Kofax TotalAgility
Integration Server Installation Guide

Version: 7.11.0

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KOFAX

Table of Contents

Preface

This guide includes instructions for installing and upgrading to Kofax TotalAgility Integration Server 7.11.0, and integrating it with other products.

Read this guide completely before installing the software.

TotalAgility documentation

To access the full documentation set online, see the Kofax TotalAgility Documentation page.

To launch the online help for the installed version of the product, click the Help icon in the application.

> ℹ When upgrading to TotalAgility 7.11.0 from an earlier version, ensure that the check box for "Import system Workspace package" is selected to view the Workspace help online; otherwise, you must import the WorkspaceHeader form from the TotalAgility Workspace package.

You can access the Kofax TotalAgility documentation online as well as offline mode.

Full documentation set

A complete set of TotalAgility documentation includes the following items.

Guide/Help	Description
Administrator's Guide	Provides information for administrators who are responsible for configuring and maintaining a TotalAgility installation.
API Documentation	Includes the details of the supported APIs excluding deprecated methods, a list of supported methods for each service, and all inputs and outputs including the required fields, field types, and enumerations, any special information about the method, some coding examples, and the details behind concepts used.
Architecture Guide	Provides an overview of the TotalAgility architecture, covering various deployments for on-premise, on-premise multi-tenancy, and Azure environments.
Best Practices Guide	Describes the best practices to follow when using TotalAgility to improve performance, cost, maintenance, availability, and security.

Guide/Help	Description
Configuration Utility Guide	Provides instructions for using the Configuration Utility to update settings across various configuration files for different installation and deployment types.
Designer Help	Provides details about using TotalAgility to design business jobs and cases, assign resources, create forms, integrate with external applications, and more.
Features Guide	Provides an overview of the TotalAgility features.
Installation Guide	Provides instructions on installing TotalAgility and integrating it with other products.
Integration Server Installation Guide	Provides instructions on installing TotalAgility Integration Server and integrating it with other products.
On-Premise Multi-Tenant Installation Guide	Provides instructions on installing and configuring a TotalAgility On-Premise Multi-Tenant system.
Prerequisites Guide	Provides system requirements for installing TotalAgility, instructions for running the Pre-requisite Utility, and a software checklist for various installation types.
Release Notes	Include key details about the new and enhanced features and any changes in behavior in TotalAgility 7.11.0. It also lists any known and resolved issues in this version of TotalAgility.
Reporting Tables	Describes the Dimension and Fact tables of the Kofax Reporting data warehouse that store information related to Capture client activities of TotalAgility.
Reporting Views	Describes the sample views provided with Kofax Reporting.
Tables for Analytics	Describes the TotalAgility tables and fields used by Kofax Analytics for TotalAgility.
Tenant Management System Help	Describes how to create and manage tenants using the TotalAgility On-Premise Multi-Tenant system.
Tenant Management System Installation Guide	Provides instructions for installing the TotalAgility Tenant Management System.
TotalAgility Apps Help	Includes a suite of applications that allows citizen developers to configure the workflow and capture items with little to no training. TotalAgility Apps encapsulates the following applications. • Business Data • Quick Capture • Quick Classification • Quick RPA • Quick Rules • Quick Skins • Quick Workflow

Guide/Help	Description
Web Capture Control Help	Provides details for using a Web Capture control in creating multi-page documents, creating a new document in a new folder, deleting pages that have been incorrectly scanned, and more; also, describes the buttons available in a Web Capture control toolbar.
Workspace Help	Provides details for using TotalAgility to design business jobs and cases, assign resources, create forms, integrate with external applications, and more.
Other documentation	
Capture Client	Provides help for using Capture activities in TotalAgility.
Devices Help	Provides details for managing devices connected to TotalAgility.
Export Connector for TotalAgility	Provides instructions on managing an Export Connector and setting up an Export Connector for a document type.
KC/KTM Converter	Provides instructions on how to convert Kofax Capture and Kofax Transformation Modules projects into the correct format so that they can be used in TotalAgility.
Kofax .NET Restful Web Service API for Device the Client	Provides documentation for the Kofax .NET Restful Web Service API for the Device Client.
Kofax .NET Legacy API for the Device Client	Provides documentation for the Kofax .NET Legacy API for the Device Client.
Message Connector	Provides instructions on how to configure and use Kofax Message Connector.
MFP Starter Pack Getting Started Guide	Provides instructions on how to use TotalAgility to import and process the MFP Starter Pack.
MFP Administrator Guides	Describe how to prepare MFP devices to work with TotalAgility.
MFP Web Services Connector SDK Developer's Guide	Provides an overview and instructions for developing inputs with the MFP Web Services Connector Software Developer Kit (SDK). Along with this guide, the SDK provides documentation for the Web services.
Repository Browser	Provides instructions on how to use the Repository Browser to view the extraction results for a set of folders and documents.
Search and Matching Server	Provides documentation of the Kofax Search and Matching Server, which handles search requests from various Kofax applications for large volumes of data located at a remote site.
Transformation Designer	Provides instructions on how to use Transformation Designer to set up, store, and test projects that contain all the necessary information for processing documents.
Transformation Designer Scripting	Provides an introduction to the WinWrap Basic Editor and an overview of the available scripting events.
XDoc Browser	Provides help on using the XDoc Browser, a program that provides direct access to the document representation that is used by TotalAgility. With XDoc Browser, you can open and display an XDoc along with any referenced images for testing, demonstration, and debugging purposes.

Offline documentation

If you require offline documentation, you can download it from the Kofax Fulfillment Site. For each language, a separate documentation package is available to download as a compressed file, such as TotalAgilityDocumentation_7.11.0_EN.zip for English or TotalAgilityDocumentation_7.11.0_FR.zip for French.

The English and Japanese .zip files include both help and print folders. The print folder contains PDF guides, such as the installation guide and administrator's guide. The .zip files for other languages contain a limited set of localized files.

The following procedure describes accessing TotalAgility documentation offline for English.

1. From the Kofax Fulfillment Site, download the documentation.zip file for the applicable language, such as English.
2. Extract the contents of the compressed documentation file to your local computer.
3. In the TotalAgility product installation files, inside the `Agility.Server.Web\Help` folder, create a folder for the desired language. For example, for accessing TotalAgility documentation offline for English, create the EN folder as follows:

> ℹ In a distributed environment, copy files on the Web server, and apply the Web.config changes on the Application and Web servers.

Copy the contents from the folder	Paste the contents to the folder
Designer	`\\TotalAgilityInstall\Agility.Server.Web\Help\TotalAgility_designer\EN` ℹ The TotalAgility installer creates the TotalAgility_designer and API folders inside the Help folder. You must manually create other folders such as Workspace and TotalAgilityApps and then copy the contents into the respective folders.
Devices	`\\TotalAgilityInstall\Agility.Server.Web\bin\Administrative\Help\Devices\EN`
DocumentConverter	`\\Kofax\Document Converter\web\en\WebHelp`
ExportConnector	`\\TotalAgilityInstall\Agility.Server.Web\Help\ExportConnector_help\EN`
KCKTM_Converter	`<%ProgramData%>\Kofax\Transformation\en_US\help\KCKTM_Converter`
MessageConnector	`\\Kofax\KIC-ED\MC\web\en\WebHelp`
RepositoryBrowser	`\\TotalAgilityInstall\Agility.Server.Web\Help\RepositoryBrowser\EN`
SDK_Documentation	`\\TotalAgilityInstall\Agility.Server.Web\Help\API\EN`
TenantManagementSystem	`\\TotalAgilityInstall\Agility.Server.Web.TenantManagement\TenantManagement\Help\TenantManagementSystem\EN`

Copy the contents from the folder	Paste the contents to the folder
TotalAgilityApps	`\\TotalAgilityInstall\Agility.Server.Web\Help` `\TotalAgilityApps\EN`
TransformationDesigner	`<%ProgramData%>\Kofax\Transformation\en_US\help` `\TransformationDesigner`
WebCaptureControl	`\\TotalAgilityInstall\Agility.Server.Web\Help` `\WebCaptureControl\EN`
Workspace	`\\TotalAgilityInstall\Agility.Server.Web\Help` `\Workspace\EN`
XDocBrowser	`<%ProgramData%>\Kofax\Transformation\en_US\help` `\XDocBrowser`
Activity folder within CaptureClient Example: DocumentReviewActivity	`\\TotalAgilityInstall\Agility.Server.Web\Forms` `\Controls\Capture\Help\DocumentReviewActivity\EN`

4. Navigate to the installation folder.

For the help	Perform the following steps
• TotalAgility Designer • Devices • Transformation Designer • XDoc Browser • KC_KTM Converter	**a.** Open TotalAgility Web.config in a text editor from the following location: `\\TotalAgilityInstall\Agility.Server.Web` **b.** Locate the `<appSettings>` section and remove `http://docshield.kofax.com/KTA` from the key value: `<add key="OnlineHelpURL" value="http://docshield.kofax.com/KTA"/>`.
TotalAgility Export Connector	**a.** Open Agility.Server.ExportConnector.exe.config in a text editor from the following location: `\\TotalAgilityInstall\Agility.Server.Web\bin` **b.** Locate the `<appSettings>` section and remove `http://docshield.Kofax.com/KTA` from the key value: `<add key="OnlineHelpURL" value="http://docshield.kofax.com/KTA"/>`. Alternatively, run the Configuration Utility (available from the TotalAgility Product installation files at `\\TotalAgilityInstall\Utilities\ConfigurationUtility`) and remove the URL for online help from the OnlinehelpURL setting. ⓘ For the Transformation Designer, XDoc Browser, and KC_KTM Converter Help to work offline and make sure that TotalAgility is actively connected to Transformation Designer. To connect TotalAgility to Transformation Designer, log in to Transformation Designer and click **File > Connections** and provide the connection path.
TotalAgility Message Connector	**a.** Open configuration.xml in a text editor from the following location: `\\Kofax\KIC-ED\MC\web` **b.** Locate the `<OnlineHelp>1</OnlineHelp>` section and replace 1 with 0.
TotalAgility Document Converter	**a.** Open configuration.xml in a text editor from the following location: `\\Kofax\Document Converter\web` **b.** Locate the `<OnlineHelp>1</OnlineHelp>` section and replace 1 with 0.

5. Save and close the configuration file.
Clicking the Help icon will launch the help for the installed product.

Training

Kofax offers both classroom and online training to help you make the most of your product. To learn more about training courses and schedules, visit the Kofax Education Portal on the Kofax website.

Getting help with Kofax products

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

To access the Kofax Knowledge Base:

1. Go to the Kofax website home page and select **Support**.

2. When the Support page appears, select **Customer Support** > **Knowledge Base**.

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

The Kofax Knowledge Base provides:
- Powerful search capabilities to help you quickly locate the information you need.

