing**. The printer prints one side of the card, places the card in the card output hopper, and displays the message Insert same card side 2 up. Insert the card into the hopper or manual-feed slot to print on the second side.

Set Up Duplex Printing

Use card production software or another PC application to create a card design.

1. Select the card printer as the current printer.

2. Use the application's page setup options to set the paper size to **ISO ID-1**. Set the margin settings to **0**.
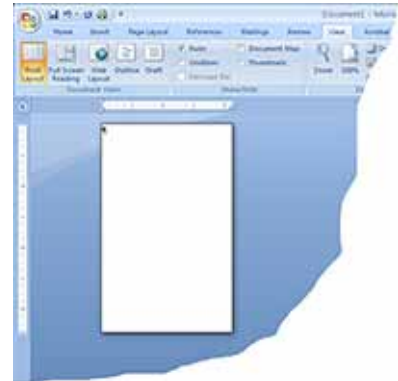
3. Format the text and graphics to print on the card.

   Refer to the printer's *Installation and Administrator's Guide* for more information on card design.

4. Open the printer's ***Printing Preferences*** window.

5. On the ***Layout*** tab, select **Flip on Short Edge** for the Print on Both Sides setting.

6. Click **Apply**.

ⓘ Your PC application's Print settings may override the settings in the Card Printer Driver. Make sure that your application's Print settings specify "print on both sides".
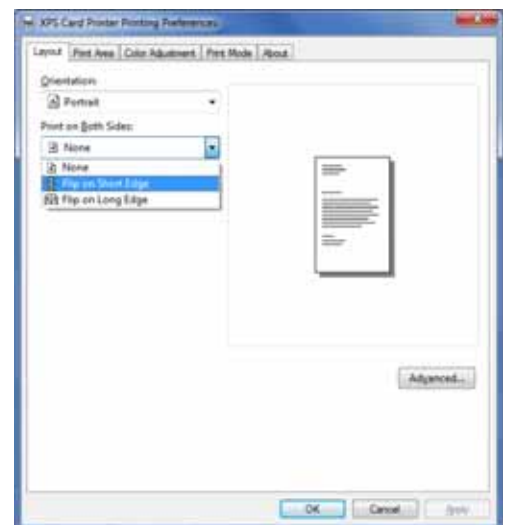
Advanced Options

Use the *Advanced Options* window to specify additional print settings. The following sections describe each of the Advanced options.

Print More Than One Copy of a Card

You can specify to print from 1 to 255 copies of the same card design.

> If you are using a card design application, set the number of copies in the application. The application settings override the settings in the *Printing Preferences* window.

1. Open the *Printing Preferences* window.

2. On the *Layout* tab, click **Advanced**.

3. Type the number of copies you want to print in the **Copy Count** field. You can enter a value between 1 and 255.

4. Click **OK** to close the *Advanced Options* window.

5. Click **Apply** to save your changes and then click **OK** to close the *Printing Preferences* window.

6. Send the cards to print.
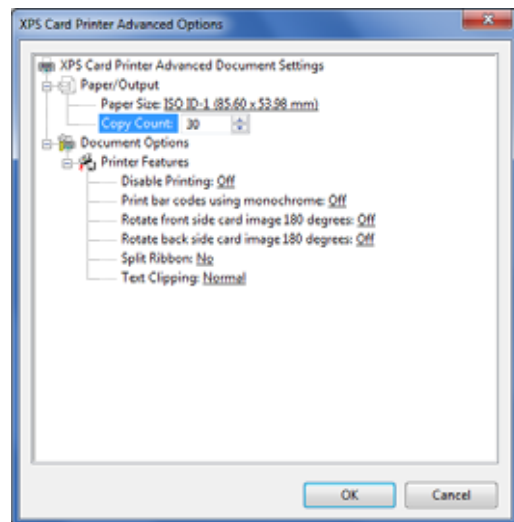
Disable Printing

Use the Disable Printing option to do the following:

- "Encode the Magnetic Stripe without Printing" on page 62

- "Disable Card Side Printing for Special Card Designs" on page 63

Encode the Magnetic Stripe without Printing

Using the Card Printer Driver, you can use the printer to encode magnetic stripe data on a card without printing on the card.

> If you use card production software to produce cards, the following steps are not necessary. Use the settings in the software to encode the magnetic stripe without printing.

1. Open the *Printing Preferences* window. Select the *Layout* tab and click **Advanced**.

2. Click **Disable Printing** and select **All**.

3. Click **OK** to save the setting and close the *Advanced Options* window.

4. On the *Layout* tab, click **Apply**. Click **OK** to close the *Printing Preferences* window.
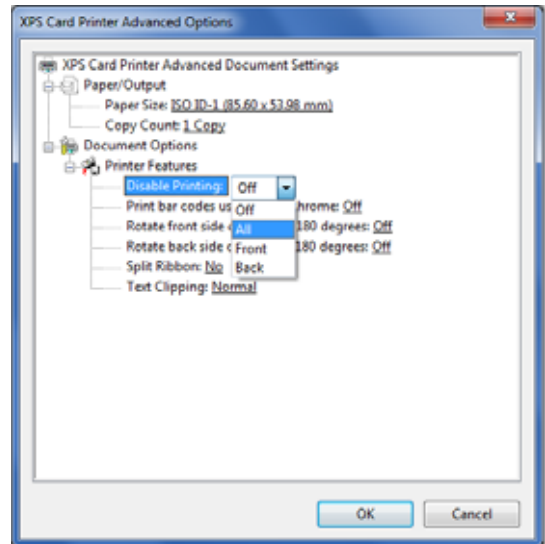
   The Card Printer Driver discards all printable data and sends only the magnetic stripe data to the printer.

5. Format the data:

   - If you are using card production software, use a magnetic stripe field if it is available.

   - Using other PC software, format the data using magnetic stripe fonts or magnetic stripe escapes.

   The sample card shown has the text Sports Arts formatted with a magnetic stripe font. It is sent as encoded data. The other images and text on Page 1 are discarded.
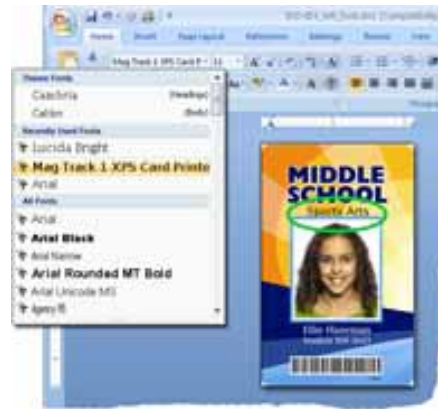
6. Send the card to the printer to test your setup.

You are responsible for using characters that the track format supports. Refer to the printer's *Installation and Administrator's Guide* for magnetic stripe data formatting information. For more information on using magnetic stripe escapes to format data, refer to "Use Magnetic Stripe Escapes" on page 81.

Disable Card Side Printing for Special Card Designs

Some card designs require printing on only one side of the card. To avoid printing on the wrong side or using ribbon for the side of the card with no printing, you must set the **Disable Printing** preference.

1. Open the printer's **Printing Preferences** window. Select the **Layout** tab and click **Advanced**.

2. Click **Disable Printing**.

3. Select the Disable Printing option that prints the card design correctly and save your changes.
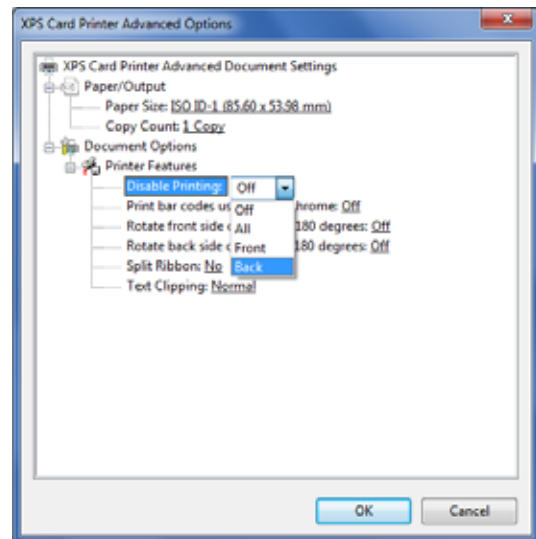
Disable Printing Option	Off	All	Front	Back
2-sided	*Print side 1 on front and side 2 on back*	No printing	Print side 2 on back	Print side 1 on front
1-sided	*Print side 1 on front*	No printing	No printing	*Print side 1 on front*

The entries in italics are unchanged by the setting. The other settings have the potential not to print card data if they are used incorrectly.

Print Bar Codes Using Monochrome

You can set the Card Printer Driver to detect bar codes embedded in an image and print the image using the K (black) panel of color print ribbon. Refer to the printer's *Installation and Administrator's Guide* for the type of bar codes the Card Printer Driver detects, and for more information on printing bar codes.

Set the bar code detection using the settings in the *Advanced Options* window of *Printing Preferences*.

1. Open the *Printing Preferences* window.

2. Click **Advanced**.

3. Set the **Print bar codes using monochrome** to **On**.

4. Click **OK** to close the *Advanced Options* window.

5. Click **Apply** on the *Printing Preferences* window.

6. Click **OK** to close the window.
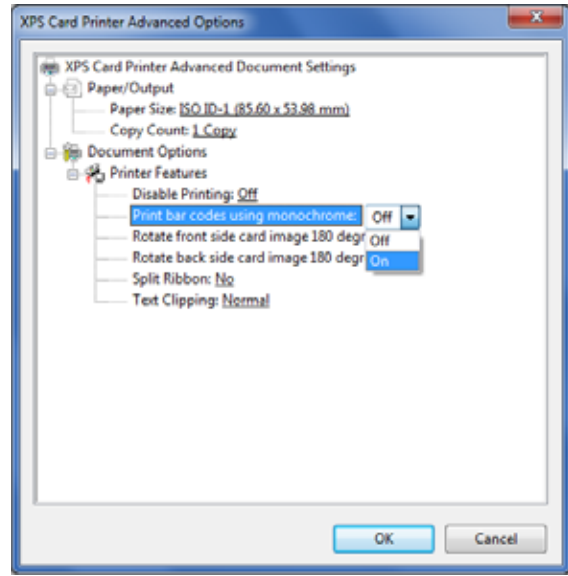
Rotate the Card Image

1. Open **Printing Preferences**.

2. On the **Layout** tab, click **Advanced**.

3. Select the side of the card you want to rotate 180 degrees, and select **On**.

   Make sure that if you rotate the back of the card that the text in your card design prints below the magnetic stripe, not on top of it (see the example card shown).
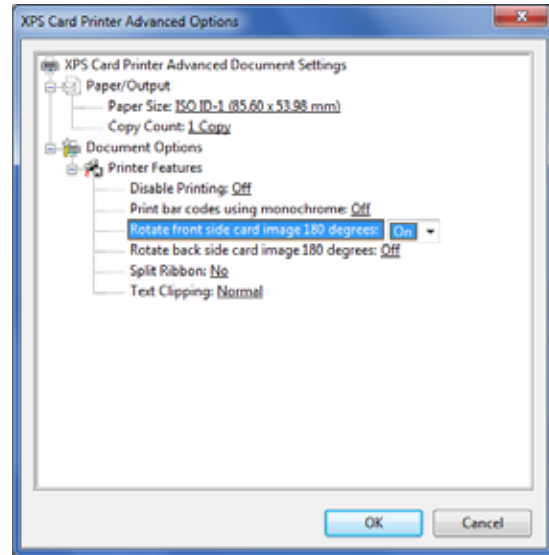
> ℹ️ If you are using a card production software, the application settings override the settings in **Printing Preferences**. Make sure that you verify that your settings are correct.

