

# Kofax TotalAgility

## Installation Guide

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The KOFAX logo is displayed in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a consistent weight throughout the word.

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# Preface

This guide provides the instructions for installing Kofax TotalAgility On-Premise Multi-Tenant 7.6.0.

Read this guide completely before installing the software.

Use the Kofax TotalAgility On-Premise Multi-Tenant installation media to install:

- Tenant management system (used to create and manage tenants)
- Live (production) environment
- Development environment

The Development and Live environments must be installed on separate servers to ensure the development server workload does not affect the live server workloads. You can create the Tenant management site on any server.

After installing Kofax TotalAgility On-Premise Multi-Tenant system, you must create a tenant to access the system.

## Related documentation

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

<https://docshield.kofax.com/Portal/Products/KTA/7.6.0-d4fslp3xyr/KTA.htm>

In addition to this guide, the documentation set includes the following items:

- *Kofax TotalAgility Prerequisites Guide*: Provides system requirements for installing TotalAgility, instructions for running the prerequisite utility, and a software checklist for various installation types.
- *Kofax TotalAgility Installation Guide*: Describes how to install and configure TotalAgility.
- *Kofax TotalAgility Integration Server Installation Guide*: Describes how to install Kofax Integration Server and integrate it with other products.
- *Kofax TotalAgility Configuration Utility Guide*: Explains how to use the Configuration Utility to update settings across various configuration files for different types of installation and deployment.
- *Kofax TotalAgility Administrator's Guide*: Provides information to the administrator on configuring and maintaining a TotalAgility installation.
- *Kofax TotalAgility Architecture Guide*: Provides an overview of the TotalAgility architecture, covering various deployments for on-premise, on-premise multi-tenancy and Azure environments.
- *Kofax TotalAgility Best Practices Guide*: Describes the best practices you must follow when using TotalAgility to improve performance, cost, maintenance, availability and security.
- *Kofax TotalAgility Features Guide*: Provides an overview of the TotalAgility features.
- *Kofax TotalAgility Migration Guide*: Provides information on TotalAgility upgrades from different versions and post upgrade configuration.



- *Kofax TotalAgility Help*: Provides details about using TotalAgility to design business jobs and cases, assign resources, create forms, integrate with external applications, and more. Access the help from the TotalAgility application by clicking the Help button.
- *Kofax TotalAgility Workspace Help*: Describes how to use the Workspace to manage activities, jobs, and resources. Access the help from the TotalAgility Workspace by clicking the Help button.
- *Kofax TotalAgility On-Premise Multi-Tenant System Help*: Describes how to create and manage tenants using the TotalAgility On-Premise Multi-Tenant system.
- *Kofax TotalAgility Web Capture Control Help* : Provides details on 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.
- *Kofax Analytics for TotalAgility Product Features Guide*: Provides an overview of the dashboards that help you track data through the workflow, analyze the effectiveness of the processes and resources, and address business problems.
- *Kofax TotalAgility Tables*: Describes the Kofax TotalAgility tables and fields used by Kofax Analytics for TotalAgility.
- *Migration From Kofax Products Guide*: Provides information about migrating TotalAgility files and Kofax Transformation Modules projects to TotalAgility.

## Training

Kofax offers both classroom and computer-based training that will help you make the most of your Kofax TotalAgility solution. Visit the Kofax website at [www.kofax.com](http://www.kofax.com) for complete details about the available training options and schedules.

## Getting help with Kofax products

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

To access the Kofax Knowledge Base, go to the Kofax [website](#) and select **Support** on the home page.

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

The Kofax Knowledge Base provides:

- Powerful search capabilities to help you quickly locate the information you need.  
Type your search terms or phrase into the **Search** box, and then click the search icon.
- Product information, configuration details and documentation, including release news.  
Scroll through the Kofax Knowledge Base home page to locate a product family. Then click a product family name to view a list of related articles. Please note that some product families require a valid Kofax Portal login to view related articles.

- Access to the Kofax Customer Portal (for eligible customers).  
Click the **Customer Support** link at the top of the page, and then click **Log in to the Customer Portal**.
- Access to the Kofax Partner Portal (for eligible partners).  
Click the **Partner Support** link at the top of the page, and then click **Log in to the Partner Portal**.
- Access to Kofax support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.  
Scroll to the **General Support** section, click **Support Details**, and then select the appropriate tab.

## Chapter 1

# Installation planning

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

Review these important notes before you proceed with the installation.

- To view information on the system requirements for installing TotalAgility, instructions for running the prerequisite utility, and a software checklist for various installation types, download the Kofax TotalAgility Prerequisites Guide from the Kofax Fulfillment Site. For additional prerequisites for the Transformation Server, see [Transformation Server prerequisites](#).
- If your solution includes multiple Kofax products, review the Kofax Technical Specifications document.
- Obtain a license key for TotalAgility from your Account Manager or Kofax Support.
- Before extracting the TotalAgility installation ZIP file, unblock the file from the file properties window.
- Upgrade installations of Kofax Transformation Designer that connects to TotalAgility 7.6.0.
- TotalAgility includes a limited number of VRS Elite licenses. You may need to purchase additional licenses, depending on the number of scanners you plan to use with VRS. See the Kofax Scanner Configurator to verify VRS certification and licensing requirements for your scanner.
- The Transformation Designer does not come with the Kofax TotalAgility On-Premise Multi-Tenant installation. Please download it from the TotalAgility eDelivery site.

