Kofax Transformation Modules
Installation Guide

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KOFAX

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Preface

This guide contains information about installing Kofax Transformation Modules and assumes that you have a thorough understanding of Windows standards, applications, and interfaces, as well as Kofax Capture.

This guide is for solution integrators who are installing Kofax Transformation Modules or who need a description of the installation procedures and requirements.

Kofax Transformation Modules consists of a set of components and either Kofax Capture custom modules or additional tools. In this document, the components are also referred to by their module or tool name, omitting the product name.

If you downloaded Kofax Transformation Modules from the Kofax Delivery site site, you can extract the files from ISO file. Refer to the instruction on the Site. Or, you may have received Kofax Transformation Modules as a package that includes electronic media. In this guide, we refer to both the extracted files and the electronic media as the product files.

Related documentation

The following documentation is available in Kofax Transformation Modules 7.1.0.

Guides
The following guides are available in Kofax Transformation Modules.

Kofax Transformation Modules Installation Guide

The guide provides instructions for installing Kofax Transformation Modules. In addition, it contains information about installation requirements, important installation notes, modifying the installation, and uninstalling the product.

Kofax Transformation Modules Thin Client Server Installation Guide

This guide provides installation instructions for Kofax Transformation Modules Thin Client Server. In addition, it contains information about installation requirements, important installation notes, modifying the installation, and uninstalling the product.

Kofax Transformation Modules Product Overview

This guide provides a top-level overview about Kofax Transformation Toolkit and the new features for this version.

Help
The following help systems are available.

Kofax Transformation - Project Builder Help

This help provides information for creating, configuring, and maintaining a transformation project.

Kofax Transformation Modules Document Review Help

This help contains information on how to review and structure documents using the Document Review module.

Kofax Transformation Modules Correction Help

This help contains information on how to correct extraction problems on documents using the Correction module.

Kofax Transformation Modules Verification Help

This help contains information on how to verify pieces of information on a document using the Verification module.

Kofax Transformation Modules Validation Help

This help contains information on how to validate problems on documents using the Validation module.

Kofax Transformation Modules Thin Clients Help

This help includes information on the following Thin Client user modules.

- Thin Client Correction. This section contains information on how to correct extraction problems on a document.
- Thin Client Verification. This section contains information on how to verify pieces of information on a document.
- Thin Client Validation. This section contains information on how to validate problems on a document.

Kofax Transformation Modules Scripting Help

This help provides scripting examples and how to use the supported script elements.

Kofax Transformation Modules Server, Knowledge Base Learning Server, and Services Help

This help provides information about how to use these tools when processing documents in your solution.

Kofax Transformation - Synchronization Tool Help

This help provides information for integrating Kofax Transformation Modules with Kofax Capture so that you can process batches.

Kofax Transformation - XDoc Browser Help

This help provides information on how to use the XDoc Browser.

Kofax Transformation - Project Merge Tool Help

This help provides information on how to merge two versions of the same project.

Kofax Transformation - Image Classifier Help

This help provides information about the image classification technology that is used by Statistics Viewer.

Kofax Transformation - Statistics Viewer Help

This help provides information about the various statistics that are collected for your solution.

> ⚠ Statistics Viewer will be deprecated and no longer available in a future version of Kofax Transformation Modules.

More information on documentation can be found in Access Kofax Transformation Modules documentation.

Training

Kofax offers both classroom and computer-based training that help you make the most of your Kofax solution. To learn more about training courses and schedules, visit the Kofax Education Portal on the Kofax website.

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.

Go to http://www.kofax.com/support/ for:
- Access to product knowledge bases.
  Click **KNOWLEDGE Base**.
- Access to the Kofax Customer Portal (for eligible customers).
  Click **Kofax Customer Portal** 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*. The guide describes how to access the portal, 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.
- Product information and release news
  Click **Transformation > Kofax Transformation Modules**.
- Downloadable product documentation
  Click **Transformation > Kofax Transformation Modules > Documentation** and select a document.
- Access to support tools
  Click **Tools** and select the tool to use.
- Information about the support commitment for Kofax products.
  For more information on the support commitment, click **Learn More**.

Chapter 1

System requirements

For information on supported operating systems and other system requirements, see the *Kofax Transformation Modules Technical Specifications* document on the Kofax Transformation Modules Product Documentation site.

This document is updated regularly, and we recommend that you review it carefully to ensure success with Kofax Transformation Modules.

Software prerequisites

Kofax Transformation Modules requires the following software to be installed alongside the product:

- Runtime libraries for Visual C++ VS2019
- Windows Installer 3.1
- Microsoft .NET Framework 4.8
- Crystal Reports Basic Runtime
  - Runtime libraries for Visual C++ VS2010 SP1 (prerequisite for Crystal Reports only)

Most of these programs are included as part of the Kofax Transformation Modules, but there two exceptions.

1. If you plan on using an Oracle database connection, you need to install the Oracle driver.

2. The "Crystal Reports Basic Runtime" prerequisite is not installed as part of the Kofax Transformation Modules installer and is needed for the Statistics Viewer module only. If you are using Kofax Capture 11.0 or later, this prerequisite is installed as part of that installation.

> ⚠ Statistics Viewer will be deprecated and no longer available in a future version of Kofax Transformation Modules.

