

USB Card Reader Installation and Configuration Guide

Xerox® WorkCentre® 3655 Multifunction Printer
Xerox® WorkCentre® 5135/5150 Multifunction Printer
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer
Xerox® WorkCentre® 5945/5955 Multifunction Printer
Xerox® WorkCentre® 6400 Multifunction Printer
Xerox® WorkCentre® 6655 Multifunction Printer
Xerox® WorkCentre® 7120 Multifunction Printer
Xerox® WorkCentre® 7220/7225 Multifunction Printer
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer
Xerox® WorkCentre® 7830/7835/7845/7855 Multifunction Printer
Xerox® ColorQube® 8700/8900 Multifunction Printer
Xerox® ColorQube® 9201/9202/9203/9301/9302/9303 Multifunction Printer
Xerox® Color C60/C70 Printer
Xerox® D95/D110/D125/D136 Printer/Copier
Xerox® Phaser® 3635 Multifunction Printer



©2015 Xerox Corporation. All rights reserved. Xerox®, Xerox and Design®, ColorQube® and WorkCentre® are trademarks of Xerox Corporation in the United States and/or other countries. BR10996

Other company trademarks are also acknowledged.

Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

Document version 1.0: October 2015

Table of Contents

1 Introduction

USB Card Reader Overview	5
Supported Reader Technology.....	5
Operation	5
Diagnostics	6
Magnetic Stripe Reader Constraints	6

2 Preparation

Prerequisites	7
Documentation and Support	7

3 Installation

Connecting the USB Card Reader.....	8
-------------------------------------	---

4 Configuration

Configuring the device to use the USB card reader for authentication	9
Create a Device Certificate and Enable SSL.....	9
Configure the feature via the existing Xerox Secure Access web page.....	10
Enable Custom Services (Phaser 3635 only)	10
Enable Convenience Authentication (Phaser 3635 only).....	10
Verify Connected Reader.....	11
Validation	11
Configuring the device to use the USB card reader for authentication using the Plug-In feature....	12
Enabling the plug-in feature on the device	12
Retrieving the USB Card Reader Plug-in	12
Uploading the Card Reader Plug-in.....	12
Checking the status of the embedded plug-ins	13
Deactivation the embedded plug-ins.....	13
Activating the plug-ins.....	14
Configuring the device to use the USB card reader plug-in for authentication	14
Enabling Xerox Secure Access settings.....	15
Disabling the USB card reader.....	16
Deactivating the Card Reader Plug-in	16
Disabling the Plug-in feature	17

Appendix A

Supported USB Card Readers	18
Proximity Readers	18
Magnetic Stripe Readers.....	18
Visual Barcode Readers	19

Appendix B

Card Reader Configuration Setting.....	20
Elatec TWN3 Software.....	20
Magnetic Stripe Reader Configuration	20
ID TECH Magnetic Stripe Reader Configuration Upgrade.....	21
RF IDEas Magnetic Stripe Reader Configuration Upgrade	22

Appendix C

Minimum System Software Levels	23
Elatec USB Card Readers	23
HID USB Card Readers	24
RF Ideas USB Card Readers.....	25
YSoft, MagTek and ID Tech USB Card Readers.....	26
Honeywell and Motorola USB Card Readers.....	28

Introduction

The USB Card Reader solution brings an advanced level of security to sensitive information. Organizations can restrict access to the walk-up features of a Xerox® device. This ensures only authorized users are able to copy, scan, e-mail and fax information.

Once validated, a user is logged into the Xerox® device for all walk-up features. The system allows for functions to be tracked for an added layer of security.

This guide explains how to install and configure the USB Card Reader solution. It identifies the resources and equipment required to complete a successful installation.

Should you require any further information, please contact your local Xerox Representative.

USB Card Reader Overview

This document describes how to configure off box authentication to a Solution Partner Authentication server with a USB card reader using the new open USB standard. The USB card reader is connected directly to the USB port on the Xerox device. When the USB card reader is connected to the device, an external card reading controller is no longer required.

This feature is used to control access to the MFP via employee badge to a partner authentication server. Once the server is setup to communicate with the device and selected Services are locked at the LUI, access to those 'locked' services will only be granted to walk up users with valid cards and/or System Administrators.

Supported Reader Technology

Employee badges can contain one or multiple technologies for storing user identity information. The most prominent methods in use today are Contactless (also known as Proximity), Magnetic Stripe, Visual Barcode and Smart Cards. This document supports contactless, magnetic stripe and visual barcode readers only. There are two classes of contactless readers, those which read the Card Serial Number (CSN) and those which can read from secure memory segments contained on specific card types. This solution only supports contactless readers which send the CSN.

Smart Card Authentication (CAC / PIV / .NET etc.) are addressed in the Smart Card feature documentation.

Operation

This feature is designed to read data from an employee badge and to package that data into a message which is sent to the server running software from a solution provider. This requires that the solution provider has developed their software to be compatible with this feature using the Convenience Authentication API.