4. Click **OK** to save the setting, and then click **Apply** on the **Layout** tab.

5. Send the card to print.

Print Cards Using Split-Ribbon Color Printing

Two-sided, split-ribbon color printing uses a single ribbon panel set to print both sides of a card. This lets you use less ribbon to print cards in color. The ribbon can be a full-panel or short-panel color ribbon.

> Before using split-ribbon color printing, become familiar with the use of card printer color printing. Refer to the printer's *Installation and Administrator's Guide* for complete information on color printing.

Most types of cards, including cards with magnetic stripes and smart cards, can be printed using split-ribbon printing.

The order in which the color, black, and topcoat sections of the panel set are used to print the card depends on the type of ribbon installed in the printer and the split-ribbon option selected on the **Printing Preferences** window. The Card Printer Driver supports the following ribbon types and split-ribbon printing options.

Ribbon Type	Split-Ribbon Printing Options
YMCKT	color (YMC) + topcoat (T) front black (K) back
YMCKT	color (YMC) front black (K) + topcoat (T) back **Note:** This option does not apply a topcoat to the color printing. Color printing fades over time if it lacks a topcoat.
YMCKT	black (K) front color (YMC) + topcoat (T) back
YMCKT-K	black (K) front color (YMC) + black (K) + topcoat (T) back
YMCKT-KT	black (K)+ topcoat (T) front color (YMC) + black (K) + topcoat (T) back

Before using split-ribbon color printing, be aware of the following:

- Set up your card design with your card production software or a PC application as you normally do.

- Make sure that you select a split-ribbon option that applies topcoat to the side of the card where any color printing is used.

- Make sure that you install the correct ribbon type in your printer. The split-ribbon option is ignored if the ribbon installed in the printer does not match the selection in the *Advanced Options* window.

- When the split-ribbon option specifies only color for a card side, any black text or monochrome images (including bar codes) on that side of the card are printed using the color panels to simulate black.

- When the split-ribbon option specifies black, printing on that side of the card is done only in black, even if the original text and images are in color.

- If you are using the split-ribbon option with manual duplex printing on a simplex printer, a message displays on the printer LCD panel each time you have to flip the card to print the other side. A card may be flipped multiple times.

To apply split-ribbon color printing:

1. Display the *Printing Preferences* window, select the *Layout* tab, and click **Advanced**.

2. Select a **Split Ribbon** option from the drop-down list. The default is No, split-ribbon printing is not used.

3. Click **OK** to save your selection and then click **Apply** on the *Layout* tab.
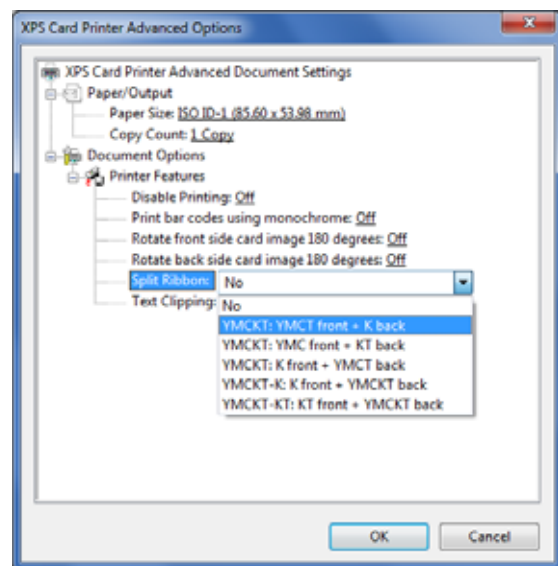
Input Hopper

For printers that have an optional multi-card hopper, the Input Hopper setting allows you to select the hopper to use when you print a card. This setting does not display for single hopper or manual feed printers. You also can use an escape to specify the input hopper to use. Refer to "Use Input Hopper Selection Escapes" on page 83 for more information.

1. Display the *Printing Preferences* window, select the *Layout* tab, and click **Advanced**.

2. Click **Input Hopper** and select the hopper number. The default is hopper 1.

3. Click **OK** to save your selection and then click **Apply** on the *Layout* tab.
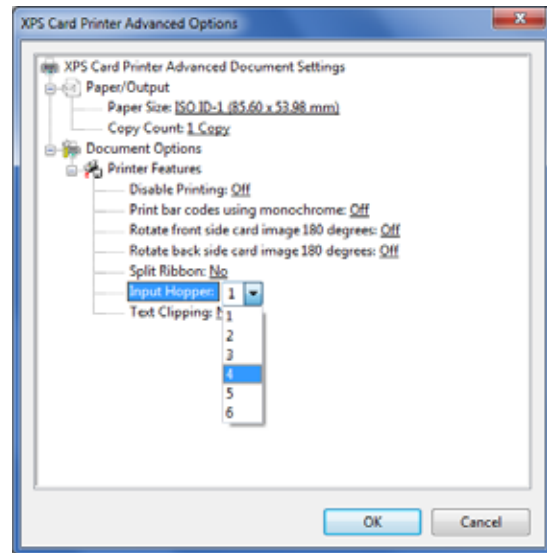
Text Clipping

You may experience an issue with the clipping of some text characters on your printed cards. Set Text Clipping to **Remove** to eliminate character clipping.

1. Display the *Printing Preferences* window, select the *Layout* tab, and click **Advanced**.

2. Click **Text Clipping** and select **Remove**.

3. Click **OK** to save your selection and then click **Apply** on the *Layout* tab.
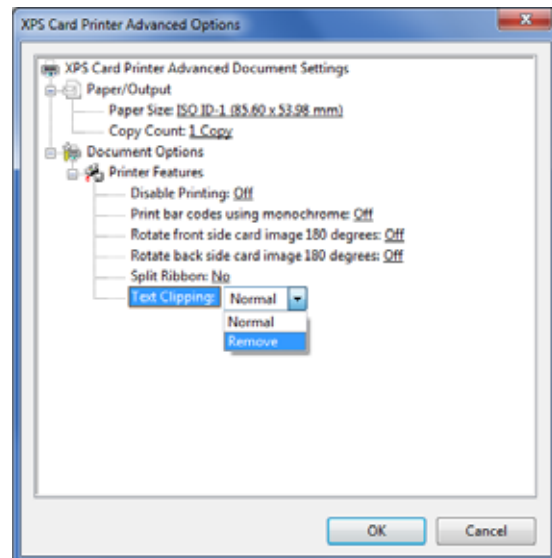
Print Area Tab

The Card Printer Driver can prevent printing and topcoat application on specific areas of the card. Cards often include a magnetic stripe, a smart card chip, a signature panel, or other area that must remain unprinted or without topcoat.

The Print Area tab provides a selection of standard blocking patterns that use a **driver pre-set mask**, which automatically applies the proper dimensions and locations of a smart card chip and magnetic stripes for print blocking. For more information on non-printing areas of a card, refer to the printer's *Installation and Administrator's Guide*.

If the predefined blocking selections offered by the Card Printer Driver do not fit the card design, you can use escapes to define custom rectangular areas for printing and topcoat application, including defining more than one blocking area per side of a card. Refer to "Use Print Blocking Escapes" on page 78

You also can create a custom topcoat blocking pattern that is not possible with the topcoat settings offered by the Card Printer Driver or by using escapes. This can be a non-rectangular shape or another shape based on a graphic image bitmap, such as a logo. Refer to "Use a User-Defined Topcoat Bitmap" on page 70.

Select a Pre-Set Mask

To select a pre-set mask for magnetic stripe or smart card areas, do the following:

1. Open the **Printing Preferences** window.

2. Select the **Print Area** tab.

3. For the side of the card with the non-printing area, select **Block printing and topcoat over this area**, and then select the area from the list.

   The Print Blocking icon displays the location of the card element.
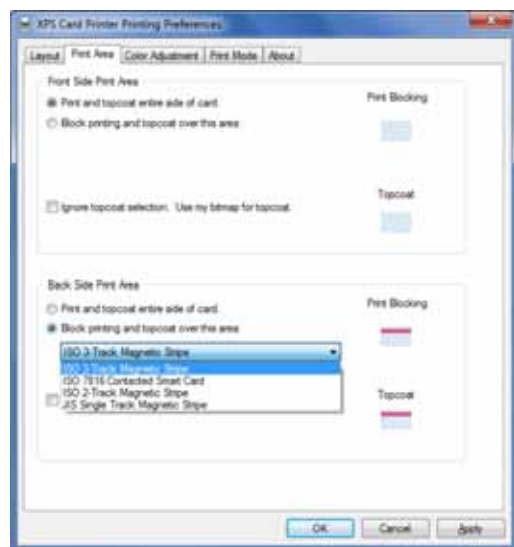
The example shown blocks printing and topcoat application on the ISO 3-Track Magnetic Stripe area on the back of the card. The text shown on the back of the card design is formatted with a magnetic stripe font and is encoded.

4. Click **Apply** to save the setting, and then click **OK**.

5. Send the card to print.
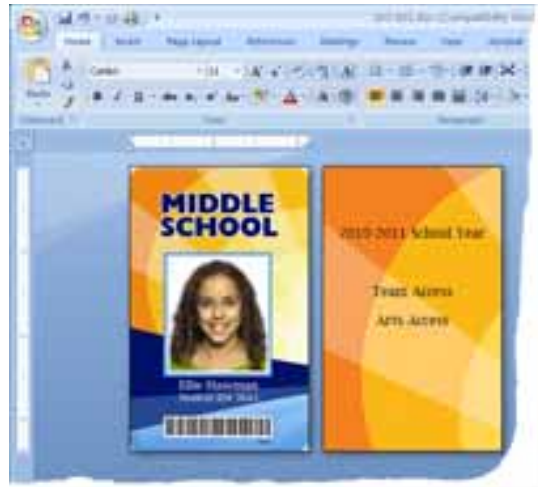
The back of the completed card looks like the following:

The narrow white area above and below the magnetic stripe indicates the non-printing area. It is slightly larger than the feature, in this case the magnetic stripe.

Use a User-Defined Topcoat Bitmap

User-defined bitmaps allow you to apply topcoat to a card in a pattern that is not available in the predefined selections on the Print Area tab or with the rectangular shapes created with blocking and topcoat escapes. The bitmap files are installed when you select Legacy Support on the Card Printer Driver Installation window. Refer to "Install Support Files" on page 20 for more information. The files are installed in the C:\CardPrinter folder. If you previously used an older-generation desktop printer, the bitmap files may already be on your PC.

The topcoat bitmap used depends on the card side and orientation you specify.

Side	Orientation	Bitmap
1	Portrait	CRDPortTopcoatFront.bmp
2	Portrait	CRDPortTopcoatBack.bmp
1	Landscape	CRDLandTopcoatFront.bmp
2	Landscape	CRDLandTopcoatBack.bmp

Modify a User-Defined Bitmap

Creating a custom bitmap is not recommended. Instead, modify the bitmap files provided with the driver. The bitmap files are black-and-white, one-bit-per-pixel files that contain the specifications for blocking. The white areas of the bitmap represent the topcoat blocking area, and the black area represents the topcoat areas. Each bitmap has a sample image that illustrates the card orientation. Use a graphics editing program, such as Microsoft Paint, to modify the driver-provided bitmap.
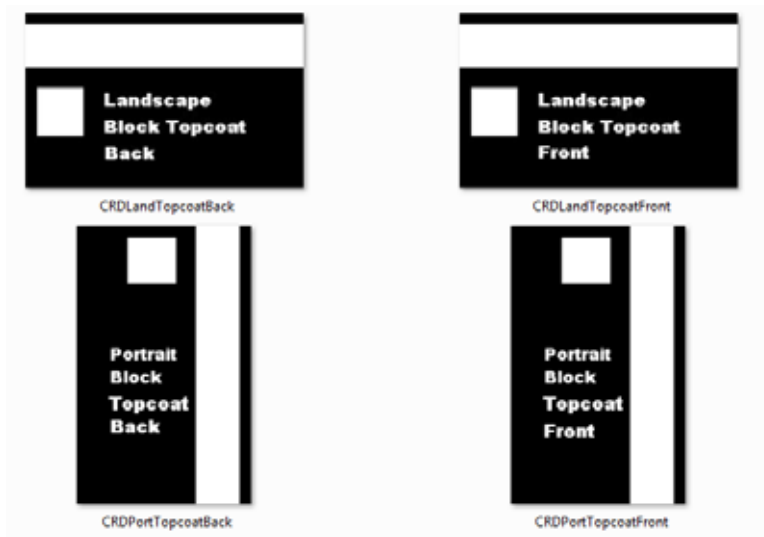
The Card Printer Driver looks for the original bitmap file name when using the bitmap to apply the topcoat. If you want to retain the installed bitmap files as reference, rename each file using a name that indicates it is the original file. Copy the file you want to modify and save it using the bitmap name noted above.

