

# Customer Tips

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March 15, 2007

*... for the user*

## *Xerox Network Scanning – TWAIN Configuration*

### Purpose

This document contains the procedure to configure the Xerox multifunction device and user workstations to enable network scanning using the TWAIN driver.

### Background

TWAIN is an industry standard or protocol for applications that interface with scanning devices. The Xerox TWAIN driver for Microsoft Windows 2000/2003/XP provides scanning from the WorkCentre to applications that are compliant with the TWAIN standard.

### Configuring the Xerox multifunction device for network scanning using the TWAIN Driver

- i** (For WCP 232/238/245/255/265/275; WC 7655/7665; WC 4150 devices only. For all others, proceed to the driver installation instructions on page 4)

To enable TWAIN scanning on the Xerox multifunction device there are a number of items that need to be configured for this functionality to work. They are:

- Creation of a device digital certificate
- Enabling of the SSL (Secure Socket Layer) protocol
- Scan Template Management enabled

### Verify Device Settings via the Configuration Report

#### At the Machine

1. Press the **[Machine Status]** button.
2. Touch the **[Print Reports]** button.
3. Touch the **[Configuration Report]** button.
4. On the configuration report verify that within the:
  - **TCP/IP Settings** section that **TCP/IP** is **Enabled**, with an existing **Host Name** and **IP Address**.
  - **HTTP Setting** section that **HTTP** is **Enabled**.

- i** *Retain the Configuration Report as the IP address will be used in subsequent steps.*

This document applies to these **Xerox** products:

X	WC 4150
X	WCP 32/40
X	WCP 35/45/55
X	WCP 65/75/90
X	WCP 165/175
X	WCP 232/238
X	WCP 245/255
X	WCP 265/275
X	WCP C2128/2636/3545
X	WC 7655/7665

## Creation of a Device Digital Certificate

To enable SSL on a device, it needs to have its own digital certificate. When clients make a request to the device, it exports the certificate to provide an encrypted channel.

There are two options available to obtain a server certificate for the device:

- **Have the device create a Self Signed Certificate**
  - A self signed certificate means that the device signs its own certificate as trusted and creates the public key for the certificate to be used in SSL encryption.
- **Create a request to have a Certificate Authority sign a certificate that can be uploaded to the device**
  - A certificate from a Certificate Authority or a server functioning as a Certificate Authority can be uploaded to the device.

** A separate request is required for each device.**

The Internet Services Machine Digital Certificate Management screen allows you to choose your method to create a new certificate.

### Accessing the Machine Digital Certificates Configuration Screen

1. Open your Web browser and enter the TCP/IP address of the WorkCentre in the Address bar. Press **[Enter]**.
2. Click the **[Properties]** tab, select **[Security]** and click on the **[Machine Digital Certificate]** link.
3. Click **[Create New Certificate]**. You have the option to create a self signed certificate for the machine, or download a request for a certificate from a Certificate Authority.



### Creating a Self Signed Certificate

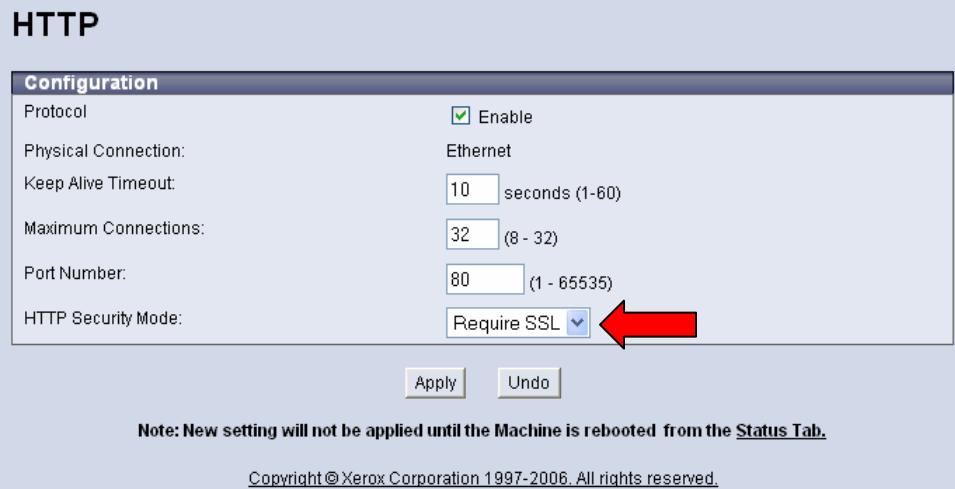
1. Click **[Self Signed Certificate]** then **[Continue]**.
2. Complete the Self Signed Certificate form with your 2 Letter Country code, State/Province Name, Locality Name (optional), Organization Name, Organization Unit, E-mail Address and Days of Validity (optional).
3. Click **[Apply]**
4. If prompted, enter the current tools administrator user name and password. The default is **[admin]** and **[1111]**.
5. If successful, the Current Status will show **A Self Signed Certificate is established on this machine.**