This feature enables solution providers to provide authentication, pull printing and accounting which is tied the user

associated with the employee's badge. This feature is configured using most of the Xerox Secure Access set up screens but is not compatible with the Xerox Secure Access feature itself. It is not compatible with the white card readers supplied as part of Xerox Secure Access.

Each of the currently approved badge readers has internal intelligence to read a card and to acknowledge success by blinking the LED or creating sound with the beeper on the reader itself. Note that this behavior is different than with the Xerox Secure Access (XSA) solution. With XSA, the authentication server is in control of the LED on the reader. This means users will observe faster acknowledgement that their card has been recognized because that recognition does not require communication with a server.

A side effect is that the LED indications will not be consistent with those of the XSA solution.

The card readers will have power applied when the MFP is awake and while it is in Sleep mode. A card swipe will take the MFP out of Sleep mode and will initiate an authentication sequence. To meet EPA Energy Star requirements, power is removed from the reader when the MFP enters Deep Sleep. In Deep Sleep the card reader will appear to be inactive. Since the reader has no power, the LED will not be illuminated. A card swipe in Deep Sleep mode will be ignored. Users must first awaken the MFP using the Energy Saver button. Once the MFP is awake, the card reader will again be functional.

Diagnostics

USB card readers have been chosen which communicate using the Human Interface Device (HID) keyboard emulation mode. The rationale for this decision is primarily to aid in the ability to troubleshoot problems in the field. An HID reader can be plugged directly into any personal computer and tested independent from the MFP. All one need do is open a document application such as Microsoft Notepad which expects Text as input. If an employee badge is swiped across the reader, the CSN will be displayed in the Notepad application. This makes it easy to diagnose reader related problems in the field.

Since this is a relatively new feature we have chosen to start cautiously. As a result the only readers which will be recognized are those which have been tested and found acceptable by engineering. If any reader is connected which is not listed in Appendix A, the MFP will ignore it. The configuration section of this document will address how the MFP will indicate that a non-supported reader is connected.

Magnetic Stripe Reader Constraints

There is a wide variety in the factory default behavior of magnetic stripe readers. While all of the tested readers are capable of supporting the applicable ISO standards they do not initially send the card data in exactly the same way. Each of the supported readers can be programmed in the way they send card data and each of the manufacturers provides PC based tools to program the reader. As a result a standard configuration can be defined across all readers.

In our defined standard configuration the reader will emit every line of data which the magnetic stripe card contains. The reader will emit all line sentinels, field separators and line termination characters and will not mask out any data. This will enable solution partner's full access to card data which can be processed as they desire.

Appendix B contains directions to properly configure each magnetic stripe reader.

Preparation

2

This section explains the preparation and resources required to install the Card Reader feature.

Prerequisites

For a successful installation and configuration, the following prerequisites must be met:

- Your solution must use supported cards and card readers. See Appendix A.
- Your device must be configured with the minimum required device software for the card reader being installed. See Appendix C.
- For devices that require Xerox USB Card Reader Plug-In (see Appendix C), download the plug-in install file from the Drivers and Download page for your device on Xerox.com. Unzip and save the file to a known location on your computer/server before installation and configuration begins.
- If the Xerox Extensible Interface Platform® (EIP) application is to be used, extensible service setup must be enabled.

Documentation and Support

For information specifically about your Xerox® product, the following resources are available:

- **System Administrator Guide** provides detailed instructions and information about connecting your device to the network and installing optional features. This guide is intended for System/Device Administrators.
- **User Guide** provides detailed information about all the features and functions on the device. This guide is intended for general users.

Most answers to your questions will be provided by the support documentation supplied for your product. Alternatively you can contact the Xerox Support Center or access the Xerox website at www.xerox.com.

Installation

3

Connecting the USB Card Reader

Connect the card reader to one of the available USB ports on the MFP. The reader can be mounted in a number of locations on the MFP. For example, it can be placed on the top panel next to the UI, or on the back of the device.

Most of the tested readers will indicate that they have power and are operational by illuminating an LED and possibly emitting a sound once the card reader has booted up. A message will be displayed on the front panel (local UI) when a reader has been detected.

Please ensure the card reader software is at the latest level by checking with the particular manufacture web site as outlined in Appendix A. Some readers require a specific configuration to be compatible with the MFP. This is defined in Appendix B. Please be sure the software and configuration are correct before the reader is installed on the device.

Configuration

4

Some devices require the use of the plug-in feature to configure the USB card reader. This chapter contains instructions for both plug-in and non-plug-in configurations. Configuration instructions for devices that require the plug-in feature can be found on page 12. For a list of devices that require the use of the plug-in feature, see the **Minimum Software Levels** table supplied in the kit.

Configuring the device to use the USB card reader for authentication

Create a Device Certificate and Enable SSL

The following configuration settings can only be completed via CWIS.

Note: Either the existing default certificate can be used or the user can install their own certificate. The steps below use the default certificate.

