

Tungsten TotalAgility Administrator's Guide for Lexmark MFPs

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Preface

This guide describes how to prepare a Lexmark multifunction peripheral (MFP) to work with Tungsten TotalAgility. Included are instructions to deploy the Tungsten TotalAgility app for devices with the Cloud Solutions Framework (cSF) and Embedded Solutions Framework (eSF). After performing the applicable procedures for these devices, associate device profiles with shortcuts from Devices whenever needed.

Before continuing, see the Tungsten website at <u>www.tungstenautomation.com</u> for supported models and application versions.

Related documentation

The product documentation set for Tungsten TotalAgility is available at the following location.

https://docshield.tungstenautomation.com/Portal/Products/KTA/8.1.0-rmx0b1ux3q/KTA.htm

In addition to this guide, Tungsten TotalAgility includes the following documentation:

Tungsten Total Agility Installation Guide

The *Tungsten TotalAgility Installation Guide* provides installation instructions and other information that helps you successfully set up Tungsten TotalAgility.

Release Notes

Release notes provides late-breaking product information that may not be included in other Tungsten TotalAgility documentation. The release notes are available for viewing or downloading from the Tungsten website.

Training

Tungsten Automation offers both on-demand and instructor-led training to help you make the most of your product. To learn more about training courses and schedules, visit the <u>Tungsten Automation</u> <u>Learning Cloud</u>.

Getting help with Tungsten Automation products

The <u>Tungsten Automation Knowledge Portal</u> repository contains articles that are updated on a regular basis to keep you informed about Tungsten Automation products. We encourage you to use the Knowledge Portal to obtain answers to your product questions.

To access the Tungsten Automation Knowledge Portal, go to https://knowledge.tungstenautomation.com/.

• The Tungsten Automation Knowledge Portal is optimized for use with Google Chrome, Mozilla Firefox, or Microsoft Edge.

The Tungsten Automation Knowledge Portal provides:

- Powerful search capabilities to help you quickly locate the information you need.

 Type your search terms or phrase into the **Search** box, and then click the search icon.
- Product information, configuration details and documentation, including release news.

 To locate articles, go to the Knowledge Portal home page and select the applicable Solution Family for your product, or click the View All Products button.

From the Knowledge Portal home page, you can:

- Access the Tungsten Automation Community (for all customers).
 On the Resources menu, click the Community link.
- Access the Tungsten Automation Customer Portal (for eligible customers).
 Go to the <u>Support Portal Information</u> page and click **Log in to the Customer Portal**.
- Access the Tungsten Automation Partner Portal (for eligible partners).
 Go to the Support Portal Information page and click Log in to the Partner Portal.
- Access Tungsten Automation support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.
 - Go to the Support Details page and select the appropriate article.

Features

The following features are available with the Tungsten TotalAgility app for the Lexmark MFP.

- Management through Devices in the Tungsten TotalAgility Designer
 MFPs are able to self-register with Devices and automatically activate licenses. (This feature is optional and is not available in cloud configurations.) You can also manually activate, deactivate, or remove MFPs whenever needed. In Devices, you can open the Web page for the MFP if Tungsten TotalAgility can communicate over the network with the MFP.
- Client software on the MFP

When the client software is installed, a button is added to the front panel of the MFP to provide access to Tungsten TotalAgility features. The appearance of the front panel depends on the MFP model.

• Log on

This feature enables you to log on to the MFP as a Tungsten TotalAgility user. Logging on may provide additional options.

On eSF devices, you can use the split login feature so that users do not have to provide a password to access the device or use their shortcuts.

Shortcuts

This feature facilitates the sending of documents. In Tungsten TotalAgility Designer, use Device Create New Job to create forms that appear as shortcut buttons on the MFP front panel.

· Scan history

At the MFP, you can press the Scan History button on the main menu to view the scan history. If you are logged on, the history shows transactions you sent to Tungsten TotalAgility from any connected device. If you are not logged on, the history shows transactions sent from all anonymous users on the device, as well as any transactions that are waiting to be sent to the server from the device.

