

# Kofax Transformation Toolkit

## Release Notes

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## Chapter 1

# About This Release

This set of release notes contains important information not included in other Kofax Transformation Toolkit documentation. Please read these release notes carefully before you install, upgrade, or use this product.

Information about supported operating systems and other requirements is available on the Kofax Support website at [www.kofax.com](http://www.kofax.com).

## Version Information

The Kofax Transformation Toolkit 6.2.1 release has the following build number, which appears in the About Kofax window:

6.2.1.0.0.6981

## New Features

The following new feature is available in Kofax Transformation Toolkit 6.2.1.

### Field Property Change History

A new [property](#) and [window](#) are now available so that you can record any field changes to a field and view them at a later time. The results can be viewed in the [Extraction Results](#) window or in the XDoc Browser. These results are helpful when testing and troubleshooting extraction.

### Script Tools

New options for scripts are available to aid in troubleshooting and support. It is now possible to do the following from the Script Code Window.

#### **Clear All Scripts from Project**

Removes all scripts from all classes and folders, as well as all references from the scripts.

**Note** This cannot be undone, so ensure that the project is backed up before removing all scripts.

#### **Save All Scripts of the Project**

Saves all scripts to a user-specified location so that they can be viewed outside of Project Builder. This includes folder scripts, class scripts, and the main project script.

## Changes in Behavior

The following changes have been made to the behavior of Kofax Transformation Toolkit 6.2.1.

### Broken Forwards Compatibility

If you open and save a project in Kofax Transformation Toolkit 6.2.1, that project can no longer be opened in any previous version of Kofax Transformation Toolkit.

### Improved Documentation

Several changes have been made to the documentation based on Enhancement Requests. These changes will appear in the documentation for the next full release of Kofax Transformation Toolkit. In the meantime, these changes are available in the [Additional Documentation](#) chapter as follows.

- Document minimum permissions for an SQL database for both [Kofax Search and Matching Server](#) and [Kofax Transformation Toolkit](#).
- Document that Kofax Search and Matching Server should be [installed](#) on a server without any other Kofax products in production.
- Improve documentation about [supported](#) image sizes, formats, and types.
- Improve Database Locator [reference](#) and [conceptual](#) documentation so that the [exclusion databases](#) behavior is clear.

### Installation Changes

An MSP is no longer included with Kofax Transformation Toolkit.

See the [installation instructions](#) for more information on installation, extracting an MSP, and removing Kofax Transformation Toolkit 6.2.1.

### RecoStar Upgrade

The RecoStar recognition engine has been upgraded so that it includes the 7.5 Service Pack 1 and an additional fix. This upgrade ensures that the recognition of small dense text has improved.

(ER1056961)

### Updated Service Configuration Tool

All configurations for services are now done with the Service Configuration Tool. This means that you no longer need to edit registry settings or environment variables.

Various logging information is stored here, such as the log path, the log level for each module, and when to purge older logs.

## Chapter 2

# Install Kofax Transformation Toolkit 6.2.1

Before installing Kofax Transformation Toolkit Service Pack 1, ensure the following.

- You must have full Windows administrative privileges to perform these tasks.
- Make sure that both Kofax Capture and Kofax Transformation Toolkit 6.2.0 are installed.
- Install Service Pack 1 on each client and standalone workstation running Kofax Transformation Toolkit.

Before installing the Thin Client Server Service Pack 1, ensure the following.

- Make sure that Kofax Transformation Toolkit Thin Client Server 6.2.0 is installed

Before you can install either Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1, you must first [extract](#) an MSP. This file is needed to install the service pack with more options from the Command Line.

Once you have an MSP file, you can then go on to install [Kofax Transformation Toolkit Service Pack 1](#) and then the [Thin Client Server Service Pack 1](#)

There are two different methods of installing either Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1. You can either double-click on an executable to run the installation. Alternatively, you can use the command line for basic installations.

You can install Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 by following these steps:

1. Download the installation package and extract its files.
2. Close or shutdown all Kofax Transformation Toolkit applications and services.
3. Run **KofaxTransformationToolkit-6.2.1.exe** to perform the installation and follow the instructions on screen.

Optionally, run **KofaxTransformationToolkit-ThinClientServer-6.2.1.exe** to perform the Thin Client Server installation. Follow the instructions on screen.

Service Pack 1 is installed.

4. Restart the Kofax Transformation Toolkit applications and services.

## Install Service Pack 1 via Command Line

If you want, you can install Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 via the Command Line. This installs Service Pack 1 with basic options. If you need to specify more installation parameters such as logging, that is only possible when using an [MSP via the Command Line](#).

You can install Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 on each client and workstation running Kofax Transformation Toolkit by following these steps:

1. Close or shutdown all Kofax Transformation Toolkit applications and services.
2. Extract the **KofaxTransformationToolkit-6.2.1.ZIP** file.
3. Open the **Command Prompt**.  
If you are not the Administrator, right-click on the Command Prompt and select **Run as administrator** from the context menu.  
The Command Prompt is displayed.

4. Run the following commands as needed and then press **Enter** after each command.

```
Kofax Transformation Toolkit-6.2.1.exe
```

```
KofaxTransformationToolkit-ThinClientServer-6.2.1.exe
```

Optionally, add the `/q` parameter to perform a silent installation.

If you require additional parameters for installing either Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1, use the [MSP via the Command Line](#) instead.

Service Pack 1 is installed.

5. If you are not using the quiet mode, click **OK** when notified that the installation is complete.  
The installation closes.
6. Optionally, close the "**Command Prompt**" window.

## Extract the MSP for Advanced Installations

An MSP file is no longer included with a service pack. This means that before you can install or remove Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 via the command line with an MSP file, it must first be extracted. Even though an MSP file is no longer provided you can extract an MSP from the provided executable.

You can extract an MSP file from an EXE file by following these steps:

1. Extract the **KofaxTransformationToolkit-6.2.1.ZIP** file.
2. Open the **Command Prompt**.  
The Command Prompt is displayed.
3. In the Command Prompt window, navigate to folder containing the extracted ZIP file contents and then to the **Kofax Transformation Toolkit** folder.  
If you are installing the Thin Client Server, select the **Thin Client Server** folder instead.
4. In the Command Prompt window, enter one of the following commands and press **Enter**. Repeat for the other command if necessary.

```
KofaxTransformationToolkit-6.2.1.exe /T:<full path> /C
```

```
KofaxTransformationToolkit-ThinClientServer-6.2.1.exe /T:<full path> /C
```

Where `/T` specifies the temporary work folder and `/C` generates the files. These two parameters must be used together if you want to generate the MSP file from the executable.