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Navigate to **Properties > Security > Certificates > Security Certificates**
Note: SSL must be enabled. If required select the **Configure SSL** link on this page to enable SSL, then repeat this step.
3. Enter System Administrator credentials if prompted
4. On the Xerox Device Certificate tab, select **Create New Xerox Device Certificate**
5. Select Connection **Enabled** with port 80
6. Select Secure HTTPS **Disabled**
7. Select **Default Xerox Device Certificate**
8. Select Device Certificate: **Default Xerox Device Certificate**
9. Complete all text fill in fields
10. Select the **Subject Alternative Name** checkbox
11. When all entries are complete select **Finish**
12. Wait while the new certificate is created.
13. Select **Apply**

Configure the feature via the existing Xerox Secure Access web page

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Navigate to Security > Authentication > Setup.
3. Select Xerox Secure Access Unified ID System as the authentication method on the device's touch user interface
4. Under Configuration Setting, select the Edit button next to Xerox Secure Access Setup.
5. Normally the configuration settings are pushed down from the partner server. If you plan to use this method, select Close and consult the particular solution partner's installation and configuration documentation. See your device's System Administrator's Guide for information on how to configure these settings manually.
6. Fill in the server Communication details using either IP address or Host Name. Include the path to the server.
7. Verify that the Embedded box is NOT checked. This checkbox enables software which only works with the white egg shaped Xerox Secure Access card readers.
8. Set the USB Card Reader Detection Policy to either allow or deny access to the MFP if the card reader becomes unplugged. This will cause a caution screen to appear whenever the card reader is accidentally unplugged and remind the user to plug it back in.
9. Set the Device Log In Method to either enable only swipe card authentication or whether to also offer Alternate Authentication where the user manually enters their logon credentials in the event they lost or forgot their card.
10. Configure Accounting Information If the Job Based Accounting option has been purchased, these fields will be available for selection. Choose whether the server will enter the appropriate accounting code or whether the user will be prompted to enter a code.
11. Fill in the Device Instructional Blocking Window details with the window title and instructional text. For example: "Please swipe your card to log on".
12. Select **Save**.

Enable Custom Services (Phaser 3635 only)

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Navigate to **Properties > Services > Custom Services**.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Enable **Custom Services**.
4. Enable **Export User Password to Custom Services**.
5. Select **Apply**.

Enable Convenience Authentication (Phaser 3635 only)

6. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
7. Navigate to **Properties > Security > Authentication > Authentication**.
8. Enter System Administrator credentials if prompted.
9. Within the Setup section, select **Require Network Authentication**.

10. Within the General section, select **Xerox Secure Access**.
11. Select **Apply**.

Verify Connected Reader

At this point the local UI should show a pop up or message indicating that the card reader is not connected.

1. Connect an approved card reader to the USB port and observe that the message closes.
2. Remove the card reader and observe that the message is displayed again.
3. Plug the card reader back in.

Validation

At this point the system is fully configured for authentication. Lock a few services to verify that authentication is required for access.

1. Open a web browser and connect to CWIS by entering the following URL: `http://[enter device IP address]/`
2. Navigate to **Properties > Security > Authentication > Tools & Feature Access**
3. Under Presets, select **Custom Access**.
4. Select **Locked** for any services, features, or pathways that should be secured.
5. Select **Apply**.

At the local UI, navigate to a locked service or pathway. Verify the prompt to swipe a card to log on is displayed.

1. Swipe or scan a valid card with the USB card reader
 - Depending on the particular reader you should observe the card reader LED change color or the reader will beep.
 - Observe that the user is authenticated and their username appears in the upper right corner of the local user interface display.
2. Swipe or scan the same card with the card reader
 - Depending on the particular reader you should observe the card reader LED change color or the reader will beep.
 - Observe that the user is logged out and that the Default Walkup Screen is displayed. If the Default Screen is locked, the blocking screen will be displayed

Configuring the device to use the USB card reader for authentication using the Plug-In feature

Enabling the plug-in feature on the device

1. Open a web browser and connect to CWIS by entering the following URL: `http://[enter device IP address]/`
2. Select the **Properties** tab.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > Plug-in Settings**.
5. Check the **Plug-in Settings Enabled** checkbox.
6. Select **Apply**. A message stating that the device must be rebooted before the new settings can take effect is displayed.
7. Select **Reboot Machine**. A confirmation message is displayed.
8. Select **OK**.

Retrieving the USB Card Reader Plug-in

The USB Card Reader Plug-in is located within the **USB_Card_Reader_Install.zip** file mentioned in the Preparation chapter. Double-click the file labeled **cr.1.0.14.zip** to access the card reader plug-in. Unzip and save the file to a location on your computer where it can be easily retrieved at a later time.

Uploading the Card Reader Plug-in

1. Open a web browser and connect to CWIS by entering the following URL: `http://[enter device IP address]/`
2. Select the **Properties** tab.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > List of Embedded Plug-ins**.
5. Select the **Upload** button to display the Plug-in page.
6. From the Upload Plug-in page:
 - a. Select the **Browse** button.
 - b. Navigate to and select the **Cardreader.jar** file.

- c. Select the **Open** button.
- d. Select the **Upload** button.