Security model

Kofax Transformation Modules uses the Kofax Capture security model and does not have security settings of its own. The following describes the Kofax Capture security model.
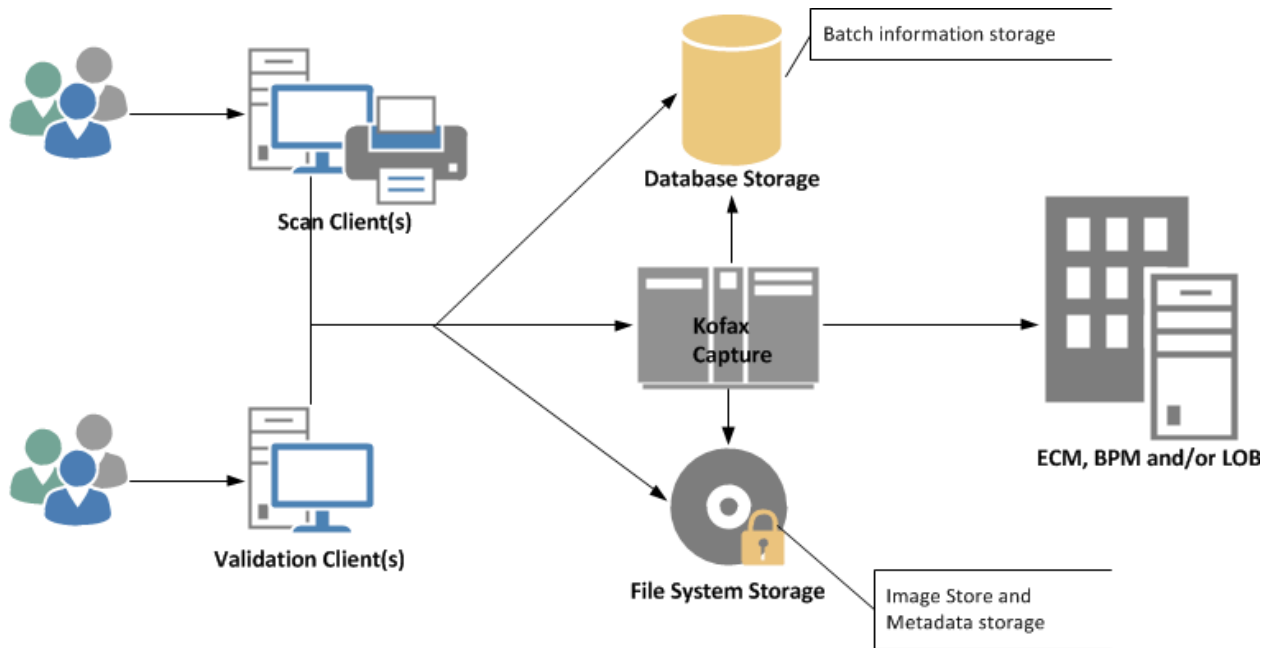
User login and authentication

Category	Authentication and Authorization.
Description	User provides login credentials for Kofax application.
Security Details	Kofax supports corporate directory systems, such as **Active Directory** through the **Linked Users** and Linked Groups features, which take advantage of the corporate infrastructure for authentication and credential management.
	Kofax also has an application specific authentication and authorization mechanism for convenience. This includes credential management and storage. Stored passwords are encrypted. The **Linked Users** feature must be used to take advantage of external systems that provide AES or equivalent encryption.

Client transmission to servers

Category	Data in transit.
Description	Clients (such as Scan or Validation) transmit to servers.
Communication	Database .NET Remoting, SMB.

Security Details	All streams of data in transit can be protected with IPsec to take advantage of network-level peer authentication, data origin authentication, data integrity, data confidentiality (encryption), and replay protection.
	Details on the streams used are as follows:
	Database information containing metadata is transferred to and from the database using the database manufacturer's client driver. The network protocol varies depending on what database is being used. For more information, consult documentation from your database manufacturer.
	.NET Remoting (TCP 2424) is used for licensing and batch notification traffic. No confidential information (nothing related to images or metadata) is transmitted or accessed.
	Images are transmitted to/from the file system using the SMB (TCP 445) protocol.

Image and metadata storage

Category	Data at rest.
Description	Image and metadata is stored.
Security Details	Images are stored in the file system and can be secured through use of Windows file system permissions. As additional protection, the Kofax environment should be configured with the SecurityBoost feature that prevents user accounts from accessing the file system outside the application.
	Images can be also optionally be encrypted via Microsoft BitLocker or Microsoft Encrypting File System (EFS).
	Metadata is stored in the Kofax database, which is accessed through a configured system account, or by assigning permissions to each user. Database level encryption is also available by using the encryption feature within the database itself.
	ⓘ When using Microsoft SQL Server, you must set the "Store batches in SQL Server" configuration setting to ensure all metadata is stored in the database. Oracle or IBM DB2 do not offer a comparable setting, as all metadata is always stored in the database.
	Whether or not file system and/or database encryption is enabled, passwords (for external systems or application-specific users), are further protected. Passwords are always stored using the Triple DES encryption algorithm and the SHA1 hashing algorithms approved by the Federal Information Processing Standard (FIPS) Publication 140-2 standard.

Installation

This section describes how to install Kofax Transformation Modules and maintain an existing installation.

Important installation notes

This section lists important notes for installing Kofax Transformation Modules.

Administrator Rights

To install the product, the logged-in user must have Administrator rights on the local computer.

Install Kofax Capture first

The Kofax Transformation Modules installation installs and registers custom Kofax Capture components only if a certified version of Kofax Capture, formerly known as Ascent Capture, is detected on the computer. To use the custom Kofax Capture components, you must install a certified version of Kofax Capture before you install Kofax Transformation Modules.

Close Applications

Before installing Kofax Transformation Modules 7.1.0, you must close the Kofax Capture Administration module on every workstation.

Microsoft .NET Framework 4.8

Microsoft .NET Framework 4.8 is a prerequisite for Kofax Transformation Modules.

Change, Repair and Remove the Installed Version

If you need to change, repair or remove the current Kofax Transformation Modules version start the setup from your installation media once again and select the corresponding button.

> ⓘ Ensure that you do not attempt to change, repair or remove the installed version by running the KTM.msi file that is included in the ISO. Doing so can cause errors and corrupt your installation.

Kofax Transformation Modules and Kofax Search and Matching Server

When you upgrade Kofax Transformation Modules to the new version and you want to use remote fuzzy databases you also have to upgrade Kofax Search and Matching Server to version 6.8 or newer. If you do not synchronize the Kofax Transformation Modules and Kofax Search and Matching Server versions any search requests on the remote fuzzy databases will fail.

Batches performing such failed search requests are sent to Kofax Capture Quality Control

KTM Statistics Export Connector Installation

If you want to use the KTM Statistics export connector to gather statistical data you need to ensure that this feature is installed in the same location as the Kofax Transformation - Server.

> ℹ️ KTM Statistics Export Connector is not supported on Windows Server 2016.

Help Settings

In order to display the Kofax help correctly you need to ensure that your browser has scripting enabled. Otherwise, the table of contents and the search and index tabs may not be displayed correctly and context-sensitivity does not work.

Installed version

All Kofax Transformation Modules components such as design applications, runtime servers, and end-user modules must have the same installed version. This applies to service packs and fix packs as well as other versions.

Install Kofax Transformation Modules

Installing Kofax Transformation Modules involves the following basic steps, which you should perform in the order listed.

You must install Kofax Transformation Modules on each machine where Kofax Capture is installed and where you want to process documents.

If you are upgrading by installing this version overtop of an older version, please

1. Shut down any applications (including Control Panel, virus detection software, and toolbars) that may be running on the Kofax Capture workstation where you are installing Kofax Transformation Modules.