After installing TotalAgility On-Premise Multi-Tenancy, you can update the configuration settings by modifying each file separately or by running the configuration utility. The utility allows you to modify or update the settings across multiple configuration files at one go instead of editing each file separately. You must manually copy the utility onto each server where the configuration settings are to be modified. See the *Kofax TotalAgility Configuration Utility Guide*.

## Transformation Server prerequisites

Transformation Server is installed on a different computer from TotalAgility.

The computer should have a multi-core processor. Other processor and memory-intensive processes should not run on the same computer as Transformation Server. The computer does not require IIS or a database. The .NET Framework is installed automatically with Transformation Server.

For prerequisites, see the *Kofax TotalAgility Prerequisites Guide* available on the Kofax Fulfillment Site. For additional prerequisites, see the following sections.

## Enable support for 8.3 short file names (sfn)

Before installing the Transformation Server, enable NTFS to generate 8.3 sfn for long file names and for file names that contain characters from the extended character set. Use one of the following methods:

### Windows Server 2008 R2 or Later

1. Log in as Administrator and open a Command Prompt window.
2. Run **cmd.exe**.
3. Run **fsutil.exe 8dot3name set 0**.

### Other Operating Systems

1. Run **regedit.exe** to open the registry editor.
2. Navigate to `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\FileSystem` and set the value of the **NtfsDisable8dot3NameCreation** key to **0**.

For more information on file names, see the Microsoft website.

## Configure the user account

When installing Transformation Server, provide a user account for running the Transformation Server service. The user account used to run the service must be a member of the administrators group which allows creating a Windows user for each tenant that runs a transformation process, so that tenants cannot access each other's data. With administrator rights, Windows users can create other users.

For an on-premise installation with multi-tenancy, the account must have certain user rights and permissions:

1. Log on as Administrator and open a Command Prompt window.
2. Run **secpol.msc**.
3. Under **Security Settings**, navigate to **Local Policies**, click **User Rights Assignment**, and ensure the account has following permissions:
  - Adjust memory quotas for a process.
  - Create a token object.
  - Log on as a service.
  - Replace a process level token.
  - In addition to the preceding permissions, for Windows Server 2012, add the user to the Local Administrative group.
4. Add the account that Transformation Server will be using for each of these settings.

For security, Transformation Server uses a single user group per computer and a single user account per tenant. The first time Transformation Server receives activity for a tenant, the user group and account are created:

- User account: TU<GUID> (truncated to 20 characters)
- Local group: TenantUsers

The user account has all permissions except to execute files, and it uses the same database authentication mechanism as all Kofax TotalAgility components. These user account permissions prevent malicious scripts from running on the server. Other permissions, including bypassing traverse checking and the ability to use Web services, are necessary for operation.

The TenantUsers group also contains tenant users, which are created automatically as needed. These users do not have access to Transformation Server configuration files and cannot execute scripts. The tenant user accounts are deleted when the server stops.

## Install databases manually

1. Create the MasterTenants and DataCenterTenants databases.
2. Run the following scripts on MasterTenants database.

### Example

- Create\_MasterTenants.sql
- Initialise\_MasterTenants.sql

3. Run the following scripts on DataCenterTenants database.

### Example

- Create\_DataCenterTenants.sql
- Initialise\_DataCenterTenants.sql
- Create\_KLS\_OnPremiseTenants.sql

4. Run the following insert statement in MasterTenants.Data\_Center table:

```
Insert into [MasterTenants].[dbo].[DATA_CENTER] (ID, [NAME], [LIVE_HOST_NAME],  
[DEV_HOST_NAME], [SYSTEM_SESSION_ID]) values (NEWID(), 'On Premise Datacenter  
Database', '<servername>/TotalAgility', '<servername>/TotalAgility', <System  
session ID from [DataCenterTenants].[dbo].[SERVER_DATA]>)
```

Note the following:

- The <servername> is the machine name.
- [SYSTEM\_SESSION\_ID]: Get the value from [DataCenterTenants].[dbo].[SERVER\_DATA] table of [SYSTEM\_SESSION\_ID] column value.

5. In the Installation wizard, in the Tenant Databases window, do the following:
  - a. Clear the check box for "Overwrite Databases if they exist?".
  - b. Rename the databases under **Database Name** to match with the names given while creating databases manually.
  - c. Click **Next**. Ensure the installation completes before updating the configuration files.

6. You can edit the value of the database connections in the Web.config manually or run the Configuration Utility available on the installation media.
  - Open Web.config located in the TotalAgility\Agility.Server.Web directory in your installation location and change the following settings for the DataCenterTenants database.

```
<add key="TenantDBConnectionString"
value="Server=(local);Trusted_Connection=Yes;Database=DataCenterTenants;" />
```

The server value is the database server name where the DataCenterTenants databases reside.