Note: A device reboot is necessary for the Plug-in to be successfully added to the machine.

7. Reboot the machine:
 - a. Select the **Status** tab.
 - b. Select **Reboot Machine**. A confirmation message is displayed.
 - c. Select **OK**.

Checking the status of the embedded plug-ins

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.

Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > List of Embedded Plug-ins**. The list will contain the newly uploaded Plug-in as well as existing Plug-ins (if any).
5. Under the **Status** heading, check the status of the plug-ins. The status of the newly added plug-in should display <Activated>.
6. If the Status does not display <Activated>, select the **Start** button to activate the plug-in of your choice.

Note: In case of multiple plug-ins (uploaded to the machine) and to prevent potential login failures, it is suggested that only the intended plug-in is in Active status while others are Deactivated. Deactivation steps are provided on the next page.

Deactivation the embedded plug-ins

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.

Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > List of Embedded Plug-ins**.
5. Select the **Xerox USB Card Reader** plug-in.
6. Select the **Stop Button**. A confirmation message is displayed.
7. Select **OK**.

Note: A device reboot is necessary for Plug-in to successfully deactivate.
8. Reboot the machine to deactivate the current plug-in:
 - a. Select the **Status** tab.
 - b. Select **Reboot Machine**. A confirmation message is displayed.
 - c. Select **OK**.

Activating the plug-ins

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > List of Embedded Plug-ins**.
5. Under the Status heading, check the status of the plug-ins. Locate the previously deactivated plug-in.
6. Check the Plug-in that is deactivated; select the **Start** button to activate the plug-in. A confirmation message is displayed.
7. Select **OK**.
8. Recheck that the status for the plug-ins.
Note: The Internet Browser may need to be refreshed for status to reflect the current state.
9. Reboot the machine to activate the current plug-in:
 - a. Select the **Status** tab.
 - b. Select **Reboot Machine**. A confirmation message is displayed.
 - c. Select **OK**.
10. After the machine reboots, recheck the status by navigating back to the Properties tab > Security > Plug-in Settings > List of Embedded Plug-ins. The status should change to <Activated>.
11. Ensure that the correct version of the plug-in was uploaded and activated:
 - a. Select the specific plug-in.
 - b. Select **Details** to view the correct version of the plug-in.
 - c. Select **Close** to return to the List of embedded plug-ins.

Configuring the device to use the USB card reader plug-in for authentication

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Authentication Configuration**. The Authentication Configuration > Step 1 of 2 page is displayed.
5. Select **Xerox Secure Access** from the Login Type drop-down menu. The other settings can be as their defaults.
6. Select **Apply**. A pop-up message indicating loss of stored data is displayed.

7. Select **OK**.
8. Reboot the machine:
 - d. Select the **Status** tab.
 - e. Select **Reboot Machine**. A confirmation message is displayed.
 - f. Select **OK**.
9. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
10. Select the **Properties** tab.

Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
11. Select **OK**.
12. Navigate to **Security > Authentication Configuration**. The Authentication Configuration > Step 1 of 2 page is displayed.
13. Select **Next**. The Authentication Configuration > Step 2 of 2 page displays.
14. In the Access Control section, select the Service Access **Configure** button.
15. Select one of the following settings for each service you want to control:
 - Unlocked: This selection allows unrestricted access.
 - Locked (Show Icon): This selection requires the user to login in order to gain access. The service icon is visible to all users in the All Services screen.
 - Locked (Hide Icon): This selection requires the user to login in order to gain access. The service icon is hidden until an authorized user logs in.
16. Select **Apply**.

Note: If prompted, provide the system administrator user name and password. The default user name is admin and the default password is 1111.
17. Reboot the machine for new settings to take effect:
 - g. Select the **Status** tab.
 - h. Select **Reboot Machine**. A confirmation message is displayed.
 - i. Select **OK**.

Enabling Xerox Secure Access settings

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.

Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Remote Authentication Servers > Xerox Secure Access Settings**.
5. In the Xerox Secure Access Server section perform the following steps:
 - a. Enter details in the Default Prompt and Default Title fields.
 - b. This creates the prompt title that displays on the machine UI along with a message. The message informs users how to authenticate themselves at the machine.

Note: If the Title and Prompt fields were configured on the Xerox Secure Access Server, no changes are needed. The Server information overrides any information entered.

- c. Select the **Enabled** checkbox for Local Login to allow users to log in at the machine.
 - d. Select the **Enabled** checkbox for Get Accounting Code to obtain user accounting data from a networked accounting server (if used).
 - e. Select **Apply**.
 - f. Select **Reboot** for new settings to take effect.
 - g. Select **OK**. The system is now configured for authentication.
6. To verify that the reader is properly configured:
- a. Swipe a valid card past the card reader.
 - b. Observe the card reader LED changes color and the reader beeps.
 - c. Observe that the user is authenticated and their name appears in the upper right corner of the local user interface display.

Disabling the USB card reader

Use the following instruction for disabling the USB card reader for any of the following circumstances:

- The USB card reader is being replaced with an external card reading device.
- Xerox Secure Access is no longer used for authentication on the device.

