Kofax Import Connector
2.3.0

Administrator's Guide

KOFAX

Contents

Preface

Introduction

This guide contains essential information about configuring and operating Kofax Import Connector.

This guide assumes that you have a thorough understanding of Windows standards, applications, and interfaces. It also assumes that you have a thorough understanding of the Internet, your network configuration, and Kofax Capture.

This guide is for system administrators who are configuring and operating Kofax Import Connector, or who need a description of the configuration procedures and operation.

Related Documentation

In addition to this *Kofax Import Connector Administrator's Guide*, the following additional documentation is available:

- Kofax Import Connector Installation Guide
- Kofax Import Connector Developer's Guide
- Message Connector Help
- KC Plug-In Help
- Release notes

Help

The online Help systems included in Kofax Import Connector provide online assistance for system administrators and operators alike. You can access online Help from any application window by clicking Help.

Release Notes

Late-breaking product information is available from release notes. You should read the release notes carefully, as they contain information that may not be included in other Kofax Import Connector documentation.

Training

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

Getting Help for Kofax Products

Kofax regularly updates the Kofax Support site with the latest information about Kofax products.

To access some resources, you must have a valid Support Agreement with an authorized Kofax Reseller/Partner or with Kofax directly.

Use the tools that Kofax provides for researching and identifying issues. For example, use the Kofax Support site to search for answers about messages, keywords, and product issues. To access the Kofax Support page, go to www.kofax.com/support.

The Kofax Support page provides:

▪ Product information and release news

Click a product family, select a product, and select a version number.

▪ Downloadable product documentation

Click a product family, select a product, and click **Documentation**.

▪ Access to product knowledge bases

Click **Knowledge Base**.

▪ Access to the Kofax Customer Portal (for eligible customers)

Click **Account Management** and log in.

To optimize your use of the portal, go to the Kofax Customer Portal login page and click the link to open the *Guide to the Kofax Support Portal*. This guide describes how to access the support site, what to do before contacting the support team, how to open a new case or view an open case, and what information to collect before opening a case.

▪ Access to support tools

Click **Tools** and select the tool to use.

▪ Information about the support commitment for Kofax products

Click **Support Details** and select **Kofax Support Commitment**.

Use these tools to find answers to questions that you have, to learn about new functionality, and to research possible solutions to current issues.

Overview

Kofax Import Connector is an add-on to Kofax Capture responsible for importing messages and files in many electronic formats.

It has two main components:

- Message Connector is usually installed on a standalone computer. It retrieves documents from various sources, converts them to Kofax Capture compatible format and saves them in its internal storage.
- KC Plug-In is installed at the Kofax Capture computer. It connects to one or more Message Connectors and imports documents to Kofax Capture for further processing.

Kofax Import Connector can import messages and files from many sources:

- email messages including attachments using various email protocols (SMTP, POP3, IMAP, EWS)
- fax messages (via internal fax over IP server or external fax servers: Kofax Communication Server, RightFax, Biscom)
- files from a local or network folder
- files via web services

This guide provides important information about configuring and operating Kofax Import Connector, including:

- Instructions for configuring Kofax Import Connector
- Instructions for integrating with third party environment, such as fax servers or email servers
- Instructions for operating and monitoring Kofax Import Connector

Concepts

Kofax Import Connector uses a unified workflow for documents from all sources. Older import connectors have used various approaches for importing documents to Kofax Capture. This section describes the concepts that you need to understand before configuring Kofax Import Connector.
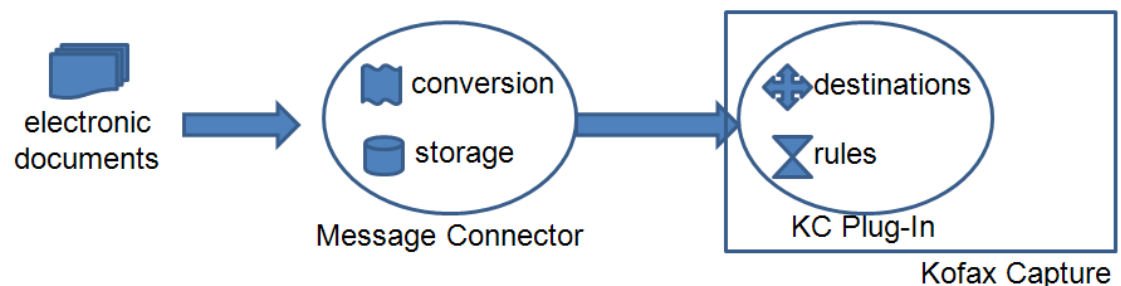
Storage

Before importing to Kofax Capture, documents from all sources are saved to the internal storage of Message Connector. KC Plug-In periodically polls all connected Message Connectors and imports the documents to Kofax Capture. Processed documents in the storage are automatically deleted when the space is required for new documents. Administrators can access the documents in the storage; refer to Viewing Messages in the Storage and Managing Failed Messages Manually.

Conversion

Message Connector can convert the documents from the storage before importing them to Kofax Capture. The conversion tools have to be installed on the same computer as Message Connector. Refer to *Kofax Import Connector Installation Guide*.

Destination

Destinations tell Kofax Capture how it should handle documents received from Kofax Import Connector. In a destination, you select things like the desired document conversion, what part of document do you want to import (e.g. only attachments in case of emails), what batch class to use, and much more. You can also map metadata of imported documents to Kofax Capture batch / folder / document fields. Refer to Configuring Destinations for Imported Documents.

Connection between Message Connector and Kofax Capture

The KC Plug-In component of Kofax Import Connector is directly integrated with Kofax Capture. The Message Connector is usually installed on another computer. However, these two components must communicate. Therefore, a connection to Message Connector must be defined in KC Plug-In. Refer to Connecting KC Plug-In to Message Connector.

You can also define how often should KC Plug-In poll for new documents and you can restrict the operating time of this connection. Even when the connection is inactive, documents delivered via SMTP email, fax over IP, and web service are accumulated in Message Connector storage.

When you define a connection, you must select the default destination. All documents are handled accordingly... unless you specify different rule.

Rule

Formerly called destination mappings in Kofax Capture Import Connector - Advanced Email and Fax, rules allow you to filter documents and assign them to destinations. Rules override the default destination of a connection. For example, you can decide that all email messages go to destination 1. All faxes from number starting with 123 use destination 2. Refer to Configuring Rules.

Configuration

This chapter lists the most common tasks necessary to configure Kofax Import Connector.

The tasks below do not mention all parameters; you can configure much more than what's listed here. The Message Connector configuration utility shows a brief description of all parameters inline. The KC Plug-In offers tooltips. All parameters are described in the online help.

A general procedure for configuring Kofax Import Connector is here:

1 Add at least one batch class to Kofax Capture and publish it. Refer to Kofax Capture documentation for information about batch classes. If you want to use sample batch classes, refer to Importing Batch Classes.

2 Optionally, if you want to differentiate between XML documents and handle them differently, you can define XML types. Kofax Import Connector can identify XML documents with a particular namespace and root element. Refer to Configuring XML Types.

3 Create a destination using a batch class and, optionally, an XML type. Refer to Configuring Destinations for Imported Documents.

4 Connect KC Plug-In to Message Connector. Refer to Connecting KC Plug-In to Message Connector.

5 Select and configure one or more sources to import documents from:
   - Import via fax over IP. Refer to Configuring Message Connector as FoIP Server.
   - Import via SMTP. Refer to Configuring Message Connector as SMTP Server.
   - Import via web services. Refer to Configuring Message Connector for Web Service Input.
   - Import from an IMAP, POP3, or EWS mailbox. Refer to Accessing Mailboxes (IMAP, POP3, EWS).
   - Import from a folder. Refer to Accessing Folders.
   - Import from a fax server. Refer to Accessing Fax Servers.

6 Optionally, if you want to differentiate how to handle specific messages, add rules that change the default destination. Refer to Configuring Rules.

7 Set up the tools for document conversion. Refer to Configuring Document Conversion.

8 Select what to do in case of failures. Refer to Managing Failed Messages Manually.

9 Start the KC Plug-In service. Refer to Starting and Stopping the KC Plug-In Service.

Configuring Incoming Documents

Use this chapter to configure:
- From where should Kofax Import Connector import documents (e.g., email, fax, folder)

▪ What tools should be used for converting documents

Configuring Message Connector as FoIP Server

Message Connector can act as a fax over IP device and accept incoming faxes. To receive faxes, fax over IP infrastructure must be available and configured properly.

1 On the KC Plug-In computer, create or edit a connection between KC Plug-In and Message Connector. Click **Add** and select **FoIP Import** to add fax over IP to the list of import connectors. Refer to Connecting KC Plug-In to Message Connector.

2 Contact the administrator of your fax over IP network. On the FoIP gateway, the IP address of Message Connector must be assigned an extension. In the ideal case, no further configuration is necessary and faxes sent to that extension will automatically end up in Message Connector storage. If not, proceed with the next steps.

3 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

4 Optionally, on the General tab, enter the **Own Fax Number**. This number is displayed on the fax device that sends a fax to you as your fax number.

5 Click **Advanced** to display additional configuration options.

6 On the Security Options tab, verify that Disable FoIP is not selected.

7 On the List of Call Peers tab, specify the protocol supported by your FoIP gateway (H.323 or SIP, with or without registration), its IP address and port, and other parameters as required by the gateway.

8 Review the settings in the tabs VoIP/FoIP Network, Voice Codecs, Fax, H.323 Signaling, and SIP Signaling.

9 Click **Save**. Click **Exit and restart service**.

Connecting KC Plug-In to Message Connector

A single instance of KC Plug-In can connect to multiple Message Connectors.

At least one destination must exist before connecting to Message Connector. Refer to Configuring Destinations for Imported Documents.

1 Start KC Plug-In configuration. Do **one** of the following

▪ On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.

▪ On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2 On the Connection Tasks menu, click **Add Connection**.

3 Enter a descriptive Connection name.

4 Change the Message Connector URL to your installed Message Connector host name.

5 If a password for the Process user is configured in Message Connector, enter it into the Password field (blank by default).

6 Click **Test Connection** to verify that KC Plug-In can connect to Message Connector.

7 Select a Default Destination.

Note The default destination must not have an XML type specified.

8 Enable one or more import connectors to tell Kofax Import Connector what kind of documents should it import:

   a Click **Add** and select **SMTP Import** to enable import via SMTP email. Refer to Configuring Message Connector as SMTP Server.

   b Click **Add** and select **Web Service Import** to enable import via web service interface. Refer to Configuring Message Connector for Web Service Input.

   c Click **Add** and select **FoIP Import** to enable import via fax over IP. Refer to Configuring Message Connector as FoIP Server.

   d Click **Add** and select **Mailbox Import** to enable importing of POP3, IMAP, and EWS email. Refer to Accessing Mailboxes (IMAP, POP3, EWS).

   e Click **Add** and select **Fax Server Import** to enable importing of fax messages from compatible fax servers. Refer to Accessing Fax Servers.

   f Click **Add** and select **Folder Import** to enable importing of documents from a local or network folder. Refer to Accessing Folders.

You can add and operate multiple import connectors in parallel (up to 100). However, you can select FoIP, SMTP, or web service import only once.

9 Click **OK**. Restart the KC Plug-In service.

Note Connecting multiple KC Plug-Ins to a single Message Connector is not supported.

Configuring Message Connector as SMTP Server

Message Connector can act as an SMTP gateway and accept incoming SMTP emails.

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 Go to the General tab and enter the Own Computer Name (might be necessary for SSL).

3 Optionally, on the Email Inbound via SMTP tab, specify the Local IP Address (IP address of the used network adapter; required e.g. in clustered environment) and port. You can also enable SSL.

4 Verify that SMTP input is not disabled:

   a Click **Advanced**.

   b Go to the Security Options tab.

   c Make sure that Disable SMTP Server is not selected.

5 Click **Save**. Click **Exit and restart service**.

6 On the KC Plug-In computer, create or edit a connection between KC Plug-In and Message Connector. Click **Add** and select SMTP Import to add SMTP email to the list of import connectors. Refer to Connecting KC Plug-In to Message Connector.

7 Next, you need to configure your email server (e.g. Microsoft Exchange) to forward messages to Message Connector via SMTP. Contact your mail server administrator.