**Note** Skip this step when you install databases on the same computer where TotalAgility is installed, as the setup.exe automatically updates Web.config with the machine name. However, check Web.config to ensure the DataCenterTenants database configuration is correct.

- Run the Configuration Utility and modify the DataCenterTenants database connection value available on the Common settings tab.
7. To modify the value of MasterTenants database in Web.config, do either of the following:
    - Open Web.config located in AgilityServer.Web.TenantManagement and change the following settings for the MasterTenants database.

```
<add key="MasterTenantDBConnectionString"
value="Server=(local);Trusted_Connection=Yes;Database=MasterTenants;" />
```

The Server value is the database server name where the MasterTenants databases reside.

**Note** Skip this step when you install databases on the same computer where TotalAgility is installed, as the setup.exe automatically updates Web.config with the machine name. However, check the Web.config file to ensure the MasterTenants database configuration is correct.

- Run the Configuration Utility and modify the MasterTenantDBConnectionString value available on the TMS tab.

## Configure HTTPS communication

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

Any SSL certificates being used must be fully trusted. If no certificates exist, obtain a wildcard certificate. Different certificates should be used for the live and development environments.

Wildcard SSL certificates secure the website URL and an unlimited number of its sub-domains. For example, a single wildcard certificate \*.totalagility.com can secure tenant1.totalagility.com, tenant2.totalagility.com, and tenant3.totalagility.com.

## Create a single SSL certificate using split Web-Application and Tenant Management system

Use Subject Alternative Names (SAN) to create a single SSL certificate to use for Kofax TotalAgility on-premise installation that is using split Web-Application and Tenant Management System on the same deployment.

For example, create a single SSL certificate if you have Web and Application servers as follows:

- web.kta.com is for Tenant Management System on the Web server.
  - \*.web.kta.com is for multiple tenants on the Web server .
  - app.kta.com is for Tenant Management System on the Application server.
  - \*.app.kofax.com for multiple tenants on the Application server.
1. Set the Subject Alternative Names section to the Fully Qualified Domain Names you wish to use in the certificate request.  
You can add as many entries as required.
  2. Generate the SSL certificate request file and submit it to a Certificate Authority (CA) for signing.
  3. Install the pfx certificate in the system and IIS by importing the pfx certificate file on both Web and Application servers.

**Note** To create a single SSL certificate for secure Web server and non-secure Application server, install the pfx certificate in the system and IIS by importing the pfx certificate file on the Web server, if you have Web and Application servers as follows:

- web.kta.com (for Tenant Management System on the Web server)
- \*.web.kta.com (for multiple tenants on the Web server)

## Import an SSL certificate

1. Open **Internet Information Services (IIS) Manager**.
2. On the Features View, double-click **Server Certificates**.
3. Under Actions, click **Import**.
4. Browse and select the certificate name.
5. Enter Password.
6. Click **OK**.

## Import a non-SSL certificate

1. Type inetmgr from the command prompt and press Enter.
2. Double-click **Server Certificates**.
3. Select **Create Self-Signed Certificate**.
4. Enter a **Certificate Name** and click **OK**.
5. Right-click **Default web site** and select **Enable Bindings**.
6. Click **Add**.
7. Select **Https** as Type.
8. Select **SSL Certificate** and then click **OK**.

You must secure cookies post installation. See [Secure cookies](#).

## Licensing information

This section provides licensing details.

### Concurrent user licensing

In the Concurrent User model, many users can simultaneously log into the system. Each user session consumes a license. For example, if a single user logs into the TotalAgility Designer and the TotalAgility Workspace simultaneously or the user logs into the TotalAgility Designer in two browsers such as, Internet Explorer and Chrome, the user consumes two concurrent licenses. When a user logs off from a session, the license server automatically releases the license.

When the number of concurrent users reaches the maximum, the system automatically checks for available reserved licenses. If any reserved license is available, a new user can log on and the count of available reserve licenses is reduced by 1. Keep the following items in mind when managing reserved licenses:

- A reserved license expires 7 days after you begin using the license.
- You can use each reserved license only twice within 12 months.

If a user tries to log on after the number of concurrent logons reaches the limit and there are no reserved licenses, the system displays an error message and additional users cannot log on.

If a reserved license expires, an error message appears in the TotalAgility Designer and TotalAgility Workspace.

### Activate a license

If you log on to TotalAgility On-Premise Multi-Tenancy and the license is not activated, the License Activation window appears.

1. In the **License Activation** window, click **Next** to accept the default values for the **License Server** and **Port Number**, or enter the new values.
2. Click **Set License Server** to save the information.
3. For further instructions, see the Activate the License Server step in [Install Application server or Web Application server](#).

**Note** If you have issues activating your licence, contact Kofax support at: <http://www.Kofax.com/support/tools/>

## Reporting Server

Kofax Reporting provides centralized storage of historical operational metrics and audit data. Kofax Reporting includes components, such as the reporting service and databases.



**Important** Due to high process utilization by Transformation Server (99%), Reporting Server is known to produce **SQL Timeout** error when installed on the same machine as Transformation Server. Therefore, you must install Reporting Server separately from Transformation Server.