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

   Scroll through the Kofax Knowledge Base home page to locate a product family. Then click the product family name to view a list of related articles. Please note that some product families require a valid Kofax Portal login to view related articles.

From the Knowledge Base home page, you can:
- Access the Kofax Community (for all customers).

   Click the **Community** link at the top of the page.
- Access the Kofax Customer Portal (for eligible customers).

   Click the **Support** link at the top of the page. When the Customer & Partner Portals Overview appears, click **Log in to the Customer Portal**.
- Access the Kofax Partner Portal (for eligible partners).

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

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

Chapter 1

Installation planning

TotalAgility is specifically designed to give organizations the flexibility to deploy either on-premise or in the cloud. The TotalAgility Integration Server enables customers to utilize on-premise LOB applications within TotalAgility Azure. You can configure various LOB Connectors within the TotalAgility Designer, similar to TotalAgility On-Premise, and set the new nodes to execute either on the Azure tenant or the Integration Server.

For information on supported operating systems and other system requirements, see the *Kofax TotalAgility Technical Specifications* document on the Product Documentation site. The document is updated regularly, and we recommend that you review it carefully to ensure success with your TotalAgility product.

Review these important notes before you proceed with the installation.

- For prerequisites, see the *Kofax TotalAgility Prerequisites Guide* available on the Kofax Fulfillment Site.
- If your solution includes multiple Kofax products, review the Technical Specifications document.
- Obtain a license key for the Integration Server either from your Account Manager or from Kofax Support.
- Before extracting the TotalAgility installation .zip file, unblock the .zip file from the File Properties window.
- After installing the Integration Server, you can update the configuration settings by modifying the configuration file or by running the configuration utility available from the installation files. You must manually copy the utility onto the server where the configuration settings are to be modified. See the *Kofax TotalAgility Configuration Utility Guide*.

Kofax Message Connector

Kofax Message Connector is a Windows service responsible for importing messages and files in many electronic formats. It can retrieve documents using one of the following connection modes:

- Storage mode: Retrieves documents from various sources and saves them in internal storage, and they are available for retrieval using a web service interface. TotalAgility connects to the Message Connector web service interface and retrieves the documents for import.
- Direct Mode: Retrieves documents from various sources and directly imports them to TotalAgility.

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

- Email messages including attachments using various email protocols (SMTP, POP3, IMAP, EWS).
- Fax messages (via internal fax over IP server or external fax servers: Kofax Communication Server, RightFax, Biscom).

- Files from a local or network folder.

For information on prerequisites for the Kofax Message Connector, see the *Kofax TotalAgility Prerequisites Guide* and for information on deployment scenarios and advanced configurations, see the *Kofax TotalAgility Administrator's Guide*.

System limits

The following system limits are applicable for 64-bit installations. For 32-bit installations, these limits may vary.

- The maximum size of a message in Message Connector storage is 8 GB.
- Up to three Message Connector instances on a single computer are allowed.
- For KfxConverter, the maximum system memory usage limit is 4 GB.

> ⓘ The limit of the input file size may vary, depending on the number of pages in a document, type of document and type of conversion.

TotalAgility Integration Server installation

This chapter describes two methods for installing the TotalAgility Integration Server:
- Silent installation for multiple servers that use the same configuration.
- Standard installation using the installation wizard.

Perform a silent installation

Use the silent installation to install the Integration Server without any user interaction. Once you edit the silent installation file and run the command from a command line or a batch file, the Integration Server installation proceeds automatically.

> ℹ The user who will run the Integration Server must have "Log on as Service" rights.

1. From your installation files, navigate to `\\IntegrationServerInstall` and open SilentInstallConfig.xml using a text editor.
2. In SilentInstallConfig.xml, update the following parameters.

   > ℹ Fix the line breaks if you copy and paste the code from this guide.

Parameter	Default Value	Description
PortNumber	3581	Keep default
SerialNumber	empty (false)	Keep default
ProductCode	empty (false)	Keep default
SkipLicense	true	Keep default
InstallDirectory	C:\Program Files\Kofax \TotalAgility\	Specify the Integration Server destination directory.
RunAsSystemAccount	false	If set to true, the IIS AppPool and Kofax TotalAgility services run as the LocalSystem account.

Parameter	Default Value	Description
RunAsNetworkServiceAccount	false	If set to true, the IIS AppPool and Kofax TotalAgility services run as the NT Authority\Network Service account. ⓘ Set RunAsNetworkServiceAccount to true only for Docker installations that want to make use of a Group Managed Service Account (gMSA).
ValidOS	true	Set to true to check if the Operating System is valid.
IISInstalled	true	Set to true to check if IIS is installed.
ImportSystemMaps	true	Keep default
InstallAction	IntegrationServerInstall	Accept the default.
InstallMode	Silent	Accept the default.
InstallType	Both	Select the install type. The Install Type can be Application Server, Web Server or both.
IsIntegrationServer	false	Set to true to install Integration Server.
TenantId	Provide a valid Tenant URL	Enter the valid Tenant URL. ⓘ When a Tenant is created, the tenant URL is sent to the tenant through email.
SystemSessionId	Provide valid System Session Id	Enter the valid System Session ID. ⓘ Log on to TotalAgility Designer. On the Home page click **System Settings** > **Settings**. The System Session ID is available on the General tab.
<SiteRoot>	Default Web Site	Install TotalAgility under a custom site that uses a non-standard port other than the standard ports (80 and 443). For example, create a custom site called "testsite" under IIS using port number 85.

3. If installing TotalAgility on a non-standard port, modify the `<TenantServiceURL>Provide Valid Tenant URL</TenantServiceURL>` parameter to include the non-standard port number as follows:

```
<TenantServiceURL>https://<tenantname.FQDN>:<non-standard port no></
TenantServiceURL>
```

4. Save and close the file.
5. On the Command Prompt, change the command line to the root directory of the Setup.exe file.
6. Run `Setup.exe /Silent`.

   The following items are installed automatically:
   * Kofax TotalAgility Integration Server
   * Utility for Kofax Export Connector
   * Kofax Import Connector

   The system generates a log file that reports errors (if any).

   The success or failure of installation is indicated in the event log.

   When automating installation, if you run setup.exe from Command line, or run setup.exe as a silent installation, one of the codes returns to indicate the following:
   * 0=Success
   * 1-Success with warnings
   * 2=Failure

Silent installation of the Transformation Designer

The Transformation Designer is typically installed as part of a full Kofax TotalAgility installation. However, if you did not use the full installer or want to install Transformation Designer separately, you can use the standalone Transformation Designer installer in silent mode. The installer is available as part of the Kofax TotalAgility installation files.

1. From your installation files, navigate to `\\TransformationDesigner` and run one of the following commands:
   * If UAC (User Account Control) is enabled, right-click on the Command Prompt and select **Run as administrator**.
   * If UAC is not enabled, run the **Command Prompt**.

   The Command Prompt is displayed.
2. Run `"TransformationDesigner Installer.exe" /quiet`

   The installer runs in the background.

You can use the same command to apply a fix pack over top of a compatible Transformation Designer installation. Update the command name for the fix pack installer as needed.

Perform a standard installation

When you run the installation wizard, the following items are installed automatically:
* Kofax TotalAgility Integration Server
* Utility for Kofax Export Connector

- Kofax Import Connector

> ℹ️
> - You must have administrator account to install the Integration Server.
> - The user who will run Integration Server must have "Log on as Service" rights.
> - You can use hotkeys to navigate to next screen.

1. From your TotalAgility installation files, navigate to `\\IntegrationServerInstall` and run one of the following commands:
   - If UAC (User Account Control) is enabled, right-click **Setup.exe** and select **Run as administrator**.
   - If UAC is not enabled, run **Setup.exe**.

   The system starts the **Kofax TotalAgility Integration Server** installation.

   > ℹ️ To exit the setup, click **Cancel** or press Esc.

2. Click **Next**.
3. In the **Kofax Inc. Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
   The **Type of Install** window opens.
4. In the **Type of Install** window, choose **Web/Application Server**, and select instances for **Import Service** .

   You can now install multiple instances of the Message Connector. Select the check box for Instance 2 and Instance 3 for Import Service. When you uninstall TotalAgility, all the instances of Message Connector are also uninstalled.

   Installs the Web and Application servers on a single machine.
5. Click **Next**.
   The **Software Checks** window opens. The system displays a list of required software and whether the software is installed.
6. Review the **Detected Software** list and proceed as follows:
   - If your system does not have all the required software, click **Cancel** to close the installer and install the software.
   - If your system has all the required software, click **Next**.

     The **Destination** window opens.
7. Use the default installation folder or click **Browse** to select a different path and click **Next**.
   The **Credentials** window opens.
8. Enter the credentials for the user who will run Integration Server.

   > ℹ️ This user must be an existing Integration Server user.

9. On the **Root Website to host TotalAgility Application** list, select the website to host the Integration Server application. By default, the **Default Web Site** is selected. However, you can select any other site as required.

ⓘ The websites added in IIS Manager appear on this list. To add a website in IIS Manager, click `Start > Run > IIS Manager > Sites > Add Web Site`.

10. To support SSL, select the **Support SSL** check box.

ⓘ The SSL option is only available if you have configured the https binding in IIS. See Configure Kofax TotalAgility Integration Server for HTTPS communication.

11. Click **Next**.

   Depending on the type of installation, the following window appears:

   • When installing the Web/Application server, the **Tenant Information** window opens: Enter the following information:

   a. **Tenant URL**: The URL is available in the email sent upon tenant creation. Using this URL, the system connects to the on-premise multi-tenancy tenant or Azure tenant.

   Tenant URL examples: `https://TenantName.<fullyqualifieddomainname>/ TotalAgility` for on-premise multi-tenancy and `https:// tenantname.cloudserviceURL/` for Azure.

   b. **System Session ID**: This ID is used for Core Worker authentication with Kofax TotalAgility in the Azure environment.

   • When installing the Web Server, the **Choose Server Location with Options** window opens: Choose the Integration Server mode as **Multi Tenant** or **On Premise** and enter the URL with a fully qualified domain name and system session ID. Enter the Server name of your existing Integration Server machine in the following format: `HW-ABC-W7` or provide the IP Address.

12. Click **Next**.

   The **Installation Review** window opens and displays the settings.

13. Click **Next**.

   The **Installation Progress** window opens. The setup installs the required files and other integrated products.

14. Click **Finish**.

   Your installation is now complete.

   ⓘ If any errors occur during the installation, Integration Server creates a log file called **Kofax TotalAgilityInstallErrorLog.txt** on your desktop. The log file is also created on the desktop. Check this log file for error details. The success or failure of installation is indicated in the event log.