E.g., with Microsoft Exchange 2010, use a new logical domain (e.g. user1@kic.ed.com) and create a send connector for this domain. The address space of the send connector

must contain the domain (e.g. kic.ed.com). Then configure the Message Connector (e.g. 192.168.10.10) as smart host for the new send connector. Exchange users can now send to all addresses in the domain kic.ed.com.
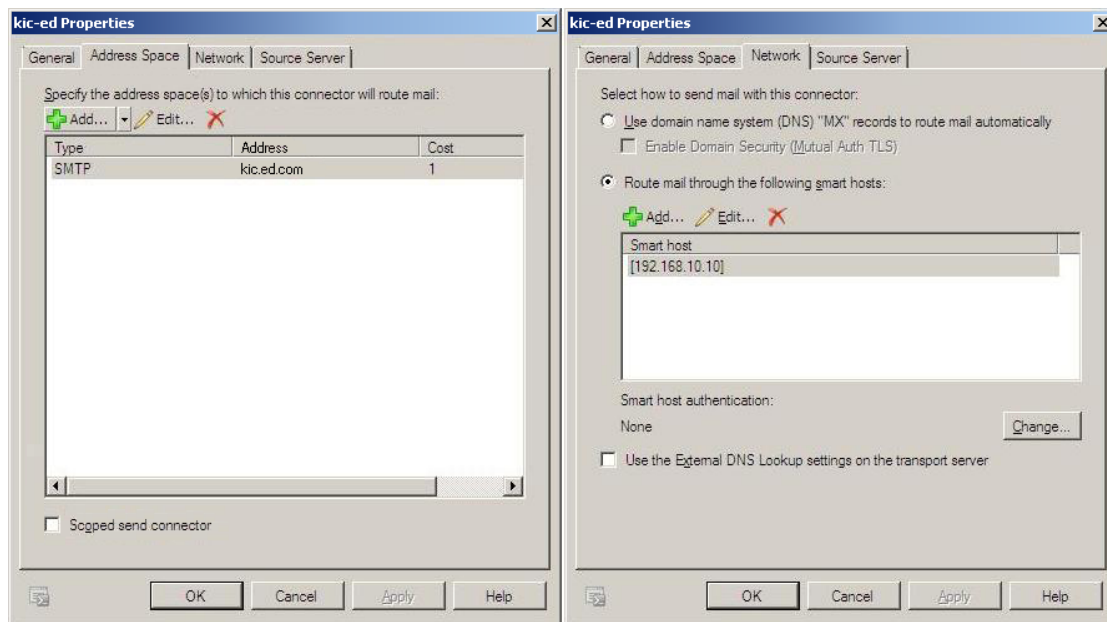
For testing, you can configure Message Connector's IP address as the outgoing SMTP server in your mail client software. As a mail client, you can use e.g. Mozilla Thunderbird or Windows Live Mail. In the examples below, 172.20.148.110 is the IP address of Message Connector.

In Thunderbird, set up a new outgoing SMTP server, then create a new account and choose the new SMTP server.
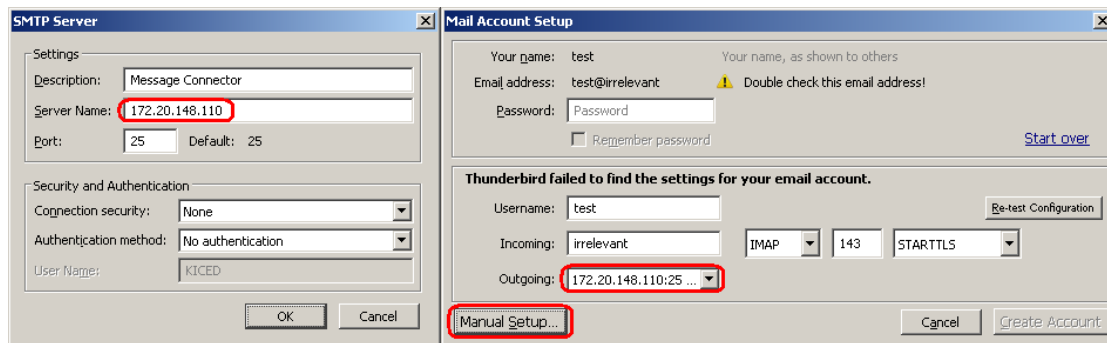
In Live Mail, select to manually configure server settings and specify the outgoing server address.
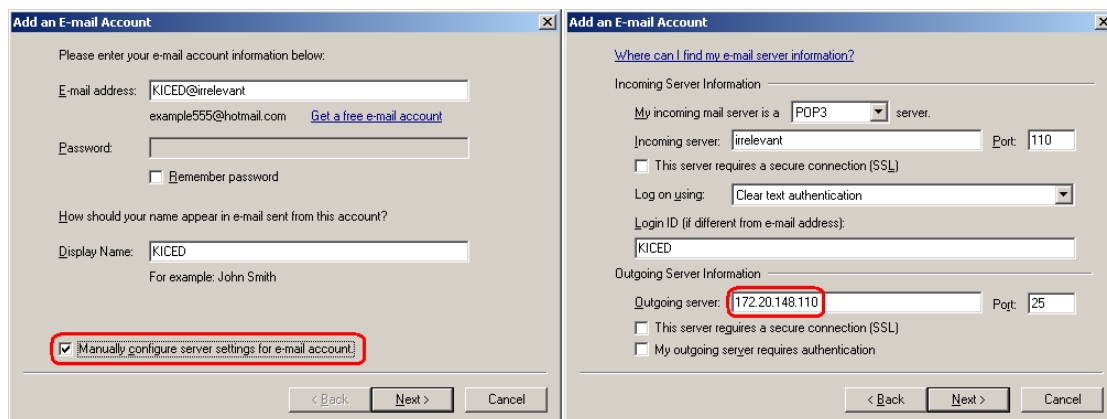
An even simpler test email can be sent via the Message Connector monitor tool. Refer to Sending a Test Email.

Configuring Message Connector for Web Service Input

Message Connector can accept documents via web services.

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 Go to the General tab and enter the Own Computer Name (might be necessary for SSL).

3 Go to the Web Service Input tab.

   a Specify Local IP Address (IP address of the used network adapter; required e.g. in clustered environment).

   b Make sure that either HTTP or HTTPS port has a non-zero value.

   c Optionally, if you want to use the web service calls GetContentTypeList and GetContentTypeDescription to retrieve information from Kofax Capture, specify KC Plug-In URL, e.g. http://localhost:8001/KIC-Electronic-Documents. The URL must include the same port number as the one configured in KC Plug-In. Refer to Configuring KC Plug-In Web Service Interface.

4 If you are using network load balancing and you want to track the status of documents send via web service, different instances of Message Connector need to communicate together. You need to configure additional parameters on each computer:

   a Select MC Cluster Enabled to enable the communication between Message Connectors in order to track documents.

   b In the Local MC Cluster IP Address field, enter the local IP address. This address must be reachable from other Message Connector computers.

   c In the MC Cluster Port field, enter the port for internal communication between Message Connectors.

   d In the MC Cluster Members field, list the IP addresses and ports of other Message Connectors, e.g. "10.10.10.1:25099, 10.10.10.2:25099".

5 Verify that web service input is not disabled:

   a Click **Advanced**.

    b Go to the Security Options tab.

    c Make sure that Disable Web Service Input is not selected.

6 Click **Save**. Click **Exit and restart service**.

7 On the KC Plug-In computer, create or edit a connection between KC Plug-In and Message Connector. Click **Add** and select **Web Service Import** to add web service to the list of import connectors. Refer to [Connecting KC Plug-In to Message Connector](#).

Customers must provide their own application to send documents to Kofax Import Connector via web services interface. The WSDL file describing the interface is available in the installation directory (by default <programs>\Kofax\KIC-ED\MC\web\import.wsdl).

A sample application for sending documents is available on the installation ISO: Samples \WebService\CSharpClient.zip. Both source code and compiled application are provided. For more information about using the tool, refer to readme.txt (part of the zip package). For additional information about the interface, refer to *Kofax Import Connector Developer's Guide*.

The web services interface is not compatible with Kofax Capture Import Connector - Web Services. Existing customer applications have to be updated.

Accessing Mailboxes (IMAP, POP3, EWS)

1 Start KC Plug-In configuration. Do **one** of the following
- On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
- On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2 Connect KC Plug-In to a Message Connector or edit one of the existing connections. Refer to [Connecting KC Plug-In to Message Connector](#).

3 In the Connection configuration window, click **Add** and select **Mailbox Import**.

4 Enter a descriptive Display name.

5 In the "Poll cycle in seconds" field, specify how often should the mailbox be checked for new documents. The maximum value is 86400 seconds, i.e. 24 hours.

6 In the Host field, enter one of the following:
- Host name or IP address of the IMAP/POP3 server, e.g. pop3.gmail.com
- URL of the Exchange Web Services end point in the format http[s]://<host>[:port]/ ews/exchange.asmx

7 Select the **Protocol** for accessing the mailbox.

8 Enter the credentials in User name and Password.

9 For IMAP and EWS, you can additionally configure how processed messages should be handled. If you select to Keep messages on server, you must specify a Processed folder name. Processed messages will not be deleted from the server, instead, they will be moved to the specified folder.

10 For IMAP and EWS, select the **Mode** which determines whether the same inbox can be polled by multiple Message Connectors simultaneously.

- Select **Single Instance** if you know that you will poll this mailbox with only one Message Connector. Using this value and running multiple connections in parallel might cause that the same message is imported to Kofax Capture multiple times.

- Select **Multiple Instance** to allow multiple connections to a single mailbox, without risking duplicate imports. However, not all IMAP servers support this option (rename inbox function). The Test Mailbox button verifies if this option is available on your IMAP server.

11 Click **Test Mailbox** to verify the connection. Click **OK** to close the folder settings window.

12 Click **OK** to close the connection configuration window. Restart the KC Plug-In service.

Additional parameters related to POP3/IMAP/EWS import are available in the Message Connector configuration, in the Security Options tab.

- Disable POP3/IMAP - If you need to disable the polling of POP3/IMAP completely.
- Disable EWS - If you need to disable the polling of EWS completely.

Note When Message Connector receives a message via POP3, it always tells the POP3 server to delete the message. However, POP3 servers can be configured to perform a different action when a delete is requested, e.g. they move the message to a different folder. This behavior is mail server specific and cannot be controlled by Kofax Import Connector.

Also, it is not recommended to poll a single POP3 mailbox from multiple Message Connectors. While a strict implementation of the POP3 protocol should allow a reliable locking mechanism needed to prevent reception of duplicates, many common POP3 email providers lack these.

Accessing Folders

1 Start KC Plug-In configuration. Do **one** of the following

- On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
- On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2 Connect KC Plug-In to a Message Connector or edit one of the existing connections. Refer to Connecting KC Plug-In to Message Connector.

3 In the Connection configuration window, click **Add** and select **Folder Import**.

4 Enter a descriptive Display name.

5 In the "Poll cycle in seconds" field, specify how often should the folder be checked for new documents. The maximum value is 86400 seconds, i.e. 24 hours.

6 Enter the Watched folder, either by typing the path or via the Browse... button. Use UNC syntax for network paths.

7 In the User and Password fields, enter the Windows credentials needed for accessing the watched folder. The user accessing the watched folder needs Modify or Full Control rights.

Note From one computer, only a single Windows user may access a network folder simultaneously. If you have another connection active (e.g., a Windows Explorer window displaying the folder) with a different user, Message Connector might have trouble accessing the folder (especially if the active user does not have sufficient rights).

8 Click **Test folder import** to verify that Kofax Import Connector can connect to the specified folder. (If you are testing a network folder, having a Windows Explorer window open displaying the content of the folder might occasionally prevent the test button to connect.)

9 Optionally, go to the Advanced tab to configure additional parameters. If not, continue with step 15.

10 Select **Process subfolders** to monitor the immediate subfolders of the watched folder. Select Include watched folder to monitor the watched folder itself.

Note When a subfolder becomes empty after all files from it are imported, the subfolder is deleted.

11 In the File mask field, enter a comma separated list of files that should be imported from the folder. You can use wildcards: The asterisk character ("*") substitutes for any zero or

more characters, and the question mark ("?") substitutes for any one character. If you are using trigger files, this field is disabled (see below).

12 Select the **File Detection Mode**. Use this setting to make sure that files are completely copied to the watched folder before importing. Select **one** of the options:

▪ Select **Wait for file** to force Kofax Import Connector to wait for the specified number of seconds after the file was last accessed.

▪ Select **Use trigger** if you want first copy a document (or a folder containing documents) to the watched folder and then create a trigger file that tells Kofax Import Connector that the document (or folder) is ready for importing.