## Kofax VRS Elite

We highly recommend Kofax VRS Elite, a patented image perfection software that dramatically improves scanning productivity and document capture efficiency when used with a VRS-certified scanner. If your scanner is not VRS-certified, you can use the Kofax image processing technology included with TotalAgility instead.

Several Kofax VRS licensing options are available:

### **Kofax VRS Basic or Professional OEM**

Automatically activate a Kofax VRS Basic or Professional OEM license that is included with many industry-standard scanners. License activation for these scanners is required only when upgrading to Kofax VRS Elite.

### **Standalone workstation**

Manually activate a standalone license, which stays on the workstation until it is deactivated. The standalone license can only be activated on one scan station at a time.

### **TotalAgility license server**

Centrally manage concurrent VRS Elite licenses on the TotalAgility license server.

To centrally manage VRS licenses through the Kofax TotalAgility or VRS Elite license servers, each VRS station needs to communicate with the license server directly or through a license proxy.

## Web Capture Service

To enable web scanning, you must install the Kofax Web Capture Service.

When installing through the browser, you must have administrative rights to complete the installation.

You need to install the Web Capture Service only once, and web scanning is enabled across all the supported browsers.

Install the Kofax Web Capture Service either at the default location or to a custom location.

Temporary files are created under the folder "Interprocess". The user must have read/write access to this folder.

You can also use the Web Capture Service on multiuser environments.

## Scan Agent Service

The Scan Agent Service is an asynchronous upload capability, which allows scan operator to continue on to the next batch, without needing to wait for the previous scan job to complete upload.

This service is useful in remote scanning scenarios, where the scan station has limited network bandwidth to the main TotalAgility site.

The capability allows scan operator to keep up with physical scanning throughput, while image upload is done in the background, thus enhancing the scan operator efficiency.

This feature is only available for Scan Create New Job forms.

A Scan Create New Job form automatically uses the asynchronous image upload mode if it detects Scan Agent Service installed on the scan station. Otherwise, it uses the synchronous image upload mode if the Scan Agent Service is not detected.

For Device Create New Job form, a pre-condition of [SCANNED] > 0 must be added to the first activity in a process, to allow the process to wait for all images to be uploaded before moving on to the first activity.

## Chapter 2

# TotalAgility On-Premise Multi-Tenancy installation

This chapter describes two methods for installing TotalAgility on-premise multi-tenancy.

- [Silent installation](#) for multiple servers that use the same configuration.
- [Interactive installation](#) using the standard installer wizard.

You can install TotalAgility on-premise multi-tenancy as one of the following types:

- **Web Server:** Installs a server to point to any Application server. In case you install TotalAgility on a computer other than the default port, you must enter the Application Server machine name and port number. For example, `<appserver_name:82>`. A Web server installs the SDK Services and user interfaces for the Designer and Workspace. See [Install Web Server](#).
- **Application Server:** Installs a server to which remote clients will connect and sets up their web servers. An Application server only installs Core services and does not install user interfaces and any shortcuts for the Designer and Workspace. See [Install Application Server](#) or [Web-Application Server](#).
- **Web and Application Server:** Installs the Web and Application servers on a single computer. See [Install Application Server](#) or [Web-Application Server](#).

### Note

- You must have administrator account to install TotalAgility.
- Ensure that the user who will run TotalAgility has "Log on as Service" rights.
- You can use hotkeys to navigate to next screen.

## Perform a silent installation

Use the silent installation to install TotalAgility On-Premise Multi-Tenancy automatically from a command line or a batch file. After you edit the silent installation file, the installation proceeds without any further user interaction. SSL is automatically set to True.

See also:

- [Silent installation of Web and Application on the same server](#)
- [Silent installation on a separate Web and Application Server](#)
- [Silent installation for Database Only](#)
- [Upgrade TotalAgility in silent mode](#)

## Silent installation for Database Only

1. On the installation media, navigate to `\\TotalAgility\TotalAgilityInstall` and open `SilentInstallConfig.xml` using a text editor.
2. In `SilentInstallConfig.xml`, update the following parameters.

Parameter	Default Value	Description
IsDatabaseWindowsAuthentication	false	Set to true to use Windows authentication to connect to SQL Server.
<b>DatabaseInformation</b>		
InstallDatabases	true	Set to true to install the databases. Set to false to ignore installing databases.
OverwriteIfExisting	true	Set to true to overwrite the existing databases.
<b>MasterTenantDatabase</b>		
DatabaseName	MasterTenants	Accept the default.
Server	Server Name	Specify the name of your machine.
SqlScript		
<b>Note</b> Configure the SqlScript settings for the DataCentre database also.		
CreateScript	Create_MasterTenants.sql	Accept the default.
DropScript	Drop_MasterTenants.sql	Accept the default.
InitializeScript	Initialise_MasterTenants.sql	Accept the default.
ConversionScript	empty	Only required for patch when there are SQL changes.
Security		
WindowsAuthentication	true	Set to TRUE to use Windows credentials for logging in. If set to FALSE, provide the username and password. Otherwise, leave the username and password blank.  <b>Note</b> Configure this setting for the DataCentre database also.
UserName	empty	
Password	empty	

Parameter	Default Value	Description
NewDatabase	false	Set to TRUE to create new database.  <b>Note</b> Configure this setting for the DataCentre database also.
<b>DataCentreDatabase</b>		
DatabaseName	DataCenterTenants	Accept the default.
Server	Server Name	Specify the name of your machine.
<b>Install Info</b>		
InstallType	DatabaseOnly	Accept the default.  <b>Note</b> When you install Database Only, it ignores the services. The services such as Core Worker Service, Reporting Service, License service, Transformation Server are not installed.
<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 the port number 85.