    > ℹ️ If you are upgrading from a previous version of Kofax Transformation Modules, please reboot your server before starting with the installation. Once the machine has restarted, reboot it a **second** time. This is necessary in order for the install to succeed over top of the existing version. These restarts are not necessary if you are not upgrading an existing installation.

2. Mount the `KofaxTransformationModules-7.1.0` image file.

    The contents of the image file are loaded automatically.

3. Open the Kofax Transformation Modules folder and then double-click on **Setup.exe**.

    You must have at least 1 GB of free space available on your local C: drive during the installation process, regardless of which drive you choose for the installation.

    The **Kofax Transformation Modules** installer window is displayed.

4. Follow the instructions presented to you by the **Kofax Transformation Modules Setup Wizard**.

    The installation instructions contain additional information to guide you through the installation process. Be sure to read the instructions carefully before proceeding with each step.

5. Select the **Custom Setup** step in the Setup Wizard to select which features you want to install:
   - Click the icon of the feature you want to change and choose the method from the list.

     You can see additional information about the feature in the right section of the prompt. For example, information is displayed about the required space on your hard drive.

     By default, the complete Kofax Transformation Modules functionality is installed. However, for Validation, only one step or instance of the module is installed. If you want to use multiple Validation steps, remember to select them in the installation tree.

     > ⓘ The **Check and Cursive Recognition** Add-On engine is now deprecated. However, if you used this feature in a previous release, it is necessary to install this Add-On in order to continue to use these locators or to migrate an **A2iA Zone Locator**.
     > For more information on migrating an A2iA Zone Locator, see the *Project Builder Help*.
     >
     > The **Cursive Page Recognition** Add-On is now deprecated and is no longer available for use. Any existing **Cursive (A2iA DR 9.1)** page profiles are converted automatically to an OmniPage page profile with default settings.

   - Click **Browse** if you want to change the installation location of Kofax Transformation Modules.
   - Click **Reset** if you want to install the features in default mode.
   - Click **Disk Usage** if you want more information about the required and available disk space on your volumes.

     Highlighted volumes indicate that you do not have enough disk space for the selected features.

6. Click **Next**, and then click **Install** to begin the installation.
7. Click **Finish**.

   If you have installed .NET as part of the Kofax Transformation Modules installation, you need to restart your computer for the changes to take effect.

8. Repeat the installation on each workstation on which you want to run Kofax Transformation Modules.

   > ⓘ If Kofax Transformation Modules is installed, the installation process automatically registers the modules with Kofax Capture. If for any reason the custom components need to be re-registered, you can manually register them from within the Kofax Capture Administration module.
   >
   > If you install Kofax Transformation Modules on a standalone system and the Kofax Capture Administration module is running, an error message informs you that you must close the Kofax Capture Administration module before you can continue the installation.
   >
   > In a client/server environment, if one client has the Kofax Capture Administration module open and you attempt to install Kofax Transformation Modules on another client, the registration of the custom components fails and needs to be registered manually. For details see Registering Custom Modules.

Install Oracle drivers for Kofax Transformation Modules

If you are using an Oracle database, it is necessary to install the Oracle driver.

You can install the driver by following these steps:

1. Navigate to the Oracle driver website at https://www.oracle.com/database/technologies/dotnet-odacdeploy-downloads.html.
2. Under to ODAC XCopy section, download the "ODAC XCopy 64-bit ODAC 21c" driver zip file.
3. Unzip the Oracle driver zip file.
4. From the extracted files, copy `<extractedfiles>\odpm\odp.net\managed\common\Oracle.ManagedDataAccess.dll` and copy it to the locations on the server where Kofax Transformation Modules is installed.

   The default installation paths are as follows:
   - `C:\Program Files (x86)\Common Files\Kofax\Components`
   - `C:\Program Files (x86)\Kofax\Transformation`

   > ⓘ If the installation path has been configured to use a different location than the default path, then please adjust accordingly.

5. Restart the Kofax Transformation Modules - Scheduler service.

   The service restarts and it is now possible to configure an oracle database connection.

Configure a Server Scheduler port number

You can configure the Server Scheduler port number if the default port (5000), is already blocked by other programs or services.

1. From the **Start** menu, select **Run**.
2. Type **regedit** and press Enter.

   The registry editor is displayed.
3. Browse to the following registry key:

   `HKEY_LOCAL_MACHINE\SOFTWARE\Kofax\Transformation\4.0\Server`
4. Create a string value that specifies the Server Scheduler port number.

   a. Right-click the right-hand pane, select New, and then select String Value.

   b. Name this string value "SchedulerCommunicationPort".

   c. Double-click the string value.

      The **Edit String** window is displayed.

   d. In the **Value data** box, type the port number that you want to use for this service.

      The default port number is 5000.

Server Scheduler Service and Knowledge Base Learning Server services

Initially, the Server Scheduler Service and the Knowledge Base Learning Service are installed to run under the local system account. If wanted, you can set the Server Scheduler Service user during installation by running the installation from the command line. Additional parameters are provided that allow setting the user name in the following format: *<domain or computer name\user name>*.

To run the installation from the command line, type the following command:

```
setup.exe SCHEDULERUSERNAME=MyMachineName\ServerSchedulerUser1
SCHEDULERUSERPASSWORD=MyPassword2011
```

> ℹ The user account for the Server Scheduler Service must already have the permission to "Log on as a service" as otherwise the service cannot be started. In case the permission has not been set for this user account and need to change the permission and start the corresponding service manually. For more information, see Microsoft documentation.

The initial startup type for the Server Scheduler Service is "Automatic"; for the Knowledge Base Learning Service it is "Manual". The Server Scheduler Service is by default configured that you need to start Server application in order to start batch processing. You can activate automatic batch processing by selecting the "Automatic start batch processing" setting in the Service Configuration. When installing from the command line you can use the `AUTOSTARTBATCHPROCESSING` parameter to configure the service to automatically start batch processing.

> ℹ After the Kofax Transformation Modules installation is complete you can change the settings of the Server Scheduler Service and the Knowledge Base Learning Service as needed by the help of Kofax Transformation - Service Configuration.

For further details, see *Setting up Kofax Transformation -Services* in the *Kofax Transformation Modules Configuration Guide* or *Kofax Transformation - Server and Services Help*.

Change the Server Scheduler timeout period

By default, a failed child process times out in the Server Scheduler after 24 hours. You can change the timeout duration by adding a Registry entry, ExtractionProcessTimeout.