13 If you selected to use trigger files:

a In the Trigger file mask field enter a trigger file, e.g. "*.trg" (or a comma separated list of trigger files). You can use wildcards: The asterisk character ("*") substitutes for any zero or more characters, and the question mark ("?") substitutes for any one character.

b Decide whether the trigger refers to documents or folders:

▪ Select **Files in the same directory with the same base name**. Kofax Import Connector cuts the extension from the trigger file name and searches for documents with the same base name in the same folder. For example, with trigger file mask "*.trg" and trigger file "001.trg", all documents matching "001.*" (except the trg file) are imported.

▪ Select **All files in the same directory** to import all documents from the same folder (except the trigger file). For example, when the trigger file ready-to-be-imported.trg appears in a watched folder, all other documents in the folder are imported to Kofax Import Connector.

▪ Select **All files in the subfolder with the same base name**. Kofax Import Connector cuts the extension from the trigger file name and searches for a subfolder with the same name. All documents from the subfolder are imported.

Note The trigger file must have an extension.

▪ Select **Import all files in a folder matching file mask**. Kofax Import Connector looks for a folder with name that matches the trigger file mask. All documents from the folder are imported.

c Decide what to do with the trigger files after import:

▪ Select **Delete** to delete it.

▪ Select **Rename extension to** and specify an extension to rename it.

d Select **Import trigger file** if you want import the content of the trigger file. When cleared, the content of the trigger file is not relevant and it is deleted/renamed after the other documents are imported.

14 Select the **File Import Mode**. Use this setting to determine how XML documents should be handled.

▪ Select **Automatic** to tell Kofax Import Connector to parse the XML documents. If an XML document is identified as one of the configured XML types, it will be handled accordingly. If the document structure does not match any of the configured XML types, it is seen as a binary document.

▪ Select **Custom** to restrict what type of XML is accepted. E.g., if you select only "Kofax Capture XML", all incoming XML are treated as XML Import Connector compatible files.

15 Click **OK** to close the connection configuration window. Restart the KC Plug-In service.

Additional configuration options related to folder import are available in the Message Connector configuration, in the Security Options tab.

- Disable Folder Import - If you need to disable the feature completely.
- Folder Input Base Directory - If you want to restrict which folder can be configured as the watched folder.

Note Kofax Import Connector cannot import documents if the combined number of characters in file path and file name exceeds 211.

When you import EML and MSG files via folder import, Kofax Import Connector keeps the metadata of the email message, not the metadata of the file on disk.

Accessing Fax Servers

Before you connect to the fax servers, make sure that you have the necessary environment available.

- For Kofax Communication Server, refer to <u>Connecting to Kofax Communication Server</u>.
- For RightFax server, refer to <u>Connecting to RightFax Fax Server</u>.
- For Biscom server, refer to <u>Connecting to Biscom Fax Server</u>

1 Start KC Plug-In configuration. Do **one** of the following
   - On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
   - On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2 Connect KC Plug-In to a Message Connector or edit one of the existing connections. Refer to <u>Connecting KC Plug-In to Message Connector</u>.

3 Click **Add** and select **Fax Server Import**.

4 In the Type field, select the fax server you want to connect to.

5 Enter a descriptive Display name.

6 Specify how often should Message Connector poll the fax server for new messages. The maximum value is 86400 seconds, i.e. 24 hours.

7 Enter the host name of the fax server.

8 Enter the fax server login credentials.

9 For Biscom server, enter also the Windows credentials for accessing the file share.

10 Click **Add** to specify a user and/or extension. Fax messages to that user/extension will be imported to Kofax Capture. Alternatively, select a user and click **Remove** to stop polling the user/extension.

11 Click **Test fax server connection** to verify that Kofax Import Connector can connect to the specified fax server.

12 Click **OK** to close the fax server import settings window.

13 Click **OK** to close the connection configuration window. Restart the KC Plug-In service.

14 For connections to Biscom server when the Message Connector is installed on Windows XP and Windows Server 2003 operating systems, the Message Connector service must be

running under the Windows account with local administration rights and write access on the Biscom server's network share.

 a Run services.msc on the Message Connector computer.

 b In Log On tab of the properties of the Message Connector service, specify the Windows account.

 c Click **OK** to confirm the changes.

 d Restart the Message Connector service.

15 Make sure that support for RightFax or Biscom servers is not disabled in the Message Connector configuration. Start the configuration, click **Advanced**. In the Security Options tab, verify that the support for your fax server is not disabled.

Note RightFax does not support access rights to users/extensions based on group membership via the ComAPI (which is used by Kofax Import Connector). This works only for the client access. So either RightFax Administrator login credentials have to be specified (which is not recommended) or enter as login user the owner of the extension.

Rarely, messages from the RightFax cannot be imported to Kofax Capture, with the error "Compressed data error" or "End of image encountered". As a workaround, enable image normalization, e.g. "Convert to: TIF" and "Conversion Mode: Convert all content" and "Image format: 200 x 200 dpi". (SPR00092052)

Configuring Document Conversion

Kofax Import Connector can convert text, HTML, OpenOffice.org and Microsoft Office documents to a format readable by Kofax Capture. It can also convert images. Supported formats depend on the available convertor tools. Refer to *Kofax Import Connector Installation Guide* for details.

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 Expand the **Document Conversion** tab.

3 Select **Enable Decompression** if you want extract documents from compressed files. The following formats/extensions are supported: zip, rar, 7z, tar, gzip. Extraction happens before regular document conversion, i.e., a Word document extracted from a zip file can be further converted into PDF. Extraction is repeated if the extracted file is another compressed file (e.g., zip within zip), until all compressed files are extracted. The following restrictions apply:

 ▪ Password-protected compressed files are not extracted.

 ▪ Archives split to multiple volumes are not supported.

 ▪ EML documents from compressed files are not subject to further extraction/document conversion.

 ▪ If the extraction ends without error, the compressed file is discarded. When archiving to folder is enabled, the extracted files are archived, not the compressed ones.

4 Select the tool for converting Microsoft Office documents.

5 Select the tool for converting HTML documents.

6 If you selected OpenOffice.org in step 3, make sure that you have installed the necessary extension. Refer to the Installation Guide.

7   If you selected Microsoft Office in either step 3 or step 4, and you are using the operating system Windows Server 2008, Windows Vista, or later, you need to select the Windows user account to be used for Microsoft Office DCOM automation. For initial tests and troubleshooting, you may use the interactive user. For production use, you must specify an administrator user.

8   Click **Advanced**. In the Security Options tab, verify that document conversion is not disabled.

9   Click **Save**. Click **Exit and restart service**.

These steps set up the general document conversion capabilities of a Message Connector. Use destinations and rules to configure what document conversion should be performed for a particular document. Refer to Configuring Destinations for Imported Documents and Configuring Rules.

Configuring Processing in Kofax Capture

Use this section if you want to configure how to import messages into Kofax Capture and which batch classes should be used.

Importing Batch Classes

Two sample batch classes are installed with KC Plug-In. You can use the sample batch classes, or you can create your own. The benefit of the sample batch classes is that they already have the message metadata provided by with Kofax Import Connector mapped to Kofax Capture fields. Either way, a batch class is necessary for successfully running Kofax Import Connector.

Note If you are using Kofax Capture Network Server, you can only to perform batch class configuration on the central site.

1   Start Kofax Capture Administration module from the Kofax Capture group in the Windows Start menu.

2   On the menu, select **File > Import**.

3   Browse to `<programs>\Kofax\KIC-ED\KCPlugIn\BatchClass`.

4   Open ElectronicDocumentsBatchClass.cab. Wait until the batch classes are unpacked. Click **OK**.

5   Click **Add All**, then click **Import**. Wait until importing is completed. Click **OK**.

6   Publish the new batch classes.

Configuring XML Types

Kofax Import Connector can be configured to identify XML documents with a particular namespace and root element. The combination of a namespace and root element is referred as an XML type. Importing of each XML type can be handled differently.

To define an XML type, you need to provide the XML schema definition file and a sample XML document. XML types can be used in the following situations:

▪   The values of XML elements can be mapped to the batch / folder / document index fields of your batch class. Refer to Using XSL Transformation to Map Metadata and XML Data.

- The values of XML elements can be rendered as a TIFF or PDF. Refer to Rendering XML Documents.
- Additionally, XML types are used as filters in rules. Refer to Configuring Rules.

Note There is a built-in XML type called ImportSession. The purpose of this XML type is to support the standard Kofax Capture XML Import Connector compatible XML format. You do not need to import this XML type, it is available automatically.

---

1. Start KC Plug-In configuration. Do **one** of the following
   - On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
   - On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.
2. Go to the XML Types tab.
3. On the XML Type Tasks menu, click **Add XML Type**.
4. Browse to your XML schema definition file (.xsd).
5. Browse to a sample XML file that uses the specified schema.

Now you can create a destination that uses this XML type. Refer to Configuring Destinations for Imported Documents.

Additional information about custom XML types can be found in the *Kofax Import Connector Developers Guide*.

Kofax Import Connector does not change the logical structure of the XML documents, but the text presentation is often modified:

- The XML code page is changed to UTF-8.
- Insignificant whitespace can be removed or changed.
- Character quotes or CDATA sections can be removed or changed.

Validating XML Types in Message Connector

Message Connector can be configured to reject received XML documents that cannot be validated against an XML schema. This feature is primarily useful for web service input, where the invalid document is immediately rejected and the web service sender is informed about the reasons (failed validation). However, it applies to documents from all connectors - non-valid XML will not be imported to Kofax Capture.

1. Copy the folder C:\ProgramData\Kofax\KIC-ED\KCPlugIn\XMLTypes from the KC Plug-In computer to the Message Connector installation folder (by default <programs>\Kofax\KIC-ED\MC\). You need to repeat this step whenever you change the configured XML types in KC Plug-In.

   Note The built-in XML type called ImportSession (standard Kofax Capture XML Import Connector compatible format) is available on Message Connector automatically, i.e. if you are not using custom XML types, you can skip this step.

   ---

2. Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.
3. Go to the Structured (XML) Input Handling tab.

4   In the Types field, enter a comma or blank separated list of MIME types or file extensions that should be treated as XML documents for the purpose of automatic schema validation. This setting applies to import from email and folder (binary and XML file import mode only).

5   In the Schema Validation field, select one of the options:
   ▪ Select **Disabled** if you don't want Message Connector to validate XML documents. All incoming XML documents will be handled according to the configuration in KC Plug-In.
   ▪ Select **Optional** if you want validate those XML documents for which an XML type has been defined. Documents that have a defined XML type but are not valid are handled according to the setting of the "If Validation Fails" parameter.
   ▪ Select **Required** if you want to validate all XML documents (a matching XML type must exist). Documents that don't have a matching XML type as well as documents that fail validation are handled according to the setting of the "If Validation Fails" parameter.

6   In the "If Validation Fails" field, select what to do when an XML document is not valid:
   ▪ Select **Do not apply XML handling** to treat the document as a non-XML document. It is also marked with a document conversion error.
   ▪ Select **Reject the message** to mark the document as invalid. Such documents are not imported to Kofax Capture. In case of web service input, the sender is immediately informed about the reason of rejection. Even invalid documents are temporarily stored in Message Connector for troubleshooting.

7   Click **Save**. Click **Exit and restart service**.

Configuring Destinations for Imported Documents

Destinations tell Kofax Capture how it should handle documents received by Kofax Import Connector.

1   Start KC Plug-In configuration. Do **one** of the following
   ▪ On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
   ▪ On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2   On the Destination Tasks menu, click **Add Destination**.

3   On the Import settings tab, enter a Name of this destination. Optionally, add a description.

4   Optionally, select an XML Type if you want to restrict the destination to that particular XML type (i.e., only XML documents with matching namespace and root element are accepted by this destination).

   Note The default destination cannot have an XML type.

5   Select the **Import content** of this destination, i.e. what parts of a document should be imported, and their order. Optionally, you can select to import the original content or the complete message as EML.

6 Configure the Import Mode.

- Select what content do you want to convert (images versus non-image content), into which format (TIFF, PDF), and select the scaling, resolution, and color of the converted image.
- Select **Message Rendering** if you want to convert XML documents or metadata as images. Refer to Rendering XML Documents.
- Enable VRS to preprocess incoming documents. This option is recommended for improving the quality of scanned images. Refer to Configuring VRS. You can also process PDF documents in VRS.

7 On the Import mappings tab, select the batch class and document class. Optionally, select a folder class and form type.

Note The selected batch class can be overwritten if you are importing XML documents that contain batch class information. If the batch class from the XML document does not exist in Kofax Capture, the following error message is displayed in the Message Connector storage: `Batch class required for XmlAutoImport or generic Xml mapping does not exist.`

8 Optionally, you can map metadata of the imported document to Kofax Capture batch / folder / document fields. Do one of the following:

- Set **XML mapping** to None and use the table below to map metadata. For each batch / folder / document field defined in the batch class, you can select a value. Refer to Message Fields.
- Select **XML mapping** if you want to map metadata for XML documents using XML types. Refer to Using XSL Transformation to Map Metadata and XML Data.