Note: The directly connected USB card reader and external card reader controller should not be used simultaneously.

Deactivating the Card Reader Plug-in

7. Open a web browser and connect to CWIS by entering the following URL: `http://[enter device IP address]/`
8. Select the **Properties** tab.

Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
9. Select **OK**.
10. Navigate to **Security > Plug-in Settings > List of Embedded Plug-ins**.
11. Select the **Xerox USB Card Reader** plug-in.
12. Select the **Stop** button.
13. Select the **Stop Button**. A confirmation message is displayed.
14. Select **OK**.

Note: A device reboot is necessary for Plug-in to successfully deactivate.
15. Reboot the machine to deactivate the current plug-in:
 - d. Select the **Status** tab.
 - e. Select **Reboot Machine**. A confirmation message is displayed.
 - f. Select **OK**.

Disabling the Plug-in feature

1. Open a web browser and connect to CWIS by entering the following URL: http://[enter device IP address]/
2. Select the **Properties** tab.
Note: If prompted, enter the system administrator user name and password. The default user name is admin and the default password is 1111.
3. Select **OK**.
4. Navigate to **Security > Plug-in Settings > Plug-in Settings**.
5. Uncheck the **Plug-in Settings Enabled** checkbox.
6. Select **Apply**. A message stating that the device must be rebooted before the new settings can take effect is displayed.
Note: The machine can also be rebooted by navigating to the Status tab and selecting the **Reboot Machine** button.
7. Verify that the Plug-in feature was successfully disabled.
Note: At this point, the Authentication Configuration login type can be changed from Xerox Secure Access to the desired setting. To do that, navigate to the Properties tab Security Authentication Configuration.
Note: The SSL (Secure Socket Layer) can also be disabled if not needed (after changing the Authentication Configuration login type to No Login Required). To disable SSL, navigate to the Properties (tab) Connectivity Protocols HTTP.

Appendix



Supported USB Card Readers

For the latest list of supported readers, see the Network Certification Reference Tool in <http://www.docushare-xogpsg.world.xerox.com/dsweb/View/Collection-128069>.

Proximity Readers

These readers support 125Khz & 13.56Mhz.

Reader	Vendor Weblink
Elatec TWN3 & TWN4 family USB readers	http://www.elatec-rfid.com
RF IDEas RDR-XX6081-AKU family USB Proximity readers and all other readers from the "USB Enroll" family including pcProx® Plus.	http://www.rfideas.com
YSoft V2 family USB readers	http://www.ysoft.com
HID OMNIKEY 5427 CK Reader Programmable	www.hidglobal.com

Magnetic Stripe Readers

These readers support ISO 7813 and ISO 4909 encoding standards for tracks 1, 2 & 3.

Reader	Vendor Weblink
ID TECH MiniMag II™ MagStripe reader	http://www.idtechproducts.com
RF IDEas MS3-00M1AKU MagStripe reader.	http://www.rfideas.com
MagTek® Magnetic Stripe Reader	http://www.magtek.com

YSoft V2 Magnetic Stripe Reader	http://www.ysoft.com
---	---

Visual Barcode Readers

These readers support one dimensional visual barcodes.

Reader	Vendor Weblink
Honeywell® 3800G	http://www.honeywellaidc.com
Motorola® DS457 and DS9208	http://www.motorola.com

Appendix

B

Card Reader Configuration Setting

Elatec TWN3 Software

Elatec TWN3 readers must have at least software version V3 03d/4.39 to operate properly on the WorkCentre 53xx, WorkCentre 7120, and WorkCentre 74xx. If connecting an Elatec reader with earlier software to one of these products, the reader software will need to be upgraded first.

Please contact Elatec Customer Support for this software update. (support@elatec-rfid.com)

Magnetic Stripe Reader Configuration

The ISO specification for magnetic stripe cards defines the data format for the 3 possible tracks on a mag stripe card. Each line starts with a unique character called a sentinel which denotes which line of data is being read. The ISO spec specifies characters used to define the data blocks within a line as well as the line termination character.

Shown below are three lines of data contained on a hypothetical 3 track mag stripe card:

```
%B6006493801^XEROX      ^1012110    LQI?  
;6006493801=101211050282809?  
; 6006493801?
```

Xerox MFPs require this data to be concatenated into a single string with only one carriage return as the terminating character.

```
%B6006493801^XEROX ^1012110 LQI?;6006493801=101211050282809?; 6006493801?
```

To determine if the reader conforms to the Xerox standard, the reader can be easily tested using a personal computer.

8. Open a text document tool like Microsoft Notepad
9. Connect the magnetic stripe reader to a USB port on the computer
10. Wait for the card reader driver to be installed.
11. Swipe one of the customer's mag stripe cards.
12. Observe the data displayed in Notepad.
 - If the data is presented in a single line with one carriage return the reader is compatible and no programming is required.
 - If the reader sends multiple lines or strips off the line start and end characters, the reader will need to be reprogrammed.