The MSP file is extracted in the specified location.

5. Optionally, close the Command Prompt window.

## Install Service Pack 1 via MSP and the Command Line

An MSP file is no longer included with Kofax Transformation Toolkit Service Pack 1. As a result, if you want to use the MSP, you need to first extract it from the executable.

The MSP file enables you to install Kofax Transformation Toolkit Service Pack 1 across a network or on multiple machines at once.

**Note** Do not double-click and run the .msp file. Doing so can result in a corrupted installation. If you use the MSP file, it can be used via the Command Prompt only.

After extracting the MSP file, you can install Service Pack 1 by following these steps:

1. [Extract](#) the MSP file.
2. If not already open, open the **Command Prompt**.  
If you are not the Administrator, right-click on the Command Prompt and select **Run as administrator** from the context menu.  
The Command Prompt is displayed.
3. Navigate to where you generated the MSP files.
4. Run one of the following commands and press **Enter**. Repeat for the other command if necessary.

```
msiexec /update KofaxTransformationToolkit-6.2.1.msp REINSTALL=ALL  
REINSTALLMODE=omus PATCHINSTALL=1 /qb
```

```
msiexec /update KofaxTransformationToolkit-ThinClientServer-6.2.1.msp  
REINSTALL=ALL REINSTALLMODE=omus PATCHINSTALL=1 /qb
```

Optionally, replace `/qb` with the `/quiet` parameter to run the installation silently.

To enable logging, add the `/L <log_path>` switch to the end of the command. For verbose logging, use the `/L*v <log_path>` parameter. Replace the `<log_path>` with the absolute path and name of the desired log file.

Kofax Transformation Toolkit Service Pack 1 is installed.

## Remove Kofax Transformation Toolkit 6.2.1

If you no longer want Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1, you can remove it from your server.

Before removing Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1, ensure the following.

- You must have full Windows administrative privileges to perform these tasks.
- Remove Service Pack 1 from each client and standalone workstation running Kofax Transformation Toolkit or the Thin Client Server.
- You must have access to the original installer that is part of the `KofaxTransformationToolkit-6.2.1.iso` file. Mount the ISO image or use a network resource.

**Note** Removing Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 removes Service Pack 1 only. It does not remove Kofax Transformation Toolkit 6.2.0 or Thin Client Server 6.2.0.

You can remove either the Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 in two different ways.

- Remove Service Pack 1 using [Windows](#).
- Remove Service Pack 1 via the [Command Line](#).

## Remove Service Pack 1 with Windows

If you no longer want Kofax Transformation Toolkit Service Pack 1 or Kofax Transformation Toolkit Thin Client Server Service Pack 1 you can remove them through Windows. The location differs depending on the version of Windows you are using.

You can remove this service pack by following these steps:

1. Close or shutdown all Kofax Transformation Toolkit applications and services.
2. From the Control Panel, select one of the following, depending on your version of Windows.
  - **Programs**
  - **Programs and Features**

The list of installed software is displayed.

3. On the left panel, click **Show Updates** or **View installed updates**.  
A list of installed updates is displayed.
4. Select one or both of the following.
  - Kofax Transformation Toolkit Service Pack 1
  - Kofax Transformation Toolkit Thin Client Server Service Pack 1

Depending on what is selected, the following are removed.

- Kofax Transformation Toolkit Service Pack 1 is removed and Kofax Transformation Toolkit 6.2.0 remains.
- Thin Client Server Service Pack 1 is removed and Kofax Transformation Toolkit Thin Client Server 6.2.0

## Remove Service Pack 1 via Command Line

It is possible to uninstall Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 components using the MSP and the Command Line. Since this file does not exist by default, it is necessary to extract the MSP file from the EXE file.

You can remove Kofax Transformation Toolkit Service Pack 1 or the Thin Client Server Service Pack 1 via the command line by following these steps:

1. Close or shutdown all Kofax Transformation Toolkit applications and services.
2. [Extract](#) the MSP file.
3. If not already open, open the **Command Prompt**.

If you are not the Administrator, right-click on the Command Prompt and select **Run as administrator** from the context menu.

The Command Prompt is displayed.

4. For Kofax Transformation Toolkit run the following command.

```
msiexec /I "<path_msi>\KTM.msi"  
MSIPATCHREMOVE="<path_msp>\KofaxTransformationToolkit-6.2.1.msp" /qb
```

For the Thin Client Server run the following command.

```
msiexec /I "<path_msi>\KTS.msi"  
MSIPATCHREMOVE="<path_msp>\KofaxTransformationToolkit-  
ThinClientServer-6.2.1.msp" /qb
```

Replace the <path\_msi> with the absolute path for the .msi file that is located in the mounted ISO image.

Replace the <path\_msp> with the absolute path to the .msp file.

Optionally, replace /qb with /quiet to run the removal silently.

5. Optionally, enable logging by adding the /L <log\_path> switch to the end of the command.

For verbose logging, add the /L\*v <log\_path> switch to the end of command.

Replace the <log\_path> with the absolute path and name of the desired log file.

Depending on what command is executed, the following are removed.

- Kofax Transformation Toolkit Service Pack 1 is removed and Kofax Transformation Toolkit 6.2.0 remains.
- Thin Client Server Service Pack 1 is removed and Kofax Transformation Toolkit Thin Client Server 6.2.0

## Merge Module Zip File Location

If you are using the merge modules from the installation resources (Redistributables) you need to manually extract them. However, to ensure that you can easily remove this service pack, it is necessary to make a backup copy of your current merge modules.

You can backup and then unzip the merge modules by following these steps:

1. Navigate to your installation path.

The default installation path is as follows.

```
%Program Files%\Kofax\Transformation Toolkit\Resources\Redistributables
```

2. Make a copy of the Redistributables folder and record where you place this copy.

You will need to replace this backup copy if you remove the Service Pack.

3. Locate the merge modules zip file called KofaxTransformationToolkit-6.2.1-MergeModules.zip file.

This file is located in the same folder as the self-extracting executable.