9 Optionally, on the Advanced tab you can configure custom scripts, error handling, and advanced PDF settings.

10 Optionally, on the Email Notification and Archiving tab you can configure sending notifications to message originators and archiving of documents in a particular folder.

11 Click **OK** to create the destination. Restart the KC Plug-In service.

Note If you modify a batch class or form type used in an existing destination, the mappings might be lost. You have to remap the fields.

Sending Email Notifications

Kofax Import Connector can send notifications about incoming documents to a fixed email address. These notifications are available for all import connectors.

Additional notifications can be sent to the originator of email messages. This function is only available for incoming email import (where the email address of the originator is known).

1 Create or edit a destination. Go to the Email Notifications and Archiving tab.

2 Decide what notifications do you need and select the appropriate option:

- Click **Successfully imported** for successfully created batches.
- Click **Partially imported** for batches created with problems (e.g. errors during document conversion, faxes with reception error, documents failed during XML schema validation when the option "Do not apply XML handling" is selected).

- Click **Not imported** when no batch has been created (e.g. invalid batch name, fax message without image pages, invalid XML documents when "Reject Message" is selected, etc.).

3 Select **Send email to originator** if you want to send notifications about emails to the email sender.

4 Select **Send email to** and type an email address if you want to send notifications about documents to a fixed address.

5 Enter the subject (Subject) and the body (Message text) of the notification message. You can use metadata from the original message when populating these fields. Doubleclick a line from the Fields table to insert it into message text or subject.

6 Repeat steps 2 to 5 for other types of notification as needed.

7 Click **OK**.

Kofax Import Connector tries to deliver the notification email messages via SMTP. If all retry attempts fail, there is no further notification. Active and processed notifications can be viewed with the Message Connector Monitor (processed notifications are deleted when storage space is required for new documents).

Note To send messages, Kofax Import Connector must know your outgoing SMTP server. Go to the Message Connector configuration, Email Outbound tab. Work with your email server administrator to set these options.

Archiving Documents

Kofax Import Connector can save processed documents to a folder for archiving.

1 Create or edit a destination. Go to the Email Notifications and Archiving tab.

2 Decide what documents do you want to archive and select the appropriate option:
- Use Successfully imported for successfully created batches.
- Use Partially imported for batches created with problems, e.g. during document conversion.
- Use Not imported when no batch has been created (e.g. batch name is invalid).

3 Select **Save to folder**.

4 In the "Folder location" field, enter the fixed part of the path, e.g. `C:\archive\ok\`.

5 In the "Subfolder and file prefix" field, enter subfolder(s) and file prefix, e.g. `{Import-Date-Long}\{Batch-Id} _{Batchclass}\prefix_`. {Batch-Id} must be always included in this field.

6 Select one of your configured connections to Message Connector and click **Test** to verify that the destination folder is reachable.

7 Select at least one format that should be used for archived documents.
- File - archive the message body and all attachments in separate files
- EML - archive message body and the attachments as a single EML file
- XML - archive the message metadata as a single Kofax-specific XML file (an XML schema is available on request)

8 Repeat steps 2 to 7 to set up archiving for different set of documents.

9 Click **OK**.

10 Additionally, in the Message Connector configuration, Security Options tab, it is possible to disable archiving completely, restrict archiving to a specific folder, and to configure Windows user name and password. These credentials are used to access the archiving folder. If these credentials are not set, the archiving folder must be accessible for the Network Service user.

Using XSL Transformation to Map Metadata and XML Data

Kofax Import Connector can parse incoming XML documents and/or the metadata of incoming messages and use the information from them to populate message fields. XML documents can also include links to other documents to be imported. There are three types of mapping:

- **XML Import Connector compatible** is a specific variant of the generic mapping. It is compatible with the Kofax Capture XML Import Connector. It is only available if you select ImportSession as the XML type for the destination. It maps the input XML data in the same way as XML Import Connector would do.

- **Simple mapping** maps metadata and/or XML document data to the particular fields of the batch/folder/document classes that are configured for the destination where the mapping occurs. It is not possible to control the batch/folder/document class names through the input XML data.

- **Generic mapping** takes into account that the information on batch/folder/document classes may come in along within the customer's XML document (and the class names configured for the destination are only used as fallback if the particular class name is missing). The XML format in generic mapping is not restricted and it can be configured for virtually any customer XML data structures.

The mapping itself (for both simple and generic methods as well) is performed by the means of an XSL transformation. The transformation file can be written manually by an XSLT expert or it can be generated by the visual tool called Altova MapForce. This tool offers a user-friendly GUI, can perform even complex XML mappings and the XSL transformation is generated automatically. MapForce can be installed on any computer. Kofax Import Connector does not need it at run time.

1 Before setting up XML mapping, at least one XML type must be defined; unless you are using the XML Import Connector schema <ImportSession> - that is available automatically. Refer to Configuring XML Types.

> **Note** You don't need to specify an XML type if you only want to map document metadata.

2 Edit a destination. Refer to Configuring Destinations for Imported Documents

3 On the Import settings tab, select an XML Type (not necessary if you only want to map document metadata).

4 On the Import mappings tab, configure XML mapping:
- Select XML Import Connector compatible for XML documents compatible with Kofax Capture XML Import Connector. **Continue with step 12**.
- Select Simple to map XML data and message metadata to the batch/folder/document fields assigned to the destination that you are currently editing.
- Select Generic if the information about batch/folder/document classes is included in the XML document. The information from the XML overrides the destination settings.

If the class names are not specified in the XML, the settings of the destination are used. Generic is also necessary in the following use cases:

- Kofax Tables should be filled with the content of the input XML
- The content of any index field should be evaluated by an expression
- Other features possibly supported by the Kofax XML Import Connector format

5 Click **Show files for Visual Designer** to display the folder where Kofax Import Connector stores the files required for mapping.

Note It is the same folder that contains the files for XML rendering.

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6 If Altova MapForce is not installed locally, copy the entire folder to the Altova MapForce computer.

7 Open the .mfd project file in Altova MapForce.

8 Map XML data and metadata to Kofax Capture batch / folder / document fields.
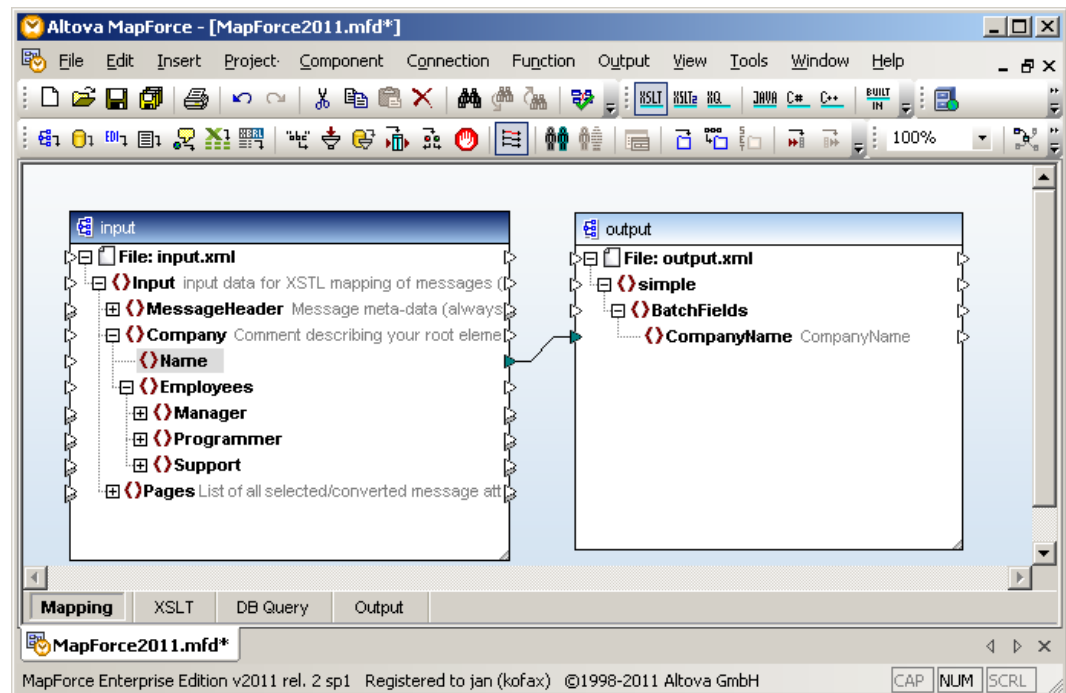
9 Save the project file. On the File menu, click **Save**.

10 Save the result to an XSLT file. On the File menu, expand Generate code in and select **XSLT 1.0**. You must save the file to the same directory where the .mfd file is located. Change the file name to XmlMapping.xslt.

11 If Altova MapForce is not installed locally, copy the entire folder back to KC Plug-In computer (to the original location).

12 Close the destination configuration window and restart KC Plug-In.

You can use other tools to generate the necessary XSL transformation file that governs metadata mapping. Simple transformations can also be written using a text editor. Alternatively, you can also contact Kofax to create the mapping for you. For additional information, refer to *Kofax Import Connector Developers Guide*.

Note When using the XML type "ImportSession", you do not need to create any XSL transformation. The mapping is available automatically.

There is a significant difference in importing of document's body and attachments (including XML document itself) between simple and generic mapping:

- With simple mapping all parts of a document are automatically handled according to the destination's configuration (e.g., converted to TIF, ...) and then imported as pages into the same folder/document class (or loose pages) of the batch. The XML document itself may be imported as original XML (if Include Original Content is selected) or rendered as TIF or PDF (if rendering is configured).

- With the XML Import Connector compatible generic mapping, the attachments are only imported if they are explicitly linked in the XML file. The controlling XML file is never imported.

- When using the generic mapping, attachments (and the XML document itself) are only imported if explicitly instructed so in the XSL transformation. For additional information, refer to *Kofax Import Connector Developer's Guide*.

Altova MapForce is a third-party software that requires a license. This software is not included with Kofax Import Connector. Also, the licenses for Kofax Import Connector will not help you operating Altova MapForce.

Rendering XML Documents

Kofax Import Connector can be configured to render structured XML data as PDF and/or TIFF. Two basic use cases are foreseen:

- Render incoming XML documents.
- Render only the metadata of any document as some kind of cover sheet.

The rendering itself is performed via an XSL transformation that has to be generated by the visual tool called Altova StyleVision. This tool can be installed on any computer. It is not required during run time of Kofax Import Connector.

1 Edit a destination. Refer to [Configuring Destinations for Imported Documents](#).

2 Go to the Import settings tab.

3 If you want to render XML documents, select XML Type. (If you only want to create cover sheets from document metadata, this is not required.)

4 Select Message rendering.

5 Select the preferred image type (TIFF or PDF), resolution and color.

6 Click **Show Files for Visual Designer** to display the folder where Kofax Import Connector stores the files required for XML rendering.

Note It is the same folder that contains the files for XML mapping.