## Create a Request for a Certificate from a Certificate Authority

1. In the Machine Digital Certificate screen click **[Certificate Signing Request]**.
2. Click **[Continue]**.
3. Complete the Certificate Signing Request form with your 2 Letter Country code, State/Province Name, Locality Name, Organization Name, Organization Unit and E-mail Address.
4. Click **[Apply]**.
5. If prompted, enter the current tools administrator user name and password. The default is **[admin]** and **[1111]**.
6. The Certificate Signing Request (CSR) form will appear. Click **[Save As...]**.
7. Select the file type for the form. The options are: **X.509** (Privacy Enhanced Mail .pem) or **DER** (Distinguished Encoding Rules).
8. Click **[Save]**.
9. Click **[Save]** and save the file to your PC.
10. Send the request to your Certificate Authority for digital signing.
11. When you receive the signed certificate back from the Certificate Authority, upload the certificate to the device. To do this click the **[Machine Digital Certificate]** link located in the Security menu.
12. Click **[Upload Signed Certificate]**.
13. Browse to the signed certificate file on your PC and click **[Open]**.
14. Click **[Upload Certificate]**.
15. If successful, the Current Status will show A Signed Certificate is established on this machine.

## Enable the SSL (Secure Socket Layer) protocol

1. In the Internet Services Properties menu, click **[Connectivity, Protocols, HTTP]**.



**HTTP**

**Configuration**

Protocol	<input checked="" type="checkbox"/> Enable
Physical Connection:	Ethernet
Keep Alive Timeout:	10 seconds (1-60)
Maximum Connections:	32 (8 - 32)
Port Number:	80 (1 - 65535)
HTTP Security Mode:	Require SSL

Apply Undo

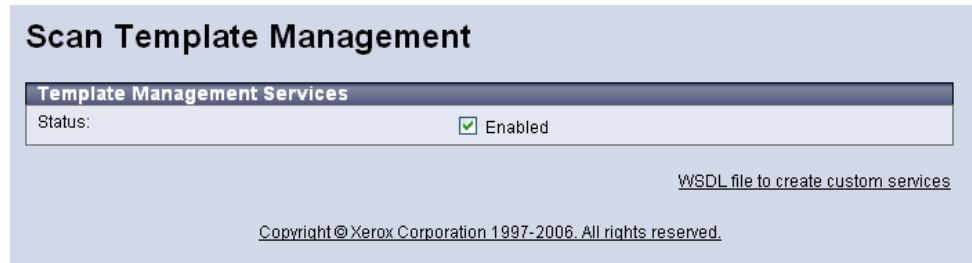
**Note: New setting will not be applied until the Machine is rebooted from the Status Tab.**

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2. In the HTTP Security Mode menu click **[Require SSL]**.
3. Click **[Apply]** and close the acknowledgement window that opens.
4. Close your web browser and then access the Internet Services screen again. The Security warning will display. Self-signed certificates usually cause browsers to display messages which question the trust of the certificate. Click **[OK]** to continue.