1. In the Registry Editor, select the following key:
   - For x64 operating systems: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Kofax \Transformation\4.0\Server
   - For x86 operating systems: HKEY_LOCAL_MACHINE\SOFTWARE\Kofax\Transformation \4.0\Server
2. Right-click the key and select **New** > **DWORD (32-bit) Value**.
3. In the Name field, enter ExtractionProcessTimeout.
4. In the Data field, enter the duration of the timeout in minutes. The default is 1440 for 24 hours.
5. Restart Server Scheduler.

Install the Natural Language Processing engine language packs

Before you can use either the Named Entity Locator or the Sentiment Locator it is necessary to install the Natural Language Processing engine language packs. The Natural Language Processing engine performs natural language processing and is able to extract items such as named entities and sentiments, but it requires at least one or more language packs to be installed.

For more information on the Natural Language Processing engine and its supported locators, refer to the *Kofax Transformation Modules - Project Builder Help*.

Download the Natural Language Processing engine language packs from the Kofax Delivery site.

You can install the Natural Language Processing engine language packs by following these steps:

1. Extract the downloaded zip file.
2. Navigate to the `MicroPackage` folder in the extracted files and double-click on one of the following `.MSP` files, depending on what languages you are supporting.

    - **KofaxTransformation_SalienceV6.4.0_LanguageBundle_western-default**.

      Run to install English, Spanish, Portuguese, French, and German support.
    - **KofaxTransformation_SalienceV6.4.0_LanguageBundle_western-extended**.

      Run to install Italian, Romanian, and Dutch support.
    - **KofaxTransformation_SalienceV6.4.0_LanguageBundle_extended**.

      Run this to install Japanese, Chinese, and Korean support.

    A Windows Installer window is displayed and then installs the selected Kofax NLP (Natural Language Processing engine) languages automatically.

    The installer window closes when the installation is complete.
3. Optionally, double-click on another installer if you want to support additional languages.

Project Builder application mode

When Kofax Transformation Modules is installed, two different modes of Project Builder are installed. Each mode has a different icon so that you can differentiate them.

1. Original Project Builder 🛢.

    Use this to create, configure, and maintain a project. Users of this mode are typically Project Designers.
2. Project Builder (Limited to Online Learning) 🛢.

    Use this to maintain online learning. Users of this mode are interested in downloading new training documents, maintaining online learning data, resolving training conflicts, and performing benchmarks only. Users of this mode do not have access to any other aspects of project configuration.

Use quiet mode installation

If you do not want to perform an interactive installation of Kofax Transformation Modules by using the executable, you can use Quiet Mode via the Command Prompt. This type of installation does not display configuration, progress, feature information, or warning windows, although error messages are still displayed. This is ideal if you are installing user modules or specific components across a network because you do not have to visit each machine individually.

You can use Quiet Mode installation to automate the installation of the user interactive modules (Validation, Correction, Document Review, and Verification) on target systems.

By default, the complete Kofax Transformation Modules functionality is installed by running the setup executable with the Quiet Mode parameter at the command prompt. For more information an installing or excluding various components from the install, there are a list of supported parameters that you can add to the installation command.

> ℹ️ If any of the prerequisites are installed during quiet installation, it is necessary to reboot your system after the installation has finished in order for Kofax Transformation Modules to function correctly.

For example, by default, there is only a single step of Validation installed. If you want a second Validation step, you can add the `VALIDATION2=1` parameter to the installation command. Similarly, the `VALIDATION345=1` parameter installs an additional three steps for Validation. If you want all five steps, use both of these commands.

> ℹ️ By default, Server is installed. To configure the Server and Knowledge Base Learning Server services, you need to start Kofax Transformation - Service Configuration after the Kofax Transformation Modules installation is complete.

You can install Kofax Transformation Modules using the command prompt by following these steps:

1. From the **Start** menu, select **Run**.
2. Type **cmd** and press Enter.
   The Command Prompt window is displayed.
3. Change to the folder that contains the Kofax Transformation Modules Setup.exe file.

   > ℹ️ If the setup.exe file is located on a network drive, remember to map to the network drive first.

4. Run setup from the command line, using the relevant parameters.
   For example, type the following command to install only the Validation module with all steps, Correction, Document Review, and Verification modules:
   ```
   setup /quiet NOPROJECTBUILDER=1 NOSERVER=1 VALIDATION2=1 VALIDATION345=1
   ```

Parameters

The following parameters are available for the silent installation.

Parameters for Silent Installation

Setup.exe Parameters	Description and Value Settings
/?	Shows the help window.
/quiet	Runs the installer with no user interaction.
/log [filename]	Writes the installer log messages to the specified file.
/uninstall or /u	Uninstalls the product.
/install or /i	Installs the product.

The following values are available for the property parameter.

Values for Property Parameter

`NOPROJECTBUILDER=1`	Disables Kofax Transformation - Project Builder installation.
`STATISTICS=1`	Enables Kofax Transformation - Statistics Viewer installation. ⚠ Statistics Viewer will be deprecated and no longer available in a future version of Kofax Transformation Modules.
`NOMODULES=1`	Disables installation of all modules in Kofax Transformation Modules. None of Server, Validation, Correction, Document Review, Verification nor KTM Statistics are installed.
`NOSERVER=1`	Disables Kofax Transformation - Server installation.
`NOVALIDATION=1`	Disables Kofax Transformation - Validation installation.
`NOCORRECTION=1`	Disables Kofax Transformation - Correction installation.
`NODOCUMENTREVIEW=1`	Disables Kofax Transformation - Document Review installation.
`NOVERIFICATION=1`	Disables Kofax Transformation - Verification installation.
`STATISTICSEXPORT=1`	Enables KTM Statistics Export Script installation.
`VALIDATION2=1`	Selects additional Validation step 2 for installation.
`VALIDATION345=1`	Selects additional Validation step 3 - 5 for installation.
`ALLADDONS=1`	Selects all available Add-Ons for installation.
`A2IA=1`	Selects Check and Recursive Recognition, powered by A2iA, as an additional locator optimized for extracting handwritten data from documents and checks for installation.
`CLIENTINSTALL=1`	Allows the installation of Kofax Capture custom modules, such as Server and Validation, without registration and without license ID registration for a client installation, especially if no network is available.
`AUTOSTARTBATCHPROCESSING=1`	Activates the "Automatic start of batch processing" setting of the Server Scheduler Service. By default, this setting is deactivated when installing the Server.
`SCHEDULERUSERNAME=MyMachineName` `\ServerSchedulerUser1`	Sets the account for the Server Scheduler Service to use the specified user. By default, the account runs as local system account.
`SCHEDULERUSERPASSWORD=MyPassword2013`	Sets the password for the Server Scheduler Service account.