Each of the card readers listed in Appendix A can be reprogrammed to this format using tools supplied by each manufacturer. Below are URLs to the manufacturer's websites where the card reader configuration tool can be retrieved.

Note: The YSoft and ID TECH Magnetic stripe readers listed in Appendix A already conform to the Xerox standard and do not need to be upgraded.

Software	Vendor Weblink
RF IDEas pcSwipeConfig.exe	http://www.rfideas.com/Software/
ID TECH USB Swipe and Insert Reader programming tool	http://www.idtechproducts.com/index.php?option=com_docman&task=cat_view&gid=298&Itemid=79
MagTek® MiniMag II Configuration Software	http://www.magtek.com/support/software/demo_programs/usb_swipe_insert.asp

ID TECH Magnetic Stripe Reader Configuration Upgrade

The software can be found at: http://www.idtechproducts.com/download/swipe-readers/doc_download/38-configuration-software.html

Select the **IDTech_Xerox_Config.zip** file to access the ID TECH MagStripe Configuration file that will be required later in the setup process. The file is located within the **USB_Card_Reader_Install.zip** file described in the Preparation chapter.

Note: It is recommended to save the file to your PC for later use.

13. Install the configuration software.
 - Note:** Installation requires a PC restart.
14. Run the Magstripe Configuration Utility.
15. Select **Reader Interface** button.
16. Select the **USB** radio button (located below the USB picture), then select **Continue**.
17. The reader will beep a few times and the screen will return to the default view.
18. Select **Change Basic Reader Settings**.
19. Select **Load from File**.
20. Navigate to where you saved the configuration file, then select it.
21. Select **Open**. A message indicating that loading the file was successful is displayed.
22. Select **Ok**.
23. Select Send to **MSR**.
24. The reader will beep once or twice and a message indicating that the settings were successfully written will be displayed. Programming the reader is now complete.
25. Select **Close** and then **Exit**.

RF IDEas Magnetic Stripe Reader Configuration Upgrade

RF Ideas magnetic stripe readers can be configured with the **pcSwipe** tool available from their website (<http://www.rfideas.com/Software/>).

Select Support > Software & Downloads then scroll down to **pcSwipe® Magnetic Card Reader**. Download and install pcSwipeConfig.exe.

26. Connect the reader to the workstation and run the pcSwipe tool.
27. Select the **Scan/Connect** button so the tool will interrogate the reader.
28. Once a reader has been recognized, select the **Fields** tab
29. In the Tracks field, enable tracks 1, 2 & 3.
30. Select **User Field 1**, and insure that the **Show Sentinels and Separators** checkbox is selected. Repeat for **User Field 2** and **User Field 3**.
31. Select **User Field 4**.
32. Ensure the Enable checkbox is selected.
33. Verify that the word <ENTER> appears in the text field adjacent to the User Field 4 button. This is the termination to the data stream.
34. If <ENTER> does not appear, select the keyboard icon on the left labeled Keys. A popup dialog box is displayed.
35. Select **ENTER** and then **Insert**.
36. Select the **LED/Beep** tab.
37. Verify that the LED and tone response match the desired behavior.
When all configuration options have been set, this can be written to the reader.
38. From the pcSwipeConfig toolbar, select the **Flash** icon
39. The reader will beep and blink and beep when the new settings have been written.

Appendix



Minimum System Software Levels

The tables below indicate the minimum device software level required to allow the installation and configuration of each supported USB card reader. If your device has a lower software level, please download the correct software from the Drivers and Downloads page for your device. Download the latest USB Card Reader Installation and Configuration Guide from the Drivers and Downloads page for your device on Xerox.com to complete the install of your USB card reader.

To identify the software level on your device, press the **Machine Status** button on the control panel. The System Software Version number is displayed.

Elatec USB Card Readers

Product	Elatec TWN3		Elatec TWN4	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 3655 Multifunction Printer	072.060.034.16800	No	072.060.034.16800	No
Xerox® WorkCentre® 5135/5150 Multifunction Printer	21.120.65.170	No	-	-
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer	53.10.52	Yes	53.30.82	Yes
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	-	-
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer	61.132.222.28900	No	061.132.225.1200	No
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer	071.190.103.05401	No	071.190.034.06000	No
Xerox® WorkCentre® 5945/5955 Multifunction Printer	072.091.054.31606	No	072.091.054.31606	No
Xerox® WorkCentre® 6400 Multifunction Printer	061.070.102.23501	No	-	-
Xerox® WorkCentre® 6655 Multifunction Printer	072.110.044.20500	No	072.110.044.20500	No
Xerox® WorkCentre® 7120 Multifunction Printer	71.3.0	Yes	71.3.0	Yes