4. Extract the KofaxTransformationToolkit-6.2.1-MergeModules.zip file to the default installation path.

When prompted, overwrite all files.

The merge modules are extracted and you can now build your own installer based on the updated merge modules.

## Chapter 3

# Resolved Issues

The following problems have been resolved in Kofax Transformation Toolkit 6.2.1.

## Issues Resolved in Tools and Rich Client User Modules

### 1110585 - Invoice Header Locator Tax Rate Results

The tax rate results of the Invoice Header Locator are now correctly displayed with up to three decimal places.

### 1106590 - Vendor Locator Error

The Vendor Locator supports fuzzy databases as input only.

### 1102806 - Extraction Training for Total Field

The training algorithm has been improved so that the best match is selected from the training results for the total field.

### 1102180 - Japanese Characters in Scripted Database Search Window

Unicode characters are now supported for searches using the scripted database search window.

(1102312)

### 1101739 - Format Locator Error

An error no longer occurs because OCR now returns valid word geometries only.

### 1100105 - Error in Validation After Upgrade

An error is no longer generated when the `ValidatedText` property is used with `XDocField`.

(1101627)

### 1099881 - Bar Code Recognition

Bar codes using Code39 are now successfully recognized in all Kofax Transformation Toolkit versions.

(1101316)

### 1079001 - Amount Group Locator Error

An error no longer occurs with the Amount Group Locator when VAT-based amount location has many combinations. This is because memory usage is now optimized for these types of results.

(1099061)

### 1056961 - Upgrade RecoStar

The RecoStar recognition engine has been upgraded so that it includes the 7.5 Service Pack 1 and an additional fix. This upgrade ensures that the recognition of small dense text has improved.

### 982824 - Test Validation Error

It is now possible to select the root folder in Test Validation, and then close the application without encountering an error.

### 981138 - Validating Folder Fields with Validation Rules Error

It is now possible to validate folder fields when their folder has one or more Validation Rules, without encountering an error.

### 974685 - Classification Training Error

An error is no longer returned when performing classification training.

### 963183 - Configuration Sets Web Resource Credentials

There are no longer any issues with web resource credentials in Configuration Sets.

### 962177 - Line Item Matching Locator Error

The Line Item Matching Locator now shows the correct quantity and unit price for all line items, assuming OCR and extraction results are correct.

### 957943 - Allow Render Text in PDF/A Form Fields

It is now possible to extract and render all field data for a fillable PDF document.

### 955653 - Renaming Folder Validation Rule Error

It is now possible to rename a Validation Rule on a folder without encountering an error.

## 917241 - DatabaseDialog Registration Not Working

It is no longer necessary to manually register `DatabaseDialog.dll` to use it from script. However, the script reference still needs updated to the new version of the `DatabaseDialog.dll`.

## 907988 - Missing Properties in DatabaseDialog.LocatorAlternatives

The `DialogCaption` and `GroupBoxCaption` properties that were once available in previous releases, are once again available for use in scripts.

## 900146 - Custom Subfield Names Lost

Custom field names are no longer reset. Their names are now preserved when a project is opened in a newer version of Kofax Transformation Toolkit.

## 899943 - Poor OCR Results with FineReader 11.1

A fix for page analysis was provided by ABBYY.

The OCR results now successfully find two date values when they are located directly above and below each other.

## 899324 - Row Interpolation in Validation

When interpolating rows of a table, the first cell is no longer filled with a temporary value.

## 897310 - Advanced Zone Locator Crashes

The Advanced Zone Locator no longer crashes when certain OMR zones are processed.

## 884731 - Amount Group Locator not Extracting Trained Data

The extraction of amounts now extracts data more accurately.

## 884572 - Same Names but Capitalization Differences Error

Fields with the same names, but case insensitive, in the parent/child hierarchy no longer enter into an error loop.

This is true for both document fields and folder fields.

## 884462 - Invoice Group Locator users Wrong Training Data

The Invoice Group Locator now uses one of trained documents from same layout group for online learning to show the alternative document used to extract data when testing trainable locators.

## 874902 - Remove Visual C++ 2005 Redistributable Dependency

There is no longer a dependency on the Visual C++ 2005 Redistributable.

If you no longer want this redistributable, remove it manually because this fix pack does not remove it automatically.

If you re-install Kofax Transformation Toolkit using the installer, the redistributable is installed once again.

## 876238 - Structured Exception Error

A structured exception error no longer occurs when there is an empty extraction value.

## 875525 - Online Learning Path in Configuration Paths Reset on Save

In a specific scenario it was possible to overwrite the configuration set values with defaults, this no longer occurs.

## 865996 - Advanced Zone Locator Error

Leading blanks are now handled correctly and an error is no longer encountered.

## 865623 - Table Locator Results All Invalid

The correct confidences are now applied to Table locator results, so confident table cells are now valid as expected.

## 865084 - Automatic Table Locator Error

When using the Automatic Table Locator, words from the one column are no longer included in the extraction results of another column, regardless of the page number.

## 835122 - All Pages for Training

Is now possible to use all pages of a multi-page document for classification training.

This is possible via a new option on the Project Settings - Classification tab.

Under the Content Classification group, a new setting called "Training behavior" is available with the following options.

### **Train first page only**

This value trains the first page of the document. If the first page is excluded from training, it trains the next available page.

### **Train all pages**

This value trains all pages of a document, but skips those pages that are excluded from training.

**Note** You can exclude a page from training via the Thumbnails or Hierarchy view on the Documents tab. The context-menu option is called "Ignore for Classification and Separation."

## Issues Resolved in the Thin Client Server

### 1119515 - Web Server Crash

The Web Server no longer crashes because excessive memory usage during PDF thumbnail generation is prevented.

### 1115323 - ShowinKeyingModules Property Failure

It is now possible to use the `ShowinKeyingModules` property in scripting events without problems in Thin Client Validation.

### 1109762 - JavaScript Security Vulnerability

The Thin Client Server JavaScript libraries have been updated. This update has eliminated the vulnerabilities of the old JavaScript libraries.

### 920171 - Sort Order Affecting Database Lookups

The correct search result is now returned if the list of database alternatives is sorted.