`KBSERVICEUSERNAME=MyMachineName` `\ServerSchedulerUser1`	Sets the account for the Knowledge Base Learning Service to use the specified user. By default, the account runs as local system account.
`KBSERVICEUSERPASSWORD=MyPassword2013`	Sets the password for the Knowledge Base Learning Service account.
`NOPREREQUISITES=1`	Using this parameter the installation does not check the prerequisites and can be used as workaround to install Kofax Transformation Modules when the installation using the main installer fails.

Activate the Kofax Transformation Modules License

Kofax Transformation Modules is initially installed with a demonstration license for Project Builder that is valid for three days. During this time, you can use Project Builder without restrictions.

After the demonstration license expires, only the Activate License window is displayed in Project Builder.

You can activate the license either by a software license or a Kofax Capture hardware key, which must be present at the time of activation. Administrator rights are required on the computer on which the license is being activated.

When activating the license, you must provide a user name and company name.

For more information, see *Kofax Transformation - Project Builder Help > Activate the Kofax Transformation Modules License*.

Additional Kofax Capture configuration settings

It is possible to configure several transformation settings in the Kofax Capture `ACConfig.xml` file located in the `\CaptureSV\Config` directory.

You can configure the following settings by manually adding an entry to the `ACConfig.xml` file as needed:

ConfigurationSet

This setting indicates the name of the configuration set. For more information on configuration sets and how to use them, see the *Kofax Transformation - Project Builder Help*.

Example:

```
<ACConfig>
.
.
   <Transformation>
.
.
  <ConfigurationSet Name="Production" />
.
.
```

```
    </Transformation>
</ACConfig>
```

Services

You can add an entry that ensures that services do not char log on credentials. This forces a service to log on using specified username and password credentials from the service configuration rather than using the user configured as the service account.

Example:

```
<ACConfig>
.
.
   <Transformation>
.
.
  <Services ShareCredentials="0" />
.
.
    </Transformation>
</ACConfig>
```

AppData

This setting redirects user settings for the rich-client user modules related to docking, toolbar customizations, filtering, and Document Review custom menus, and saves them in the `AppData` folder rather than the `LocalAppData` folder. When this setting is not present, or its value is set to 0, then that everything is saved to the `LocalAppData` folder.

Example:

```
<ACConfig>
.
.
   <Transformation>
.
.
  <AppData UseRoaming="1" />
.
.
    </Transformation>
</ACConfig>
```

Configure batch opening behavior

For the user modules, it is possible to configure hidden columns to appear on the Open Batch window by editing the `ACConfig.xml` file.

> ⚠ Ensure that any modifications made to the `ACConfig.xml` file do not cause problems with Kofax Transformation Modules or Kofax Capture.

You can configure different columns for different user modules, or configure the same columns for all user modules.

The following table shows the user module and the corresponding module Id that is used in the configuration file.

Module name	Module Id name
*	All user modules
Validation	`LCI.Validation`
Validation - Step 2	`LCI.Validation2`
Validation - Step 3	`LCI.Validation3`
Validation - Step 4	`LCI.Validation4`
Validation - Step 5	`LCI.Validation5`
Correction	`Kofax.Correction`
Document Review	`Kofax.DocumentReview`
Verification	`Kofax.Verification`

If you want different columns for different user modules, it is necessary to have multiple `<Module ModuleId=`*Module Id name>* entries in the configuration file. If you want all user modules to have the same columns, set the `Module Id="*"` and add columns.

You can add the following columns to the Open Batch window by adding them to the configuration file:

- `TheColName`
- `ColBatchClass`
- `ColDate`
- `ColStatus`
- `ColPriority`
- `ColQueue`
- `ColErrorStatus`
- `ColStationId`
- `ColExternalBatchId`
- `ColScanStationId`
- `ColScanUser`
- `ColBatchField`
- `ColDocumentCount`
- `ColPageCount`

The following example shows extra columns for two user modules:

```
<ACConfig>
.
.
.
 <Transformation>
  .
  .
  <Modules>
   <Module ModuleId="Kofax.Verification">
    <OpenBatchWindow>
     <HiddenColumns>
      <HiddenColumn Name="ColPageCount" />
```

```
       <HiddenColumn Name="TheColName" />
       <HiddenColumn Name="ColStatus" />
       <HiddenColumn Name="ColErrorStatus "/>
     </HiddenColumns>
    </OpenBatchWindow>
   </Module>
   <Module ModuleId="Kofax.DocumentReview">
    <OpenBatchWindow>
     <HiddenColumns>
       <HiddenColumn Name="ColDocumentCount" />
       <HiddenColumn Name="ColPageCount" />
       <HiddenColumn Name="ColStatus" />
     </HiddenColumns>
    </OpenBatchWindow>
   </Module>
  </Modules>
  .
  .
 </Transformation>
.
.
.
</ACConfig>
```

Upgrade Kofax Transformation Modules

The first time you open an earlier project in Project Builder after the upgrade, a list of upgrade warnings indicating how to make your project compatible with Kofax Transformation Modules 7.1.0 is displayed. Once upgraded, these projects are no longer compatible with older versions of Kofax Transformation Modules.

If however, you upgrade from Kofax Transformation Modules 5.5, you can simply install Kofax Transformation Modules 7.1.0 over top of the existing installation by following the installation instructions.

If you have Project Planner installed from a previous version, you need to uninstall this feature first before updating to this product.

> 🛈 If you have a project that you created in an earlier version of Kofax Transformation Modules, ensure that none of your classes have child classes with the same name with a different case. For example, if you have a parent class called `FL_CustomerID` and then that class has a child class called `FL_Customerid`, this is not allowed because class names are no longer case sensitive. As a result, to ensure that any batches using the project do not generate errors, open your project before the upgrade and then rename the child class so that the names are different.

If you upgrade Kofax Transformation Modules and it has user-defined user credentials for the Server Scheduler Service and Knowledge Base Learning Service, you should install Kofax Transformation Modules using the command prompt and the quiet mode. This allows you to set the user name and password for these services. If you do not use the quiet installation mode, any existing log on information is overwritten and the services are run using a local system account after the upgrade.

Databases and connections

If you are upgrading from Kofax Transformation Modules 6.0 or older, databases are now represented by both a database and a connection. When loading projects files created with previous versions of Kofax Transformation Modules, the connections are automatically separated from databases.

If multiple Kofax Transformation Modules databases reference tables that are located in the same relational database, they may use the same connection string. In this case, only one connection is created.