1. Open the driver-provided bitmap that describes the card side and orientation of your card design.

2. Draw a black shape over any sample images you want to remove.

   If the card design includes more than one blocking area, you must create all blocking areas in the bitmap file, including smart card chip or magnetic stripe areas. Refer to your printer's *Installation and Administrator's Guide* for the dimensions of non-printing areas for magnetic stripes and smart card chips.

3. Create a new blocking area by drawing a white shape or pasting a graphic. The example shows a possible signature area (below the magnetic stripe area) on the back of a card. The signature area was created by drawing a white rectangle on the black background of the file CRDLandTopcoatBack.bmp.

4. Save the file using the same name in the C:\CardPrinter folder.

Simulate a Hologram

Another use for a user-defined bitmap is to simulate a hologram on a card by blocking topcoat application with a graphic image.

1. Open the driver-provided bitmap that describes the side and orientation of your card design with a graphics editing program.

2. Open a graphic that you want to use as the hologram. This might be a company logo or another shape.

   A. Modify the hologram graphic to create a black background with a white image.

   B. Scale the image to fit the card design.

   C. Copy the image and paste it into the bitmap file opened in Step 1. Remember to take into account any design elements, such as a smart card chip or a magnetic stripe, where topcoat must not be applied.

3. Save the bitmap file using the same name in the C:\CardPrinter folder.

HINTS & TIPS

- If you use a user-defined topcoat bitmap, you must define all card elements in the bitmap, including smart card chip and magnetic stripe locations. Driver-defined pre-set masks or ID software topcoat blocking areas are not used.

- The purpose of topcoat is to protect the printed image on a card. Any area with color printing eventually fades if it lacks a topcoat. Make sure that most color printing is covered with topcoat.

Select a User-Defined Bitmap

1. Open the ***Printing Preferences*** window.

2. Select the ***Print Area*** tab.

3. For the side of the card that you want to use the user-defined bitmap, select **Ignore topcoat selection. Use my bitmap for topcoat**. The Topcoat icon displays as BMP.

   The driver uses the correct bitmap based on the card orientation you specified on the ***Layout*** tab.

4. Click **Apply** to save the setting, and then click **OK** to close the ***Printing Preferences*** window.

5. Send the card to print.

6. Check the card to verify the topcoat is being applied correctly. Print sample cards until you are satisfied that the topcoat meets your card design requirements.
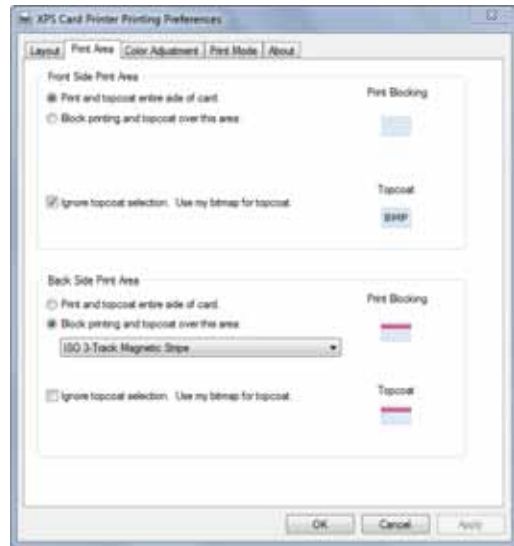
Color Adjustment Tab

The Card Printer Driver allows you to adjust the color printing on a card using the *Printing Preferences* window.

Using the *Color Adjustment* tab, you can change the following:

- The brightness of color printing on the card

- The contrast of color printing on the card

- The color balance of color printing on the card

1. On the *Printing Preferences* window, select the *Color Adjustment* tab.

   The tab contains the Original image and the Adjusted image. They show how your changes might look on a card.

2. Select **Enable Color Adjustment** to adjust the settings.
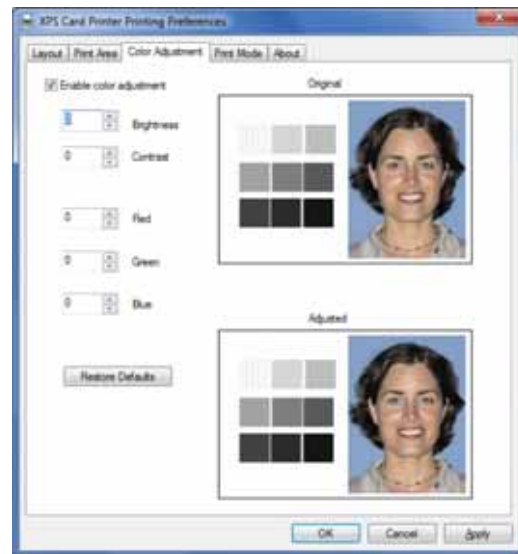
Brightness

The Brightness setting changes the overall lightness or darkness of the card.

1. Click the Up arrow to make the image lighter, or the Down arrow to make the image darker.

   The Adjusted image shows the effect of the new setting.

2. Click **Apply** after each change to save it.
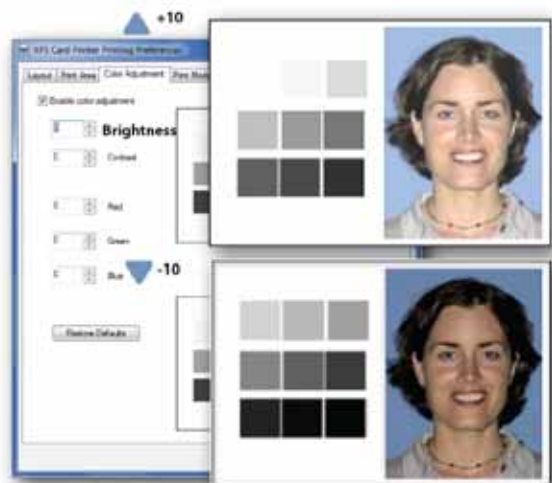
3. To verify changes, do one of the following:

- Print one or more cards from your card production software.

- Print a sample card from the **Printer Properties > Printer Status** page.

4. Evaluate the appearance of the cards.

5. Repeat these steps until the cards meet your requirements.

6. Click **Apply** to save the new values.

Contrast

The Contrast setting changes the degree of difference between the light and dark values of an image.

1. Click the Up arrow to increase contrast, or the Down arrow to decrease contrast.

   The Adjusted image shows the effect of the new setting.
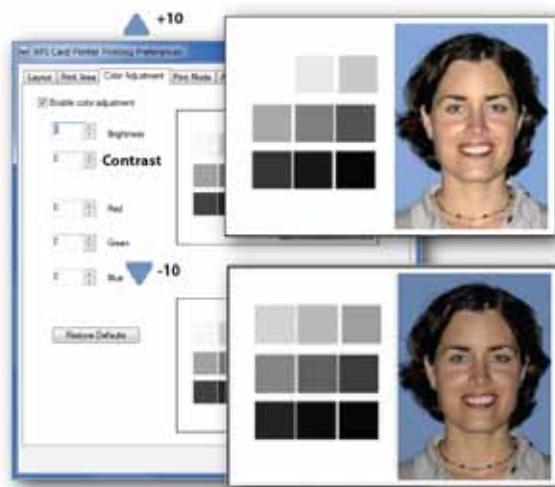
2. Click **Apply** after each change to save it.

3. To verify changes, do one of the following:

- Print one or more cards from your card production software.

- Print a sample card from the **Printer Properties > Printer Status** page.

4. Evaluate the appearance of the cards.

5. Repeat these steps until the cards meet your requirements.

6. Click **Apply** to save the new values.

Color Balance

1. Evaluate the image for color balance. Does the card have a yellow cast or do photos have a greenish tint?

   If most of the card prints with the correct colors, consider using a graphics application to change the logo or other part of the card that needs color improvement.

2. Determine which color needs adjustment.

    Click the Up arrow to increase a color, or the Down arrow to decrease the color.

    - The Adjusted image shows the effect of the new setting.

    - If changing the obvious color does not produce the desired effect, try changing the other two.

3. Click **Apply** after each change to save it.

4. To verify changes, do one of the following:

    - Print one or more cards from your card production software.

    - Print a sample card from the *Printer Properties > Status* page.

5. Evaluate the appearance of the cards.

6. Repeat these steps until the cards meet your requirements.

7. Click **Apply** to save the new values.

HINTS & TIPS

- The settings on the Color Adjustment page affect the color printing of all cards sent from the PC that uses the Card Printer Driver.

- Text and images formatted as black (K) are not affected by color adjustment.

- Each click changes the setting by 1 percent (%).

- To use adjusted colors on some cards but not others, clear the **Enable Color Adjustment** selection before you print the cards that do not need the adjustment.

Card Design Tasks
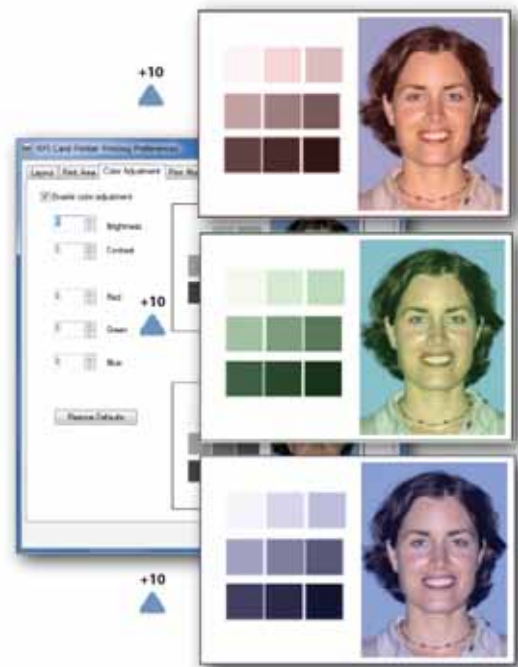
Print Mode Tab

The *Print Mode* tab allows you to specify the print resolution to use when printing a card.

1. Open the ***Printing Preferences*** window.

2. Select the ***Print Mode*** tab.

3. Select the desired print resolution. The ***Print Mode*** tab has the following three options.

   All options may not be available for all printers.

   - Always use standard resolution (300x300 dpi)—this is the default value

   - Always use best resolution (This option is not available at a shared printer client PC.)

