Kofax TotalAgility

MFP Web Services Connector SDK Developer's Guide
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KOFAX

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Preface

This guide provides an overview and instructions for developing inputs with the MFP Web Services Connector Software Developer Kit (SDK). Along with this guide, the SDK provides documentation for the Web services.

Related documentation

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

https://docshield.kofax.com/Portal/Products/en_US/KTA/7.9.0-dpm5ap0jk8/KTA.htm

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

Kofax TotalAgility Installation Guide
Describes how to install and configure Kofax TotalAgility.

Kofax TotalAgility Administrator's Guide
Provides information to the administrator how to configure and maintain a Kofax TotalAgility installation.

Kofax TotalAgility Designer Help
Provides details about using Kofax TotalAgility to design business jobs and cases, assign resources, create forms, integrate with external applications, and more. Access the help from the Kofax TotalAgility application by clicking the Help button.

Kofax TotalAgility Workspace Help
Describes how to use the workspace to manage activities, jobs, and resources. Access the help from the Kofax TotalAgility workspace by clicking the Help button.

Kofax TotalAgility On-Premise Multi-Tenancy Guide
Describes how to create and manage tenants using the Kofax TotalAgility On-Premise Multi-Tenant system.

Kofax TotalAgility Product Features Guide
Provides an overview of the dashboards that help you track data through the workflow, analyze the effectiveness of the processes and resources, and address business problems.

Developer Resources

The developer resources include documentation, code samples, API references, and other aids that developers can use to customize or add functionality to the Kofax TotalAgility product.

Getting help with Kofax products

The Kofax Knowledge Base repository contains articles that are updated on a regular basis to keep you informed about Kofax products. We encourage you to use the Knowledge Base to obtain answers to your product questions.

To access the Kofax Knowledge Base, go to the Kofax website and select **Support** on the home page.

Note The Kofax Knowledge Base is optimized for use with Google Chrome, Mozilla Firefox or Microsoft Edge.

The Kofax Knowledge Base 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.

  Scroll through the Kofax Knowledge Base home page to locate a product family. Then click a product family name to view a list of related articles. Please note that some product families require a valid Kofax Portal login to view related articles.
- Access to the Kofax Customer Portal (for eligible customers).

  Click the **Customer Support** link at the top of the page, and then click **Log in to the Customer Portal**.
- Access to the Kofax Partner Portal (for eligible partners).

  Click the **Partner Support** link at the top of the page, and then click **Log in to the Partner Portal**.
- Access to Kofax support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.

  Scroll to the **General Support** section, click **Support Details**, and then select the appropriate tab.

Training

Kofax offers both classroom and computer-based training to help you make the most of your Kofax TotalAgility solution. Visit the Kofax website at www.kofax.com for details about the available training options and schedules.

System requirements

The primary source of information about supported operating systems and other Kofax TotalAgility requirements is the Technical Specifications document, which is available on the Kofax website at www.kofax.com.

- Adobe Reader (to view the Developer's Guide)
- HTML Help Viewer and a web browser (to view the API documentation)

Accessing the SDK

The SDK is found in the Kofax TotalAgility product files, and is copied to a `\OtherResources` `\DeveloperResources\WebAPISample` folder where Kofax TotalAgility is installed by the setup process.

Access the .NET Validation API Reference with the rest of the product documentation. See the instructions in the *Kofax TotalAgility Installation Guide*.

Developer recommendations

This section provides recommendations for developing with the MFP Web Services Connector.

Supporting global shortcuts

In the Devices, the administrator defines destinations and shortcuts, which can be assigned to a device profile. When the device profile is deployed to a licensed MFP Web Services Connector client, the global shortcuts associated with the device profile are made available to that client.

To obtain the list of global shortcuts in the device profile deployed to the client, call the getProfile method of the ProfileService. Make sure that you only send to destinations obtained from a global shortcut in the client's current profile.

1. Start a new document submission job by calling the startJob method of the StartJobService.
2. Repeat the following steps for each image:

    a. Copy the destination information from the global shortcut's WscDestination object into the WscDestination object of a WscSendImageRequest, including the index fields of the WscDestination object.

    b. Complete the appropriate index field information.

    c. Send the WscSendImageRequest and the image by using the sendImage method of the SendImageService.

3. Complete the document submission job by sending a final sendImage request with the done field in the WscSendImageRequest set to true.

Using RESTful web services

Kofax TotalAgility provides RESTful web services. These are documented in the Kofax TotalAgility RESTful API Reference.

The `\DeveloperResources\WebAPISample` folder also contains a sample Visual Studio project.

RESTful APIs support requests and responses to URIs in JSON format. The base address of the RESTful Web services is http://<server>:<port>/totalagility/kofax/kfs/api/v1. (If you are using SSL, replace http with https.) Applications that use RESTful Web services follow this basic flow.