Upgrade new samples

If you are upgrading from Kofax Transformation Modules 5.5, the way in which New Samples and the training sets are handled has changed, and as a result, the training sets and then the New Samples database needs to be converted to a new format so that they are compatible with the new version of Kofax Transformation Modules. If a project created in an earlier version contains a large number of New Samples, the conversion of this database may take a long time. Also, during conversion the New Samples database is locked, so this can cause processing delays.

ⓘ During conversion the New Samples database is locked, so this can cause processing delays.

To avoid time-consuming upgrades or processing delays, the best practice for projects that use online learning is to process any New Samples training documents before upgrading Kofax Transformation Modules.

ⓘ When processing your reported problem samples, ensure that the Filter is set to <no filter>. If you do not remove the filter, you cannot see any of the previously trained documents, and for reported problem samples, these documents may not be required and should be deleted.

If however, you want to upgrade your New Samples rather than process them beforehand, there are two methods for upgrading the New Samples database after upgrading Kofax Transformation Modules. For example, you may not want to delete your reported problem training samples for reference purposes. In this case, you need to upgrade the New Samples database after you upgrade Kofax Transformation Modules.

1. If you have use the Knowledge Base Learning Server during processing, the New Samples database is upgraded automatically. This method is the best practice and should be used for any batch class that includes the Knowledge Base Learning Server in its queue.

2. If the Knowledge Base Learning Server is not included in a batch class queue, then the New Samples database should be upgraded manually. Open the project, upgrade the training sets when prompted, and then upgrade the New Samples database manually.

Uninstall Project Planner

If you upgrade from Kofax Transformation Modules 5.5 and had Project Planner installed, this application is not uninstalled during upgrade. However, it is no longer needed as Trainable Document Separation (TDS) is now configured using Project Builder.

In order to remove Project Planner from your computer you need to perform the following steps.

1. Shut down any applications (including Control Panel, virus detection software, and toolbars) that may be running on the Kofax Capture workstation on which you want to uninstall Project Planner.
2. Start the uninstall by running Setup.exe in the Kofax Transformation Modules\ProjectPlanner of the product files of the installation media.
3. In the Project Planner Setup Wizard select **Remove Kofax Transformation -Project Planner**.
4. Click **Finish**.
5. When Project Planner has successfully been uninstalled, click **Close**.

Register custom modules

The Kofax Transformation Modules installation program automatically registers Kofax Capture modules and the statistics export connector with Kofax Capture. If for any reason the custom components need to be registered after installation, you can manually register them in the Kofax Capture Administration module. For further information, see *Kofax Capture Help*.

> ℹ️ If the installation program fails to register Kofax Transformation Modules custom components, an error message is displayed, and unregistered components are unavailable for use with Kofax Capture. For example, if the Kofax Transformation Modules - Validation module is not registered, it is unavailable as a queue for a Kofax Capture batch class.

1. In the Kofax Capture Administration module, from the Tools menu, select Custom Module Manager.

   The Custom Module Manager window is displayed.
2. Click **Add**.

   The Open window is displayed.
3. Browse to and select the appropriate Kofax Transformation Modules registration file as follows:
4. Click **Open**.

   The Custom Modules window is displayed.
5. Select the Kofax Transformation Modules components from the list, and click **Install**.

Register the Statistics Export Connector

1. In the Kofax Capture Administration module from the **Tools** menu, select **Export Connector Manager**.

   The **Export Connector Manager** window is displayed.
2. Click **Add**.

   The **Open** window is displayed.
3. Select the Kofax Transformation Modules registration file (KTMStatisticRelease.inf) for the statistics export connector from within the selected folder.
4. Click **Open**.

The **Add Export Connectors** window is displayed.

5. Select KTM Statistics from the list, and click **Install**.

Maintenance

This section describes how to modify, repair, or remove Kofax Transformation Modules components.

Modify Kofax Transformation Modules

The Kofax Transformation Modules Setup Maintenance routine enables you to modify your existing installation or select additional components to install.

1. Shut down any applications (including Control Panel, virus detection software, and toolbars) that may be running on the workstation on which you want to modify the Kofax Transformation Modules installation.
2. Restart the installation by running Setup.exe in the product files. If you are running the installation from removable media, the installation should start automatically.
3. Click **Change**.
4. Follow the instructions, and select the features as needed.
5. Click **Next** to modify your Kofax Transformation Modules installation.

Remove Kofax Transformation Modules

You can remove (uninstall) Kofax Transformation Modules components using the Kofax Transformation Modules Setup Maintenance program.

1. Shut down any applications (including Control Panel, virus detection software, and toolbars) that may be running on the workstation from which you want to remove Kofax Transformation Modules.
2. Stop all Kofax Capture and Kofax Transformation Modules services.
3. Restart the installation by running Setup.exe in the product files. If you are running the installation from removable media, the installation should start automatically.
4. Click **Remove** to uninstall all Kofax Transformation Modules components.
5. Click **Remove** once again, and follow the instructions that are displayed.

> ℹ While uninstalling Kofax Transformation Modules, the installation program tries to unregister Kofax Transformation Modules components. If it fails, you are prompted to stop the uninstallation process. The best practice is to stop the process, remove the Kofax custom modules from all batch classes using them, and restart the uninstallation.

User and folder permissions

In order to use Kofax Transformation Modules, various folders and registry keys require specific user permissions. This is true for the machine where Kofax Transformation Modules Is installed, as well as several client machines where the User Modules are installed. The following section explains each module, client, or server specific permissions.

> ⓘ Access to runtime data depends on Kofax Capture user permissions. For more information about Kofax Capture user permissions, please see the *Kofax Capture Installation Guide* and the *Kofax Capture Administrator's Guide*.

All modules and tools require access to the `CaptureSV` shared folder in Kofax Capture.

For more information relating to Kofax Search and Matching Server permissions, see the *Kofax Search and Matching Server Installation Guide.*

For more information relating to Thin Client Server permissions, see the *Thin Client Server Installation Guide.*

Kofax Capture Module permissions

Kofax Capture modules include all user modules (Correction, Document Review, Validation, and Verification) as well as Server, the Knowledge Base Learning Server, and Kofax Search and Matching Server Administration.

The following permissions are required for the module user on the machine where the Kofax Capture module is installed:

Kofax Capture Module Permission Requirements

Path/Registry Key	Permission
`<LocalAppData>\Kofax`	Read/Write
`<WindowsFolder>\ktmdef.ini`	Read
`<CommonAppData>\Kofax\KTT`	Read
Published project location	Read
`HKEY_CURRENT_USER\Software\Kofax\Transformation\4.0`	Full Control
`HKEY_LOCAL_MACHINE\Software\Kofax`	Read
`HKEY_LOCAL_MACHINE\Software\Kofax\Transformation`	Read

Kofax Capture user profiles

There are some additional configuration settings needed whenever you use Kofax Capture User Profiles to run a module. This is because a specific user may not have the necessary permissions to run these modules.