### 906496 - Reclassified Limited to Once

It is now possible to reclassify a document more than once, by script.

### 899645 - Single Sign-On Error in Thin Client Validation

Single sign-on now ensures that an authenticated user is able to log on to any of the Thin Clients without an exception.

### 733019 - Merging Causes Hang

Thin Client Validation no longer hangs when trying to merge the folders.

## Chapter 4

# Known Issues

The following sections describe known problems, and if available, useful workarounds for Kofax Transformation Toolkit 6.2.1.

## Broken Forwards Compatibility

If you open and save a project in Kofax Transformation Toolkit 6.2.1, that project can no longer be opened in any previous version of Kofax Transformation Toolkit.

## Root Element Error when Documents Copied via Drag & Drop

When documents are copied via drag & drop, an error can occur when the project is trained or when the documents are sorted on disk.

**Workaround:** When presented with this error, press the Ignore or the Ignore All button. Doing so repairs the defective documents. (630605)

## Uninstalling Kofax Transformation Toolkit 6.2.1

The removal of Kofax Transformation Toolkit 6.2.1 can fail because the Server Scheduler service does not always stop in a timely manner when requested by the installer.

**Workaround:** Stop all Kofax Capture and Kofax Transformation Toolkit services before attempting an uninstall. (619511)

## Clear Thin Client Browser History

After an upgrade, certain Thin Client features do not work as expected.

**Workaround:** Clear the browser history and then restart IIS.

## Chapter 5

# Additional Documentation

The following sections provide additional documentation for new features available in Kofax Transformation Toolkit 6.2.1, that is not available in existing documentation.

## Help Updates for Project Builder

The following changes will be made to this documentation in the next full release of this product.

- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### New: Extraction Results History

The following new and updated functionality is available for troubleshooting and testing extraction results.

### Updated: Field Property Change History

A new option is available on the Project Settings - General tab. When selected, any changes to field properties during extraction are saved and recorded in a history that is available for viewing at a later time. The new setting is as follows.

#### Monitoring

This group has the following option:

##### **Save field property change history**

Select this option so that any changes made to field properties during extraction are recorded and available in the Extraction Results and the XDoc Browser.

This option is cleared by default.

**Important** Selecting this option may increase processing times. As a result, it is recommended to select this option if you are interested in the field results only.

### New: Property Change History Window

This window displays a read-only overview of the changes made to a subset of the properties for a field during extraction. This information is stored in the XDocument.

Review this history to view details about the extraction of this field.

You can access this window via the Extraction Results window only. Alternatively, similar information is available in the XDoc Browser.

**Important** This window is available only when the "Save field property change history" [setting](#) is selected in the Project Settings - General Tab.

The following columns are available for each change.

**Class**

The name of the class that is executing the current change.

**Note** For script events, it is possible that the class name changes due to script inheritance.

**Scope**

The name of the script event or the name of the processing step.

**Source**

The source of the process change. This value is either "Processing" or "Script."

**Property "Text"**

The extracted result for the field.

**Property "Confidence"**

The confidence of the extracted result.

**Property "Valid"**

Indicates if the extracted result is valid or not. True is returned for a valid result and False is returned for an invalid result.

**Property "Preserve"**

If this value is set to "True," the field is not cleared if a document is reclassified and its value is not changed by the defined locator in the new class. Only formatting may be applied.

When this value is set to "False," the field can be extracted once again.

**Property "ExtractionConfident"**

Indicates if the extracted result is confident or not. True is returned for a confident result and False is returned for a result that is not confident.

**Property "ErrorDescription"**

The description of the error encountered, if any.

## Updated: Extraction Results - New Column

A new column is available for the Extraction Results. This new column is as follows.

**History**

Displays an information button  that opens the Extraction Debugging Log window when clicked. This window contains information about any field property changes that occurred during extraction.

## Updated: Database Locator Properties Window - General Tab

The description of the "Select a database with records that should not be found by this locator (e.g. own addresses)" setting has changed as follows.

### Select a database with records that should not be found by this locator (e.g. own addresses)

If necessary, select a database that contains records that should exclude detected values from the list of alternatives. If one of these values is found on the document, it is excluded from the final extraction result for this locator. This type of database is commonly referred to as an [exclusion database](#).

The value for this option is set to <none> by default.

**Note** The "Locator Algorithm Properties" on this window do not apply to this exclusion database. Instead, there is a pre-defined 80% minimum confidence threshold that cannot be modified. All alternatives in an exclusion database search that have at least an 80% confidence are excluded from the main database search. You can [adjust](#) how the confidence is calculated for this database on its individual database properties window accessible from the Project Settings - Databases tab.

## Updated: Database Locator

A new procedure was added to the list management tasks for a Database Locator as follows.

- Add an [exclusion database](#)

**Important** The settings for this locator do not apply to the exclusion database and in order for a search result to be excluded, the alternative must have at least an 80% confidence.

## New: Exclusion Database

An exclusion database enables you to exclude certain entries in your main database that may be returned by a search. For example, if you are searching for a vendor on an invoice, there may be multiple addresses that relate to that vendor. You can set up an exclusion database that contains any irrelevant addresses and apply it to the "Select a database with records that should not be found by this locator (e.g. own addresses)" setting on the General tab of the Database Locator Properties window.

When a Database Locator is executed, the exclusion database is run first. Any search results that are returned with at least an 80% confidence are excluded from the main database when its search is performed.

When setting up an exclusion database, note the following.

- The exclusion database does not need to contain the same columns as the main database.
- The 80% confidence minimum requirement cannot be modified.
- The database should only contain columns that appear on the document. If additional columns are present, the 80% confidence minimum is unlikely to be met.
- The exclusion database must have at least three columns defined.
- The confidence of the alternatives is not displayed.

- The fields in the exclusion database should be physically close together on the document. This increases the chance of a higher confidence result.

**Note** The fields that are defined as "Field present on document" within the Fuzzy Database Properties window need to be physically close together on the document.

A match for your own address is only excluded from main database search if its confidence is higher than 80%. As fields that are not found on the document lower the confidence for the match, you cannot select any fields that are not present on the document.

## New: Adjust Exclusion Database Settings

The exclusion database that is configured on the Database Locator Properties window is not affected by any of the other settings on that same window. It also has a minimum confidence of 80% that you cannot modify. This confidence is not related to the "Minimum confidence" configured in the Database Locator itself.