7 If Altova StyleVision is not installed locally, copy the entire folder to the Altova StyleVision computer.

8 Open the .sps project file in Altova StyleVision.

9 Use the XML elements from the Schema Tree to create an XSLT style sheet that defines how information should be organized in PDF/TIFF format.
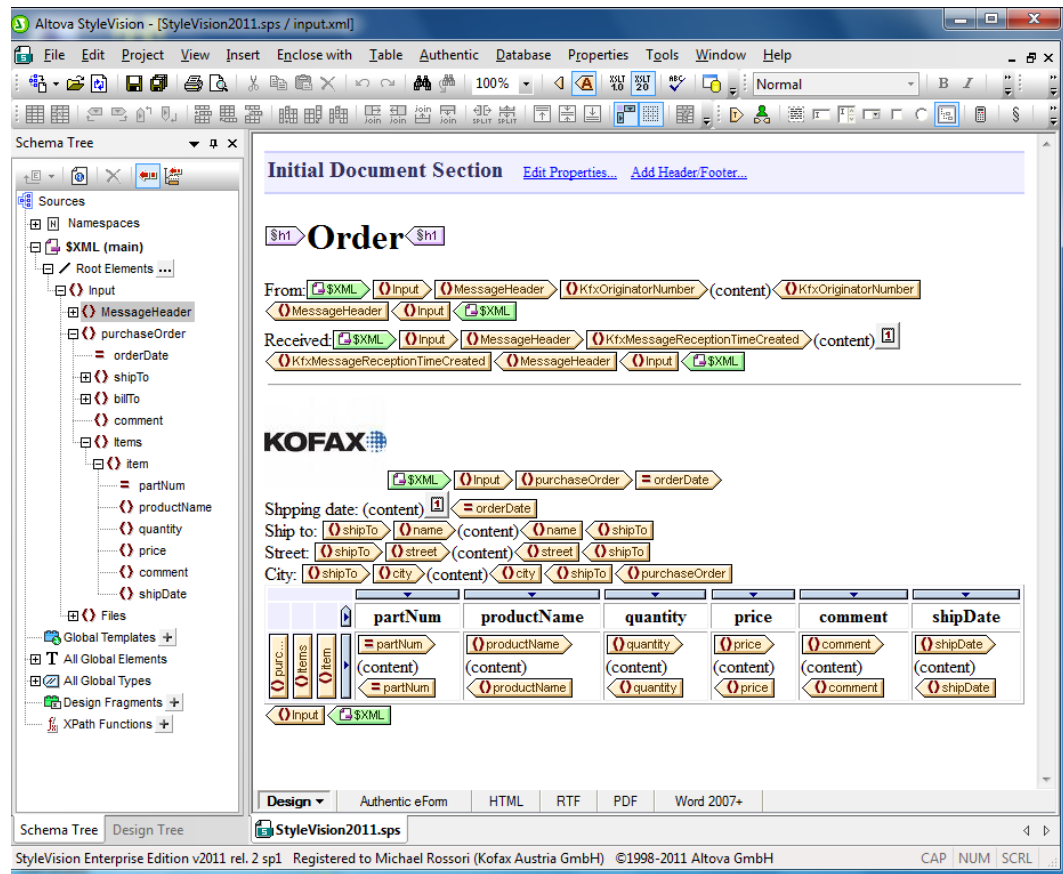
Note If Altova StyleVision is not installed locally and you add graphics (images) to the style sheet, copy them to the folder where the project file (*.sps) is located. When importing the graphics, make sure that you are using relative paths (clear the Absolute Path checkbox).

10 Save the project file. On the File menu, click **Save**.

11 Save the result to an XSLT file. On the File menu, expand Save Generated Files and select **Save Generated XSLT RTF File**. You must save the file to the same directory where the .sps file is located. Change the file name to Render.xslt.

12 If Altova StyleVision is not installed locally, copy the entire folder back to the KC Plug-In computer (to the original location).

13 Optionally, click **Preview** to view how a rendered XML document (or metadata) will look like.

14 Close the destination configuration window and restart KC Plug-In.

Altova StyleVision is a third-party software that requires a license. This software is not included with Kofax Import Connector. Also, the licenses for Kofax Import Connector will not help you operating Altova StyleVision.

Configuring VRS

VRS is used to improve the quality of incoming images in order to make it easier for Kofax Capture to understand them. In Kofax Import Connector, each destination can have its own VRS settings.

However, you can use the image conversion of import connector to modify the resolution/color of an image and then use VRS for further processing.

1   Edit a destination. Refer to [Configuring Destinations for Imported Documents](#).

2   Go to the Import settings tab.

3   Optionally, configure color conversion or image scaling that should occur before VRS.

4   Select one of the VRS options:

   ▪   Select **VRS only original images content** if want to apply VRS processing to documents that reached the import connector in image format (but not to documents that were converted to image format by import connector).

   ▪   Select **VRS all images** if you want to apply VRS settings to all images. This means that also those documents that were converted to image format by import connector are processed by VRS. Usually, this is not recommended for Word or Excel documents. Also, use this option if you want to apply VRS to PDF documents.

   ▪   Select **None** to disable VRS for all content.

5   Select **Apply VRS to PDF files** if you want to convert PDF documents to TIFF format using VRS.

   Note You must select **PDF** as your **Convert to** format to use this feature. Otherwise the PDF is converted to TIFF before reaching VRS.

   This option allows you to process larger PDF documents.

6   Click **VRS Settings**. The VRS Settings window is displayed.

   The window is divided into 4 main parts:

   ▪   The top left part shows a sample image.

   ▪   The top right part shows the sample image after VRS processing.

   ▪   The bottom left part shows the menu.

   ▪   The bottom right part lists the various VRS parameters.

7   Configure the VRS parameters and test them:

   a   Click **Open File for Testing** and select an image.

   b   Modify the VRS parameters.

   c   Click **Test Current Settings** to see the results of VRS processing.

   d   Use the commands from the View menu to modify the zoom and switch pages (for multipage TIF documents).

   e   Repeat steps b to d until you are satisfied with the results.

8   Click **Save VRS Parameters** to apply the changes for this destination.

9   Optionally, click **Save VRS Parameters to Profile** if you want to reuse the same settings in other destinations; or for backup.

> **Note** All VRS profiles are stored in the file KCIC ElectronicDocuments KC Plug-In VRSProfiles.xml in the folder `%ALLUSERSPROFILE%\Kofax\KCIC - Electronic Documents\KC Plug-In\Config\`. Take this file if you need to transfer your profiles to another computer.

10 Click **Exit** to conclude VRS configuration.

Configuring Rules

Each configured Message Connector has a default destination. Rules are used to filter documents and assign them to different destinations. For example, email messages from a particular recipient can be handled differently than documents imported from a folder.

1 Start KC Plug-In configuration. Do **one** of the following
- On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
- On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2 On the Connection Tasks menu, click **Add Rule**. Alternatively, select one of the existing rules and click **Edit Rule**.

3 In the Service filter field, select one of the services if you want to filter documents depending on how they reach Message Connector; e.g., via email or fax.

4 In the Recipient list field, enter the original recipient (as specified by the message sender). You can use the asterisk wildcard * to specify all addresses. You can add multiple recipients, separated by comma.
- For emails, specify an email address from the To or Cc list, such as john@kofax.com. This also applies to MSG and EML files imported via folder import.
- For faxes, specify the extension number on the fax server, such as 555*, 444*, 3333.
- For other import connectors, this filter is not available.

5 In the Address field, type the address from which Message Connector received the document. You can use the asterisk wildcard * to specify all addresses.
- For POP3/IMAP mail, specify a mail box name, such as john@kofax.com.
- For EWS email, specify a mail box name, such as lena@kofax.com or asia\rajesh.
- For SMTP email, specify the final routed email address, such as *@kofax.com.
- For faxes, specify the user name on the fax server, such as biscom_user1.
- For FoIP, specify the extension number, such as *555.
- For folders, specify the path including the file name, such as C:\myFolder*.xml. Note that using C:\myFolder will not match files in the myFolder directory, you have to specify an asterisk at the end: C:\myFolder*.
- For web service input, specify any string. This string must match the optional Address parameter of the Import web service call. Refer to *Kofax Import Connector Developer's Guide*.

> **Tip** The difference between the filter options Recipient list and Address is subtle but potentially important. For example, Adam sends an email to Bob, CC Cindy. Cindy has email forwarding enabled, sending all mail to the SMTP server of Kofax Import Connector (for example, invoice@KIC.com). In this case, you can use Bob's (or Cindy's) address as Recipient list filter. However, only the address invoice@KIC.com can be used for the Address filter. Or another example: Deborah's POP3 mailbox (Deborah@example.com) has an additional address alias (DeborahBusiness@example.com). Deborah can use the Recipient list field to filter her private and business mail.

6 In the Destination field, select the destination that should be used for the documents matching the specified criteria.

> **Note** If you select a destination with an XML type, the XML type becomes an additional filter criterion. I.e., if the document is not an XML file or the namespace/root element don't match, the rule does not apply.

7 Click **OK** to save changes.

8 Optionally, select a rule and click **Move Rule Up** or **Move Rule Down** on the Connection Tasks menu to establish rules priority. The following applies to rules priority:

- Rules higher on the list take precedence over lower rules; first matching rule wins.
- If none of the filter criteria match, the default destination is used.

9 Optionally, select a rule and click **Remove Rule** on the Connection Tasks menu to delete it.

10 Restart the KC Plug-In service to apply the configuration changes.

Configuring Behavior When Message Import to Kofax Capture Fails

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 Go to the General tab.

3 If you want to forward messages that could not be imported to Kofax Capture to an operator, enter the email address in the field Operator Email. In the Email From field, enter the email address that should be used as the originator of the forwarded messages.

4 Select **Keep Failed** if you want to prevent deletion of messages that neither have been imported into Kofax Capture nor forwarded to an operator. These messages will remain in Message Connector storage until you manage them manually. This setting can cause the storage to run out of disk space—at that point, all importing into Kofax Capture stops! Refer to Managing Failed Messages Manually for recommended handling.

5 In the Storage Size field, enter the size of the Message Connector storage database. Decreasing the value below the default 100 MB is not recommended. Consider increasing the value, especially if you have not configured the Operator Email and you selected to Keep Failed messages. Maximum storage size is 64000 MB. Excessively large and full storage might require several minutes to initialize. The minimum recommended value is the total size of documents received within 30 minutes during peak hours; preferably more.

6   If you configured an Operator Email, you need to update the values in the Email Outbound tab. Your email server administrator should be able to provide the necessary information.

7   Click **Save**. Click **Exit and restart service**.

Configuring KC Plug-In Web Service Interface

Use this window to specify details about KC Plug-In web services connection. This web services connection is used in two applications:

▪   Kofax Monitor uses it to monitor KC Plug-In. Refer to <u>Using Kofax Monitor</u>.

▪   Message Connector may use it internally to retrieve information from Kofax Capture.

For details about the web service functions, refer to *Kofax Import Connector Developers Guide*.

1   Start KC Plug-In configuration. Do **one** of the following
    ▪   On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
    ▪   On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2   On the Assistance Tasks menu, click **Web Services Configuration**.

3   In the Port Number field, type the port number of the web services interface of KC Plug-In.

4   Select Use SSL if you want to use SSL for connecting to the web services interface of KC Plug-In.

5   In the Thumbprint field, copy the thumbprint of your SSL certificate. Refer to <u>Installing Certificate</u>.

6   Click **OK** to save changes.

7   Restart the KC Plug-In service to apply the configuration changes.

8   Optionally, if you want to use the web service functions GetContentTypeList and GetContentTypeDescription from external applications to retrieve batch class information from Kofax Capture, Message Connector must be properly configured. Refer to <u>Configuring Message Connector for Web Service Input</u>.

Installing Certificate

1   Obtain a server certificate from a certification authority. The subject of this certificate must be the name of the computer hosting KC Plug-In. Use the real name of the server, do not use localhost.

2   You also need certificate issuer's root certificate.

3   Start Certificates MMC Snap-In for computer account:

    a   Start MMC, e.g. by running mmc.exe from the Start menu.

    b   On the File menu, select Add/Remove Snap-In.

    c   Click Add and select Certificates. Click Add again.

    d   Select "Computer account". Click Next.

    e   Select "Local computer". Click Finish.

    f   Click Close, then click OK.

4   Use the snap-in to install the root certificate of the certification authority as a trusted root certification authority:

    a   Expand **Console Root > Certificates (Local Computer) > Trusted Root Certification Authorities > Certificates**.

    b   Right-click Certificates and select **All Tasks > Import** from the context menu. The Certificate Import Wizard starts.

    c   Import issuer's root certificate (only if it is not yet part of the list).

5   Use the snap-in to install the server certificate:

    a   Expand **Console Root > Certificates (Local Computer) > Personal > Certificates**.

    b   Right-click Certificates and select **All Tasks > Import** from the context menu. The Certificate Import Wizard starts.

    c   Import the server certificate.

6   Double-click the server certificate.

7   Go to the Details tab.

8   Scroll down and select the Thumbprint field. You can now copy the thumbprint to the KC Plug-In web services configuration.

Configuring SSL Connection

Kofax Import Connector can be configured to operate in a secure environment, using SSL connections.

1   Create a SSL certificate for each Kofax Import Connector component that you want to connect securely. You can use e.g. the following tools:
- Microsoft Active Directory Certificate Services
- OpenSSL

2   Configure each Kofax Import Connector component that you want to connect securely.
- For Message Connector, you need to convert the certificate to .pem format so that you can copy the private key and the certificate to the configuration utility.
- For KC Plug-In, you must install the certificate via MMC (local account) and copy the thumbprint to the configuration utility.

3   Install the certificates on all computers that connect to a secure server.

See also two example procedures in section Certificates.

Securing Connection Between Message Connector and KC Plug-In

1   In Message Connector configuration, HTTP tab, select **SslActive** to enable SSL, or clear the check box to disable SSL.