## Verify Scan Template Management Enabled

1. Click [**Services, Scan Template Management**].
2. Verify that the Scan Template Management - Enabled box is checked, if it hasn't been enabled automatically, check the box now.
3. If prompted, enter the current tools administrator user name and password. The default is **[admin]** and **[1111]**.




## Xerox TWAIN Drivers Installation

### Installation Requirements

The following are required for installing TWAIN drivers:

- The workstation must be running Microsoft Windows XP, Windows 2003, or Windows 2000 operating systems.
- You must possess Administrator rights on the workstation to install the driver.
- Domain and local user accounts are supported.
- The workstation must have TCP/IP and HTTP enabled.
- Simple File Sharing must be disabled on the workstation to allow for proper device authentication.
- The device must have the network scanning option enabled.
- The device must be configured with the SNMP GET community string set to "public" or the TWAIN driver will not detect the device properly.

 **Windows XP Professional Service Pack 2 has Windows Firewall turned on by default or your site may have Windows Firewall enabled for security reasons. If Windows Firewall is enabled, you must set up Exceptions for print and file sharing to ensure that scanning with the TWAIN driver works properly.**

### Obtaining the Driver Installation Files

To ensure that the latest release of the driver is installed, it is recommended to download the latest driver from the Xerox support web site.

1. Within your browser window type <http://www.xerox.com>
2. Select [**Support and Drivers**], enter the product number in the field provided and select [**Search**].
3. Select [**Drivers & Downloads**] for your specific product.
4. Select the TWAIN Scan Driver that is listed within the Drivers section.
5. Review the End-User License Agreement, and select either [**Accept**] or [**Decline**].
6. Clicking Accept will cause a File Download window to appear.
7. Select [**Save**] and download the file to a known location on your workstation.

## Installing the TWAIN Driver

1. Logged on to the workstation or server as an administrator, open the Windows Control Panel.
2. Click **[Open Scanners and Cameras]**. Click **[Add an imaging device]**. For Windows 2000, click **[Add]**.
3. The Scanners and Camera Installation Wizard opens. Click **[Next]**.
4. Click **[Have Disk]** and browse to the location of the installation files.
5. Open the appropriate .inf file for the WorkCentre.
6. Select the WorkCentre TWAIN Scanner from the model list. Click **[Next]**. **For Windows 2000**, choose a port type. Select **[Automatic Port Select]** and click **[Next]**.
7. Accept the default scanner name or enter a new name. Click **[Next]**.
8. Click **[Finish]**. Files are copied to the PC.
9. For Windows XP, the Hardware Update Wizard opens. Click **[Next]**. **For Windows 2000**, a dialog opens.
10. Enter the Host Name or IP Address of the desired scanner. Click **[Confirm]**. If you do not identify a specific scanner at this time, you can select one on the Device Settings tab in driver properties.
11. For Windows XP, if prompted, select **[Yes]** to disable Simple File Sharing.
12. Click **[Next]** and then click **[Finish]** to complete the installation.
13. If prompted, reboot the workstation to finish the installation.