Jobs can be cancelled, depending on their status. After the cancellation is complete, the job remains in the log and has a Deleted status.

Status	Description
Pending*	The job is waiting to be sent to the server.
Sending*	Sending the job from the device or from the configured FTP folder to the server.
Completed	Successfully sent to destination.
Retrying*	The job is being resent after it failed in a previous attempt. This message indicates the number of the retry attempt.
Pending Retry*	The job failed to be sent and another attempt will be made. This message indicates the number of the retry attempt.

Status	Description
Canceling	The job is being cancelled by user request.
Pending Cancellation	A request was made by the user to cancel the job.
Error	Failed to send the job to the server.
Deleted	The job was cancelled by the user.

^{*} Can be cancelled manually on devices if the user has the FullControl access type or the proper permissions in Devices. The number of attempts and the behavior for handling a failed job is configured in Devices. The duration between attempts is set in Designer with a Tungsten TotalAgility system task. If the failed job is retried or cancelled, the device processes it after finishing all other jobs pending for process.

Display confirmation messages

You can enable confirmation messages to be sent from Tungsten TotalAgility to this MFP so that users can see status information about their transactions. Messages appear on the MFP front panel when each scanned transaction reaches the server, or if a problem occurs. See the Devices Help for instructions on setting up confirmation messages.

Language support

At the MFP front panel, you can specify the language. If the language specified is not supported by Tungsten TotalAgility, English is used by default.

· Form fields

You can enter values for form fields at the MFP. When you define forms in Devices, you can enter default values into fields for these shortcuts. The data is also validated for an appropriate type and length. You can also customize the validation and field lookup options.

Customized validation and lookup options

You can customize validation and a variety of field lookup options for forms in the Tungsten TotalAgility Designer. For more information, see Tungsten TotalAgility Help.

Device logging

Log messages from the device are stored in the Tungsten TotalAgility database. Download the log from Devices by going to the General tab for the device and clicking Download Log.

Help

Help is available at the MFP touch screen. Users can press the question mark or Help button on the touch screen to view information about the screen.

System requirements

The primary source of information about supported devices and other Tungsten TotalAgility requirements is the Technical Specifications document. The document is updated regularly, and we recommend that you review it carefully to ensure success with your product.

Before installing the Tungsten TotalAgility app for the MFP, also note the following:

- Make sure the MFP has a hard drive with sufficient storage space for images. Models without a hard drive are not supported.
- Make sure the MFP has a color touch screen. Models without a color touch screen are not supported.
- Upgrade the Lexmark MFP to Firmware 4 or later.
- If you are using the cSF app, SSL must be enabled on the Tungsten TotalAgility server.
- If you are using a cSF app in an on-premise environment, disable Windows Authentication on the Web server, which is enabled by default. Windows Authentication must be disabled so that local Tungsten TotalAgility resources can connect. If you have applications that require Windows Authentication, create a separate Web server for cSF apps with Windows Authentication disabled.

Installing Tungsten TotalAgility on the MFP

You can install the Tungsten TotalAgility app on the MFP using one of the following methods:

- Use Devices to deploy the app to multiple devices with cSF capabilities. The app is deployed using settings in the Advanced tab.
- Use the Lexmark Registration Client to deploy the app to one or more devices with cSF capabilities. The Lexmark Registration Client enables you to select options through a user interface, and it provides more detailed reporting.
- · Install the eSF app directly on an individual MFP.

Before you begin, download the Lexmark client from Devices. See the Devices help for instructions.

Deploying through Devices (cSF devices only)

If you are deploying the Tungsten TotalAgility app through Devices, first configure settings on the Advanced tab and then deploy to the devices you select.