   - Custom

     If the **Custom** option is available and you select it, select the resolutions from the **Color** and **Monochrome** drop-down lists

4. Click **Apply** to save your changes, and then click **OK** to close the ***Printing Preferences*** window.
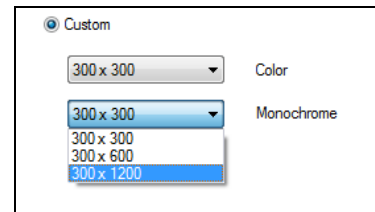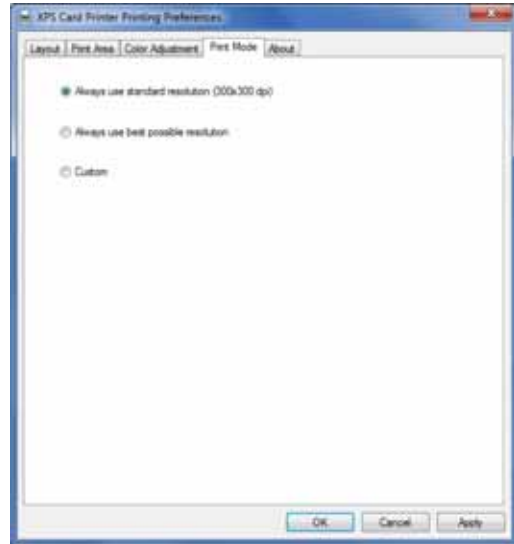
Use Escapes

Escapes are formatted text that the Card Printer Driver converts to support print blocking, topcoating, magnetic stripe data encoding, hopper selection, and embossing.

HINTS & TIPS

- For each escape, make sure that the text is consistent (same font, size, color). Use a common font that is easy to see, and differentiate from, the text you want to print on the card.

- Each escape must be on a single line with no formatting. Use a small font size to make sure that there is adequate room for long escapes.

- Do not align escape text to be on the same horizontal line as printed text.

- Make each escape its own line of text on the card design.

Use Print Blocking Escapes

The Card Printer Driver provides several methods to prevent printing and topcoat on specific areas of the card. Refer to "Non-Printing Areas" in your printer's *Installation and Administrators Guide* and "Print Area Tab" on page 69 for more information.

By default, the entire surface of the card is available for printing and topcoating. But when cards have a magnetic stripe, a smart card chip, or another non-printable area, such as a signature panel or hologram, you must define those areas so that the printer does not print or apply topcoat to them.

To block non-standard areas, or for more than one blocking area per side of a card, use escapes to define the print areas. Escapes are specific sequences of characters that mark data with a special purpose. The Card Printer Driver recognizes the following types of print blocking and topcoat escapes:

- Block Print

- Topcoat Add

- Topcoat Remove

About Non-Printing Areas

If the card has more than one non-printing area on a side, define all non-printing areas using print blocking escapes. An escape applies to the side of the card where it appears in the document.

Non-printing areas defined using print blocking escapes always override the driver **Printing Preferences** settings.

Each print blocking area is a rectangular shape.

Print Blocking Syntax

The syntax or structure of each print blocking escape is **~XX%n1n2n3n4?** where:

- **~** is the beginning of the escape.

- **XX** represents the type of action – Block Print (PB), Topcoat Add (TA), or Topcoat Remove (TR).

- **%** indicates the start of values.

All of the following values are in mm.

- **n1** is the distance from the top of the card to the start of the area.

- **n2** is the distance from the left edge of the card to the start the area.

- **n3** is the width of the area.

- **n4** is the height of the area.

- **?** is the end of the escape.
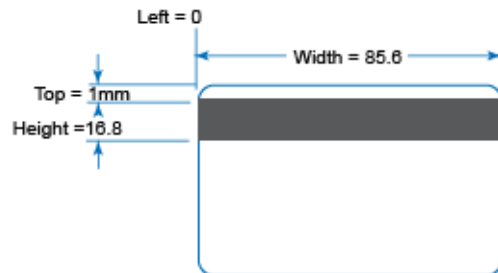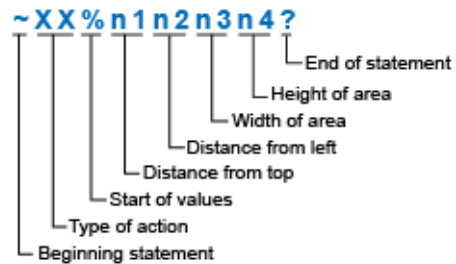
The card in the example shows the dimensions of a three-track magnetic stripe area.

Blocking typically extends 0.1 inch (2.54mm) beyond the edges of a feature. The dimensions listed include the extended blocking region.

The escape can specify more than one area of the same type by placing a semicolon (;) character between each set of values.

Block Print Escape

A block print escape begins with **~PB%**

Examples:

~PB%10 10 55 15?	Printing is blocked in one area.
~PB%10 10 5 5;30.5 45.23 15 15?	Printing is blocked in two areas.
~PB%?	No printing is blocked.

Topcoat Add Escape

The topcoat add escape prints topcoat only in the area defined in the escape. Topcoat is not applied to other areas of the card. All full-color printing should be covered with topcoat, so use this option with care.

The topcoat add escape begins with **~TA%**

Examples:

~TA%0 0 85.6 37?	Topcoat is applied to one large area of the card.
~TA%16.8 0 37.1 5;30.5 45.23 15 15?	Topcoat is applied in two areas.

Topcoat Remove Escape

With a topcoat remove escape, the topcoat is not applied to the areas defined by the escape. All other areas of the card have topcoat.

The topcoat remove escape begins with **~TR%**

Full-Card Topcoat Options

- Use the escape ~TR%? to override the Card Printer Driver preset masks and **topcoat the entire card side**.

- Use the escape ~TA%? to override the Card Printer Driver preset masks and **apply no topcoat to the entire card side**.

Print several cards using your card design and application to verify that printing and topcoat are applied as you intend.

Use Magnetic Stripe Escapes

The data to encode on a magnetic stripe is entered as text and can look like data to print. The Card Printer Driver uses magnetic stripe escapes to identify the data to encode. Data contained within the escape is not printed.

Set Up Magnetic Stripe Escapes

1. Use card production software or another application to create a card design.

2. Format the text and graphics to print on the card.

3. Type the encode data (text) for one track. Locate an area on the card where typing the data to encode does not affect other card design components.

    The example shown uses the syntax: ~<track#><Start Sentinel><Data> <End Sentinel>

    The text for track 1 has the format: ~1%Zachary Hamilton 12345 Finance?

    *   Do not put data for two tracks on the same line.

    *   Do not allow the text to encode to wrap to another line. Use a smaller font size to keep the text on one line.

    *   If necessary, you can use two or more lines of text for one track. Start and end each line with escapes, and enter a carriage return at the end of the line. The Card Printer Driver adds (appends) lines for the same track together.

    *   Data to encode can be on side 1 (front) or side 2 (back) of the card.

    *   Do not enter data to print on the same line as data to encode. It will not print.

4. Repeat Step 3 for each track of magnetic stripe data.

5. With magnetic stripe cards in the printer, send the card to print.

6. Verify that the encoding was successful by passing the card through a magnetic stripe reader.

Supported Escapes

The escape defines the track for the data. Because the data format for each track is set in the printer, you must enter the type of data the format requires. The Card Printer Driver supports several escape systems to allow compatibility with various card printers. The table below shows the default ISO data format for each track. The Syntax column shows the general escape format for providing data to the printer. The Example column shows how the data looks when formatted.

Syntax	Track	Example
~<track#> <Start Sentinel> <data> <End Sentinel> The only Start Sentinel permitted for tracks 2 and 3 is a semicolon (;) Used by: Datacard RP90 and SR Series, JVC, and Fargo printers	1 (IATA)	~1%ENCODING WITH ESCAPES?
	2 (ABA)	~2;1234567890?
	3 (TTS)	~3;1234567890?
~<track#><data> Used by: Eltron/Zebra printers	1 (IATA)	~1ENCODING WITH ESCAPES
	2 (ABA)	~21234567890
	3 (TTS)	~31234567890
~<track#>=<data> Used by: Atlantek printers	1 (IATA)	~1=ENCODING WITH ESCAPES
	2 (ABA)	~2=1234567890
	3 (TTS)	~3=1234567890

HINTS & TIPS

- Use a small font size to shorten lines of text to encode.

- Keep text to print on a different line from text to encode.

- When the Card Printer Driver adds lines of text for the same track, the sequence is determined by the application. Test your application with the Card Printer Driver to make sure that the data is in the correct order.

- Magnetic stripe data sent by the Card Printer Driver is always encoded on side 2 of the card.

- Magnetic stripe data is converted to uppercase letters if needed.

- If characters unsupported by a track format are sent within the magnetic stripe data, the printer displays a message.

Use Input Hopper Selection Escapes

Some printers offer an optional multi-card hopper that has six input hoppers, each holding 100 cards. The Card Printer Driver allows you to specify the number of the hopper to use on the *Advanced* page of the *Printing Preferences Layout* tab. However, this option applies the hopper selection to all cards sent to the printer.

Using a hopper selection escape allows you to specify the input hopper to use as part of each print job from any application.

Input Hopper Selection Syntax

The syntax for an input hopper selection escape is **~HS%x?**, where:

- **~** indicates the start of the escape.

- **HS** tells the Card Printer Driver that it is a hopper selection escape.

- **%** indicates the start of a hopper value.

- **x** specifies the hopper number to use. x can be any value between 1 and 6.

- **?** is the end of the escape.

For example, the escape ~HS%5? tells the Card Printer Driver to pick a card from input hopper 5 for the print job.

HINTS & TIPS

- The input hopper selection value specified by the escape overrides the value set on the *Printing Preferences Layout* tab.

- If a printer does not have a multi-hopper, the escape is ignored. The card prints from the single hopper, or manual card input slot. No error is logged or displayed.

- If the value of x is anything other than 1, 2, 3, 4, 5, or 6, the escape is not detected and the escape prints on the card as regular text.

- The escape sets the printing preference for the input hopper by job. The application you use determines how the escape is interpreted:

  - Some applications, such as Microsoft Word, send a multipage, multicard document as a single job. The driver uses the first escape it encounters for all cards in the job. Any other valid escapes are ignored.

  - Card production applications usually send a separate job for each card. This allows you to specify a different hopper for each card in a batch of printed cards.

Use Embosser Escapes

Use an embosser escape to specify the font and position of embossed and indented data. An embosser escape is made up of the following elements:

- **Escape preamble**—Tells the Card Printer Driver that the text characters following are part of an embosser escape and not text for rendering on the card.

- **Embosser font number**—CE Series systems use a font number to specify the emboss or indent character set, the front or back of the card, and in some cases the supply to use.

- **Emboss/Indent position**—Two values that specify the starting location of the emboss/indent operation.

- **Emboss data**—The text to be embossed or indented at a given location using the font number specified.

Embosser Escape Syntax

The embosser escape syntax is: **~EM% font#; horz_offset; vert_offset; data**

Use a semicolon (;) character to separate embosser escape elements.

Escape Preamble

In the preamble, the characters **~EM%** identify the beginning of an emboss escape.

Embosser Font Number

The usable font numbers are based on the emboss wheel installed in CE Series systems. Several fonts from the following list typically are supported by a given wheel:

1 =	Emboss Standard Gothic [front 10 cpi]
2 =	Emboss Farrington 7B [front 7 cpi]
3 =	Indent OCRB [back 10 cpi]
4 =	Indent Master Card Slanted [back 14 cpi]
5 =	Indent OCRB Size IV [front 7 cpi]
6 =	Indent Master Card Slanted [front 14 cpi]
7 =	Indent OCRB Front [front 10 cpi]

8 =	Indent Master Card Inverted [back 7 cpi]
9 =	Indent Helvetica [front 14 cpi white ribbon]*
10 =	Indent Helvetica [front 14 cpi black ribbon]*

* Note: Add 20 decimals to override default side.

Emboss/Indent Position

The position of the start of the emboss or indent data.

horz_offset	Whole number in mils (1/1000 of an inch) from left edge of card to center of first character
vert_offset	Whole number in mils (1/1000 of an inch) from bottom edge of card to the vertical midpoint of the characters

The following restrictions apply to the horizontal and vertical offsets.