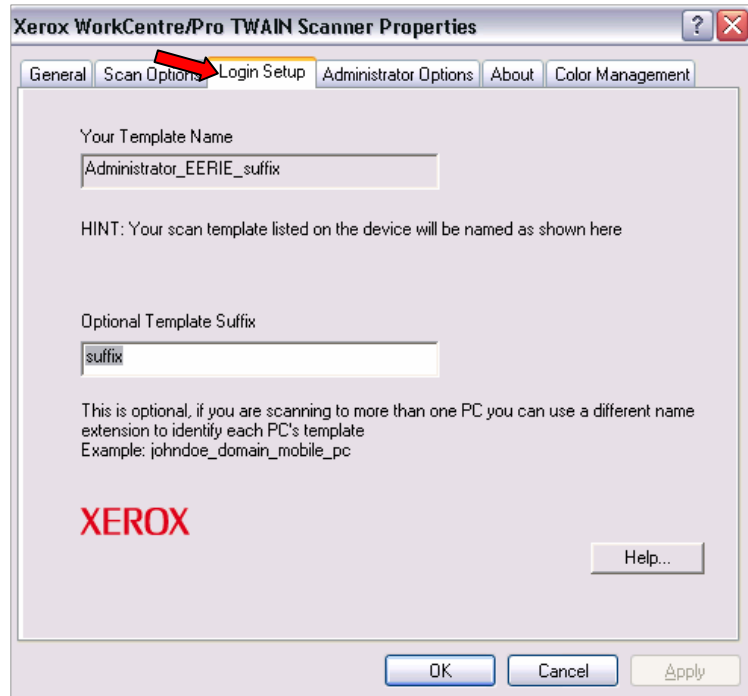
## Configuring the TWAIN Driver

Once you install the driver, you must establish a user profile. You should be logged onto the PC with your personal Windows user account when you establish your profile.

To set your profile and access driver properties:

1. Log onto your workstation with your personal Windows user account, however, administrator accounts are supported.
2. Open the Windows Control Panel.
3. Select **[Scanners and Cameras]**.
4. Right-click the scanning icon for the WorkCentre and choose **[Properties]**.


5. Select the **[Login Setup]** tab. This tab displays the default settings for your scan template. A scan template is automatically created on the device and is named based on your Windows logon name. The template name begins with an "@" symbol. Any existing templates of the same name will be overwritten.



**i** If you would like an identifying suffix added to the template name, type it in the **Optional Template Extension** field.

6. Select the **[Scan Options]** tab and select default settings for your scan template. Any of these settings can be overridden directly at the WorkCentre. Options may vary by product.
  - **Output Color:** Select whether you want scanned documents saved in color, grayscale (shades of gray to depict color variances), or black and white.
  - **Document Format:** Select the file format in which your scanned documents should be saved.
    - **JPG:** A graphic format ideal for complex pictures or photographs. Each document page becomes a separate JPG image. (Color scanners only.)
    - **TIFF:** A file format for bitmap images; simulates grayscale shading. Each document page becomes a separate TIFF image.
    - **Multi-Page TIFF:** TIFF file output in which all pages of a document are scanned into a single file.
    - **PDF:** A universal file format that preserves all fonts, formatting, graphics, and color in a source document regardless of the application and platform used to create it. All pages in the document are saved in a single file.
  - **Resolution:** The resolution setting affects the amount of detail reproduced on scanned images.
  - **Sides To Scan:** Select whether your original document is one-sided or two-sided.

- **Original Size:** If you scan a document from the platen glass rather than the document feeder, you can specify a particular scan size. This enables you to scan only a specific portion of a document page.
  - **Delete Image After Import:** If this option is checked, the scanned image is deleted and is no longer visible once it has been imported into an application.
7. If you want to scan with a different device and have Administrator rights on the PC, click the **[Administrator Options]** tab.

 **Note that you can only change the IP address or host name if one was not specified during the installation. Once a valid IP address or host name is entered, changes are not permitted.**

Enter the host name or the IP address of the device you want to configure. Click **[Apply]** or **[OK]** when finished. All templates created from that PC will be updated and configured to work with the new device