   After installing, further configure Integration Server to:
   • Integrate with Dynamics CRM.
   • Integrate with Dynamics AX.
   • Integrate with Micro Focus Content Manager.
   • Integrate with Kofax Communication Manager

Standard installation of the Transformation Designer

The Transformation Designer is installed as part of a full Kofax TotalAgility installation. However, if you did not use the full installer or want to install Transformation Designer separately, you can use the standalone Transformation Designer installer that is available from the Kofax TotalAgility installation files.

1. From your installation files, navigate to `\\TotalAgilityInstall \TransformationDesigner` folder and run one of the following commands:
   - If UAC (User Access Control) is enabled, right-click TransformationDesigner Installer.exe and select **Run as administrator**.
   - If UAC is not enabled, run **TransformationDesigner Installer.exe**.

   The system starts the installation.

   > ℹ To exit the setup, click **Cancel** or Esc.

2. In the Transformation Designer Installation window, select the terms of the license agreement and click **Next**.
   The **Install Options** window is displayed.
3. On the Install Options page, select any additional settings and click **Next**.
   The **Installation Review** window is displayed.
4. Click **Install**.
   The **Installation Progress** window is displayed. The setup installs the required files.
5. Click **Finish**.
   Your installation is now complete.

Perform TotalAgility installation in a Docker container

Overview

A Docker is an open platform for developing, shipping, and running applications. Docker enables you to separate an application from its infrastructure. Using Docker, you can manage your infrastructure in the same way you manage your applications.

Docker provides the ability to package and run an application such as TotalAgility in a loosely isolated environment called a Container. The isolation and security allow you to run many containers simultaneously on a given host using fewer resources than virtual machines.

You can deploy the TotalAgility application into your production environment, as an independent container or orchestrated set of containers. This works the same whether your production environment is a local data center, a cloud provider, or a hybrid of the two. You do not need to use the TotalAgility installation program when TotalAgility is deployed in a Docker container. Instead, TotalAgility is already installed and only the relevant configuration settings, such as database connection strings, are required when the container runs.

By default, all TotalAgility containers do not have limits for memory or CPU. SQL Server runs either on another Windows container or another machine, but it does not run in the TotalAgility container.

Limitations

The following are the limitations that apply in a Docker environment:

- Currently, Microsoft does not officially support MSDTC on Docker Windows containers. Therefore, TotalAgility cannot have out-of-box support for split databases (main and archive). As a workaround, enable Active Directory support for the containers by making use of Globally Managed Service Accounts (GMSA). Once the container is in the same domain as the host machine and SQL Server machine, MSDTC will be able to execute distributed transactions among live and archive databases by resolving machine names using Active Directory.
- Export Connectors are not supported in a container.

Prerequisites

We recommend using a standalone server for your database (not a container). Therefore, before running TotalAgility inside a container, make sure the TotalAgility databases are set up and remotely accessible (using either an IP address or a fully qualified domain name).

To use this setup, configure the following on the SQL Server being used:

- Firewall should allow remote access to SQL Server
- Configure SQL Server to allow remote access with Mixed mode since the user is also allowed to access without Windows Authentication.
- Enable TCP/IP protocols for SQL Server.

> ℹ The "Named Pipes" protocol does not work.

Install Docker on the Windows server 2016 and higher

Set up Docker on your Windows server. This requires Windows Server 2016 or higher to support running a TotalAgility Windows container.

> ℹ Image Quality Analysis, Mobile ID, and Mobile Card Capture are not supported when you set up Docker on Windows Server 2016.

1. Open an elevated PowerShell command prompt, and type the following commands:
   ```
   Install-Module DockerMsftProvider -Force
   Install-Package Docker -ProviderName DockerMsftProvider -Force
   ```
2. If a reboot is required, restart your instance using the following command:
   ```
   (Install-WindowsFeature Containers).RestartNeeded
   ```
   If the output of this command is Yes, restart the server using the following command: `Restart-Computer`.
3. Test your Docker Engine - Enterprise installation by running the "docker info" command.
   ```
   docker info
   Containers: 1
   ```

```
 Running: 0
 Paused: 0
 Stopped: 1
Images: 26
Server Version: 18.09.3
Storage Driver: windowsfilter
 Windows:
Execution Driver: <not supported>
Logging Driver: json-file
Plugins:
 Volume: local
 Network: ics l2bridge l2tunnel nat null overlay transparent
Kernel Version: 10.0 14393 (14393.2828.amd64fre.rs1_release_inmarket.190216-1457)
Operating System: Windows Server 2016 Standard Version 1607 (OS Build 14393.2828)
OSType: windows
Architecture: x86_64
CPUs: 4
Total Memory: 10.04 GiB
Name: HV-Docker-QA
ID: HI53:GJSY:3BWT:Z3S5:3NWU:DEFN:6D3X:KCXO:2EMJ:ITZR:QAVY:VXFK
Docker Root Dir: C:\ProgramData\docker
Debug Mode (client): false
Debug Mode (server): false
Registry: https://index.docker.io/v1/
Labels:
Insecure Registries:
 127.0.0.0/8
```

4. Optional. NLP support for Transformation Server within Docker is not enabled by default. To make Docker work with NLP within the Transformation Server, and to increase the default maximum size for the Docker container images, perform the following steps:

   a. Open **daemon.json** available at "`C:\ProgramData\docker\config`". If the file does not exist at that location, create the file.

   b. Append the following text to daemon.json:

   ```
   {
   "storage-opts": ["size=50GB"]
   }
   ```

   c. Restart the Docker Engine service.

Use Image Quality Analysis, Mobile ID, and Mobile Card Capture on Docker

To use Image Quality Analysis, Mobile ID, and Mobile Card Capture in a container, Windows Server 2019 or higher must be used as a container host with the following Docker base container specified in the Docker file, `mcr.microsoft.com/dotnet/framework/aspnet` for all the TotalAgility container types (including RTTS and Transformation Server), where the "Image Quality Analysis, Mobile ID, and Mobile Card Capture" are required.

Make the following changes in the Docker file:

- Add the following line: `RUN powershell "Set-ExecutionPolicy -ExecutionPolicy RemoteSigned"` before the line, `RUN powershell C:\KTA\PowershellScripts \ConfigureContainer.ps1`

> ℹ
> - Additionally, Mobile ID and Mobile Card Capture have a prerequisite for the VC++ 2013 x86 redistributable. This can be automatically downloaded and installed in the Docker file.
> - Make sure that the following DLLs are present when you run Image Quality Analysis, Mobile ID, and Mobile Card Capture applications (32-bit DLL dependency) on Windows Server 2016 or 2019. Copy the 32-bit version of DLLs (avicap32.dll, avifil32.dll, msacm32.dll, msvfw32.dll) from the host's `C:\Windows\SysWOW64` and paste the DLLs in the Docker container's `C:\Windows\SysWOW64 folder`. You must copy these DLLs to all containers running the Transformation Service.

Create a TotalAgility Docker container image

A container is defined by its image as well as any configuration options you provide when you create or start it.

To create a Docker image, you need Internet connectivity because Docker uses the Microsoft "microsoft/aspnet" image as a base onto which the prerequisites are installed (from the base operating system or from the Internet when any feature is not available on the image).

> ℹ For a TotalAgility Docker container to be successfully built, approximately 100 GB of free disk space is needed.

Integration Server

To create a TotalAgility Docker image on the Integration Server, perform the following steps.

1. Extract the contents of Kofax TotalAgility-7.11.0.ZIP to a `<source directory>`.
2. Create a new folder, `<workingdirectory>`.
   Your Docker commands will be run from this directory.
3. Copy the contents of `<source directory>\Utilities\Docker` to `<working directory>`.
4. Move the contents of the `<source directory>` folder to `<working directory>\ContainerFiles`.
   The file structure should be as follows:
   ```
   <working directory>\Dockerfile
   <working directory>\ContainerFiles\ContentManagerInstallation
   <working directory>\ContainerFiles\DAXInstallation
   <working directory>\ContainerFiles\DynamicsCRMInstallation
   <working directory>\ContainerFiles\IntegrationServerInstall
   <working directory>\ContainerFiles\KIC
   <working directory>\ContainerFiles\RepositoryBrowser
   <working directory>\ContainerFiles\TransformationServer
   <working directory>\ContainerFiles\Utilities
   <working directory>\ContainerFiles\PowerShellScripts
   ```
5. Update the parameters as needed for each container type. See Silent installation configuration.

6. To create the image, open a PowerShell window on the container host and run the following command:

```
docker build -t <imagenamegoeshere> "<fullpathtoworkingdirectory>"
```

> ℹ️ Container host is the machine where the Docker server is installed. Performance of a build command depends on the number processors in the container host machine. The command may take approximately one hour to complete with a quad core processor configuration.

Example: The following command generates the image with the name "kofaxis" using the contents inside `C:\Docker\Kofax TotalAgility`:

```
docker build -t kofaxis "C:\Docker\Kofax TotalAgility"
```

Silent installation configuration

Parameter	Value	Description
Identity Information		
RunAsSystemAccount	true	The IIS AppPool and Kofax TotalAgility services run as the LocalSystem account. This can also be used to run the container as a Group Managed Service Account (gMSA).
RunAsNetworkServiceAccount	false	When set to true, the IIS AppPool and Kofax TotalAgility services run as the NT Authority\Network Service account. This can also be used to run the container as a Group Managed Service Account (gMSA). ℹ️ To run the container as a Group Managed Service Account (gMSA), RunAsSystemAccount or RunAsNetworkServiceAccount must be set to true.
Install Info		
InstallType	Both	Set to <installation type for the container type>.
IsIntegrationServer	true	
ValidateTenant	false	Since it is expected that the user shall bring the container up with valid configuration, validating the tenant details is not needed.

Run a Docker container

A Docker container runs on any machine that supports the container's runtime environment. Applications are not required to be tied to the host operating system, so both the application environment and the underlying operating environment can be kept clean and minimal.

When a running container is stopped, any changes to its state that are not stored in persistent storage disappear.

1. Open **DockerSettings_IntegrationServer_FullInstall.Env** available at `Utilities\Docker\ContainerFiles\PowershellScripts`

2. Do the following:

   a. Replace all instances of "`<localhostorISContainermachinename>`" with the machine name of the IS container you intend to create (value of –host-name in your "docker run" command).

   b. Replace all instances of "`<tenantname>.<fqdn>`" with the appropriate "ktatenantname.machinename" (similar to the entry you make for accessing the OPMT tenant in the hosts file).

3. Container access can be limited to the container host or can be port forwarded for global access. Enable the required exposed port number in the firewall settings of host machine.