Horizontal Offset Limits

Topping	Maximum Value	Minimum Value
on	3025	280
off	3275	100

Vertical Offset Limits

Topping	Maximum Value	Minimum Value
on	860	135
off	1460	135

Emboss Data

CE Series systems have restrictions for the characters allowed.

- The emboss data range is from 20 hex to FF hex.

- Reserved XML characters (3c hex and 3e hex) are not allowed as emboss characters.

- For data greater than 127 ASCII, an escape must be used (for example, **µ** is used to emboss a Katakana character [B5 hex]).

Use Magnetic Stripe Fonts

The Card Printer Driver provides fonts to format magnetic stripe data. Use these fonts when magnetic stripe escapes cannot be used.

1. Use the application's page setup feature to set the paper size to ISO ID-1. Reduce the page margins to match the card design.

2. Format the text and graphics to print on the card.

3. Type the data to encode using a standard font, such as Arial.
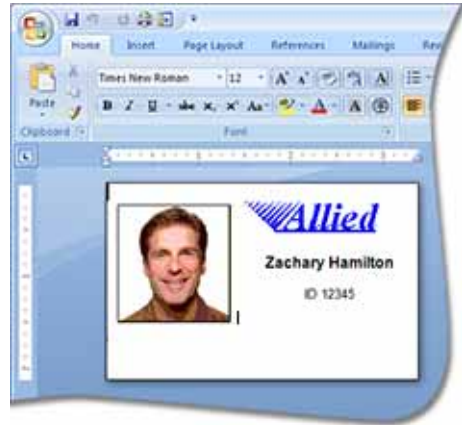
   - Use a small font size to minimize the amount of space used for encoded data.

   - Do not put data for two tracks on the same line.

   - Do not allow text to encode to wrap to another line.

   - Data to encode can be on side 1 (front) or side 2 (back) of the card.

4. Add an extra space character to the end of the data.
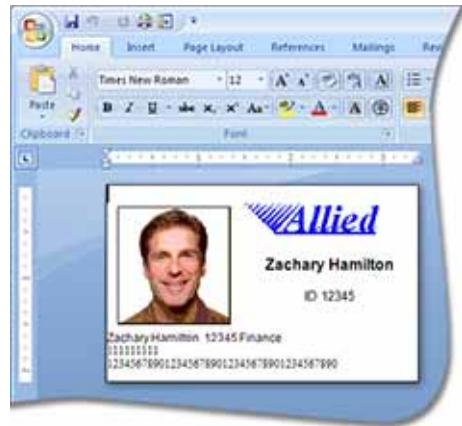
5. Select a line of data up to, but not including, the extra space character and apply one of the following fonts:

   - Mag Track 1 XPS Card Printer

   - Mag Track 2 XPS Card Printer

   - Mag Track 3 XPS Card Printer

   - Mag Track JIS XPS Card Printer
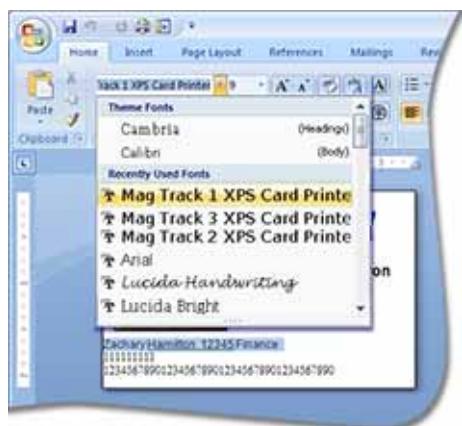
6. Repeat Steps 3 through 5 for each line of text to encode.

7. Send the card to print.

8. Verify that the encoding was successful by passing the card through a card reader.

HINTS & TIPS

- Do not use character formatting, such as kerning.

- Do not use smart quotes.

- Use a small font size to shorten lines of text to encode.

- Keep text to print on a different line from text to encode.

- When the Card Printer Driver adds lines of text for the same track, the sequence is determined by the application. Test your application with the Card Printer Driver to make sure that the data is in the correct order.

- Magnetic stripe data sent by the Card Printer Driver is always encoded on side 2 of the card.

- Magnetic stripe data is converted to uppercase letters if needed.

- If characters unsupported by a track format are sent within the magnetic stripe data, the printer displays a message.

If you have an existing application that uses magnetic stripe fonts from older generation printers, the Card Printer Driver recognizes these fonts. If they are not installed, use the "Legacy Support" option on the driver installation *Support Files* screen to install them. Refer to "Install Support Files" on page 20 for more information.

Chapter 5: Installation Troubleshooting

5

This section describes:

- Troubleshoot the Card Printer Driver Installation

- Use Advanced Troubleshooting Tools on page 92

The Card Printer Driver Installation CD is provided in the CD Folder included in the shipping carton. If the CD is not available, you can download the driver from **http://www.datacard.com**. Select **Support & Drivers > Drivers & Download** from the menu. Enter your printer model in the Enter Product Name or Number area, and click **Go**.

Troubleshoot the Card Printer Driver Installation

This section describes issues that could prevent a successful installation and provides recommended solutions to those issues. Choose from the following topics:

- USB Installation Troubleshooting on page 90

- Network Installation Troubleshooting on page 92

USB Installation Troubleshooting

Problem	Solution
The cable is loose.	Reconnect the USB cable to the ports on the PC and the printer. Power the printer OFF, and then back ON. If the PC and printer still do not communicate, restart the PC.
The data cable is damaged or frayed.	Power off the printer. Replace the cable if you have a spare. Contact your service provider to order a new data cable.
The system has a temporary communication problem.	Check the following: • USB extension cables can cause communication problems. The recommended USB cable is 6-ft. (2 meters) long. Make sure that the cable is rated for USB 2.0 data transmission. • If you are using a USB hub, a self-powered hub is recommended.
The card printer does not install when the USB cable is connected.	If a previous printer installation attempt was unsuccessful, Device Manager might still show an entry for the printer. Remove the printer entry from Device Manager before reinstalling the printer: 1. Disconnect the printer from the PC. 2. Open the Windows Device Manager. 3. Locate the device to delete. The device might be called "Unknown device" or it might be located under the Printers or Network Adapters folder. The device might be marked with a yellow question mark or exclamation point. 4. Select a device name, and right-click to display a pop-up menu. 5. Select **Remove** from the pop-up menu. 6. Click **Yes** or **OK** to confirm removal of the device. 7. Close the Device Manager. Close any other windows. 8. Reinstall the printer.
Error message states the USB is not detected.	The USB installer timed out before a printer was detected. Remove the Card Printer Driver from the Device Manager before reinstalling the printer.

Problem	Solution
The USB cable is connected before the Card Printer Driver is installed.	The first printer installed on a PC using a USB connection must be installed from the driver CD or downloaded Card Printer Driver. Connect the USB cable to the printer when you are prompted. Do not connect the cable before starting the installation.
The Print Sample Card button is inactive.	The Print Sample Card button in Printer Properties is enabled when the printer and Card Printer Driver communicate normally. If Print Sample Card is inactive (gray), make sure that the USER button on the printer front panel is steady green and that **Ready** displays on the LCD panel. The Print Sample Card button is not available when printer pooling is enabled.
The PC USB port does not communicate with the printer USB port.	Power management on the PC has shut down USB communication. Check the following: • Open Windows Device Manager and display the list of USB devices. Disable shutdown for each hub in the list. Restart the PC for the changes to take effect, if necessary. • Hibernation on a laptop PC requires several moments to enable USB communication. Unplug the USB printer port and then connect it again. • Replace the PC port or the PC. Contact your PC or port vendor if you need assistance.
The printer does not install or print on the PC when the PC is connected to a remote network using VPN Client software.	VPN Client software can prevent the installation and use of other devices. Choose one of the following solutions: • Configure your VPN software to allow local network connections. • Disconnect the VPN Client software from the network, and then install the USB printer and Card Printer Driver, or resume printing.

Network Installation Troubleshooting

| Problem	Solution
The network cable is loose.	Reconnect the data cable to the network port and the printer, making sure that it is snapped in. Restart the printer.
The Status page of Printer Properties shows the printer is not available, but the printer displays **Ready** on the LCD screen.	Follow your network troubleshooting procedures to isolate and test each component of the computer-to-printer communication link. Suggestions: • Check the computer-to-network connection by accessing a network resource, such as a network drive. • Have the network administrator check communication between a server and the printer. • Make sure that the user is logged in to the network.
The printer is not configured with the correct network address.	Make sure that the server name or IP address has been entered in the Port Settings or Configure Port dialog box on the computer. For information on retrieving the printer's IP address, refer to the card printer's *User's Guide*. Make sure that **Ready** displays on the printer's LCD panel.

Use Advanced Troubleshooting Tools

For additional troubleshooting topics, refer to the printer's *User's Guide*.

The Printer Manager also provides access to additional troubleshooting tools. Refer to the your printer's *Installation and Administrator's Guide* for information about using the Printer Manager.

Appendix A: Windows 7 and Windows 8 Printer Sharing
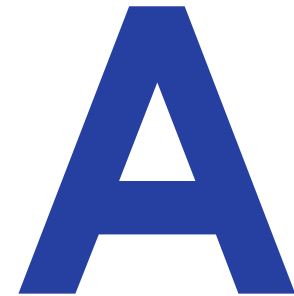
A

This appendix provides information about how to install and share the Card Printer Driver on a PC running the Windows 7 or Windows 8 64-bit operating system.

Windows 7 or Windows 8 Installation

Printer sharing involves setting up the host PC for sharing, then installing and setting up the Card Printer Driver on each client system that prints to the printer.

Set Up the Host PC for Printer Sharing

1. Install the XPS Card Printer Driver on the host PC. Refer to "Install the Driver" on page 8.

2. Configure the host PC for printer sharing.

   A. From the Windows *Control Panel*, select **Network and Internet** > **Network and Sharing Center**.

   B. Select **Change advanced sharing settings** from the left column. The *Advanced sharing settings* window or the *Network profile options* display. If the *Advanced sharing settings* list displays, select the network profile you want to work with.

   > The *Advanced sharing settings* display varies depending on a system's setup. In addition, based on its setup, a system may open one of the profiles and display the options shown in step C.

   C. On the *Network profile options* page, select the following options (these are the default settings).

Field	Select option
Network discovery	**Turn on network discovery**
File and printer sharing	**Turn on file and printer sharing**
Password protected sharing	**Turn on password protected sharing**

D. If you selected (turned on) any options in this step, click **Save changes**. Close the ***Network and Sharing Center*** window.

3. Enable printer sharing.

A. Open the ***Devices and Printers*** window and right-click the card printer icon. Select **Printer properties** to display the ***Printer Properties*** window.

B. Allow printer sharing.

    i. On the ***Printer Properties*** window, select the ***Sharing*** tab.

    ii. Select **Share this printer**. The printer name displays in the **Share name** field. Write down the printer name.

> Remember to record the printer name and host PC name. You need these names to install the Card Printer Driver on the client PC. For more about printer names, refer to "Use device naming rules for shared printers" on page 30.

    iii. Select **Render print jobs on client computers**.

    iv. Click **Apply** to store these settings.
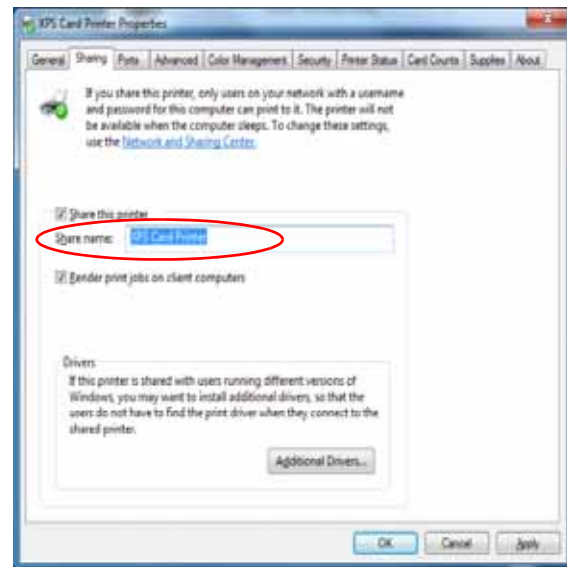
> Keep the ***Printer Properties*** window open while you find the full computer name in step C below.