If the user accessing a module comes from a Kofax Capture User Profile, provide the following additional permissions.

- Add the user to the local Administrator's group.
- Manually configure the DCOM Configuration to grant the user "Local Activation" permission by following these steps:

    1. Go to **Control Panel** > **Administrative Tools** > **Component Services** > **Computers** > **My Computers** > **DCOM Config**.

       A list of applications are displayed.

    2. Right-click on **SharedProfileData** and then select **Properties**.

       A properties window is displayed.

    3. Click on the **Security** tab, select **Customize**, and then click the **Edit** button.

       The Edit window is displayed.

    4. Add the user to the settings and grant it to the **Local Launch** and **Local Activation** permissions.

    5. Click **OK** to close the Edit window.

    6. Click **OK** to close the Properties window.

    7. **Close** the Component Services window.

Project Builder permissions

The following permissions are required for the user configuring a project using Project Builder and using all other configuration tools, such as theSynchronization Tool:

Path/Registry Key	Permission
Windows TEMP directory	Full Control
Installation folder	Read/Execute
`<WindowsFolder>\ktmdef.ini`	Read
`<ProgramData>\Kofax`	Read/Write
`<CommonAppData>\Kofax\KTT`	Read
`<CommonProgramFiles(x86)>\Kofax`	Read/Execute
Project source directory	Full Control
Document source files and directories	Full Control
HKEY_CURRENT_USER\Software\Kofax\Transformation\4.0	Full Control
HKEY_LOCAL_MACHINE\Software\Kofax Image Products	Read
HKEY_LOCAL_MACHINE\Software\Kofax	Read
HKEY_LOCAL_MACHINE\Software\Kofax\Transformation	Read

Kofax Transformation Modules Server permissions

Both the Server and the Server Scheduler require the same permissions. The originating process of the user needs the same permissions as the Server Scheduler as well as the same permissions needed to start the Server Scheduler

All spawned processes started by either the Server module or the Server Scheduler inherit the permissions from the Server Scheduler user. As a result, this service user must have administrative permissions. In addition, the Server Scheduler user must also have access to the Kofax Capture Server.

The path and registry permissions required for the Server module and the Server Scheduler are the same as all other Kofax Capture modules.

In order to write logs, the Server module and the Server Scheduler user must have Write permissions to write logging entries on the local Kofax Capture client (`Capture/Local/Logs`).

The Server module and the Server Scheduler require Read access for the configured Online Learning directory that was configured on the General tab of the Project Settings.

If you plan to use the Kofax Clarity recognition engine, Kofax Transformation Modules Server needs access to the following URIs/Ports.

URI	Port
licenseapi.kofax.com	443
vision.googleapis.com	443

Knowledge Base Learning Server and Knowledge Base Learning Service Permissions

Both the Knowledge Base Learning Server and the Knowledge Base Learning Service require the same permissions

The Knowledge Base Learning Server also requires the same permissions as the other Kofax Capture modules.

In addition, both the Knowledge Base Learning Server and the Knowledge Base Learning Service must have Full Control over the configured online learning directory. This path is configured on the General tab of the Project Settings.

Kofax Transformation Modules Statistics Release permissions

The Kofax Transformation Modules Statistics Release user needs to have full control over the statistics database directory.

Kofax Transformation Modules Statistics Release also requires the same permissions as the other Kofax Capture modules.

Kofax Transformation - Synchronization Tool permissions

All actions performed by the Synchronization Tool require the same permissions as Kofax Capture Administration. If the user has the necessary permissions to access Administration, then they can access the Synchronization Tool.

Access Kofax Transformation Modules documentation

By default, the Kofax Transformation Modules documentation is available online. However, if necessary, you can also configure Kofax Transformation Modules to use help offline.

Default online documentation

The full documentation set for Kofax Transformation Modules is available from https://docshield.kofax.com/Portal/Products/KTM/7.1.0-rh4bj2m5vf/KTM.htm.

To launch the online help for the installed version of the product, click on F1 or select Help from the menu.

Use help offline

If you do not want to use the online hosted documentation, it is possible to configure Kofax Transformation Modules to use help offline on your internal network.

For Kofax Transformation Modules, this is done in two stages.

1. Implement offline help
2. Configure Kofax Transformation Modules to use offline help

First, you implement how the help is accessed offline and then you configure Kofax Transformation Modules to use that implemented help.

To access the help offline, download it from the Kofax Fulfillment Site.

For example, download the `KofaxTransformationModulesDocumentation_7.1.0.zip` file.

Implement offline help

There are two ways of implementing your offline help.

1. IIS application-based offline help that is visible to your internal network only.
   Kofax recommends this method. One reason is because you do not need to copy content to multiple machines when Kofax Transformation Modules installed across your network.
2. File-based offline help that is available on your internal network.

If you cannot use the IIS application-based implementation, you can use this method to install the help on a file system visible to all Kofax Transformation Modules.

IIS application-based offline help

This method of configuring your offline documentation requires that IIS is installed on your network. If you have a highly distributed Kofax Transformation Modules installation where components are installed on several machines, this is the easiest way of implementing offline documentation.

IIS application-based offline help uses the Browser language to determine the help language. If your Browser language is set to French, the help for any opened user module is displayed in French, regardless of the application language of that user module.

The following user modules are localized:
- Document Review
- Correction
- Validation
- Verification
- Thin Client Correction
- Thin Client Validation
- Thin Client Verification

All other applications and modules are available in English only.

Kofax recommends this method for offline documentation because it mimics the behavior of the hosted site. Kofax Transformation Modules documentation is designed to use the hosted website, so if you require offline documentation, an internal IIS application-based solution is best. If this is not possible, you can use File-based offline help.

> ℹ️ If you are using the Thin Client Server its documentation is installed separately. For more information see the *Kofax Transformation Modules Thin Client Server Developer's Guide*.

You can configure offline help to use an internal web server by following these steps:

1. If it not already installed, install the Internet Information Services (IIS) on a server on your internal network.
2. Download and extract the `KofaxTransformationModulesDocumentation_7.1.0_EN.zip` file from the Kofax Fulfillment Site.
3. Set up the folder hierarchy for the offline documentation.

    a. Navigate to `C:/inetpub/wwwroot/` and create a folder called `Docs`.

    b. Create a second folder under `C:/inetpub/wwwroot/Docs` called `KTM`.