## Scanning a Document

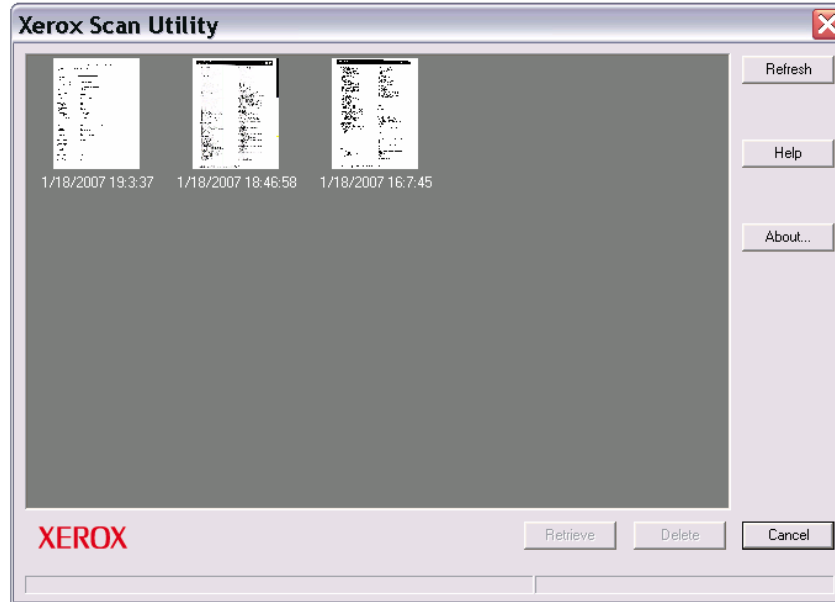
To scan using the driver:

1. Your PC must be on and you must be logged on using the same user account you used when you created your user profile.
2. At the device, touch **[All Services, Network Scanning]**, then select the desired template.
3. When prompted at the WorkCentre touch screen, enter the password for your Windows account.
4. Import the scanned image into an application using an import or insert option.

## Processing Scanned Images

Scanned documents are named based on the template used and a numbering sequence (for example, Doc001, Doc002).

Scanned images are placed in a location on the Workstation and are viewable via the Xerox Scan Utility window using a supported application's image capture option. Property information about a scanned image appears when the cursor is hovered over an image. The scanned images are located at: to C:\Documents and Settings\All Users\Application Data\Xerox\WCProTWAIN\0000\<user name>.



The following options are available for the scanned images:

**Refresh**—updates the scanned images which appear in the window.

**Retrieve**—imports a scanned image into the application.

**Delete**—removes a scanned image from the window.

If a repository location has been specified on the WorkCentre, the scanned images will be placed in that location.

## Scanning Using an Application

If you have not specified a scan repository location on the WorkCentre, you can scan and import a document into an application that does not use the Xerox Scan Utility interface or that supplies its own scan user interface.

**i** *Some steps of this procedure that pertain to the import options may vary by application.*

### To scan a document into an application:

1. Create a user template on the WorkCentre from which you intend to scan by performing the steps in the Configuring the TWAIN Driver procedure.
2. At the PC, open the application you are using to import the scan document.
3. From the application interface, select an option to import from a scanner.
4. Select the WorkCentre (that has your scan template) from which you are scanning.



5. Select scanning options and start the scan from the application interface as described in your application's user guide. The device template that you created at the device (step 1) is overwritten with the scanning options selected in the application.
6. At the WorkCentre control panel, select All Services > Network Scanning, then select the template. The format for the template name is <username>\_<domain or PC name>\_<suffix>.
7. When prompted at the WorkCentre touch screen, enter the password for your Windows account.
8. Scan your document without overriding any scan settings. The document is imported into the application.

## Security and Network Impact

Using the TWAIN driver has the following impacts:

- The protocols used are:
  - SNMP for discovery and setup of each Xerox device
  - HTTP for setup
  - SMB for file transfer
- The user's login is used to deliver scanned images to the workstation or server.
- Simple File Sharing is disabled
- The scan data is sent to a folder on the workstation during scan to file operation. The desktop does not poll the Xerox device for scan data.
- When you logon to the workstation, a user template is sent to the Xerox device using the logon ID. When you logoff from the workstation, the scan template is removed from the Xerox device.

## Additional Information

Xerox Customer Support welcomes feedback on all documentation - send feedback via e-mail to: [USA.DSSC.Doc.Feedback@mc.usa.xerox.com](mailto:USA.DSSC.Doc.Feedback@mc.usa.xerox.com).

You can reach Xerox Customer Support at 1-800-821-2797 (USA); TTY 1-800-855-2880 or at <http://www.xerox.com>.

Other Tips about Xerox multifunction devices are available at the following URL: <http://www.office.xerox.com/support/dctips/dctips.html>.

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