Product	Elatec TWN3		Elatec TWN4	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 7220/7225 Multifunction Printer	071.030.103.04401	No	071.030.034.06000	No
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer	75.3.0	Yes	1.0.7	Yes
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer	061.121.222.21500	No	061.121.225.14700	No
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer	061.090.223.10600	No	-	-
Xerox® WorkCentre® 7830/7835 Multifunction Printer	071.010.103.04401	No	071.010.034.06000	No
Xerox® WorkCentre® 7845/7855 Multifunction Printer	071.040.103.04401	No	071.040.034.06000	No
Xerox® ColorQube® 8700/8900 Multifunction Printer	071.160.222.28900	No	071.161.034.06000	No
Xerox® ColorQube® 9301/9302/9303 Multifunction Printer	061.180.222.08700	No	071.180.034.06000	No
Xerox® ColorQube® 9201/9202/9203 Multifunction Printer	061.050.225.18900	No	-	-
Xerox® Color C60/C70 Printer (with integrated color server)	60.10.41	No	60.10.41	No
Xerox® Phaser® 3536 Multifunction Printer	20.105.21.000	No	20.105.41.000	No

HID USB Card Readers

Product	OMNIKEY 5427	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 3655 Multifunction Printer	072.060.034.16800	No
Xerox® WorkCentre® 5135/5150 Multifunction Printer	-	No
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer	-	-
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer	-	-
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer	061.132.223.26102	No
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer	071.190.103.35100	No
Xerox® WorkCentre® 5945/5955 Multifunction Printer	071.090.004.11409	No
Xerox® WorkCentre® 6400 Multifunction Printer	-	-
Xerox® WorkCentre® 6655 Multifunction Printer	072.110.044.20500	No
Xerox® WorkCentre® 7120 Multifunction Printer	-	-

Product	OMNIKEY 5427	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 7220/7225 Multifunction Printer	071.030.103.35100	No
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer	-	-
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer	061.121.223.31800	No
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer	-	-
Xerox® WorkCentre® 7830/7835 Multifunction Printer	071.010.103.35100	No
Xerox® WorkCentre® 7845/7855 Multifunction Printer	071.040.103.35100	No
Xerox® ColorQube® 8700/8900 Multifunction Printer	071.161.203.35100	No
Xerox® ColorQube® 9301/9302/9303 Multifunction Printer	071.180.203.35100	No
Xerox® ColorQube® 9201/9202/9203 Multifunction Printer	061.080.223.29800, needs patch, contact 2 nd level support	No
Xerox® Color C60/C70 Printer (with integrated color server)	60.10.41	No
Xerox® Phaser® 3635 Multifunction Printer	-	-

RF Ideas USB Card Readers

Product	RF Ideas MS300M1AKU		RF Ideas RDR-xx81 AKU/RDR80081 AQU Series	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 3655 Multifunction Printer	072.060.134.32804	No	072.060.134.32804	No
Xerox® WorkCentre® 5135/5150 Multifunction Printer	21.120.65.170	No	21.120.65.170	No
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer	1.0.13	Yes	1.0.13	Yes
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer	061.132.225.12000	No	061.132.225.12	No
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer	071.190.103.05401	No	071.190.103.05401	No

Product	RF Ideas MS300M1AKU		RF Ideas RDR-xx81 AKU/RDR80081 AQU Series	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 5945/5955 Multifunction Printer	072.091.165.14201	No	072.091.165.14201	No
Xerox® WorkCentre® 6400 Multifunction Printer	-	-	061.070.102.23501	No
Xerox® WorkCentre® 6655 Multifunction Printer	072.110.134.32804	No	072.110.134.32804	No
Xerox® WorkCentre® 7120 Multifunction Printer	1.0.13	Yes	1.0.13	Yes
Xerox® WorkCentre® 7220/7225 Multifunction Printer	072.030.104.14801	No	072.030.104.14801	No
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer	1.0.13	Yes	1.0.13	Yes
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer	061.121.222.21500	No	061.121.222.21500	No
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer	61.090.223.07800	No	61.090.223.07800	No
Xerox® WorkCentre® 7830/7835 Multifunction Printer	071.010.103.04401	No	071.040.103.04401	No
Xerox® WorkCentre® 7845/7855 Multifunction Printer	071.040.103.04401	No	071.040.103.04401	No
Xerox® ColorQube® 8700/8900 Multifunction Printer	072.161.134.32804	No	072.161.134.32804	No
Xerox® ColorQube® 9201/9202/9203 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No
Xerox® ColorQube® 9301/9302/9303 Multifunction Printer	61.180.222.32100	No	61.180.222.32100	No
Xerox® Color C60/C70 Printer (with integrated color server)	v60.10.41	No	v60.10.41	No
Xerox® Phaser® 3635 Multifunction Printer	20.105.21.000	No	20.105.21.000	No

YSoft, MagTek and ID Tech USB Card Readers

Product	MagTek 21040108		YSoft V2 Mag Strip and Proximity Readers		ID Tech MiniMag IDMB - 334133	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 3655 Multifunction Printer	072.060.134.32804	No	072.060.134.32804	No	072.060.134.32804	No
Xerox® WorkCentre® 5135/5150 Multifunction Printer	21.120.65.170	No	21.120.65.170	No	21.120.65.170	No
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer	1.0.13	Yes	1.0.13	Yes	1.0.13	Yes