3. Run `Setup.exe /Silent`.

The databases are installed automatically.

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 the installation, if you run `setup.exe` from the 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 Web and Application on the same server

Update the following parameters for an application or web-application server installation.

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` and open `SilentInstallConfig.xml` using a text editor.

2. In SilentInstallConfig.xml, update the following parameters.

**Note** Fix the line breaks if you copy and paste the code from this guide.

Parameter	Default Value	Description
<b>ServicesInstallOptions</b>		
CoreWorkerService	true	You can set it to True/False, as needed.
ReportingService	true	You can set it to True/False, as needed.
LicenseService	true	You can set it to True/False, as needed.
TransformationService	true	You can set it to True/False, as needed.
CoreServices	true	You can set it to True/False, as needed.
<b>LicenseServer</b>		
LicenseServerName	localhost	Enter the name of the license server.
PortNumber	3581	Do not change this value.
SerialNumber	no default	Enter your TotalAgility On Premise Multi-Tenancy serial number.
ProductCode	no default	Enter your TotalAgility On Premise Multi-Tenancy product code.
SkipLicense	true	Use the default value to skip activating the license.  <b>Note</b> If SkipLicense is set to FALSE, you must enter the serial number and product code.
<b>InstallDirectory</b>	C:\Program Files\ Kofax\TotalAgility	Specify the TotalAgility destination directory.
<b>SSLEnabled</b>	true	Accept the default.
<b>InstallTenantManagement Website</b>	true	Accept the default.
IsDatabaseWindowsAuthentication	false	Set to true to use Windows authentication to connect to SQL Server.
<b>DatabaseInformation</b>		
OverwriteIfExisting	true	Set to TRUE to overwrite the existing databases. If set to FALSE, throws error if database already exists.
ScriptsLocation	C:\Program Files\Kofax\ \TotalAgility \DatabaseScripts\ SQL Server\	Specify the directory for installing scripts.
<b>MasterTenantDatabase</b>		
DatabaseName	MasterTenants	Accept the default.

Parameter	Default Value	Description
Server	Server Name	Specify the name of your machine.
SqlScript		
<b>Note</b> Configure the SqlScript settings for the DataCentre database also.		
CreateScript	Create_MasterTenants.sql	Accept the default.
DropScript	Drop_MasterTenants.sql	Accept the default.
InitializeScript	Initialise_MasterTenants.sql	Accept the default.
ConversionScript	empty	Only required for patch when there are SQL changes.
Security		
WindowsAuthentication	true	Set to TRUE to use Windows credentials for logging in. If set to FALSE, provide the username and password. Otherwise, leave the username and password blank. <b>Note</b> Configure this setting for the DataCentre database also.
UserName	empty	
Password	empty	
NewDatabase	false	Set to TRUE to create new database. <b>Note</b> Configure this setting for the DataCentre database also.
<b>DataCentreDatabase</b>		
DatabaseName	DataCenterTenants	Accept the default.
Server	Server Name	Specify the name of your machine.
<b>IdentityInformation</b>		
UserName	empty (false)	Enter the name of the user who will run TotalAgility. Only required if RunAsSystemAccount is false.
Password	empty (false)	Enter the password for the user. Only required if RunAsSystemAccount is false.
RunAsSystemAccount	false	Accept the default. If set to true, the AppPool and Kofax TotalAgility services are created with LocalSystem account. <b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.

Parameter	Default Value	Description
RunAsNetworkServiceAccount	false	If set to true, the AppPool and Kofax TotalAgility services are created with the NT Authority\Network Service username.  <b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.
<b>InstallInfo</b>		
InstallAction	MultiTenancyInstall	Accept the default.
InstallMode	Silent	Accept the default.
InstallType	Both	Accept the default.
MultiTenancyInstallMode	Live	Accept the default for Live environment or enter "Dev" for a Development environment.
DatabaseServerType	SQLServerNonSSL	Accept the default, or use the SQL Azure database, enter <b>SQLAzure</b> .
CacheType	InMemory	InMemory cache
<b>EmailConfig</b>		
HostName	host name	Enter the host name, such as smtp.office.com.
PortNumber	port number	Enter the port number, such as 387.
UserName	username	Enter the username, such as kofax@kofaxindiapvtlimited.com.
Password	password	Enter the password.
FromAddress	from address	Enter the email address from which the email is triggered. For example, kofax@kofaxindiapvtlimited.com.
<b>TransformationServerInfo</b>		
<b>Note</b> Configure these settings if TransformationService is "true".		
TSConfigFile	empty	Specify the path to .ini file along with the name for Transformation Server to configure.  <b>Important</b> If you provide the .ini file, the TransformationServerInfo settings are taken from the .ini file; the parameters (with their default values) mentioned in the SilentMultiTenancyInstallConfig are ignored. See <a href="#">.INI file sample</a> for the parameters.