- 1. In the **Navigation** panel, click **Settings** and then the **Advanced** tab.
- 2. Set the following settings in the mfp.lexmark.properties namespace.
 - lexmark.csf.application.cert: Server certificate public key for cSF app.
 - lexmark.csf.application.additionalcerts: Additional certificates for use by the cSF app.
 - lexmark.csf.application.icon: Application icon for the cSF app. If left blank, the default icon provided with the app is used. See Custom icons for cSF apps for requirements.
 - lexmark.csf.application.name: Name to display for the cSF app. If left blank, the default name provided with the app is used.
 - lexmark.csf.application.url: URL of the app on the server.
- 3. In the **Navigation** panel, click **Devices**.
- **4.** On the **Devices** tab, select the devices you want to deploy the app to and click **Deploy**. The window indicates whether deployment was successful on all MFPs or the ones where deployment failed.

Using the Lexmark Registration Client (cSF devices only)

Use the Lexmark Registration Client to install the Tungsten TotalAgility app to one or more cSF devices.

1. In the folder where you downloaded and extracted the client software, run RegisterLexmarkClient.exe.

The **Lexmark Registration Client** window opens.

- **2.** In the **Device IP or Hostname** field, enter the IP address or host name of the MFP you are registering. To register multiple MFPs at one time, do one of the following:
 - Enter MFP host names or IP addresses separated by commas into the **Device IP or** Hostname field.
 - If you have a file that is generated by MFP management software, select the character used to separate each entry (a comma, tab, or semicolon) in the **Delimiter**. Make sure each MFP is on a separate line and the IP address or host name is the first entry. In this example, the IP address, host name, MAC address, and model name are delimited by commas.

```
173.21.45.23,purchasing01,11-22-33-44-55-66,Purchasing 1
173.21.45.24,purchasing02,11-22-33-44-55-67,Purchasing 2
173.21.45.25,purchasing03,11-22-33-44-55-68,Purchasing 3
173.21.45.26,purchasing04,11-22-33-44-55-69,Purchasing 4
173.21.45.27,purchasing05,11-22-33-44-55-70,Purchasing 5
```

If the first entry is not an IP address or host name, correct it before attempting to import the file.

• Create a text file to import with all your IP addresses or host names with a line break after each, as shown in the following example. If you use this method, it does not matter what is selected in the **Delimiter** field.

```
173.21.45.28
173.21.45.29
173.21.45.30
173.21.45.31
173.21.45.32
```

If you have a file to import, click **CSV File** and select the file.

- 3. Complete the fields in the **cSF Settings** section as follows:
 - **a.** To use a custom name for the app, enter it in the **Application Name** field. Leave this field blank to use the default name.
 - **b.** For the **Certificate Public Key** and **Additional Certificates** fields, click **Select** and choose the path and file for the certificate from the window that appears.
 - c. Use the Application URL table to assign URLs for the application. A different version of the application can be used for each of the standard Lexmark screen sizes and resolutions, and the Lexmark Registration Client uses the URL that matches the screen size. The Other option is used for screen sizes and resolutions other than the ones listed. If no URL is found for a device, an error occurs.
 - d. To use a custom icon for the app, use the **Application Custom Icon** field. Click **Select** and choose the path and file for the icon from the window that appears.
 Leave this field blank to use the default icon.

4. Click Register.

The Lexmark Registration Client validates the fields based on the deployment mode you selected and indicates any missing fields. The progress bar at the bottom of the window indicates the status of the registration.

When the registration process is completed, the **Registration Results** window lists successful deployments as well as any errors. Right-click and copy one or more selected items or select them all.

5. When you finish viewing the **Registration Results** window, click **OK** and close the Lexmark Registration Client.

① You can unregister an cSF app from the devices listed in the Device IP or Hostname or a selected CSV file by clicking **Unregister**.

Installing the eSF app directly on the MFP

When installing the eSF app directly on the MFP, installation of the Tungsten TotalAgility app consists of the following processes:

- Installing the application on the MFP.
- Configuring the MFP to connect to Tungsten TotalAgility.
- Making sure the client software on the MFP has started.

Follow these steps to install the Tungsten TotalAgility app on a single MFP. This procedure only applies to the eSF app. If you are installing the cSF app, deploy through Devices or use the Lexmark Registration Client.