C. Find the host PC full computer name and write it down.

    i. From the Windows ***Control Panel***, select **System and Security > System**.

    ii. Write down the name of the computer found in the **Full computer name** field on the ***System*** window.

    iii. Close the ***System*** window.

4. Configure security for sharing printing and viewing print error messages.

A. From the *Printer Properties* window, select the *Security* tab.

B. Review the Group or user names list. Make sure that the default settings on the *Security* tab have the following printer-sharing permissions:

- **Everyone** has **Print** permission set to **Allow** (refer to the figure at right).

- Only **CREATOR OWNER** has **Manage documents** permission set to **Allow**. This lets the owner both view printer error messages *and* perform document-related administrator tasks at the PC.
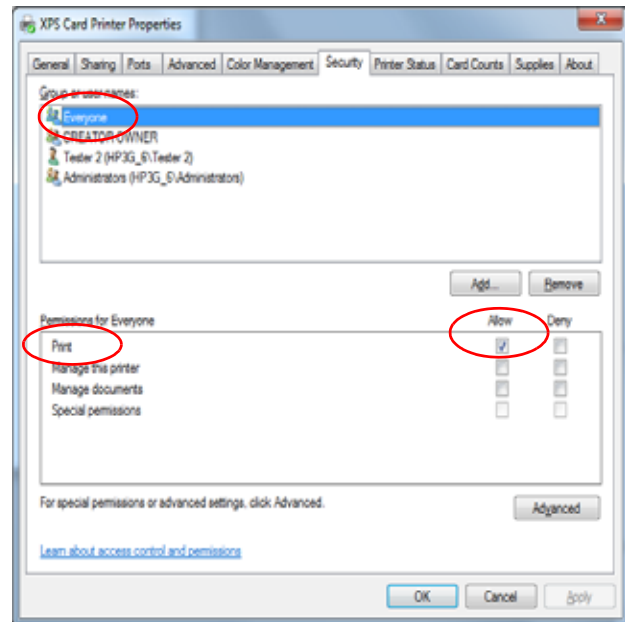
C. If you made any changes, click **Apply** to save your updates.

D. Add users or groups.

  i. From the *Security* tab, click **Add**. The *Select Users or Groups* dialog box displays.

  ii. Click **Advanced** and then **Object Types.**

  iii. Select the check boxes for **Users** and **Groups** and click **OK**. The *Select Users or Groups* dialog box displays.

  iv. Click **Find Now**. A list of user and group names displays.

  v. Select each name to add and click **OK**. The name(s) you selected display in the *Select Users or Groups* dialog box.

vi. When you finish adding names, click **OK**. The names display on the *Security* tab. Each name you added has **Print** permission.

vii. If you want to revoke Print permission and prevent a user or group from printing, select the user or group and clear the **Allow** check box for the **Print** permission.

> Do not select the **Manage documents** or the **Deny** check boxes for any user or group. Only the **CREATOR OWNER** should have **Manage documents** permission set to **Allow**, which is the default.

E. Allow users or groups to view printing error messages.

i. From the *Security* tab, select a user or group and select **Allow** for the **Manage this printer** permission.

ii. Repeat for each user or group.

iii. Click **Apply** to save changes for each name.

5. Set up Windows printing for card design.

A. From the *Devices and Printers* window, right-click the card printer icon and select **Printing preferences**. The *Printing Preferences* window displays.

B. Enter your printing preferences. Refer to "Design Tasks in Windows Printing Preferences" on page 59.

C. Write down the printing preferences settings for split-ribbon color printing, topcoat and print blocking, and print resolution.

> These settings are not set automatically at the client PC to match the host. You must enter these settings manually on each client PC when you set up printing preferences. For an overview, refer to "Configure PC Printing Preferences for Sharing" on page 30.

D. Click **OK** to close the *Printing Preferences* window.

Install the Card Printer Driver on the Client PC

The following instructions may vary slightly based on the operating system of the client PC. Refer to "Printer Sharing Requirements" on page 26 for a list of supported host/client operating system combinations.

1. Make sure that the Card Printer Driver is installed and set up on the host PC.

2. Log on to the client PC with a user account that has administrator privileges and matches an account and password on the host PC.

    - Start at the *Login* screen of the client PC and review the user names displayed. Look for a user with administrator access that matches a user name on the host PC. If one is not listed, set up a user account and password on the client PC to match an administrator account from the host PC.

    OR

    - Log on to the host PC from the client PC using a network access as follows:

        - Use Windows File Explorer or My Computer to locate the host PC.

        - Select the host PC. The *Enter Network Password* dialog box displays.

        - Enter your password and click **OK.** The host PC desktop displays.

        You must log on to the host PC across the network by using a different user account than was used to install the printer on the host.

        After you log on to the host PC using the network, keep the window open until the installation completes.

3. Add the Printer to the client PC.

A. Open the Windows *Devices and Printers* window.

B. Select **Add a printer**. The *Add Printer* window displays.

C. *If you use Windows 7:* Select **Add a network, wireless, or Bluetooth printer**.

   The system displays a list of available printers.

D. If the printer does not display in the list:

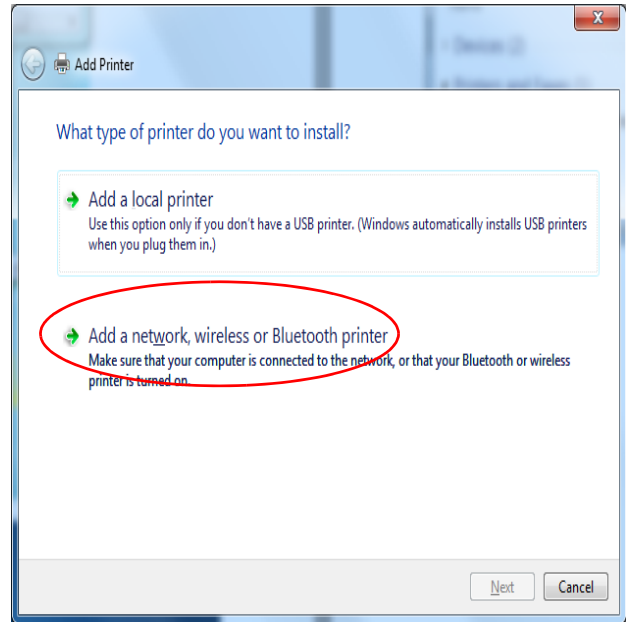   i. Select **The printer that I want isn't listed**. The *Find a printer* page displays.

   ii. In the **Select a shared printer by name** field, enter the name of the host PC and the shared printer name following this format:

   \\host PC name\shared printer name

   ![info icon] Use the names you wrote down during the host PC installation in step 3B.

   iii. Skip to step E.

iv. If you don't have the printer name, enter the host PC name. Use the format:

\\host PC name\

When you type the last backslash without a printer name, a list of host printers displays in a drop-down list.

v. Select the name of the card printer for sharing.

E. Click **Next**. If the *Do you trust this printer?* dialog box displays, click **Install Driver**.

Windows installs the Card Printer Driver. The message "You've successfully added *printer name*" displays when the installation is complete.
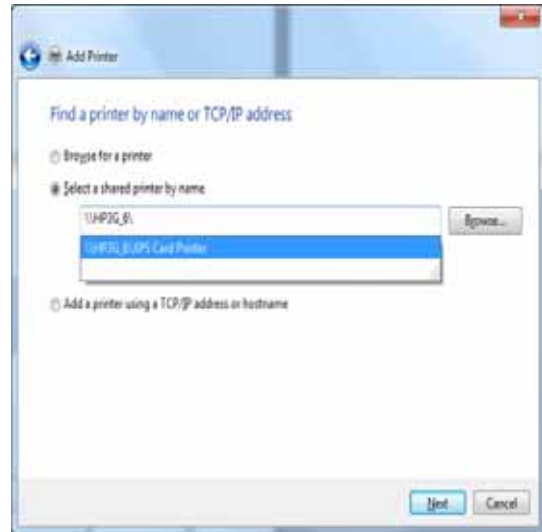
F. Click **Next**. The "To check your printer" message displays.

G. Click **Finish** to close the *Add Printer* page.

4. If card production software is installed on this computer, or if you need other support files, such as magnetic stripe fonts, install the Printer Plug-in or support files from the Driver Installation CD. For instructions, refer to "Install Support Files" on page 20.

5. Set up Windows printing for card design.

A. Get the printing preferences settings you wrote down at the host PC for the split-ribbon option, topcoat and print blocking, and print resolution.

These settings are not set automatically at the client PC to match the host, so you must enter them manually.

B. From the *Devices and Printers* window, right-click the card printer icon and select **Printing preferences**. The *Printing Preferences* window displays.

C. Enter the required printing preferences. Refer to "Configure PC Printing Preferences for Sharing" on page 30 and "Design Tasks in Windows Printing Preferences" on page 59.

D. Click **OK** to close the *Printing Preferences* window.

Appendix B: Windows XP
Printer Sharing

B

This appendix provides information about how to install and share the Card Printer Driver on a PC running the Windows XP, 32-bit operating system.

Windows XP, 32-bit Installation

Printer sharing involves setting up the host PC for sharing, then installing and setting up the Card Printer Driver on each client system that prints to the printer.

Set Up the Host PC for Printer Sharing

1. Install the Card Printer Driver on the host PC. Refer to "Install the Driver" on page 8.

2. Clear simple file sharing on the host PC.

   Make sure that you clear (turn off) simple file sharing while setting up the host PC for file sharing. Simple file sharing causes certain features, such as the *Security* tab, to be hidden. You must be able to display the *Security* tab to configure security later. You turn on simple file sharing again after setup is complete.

   A. From the Windows Start menu, click **My Computer**. If needed, click **Explore**. The *My Computer* window displays.

   B. Click **Tools** and select **Folder Options**.

   C. Select the *View* tab

   D. In the **Advanced settings** list, scroll to **Use simple file sharing (Recommended)** and clear the selection.

   E. Click **OK** to save your changes and close the *Folder Options* window.

   F. Close the *My Computer* window.
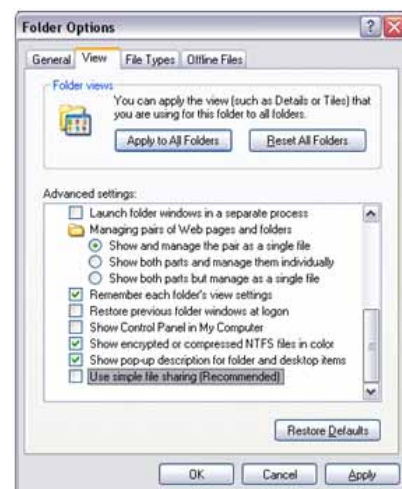
3. Open the *Printers and Faxes* window.

4. Write down the printer name and the host PC name.

   A. From the *Printers and Faxes* window, write down the name of the newly installed card printer.

> ℹ️ Remember to write down the printer name and the host PC name (see below). You need these names to install the Card Printer Driver on the client PC. For more about printer names, refer to "Use device naming rules for shared printers" on page 30.