    The result is the following folder structure: `C:/inetpub/wwwroot/Docs/KTM`.

    c. Copy the `en_US` folder and any other language that you plan to use from the extracted zip file to `C:/inetpub/wwwroot/Docs/KTM`.

    The result of this should be one or more language folders inside the `KTM` folder.

    The folder hierarchy is set up.

4. Convert the existing folder hierarchy to an IIS application.

   a. Expand the **Default Web Site**.
      The `Docs` folder is displayed.

   b. Right-click on `Docs` and select **Convert to Application**.
      The **Add Application** window is displayed.

   c. Keep all of the default settings and click **OK**.
      The **Add Application** window closes and the `Docs` folder is converted to an IIS application.

5. Set up language redirection.

Language redirection for IIS application-based solutions

If you are using a file system-based solution for offline documentation, the help is able to redirect automatically based on the Browser language. However, when you are using an IIS application-based solution, the help is not able to redirect you to your browser language automatically.

> ⓘ Redirection to a localized copy of the help is available for user-modules only. However, if you are using English only, redirection is still required.

You can configure language redirection for IIS application-based solutions by following these steps:

1. Navigate to the **redirection** folder included in the
   `KofaxTransformationModulesDocumentation_7.1.0_EN.zip` file.

2. In a separate window, navigate to the application path that you created when you configured your IIS application-based offline help.

3. Move the `web.config` from the **redirection** folder to the root of your IIS application.

   For example, `C:/inetpub/wwwroot/Docs/web.config`.

4. Move the `redirection/bin` folder to the `Docs` folder to the root of your IIS application.

   For example, `C:/inetpub/wwwroot/Docs/bin/`.

5. Restart the World Wide Web Publishing service.

6. Open a user module or a tool and test that the help displays the documentation for your browser language.

   Optionally, change your browser language to another language that you have installed to see if that language is displayed.

   Your IIS application-based offline help is configured.

File-based offline help

If you do not want to use an IIS application-based solution for your offline help, you can use a file system solution. For the best results, use a location that is visible across your network. If you have user modules installed at various sites, each of these need to access the location where the files are stored.

File-based offline help is supported by the runtime modules and design-time modules only. The rich-client user modules are available in all supported languages but the design-time modules are available in English only.

See the *Kofax Transformation Modules Thin Client Server Installation Guide* for more information about configuring offline help for the Thin Client Server.

> ℹ Ensure that each client system has a default browser configured on their machine.

You can configure offline help to use a network folder by following these steps:

1. Download and extract the `KofaxTransformationModulesDocumentation_7.1.0_EN.zip` file from the Kofax Fulfillment Site.
2. Navigate to `%ProgramData%\Kofax\Transformation\` and create a folder called `Help`.
3. Copy the `en_US` folder from the extracted zip file to the `Help` folder.
   Now that you have implemented the folder hierarchy for offline help, you need to Configure Kofax Transformation Modules to use offline help.

Configure Kofax Transformation Modules to use offline help

The method for configuring offline help for Kofax Transformation Modules differs based on the type of module.

- Runtime modules Help Path such as Validation or Server.
- Design-time modules Help Path tools such as Project Builder or the Project Merge Tool.

Because of this, if you want help for all tools and modules, it is necessary to configure both design-time and runtime modules.

Design-time modules Help Path

The following modules and applications fall under the design-time category.

- Project Builder
- XDoc Browser
- Image Classifier
- Statistics Viewer

> ⚠ Statistics Viewer will be deprecated and no longer available in a future version of Kofax Transformation Modules.

- Project Merge Tool
- OCR Server

> ℹ The design-time modules have help in English only.

You can define the Help Path for your design-time modules to use offline help by following these steps:

1. Implement offline help.
2. Open Project Builder.
3. From the **File** menu, select **Options**.
   The **Project Builder Options** window is displayed.

4. Edit the **Help Path** with one of the following.

Setting	Description
If you implemented your offline help to use IIS application-based offline help:	Enter the root of the application. For example, `http://<localhost>/Docs/KTM/`
If you implemented your offline help to use File-based offline help	Enter the name of the network folder that you configured in the `ACConfig.xml` file. For example, `C:\%ProgramData%\Kofax\Transformation\Help\`.

5. **Save** your project.
6. Test the help by pressing **F1**.

    The help should open from the location configured for offline help.

    The help for these modules is available in English only. If you change the application language, the help is still displayed in English.

    If an error occurs, double-check the paths to ensure that they are correct and then try again.

Runtime modules Help Path

The following modules fall under the runtime category.

- Synchronization Tool
- Server
- Document Review*
- Correction*
- Validation*
- Verification*
- Knowledge Base Learning Server

Those modules marked with an asterisk (*) are localized and available in additional languages. If you are using the IIS application-based solution for your offline documentation, ensure that you configure localization redirection. Both the application language and the browser language must be set to one of the supported languages in order for the help to be displayed in that language. All other help is in English only.

If you do not use a web server to host your documentation, the following steps must be performed on each machine where any of the above modules are installed.

You can configure your runtime modules to use offline help by following these steps:

1. Navigate to `%ProgramData%\Kofax\CaptureSV\Config\` and open **ACConfig.xml**.
2. Add one of the following examples based on your solution and then save the file. The actual path specified depends on where the extracted files are located.

    ```
    <Transformation>
      <Help Path="<Path to documentation>" />
    </Transformation>
    ```

    An example of using a web server:

    ```
    <Transformation>
    ```

```
    <Help Path="http://localhost/Docs/KTM/" />
</Transformation>
```

An example using the file system:

```
<Transformation>
    <Help Path="C:\%ProgramData%\Kofax\Transformation\Help\" />
</Transformation>
```

3. Open one of the runtime modules and test the help by pressing **F1**.

   The help should open from the location configured for offline help.

   If an error occurs, double-check the paths to ensure that they are correct and then try again.

Return to online hosted help

If you no longer want to use offline help, you can change your configuration and return to online hosted help by following these steps:.

1. For the design-time modules, do the following.

   a. Open Project Builder.

   b. From the **File** menu, select **Options**.
      The **Project Builder Options** window is displayed.

   c. Beside the **Help Path**, click **Restore Default**.
      This changes the path back to its original online hosted path.

   d. **Save** your project.

   The help accessed by all of the design-time modules is now the online hosted help.

2. For the runtime modules, do the following.

   a. Navigate to `%ProgramData%\Kofax\CaptureSV\Config\` and open **ACConfig.xml**.

   b. Comment out or delete the entry for **Help Path**.

   c. Save the file.

   The help accessed by all of the runtime modules is now the online hosted help.