1. Register the client to Kofax TotalAgility by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/client/{id}

2. Get global destinations and shortcuts by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/client/{id}?sessionID={sessionID}&locale={locale}

3. Get personal destinations and shortcuts by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/users/{userID}/forms?sessionID={sessionID}&clientID={clientID}&locale={locale}

4. Get index fields of a destination or shortcut by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/form/{id}/fields?sessionID={sessionID}&clientID={clientID}&locale={locale}

5. Validate a value of an index field of the destination/shortcut by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/form/{id}/fields?currentField={fieldName}

6. Validate values of all index fields of the destination/shortcut using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/form/{id}/fields

7. Start submitting a job by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction

8. Send images of the job to Kofax TotalAgility by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}

9. End submitting the job by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}

Additional RESTful web services

Kofax TotalAgility metrics are supported by legacy web services and the following equivalent RESTful web services:

- To get lists of devices for the specified vendors by using this service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/metrics/devicelist

- To invoke the metric service to get all shortcut names on server by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/metrics/shortcutnames

- Invokes the metric service to get information for the specified metric types by using the service endpoint URI: http://<server>:<port>/totalagility/kofax/kfs/api/v1/metrics/metrics

Supporting personal and group shortcuts

A user's list of personal and group shortcuts is returned by the login method of the UserLoginService. Only the personal shortcuts and the group shortcuts associated with the logged on user are retrieved.

Once you have retrieved the shortcuts, follow the appropriate steps for sending images to the shortcut. Note the following:

- A user ID and password are required when sending to a personal or group shortcut.

- Make sure that you only use destinations obtained from a personal or group shortcut in the list returned by the login call.

1. Obtain the index field information for the shortcut by calling the getIndexFields method of the GetIndexFieldsService. When setting values of the WscIndexFieldsRequest, note the following:
   - Set the shortcutName and shortcutTypeOrdinal fields to the corresponding values from the selected shortcut.
   - Set the user name and password.

   > **Note** The backendId, dataStoreName, formTypeId fields are no longer required and will be ignored if you set values for them.

2. Start a new document submission job by calling the startJob method of the StartJobService.
3. Send the image by doing the following:
   a. Copy the destination information from the shortcut's WscDestination object into the WscDestination object of the WscSendImageRequest.
   b. Fill in the associated index field array from the WscIndexFieldResponse obtained in step 1.
   c. Set the appropriate index field values.
   d. Set the user name and password in the WscSendImageRequest.
   e. Send the WscSendImageRequest and the first image by using the sendImage method of the SendImageService.
4. Repeat step 3 for each image.
5. Send a final sendImage request with the **"done"** field in the WscSendImageRequest set to true, to complete the document submission job.

Requirement for unique job IDs

Every job submitted to Kofax TotalAgility must have a unique job ID that is different from any job ID used by any other MFP Web Services Connector client or input device (such as MFPs and scanners). Use a randomly generated GUID for each job because a timestamp does not guarantee uniqueness, especially across multiple devices.

Completing document submission jobs

After you have initiated a document submission job with StartJobService, images and metadata files remain in the Kofax TotalAgility `scanjobs` folder until the job is done, canceled, or aborted. To make sure that incomplete document submissions jobs do not take up too much space on the server, make sure all jobs are completed.

When sending to a shortcut, the job is completed by calling the SendImageService with a WscSendImageRequest where the done, canceled, or aborted field is set to true. Similarly, one of the done, canceled, or aborted fields would be set to true in the last WscSendWithCoversheetRequest to complete a job when sending with a coversheet.

MFP Web Services Connector client licensing

The MFP Web Services Connector client is licensed through the Kofax TotalAgility Device license. RESTful web services are licensed as mobile. Clients that use the following legacy or RESTful web services decrement the Scan/Import and PDF Image+Text page counts.

- Legacy web services:
  - SendImageService
  - SendToKDEInboxService
  - SendWithCoversheetService
- RESTful web service endpoint URIs:
  - http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}
  - http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}/page/{pageID}/part/{partID}
  - http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}/pagestream/{pageID}
  - http://<server>:<port>/totalagility/kofax/kfs/api/v1/transaction/{transactionID}/pagestream/{pageID}/part/{partID}

Adding a MFP Web Services Connector client

In the Devices, add the MFP Web Services Connector client manually as shown in the Devices Help. Some fields on the Add Device tab need to be entered differently from other devices, as listed in this section. After adding the MFP Web Services Connector client, associate a device profile to it as you would with any other device.

IP

This field is required by the Devices. If the client does not have an IP address, enter a fictional IP address that is not the same as any other IP addresses licensed on Kofax TotalAgility. Make sure it is in the correct format for an IP address.

Device name

Enter any name to identify the MFP Web Services Connector client.

Host name

Enter the name for the client if it does not have a host name. This name must not correspond to any real host.

Device model

Enter "other" (without quotation marks) for a MFP Web Services Connector client.

MAC address

This field is required by the Devices. It is also required by MFP Web Services Connector as the Device ID for invoking Web services.

If the client does not have a MAC address, enter a fictional address that is not the same as any other MAC address licensed on Kofax TotalAgility. Make sure it is in the correct format for a MAC address:

`xx-xx-xx-xx-xx-xx`

Where x is a hexadecimal digit and digits must be separated with dashes.

> **Note** When invoking a Web service that requires a MFP Web Services Connector client ID, make sure you use dashes in the MAC address that you pass in as the MFP Web Services Connector client ID, as shown in the format above. Using colons instead of dashes as separators will result in an error.

Description

Enter a description of the MFP Web Services Connector client. This field is optional.

Device Profile

After you have saved the device, select a device profile. In a device profile, you can specify whether Kofax licensing applies. See MFP Web Services Connector.