   B. Find the host PC name.

     i. Open the Windows **Control Panel**.

     ii. Double-click **System** and select the *Computer Name* tab.

     iii. Write down the name shown in the **Full Computer Name** field. You must enter this as the host PC name when you install the printer at the client PC.

     iv. Click **OK** to close the *System* window.

5. On the *Printers and Faxes* window, right-click the card printer and select **Properties** to open the *Printer Properties* window.

6. Enable printer sharing.

   A. Select the *Sharing* tab on the *Printer Properties* window.

Depending on your network configuration, the Sharing tab may display with a statement that remote access is disabled.
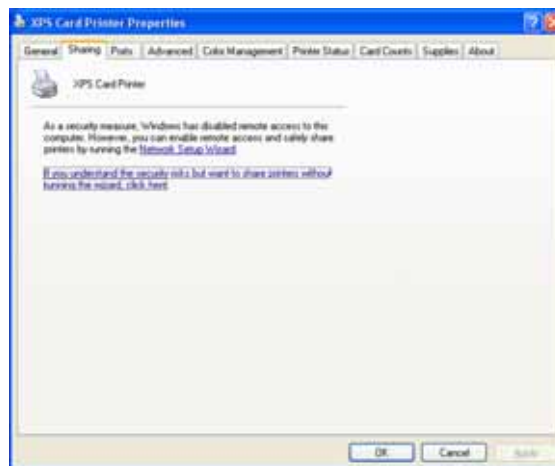
     i. Click **If you understand the risks but want to share printers without running the wizard, click here.**

ii. When the *Enable Printer Sharing* dialog box displays, select **Just enable Printer Sharing**, and click **OK**.

B. Select **Share this printer** to enable sharing. Write down the printer name that displays in the Share name field.
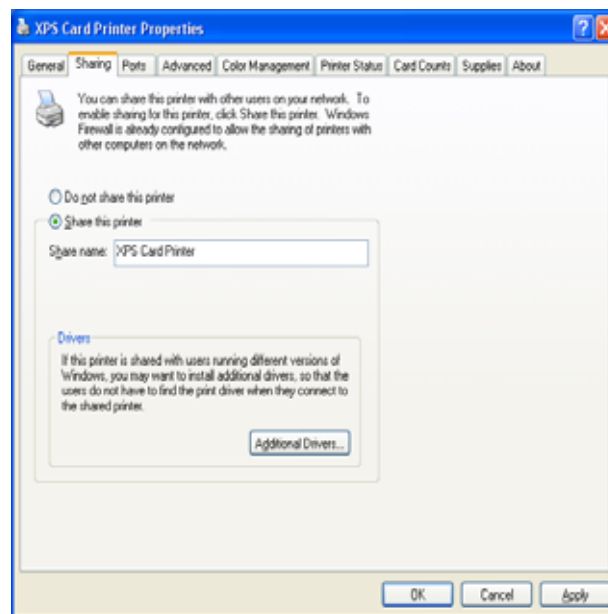
C. Click **Apply** to apply the printer sharing settings.

7. Configure security.

Skip this *Configure security* section if you want to accept the following defaults:

- All users (the **Everyone** account) can print, and

- Only the person who enabled sharing on the printer (the CREATOR OWNER account) can view printer error messages at the client PC.

Users at the client PC can view printer error messages from the Windows Print Manager. These printer errors can be resolved at the printer LCD screen or host PC.

For more information, refer to "Security permissions for shared printers" on page 28, and "View message boxes" on page 28.

A. Select the *Security* tab on the *Printer Properties* window.

B. Review the Group or user names list. If the names or group for which you want to specify permissions do not appear in the list, add the names or create a group:

    i. Click **Add** to display the *Users and Groups* dialog box.

    ii. Select the name you want to add, and click **Add**. Repeat for each name you want to add.

    iii. When you are finished adding names, click **OK** to close the *Users and Groups* dialog box.

C. Assign print permissions.

    i. From the Group or user names list on the *Security* tab, select the name or group to be assigned permissions.

> Do not select the **Manage documents** or the **Deny** check boxes for any user or group. Select **Allow** for Manage Printer if you want a user or group to view message boxes.

    ii. Select **Allow** for permissions you want to apply to the user or group.

    iii. Clear the **Allow** check box for permissions you want to deny the user or group.

    iv. Click **Apply** to save your changes. Make sure that you save changes for each user or group.

8. Enable bidirectional support.

A. Select the *Ports* tab on the *Printer Properties* window.

B. Confirm that **Enable bidirectional support** is selected.

C. Click **OK** to close the *Printer Properties* window.

9. Set up Windows printing for card design.

A. From the *Printers and Faxes* window, right-click the card printer icon and select **Printing preferences**. The *Printing Preferences* window displays.

B. Enter your printing preferences. Refer to "Design Tasks in Windows Printing Preferences" on page 59.

C. Write down the printing preferences settings for split-ribbon color printing, topcoat and print blocking, and print resolution.

These settings are not set automatically at the client PC. You must enter these settings manually on the client PC when you set up printing preferences. For an overview, refer to "Configure PC Printing Preferences for Sharing" on page 30.

D. Click **OK** to close the *Printing Preferences* window.

10. Turn on Simple File Sharing and Restart.

Make sure that you select (turn on) simple file sharing at this point in the installation. Simple file sharing causes certain features, such as the *Security* tab, to be hidden, allowing you to protect the permissions you set up.

A. Open the *My Computer* window.

B. Click **Tools** and select **Folder Options**.

C. Select the *View* tab.

D. In the Advanced settings list, select **Use simple file sharing (Recommended)**.

E. Click **OK** to save the change and close the *Folder Options* window.

F. Close the *My Computer* window.

G. You must restart your computer to apply simple file sharing. From the Windows Start menu, select **Restart**.

Install the Driver on the Client PC

For Windows XP only: Before the installation, you must install the "Windows XP driver support" files (Service Pack 3). For more information, refer to "Install Support Files" on page 20.

1. Make sure that the Card Printer Driver is installed and set up on the host PC.

2. Log on to the client PC with an account that has administrator privileges and matches an account on the host PC.

The client PC must have a user account and password that matches an account on the host PC.

3. Add the printer.

   A. From the Windows Start menu, select **Printers and Faxes**.

   B. Select **Add printer**.

   C. Click **Next** on the *Add Printer Wizard* window.

   D. Select **A network printer, or a printer attached to another computer**, and then click **Next**.

   E. On the *Specify a Printer* page of the wizard, select **Connect to this printer**.

   F. Enter the name of the host PC and the device printer name by doing one of the following:

      • Use the names you wrote down during the host PC installation using the format:

      \\host PC name\shared printer name

- If you don't have the printer name, enter the host PC name using the format:

  \\host PC name\

  When you type the last backslash without the printer name, a list of host printers displays in a drop-down list. Select the shared printer from the list.

G. Click **Next.** The *Connect to Printer* dialog box displays.

H. Click **Yes** to continue. The *Default Printer* page displays set to **Yes** and the shared card printer icon displays on the *Printers and Faxes* window.

I. Click **Next** to display the *Completing the Add Printer Wizard* page.

J. Click **Finish** to close the wizard.

4. If card production software is installed on this computer, or if you need other support files, such as magnetic stripe fonts, install the Printer Plug-in or support files from the Driver Installation CD. For instructions, refer to "Install Support Files" on page 20.

5. Set up Windows printing for card design.

A. Get the Printing preferences settings you wrote down at the host PC for the split-ribbon option, topcoat and print blocking, and print resolution. These settings are not set automatically to match the host PC, so you must enter them manually.

B. From the *Printers and Faxes* window, right-click the card printer icon and select **Printing preferences**.

C. On the *Printing Preferences* window, enter the required printing preferences. Refer to "Configure PC Printing Preferences for Sharing" on page 30 and "Design Tasks in Windows Printing Preferences" on page 59.

D. Click **OK** to close the *Printing Preferences* window.

Appendix C: Windows Server 2003 Printer Sharing
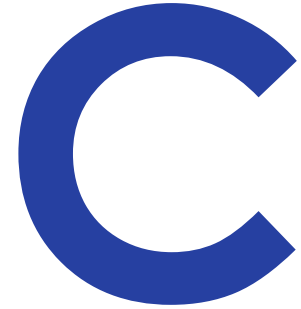
C

This appendix provides information about how to install and share the Card Printer Driver on a PC running the Windows Server 2003, 32-bit operating system.

Windows Server 2003, 32-bit Installation

Printer sharing involves setting up the host PC for sharing, then installing and setting up the Card Printer Driver on each client system that prints to the printer.

Set Up the Host PC for Printer Sharing

1. Install the XPS Card Printer Driver on the host PC. Refer to "Install the Driver" on page 8.

2. From the Windows Start menu, select **Printers and Faxes**. The *Printers* window displays.

3. Write down the printer name and the host PC name.

    You need the printer name and host PC name to install the Card Printer Driver on the client PC. Record them and have them available when you install the client PC. For more about printer names, refer to "Use device naming rules for shared printers" on page 30.

    A. In the *Printers* window, find the name of the newly installed card printer and write it down.

    B. Find the host PC name and write it down.

        i. From the Windows Start menu, right-click **My Computer** and select **Properties**.

        ii. Click *Computer Name*. The host PC name displays in the **Full Computer Name** field.

        iii. Write down the name of the host PC.

        iv. Click **OK** to close the *System properties* window.

4. Enable printer sharing.

   A. In the *Printers* window, right-click the card printer icon and select **Sharing**. The *Printer Properties* window displays the *Sharing* tab.

   B. Click **Share this printer** to enable sharing. The printer name displays in the **Share name** field. Make sure that a printer name displays.

   > The printer Share name is assigned by the Windows operating system. This displays as the same printer name (or an abbreviated version of the printer name) you wrote down earlier.

   C. Click **Apply** to save the settings. The "hand" symbol (for "shared device") shows under the card printer icon in the *Printers* window.

   D. Click **OK** to close the *Printer Properties* window.

5. Configure the host PC printing preferences.

   A. Open the *Printing Preferences* window.

   B. Enter your printing preferences. For instructions, refer to "Design Tasks in Windows Printing Preferences" on page 59.

   C. Write down the printing preferences settings for split-ribbon color printing, topcoat and print blocking, and print resolution.

   > These settings are not set automatically at the client PC to match the host. You must enter these settings manually on each client PC when you set up printing preferences. For an overview, refer to "Configure PC Printing Preferences for Sharing" on page 30.

   D. Click **OK** to close the *Printing Preferences* window.

Install the Card Printer Driver on the Client PC

The client PC may use any of the supported Windows operating systems. Refer to "Printer Sharing Requirements" on page 26 for a list of supported host/client operating system combinations. Except as noted, these steps apply to all client Windows systems. The instructions may vary slightly based on the operating system of the client PC.

1. Make sure that the Card Printer Driver is installed and set up on the host PC.

2. Log on to the client PC with a user account that has administrator privileges and matches an account and password on the host PC.

   Before you log on, look for a user account that matches an account on the host PC. If one is not listed, set up the user account and password on the client PC.

3. Add the printer.

   A. Display the appropriate *Printers* window, as follows:

Operating System	Action:
Windows XP	Select **Printers and Faxes**. The *Printer and Faxes* window displays.
Windows 7, Windows 8	Select **Devices and Printers**. The *Devices and Printers* window displays.

   B. Select **Add a printer** from the *Printers* window. The *Add Printer* wizard displays.

   C. If needed, click **Next** on the Add Printer wizard.

   The *Local or network printer* page displays.

   D. Add a network printer.:

Operating System	Action:
Windows XP	Select **A network printer, or a printer attached to another computer**.
Windows 7	Select **Add a network, wireless or Bluetooth printer**. The *Searching for available printers* page displays.