- 1. Enter the URL for the MFP in your browser window.
- 2. On the **Device Status** page, click **Configuration** or **Settings**, depending on the model.
- 3. On the page that appears, select either of the following, depending on the model.
 - For Android models, click **Apps**.
 - For all other models, click **Embedded Solutions**, which is located under **Other Settings**.
- 4. Click Install.
- 5. On the Install A New Solution page, for the Solution Install File box, click Browse.
- **6.** In the **Choose file** window, locate and open the file that applies to your device.
 - TungstenLexmarkAndroidClient.fls: For Android Lexmark models.
 - TungstenLexmarkClient.fls: For all other Lexmark models.

If you are unable to use TungstenLexmarkClient.fls because of network bandwidth or disk space on the MFP, you can use TungstenLexmarkClient_compact.fls instead. This file contains all features except the Japanese keyboard. If either the TungstenLexmarkClient.fls or TungstenLexmarkClient_compact.fls file cannot be installed directly because of limitations on the device, you can install the client software by uploading it to the device as shown in Uploading the client software file with FTP or embedded web server.

Locate the appropriate file in the folder where you downloaded and extracted the client software.

- 7. On the **Install A New Solution** page, with the path and file now appearing in the **Solution Install File** box, click **Start Install**.
 - When the installation is complete, Tungsten appears on the **Installed Solutions** page, under **Installed Solutions**.
- 8. Continue the installation as shown in Configuring the MFP to connect to Tungsten TotalAgility.

Configuring the MFP to connect to Tungsten TotalAgility

If you are installing an eSF app, follow these steps to complete the configuration.

- 1. On the MFP, go to the **Installed Solutions** page.
- 2. Under Installed Solutions, select Tungsten
- 3. On the Tungsten Configuration page, click Configure.
 - i Labels on the Web interface may differ depending on the model. For example, **Configuration** may be labeled **Settings**.
- **4.** On the **Configure** page, change the configuration settings associated with Tungsten TotalAgility as needed. Move your mouse pointer over the question mark (?) buttons to display Help for each setting.

Note the following:

- The supported resolutions are 150, 200 (recommended), 300, and 400 dpi.
- If Tungsten TotalAgility uses a virtual directory, enter the name of the directory in the **Path** field. For example, if you are using the default path for an on-premise deployment of Tungsten TotalAgility, enter TotalAgility. If you are using Tungsten TotalAgility in a Software as a Service environment, leave the field blank.
- 5. Click Apply.
- **6.** Verify that the Tungsten client software has started:
 - **a.** On the Tungsten **Configuration** page, click the **Solutions** tab.
 - **b.** On the **Installed Solutions** page, under **State**, make sure **Running** is indicated in the **State** column.

If **Running** is not indicated, start the Tungsten client software as follows:

- Select the check box to the left of Tungsten.
- Click **Start**.

The **State** column indicates **Running**.

After closing the page, a Tungsten button appears on the MFP Home screen.

The MFP is now ready to use with Tungsten TotalAgility. Depending on the Devices settings, pressing the Tungsten button causes the MFP to self-register and license itself, and connect to the default device profile if one is defined. See the Devices Help for information about self registration and default device profiles.

Removing the eSF App Directly on the MFP

You can remove the app when needed. Before removing the software, make sure that any scanned documents have been received.

• Make sure that scan jobs have been completed before removing the client software. The removal process stops the client software. Jobs that were not completed and received can be lost.

1. Entering the URL for the MFP in your browser window.

- **2.** On the **Device Status** page, click **Configuration** (on the left side of the page).
 - i Labels on the Web interface may differ depending on the model. For example, **Configuration** may be labeled **"Settings."**
- 3. On the Configuration page, under Other Settings, select Embedded Solutions.
- **4.** On the **Installed Solutions** page, under **Installed Solutions**, select the check box to the left of Tungsten.
- **5.** Click **Stop**.
 - The **State** column indicates **Stopped**.
- **6.** Select the check box to the left of Tungsten and click **Uninstall**. The Tungsten client software is removed from the list of installed solutions.