Parameter	Default Value	Description
LogFile	no default	Specify the location where the Transformation Server log file will be created. Example: C:\Program Files \Kofax\TotalAgility \TransformationServer
InstallLocation	For example, C:\Program Files (x86)\Kofax\TotalAgility\TransformationServer	Specify the Transformation Server destination directory.
WindowsServiceAccount	no default	Enter the name of the user who will run Transformation Server.
WindowsServicePassword	no default	Enter the password for the user who will run Transformation Server.
UseSpecificPool	false	Set to TRUE to add this Transformation Server to a pool. Set to FALSE (or leave blank or assign any other value) to have Transformation Server process all activities regardless of pool.
PoolName	empty	If UseSpecificPool is set to TRUE, enter the Transformation Server pool name.  <b>Note</b> If you leave the pool name empty, all activities are processed regardless of their pools.
OLEnabled	true	Set to TRUE to enable online learning.
WcfPort	9001	Enter the port used by TotalAgility to communicate with the Transformation Server during synchronous calls (such as fuzzy searches and pushed activities).
ReservedSlots	0	Enter the number of slots on this Transformation Server that are reserved for pushed activities and high-priority activities.
OverrideDefSlots	empty	To override the default number of processing slots for this Transformation Server, set this parameter to TRUE. Any other value, including empty, is treated as false and the system automatically sets the default number of processing slots based on the system configuration.
MaxSlots	0	If you set OverrideDefSlots to TRUE, enter the number of processing slots for this Transformation Server.

Parameter	Default Value	Description
EnableSyncCalls	true	Set to TRUE to enable synchronous calls for a Transformation Server instance. FALSE or any other value disables these calls.
<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 the port number 85.

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

Based on the parameters set to **True** in the silent configuration file, the following items are installed:

- Kofax TotalAgility

**Note** TotalAgility services will be installed but the tenant databases will not be created until a tenant is created.

- Core Worker Service
- Reporting Service
- Licensing Service
- Transformation Server, if the TransformationService parameter is set to true, and the WindowsServiceAccount and WindowsServicePassword parameters are set for Transformation Server:

The system generates a log file that reports any errors.

When automating the installation, if you run setup.exe from the 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

## .INI file sample

```
TS_INSTALLLOCATION="C:\Program Files\Kofax\TotalAgility\Transformation Server"
TS_SERVICE_ACCOUNT=username
TS_SERVICE_PASSWORD=password
TS_SERVER_SERVICE_URL=http://servername/TotalAgility/Services/Core/ServerService.svc
TS_USE_SPECIFIC_POOL=FALSE
TS_POOL_NAME=
TS_OL_ENABLED=TRUE
TS_WCF_PORT=9001
TS_RESERVED_SLOTS=0
TS_OVERRIDE_DEF_SLOTS=
TS_MAX_SLOTS=0
TS_ENABLE_SYNC_CALLS=TRUE
TS_MAIN_DB_CONNECTION_STRING=Server=servername;Trusted_Connection=Yes;Database=totalagility;
TS_STARTSERVICE=TRUE
```

```
TS_SYNCHRONOUS_ONLY=false  
TS_TENANT_DB_CONNECTION_STRING=Server=servername;Trusted_Connection=Yes;Database=datacentername;  
TS_MULTITENANT_INSTALL=1
```

## Silent installation on a separate Web and Application Server

Install TotalAgility on a separate Web and Application server.

### Silent installation on an Application server

Update the following parameters for an Application Server.

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` and open `SilentInstallConfig.xml` using a text editor.
2. In `SilentInstallConfig.xml`, update the following parameters.
  - `InstallType = ApplicationServer`.
  - `WebServerName =` Enter the name of the web server.

**Note** If the Web server is installed on a non-standard port, you must modify the `<WebServerName>` parameter in the `SilentInstallConfig.xml` on the Application server as follows:  
`<WebServerName>FQDN:portnumber</WebServerName>`

- For other parameters, see [Silent install of Web and Application on the same server](#).

**Note** You can choose to install or not to install certain components by setting the values to `True/False` in the `ServicesInstallOptions` section of the Silent Configuration file.

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

Based on the parameters set to **True** in the silent configuration file, the following items are installed:

- Kofax TotalAgility

**Note** TotalAgility services will be installed but the tenant databases will not be created until a tenant is created.

- Core Worker Service
- Reporting Service
- Licensing Service
- Transformation Service

The system generates a log file that reports any errors.

When automating the installation, if you run `setup.exe` from the 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 on a Web server

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` and open `SilentInstallConfig.xml` using a text editor.
2. In `SilentInstallConfig.xml`, update the following parameters.