E. Connect to the shared printer:

Operating System	Action:
Windows XP	Click **Next**. The *Specify a Printer* page displays. Select **Connect** to this printer.
Windows 7 Windows 8	If the card printer does not display, click **The printer that I want isn't listed**. The *Find a printer* page displays with the option **Select a shared printer by name** automatically selected.

F. Enter the name of the host PC and the shared printer name by doing one of the following:

- Use the names you wrote down during the host PC installation using the format:

  \\host PC name\shared printer name

- If you don't have the printer name, enter the host PC name using the format:

  \\host PC name\

  When you type the last backslash without the printer name, a list of host printers displays in a drop-down list.

  Select the shared printer from the drop-down list.

G. Click **Next**. A message states that you are about to connect to the printer. Another message may display that states "To use the shared printer…you need to install the printer driver."

H. Install the Card Printer Driver:

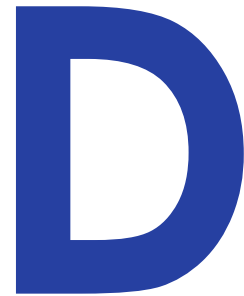| Operating System	Action:
Windows XP	Click **Yes** to continue. The *Default Printer* page displays set to Yes and the shared card printer icon displays in the *Printers and Faxes* window. Click **Next**.
Windows 7	Click **Install Driver**. When a message states that you successfully added the printer, click **Next**.

A message notifies you that you successfully added the printer.

I. Close any open windows.

J. Click **Finish** to end the wizard.

4. If card production software is installed on this computer, or if you need other support files, such as magnetic stripe fonts, install the Printer Plug-in or support files from the driver CD. For instructions, refer to "Install Support Files" on page 20.

5. Set up Windows printing for card design.

A. Get the printing preferences settings you wrote down at the host PC for the split-ribbon option, topcoat and print blocking, and print resolution.

These settings are not set automatically at the client PC to match the host, so you must enter them manually.

B. From the *Printers* window, right-click the card printer icon.

C. Select **Printing Preferences**. The *Printing Preferences* window displays.

D. Enter the printing preferences. Refer to "Configure PC Printing Preferences for Sharing" on page 30 and "Design Tasks in Windows Printing Preferences" on page 59.

E. Click **OK** to close the *Printing Preferences* window.

Appendix D: Windows Server 2008 and 2012 Printer Sharing

D

This appendix provides information about how to install and share the Card Printer Driver on a PC running either the Windows Server 2008 or Windows Server 2012, 64-bit operating systems.

Windows Server 2008 or 2012, 64-bit Installation

Printer sharing involves setting up the host PC for sharing, then installing and setting up the Card Printer Driver on each client system that prints to the printer.

Set Up the Host PC for Printer Sharing

1. Install the XPS Card Printer Driver on the host PC. Refer to "Install the Driver" on page 8.

2. Configure the host PC for printer sharing.

   A. From the Windows **Control Panel**, select **Network and Internet** > **Network and Sharing Center**.

   B. Select **Change advanced sharing settings** from the left column. The *Advanced sharing settings* window or the *Network profile options* display. If the *Advanced sharing settings* list displays, select the network profile you want to work with.

   The *Advanced sharing settings* display varies depending on a system's setup. In addition, based on its setup, the system may open one of the profiles and display the options shown in step C.

   C. On the network profile options page, select the following options:

Field	Select option
Network discovery	Turn on network discovery
File and printer sharing	**Turn on file and printer sharing**
Password protected sharing	Turn on password protected sharing

   D. Click **Save changes** to close the *Advanced sharing settings* window.

3. Write down the printer name and host PC name.

Remember to record the printer device name. You need this printer name to install the Card Printer Driver on the client PC.

A. Display the *Devices and Printers* window. Select the card printer icon and click **Print server properties** in the menu bar. The *Printer Properties* window displays.

B. Select the *General* tab on the *Printer Properties* window to display the printer device name.

C. Write down the name of the printer.

D. From the Windows Start menu, display the *System properties* window for your computer.

E. Write down the host PC name found in the **Full Computer Name** field.

F. Close the *System properties* window.

4. Enable printer sharing.

A. Select the *Sharing* tab on the *Printer Properties* window.

B. Click **Change Sharing Options.** The shaded fields become active.

C. Select **Share this printer**.

D. Make sure that a printer name displays in the **Share name** field.

The printer Share name is assigned by the Windows operating system. This displays as the same printer name (or an abbreviated version of the printer name) you wrote down earlier.

E. Select **Render print jobs on client computers**.

F. Click **Apply** to apply these settings.

5. Configure security.

Skip this *Configure security* section if you want to accept the following defaults:

- All users (the **Everyone** account) can print.

- Only the person who enabled sharing on the printer (the CREATOR OWNER account) can view printer error messages at the client PC.

Users at the client PC can view printer error messages from the Windows Print Manager. These printer errors can be resolved at the printer LCD screen or host PC.

For more information, refer to "Security permissions for shared printers" on page 28, and "View message boxes" on page 28.

A. Select the *Security* tab on the *Printer Properties* window.

B. Review the Group or user names list. Do the following to add users to the list.

i. Click **Add**. The *Users or Groups* dialog box displays.
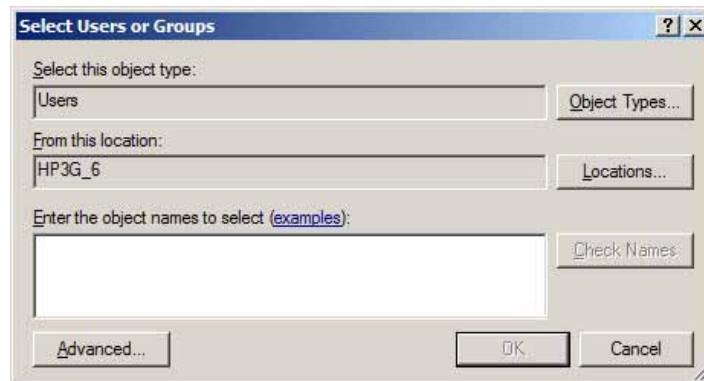
ii. Select the name you want to add, and click **Add**. Repeat for each name you want to add.

iii. If the names or group do not display in the list, add the names or a group as follows. Repeat for each name you want to add.

- Click **Advanced**. The *Select Users or Groups* dialog box displays.

- Select **Object Types**. The *Object Types* window displays.

- Select **Users.**

- Click **OK**. The *Select Users or Groups* search window displays.
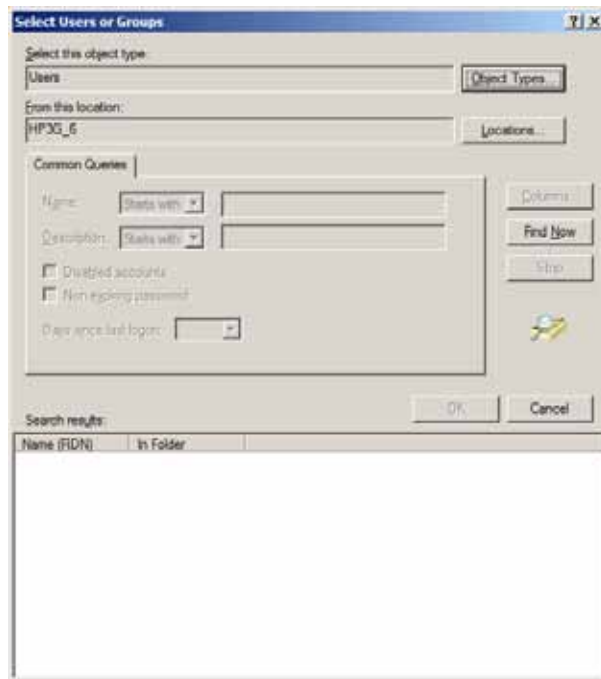
- Click **Find Now.** A list of user names displays in the search results section.

- Select each name you want to add.

- Click **OK**. The *Select Users or Groups* window displays the names you selected.
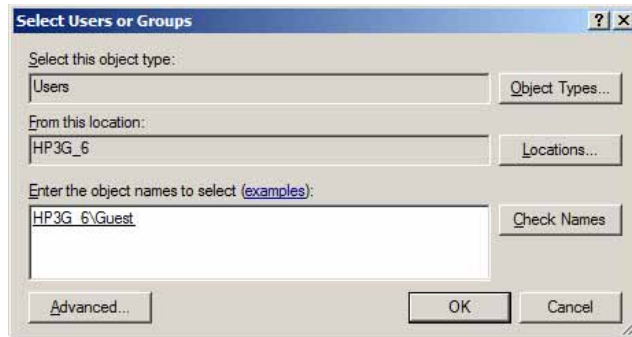
  iv. When you finish adding names, click **OK** to close the *Users and Groups* dialog box.

C. In the Names list, select the name or group to set up.

> Do not select the **Manage documents** or the **Deny** check boxes for any user or group. Select **Allow** for Manage Printer if you want a user or group to view message boxes.

  i. Select **Allow** for permissions you want to apply to the user or group.

  ii. Clear the **Allow** check box for permissions you want to deny the user or group.

  iii. Click **Apply** to save your changes. Make sure that you save changes for each name.

D. Click **OK** to close the *Properties* window.

6. Configure the host PC printing preferences. Write down the printing preferences settings for the split-ribbon option, topcoat and print blocking, and print resolution.

These settings are not set automatically at the client PC to match the host. You must enter these settings manually on the client PC. Refer to "Configure PC Printing Preferences for Sharing" on page 30 and "Design Tasks in Windows Printing Preferences" on page 59.

Install the Card Printer Driver on the Client PC

The client PC may use any of the supported Windows operating systems. See "Printer Sharing Requirements" on page 26 for a list of supported host/client operating system combinations. Differences between operating systems are noted, as needed.

1. Make sure that the Card Printer Driver is installed and set up on the host PC.

> ℹ Before you log on to the client PC, look for a user account that matches an account on the host PC. If one is not listed, set up the user account and password on the client PC.

2. Log in to the client PC with a user account that has administrator privileges and matches an account and password on the host PC.

3. Add the printer to the client PC.

    A. Display the *Printers* window for your system.

    B. Select **Add a printer**. The *Add Printer* window displays.

        Windows 7 and Windows 8: Select **Add a network, wireless, or Bluetooth printer**.

        A list of available printers displays.

    C. If the printer does not display in the list:

        i.   Select **The printer that I want isn't listed**. The *Find a printer* page displays.

        ii. Enter the name of the host PC and the shared printer name by doing one of the following:

             • Use the names you wrote down during the host PC installation using the format:

                \\host PC name\shared printer name

             • If you don't have the printer name, enter the host PC name. Use the format:

                \\host PC name\

                When you type the last backslash without the printer name, a list of host printers displays in a drop-down list.

    D. Select the host printer and then click **Next**. The message "Do you trust this printer?" may display.

E. Click **Install driver.**

The *Add Printer* page states that you successfully added the printer.

F. Click **Next**.

G. Click **Finish**. The shared card printer icon displays in the *Devices and Printers* window of the client PC.

4. If card production software is installed on this computer, or if you need other support files, such as magnetic stripe fonts, install the XPS Card Printer Plug-in or support files from the Driver Installation CD. For instructions, refer to "Install Support Files" on page 20.

5. Configure the client PC printing preferences.

A. Get the printing preferences settings you wrote down at the host PC for the split-ribbon option, topcoat and print blocking, and print resolution.

These settings are not set automatically at the client PC to match the host, so you must enter them manually.

B. From the *Devices and Printers* window, right-click the card printer icon and select **Printing preferences**. The *Printing Preferences* window displays.

C. Enter the required printing preferences. Refer to "Configure PC Printing Preferences for Sharing" on page 30 and "Design Tasks in Windows Printing Preferences" on page 59.

D. Close the *Printing Preferences* window.