4. For non-Windows authentication:

   a. The following command will bring a container up using the Kofax is image with the Kofax TotalAgility settings applied from the DockerSettings_IntegrationServer_FullInstall.Env file without windows authentication and forwarding the port 443 from the container into the 5000 port on the container host:
   Example: The following command will bring a container up using the kofaxis image with the Kofax TotalAgility settings applied from the DockerSettings_IntegrationServer_FullInstall.Env file using Windows authentication with the credentials specified in the win.json file.
   ```
   docker run -d --hostname "opdemo1" --name "opdemo1" --env-file "C:
   \Docker\TotalAgility\DockerSettings_IntegrationServer_FullInstall.Env"
   kofaxis
   ```

   b. The following command will bring a container up using the Kofax is image with the Kofax TotalAgility settings applied from **DockerSettings_IntegrationServer_FullInstall.Env** file using windows authentication with the credentials specified in the win.json file.
   Example: `docker run -d --hostname "opdemo1" --name "opdemo1" --security-opt "credentialspec=file://win.json" --env-file "C:\Docker \TotalAgility\DockerSettings_IntegrationServer_FullInstall.Env" kofaxis`

5. Use "`docker exec -it <container id\name goes here> powershell`" to attach to a PowerShell session on the created container.

   For example, the `docker exec -it ispdemo3` powershell will bring up a powerhell session inside the container with the "container's name" isdemo3.

Access TotalAgility Designer

After you connect to the Docker container and have verified that all services are in their expected state, use the following URL to access the TotalAgility Designer outside the container host with the port forwarded setup:

```
https://
<ipaddressofthecontainerhostgoeshere>:<exposedportofthecontainerhostgoeshere>/
TotalAgility/Designer
```

For containers hosting IIS – TotalAgilityWebsite:

When you configure the container for the Designer / Workspace, we recommend that you use a VirtualHost file to configure the port and URl exposure through the host OS before you access the

URL. You may also consider using a rewrite rule to ensure that any URL access is redirected to a lowercase representation.

As per RFC 2616, "...a client SHOULD use a case-sensitive octet-by-octet comparison of the entire URIs...Comparisons of host names MUST be case-insensitive".

The Docker daemon and cache hold case-sensitive resolutions of the URL and this can cause issues if the casing of the URL is changed before first access. This caching issue occurs because of Docker's use of WSL v1 and should be resolved in WSL v2. Within Docker, you cannot expose the same container port for multiple protocols, and having previously cached a case-sensitive URL, the cache must be cleared to replace it with the lowercase URL.

Additional information

This table includes some useful Docker commands.

Docker command	Purpose
docker images	Gets the list of all Docker images currently available on the server.
docker ps -a	Gets a list of all containers available on the server.
docker start <containerID>	Starts the container with the ID <containerID> on the server.
docker stop <containerID>	Stops the container with the ID <containerID> on the server.
docker rm <containerID>	Deletes the container with the ID <containerID> on the server.
docker rmi <imagename>	Deletes the image with the ID <imagename> on the server, this will be successful only if there are no child containers using this image.
docker inspect -f "{{ .NetworkSettings.Networks.nat.IPAddress }}" <containerID>	Gets the IP address of the container with the ID <containerID>.
docker cp "<containerID>:/<fullfilepathoncontainer>" "<pathtofolderonserver>"	Copies a file from the container to the server.
docker cp "<fullfilepathonserver>" "<containerID>:/ <fullfilepathoncontainer>"	Copies a file from the server to the container.
docker logs <containerID>	To see all logs of a particular container.
docker logs - tail n <containerID>	To see the last "n" logs of a particular container.
type <FQDN of text file>	To view the content of text file within powershell instance.
Get-Process	To get the list of all processes.
Get-Service	To get the list of all services (running and stopped).
start-service ServiceNameGoesHere	To start a particular service.
Stop-service ServiceNameGoesHeres	To stop a particular service.
Get-WMIObject Win32_Service	select startname, name, status	To get the list of all services with some additional columns.
Get-EventLog -LogName Application -newest 10	format-table -auto -wrap	To get the last 10 application logs from event viewer.

Docker command	Purpose
import-module webadministration	To be run before the below commands.
get-iisapppool	To get the name of the Application pool.
get-itemProperty -path IIS:\APPPOOLS\TotalAgilityAppPool -name	To get identity information of the Application pool.

Use Integration Server with on-premise multi-tenant server deployment

When installing the Integration Server with a separate Web-Application on-premise multi-tenant server deployment, the Integration Server is required to point to the on-premise multi-tenant Application server. This can cause an issue if the on-premise multi-tenant Application server is not directly accessible by the Integration Server. To avoid this, we recommend that you point the Integration Server to the on-premise multi-tenant Web server.

1. Navigate to the installation directory for the TotalAgility Integration Server.
2. Open Web.config in a text editor.
3. Locate the following section:

```
<appSettings>
      <add key="CoreIntegrationServicesLocation" value="<on-premise multi-tenant
 Web server machine name>;"/>
</appSettings>
```

4. Save and close the configuration file.

Encrypt and decrypt the configuration files

The Integration Server configuration files include the DB Connection settings and sensitive information. Therefore, we recommend that you encrypt the following Integration Server files.

- **Web.config**
- **Core Worker config**
- **Export Worker config**

Encrypt and decrypt web.config

The Integration Server, **Web.config** file is located under `<Kofax Install location>\TotalAgility\Agility.Server.Web`.

Use the Microsoft ASP.NET IIS Registration Tool (aspnet_regiis) to encrypt or decrypt any section of the Web.config file. For more information, see `http://msdn.microsoft.com/en-us/library/zhhddkxy(v=vs.100).aspx`.

At a minimum, encrypt the appSettings section that includes the Database connection information.

Encrypt and decrypt the Core Worker or Export Worker config

The Integration Server **Core Worker config** and **Export Worker config** files are located under `<Kofax Install location>\TotalAgility\CoreWorkerService`.

The TotalAgility Server supports two encryption methods:

- DPAPI encryption
- RSA encryption

Use the Kofax.CEBPM.Encryption.exe utility to encrypt and decrypt files with either of these methods.

Use the Kofax.CEBPM.Encryption.exe utility

The Kofax.CEBPM.EncryptConfig.exe utility (located in the Integration Server installation directory) encrypts (-enc) or decrypts (-dec) any section of a configuration file.

At a minimum, encrypt the appSettings section of each config file that includes the user ID and password as well as other sensitive information. Use the optional -h flag to display help for the command.

Kofax.CEBPM.EncryptConfig.exe cannot work with Web.config, it can only work with configuration files or executables.

> 🛑 Add the following security provider to the configuration file before encrypting the file:

```
<configProtectedData>
    <providers>
      <add useMachineProtection="true"
           name="DPAPIProtection"
           type="System.Configuration.DpapiProtectedConfigurationProvider,
 System.Configuration, Version=2.0.0.0, Culture=neutral,
 PublicKeyToken=b03f5f7f11d50a3a" />
      <add name="RSAProvider"
           type="System.Configuration.RsaProtectedConfigurationProvider,
 System.Configuration, Version=2.0.0.0,                    Culture=neutral,
 PublicKeyToken=b03f5f7f11d50a3a,
processorArchitecture=MSIL"
           keyContainerName="CPUServerKeys"
          useMachineContainer="true" />
    </providers>
</configProtectedData>
```

Use the DPAPI encryption method

Because you must decrypt the file on the same machine where it was encrypted, use this utility to encrypt one server at a time.

Run the utility on each TotalAgility Server individually.

1. Stop the Integration Server Core Worker Server service.
2. Navigate to the TotalAgility Integration Server Core Worker installation directory and open a command-line window.

3. Run the following command:

Kofax.CEBPM.EncryptConfig.exe -f Agility.Server.Core.WorkerService.exe.config -s "appSettings" -p DPAPIProtection -enc

Use the RSA encryption method

RSA encryption is an algorithm for public key encryption and digital signatures that uses two separate keys. Create a key and encrypt the configuration file on one Server, and export the key to all the other Servers. All the TotalAgility Servers with the exported key installed can access the configuration file. Use this method if you have several Servers with the same configuration.

The following instructions differentiate between the source TotalAgility Server where you create the key and the target TotalAgility Servers onto which you import the key.

Prepare the key

Perform these steps on one source TotalAgility Integration Server.

1. Create the custom RSA key container:

   a. Logon to the Integration Server with administrator rights.

   b. Open a command-line window.

   c. Navigate to the .NET Framework version 2.0 directory. For example, enter the following command:

   cd \WINDOWS\Microsoft.Net\Framework\v2.0.*

   d. Run the following command:

   aspnet_regiis -pc "<KeysFile>" -exp

   where:
   - <KeysFile> is the name of the key file.
   - The -exp option makes the key exportable.

2. Run the following command to grant the TotalAgility Integration Server Core Worker Server service user permission to read the <KeysFile> RSA container file.

   aspnet_regiis -pa "<KeysFile>" "<TotalAgilityserviceuser>"

   where:
   - <KeysFile> is the name of the key file you created in step 1d.
   - <TotalAgilityserviceuser> is the Integration Server Core Worker Server service user.

3. Encrypt the file:

   a. Log on to the TotalAgility Server as the TotalAgility Integration Server Core Worker Server service user.

   b. Navigate to the installation directory for the TotalAgility Server and open a command-line window.

   c. Run the following command:

   Kofax.CEBPM.EncryptConfig.exe -f Agility.Server.Core.WorkerService.exe.config -s "appSettings" -p RSAProvider -enc

   This command encrypts the appSettings section of the configuration file. The appSettings section includes the user ID and password as well as other sensitive information.

4. Export the key by running the following command:

aspnet_regiis -px "<KeysFile>" "<c:\keys.xml>" -pri

where:

- <KeysFile> is the default keystore keyContainerName.
- <c:\keys.xml> is the path and file name of the exported key file.

Import the key

Perform these steps on every target TotalAgility Server.

1. Import the key:

    a. Log on to the TotalAgility Server with administrator rights.

    b. Copy the keys.xml file from the source TotalAgility Server to the root C:\ directory of the target TotalAgility Server.

    c. Open a command-line window.

    d. Run the following command:

       aspnet_regiis -pi "<KeysFile>" "c:\keys.xml"

       where:

       - <KeysFile> is the default name of the key file.
       - `<c:\keys.xml>` is the path and file name to the imported key file.

    e. Delete the keys.xml file on the target Server because it contains the unprotected private key.

2. Run the following command to grant the TotalAgility Integration Server Core Worker Server service user permissions to use the <KeysFile> RSA container file:

aspnet_regiis -pa "<KeysFile>" "TotalAgilityserviceuser"

where:

- <KeysFile> is the name of the key file you imported in step 1.
- <TotalAgilityserviceuser> is the TotalAgility Integration Server Core Worker Server service user.