If you need to increase the chance of reaching the 80% confidence threshold, it is possible to manipulate how the confidence is calculated. You can do this by selecting or clearing specific fields in the exclusion database properties by following these steps:

1. On the **Project** tab, in the **Configuration** group, select **Project Settings** .
2. Click on the Databases tab.  
A list of databases used in your project is displayed.
3. Locate your exclusion database in the list and click  **Properties**.  
The properties window for the selected database is displayed.
4. In the **Field Names** panel, clear any fields that are not needed. Similarly, select any fields that are required.

When searching for a specific vendor address, clear fields that do not help narrow the results. This includes fields that do not appear on the document, or those that are not relevant. For example, if all of your vendors are in the same country, the "Country" field can be cleared. Similarly, if your exclusion database includes ID fields or customer numbers that do not appear on the printed document, clear these fields as well. Clearing fields that contain irrelevant data can increase the confidence of a match, ensuring that your exclusion database performs more effectively.

5. Click **OK**.  
The database properties window closes.

## Updated: Reclassification of Documents

This topic will be updated as follows in the next full release.

You can change the classification result  of a document in script by calling the `Reclassify` method. You can use either of the Project Class extraction events for unclassified documents. These events are executed before document classification. When using the class extraction events, extraction is stopped for this class and then executed for the new class. For more information, refer to *Reclassify Documents via Script* in the *Scripting Help*.

Locators, fields, and validation rules are available for configuration when the corresponding class is selected in the Project Tree.

## New: Access Rights for a Microsoft SQL Server Database

Several permissions in the Microsoft SQL Server database are required by Kofax Search and Matching Server on the fuzzy database source. These permissions are necessary in order to access tables, views, synonyms, and stored procedures.

At a minimum, the Server login requires the following permissions.

- CONNECT SQL
- VIEW ANY DATABASE
- VIEW ANY DEFINITION

This permission is required by the `sp_databases` stored procedure that is used to list the databases that are accessible to the logged on user.

The following permissions are also required by the "database role" or "user" for each relational object.

- SELECT

This is required to access views, tables, and synonyms based on a view or table.

## Updated: Image Files

Image Files has been modified by adding the following content to the beginning of the topic.

The size of an image must be between the ISO A6 and A2 paper sizes. This means that images must be at least 105 mm x 148 mm (4.1 x 5.8 inches) and at most 420 mm x 594 mm (16.5 x 23.4 inches).

## Updated: Dictionary Options Window

The following option description has changed in the Dictionary Options window. This new description will be available in the documentation at the next full release of Kofax Transformation Toolkit.

### **Automatic update from import file**

Select this option to synchronize your imported dictionary file with its source dictionary whenever a batch is opened by one of the following modules.

- Server
- Validation
- Correction

This means that any changes in the source dictionary are reflected in your imported dictionary file when any of the above modules is run. These [automatic updates](#) are then available for processing during those modules.

It is recommended to enable this option only if your source dictionary is updated regularly. Otherwise, the unnecessary update checks may hinder performance. This option is cleared by default.

**Important** This automatic update feature works slightly different for the Thin Clients. To ensure that combo boxes populated by dictionaries are regularly synchronized, an additional Thin Clients web.config setting is required to replicate the above behavior. Without this setting, a combo box is filled once and used as long as that project is cached. This means that combo boxes are updated once for multiple batches using the same project. For more information on the new `ForceDictionaryUpdate` web.config option, see the *Thin Client Server Installation Guide*.

Dictionaries referenced by validation rules are successfully updated, regardless of the web.config option.

## Updated: Configure a Dictionary to Update Automatically

The introduction of this task topic has been updated as follows.

If the source file used for a dictionary is modified frequently, configure the dictionary so that it is updated automatically when the import file changes. This means that each time a batch is opened by Server, Validation, Correction, the source dictionary is checked for modifications. If any changes are present, your local copy is updated to match the source dictionary.

**Important** This automatic update feature works slightly different for the Thin Clients. To ensure that combo boxes populated by dictionaries are regularly synchronized, an additional Thin Clients web.config setting is required to replicate the above behavior. Without this setting, a combo box is filled once and used as long as that project is cached. This means that combo boxes are updated once for multiple batches using the same project. For more information on the new `ForceDictionaryUpdate` web.config option, see the *Thin Client Server Installation Guide*.

Dictionaries referenced by validation rules are successfully updated, regardless of the web.config option.

## Updated: Script Code Window

The contents of this window have been updated as follows.

Use this window to edit scripts with the WinWrap Basic Editor. This is an interactive environment for developing, testing, and executing WinWrap Basic scripts.

The editor contains both a menu bar and a toolbar. Descriptions for most of these options is included in the WinWrap Basic Editor Help.

Select the Editor Help from the Help menu to get more information about the script editor and its user interface. Select Language Help from the Help menu to get more information about the WinWrap Basic language. Select Script Documentation from the Help menu to get more information about script programming and CASCADE objects.

The following menu and options are not included in the WinWrap Basic Editor Help.

### Tools

This menu has the following options.

#### **Clear All Scripts from Project**

Removes all scripts from all classes and folders, as well as all references from the scripts.

### **Save All Scripts**

Saves all scripts to a user-specified location so that they can be viewed outside of Project Builder. This includes folder scripts, class scripts, and the main project script.

Use these options when troubleshooting scripting issues in your project.

The Object list right beneath the toolbar provide the following:

#### **Object**

The Object list shows all the objects for the current module.

#### **Proc**

The Proc list shows all the procedures or events for the currently selected object. Selecting an item from the proc list that is not bold inserts the proper procedure definition for that procedure into the code area.

Additionally, the editor has different tabs that are vertically arranged down the left side of the window. Each tab consists of an edit area used to insert script code and a band on the left to place breakpoints.

Before you start entering code you have to select the correct sheet. The project script is always opened as the first sheet (tab 1). The window caption of this sheet is Project - Script Code. For example, in this sheet you can implement a field formatting procedure or a script validation method. All public defined functions or methods in this sheet are available in all other sheets.

For each class and for each folder a script sheet is inserted by selecting Show Script from the shortcut menu of a class or a folder class. In these sheets the internal methods of the class can be implemented.