2   If SSL is enabled: In Message Connector configuration, SSL Certificate tab, edit the fields as necessary. Message Connector comes with a test certificate; you might wish to update it for production use.

3   In KC Plug-In configuration, edit the connection to a Message Connector. In the Server URL field, use the prefix "http" for a non-secure connection or "https" for a secure connection.

4   Click **Test connection** to verify the connection.

Securing Connection for Incoming SMTP Mail

1   In Message Connector configuration, Email Inbound via SMTP tab, SSL Active field, select **ONREQUEST** or **ALWAYS**.

2   In Message Connector configuration, SSL Certificate tab, edit the fields as necessary.

Securing Connection for Outgoing SMTP Mail

In Message Connector configuration, Outbound Email tab, SSL Active field, select **ONDEMAND** or **ALWAYS**.

Securing Connection for POP3/IMAP Mail

1   In KC Plug-In configuration, edit the connection to a Message Connector.

2   Select the POP3/IMAP mail box and then click **Edit**.

3   In the SSL field, select **Always** or **Negotiate**.

Securing Connection for Exchange Web Services

1   In KC Plug-In configuration, edit the connection to a Message Connector.

2   Select the POP3/IMAP mail box and then click **Edit**.

3   The prefix of the EWS URL in the Host field determines whether the connection is secure. Use https for secure connections.

Configuring Kofax Capture Integration

Use this window to specify details about how Kofax Capture and Kofax Import Connector interact.

1   Start KC Plug-In configuration. Do **one** of the following
   - On a Kofax Capture Network Server remote site, start KC Plug-In from the KIC - Electronic Documents group in the Windows Start menu.
   - On other Kofax Capture installations, start Kofax Capture Administration and select **Electronic Documents > Configuration**.

2   On the Assistance Tasks menu, click **Kofax Capture Settings**.

3   If you are using the User Profiles feature of Kofax Capture, specify the parameters User ID and Password. Click **Test credentials** to verify that you can correctly connect.

4   If you want to keep Kofax Import Connector connected to Kofax Capture and log off only on service shutdown, select **Cache import process instance**. Selecting this option improves performance. If not selected, Kofax Import Connector will log on to Kofax Capture each time a batch is imported, and it will log off afterwards.

5 The parameter "Import pool size" is deprecated. Use the default value (1). To improve performance, use the parameter "Number of KIC process instances" instead.

6 If you want to improve performance of KC Plug-In by running multiple instances of the process (vertical scaling), you can increase the value of the parameter "Number of KIC process instances". The extra instances may fail to start if not enough hardware resources are available.

> **Note** With multiple processes running in parallel, your batch structure might change. E.g., if a customer always copies a group of 5 documents to the import folder, has a batch size of 5 configured, and expects to see the group in one batch, this will not work. The documents will be split among processes and each creates its own batch. In such cases where batch structure should be constant, trigger files should be used in conjunction with vertical scaling. This will ensure that only one KC Plug-In process can access the imported content at any given time.

7 If you want to use UTC time for all imported documents, select **Use UTC time**. When not selected, the local time of Kofax Capture is used.

8 Click **OK** to save changes.

9 Restart the KC Plug-In service to apply the configuration changes.

Enabling SecurityBoost

SecurityBoost is a feature that improves the safety of the connection between the Kofax Capture server and workstation.

1 Enable SecurityBoost in Kofax Capture. Refer to Kofax Capture documentation for details.

2 Set a log on user account for the KC Plug-In service. This user must have read access to the following folders:
- `\\%SERVER%\capturesv\config`
- `\\%SERVER%\capturesv\BatchDb` (and subfolders)
- `\\%SERVER%\capturesv\PubTypes` (and subfolders)

3 If the Save to Disk option in KC Plug-In configuration is selected, write access is also necessary to the following folder: `\\%SERVER%\capturesv\images`.

4 The user to be used with the SecurityBoost option requires the "Local Launch" and "Local Activation" COM permission. COM permissions can be modified with Control Panel > Administrative Tools > Component Services. Select COM Security tab in properties of Console Root\Component Services\Computers\My Computer. Click Edit Default under Launch and Activation Permissions. Select the user and modify the permissions.

5 The user requires Full Control access to the following registry key: HKEY_LOCAL_MACHINE\SOFTWARE\Kofax\KIC-ED\KCPlugIn

6 If you want to use KC Plug-In web service interface (Configuring KC Plug-In Web Service Interface), additional steps are necessary:
- Reserve the namespace http://+:<port>/KIC-Electronic-Documents
- Reserve the namespace https://+:<port>/KIC-Electronic-Documents and register the thumbprint of the certificate for the IP address:port (if you want to use SSL)

For example, on **Windows Server 2003,** use the command httpcfg:

- Namespace reservation syntax:

```
httpcfg set urlacl u/ URL /a ACL
```

The /u parameter takes a string containing a fully qualified URL that identifies the reservation. The /a parameter takes a string containing an Access Control List in the form of a Security Descriptor Definition Language (SDDL) string.

  - Namespace reservation for port 8001

```
httpcfg set urlacl /u http://+:8001/KIC-Electronic-Documents /a D:
(A;;GX;;;WD)
```

  - Namespace reservation for port 8002 (SSL):

```
httpcfg set urlacl /u https://+:8002/KIC-Electronic-Documents /a D:
(A;;GX;;;WD)
```

- SSL thumbprint registration syntax:

```
httpcfg set ssl /i Ip:Port /h SSL_Hash /g "{GUID}"
```

The /i parameter takes a string that specifies the IP Address:port combination. The /h parameter takes a string of hexadecimal digits specifying the thumbprint hash of the certificate being added. The /g parameter takes a string representing a Globally Unique Identifier (GUID) that identifies the application that added the certificate.

  - SSL thumbprint registration:

```
httpcfg set ssl /i 0.0.0.0:8002 /h
 a9f05807bb757c41ba2e1c457ac2a78f00395a69 /g"{4f38c942-c7e7-421b-
bcec-bd3290c3b921}"
```

The IP address 0.0.0.0 matches every IP address on the local computer.

On **Windows Server 2008** or **Windows 7,** use the command netsh:

- Namespace reservation syntax:

```
Netsh http add urlacl  url=URL user= User
```

The url parameter specifies the fully qualified Uniform Resource Locator (URL). The user parameter specifies the user or user-group name.

  - For port 8001:

```
netsh http add urlacl url=http://+:8001/KIC-Electronic-Documents/
 user=\EVERYONE
```

  - For port 8002 if SSL is enabled:

```
netsh http add urlacl url=https://+:8002/KIC-Electronic-Documents/
 user=\EVERYONE
```

- SSL thumbprint registration syntax:

```
netsh http add sslcert ipport= IPAddress:port certhash=CertHash
 appid=GUID
```

The ipport parameter specifies the IP address and port for the binding. A colon character (:) is used as a delimiter between the IP address and the port number. The certhash parameter specifies the SHA hash of the certificate. This hash is 20 bytes long and is specified as a hexadecimal string. The appid parameter specifies the GUID to identify the owning application.

  - For port 8002:

```
netsh http add sslcert ipport=0.0.0.0:8002
 certhash=a9f05807bb757c41ba2e1c457ac2a78f00395a69 appid={4f38c942-
c7e7-421b-bcec-bd3290c3b921}
```

If SecurityBoost is not enabled, the folder access permissions should be set according to the Kofax Capture documentation.

Message Fields

Message fields are metadata related to a document, e.g. message subject. These values can be mapped to Kofax Capture batch/folder/document fields.

If a field is mapped to a Kofax Capture field, it will be automatically populated with the proper value during importing to Kofax Capture.

The message fields mapping can be configured in KC Plug-In, for each destination. Refer to Configuring Destinations for Imported Documents.

Message field	Description
KfxMessageCorrelation	The correlation information of the message (for internal use).
KfxMessageDeliveryPriority	The priority of the message. Reserved for future use. Currently static value 1.
KfxMessageDeliverySuspectedDupli	Reserved for future use. Currently static value 0.
KfxMessageDeliveryType	The type of delivery of the message. Reserved for future use. Currently static string TO.
KfxMessageFileName	The file name of the document. For fax servers, this returns server-specific file names.
KfxMessageID	The unique ID of the message given by the Message Connector on message arrival.
KfxMessageOwnerReference	For email documents: mime-header/message-id For faxes: server-specific message ID
KfxMessagePages	The number of fax pages in the message.
KfxMessageReceptionCallerId	The number of the sending fax machine. (Optionally available for FoIP, Biscom, KCS)
KfxMessageReceptionErrorInfo	Provides an additional description if KfxMessageReceptionErrorLevel is non-zero.
KfxMessageReceptionErrorLevel	Describes the error level of the received document using the following values: 0 = OK, 1 = partially OK or incomplete, 2 = failed
KfxMessageReceptionTimeCreated	For emails, this is the time when the Message Connector retrieved the message. For faxes, this is the time when the message was received by the fax server.
KfxMessageSubject	The subject of the message. For faxes, this is "Fax from" + TSI.
KfxMessageTimePosted	Only available for email messages, this field contains the date and time when the message was sent.
KfxOriginalRecipients	Contains a list of the original recipients as specified by the message originator. For KCS, it contains the original number before forwarding by event. For mailbox emails, it contains the To/Cc recipients.

Message field	Description
KfxOriginatorName	The full name of the message originator. For faxes, this is the TSI. For SMTP/POP3/EWS, it's the originator display name (mime-header/from/mailbox/displayname).
KfxOriginatorNumber	The fax number of the originator (caller ID) or originator email (mime-header/from/mailbox/address) for POP3/SMTP/EWS mail.
KfxOriginatorService	The service name of the originator. In case of fax FAX and in case of email EMAIL.
KfxRecipientName	The full name of the message recipient. For POP3, this is the mailbox display name.
KfxRecipientNumber	The recipient fax number (called party number) or email address (for SMTP it's the first active email recipient, for POP3 the mailbox user name).
KfxRecipientsTo	Comma separated list of To recipients.
KfxRecipientsCc	Comma separated list of Cc recipients.
KfxRecipientService	The service name of the recipient. In case of fax FAX and in case of email EMAIL.
KfxRoutingNumber	The meaning of this message field is different for various inputs ▪ FAX: Extension (called-party-number) ▪ SMTP: active email recipient ▪ POP3/IMAP/EWS: mailbox user name ▪ FOLDER: full path of the imported file ▪ WEBSERVICE: empty string

The message extension fields are reserved for future versions.

Document metadata are also available in Kofax Capture as custom storage strings (for documents and folders) with the prefix ED_CSS_. Custom storage strings can be read via the Kofax Capture API and could be used for example in an export connector or in custom scripts. Please refer to *Kofax Import Connector Developers Guide* for more information about custom storage strings.

Features and Integration Examples

This section provides examples on how to integrate Kofax Import Connector with third party software and hardware and describes some advanced features of the product.

Connecting to Biscom Fax Server

In addition to configuring the connection to the Biscom fax server in KC Plug-In, Biscom client software must be installed and a user/extension should be identified on the fax server for use with Kofax Import Connector. Work with your fax server administrator to complete the following steps.