Parameter	Default Value	Description
<b>InstallDirectory</b>	C:\Program Files\ Kofax\ TotalAgility	Specify the TotalAgility destination directory.
IsDatabaseWindowsAuthentication	false	Set to true to use Windows authentication to connect to SQL Server.
<b>SSLEnabled</b>	true	Accept the default.
<b>InstallTenantManagement Website</b>	true	Accept the default.
<b>ApplicationServerName</b>	App server name	Enter the Fully Qualified Domain Name (FQDN) of the Application server.  <div style="background-color: #f0f0f0; padding: 5px;"> <p><b>Note</b> If the Application server is installed on a non-standard port, you must modify the <code>&lt;ApplicationServerName&gt;</code> parameter in the <code>SilentInstallConfig.xml</code> on the Web server as follows:  <code>&lt;WebServerName&gt;FQDN:portnumber&lt;/WebServerName&gt;</code></p> </div>
<b>IdentityInformation</b>		
UserName	empty (false)	Enter the name of the user who will run TotalAgility.
Password	empty (false)	Enter the password for the user.
RunAsSystemAccount	false	Accept the default. If set to true, the AppPool and Kofax TotalAgility services are created with LocalSystem account.  <div style="background-color: #f0f0f0; padding: 5px;"> <p><b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.</p> </div>
RunAsNetworkServiceAccount	false	If set to true, the AppPool and Kofax TotalAgility services are created with the NT Authority\Network Service username.  <div style="background-color: #f0f0f0; padding: 5px;"> <p><b>Note</b> When you set this parameter to true, databases should be created using SQL authentication.</p> </div>
<b>InstallInfo</b>		

Parameter	Default Value	Description
InstallAction	MultiTenancyInstall <b>Note</b> For upgrade, modify install action as MultiTenancyUpgrade.	Accept the default.
InstallMode	Silent	Accept the default.
InstallType	Both	Enter WebServer
MultiTenancyInstallMode	Live	Accept the default for Live environment or enter "Dev" for a Development environment.
DatabaseServerType	SQLServerNonSSL	Accept the default or enter <b>Azure</b> .
CacheType	InMemory	InMemory Cache
<b>EmailConfig</b>		
HostName	host name	Enter the host name, for example, smtp.office.com.
PortNumber	port number	Enter the port number, for example, 387.
UserName	username	Enter the username, for example, kofax@kofaxindiapvtlimited.com.
Password	password	Enter the password.
FromAddress	from address	Enter the email address from which the email is triggered, for example, kofax@kofaxindiapvtlimited.com.
<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 the port number 85.

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

The system generates a log file that reports any errors.

When automating the installation, if you run setup.exe from the 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 for Real Time Transformation Server

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` and open `SilentInstallConfig.xml` using a text editor.

2. In SilentInstallConfig.xml, update the following parameters.

**Note** Fix the line breaks if you copy and paste the code from this guide.

Parameter	Default Value	Description
InstallDirectory	C:\Program Files\ Kofax\ TotalAgility	Specify the TotalAgility destination directory.
IsDatabaseWindowsAuthentication	false	Set to true to use Windows authentication to connect to SQL Server.
<b>DatabaseInformation</b>		
InstallDatabases	false	Set to false to ignore installing databases.
OverwriteIfExisting	false	Set to true to overwrite the existing databases.
<b>DataCenter Database</b>		
DatabaseName	TotalAgility tenant	Specify the name of the DataCenter database.
Server	server name	Specify the fully qualified domain name (FQDN) of the server.
Security		
WindowsAuthentication	false	Set to true to use Windows credentials for logging in. If set to false, provide the username and password. Otherwise, leave the username and password blank.
UserName	empty	
Password	empty	
NewDatabase	false	Accept the default as the user connects to an existing datacenter database.
<b>Tenant Database</b>		
DatabaseName	TotalAgility tenant	Specify the name of the tenant database.

Parameter	Default Value	Description
Server	server name	Specify the fully qualified domain name (FQDN) of the server.  <b>Note</b> When installing TotalAgility with a remote database, update SilentInstallConfig.xml with the server name (<Server>servername</Server>) of the machine on which the database resides. The account used to connect to the database during the installation requires DB_CREATOR rights.
Security		
WindowsAuthentication	false	Accept the default.
UserName	empty	Provide the username and password specified when creating the tenant.
Password	empty	
NewDatabase	false	Accept the default as the user connects to an existing tenant.
KofaxHostedTenant	false	Set to true when you point to existing azure databases.
<b>Identity Information</b>		
UserName	username	Enter the user name of the Windows service account for the TotalAgility services.
Password	password	Enter the password of the windows service account for the TotalAgility services.
RunAsSystemAccount	false	Accept the default. If set to true, the AppPool and Kofax TotalAgility services are created with LocalSystem account.  <b>Note</b> When you set this parameter to true, databases should be created using SQL authentication.