## Updated: Edit Configuration Sets Window

The following important note will be included in this topic in the next full release.

**Important** If you edit the default configuration set, the corresponding settings in any configuration sets that inherit the default values may be overwritten. If you do edit the default configuration set ensure that any dependent configuration sets are still consistent.

## Updated: Configuration Sets

The list of what is managed in configuration sets has been updated because it is now possible to control import paths with configuration sets. This change will be available in the next full release.

- The path to the online learning files
- Dictionary import paths
- Local fuzzy database import paths
- Associative Search Database paths
- Relational database connections
- Kofax Search and Matching Server settings
- Script variables

In addition, the following note will be available in the next full release.

**Important** If you edit the default configuration set, the corresponding settings in any configuration sets that inherit the default values may be overwritten. If you do edit the default configuration set ensure that any dependent configuration sets are still consistent.

## Help Updates for Thin Client Server

The following changes will be made to this documentation in the next full release of this product.

- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### Updated: Thin Client Validation Keyboard Shortcuts

The following new keyboard shortcuts are available in the Batch Content pane in Thin Client Validation.

Option	Keyboard Shortcut	Description
Delete Document/Delete Folder	Shift + X	Removes the selected document or folder.
Split Folder	Shift + T	Splits the selected folder and moves all documents including the selected document into a new folder.
Merge with Previous Document/Merge with Previous Folder	Q	Merges the selected document or folder to the previous document or folder.
Create Folder	Shift + C	Creates a folder and moves the selected documents into that folder.

In addition, the Thumbnail pane now supports the following keyboard shortcuts.

Option	Keyboard Shortcut	Description
Delete Page	Shift + Y	Removes the selected document or folder.
Split Document	Shift + S	Splits the selected folder and moves all documents including the selected document into a new folder.

## Help Updates for Scripting Help

The following changes will be made to this documentation in the next full release of this product.

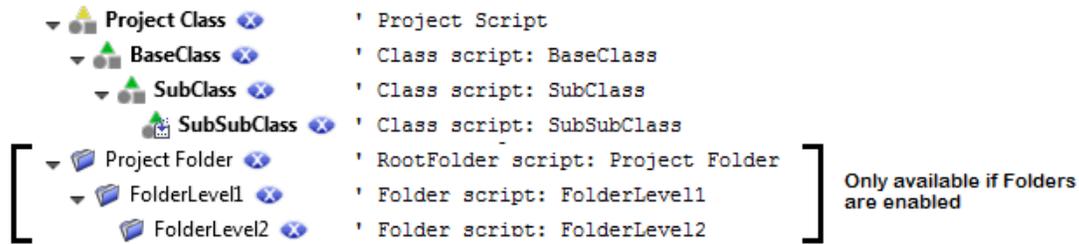
- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### Updated: Scripting Logic

This topic has been updated as follows.

The project structure is reflected in the scripting hierarchy.

In the following overview a project structure is shown and its reflection in the script sheets. The foldering related script sheets are only available if folders are enabled:



The classification events are found on the Project Class script sheet.

The extraction events are available on each level of the classes and most of them support inheritance. The class-related events that are attached to the Document object from the Object combobox, are executed from the Project Class down to the calling class. The field events are executed from the class where the field is defined, down to the calling class. The calling class is the classification result of the document.

Refer to the [extraction events in a class hierarchy](#) that explains the chronological events for a sample project structure. The script events folder logic is different than it is for classes, similar to the [extraction events in a folder hierarchy](#).

Generally, all events that are mentioned in this documentation can be added easily by selecting the required object from the Object combobox and the required event method from the Proc combobox in the script sheet the object is available. The following links provide an overview where which objects are available. You have to navigate to the script sheet where the object is declared that provides the needed event method. If the object is placed on the project script you can directly open the requested script via shortcut menu from the project node. If it is placed on a class script use the shortcut menu of the requested class. The same mechanism works for the folders.

- Project Script
- Class Script
- RootFolder Script
- Folder Script

## Updated: Extraction Events in Class Hierarchy

This topic has been updated as follows.

When a document is classified it is assigned to a specific class, this class has a certain position in the class hierarchy. This is important because not only the class-specific events are executed but also the events of all its parent classes and all events on project level. This allows you to place your script to the most appropriate class (and not repeat it for each class).

If, for instance, you have a project with a class hierarchy as shown below:



For the Project Class, one field is defined (ProjectClassField), for the BaseClass, another field (BaseClassField) is defined that is inherited by the child classes. SubSubClassField is defined on the SubSubClass level. A script locator method is defined on the project class (ProjectClassScriptLocator) and assigned to ProjectClassField. A script locator method is defined for BaseClassField in BaseClass (BaseClassScriptLocator).

When a document belonging to the SubSubClass class is extracted, these events occur in the following order:

```

' ##### Project #####
ProjectClass - Document_BeforeExtract *
ProjectClass - Document_BeforeLocate(ProjectClassScriptLocator)
ProjectClass - ProjectClassScriptLocator_LocateAlternatives
ProjectClass - Document_AfterLocate(ProjectClassScriptLocator)
ProjectClass - ProjectClassField_BeforeExtract *
ProjectClass - ProjectClassField_AfterFieldReread * ***
ProjectClass - ProjectClassField_AfterExtract *
ProjectClass - Document_AfterExtract *

' ##### Classification Events #####

' ##### Document_BeforeExtract #####
ProjectClass - Document_BeforeExtract *
  BaseClass - Document_BeforeExtract *
    SubClass - Document_BeforeExtract *
      SubSubClass - Document_BeforeExtract *
        SubSubClass - Document_BeforeLocate(BaseClassScriptLocator)
          SubClass - Document_BeforeLocate(BaseClassScriptLocator)
            BaseClass - Document_BeforeLocate(BaseClassScriptLocator)
              BaseClass - BaseClassScriptLocator_LocateAlternatives
                BaseClass - Document_AfterLocate(BaseClassScriptLocator)
                  SubClass - Document_AfterLocate(BaseClassScriptLocator)
                    SubSubClass - Document_AfterLocate(BaseClassScriptLocator)

' ##### ProjectClassField #####:
ProjectClass - ProjectClassField_BeforeExtract *
  BaseClass - ProjectClassField_BeforeExtract *
    SubClass - ProjectClassField_BeforeExtract *
      SubSubClass - ProjectClassField_BeforeExtract *

ProjectClass - ProjectClassField_AfterFieldReread * ***

ProjectClass - ProjectClassField_AfterExtract *
  BaseClass - ProjectClassField_AfterExtract *
    SubClass - ProjectClassField_AfterExtract *
      SubSubClass - ProjectClassField_AfterExtract *

' ##### BaseClassField #####:
  BaseClass - BaseClassField_BeforeExtract *
    SubClass - BaseClassField_BeforeExtract *
  