Configuring Biscom Server

1   On the Biscom fax server, start the FAXCOM Administrator tool.

2   Create (or reserve) a user/extension for use with Kofax Import Connector.

3   Enable the network share connection to the Biscom server and note the service path.

4   Close the tool.

Installing FAXCOM Client

1   On the Message Connector computer(s), install the Biscom client software, the FAXCOM Client.

2   If the computer where the FAXCOM Client is installed belongs to a Windows domain, run this command (only necessary when the domain user lacks access rights to the Biscom share):

```
Net Use <Biscom_service_path> /USER:<Biscom_user> <password>
```

3   Start the FAXCOM Client from the FAXCOM group of the Windows Start menu.

4   Type the login information and click OK. You must be able to connect.
    On successful login, the FAXCOM Client window is displayed.
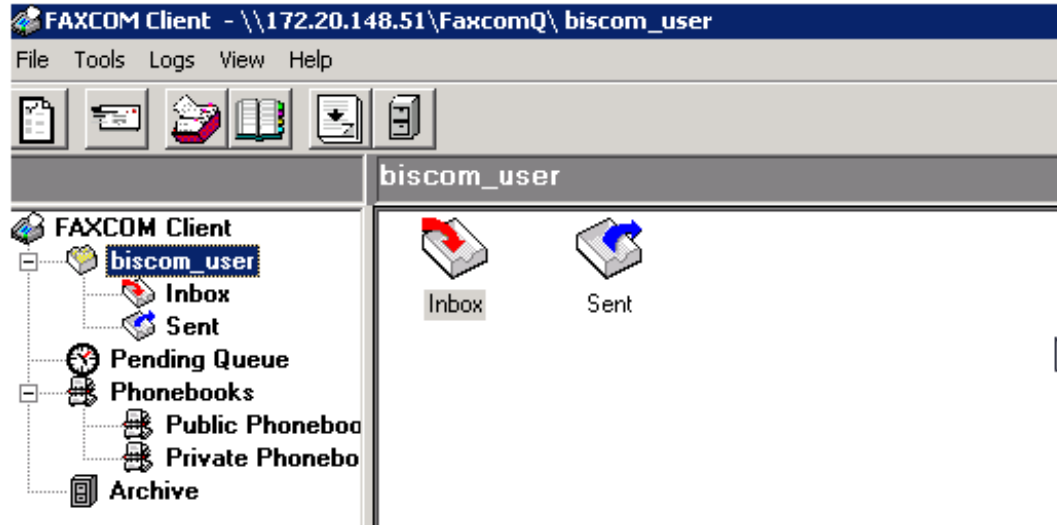
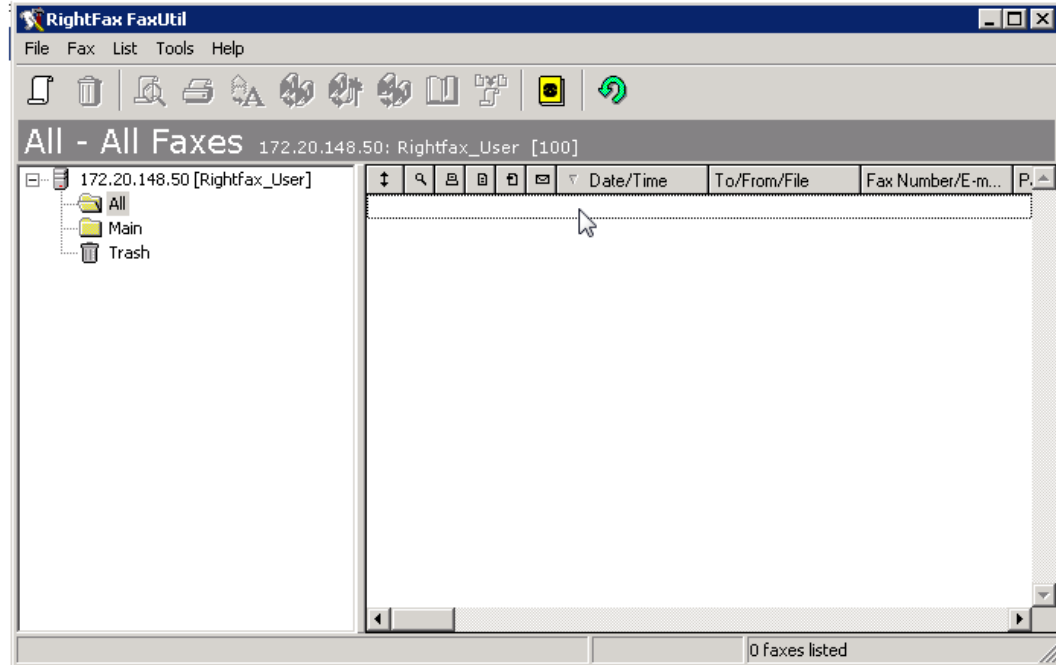**5** Close the client.

Connecting to RightFax Fax Server

In addition to configuring the connection to the RightFax fax server in KC Plug-In, RightFax client software must be installed and a user/extension should be identified on the fax server for use with Kofax Import Connector. Work with your fax server administrator to complete the following steps.

Configuring RightFax Server

1 On the RightFax fax server, start the Enterprise Fax Manager tool.

2 Create (or reserve) a user/extension for use with Kofax Import Connector.

3 Close the tool.

Installing RightFax Client

1 On the Message Connector computer(s), start the RightFax Product Suite setup.

2 When prompted for setup type, select Typical Client.

3 In the RightFax Server Name field, type IP address or name of the fax server.

4 Click Install and finish the installation.

5 Start RightFax FaxUtil from the Windows Start menu.

6 Type the login information. Do not select to Remember password! Click OK. You must be able to connect.
On successful login, the RightFax FaxUtil window is displayed.

7 Close the client.

Forwarding Faxes from Multiple Mailboxes to a Single Queue User

In KC Plug-In, you can only configure a single user for accessing RightFax. If you need to access multiple mailboxes, this would have to be the administrator user. As a workaround, if you don't want to use administrator user for security reasons, consider setting up fax forwarding to a dedicated user, and use the credentials of this dedicated user in KC Plug-In. Each fax user must configure fax forwarding using RightFax FaxUtil.

1 Start RightFax FaxUtil from the Windows Start menu and log in.

2 On the Tools menu, click Options.

3 On the Receiving tab, select Forward Received Faxes to User.

4 Select the dedicated user as the recipient of the forwarded faxes.

5 Confirm the changes and close FaxUtil.

Connecting to Kofax Communication Server

In addition to configuring the connection to the Kofax Communication Server in KC Plug-In, a user/extension should be identified on the fax server for use with Kofax Import Connector. Work with your fax server administrator to complete the following steps.

1 On the Kofax Communication Server, start the TCfW Communication Server Client.

2 Create (or reserve) a user/extension for use with Kofax Import Connector.

3 Optionally, if you want to import faxes received by multiple KCS users, set up fax forwarding for each of the user; and forward the faxes to the user created in step 2.

4 Close the client.

Handling of Multipage TIF Files

Kofax Capture Import Connector - Folder has the function to split incoming multipage TIF files into pages before importing them to Kofax Capture. Kofax Import Connector uses a different approach and leverages existing Kofax Capture batch class options to achieve similar results.

Note If you are using Kofax Capture Network Server, you can only to perform batch class configuration on the central site.

1 Start Kofax Capture Administration from the Kofax Capture group in the Windows Start menu.

2 Select your batch class and edit its properties:

   a In the Separation and Form Identification tab, select **Kofax fixed pages**.

   b In the Advanced tab, edit the parameter **Process documents as independent batches**.
   - Clear it if you want to treat each page of a multipage TIF as a separate document.
   - Select it if you want to treat each page of a multipage TIF as a separate batch.

3 Select your form type and edit its properties:

   a Select **Fixed number of pages**.

   b Enter "1" in the field below.

4 Publish the batch class to make the changes effective.

5 In Kofax Capture Administration, on the menu, select **Electronic Documents > Configuration**.

6 Select your destination and click **Edit Destination**.

   a Go to the Import Mappings tab.

   b In the Batch class field, select the batch class configured in step 2.

   c In the Document class field, select **Loose Pages**.

7 Restart the KC Plug-In service to make the changes effective.

The behavior in Kofax Capture is almost identical to KCIC Folder behavior, only the batch names in Kofax Capture Batch Manager are can be different.

KCIC Folder   KIC – Electronic Documents
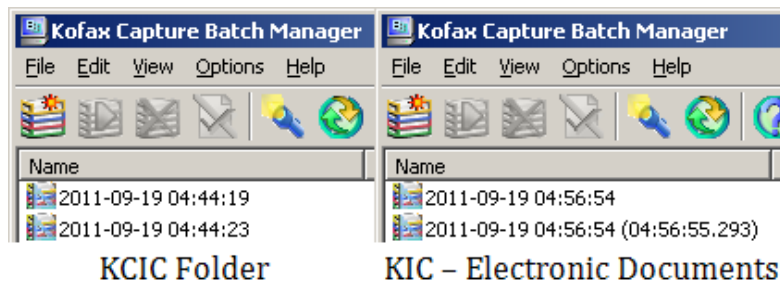
As Kofax Import Connector combines multiple previous import connectors, TIF splitting in now available to any input document. If you want to restrict this feature to documents

imported from folder, create an exclusive destination and set up an appropriate rule. Refer to Configuring Rules.

Split TIF files behave differently when archived. It is not possible to save each page to a separate folder. The original, unsplit TIF file is archived instead.

```
<processed>                                    <processed>
  <2011-9-19>                                    <2011-9-19>
    <150-2011-09-19 04_44_19-BatchClass1>          <152-2011-09-19 04_56_54-BatchClass2>
      <SPLIT>                                          file001.tif
        file001.tif (first page)
    <151-2011-09-19 04_44_23-BatchClass1>
      <SPLIT>
        file001.tif (second page)
```
            KCIC Folder   KIC – Electronic Documents

Image Normalization

The following rules are used for handling the resolution and dimension. The first matching rule governs the conversion:

1 If the resolution of an incoming image matches the requested resolution, the image is not changed.
2 If the x and y resolutions differ, the image is resampled to the requested resolution (non-quadratic pixel case).
3 If the resolution value is most likely wrong, it is set to the requested value without resampling the image. This will change the printing size of the image. Such images are not resampled in order to avoid quality loss. A wrong resolution is expected if one of the following conditions are true:

   ▪ The resolution is below 96 dpi. (ImageMagick returns 72 dpi if the resolution is not set.)
   ▪ The resolution exceeds 200 dpi and the width is less than 1500 pixel (19.5cm@200dpi).
   ▪ The resolution exceeds 200 dpi and the height is less than 2000 pixel (25.4cm@200dpi).

4 If the resolution is higher than requested, the image is down-sampled to the requested resolution.
5 If none of the listed rules applies, the image conversion depends on the configuration in the script file image2tif.bat in the folder `C:\Program Files (x86)\Kofax\KIC-ED\MC\Scripts`. Open the file with a text editor and change the value in the line `Set ResetResolution=0`. The following values are supported:

   ▪ 0: Resample image and change resolution. This is the default option, same behavior as in 1.0.0 and 2.0.0 or Kofax Capture Import Connector - Folder. Image file size is increased without improving image quality. Resampling can be a time-consuming operation that often results in lower performance.
   ▪ 1: Change the resolution without resampling. This reduces the print size of the image. This is the same behavior as in 2.1.0.
   ▪ 2: Image is not changed. Best performance.

PDF Normalization

Kofax Import Connector can convert documents to an ISO-standardized version of PDF documents, PDF/A.

Enabling Conversion to PDF/A

1 Configure a destination. See [Configuring Destinations for Imported Documents](#) for the general procedure.

2 On the Advanced tab, select **Normalize PDF documents to PDFA**.

3 Click **OK** to save changes.

4 Click **Restart Service**.

Configuring PDF/A Variant

1 Open the folder `C:\Program Files (x86)\Kofax\KIC-ED\MC\Scripts` (assuming default installation path on a 64-bit operating system).

2 Edit the file KFXConverter.bat in a text editor.

3 Edit the line `set ConvertToType="PDFA1B"`. The following values are supported:
   - `PDFA1A`
   - `PDFA1B` (default)
   - `PDFA2B`

4 Save the file and close it.

Certificates

This section lists two sample procedures for generating certificates for use with Message Connector and KC Plug-In.

Requesting a Certificate for Message Connector Using Microsoft Active Directory Certificate Services

In this example, we are using Microsoft Active Directory Certificate Services to generate a certificate for Message Connector and OpenSSL to extract the private key and certificate. Review the following requirements and tips.

- Microsoft Certification Services
  - Server must be configured for https binding (https://[CAName]/certsrv/)
  - Server must be configured to archive the key
  - Create a template which allows to export the private key
- OpenSSL is used for
  - Exporting a decrypted private key
  - Creating a PKCS#12 file

1 Use Microsoft Certification Services to request a certificate:

   a Use a web browser to connect to the CA Server (https://CAName/certsrv).

   b Click "Request a certificate".

   c Click "advanced certificate request".

   d Click "Create and submit a request to this CA".

e Fill out the form, select the correct Certificate Template and select "Mark keys as exportable". Enter the correct Message Connector server name in the Name field (for Windows Failover Cluster configuration, use the name of the clustered MC service).

f Click Submit. Wait until the certificate is issued.

g Click "Install this certificate". Wait until the certificate is installed.

2 Use Internet Explorer to export the certificate:

a Go to Tools > Internet Options > Content > Certificates > Personal tab.

b Select your certificate and click Export.

c Select to export the private key. Select PKCS #12 as the format.

d Type a password to protect the key.

e Specify the location and file name. Click Finish.

3 Use OpenSSL to extract the private key and the certificate to .pem format, e.g.:

```
openssl.exe pkcs12 -in "c:\certif.pfx" -out
    "c:\certif.pem" -nodes
```

You will need to provide the password you used in step 2d.

4 Open the pem file in a text editor. In the file you will find the certificate and private key needed for configuring Message Connector. Refer to [Configuring SSL Connection](#).