Upgrading Tungsten TotalAgility on the MFP

To upgrade Tungsten TotalAgility on the MFP, do the following:

- For cSF apps, use Devices or the Lexmark Registration Client. You do not have to uninstall the previous version. When the installation is complete, the new version of Tungsten TotalAgility appears in the Installed Solutions or Installed Apps page.
- To upgrade Tungsten TotalAgility on the MFP, remove the app as shown in Removing the eSF App Directly on the MFP and then install the new version as shown in Installing the eSF app directly on the MFP.

Support for single sign on

Tungsten TotalAgility supports single sign on for users who are also registered users on the Lexmark MFP. Users who log on to the MFP are also logged on automatically to Tungsten TotalAgility. This feature supports BluePrint, Lexmark, and other card validation methods.

To use single sign on, a user group needs to be created on the device that has the Apps access control assigned to it. The user name for the MFP must exactly match the user name for logging on to Tungsten TotalAgility. User names for a Lexmark MFP are set using the User Name property of the device. See the Lexmark documentation for instructions.

If the logged on user is a domain user, use this setting in Devices by selecting **Settings** > **Advanced**.

- Namespace: mfp.lexmark.properties
- Name: sso.activedirectory.domain
- Value: The domain associated with the authenticated MFP user.

Configuring split login (eSF devices only)

Split login enables you to configure an MFP so that a user does not need to provide a password to access the device or shortcuts. At the same time, the device authentication with the server is preserved.

When split login is enabled, the following occurs:

- When users tap Log On on the device, they are prompted for their user name but not their password.
- When users tap on a personal shortcut, they are also not prompted to enter a password, unless it is a DCNJ shortcut or a shortcut configured so that a password is required.

A password is required the first time you use an MFP when Require Authentication for Device Registration is enabled in Devices. When authentication is successful, the device is registered. If split login is enabled, users are not prompted for a password unless required for a shortcut. If the device is configured for single sign-on (SSO) with the server, a password is not required.

Follow these steps to configure split login in Tungsten TotalAgility. See the help for more details.

- 1. Configure the process so that it uses split login.
 - **a.** In Tungsten TotalAgility Designer, open the process and select the activity you want to configure.
 - **b.** Open the **Extended Properties** for the activity.
 - c. Click Advanced.
 - d. Set the MFP Ready field to MFP Only No Password Required.
 - **e.** Accept the changes and complete your changes to the process.
- **2.** Configure the device to use split login.
 - **a.** In Tungsten TotalAgility Designer, select **System Settings** > **Devices**. The Devices application appears in a browser window.
 - **b.** Select **Device Profiles**.
 - **c.** Select the **General** tab, if it has not already been selected.
 - **d.** In the **Logon** field, select **Allow Split Login**.
 - e. Associate the devices with the profile and make any desired setting changes.
 - **f.** Save the profile.

Device profiles updates

When a device profile associated with an MFP changes, the changes are reflected on the front panel of the MFP when it polls Tungsten TotalAgility. This poll occurs when the Tungsten TotalAgility client software button is pressed. To ensure the MFP contains the most current device profile information, do the following:

- Make changes to device profiles when there is low user activity, such as at night.
- Set the Auto Logout Time to a short period, such as 60–180 seconds, so that the next user who presses the Tungsten button retrieves the latest profile.

MFP shutdown

When you shut down the MFP, be aware of the following:

- Allow 10 seconds after performing the last scan job before shutting down the MFP.
- If you shut down the MFP before responding to the prompts on the Scan Complete page, scanned pages can be lost.
- If you shut down the MFP after the scan job is complete but before all scanned pages are delivered, delivery should finish when you turn on the MFP again.

Additional information

The following is additional information which may be of interest to you when working with Tungsten TotalAgility and the MFP.

Scan settings for Lexmark Android devices

On Lexmark Android devices, if the scan profile contains setting combinations that cannot be achieved on the device (such as selecting the ADF and a paper size that cannot fit in the feeder), the device may override the settings defined in your scan profile. Review the settings in Scan/Profile before scanning.