```

```

SubSubClass - BaseClassField_BeforeExtract *
BaseClass - BaseClassField_AfterFieldReread * ***
BaseClass - BaseClassField_AfterExtract *
SubClass - BaseClassField_AfterExtract *
SubSubClass - BaseClassField_AfterExtract
' ##### SubSubClassField #####:
SubSubClass - SubSubClassField_BeforeExtract *
SubSubClass - SubSubClassField_AfterFieldReread * ***
SubSubClass - SubSubClassField_AfterExtract *
' ##### Document_AfterExtract #####
ProjectClass - Document_AfterExtract *
BaseClass - Document_AfterExtract *
SubClass - Document_AfterExtract *
SubSubClass - Document_AfterExtract *
' ##### Document_Validated #####
ProjectClass - Document_Validated * **
BaseClass - Document_Validated * **
SubClass - Document_Validated * **
SubSubClass - Document_Validated * **
' ##### Document_AfterProcess #####
ProjectClass - Document_AfterProcess *
BaseClass - Document_AfterProcess *
SubClass - Document_AfterProcess *
SubSubClass - Document_AfterProcess *

```

\* Field property changes can be monitored in these events, monitoring can be turned on in the project settings.

\*\* The validated events are only fired when the document is valid.

\*\*\* To get the reread events of a table cell or a field, you have to activate the reread option of a field or table column. This can be done from within the Field Properties window.

## Updated: Extraction Results in Folder Hierarchy

This topic has been updated as follows.

The following example shows the sequence of extraction events that are fired when you have a project with the folder hierarchy shown below:



For each level two fields are defined as shown in the following:

```
Root [batch level, level = 0]
```

```

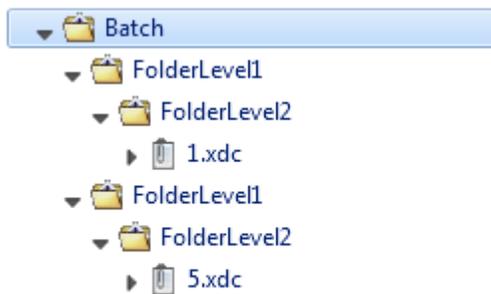
-> Root_Field1
-> Root_Field2

Level1 [level = 1]
  -> Level1_Field1
  -> Level1_Field2

Level2 [level = 2]
  -> Level2_Field1
  -> Level2_Field2

```

A batch is processed having two subfolders, that each have one sub folder, each of them contains one document:



The events then occur in the following order:

```

FolderLevel2 - containing 1.xdc
  [folder script of folder "FolderLevel2"]
    Folder_BeforeExtract
    Level2Field1_BeforeExtract
    Level2Field1_AfterExtract
    Level2Field2_BeforeExtract
    Level2Field2_AfterExtract
    Folder_AfterExtract
    Folder_Validated*

FolderLevel1 - containing folder FolderLevel2 with 1.xdc
  [folder script of folder "FolderLevel1"]
    Folder_BeforeExtract
    Level1Field1_BeforeExtract
    Level1Field1_AfterExtract
    Level1Field2_BeforeExtract
    Level1Field2_AfterExtract
    Folder_AfterExtract
    Folder_Validated*

FolderLevel2 - containing 5.xdc
  [folder script of folder "FolderLevel2"]
    Folder_BeforeExtract
    Level2Field1_BeforeExtract
    Level2Field1_AfterExtract
    Level2Field2_BeforeExtract
    Level2Field2_AfterExtract
    Folder_AfterExtract
    Folder_Validated*

```

```
FolderLevel1 - containing folder FolderLevel2 with 5.xdc
  [folder script of folder "FolderLevel1"]
    Folder_BeforeExtract
    Level1Field1_BeforeExtract
    Level1Field1_AfterExtract
    Level1Field2_BeforeExtract
    Level1Field2_AfterExtract
    Folder_AfterExtract
    Folder_Validated*

Batch
  [folder script of folder "Project Folder"]
    Folder_BeforeExtract
    RootField1_BeforeExtract
    RootField1_AfterExtract
    RootField2_BeforeExtract
    RootField2_AfterExtract
    Folder_AfterExtract
    Folder_Validated*
```

\* The Validated event occurs only if the folder becomes valid after the extraction process.

## New: Reclassify Documents via Script

The following topic will be part of the Scripting Help in the next full release.

You can change the classification result of a document in script by calling the `Reclassify` method. This immediately stops the extraction of the previous class and then executes extraction for the new class.

You can also use this for unclassified documents that require classification from the Project Class, by extraction results like a bar code or form ID to a specific class. This is possible because the Project Class script events are executed before the classification events.

Even though the `Reclassify` method can be executed multiple times for a document, you can call it only once per class that is executing the extraction. This is because extraction stops for a class when the `Reclassify` method is called.

For example, a document is classified to a child class. You can reclassify it to the parent class, and as soon as the extraction runs for the parent class, you can reclassify the document to yet another class.

The following extraction-related events are supported by the `Reclassify` method.

- `Document_BeforeExtract`
- `<Field>_BeforeExtract`
- `<Field>_AfterFieldReread`
- `<Field>_AfterCellReread`
- `<Field>_AfterExtract`
- `Document_AfterExtract`
- `Document_Validated`
- `Document_AfterProcess`

When the `Reclassify` method is called for a document, the field results are cleared and re-initialized for the new class. If you want to keep the field results from the first extraction run, you can set the `Preserve` property of a field to `TRUE`. If the field is available in the new class, the field results are kept

and the extraction is skipped for this field in the new class. Only formatting and validation are applied, if configured.

Fields, locators and project level validation rules are available in all classes as [inherited items](#).