Requesting a Certificate for KC Plug-In Using OpenSSL

In this example, we are using OpenSSL to generate a certificate for KC Plug-In.

1 Use OpenSSL to request a certificate (assuming Windows binary distribution of OpenSSL):

a Generate an RSA private key.

```
C:\Openssl\bin\openssl.exe genrsa -out my_key.key 2048
```

This command generates a private key file with the file name my_key.key and the key length of 2048 bits.

b Generate a Certificate Signing Request (CSR).

```
C:\Openssl\bin\openssl.exe req -new -key my_key.key -out
 my_request.csr -config C:\Openssl\bin\openssl.cnf
```

This command uses the my_key.key to create the CSR my_request.csr.

c Generate a self-signed public certificate based on the request.

```
C:\Openssl\bin\openssl.exe x509 -req -days 3650 -in my_request.csr -
signkey my_key.key -out my_cert.crt
```

This command uses the private key and certificate signing request to create a self-signed public certificate (my_cert.crt).

d Generate a PKCS#12 file.

```
C:\Openssl\bin\openssl.exe pkcs12 -keypbe PBE-SHA1-3DES -certpbe PBE-
SHA1-3DES -export -in my_cert.crt -inkey my_key.key -out my_pkcs12.pfx
 -name "my-name"
```

2 Start Certificates MMC Snap-In for computer account:

a Start MMC, e.g. by running mmc.exe from the Start menu.

    b On the File menu, select Add/Remove Snap-In.

    c Click Add and select Certificates. Click Add again.

    d Select "Computer account". Click Next.

    e Select "Local computer". Click Finish.

    f Click Close, and click OK.

3 Install the certificate to the Personal\Certificates folder for computer account.

4 Display the details of the certificate and copy the value of its thumbprint into KC Plug-In configuration. Refer to [Configuring KC Plug-In Web Service Interface](#).

5 Restart KC Plug-In.

Operation and Maintenance

This chapter contains information about operating and maintaining of Kofax Import Connector.

Starting and Stopping the KC Plug-In Service

The KC Plug-In service must be restarted after each configuration change to make the changes effective.

1 Start Kofax Capture Administration module from the Kofax Capture group in the Windows Start menu.

2 On the menu, select **Electronic Documents > Configuration**.

3 On the Assistance Tasks menu, click one of the commands:
- **Restart Service**
- **Start Service**
- **Stop Service**

Note If no connection is marked active, the KC Plug-In service does not start.

Converting PST Files

Personal storage table (PST) files are used by Microsoft Outlook and other Microsoft products to store messages and other items. Use this procedure to extract all messages from a PST file to a folder. Kofax Import Connector can then import the extracted messages to Kofax Capture.

1 Start Windows Command Prompt in the Message Connector installation folder (by default `C:\Program Files (x86)\Kofax\KIC-ED\MC\bin\KFXConverter\`, assuming 64-bit operating system).

2 Run the command

```
KFXConverter.exe -s <sourcepath>\<filename> -f <destinationpath>\ -type
 msg
```

As `<sourcepath>`, enter the folder where your PST file is located.

As `<filename>`, enter the name of the PST file to be converted.

As `<destinationpath>`, enter the folder where the MSG files should be extracted.

3 Wait until the extraction is complete.

You can now move the extracted files to a watched folder to import them to Kofax Capture. See Accessing Folders.

Note MSG files where attachments have been removed by any Microsoft Outlook archive tool cannot be imported.

> **Tip** You can convert multiple PST files simultaneously. However, when running multiple KFXConverter instances in parallel, some information about the second and later instances might be missing from the log file. To ensure that your logs are complete, you can specify different log files for each instance using the command line switch -logfile <logfilename>.

Message Connector Status Monitor

Message Connector provides a monitoring interface with the following main functions:

- Sending test messages
- Viewing documents in storage
- Managing failed documents
- Monitoring Message Connector status

Sending Test Messages

Use this section if you want to verify the functionality of the Message Connector by sending a test fax or email. Both tests work by sending a message in a loop (Message Connector -> Message Connector). KC Plug-In will then import the message to Kofax Capture.

Sending a Test Fax

1 Start Message Connector Monitor utility from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, click **Test Fax**.

3 In the Number to Dial, enter a number. For a test message this can be any number.

4 Click **Send Fax**.

5 Wait until the text "Server returned ok" is displayed.

6 On the menu, click **Outbound > Processed**. After some time you will find the sent fax. Optionally, you can click **Inbound > Pending** and view the message there, if the KC Plug-In service is not running. Otherwise, you will find the test fax in **Inbound > Processed**.

Sending a Test Email

1 Start Message Connector Monitor utility from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, click **Test Email**.

3 In the To, enter an email address. For a test message this can be any address.

4 Click **Send Email**.

5 Wait until the text "Server returned ok" is displayed.

Message Connector Storage

Message Connector stores all messages and files received from various sources to its internal storage before they are imported to Kofax Capture.

The storage is managed automatically. Files and messages that are correctly imported to Kofax Capture are marked for deletion and they are removed when the storage fills.

Files and messages that could not be correctly imported to Kofax Capture may fill the storage. Refer to Managing Failed Messages Manually.

The storage is divided into multiple folders:

- Click **Inbound Status > Active** to list active documents, i.e. documents that have been received by Message Connector but not yet delivered to Kofax Capture. When the archive to folder function is activated, documents remain in this folder until the archiving has been concluded.
- Click **Inbound Status > Active > Failures** to list documents that have been received by Message Connector but could not be delivered to Kofax Capture. Documents appear this folder only if the configuration setting Keep Failed is selected. When the archive to folder function is activated, documents remain in this folder until the archiving has been concluded.

Note Documents remain in this folder until they are handled manually by an operator (reactivated or deleted). If not monitored, this can cause full storage and stop processing of documents.

- Click **Inbound Status > Processed** to list documents delivered to Kofax Capture. If Keep Failed is cleared, this folder also contains documents that permanently failed to import to Kofax Capture. Processed documents are deleted automatically from the storage when space for active messages is needed.
- Click **Inbound Status > Processed > Failed** to list documents that permanently failed to import to Kofax Capture (Keep Failed must be cleared). As all processed documents, they are deleted automatically from the storage when space for active documents is needed.
- Click **Outbound Status > Active** to list test fax messages which are queued for sending or are currently being sent.
- Click **Outbound Status > Processed** to list test fax messages sent out by Message Connector, as well as messages that could not be sent.
- Click **Outbound Status > Processed > Failed** to list test fax messages that could not be sent.

Viewing Messages in the Storage

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, go to any of the storage folders (Inbound or Outbound).

3 Select the message and click **View/Save** .

4 Email messages are available as EML files and can be displayed with Outlook Express or Windows Live Mail or any other mail client that supports EML. Fax messages are available in multipage TIFF format (a special viewer might be required to view this format properly)

Note You can also view EML files in Microsoft Outlook. In Outlook 2007, please follow these instructions: http://support.microsoft.com/kb/956693. Outlook 2010 can open these files without any additional effort.

Managing Failed Messages Manually

Use this section if you want to manually manage messages that could not be delivered to Kofax Capture. Depending on the Keep Failed configuration, problematic messages can be found either in the storage folder **Inbound > Active > Failures** or **Inbound > Processed > Failures**.

Reactivating Messages

In particular, it is important to monitor the **Inbound > Active > Failures** folder, as messages in this folder can potentially fill in the entire storage. These messages can be reactivated and Kofax Import Connector will retry to import them to Kofax Capture.

1 Start Message Connector Monitor utility from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, click **Inbound > Active > Failures**.

3 You can view the contents of a message to investigate the problem (click **View/Save** 🔍).

4 Then either reactivate the message 🔄 or to delete it ❌. A reactivated message is moved back to the **Inbound > Active** folder. A deleted message is moved to folder **Inbound > Processed > Failures**.

Rerunning Messages

Messages in the **Inbound > Processed > Failures** folder are already marked for deletion. When the storage gets too full, these messages are lost. However, as long as they are available, you can attempt to rerun them, i.e., create a copy of the message in the **Inbound > Active** folder (as if it had just arrived).

1 Start Message Connector Monitor utility from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, click **Inbound > Processed > Failures**.

3 You can view the contents of a message to investigate the problem (click **View/Save** 🔍).

4 You cannot delete these messages; they are already deleted. However, you can try to rerun the message 🔄. A copy of this message is created in the **Inbound > Active** folder.

Monitoring Message Connector

1 Start Message Connector Monitor from the Kofax Import Connector group in the Windows Start menu.

2 On the menu, click **Status**.

3 In the right frame you can see the status of Message Connector and its internal components and connections.

Using Kofax Monitor

Kofax Monitor 6.5 can be used to monitor the operation of Kofax Import Connector. Web service interface is used to provide information to Kofax Monitor.

The following counters are available for monitoring Message Connector.

Web Service	Parameters	Description
GetRunState		Shows the run state of Message Connector. ▪ 0 = not running, ▪ 80 = storage full, no documents accepted into storage; import to Kofax Capture continues ▪ 100 = running
GetStorageVisible		Shows how full is the storage of Message Connector, in percent.
GetMessagesFailed		Shows the number of messages that could not be imported to Kofax Capture and need to be processed.
GetMessagesWaiting	MediaType	Shows the number of messages waiting to be imported to Kofax Capture per media type. The text parameter MediaType may have to following values: ▪ ALL (default) ▪ FAX ▪ EMAIL ▪ FOLDER ▪ WEB-SERVICE

The following counters are available for monitoring KC Plug-In. Full description of the counters is available in *Kofax Import Connector Developers Guide*.

Web Service	Parameters	Description
GetAllState		Shows the state of feature licenses and a list of connections.
GetConnection	ConnectionName	Shows if the specified connection is active and connected.
GetConnectionNames		Shows the names of all connections.
GetFeatureLicenseState		Shows the state of Kofax Import Connector feature licenses.

You can use the Web Service Wizard from the Kofax Monitor Admin Console to set up these counters.

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 On the General tab, enter the **Own Computer Name**.

3 Click **Advanced** and review the settings on the HTTP tab.

4 Click **Save**. Click **Exit and restart service**.

5 Start Kofax Capture Administration from the Kofax Capture group in the Windows Start menu.

6 On the menu, select **Electronic Documents > Configuration** and review the Web Services Configuration. Restart KC Plug-In service if you do any changes.

7 Start the Kofax Monitor Admin Console.

8 Click **Add Test Using Wizard** and select **Web Service Wizard**.

9 Use the wizard to configure the counter.

    a Enter the **Web Service WSDL**, e.g.: https://messageconnector:25086/file/ Monitor.wsdl or http://kcplugin:8001/KIC-Electronic-Documents?wsdl. Use the information from steps 3 and 6.

    b Select one of the methods. Use **only** the web services listed in the table above.

    c Configure the details of the test. E.g., you can create a "Connectivity" test, using the GetRunState method, with "100" as the expected response.

    d Click **Add Test** and conclude the wizard.

Log Files

Kofax Import Connector provides log files that can help with troubleshooting. Log files are stored in the application / program data folder of all users. The exact path (*<path>*) depends on the operating system:

- `C:\Documents and Settings\All Users\Application Data\Kofax\KIC-ED` (Windows Server 2003 and Windows XP)
- `C:\ProgramData\Kofax\KIC-ED` (Windows Server 2008, Windows Vista and later)

Managing Logs in Message Connector

1 Start Message Connector Configuration utility from the Kofax Import Connector group in the Windows Start menu.

2 Click **Advanced** to display additional configuration options.

3 Edit the settings on the Advanced tab.
- The default values (TraceLevel 10 and MessageTraceSize 1) provide basic trace information (that is often sufficient) without negatively impacting performance.
- Troubleshooting values (TraceLevel 40 and MessageTraceSize 100000) provide lot of information; these are more suitable when duplicating error situations in controlled environment.

Refer to Message Connector Help for more information about the parameters.

4 Find log files in `<path>\MC\log`

5 Click **Save**, then click **Exit and restart service**.

Managing Logs in KC Plug-In

1 Go to the folder `<path>\KC Plug-In\logconfig`.

2 Open the file log4net.config in a text editor.

3 Edit the line starting with "<level value=". Use INFO for normal operation; use DEBUG for troubleshooting.

4 Find log files in `<path>\KC Plug-In\log`.

5 Restart the KC Plug-In service to make the changes effective.

Managing Logs in KFXConverter

The default name of the log file is KFXConverter.log. The default location is the same folder as the executable. The maximum log file size is 5 MB. The file is overwritten when the maximum size is reached. You can specify another log file using the command line option `–logFile <path>\<filename>`, for example `–logFile C:\temp\mylog.log`.