3. Repeat these steps on all remaining TotalAgility Servers.

Decrypt the configuration file

1. Stop the **Kofax TotalAgility Integration Server Core Worker Server** service.

2. Navigate to the TotalAgility Server installation directory and open a command-line window.

3. Run the following command:

Kofax.CEBPM.EncryptConfig.exe -f Agility.Server.Core.WorkerService.exe.config -s "appSettings" -p DPAPIProtection -dec

Repeat these steps to encrypt and decrypt the Export Worker configuration file.

Encrypt the configuration files in a docker container

To encrypt the Web.config files and all executable configuration files using "DPAPI", you must add the following to your docker run command.

```
-e KTA_CONFIG_ENCRYPTION_PROVIDER_TYPE="DPAPI"
```

For example, "`docker run -d --hostname "opdemo2" --name "opdemo2" --env-file "C: \Docker\TotalAgility\dockersettings.env" -p 5000:80 -e KTA_CONFIG_ENCRYPTION_PROVIDER_TYPE="DPAPI" kofaxop"`

To encrypt the Web.config files and all executable configuration files using "RSA", you must add the following to your docker run command.

```
-e KTA_CONFIG_ENCRYPTION_PROVIDER_TYPE="RSA"
```

For example, "`docker run -d --hostname "opdemo2" --name "opdemo2" --env-file "C: \Docker\TotalAgility\dockersettings.env" -p 5000:80 -e KTA_CONFIG_ENCRYPTION_PROVIDER_TYPE="RSA" kofaxop"`

Edit the TotalAgility server configuration file

When you install TotalAgility, the system stores the configuration settings in a .NET file, **Agility.Server.Core.WorkerService.exe.config**. To change the value of any parameter, edit the configuration file or run the configuration utility. The Configuration Utility is available from the installation files and must be manually copied to your Kofax TotalAgility server. See the *Kofax TotalAgility Configuration Utility Guide*.

See

1. If you encrypted the configuration file after you installed the TotalAgility Server, decrypt the file. See Decrypt the configuration file.

   ⓘ If you used RSA encryption, decrypt the configuration file only on the source TotalAgility Server where you initially encrypted the file.

2. Navigate to the installation directory for the TotalAgility Server.
3. Open the configuration file in a text editor.
4. Locate the following section:

   ```
   <appSettings>
         <add key="KeyNameString" value="which may contain passwords;"/>
   </appSettings>
   ```

5. Edit the parameter values as needed.
6. Save and close the configuration file.
7. To re-encrypt the configuration file, run the encryption utility. See Encrypt and decrypt the configuration files.

   ⓘ If you used RSA encryption, export the key, and install the encryption key file on any target TotalAgility Servers onto which you imported the original encrypted configuration file.

8. Restart the Kofax TotalAgility Integration Server Core Worker Server service.

Add a thread pool monitoring interval

When long-running automatic activities are processed by the Core Worker, the threads in the automatic activity thread pool are not freed up when the taken activity is reset due to timeout. Configure a thread pool monitoring interval to free up the threads for these long-running taken activities to allow other activities to progress once they time out.

You can configure the thread pool monitoring interval manually or use the Configuration Utility.

Manually

1. Navigate to the installation directory for the TotalAgility server.
2. In a text editor, open **Agility.Server.Core.WorkerService.exe.config** from the following directory:
3. Locate the following section and add a thread pool monitoring interval (default:60).

```
<appSettings>
    <add key="CoreWorkerThreadPoolMonitoringIntervalInSeconds" value="60"/>
</appSettings>
```

The default value is 60.

4. Save and close the configuration file.
5. Restart the TotalAgility Core Worker service.

Use the Configuration Utility

Run the Configuration utility and add the thread pool monitoring interval. See the *TotalAgility Configuration Utility Guide*.

Anti-Cross Site Request Forgery (CSRF) measures

Use the following anti-CSRF measures to protect the site against Cross-site Request Forgery attacks.
- Configure the Anti-CSRF tokens
- Specify the Samesite attribute with value as Strict or Lax in the <hostCookies> tag of Web.config to prevent CSRF attacks. See the Microsoft website for more information.
- Enable Host prefix for cookies

Anti-Cross Site Request Forgery (CSRF) tokens

A CSRF attack relies on a user being authenticated on a website. The attack usually comes as an email or website hyperlink on which the user clicks while still authenticated. This URL then points back to the user's website and attempts to perform a privileged action (such as adding an administrator account) without the user's knowledge. In TotalAgility, the TargetHostName and TargetPortNo settings are added as Anti-CSRF tokens in the Web.config file. TargetHostName is the fully qualified domain name of the web server and TargetPortNo is the website port number.

When you provide these settings, the Anti-CSRF origin and referrer validations are performed on the request URL. If the validation fails, the request will be terminated considering it a potentially dangerous request.

You can configure the Anti-CSRF tokens in the Web.config manually or using the Configuration Utility.

Manually

1. Navigate to the installation directory for the TotalAgility server.
2. In a text editor, open Web.config from the following directory:
3. Locate the following section and specify the target host name and target port number.

```
<appSettings>
        <add key= "TargetHostName" value="<hostnamegoeshere"/>
 <add key= "TargetPortNo" value="443"
            </appSettings>
```

4. Save and close the configuration file.

Use the Configuration Utility

Run the Configuration utility and specify the TargetHostName and TargetPortNo settings. See the *Kofax TotalAgility Configuration Utility Guide*.

Enable Host prefix for cookies

Use "Host Prefix for Cookies", a browser functionality that makes the cookies more secure by prefixing the TotalAgility cookie names with "__HOST-". When a cookie name starts with this flag, it triggers an additional browser policy on the cookie in supporting browsers. A Host--prefixed cookie is only accessible by the same domain it is set on, which means a subdomain can no longer overwrite the cookie value. It also makes a cookie accessible from HTTPS sites only. This protects the cookie even if an attacker uses a forged insecure site to overwrite a secure cookie.

Edit the setting manually or use the Configuration Utility for enabling or disabling the cookies' security.

Perform the following steps on the Web or combined Web/Application server.

1. From the Kofax TotalAgility installation files, navigate to `\\TotalAgilityInstall \Agility.Server.Web`.
2. Open Web.config in a text editor.
3. Locate the **<appSettings>** section and make sure the value of "UseHostPrefixForCookies" value="true".

```
<appSettings>
     <add key="UseHostPrefixForCookies" value="true"/>
</appSettings>
```

Use the Configuration Utility

Run the Configuration Utility and change the Host Prefix for Cookies setting on the Web settings tab as needed.

Exclude folders from the antivirus scan

In your antivirus application, add the following TotalAgility folders to the list of items that are excluded from scanning:

- `\\ProgramData\Kofax`
- `\\Program Files (x86)\Common Files\Kofax`
- `\\Program Files\Kofax\TotalAgility\`

Integrate Microsoft Dynamics CRM with TotalAgility Integration Server

You can integrate Microsoft Dynamics CRM and Microsoft Dynamics 365 CRM with TotalAgilityIntegration Server. To install both, the users must have administrator rights.

See also:
- Dynamics CRM installation
- Update the Web configuration file for Dynamics CRM

Install Dynamics CRM

Follow the same steps to install Dynamics CRM and Dynamic 365 CRM.

1. Navigate to `\\DynamicsCRMInstall` from your TotalAgility installation files, and double-click **Setup.exe**.

   For Dynamics 365 CRM, navigate to `\\Dynamics365CRMInstallation` from your installation files, and double-click `Dynamics365CRM_Setup.exe`.

   The installation wizard appears.
2. Click **Next**.
3. In the **CRM Server** field, enter the IP address or machine name of the CRM server.
4. In the **CRM Port** field, enter the port on which CRM is running.
5. To enable SSL (Secure Sockets Layer), select **Use SSL** (default: Clear).
6. In the **Domain** field, enter the domain name.
7. Enter the **Username** and **Password**.
8. Click **Finish**.

   The installation starts and registers the Event Handler in CRM and places necessary files in Global Assembly Cache (GAC).

Update Web.config for Dynamics CRM

Add the following script for the TotalAgility components to support event handlers in Dynamics CRM and Dynamics 365 CRM:

> ℹ️ If you copy and paste the code from this guide, correct any incorrect line breaks.

```
<configSections>
<section name="exceptionHandling"
type="Microsoft.Practices.EnterpriseLibrary.
ExceptionHandling.Configuration.ExceptionHandlingSettings,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35" requirePermission="true" />
<section name="loggingConfiguration"
type="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.LoggingSettings,
Microsoft.Practices.EnterpriseLibrary.Logging,
Version=5.0.505.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" requirePermission="true" />
</configSections>

<loggingConfiguration
name=""
tracingEnabled="true"
defaultCategory="General">
<listeners>
<add name="Event Log Listener"
type="Microsoft.Practices.EnterpriseLibrary.Logging.TraceListeners.
FormattedEventLogTraceListener,
Microsoft.Practices.EnterpriseLibrary.Logging,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35"
listenerDataType="Microsoft.Practices.EnterpriseLibrary.Logging.
    Configuration.FormattedEventLogTraceListenerData,
Microsoft.Practices.EnterpriseLibrary.Logging,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35"
source="Total Agility" formatter="Text Formatter"
log="" machineName="." traceOutputOptions="None" />
</listeners>
<formatters>
<add type="Microsoft.Practices.EnterpriseLibrary.Logging.Formatters.TextFormatter,
Microsoft.Practices.EnterpriseLibrary.Logging,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35"
template="Timestamp: {timestamp}{newline}&#xA;Message: {message}
    {newline}&#xA;Category: {category}{newline}&#xA;Priority:
    {priority}{newline}&#xA;EventId: {eventid}
    {newline}&#xA;Severity: {severity}{newline}&#xA;Title:
    {title}{newline}&#xA;Machine: {localMachine}
    {newline}&#xA;App Domain: {localAppDomain}
    {newline}&#xA;ProcessId: {localProcessId}
    {newline}&#xA;Process Name: {localProcessName}
    {newline}&#xA;Thread Name: {threadName}
    {newline}&#xA;Win32 ThreadId:{win32ThreadId}
    {newline}&#xA;Extended Properties:
    {dictionary({key} - {value}{newline})}"
name="Text Formatter" />
</formatters>
<categorySources>
<add switchValue="All" name="General">
<listeners> <add name="Event Log Listener" />
</listeners>
</add>
</categorySources>
<specialSources>
<allEvents switchValue="All" name="All Events" />
```

```
<notProcessed switchValue="All" name="Unprocessed Category" />
<errors switchValue="All" name="Logging Errors &amp; Warnings">
<listeners> <add name="Event Log Listener" />
</listeners>
</errors>
</specialSources>
</loggingConfiguration>

<exceptionHandling>
<exceptionPolicies>
<add name="Agility Exception Policy">
<exceptionTypes>
<add name="All Exceptions" type="System.Exception, mscorlib,
Version=4.0.0.0,
Culture=neutral,
PublicKeyToken=b77a5c561934e089"
postHandlingAction="NotifyRethrow">
<exceptionHandlers>
<add name="Logging Exception Handler"
type="Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.
    Logging.LoggingExceptionHandler,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.Logging,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35"
logCategory="General" eventId="100" severity="Error"
    title="Total Agility"
formatterType="Microsoft.Practices.EnterpriseLibrary.
            ExceptionHandling.TextExceptionFormatter,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling,
Version=5.0.505.0,
Culture=neutral,
PublicKeyToken=31bf3856ad364e35"
priority="0" />
</exceptionHandlers>
</add>
</exceptionTypes>
</add>
</exceptionPolicies>
</exceptionHandling>
```