## New: Improve Bar Code Recognition

The `FineReader.MinRatioToTextHeightBarcode` property defines the minimum height for a bar code in relation to the average letter height on a document. Defining this property is helpful when detecting small bar codes.

The default value for this setting is 0.5, but if this is not sufficient, you can modify this value.

The `MinRatioToTextHeightBarcode` property is exposed in `CscBarcodeLocator` and the range for this property is between 0.1 and 2.0.

If the value set in script is outside of this range, the value is limited. Values below 0.1 are changed to 0.1 and values above 2.0 are lowered to 2.0. If the value is set to -1, this means that `FineReader` uses automatic mode to detect bar codes.

In order to configure this property, add an additional reference for the Bar Code Locator to the script sheet you are using. You can set this property in the `Before_Extract` event as shown in the following example.

```
' Class script: MyClassName
Private Sub Document_BeforeExtract(ByVal pXDoc As CASCADELib.CscXDocument)
    Dim oClass As CscClass
    Dim oLocDef As CscLocatorDef
    Dim oBarcodeLocator As CscBarcodeLocator

    Set oClass = Project.ClassByName("MyClassName")
    Set oLocDef = oClass.Locators.ItemByName("MyBarcodeLocator")
    Set oBarcodeLocator = oLocDef.LocatorMethod

    oBarcodeLocator.MinRatioToTextHeightBarcode = 0.1
End Sub
```

## Updates for Thin Client Server Developer's Guide

The following changes will be made to this documentation in the next full release of this product.

- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### Updated: Configure Thin Client Server

The following option is now available in the `web.config` file.

#### **ForceDictionaryUpdate**

When enabled, this setting reloads the project when a dictionary is updated so that any combo boxes are updated accordingly. The value for this option is set to "False" by default.

Set this value to "True" in the following circumstances.

- You dictionary is configured for auto-update.
- Your dictionary is updated regularly.
- You have combo boxes that use your dictionary on your customized validation form.

Otherwise, leave this value "False." This is because a "True" value can negatively impact performance when dictionaries are reloaded unnecessarily.

If you want to use this option in Kofax Transformation Toolkit 6.2.1, add the following code to the Thin Client Server web.config file and edit it as needed.

In the `Kofax.KTS.Services.Properties.Settings` section under `<applicationSettings>`, add the following.

```
<setting name="ForceDictionaryUpdate" serializeAs="String">
  <value>True</value>
</setting>
```

## Updated: Log Thin Client Web Server Errors

In order to troubleshoot errors with the web server that occur when using the Thin Client Server, you can enable trace logging by editing the `Web.config` file that is located in the installation directory.

You can enable web server trace logging in the Thin Client Server by following these steps:

1. Open the `Web.config` configuration file and remove the comments around the following code:

```
<system.diagnostics>
  <trace autoflush="true">
    <listeners>
      <add name="myListener" traceOutputOptions="DateTime"
        type="System.Diagnostics.TextWriterTraceListener"
        initializeData="PATH_TO_FILE_WITH_ACCESS_RIGHTS">
        <filter type="System.Diagnostics.EventTypeFilter"
          initializeData="Verbose"/>
      </add>
    </listeners>
  </trace>
</system.diagnostics>
```

2. Edit the `initializeData="PATH_TO_FILE_WITH_ACCESS_RIGHTS"` attribute to modify the file system location and name of the log file.

**Important** The logging folder security settings need to be modified so that the configured IIS user (IIS\_USR by default) has full control over the folder. Without this change, no log files are written because the IIS user does not have permissions to write to that folder.

3. By default, the `initializeData` value is set to "Verbose." You can change this attribute to one of the following values, keeping in mind that some options are a combination of the previous values.

### Critical

Outputs a fatal error or an application crash to the log file.

### Error

Outputs Critical messages as well as any recoverable errors, to the log file.

**Warning**

Outputs Critical messages, Error messages, as well as any noncritical problems, to the log file.

**Information**

Outputs Critical messages, Error messages, Warning messages, as well as informational messages, to the log file.

**Verbose**

Outputs Critical messages, Error messages, Warning messages, Information messages, as well as debug information, to the log file.

For more information about the available options, see the Microsoft MSDN Trace and Debug Settings Schema at [http://msdn.microsoft.com/en-us/library/76dt1k3h\(VS.71\).aspx](http://msdn.microsoft.com/en-us/library/76dt1k3h(VS.71).aspx).

4. **Save** your changes and restart the IIS Server.

## Updates for the Kofax Search and Matching Server Getting Started Guide

The following changes will be made to this documentation in the next full release of this product.

- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### New: Access Rights for a Microsoft SQL Server Database

Several permissions in the Microsoft SQL Server database are required by Kofax Search and Matching Server in order to use it for the fuzzy database source. These permissions are necessary in order to access tables, views, synonyms, and stored procedures.

At a minimum, the Server login requires the following permissions.

- CONNECT SQL
- VIEW ANY DATABASE
- VIEW ANY DEFINITION

This permission is required by the `sp_databases` stored procedure that is used to list the databases that are accessible to the logged on user.

The following permissions are also required by the "database role" or "user" for each relational object.

- SELECT

This is required to access views, tables, and synonyms based on a view or table.

- EXECUTE

This is required for the stored procedure and synonyms based on a stored procedure.

- In the case of a synonym, the user or database role also requires the corresponding `SELECT/EXECUTE` permissions for the underlying object referenced by the synonym.

## Updates for the Kofax Search and Matching Server Installation Guide

The following changes will be made to this documentation in the next full release of this product.

- **New** indicates a brand new topic that has not appeared in previous versions.
- **Updated** indicates that additions, deletions, and edits exist that did not appear in previous versions

### Updated: Installation

The following note has been added to the Kofax Search and Matching Server Installation Guide and will appear in the next full release of Kofax Search and Matching Server.

**Important** Do not install Kofax Search and Matching Server on a server alongside any other Kofax products that are in production. This is because Kofax Search and Matching Server consumes all CPU cores during its search queries, to maximize performance.

For example, Kofax Search and Matching Server and Kofax Transformation Toolkit are both installed on the same server. When Kofax Transformation Toolkit is busy with OCR for a large set of documents, a search by Kofax Search and Matching Server is unable to access enough the CPU power. This results in a slow-down in the overall processing time because the two products are competing for processing power.