Product	MagTek 21040108		YSoft V2 Mag Strip and Proximity Readers		ID Tech MiniMag IDMB - 334133	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer	061.132.225.12	No	061.132.225.12	No	061.132.225.12	No
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer	071.190.103.05401	No	071.190.103.05401	No	071.190.103.05401	No
Xerox® WorkCentre® 5945/5955 Multifunction Printer	072.091.165.14201	No	072.091.165.14201	No	072.091.165.14201	No
Xerox® WorkCentre® 6400 Multifunction Printer	-	-	061.070.102.23501	No	-	-
Xerox® WorkCentre® 6655 Multifunction Printer	072.110.134.32804	No	072.110.134.32804	No	072.110.134.32804	No
Xerox® WorkCentre® 7120 Multifunction Printer	1.0.13	Yes	1.0.13	Yes	1.0.13	Yes
Xerox® WorkCentre® 7220/7225 Multifunction Printer	072.030.104.14801	No	072.030.104.14801	No	072.030.104.14801	No
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer	1.0.13	Yes	1.0.13	Yes	1.0.13	Yes
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer	061.121.222.21500	No	061.121.222.21500	No	061.121.222.21500	No
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer	61.090.223.07800	No	61.090.223.07800	No	61.090.223.07800	No
Xerox® WorkCentre® 7830/7835 Multifunction Printer	071.010.103.04401	No	071.010.103.04401	No	071.010.103.04401	No
Xerox® WorkCentre® 7845/7855 Multifunction Printer	071.040.103.04401	No	071.040.103.04401	No	071.040.103.04401	No
Xerox® ColorQube® 8700/8900 Multifunction Printer	072.161.134.32804	No	072.161.134.32804	No	072.161.134.32804	No
Xerox® ColorQube® 9301/9302/9303 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No
Xerox® Color C60/C70 Printer (with integrated color server)	61.180.222.32100	No	61.180.222.32100	No	61.180.222.32100	No
Xerox® Phaser® 3635 Multifunction Printer	20.105.36.000	No	20.105.36.000	No	20.105.36.000	No

Honeywell and Motorola USB Card Readers

Product	Honeywell 3800G04		Motorola DS457/DS9208	
	Minimum System Software	Xerox USB Card Reader Plug-In Required?	Minimum System Software	Xerox USB Card Reader Plug-In Required?
Xerox® WorkCentre® 3655 Multifunction Printer	072.060.034.16800	No	072.060.034.16800	No
Xerox® WorkCentre® 5135/5150 Multifunction Printer	-	-	-	-
Xerox® WorkCentre® 5325/5330/5335 Multifunction Printer	53.30.11	Yes	53.30.11 (DS457 only)	Yes
Xerox® WorkCentre® 5632/5638/5645/5655/5665/5675/5685 Multifunction Printer	-	-	-	-
Xerox® WorkCentre® 5735/5745/5755/5765/5775/5790 Multifunction Printer	-	-	061.132.225.12	No
Xerox® WorkCentre® 5845/5855/5865/5875/5890 Multifunction Printer	072.190.104.14800	No	071.190.103.23400	No
Xerox® WorkCentre® 5945/5955 Multifunction Printer	072.091.165.14201	No	072.091.165.14201	No
Xerox® WorkCentre® 6400 Multifunction Printer	-	-	-	-
Xerox® WorkCentre® 6655 Multifunction Printer	072.110.134.32804	No	072.110.134.32804	No
Xerox® WorkCentre® 7120 Multifunction Printer	v71.21.21	Yes	v71.21.21 Only DS457	Yes
Xerox® WorkCentre® 7220/7225 Multifunction Printer	072.030.104.14801	No	072.030.104.14801	No
Xerox® WorkCentre® 7425/7428/7435 Multifunction Printer	75.3.1	No	75.3.1 (DS457 only)	No
Xerox® WorkCentre® 7525/7530/7535/7545/7556 Multifunction Printer	-	-	061.121.225.14700	No
Xerox® WorkCentre® 7755/7765/7775 Multifunction Printer	-	-	061.090.225.25000	No
Xerox® WorkCentre® 7830/7835 Multifunction Printer	071.010.103.14600	No	071.010.103.14600	No
Xerox® WorkCentre® 7845/7855 Multifunction Printer	071.040.103.14600	No	071.040.103.14600	No
Xerox® ColorQube® 8700/8900 Multifunction Printer	072.161.134.32804	No	072.161.134.32804	No
Xerox® ColorQube® 9201/9202/9203 Multifunction Printer	061.050.225.18900	No	061.050.225.18900	No
Xerox® ColorQube® 9301/9302/9303 Multifunction Printer	SBC: 25.54.65.170 MBC: 21.120.65.170	No	SBC: 25.54.65.170 MBC: 21.120.65.170	No
Xerox® Color C60/C70 Printer (with integrated color server)	v60.10.41	No	v60.10.41	No
Xerox® Phaser® 3635 Multifunction Printer	20.105.36.000	No	20.105.36.000	No

Note: The open USB card reader standard and plug-in cannot be used with Xerox Secure Access branded card readers.
Installation and Configuration Guide