Uploading the client software file with FTP or embedded web server

If the client software cannot be installed directly on the MFP, upload it to the device using FTP. If FTP is not available, you can use the Embedded Web Server (EWS). You can upload either TungstenLexmarkClient.fls if you have sufficient drive space or TungstenLexmarkClient_compact.fls if you have limited drive space and do not require the Japanese keyboard.

Before you begin, make sure you have downloaded the Lexmark client from Devices and extracted the .fls files to a folder on your computer.

To upload using FTP, do the following:

- **1.** Run an FTP client program and put the session in binary mode.
- 2. Connect to the Lexmark MFP using its IP address or host name.
- **3.** Upload the .fls file to the device.

If you need to use EWS, do the following:

- 1. In EWS, click **Settings** > **Update Firmware**.
- 2. Click Choose File.
- **3.** Select the .fls file.
- 4. Click Submit.

The client software file is installed.

Custom icons for cSF apps

If you want to use a custom icon for a cSF app, make sure it meets the following requirements:

- Saved in RGB .png format. (Indexed .png is not supported.)
- Maximum size of 384 x 384 pixels.
- Transparent background.
- · 8-bit color depth.
- · Maximum size of 128 KB.

Handling of unsupported paper sizes

If a paper size defined in Devices is not supported by the device, the scanned image will be the largest paper size in the feeder. If the original image is smaller than the largest paper size, the image is kept at the original size with white space surrounding it.

Lexmark X548 default settings and color scans

On the Lexmark X548, grayscale images of originals with a colored background may require scanning at 300 dpi resolution instead of the default 200 dpi. The higher resolution enables Tungsten VRS to remove the background and resolve text clearly when the scanned images are converted to bitonal images.

Options for Scan/VRS profiles

The Scan/VRS Profiles Configuration page in Tungsten TotalAgility Designer has the following options under Allow Run Time Edit to enable scan settings to be changed during runtime:

- Paper Size
- Duplex
- Resolution
- Color

By default, these options are set to Yes, and Resolution is automatically mapped to the nearest lower DPI value supported by the MFP. If a setting cannot be changed for an MFP model at runtime, it is disabled or removed on the MFP, and the setting specified in the Scan/VRS Profile is used for scanning.

Configuration for large scan jobs

When sending large jobs (such as 160 pages at 600 dpi or 700 pages at 300 dpi) with a Lexmark cSF device, it may be necessary to increase the default maxReceivedMessageSize setting in Web.config. In the folder where you installed Tungsten TotalAgility, go to the Agility.Server.Web folder and open Web.config with a text editor. Locate the

sinding> element and the maxReceivedMessageSize attribute (shown in bold).

```
<binding name="WebHttpBinding_DeviceStreamingService" openTimeout="00:10:00"
closeTimeout="00:10:00" sendTimeout="00:10:00" receiveTimeout="00:10:00"
maxBufferSize="2147483647" maxReceivedMessageSize="2147483647"
transferMode="Streamed">
```

The default setting of 2147483647 can handle approximately 350 color pages at 300 dpi. For larger jobs, increase the value to a maximum of 4294967295 (1 byte less than 4 GB) to support the resolution and number of pages. Jobs larger than 4 GB are not supported.

Timeouts when scanning from Lexmark cSF MFPs

When using a Lexmark MFP with a cSF client, the Tungsten TotalAgility server times out when it has not received data from the device within a period of time. A long delay during scanning, such as an unresolved paper jam, can cause the server to time out. After the timeout, the device cannot send data for the current scan job, and it may still be unavailable when you start a new job.

If you are unable to scan, wait for a few moments for the condition to clear and try scanning again.

You can adjust the duration that the server waits before timing out in the IIS. Increase the Connection Time-out setting for the website used by Tungsten TotalAgility server, such as the Default Web Site. Choose a timeout duration that best fits any reasonable delays. See the IIS documentation for instructions.

Even if you extend the setting, the device may still time out. This is independent of the server setting. The device timeout might not always be apparent. You may be able to scan a document after the delay, but the document does not get to the server.