Update Web.config for the CRM virtual directory

```
<system.serviceModel>
<bindings>
    <basicHttpBinding>
      <binding name="BasicHttpBinding_Service" openTimeout="00:10:00"
closeTimeout="00:10:00"
 sendTimeout="00:10:00" receiveTimeout="00:10:00" allowCookies="true"
maxBufferSize="2147483647"
 maxReceivedMessageSize="2147483647" maxBufferPoolSize="524288">
        <readerQuotas maxDepth="2147483647" maxStringContentLength="2147483647"
 maxArrayLength="2147483647" maxBytesPerRead="2147483647"
maxNameTableCharCount="2147483647" />
        <security mode="TransportCredentialOnly">
         <transport clientCredentialType="None" />
        </security>
      </binding>
    </basicHttpBinding>
  </bindings>
  <client>
```

```
        <endpoint name="CoreIntegrationEventServiceEndpoint"
binding="basicHttpBinding" bindingConfiguration="BasicHttpBinding_Service"

 contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService"
address="http://<TotaAgility server name or IP Address>/TotalAgility/Services/Core/
IntegrationEventService.svc"/>
        </client>
</system.serviceModel>
```

ⓘ Replace <TotalAgility server name or IP Address> with the IP Address of TotalAgility.

Integrate Microsoft Dynamics AX with TotalAgility

To install Dynamics AX,

- Users created in TotalAgility must have Deployment Administrator rights.
- If a user does not use the *default Deployment Administrator* to install the TotalAgility Dynamics AX integration, the user must meet the following conditions:
  - Be the system administrator in AX.
  - Have full CAL access.

Failure to meet the preceding criteria generates the following error message during installation: "System unable to process request error."

1. Navigate to `\\DynamicsAXInstall` from your installation files and double-click **Setup.exe**. The TotalAgility for Dynamics AX Setup wizard appears.

2. Click **Next**.
   The window displays a list of prerequisite software for Dynamics AX.

   > ℹ️ If the required software is not installed, first install the software, and then install Dynamics AX. If using Dynamics AX 2009, install .NETFramework 3.5. If using Dynamics AX 2012, install .NETFramework 4.0.

3. Click **Next**.
   The Destination window appears.

4. Use the information in the following table to specify file paths in the Destination folder:

Destination Folder	Sample Path for Dynamics AX 2009	Sample Path for Dynamics AX 2012
DAX website Physical Location	`C:\inetpub\wwwroot \MicrosoftDynamicsAXAif50\`	`C:\Program Files\Microsoft Dynamics AX\60\AifWebServices`
DAX website URL	`Default Web Site/ MicrosoftDynamicsAXAif50/`	`Default Web Site/ MicrosoftDynamicsAXAif60/`
DAX Client Physical Location	`C:\Program Files\Microsoft Dynamics AX\50\Client\Bin\`	`C:\Program Files (x86)\Microsoft Dynamics AX \60\Client\Bin`
DAX Server Physical Location	`C:\Program Files\Microsoft Dynamics AX\50\Server \DynamicsAx1\Bin`	Not Applicable

5. Click **Next**.
   The Credentials window appears.

6. Enter your **Username** and **Password** to associate with the DAX Application pool.

7. Click **Next**.

   The system displays the installation status and a summary of the installation report when the installation is complete.

8. Click **Finish**.

   > ℹ️ If you are using 64-bit operating system and Dynamics AX 2009 32-bit application, enable the Application Pool account associated with the DAX Communicator site. In the IIS Manager, click `Application Pools > DAXAppPool > Advanced Settings` and set True for Enable 32-Bit Applications.

Create Dynamics AX service reference to the TotalAgility web service

As AOT (Application Object Tree) is in the Development Workspace, ensure to deploy the Development Workspace to add in references. Otherwise, you cannot integrate TotalAgility with Dynamics AX. See the following URL for instructions: `http://msdn.microsoft.com/en-us/library/gg846350.aspx`.

Create Dynamics AX 09 service reference to the TotalAgility web service

1. Start Dynamics AX 09.

2. Click **AOT** (Application Object Tree) and press **Ctrl+D**.

3. In the application object tree, Right-click **References** and select **Add service reference**.

4. Complete the **Add service reference** window with the following information:

   a. WSDL URL: Enter the web URL of the DynamicsAxIntegrationService within the Agility IIS web application, for example, `http://Server/Agility.Server.Web/Services/SDK/DynamicsAxIntegrationService.svc`.

   b. .NET code namespace: **KtaEventsService**.

   c. Reference name: **KtaEventsService**.

   d. Service description: Description of the service reference.

5. Click **OK**.

Create Dynamics AX 12 service reference to the TotalAgility web service

1. Start Dynamics AX 12.

2. Click **AOT** (Application Object Tree) and press **Ctrl+Shift+W**.

3. In the application object tree, right-click **References** and select **Add Reference**.

4. Browse to the TotalAgility assembly, KtaEvents.Services.dll which was installed previously. For example,

   `C:\Program Files (x86)\Microsoft Dynamics AX\60\Client\Bin`

5. Click **OK**.

Add a reference in Dynamics AX

Add a reference to the Agility.Server.Integration.Common.dll assembly in Dynamics AX.

In Dynamics AX 09

1. Right-click **References** and select **Add reference**.
   The assembly browsing form opens.
2. Browse to the `...\client\bin` directory of the Dynamics AX 09 installation. For example,
   `C:\Program Files (x86)\Microsoft Dynamics AX\50\Client\Bin)`
3. Select the **Agility.Server.Integration.Common.dll** assembly and click **OK**.
   The newly added assembly appears under references.

In Dynamics AX 12

1. Right-click **References** and select **Add reference**.
2. Browse to the TotalAgility assembly, Agility.Server.Integration.Common.dll, that was installed previously. For example, `C:\Program Files (x86)\Microsoft Dynamics AX\60\Client\Bin`.
   The newly added assembly appears under references.
3. Click **OK**.

Edit the service configuration file for Dynamics AX 12

1. Browse to the **client\bin** directory of the Dynamics AX where the WCF service configurations file, KtaEvents.Services.dll.config was copied by the installer.
2. Edit the endpoint to point to the valid TotalAgility Service for Dynamics AX notifications (... `Services/SDK/DynamicsAxIntegrationService.svc`).

Import the TotalAgility connector class into Dynamics AX

1. In the AOT, click **Import** or press Ctrl+Shift+I.
2. Click **Browse** and navigate to the Dynamics AX Setup installation folder (in the Program Files(x86) or Program Files directory). For example,
   `C:\Program Files\Dynamics AX Setup`
3. Select the XPO class, such as Class_KtaController.xpo.
4. Click **OK** to initiate the import or compilation process.

> ⓘ Once the class is imported, the Status tab in the compiler output page displays any errors.

Edit database X++ event methods

You can edit the database X++ event methods in the DAX Development Workspace under the Classes and Application folders.

1. To alter the Application CUD (create, update, and delete) class event methods, call the custom class method EventChangeNotifyKtaWebService when a CUD event has been performed within Dynamics AX.

2. Edit the Application class methods (**InsertLog**, **DeleteLog** & **UpdateLog**) by adding a single line to the appropriate location within each method:

   - Insertlog method: `new ktaController().EventChangeNotifyKtaWebService("Create", recordInserted, null, conNull(), recordInserted.RecId);`

   - Deletelog method: `new ktaController().EventChangeNotifyKtaWebService("Delete", recordDeleted, null, conNull(), recordDeleted.RecId);`

   - Updatelog method: `new ktaController().EventChangeNotifyKtaWebService("Update", recordOrig, recordUpdated, changedFields, recordUpdated.RecId);`

> ⓘ The onsite AX Administrator registers the Databaselog events for various AX documents. For example, if the *Customer, Sales Order and Purchase Requisition* documents have the Insert, Update and Delete events registered against them, and when one of these events execute for one of these documents, TotalAgility is informed through a WCF call.

Register the database log events

1. Open Microsoft Dynamics AX 2012.

2. In the left-hand panel, expand the configure buttons » and select System Administration.

3. On the System Administration page, under Setup, click Database log setup. The Database log window appears.

4. Click **File**> **New**. The Logging Database changes wizard appears where you can add and remove tables and fields from the database log.

5. Click **Next**. Tables and Fields window appears.

6. Select the **Show all tables** radio button.

7. In the **Tables and Fields** window, under **General Ledger**, select **Customers / Vendor Tables** as required and click **Next**.

8. Select the type of change (insert, update, delete, or rename) to register in the database log by selecting the appropriate check box for the table.

9. Click **Next**. Logging Database changes window appears with the details of the selected tables and fields.

10. Click **Finish**.

Verify the Application Pool account

Verify that the Application pool account is using the correct Business Connecter.NET (BC.NET) Windows credentials.

1. On the Start menu, select **All Programs** > **Accessories** and click **Run**.
2. Enter **inetmgr** and click **OK**.

   The IIS Manager appears.
3. Navigate to Application Pool accounts.
4. Select the **DAXKTA** account and verify that the identity is the same as the BC.NET Windows credentials.
5. If the credentials differ, do the following:

   a. On the Actions panel, click **Advanced Settings**.

   b. Select the identity and click **Edit**.
6. Click **OK**.

   The Application Pool Identity window appears.
7. Click **Set**.

   The Set Credentials window appears.
8. Enter the user credentials that are associated with the BC.NET account within Dynamics AX. (The Kofax WCF service uses the BC.NET account to connect to Dynamics AX).
9. Click **OK**.

Integrate Micro Focus Content Manager with TotalAgility

This chapter provides the instructions for integrating Micro Focus Content Manager with TotalAgility Integration Server.

Before installing the Content Manager server, install the following software:
- IIS
- .NET Framework 4.6.1
- TotalAgility (optional)

Identify the Content Manager SDK Version

These instructions only apply to the Content Manager version below 8.

1. Navigate to the **C:\Program Files\Kofax\TotalAgility** directory.
2. Right-click **TrimSDKPIA20.dll** and select **Properties**.
   The TrimSDKPIA20.dll properties window appears.
3. On the properties window, select the **Version** tab.
   The File Version displays the current Content Manager version. For example, 7.3.0.

   > ℹ️ For TRIM SDK 7.3.0 and later, you will require to enter this number in the <assemblyBinding> section of the Web.config (see Set up the Micro Focus Content Manager server).

Set up the Micro Focus Content Manager server

To set up the Content Manager server, install and configure TotalAgilitytrimCommunicatorService and then configure the event handler in the Content Manager system.

Install and configure TotalAgilityTrimCommunicatorService

To install and work with Micro Focus Content Manager with version 9.4 or higher, do the following.

1. Log on to the Content Manager server with an account with Local Administrator privileges.
2. Navigate to \\ContentManagerInstallation from the Content Manager installation files, right-click on the executable **Setup.exe**, and select **Run as administrator**.

The User Account Control window appears.

3. Click **Yes**.

   The installation wizard appears.

4. Click **Next**.

   The setup is ready to install the TotalAgility integration components.

   > ℹ
   > • If the Trim SDK already exists in your system, the **Trim SDK Detected** checkbox is by selected by default. Click **Finish**.
   >
   >   This is applicable only for version Content Manager 9.4 or lower. From version 10, "Trim SDK Detected" checkbox is not available.
   > • If the Trim SDK does not exist in your system, the **Trim SDK Detected** checkbox is clear by default and an error message appears. Also, the **Finish** button is not enabled. To resolve this error, click **Cancel** and run Install CM_COMComponents_x64.msi from the Content Manager installation files to get the Trim SDK. Rerun the Micro Focus Content Manager server setup.

5. Configure the Web configuration file as follows:

   a. In `C:\Program Files\Kofax\TotalAgility \TotalAgilityTrimCommunicatorService`, open the **Web.config** file in the text editor.

   > ℹ For Micro Focus Content Manager with version 10 or higher, configure the Web configuration file as follows: In `C:\Program Files\Kofax\TotalAgility \TotalAgilityCMCommunicatorService`, open the **Web.config** file in the text editor.

   b. Locate the configuration > runtime tag and edit the `<assemblyBinding>` section as follows:

   ```
   <assemblyBinding>
   <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
   <dependentAssembly>
   <assemblyIdentity name="TrimSdkPIA20"
   publicKeyToken="533fc65e30e543fa" />
   <bindingRedirect oldVersion="6.2.2.8614"
   newVersion="<latest version>" />
   </dependentAssembly>
   </assemblyBinding>
   ```

   Replace the <latest version> with the version of **TRIM SDK**. See Integrate Content Manager with TotalAgility.

   c. Edit the <appsettings> as follows:

   ```
   <appSettings>
   <add key="TrimDocumentRecordType"
   value="DocumentRecordType" />
   <add key="TrimFolderRecordType"
   value="FolderRecordType" />
   <add key="WorkGroupServerName" value="ServerName" />
   </appSettings>
   ```

   • Replace the DocumentRecordType with the value taken from the Content Manager server by checking the record type of Document.

- Replace the FolderRecordType with the value taken from the Content Manager server by checking the record type of Folder.
- Replace the ServerName with the computer name of the Server.

  To identify the computer name of the server, open **Windows Explorer**, right-click **Computer**, and click **Properties**. In the Computer name, domain, and workgroup settings group, click **Change Settings**. Copy the computer name.

> ⊙ When you first install the TotalAgility Micro Focus Content Manager, a TrimIntegrationAppPool with a local system identity is created. This causes an error if the Content Manager server is remote. To resolve this error, you must update the TrimIntegrationAppPool identity to account with Administrator permission. The "TrimIntegrationAppPool" is referred as "CMIntegrationAppPool" from Content Manager version 10 and higher.
>
> Before uninstalling Micro Focus Content Manager installation components, make sure you close the Content Manager application.

Configure the event handler in the Content Manager version

Configure TotalAgility events for actions in the Content Manager System.

1. Copy the following DLLs:
   - If using Content Manager version below 8, copy the following DLLs to the TRIM binaries directory (usually C:\Program Files\Hewlett-Packard\HP Records Manager.)
     - **Agility.Server.Integration.Trim.dll**
     - **Agility.Server.Integration.Model.dll**
     - **Agility.Server.Integration.Common**
   - If using Content Manager version 8 and above, copy **Agility.Server.Integration.Trim.dll** to the TRIM directory.

   > ⓘ Skip Step 1 and 2 for Content Manager 10 or higher.

2. For Content Manager to fire events in TotalAgility, register the **Agility.Server.Integration.Trim.dll** file using RegAsm (`regasm /codebase Agility.Server.Integration.Trim.dll`).

3. To create the event handler in Content Manager 9.4 or lower, do the following:

   a. Open **Content Manager**.

   b. Select **Tools** > **Context Administration** > **External Links**.
      The Content Manager Context External Links window appears.

   c. Click **New Record AddIn**.
      The Record AddIn Properties window appears.

   d. Enter a Link Name.

   e. In the **COM Add-In PROGID** field, enter the ProgId, **Agility.Server.Integration.Trim.TrimIntegrationEventHandler**.

    f. Select **Add-In supports a multi-threaded environment**.

    g. Click **OK**.

        The Content Manager Context External Links window displays the new link.

    h. Select the link and click **Properties**.

        The Record AddIn Properties window appears.

    i. Click the **Used By** tab.

    j. Check the Document and File Folder under the Record list and click **OK**.

        This configures the Event handler on Content Manager.

4. To create an event handler in Content Manager 10 or higher, do the following:

    a. Open **Content Manager**.

    b. Select **Context Administration** > **External Links**.

    c. Right-click in the window and select **New External link**.

        The **Select External Link Type** pop-up appears.

    d. Select the external link type as **Generic add-in (.NET)** and click **OK**.

        The **New External Link - Generic add-in (.NET)** dialog box is displayed. By default, the **General** tab is open.

    e. Enter a **Link name**.

    f. Enter the **.NET Class Name** as `ContentManagerIntegrationEventHandler`.

    g. Under **.NET Assembly Path**, leave the defaults for **Within special folder** and **Folder or subfolder fields**. For **.NET Assembly Name**, click 🔍 and browse to `C:\Program Files\Micro Focus\Content Manager` and select `Agility.Server.Integration.ContentManager.dll`.

    h. Select **Add-In supports a multi-threaded environment**.

    i. Click the **Usage (Record)** tab.

    j. Select the **Document** and **File Folder** options under the **Record Type** list and click **OK**.

        This configures the Event handler on Content Manager 10 and higher.

5. In Windows Explorer, find the **trim.exe.config** file, open it in a text editor and add or replace the following tags:

> ℹ️ If you cut and paste code from this guide, correct any incorrect line breaks.

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
<configSections>
<section name="loggingConfiguration"
type="Microsoft.Practices.EnterpriseLibrary.Logging.Configuration.LoggingSettings,

Microsoft.Practices.EnterpriseLibrary.Logging, Version=5.0.505.0,
Culture=neutral, PublicKeyToken=31bf3856ad364e35" requirePermission="true" />
<section name="exceptionHandling"
type="Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.Configuration.
ExceptionHandlingSettings,
 Microsoft.Practices.EnterpriseLibrary.ExceptionHandling,
```

```
Version=5.0.505.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35"
 requirePermission="true" />
</configSections>
<exceptionHandling>
<exceptionPolicies>
<add name="Agility Exception Policy">
<exceptionTypes>
<add name="All Exceptions" type="System.Exception, mscorlib, Version=4.0.0.0,
Culture=neutral, PublicKeyToken=b77a5c561934e089"
 postHandlingAction="NotifyRethrow">
<exceptionHandlers>
<add name="Logging Exception Handler" type=
"Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.Logging.
 LoggingExceptionHandler,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.Logging,
 Version=5.0.505.0,
Culture=neutral, PublicKeyToken=31bf3856ad364e35" logCategory="General"
eventId="100" severity="Error" title="Total Agility"
formatterType=
"Microsoft.Practices.EnterpriseLibrary.ExceptionHandling.TextExceptionFormatter,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling, Version=5.0.505.0,
Culture=neutral, PublicKeyToken=31bf3856ad364e35" priority="0" />
</exceptionHandlers>
</add>
</exceptionTypes>
</add>
</exceptionPolicies>
</exceptionHandling>
<system.serviceModel>
<bindings>
<basicHttpBinding>
<binding name="BasicHttpBinding_Service" openTimeout="00:10:00"
 closeTimeout="00:10:00"
sendTimeout="00:10:00" receiveTimeout="00:10:00" allowCookies="true"
 maxBufferSize="2147483647"
maxReceivedMessageSize="2147483647" maxBufferPoolSize="524288"> <readerQuotas
 maxDepth="2147483647"
maxStringContentLength="2147483647" maxArrayLength="2147483647"
 maxBytesPerRead="2147483647"
maxNameTableCharCount="2147483647" />
<security mode="TransportCredentialOnly">
<transport clientCredentialType="Windows" />
</security>
</binding>
</basicHttpBinding>
</bindings>
<client>
<endpoint name="CoreIntegrationEventServiceEndpoint"
binding="basicHttpBinding" bindingConfiguration="BasicHttpBinding_Service"
contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService"
address="http://<TotalAgility server name or IP Address>/TotalAgility/Services/
Core/IntegrationEventService.svc"/>
</client>
</system.serviceModel>
</configuration>
```

ℹ Replace <TotalAgility server name or IP Address> with the IP Address of the TotalAgility server.

Integrate Kofax Communications Manager with TotalAgility Integration Server

To integrate Kofax Communications Manager (KCM) server with TotalAgility Integration server, manually replace the placeholder, `{http://ccmserver:port}` in the following format: `http(s)://<CCMServer>:<Portnum>` in the Web.config file which is available in Agility.Server.Web.

See also:
- KCM Proxy installation on the Web server
- Update the KCM Server URL in TotalAgility Web.config
- Install KCM Proxy manually

KCM Proxy installation on the Web server

This chapter describes three methods for installing the KCM Proxy Web server:
- **Silent installation**
- **Standard installation**
- **Docker installation**

Ensure that the Microsoft plugin, Web Platform Installer is installed before installing the KCM Proxy Web server. You can install the Microsoft Web Platform from the Microsoft website.

Silent installation

1. From your TotalAgility installation files, navigate to `\\KCMProxyInstallation`.
2. Launch a Command Prompt window and run **Setup.exe** and enter the KCM Server URL in the following format: `http(s)://<CCMServer>:<Portnumber>`.

   Provide the IP address and port number of the KCM server. The installer updates the Web.config with KCM server details and enables the proxy rewrite rules on the web server (IIS).
3. Press **Enter**.

   The KCM Proxy is installed in silent mode.

   The system generates a log file at the same location where **Setup.exe** exists.

Standard installation

1. From your TotalAgility installation files, navigate to `\\KCMProxyInstallation` and double-click **Setup.exe**.

The **KCM Proxy Configuration** window appears.

2. Enter the **KCM Server URL** in the following format: `http(s)://`
   `<CCMServer>:<Portnumber>`.
   The Web.config file is automatically updated with the KCM Server IP and the Port number.

3. Click **Configure**.

4. Click **OK**.

Docker installation

While generating the `"dockersetting.env"` file, if the URL is specified in the "KCM Server URL" setting in the Configuration Utility tool, the same URL is used to install KCM Proxy and configure the deployment in the container.

Update the KCM Server URL in TotalAgility Web.config

You can manually update the KCM Server URL in TotalAgility Web.config or run the Configuration tool and update the settings before setting up the integration to KCM.

Manually update the KCM Server URL in TotalAgility Web.config

1. Navigate to the installation directory for the TotalAgility server.

2. In a text editor, open **TotalAgility Web.config** from the following directory:

3. Locate the following section:

```
<rewrite>
      <rules>
        <rule name="CCMInteractiveProxy" stopProcessing="true">
          <match url="CCM/Proxy/Interactive/(.*)" />
          <action type="Rewrite" url="{http://ccmserver:port}/ccm/Interactive/
{R:1}" />
        </rule>
        <rule name="CCMDesignerProxy" stopProcessing="true">
          <match url="CCM/Proxy/Repository/(.*)" />
          <action type="Rewrite" url="{http://ccmserver:port}/ccm/Repository/
{R:1}" />
        </rule>
        <rule name="ComposerUIJavascriptProxyRule" stopProcessing="true">
          <match url="CCM/Proxy/ccmcomposerui.js" />
          <action type="Rewrite" url="{http://ccmserver:port}/proxy/
ccmcomposerui.js" />
        </rule>
        <rule name="ComposerUICssProxyRule" stopProcessing="true">
          <match url="CCM/Proxy/ccmcomposerui.css" />
          <action type="Rewrite" url="{http://ccmserver:port}/proxy/
ccmcomposerui.css" />
        </rule>
        <rule name="ComposerUIImgProxyRule" stopProcessing="true">
          <match url="CCM/Proxy/img/(.*)" />
          <action type="Rewrite" url="{http://ccmserver:port}/proxy/img/{R:1}" />
        </rule>
        <rule name="CCMDesignerStaticProxyRule" stopProcessing="true">
          <match url="CCM/Proxy/static/(.*)" />
          <action type="Rewrite" url="{http://ccmserver:port}/ccm/static/
{R:1}" />
        </rule>
```

```
        <rule name="ComposerUIFontProxyRule" stopProcessing="true">
          <match url="CCM/Proxy/fonts/(.*)" />
          <action type="Rewrite" url="http://{ccmserver:port}/proxy/fonts/
{R:1}" />
        </rule>
      </rules>
```

4. Replace the `http://<kcmserver>:<port>` with the kcmserver URL.

5. Save and close the configuration file.

Use the Configuration Utility

Run the Configuration Utility and update the configuration settings. See the *Kofax TotalAgility Configuration Utility Guide*. (Navigate to Configuration settings >On-premise >App section).

Install KCM Proxy manually

You can install the KCM proxy without using the Web platform installer and KCM proxy installer.

1. Install IIS URL Rewrite 2.0.

2. Install Microsoft Application Request Routing 2.5 or higher for IIS.

3. In the IIS Manager, do the following:

   a. On a server level, double-click the **Application** request routing cache.

   b. Click **Server Proxy Settings**.

   c. Select **Enable Proxy**.

   d. Click **Apply**.

4. In TotalAgility Web.config, find `{http://ccmserver:port}` and replace it with `http://servername:port`, where **servername** is the host name of the KCM machine and **port** is the port KCM listed as (default 8081). See the previous section for manually updating the KCM Server URL in TotalAgility Web.config.

5. Uncomment the `<rewrite>` section.

6. Save and close the configuration file.

Integrate Kofax SignDoc with TotalAgility

This chapter provides the instructions for integrating Kofax SignDoc with TotalAgility.

Set up the Kofax SignDoc server

Configure the Kofax SignDoc server to point to the relevant TotalAgility server to allow a callback to occur when the signing is completed. The SignDoc server can be configured per the SignDoc account to allow the same SignDoc server to call back to multiple TotalAgility servers.

Refer to the section on integration with TotalAgility in SignDoc documentation to know how to set up the SignDoc server to point to the TotalAgility server.

Configure TotalAgility Integration Server for HTTPS communication

Enable SSL (Secure Sockets Layer) communication for the TotalAgility web layer and TotalAgility Core Worker to communicate with core services and the Kofax Transformation Server.

To enable SSL for TotalAgility Application:

1. Open **Internet Information Services (IIS) Manager**.
2. Right-click the **Default Web Site** and click **Edit Bindings**.
3. Click **Add**.

   a. On the **Type** list, select **HTTPS**.

   b. On the **SSL certificate** list, select the certificate.

   c. Click **OK**.

4. Click TotalAgility and click **SSL settings** on the Features tab.

   a. Click **Require SSL**.

   b. **Accept** the Client Certificates.

   c. Click **Apply**.

Change the bindings in the Integration Server Web.config file

1. Open `C:\Program Files\Kofax\TotalAgility\Agility.Server.Web\Web.config` `file`.
2. Uncomment the HTTPS SSL with application logon for all bindings.
3. Comment the HTTP with Windows authentication sections for all bindings.
4. Update httpGetEnabled="false" and httpsGetEnabled="true".
5. Save the file.

Update the `Kofax TotalAgility Core Worker Agility.Server.Core.WorkerService.exe.config` located in the `C:\Program Files\Kofax\TotalAgility\CoreWorkerService` directory for all client endpoints BasicHttpsBinding_Service and restart the TotalAgility CoreWorker service. The Kofax Transformation Designer can be updated to use SDK SVC accessed through SSL, by updating the connection within Kofax Transformation Designer options.

Update Web.config

1. Open **Web.config** located at your installed location. The default location is:

   `C:\Program Files\Kofax\TotalAgility\Agility.Server.Web`

2. In `<servicebehaviors>`, the `httpsGetEnabled` setting is as follows:

   ```
   <serviceBehaviors>
    <behavior name="Agility.Server.Web.Services.Behavior">
    <serviceMetadata httpGetEnabled="false" httpsGetEnabled="true" />
   </serviceBehaviors>
   ```

3. By default, HTTPS mode is used with `<security mode="Transport">`. For the `BasicHttpBinding_SharepointReceiverService`, update the `<security>` setting as follows:

   If using HTTPS authentication, comment out the HTTP section:

   ```
   <!-- HTTPS SSL with application authentication-->
   <security mode="Transport">
   <transport clientCredentialType="None"/>
   </security>
   ```

   > ⓘ For Windows or Manual authentication, the SharePoint Receiver Service must use anonymous binding for HTTPS authentication.

Launch TotalAgility Integration Server

1. Enter `http://[TotalAgility server hostname or IP]/TotalAgility/Designer/default.htm` URL in the browser.
2. Enter the login credentials of the tenant used during installation.
   TotalAgility Designer is launched in the browser.
3. Alternatively, click **Start** > **All Programs** > **Kofax TotalAgility** > **Designer**.

Chapter 10

Uninstall TotalAgility Integration Server

Uninstall using wizard

1. Click **Start > All Programs > Kofax TotalAgility** and select **Uninstall or Repair** Kofax TotalAgility.
   The **Repair/Uninstall** window opens.
2. Select **Uninstall** and click **Next**.
   The **Uninstall** window opens.
3. Click **Next**.
   The **Uninstalling** window opens.
   When the uninstall is complete, the **Uninstallation Complete** window opens.
   The summary report lists the components, servers, applications, and services uninstalled.
4. Click **Finish**.

   > ℹ️ If there are any errors during uninstall, Integration Server automatically creates a log file called **Kofax TotalAgilityInstallationErrorLog.txt** on your desktop. This log file contains information on errors.

Uninstall in silent mode

1. Navigate to the root directory of the **Setup.exe** file.
2. Run `Setup.exe /Silent/U`.
   The system uninstalls Integration Server and automatically creates a log file on your desktop. This log file contains information on errors if any.

   > ℹ️ Uninstalling in silent mode will not only remove the applied fix pack or service pack but it will remove Kofax TotalAgility application completely. To install TotalAgility again, you must install its base version and then apply any patches again.

Uninstall Transformation Designer

If Kofax TotalAgility is installed on the same server as the Transformation Designer, it is removed when Kofax TotalAgility is uninstalled. However, if you have a standalone installation of the Transformation Designer you can remove the application with one of the following procedures.

Use the installation wizard

1. Click **Start > All Programs** and right-click on the Transformation Designer.
   A context menu is displayed.
2. Select **Uninstall**.
   The Programs and Features window is displayed.
3. Click Kofax TotalAgility Transformation Designer 7.11.0 and select **Uninstall**.
   The Installer window is displayed and the Uninstall option is selected.
4. In the Kofax TotalAgility Transformation Designer (7.11.0) Setup window, click **Next**.
5. Review the message and when ready, click **Uninstall**.
   A progress message is displayed showing the status of the application removal.
6. When the uninstallation is complete, click **Finish**.
   The Transformation Designer application is removed.

Use the silent mode

1. Navigate to `\\TransformationDesigner` from your TotalAgility installation files and run one of the following commands:
   - If UAC (User Account Control) is enabled, right-click on the Command Prompt and select **Run as administrator**.
   - If UAC is not enabled, run the **Command Prompt**.

   The Command Prompt is displayed.
2. Run `"TransformationDesigner Installer.exe" /quiet /uninstall`.
   An alternative command is `"TransformationDesigner Installer.exe" /quiet /x`.
   The installer runs in the background to uninstall the Transformation Designer application.

Chapter 11

Upgrade process

Navigate to TotalAgility from your installation files and double-click **Setup.exe** and follow the upgrade instructions.

If any errors occur during the upgrade, TotalAgility creates a log file called **Kofax TotalAgilityInstallErrorLog.txt** on your desktop. Fix the errors.

On upgrading, the TotalAgility Integration Server installer restores the following configuration settings:
- All existing AppSettings
- All existing Security Bindings

Upgrade TotalAgility Integration Server in silent mode

1. Go to the root directory of setup.exe.
2. Open the Command Prompt window as an Administrator and change the command line to the root directory of Setup.exe.
3. Run `Setup.exe /Silent /Upgrade`.

   The system generates a log file that reports errors (if any).

   The success or failure of installation is indicated in the event log.

Chapter 12

Troubleshooting

This section describes the issues you may encounter and their resolution.

TotalAgility Integration Server AppPool exists

The Integration Server creates an application pool called TotalAgility AppPool. Ensure you do not have an existing application pool of the same name as it may cause issues when installing or upgrading.