Parameter	Default Value	Description
RunAsNetworkServiceAccount	false	If set to true, the AppPool and Kofax TotalAgility services are created with the NT Authority\Network Service username.  <b>Note</b> When you set this parameter to true, databases should be created using SQL authentication.
<b>Install Info</b>		
InstallType	Both	Set to RTTS.  <b>Note</b> When you install RTTS, it ignores the services. The services such as CoreworkerService, ImportService, ExportService are not installed.
SslEnabled	true	Accept the default.
<b>Transformation Server Info</b>		
TransformationService	true	Accept the default.
TSConfigFile	no default	Specify the path to .ini file along with the name for Transformation Server to configure.  <b>Important</b> If you provide the .ini file, the TransformationServerInfo settings are taken from the .ini file; the parameters mentioned in the SilentInstallConfig are ignored. See the <a href="#">.INI file Sample</a> for the parameters.
LogFile	no default	Set the location where the Transformation Server log file will be created.
InstallLocation	For example, C:\Program Files (x86)\Kofax\TotalAgility\TransformationServer	Specify the Transformation Server destination directory.
WindowsServiceAccount	username	Enter the name of the user who will run the Transformation Server.
WindowsServicePassword	password	Enter the password for the user.
UseSpecificPool	false	Set true to add this Transformation Server to a pool. Set false (or leave blank or assign any other value) to have Transformation Server process all activities regardless of pool.



Parameter	Default Value	Description
PoolName	empty	If you set UseSpecificPool=true, enter the Transformation Server pool name.  <b>Note</b> If you leave the pool name empty, all activities are processed regardless of their pools.
OLEnabled	true	Set to true to enable online learning tasks on this Transformation Server instance. Set to false or any other value to disable online learning tasks.  <b>Note</b> In case where multiple instances of Transformation Server are installed for improving the throughput of the capture activities, online learning should be enabled only on a single transformation server instance in the cluster.
WcfPort	9001	Enter the port that is used by TotalAgility to communicate with Transformation Server during synchronous calls (such as fuzzy searches and pushed activities).
ReservedSlots	0	Enter the number of slots on this Transformation Server that are reserved for pushed activities and high-priority activities.
OverrideDefSlots	empty (false)	To override the default number of processing slots for this Transformation Server, set this parameter to true. Any other value, including empty, is treated as false and the system automatically sets the default number of processing slots based on the system configuration.
MaxSlots	0	If you set CPUSERVER_OVERRIDE_DEF_SLOTS to TRUE, enter the number of processing slots for this Transformation Server.
EnableSyncCalls	true	Set to true to enable synchronous calls or FALSE to disable these calls.
StartServices	true	

Parameter	Default Value	Description
<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 the port number 85.

3. Save and close the file.
4. On the Command Prompt, change the command line to the root directory of the Setup.exe file.
5. Run `Setup.exe /Silent`.  
 The Real Time Transformation Server is installed. The Real Time Transformation Service sets up Transformation Server in a synchronous mode and configures the core and SDK APIs of TotalAgility which clients can invoke.  
 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 the installation, if you run setup.exe from the 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

## Upgrade TotalAgility in silent mode

When upgrading to TotalAgility 7.6.0, do the following.

1. Go to the root directory of setup.exe.
2. Navigate to `\\OnPremiseMultiTenancyInstall` and open `SilentInstallConfig.xml` using a text editor.
3. In `SilentInstallConfig.xml`, update the following parameters.

Parameter	Default value	Description
IsDatabaseWindowsAuthentication	false	Set to true to use Windows authentication to connect to SQL Server.
<b>MasterTenants</b>	MasterTenants	If Tenant Management system, Development environment and Live environment are installed independent of each other, to upgrade Development environment and Live environment, provide MasterTenants database name.
<b>Identity Information</b>		
UserName	username	Enter the name of the user who will run TotalAgility.
Password	password	Enter the password for the user who will run TotalAgility.
<b>Install Info</b>		

Parameter	Default value	Description
InstallAction	MultiTenancyUpgrade	Use this setting to upgrade Multi-Tenant components including tenant databases.
	upgrademultitenant databases	Use this setting only if you are upgrading the databases before upgrading TotalAgility components.  <b>Note</b> If you upgrade TotalAgility components and then upgrade databases, you must do the following: <ol style="list-style-type: none"> <li>Open SilentInstallConfig.xml available at the following location: \\TotalAgility Installation Information\Kofax TotalAgility</li> <li>Update the &lt;InstallAction&gt; section with the following parameter: &lt;InstallAction&gt;=Upgradedatabasesforexistingmultitenancy</li> <li>Run Setup.exe /Silent /U from the above mentioned path.</li> </ol>
	upgrademultitenant components	Use this setting to upgrade only TotalAgility components.
<b>TransformationService</b>	true	Set to true to install the Transformation Server.
<b>Transformation Server Info</b>		
LogFile	no default	Set the location where the Transformation Server log file will be created. You can also keep the default.
WindowsServiceAccount	no default	Enter the name of the user who will run Transformation Server.
WindowsServicePassword	no default	Enter the password for the user.
<b>StartServices</b>	true	To start the services manually after the upgrade installation, set the StartServices parameter to false.

- Open the Command Prompt window as an Administrator, change the command line to the root directory of the Setup.exe file.
- Run `Setup.exe /Silent /Upgrade`.  
The following items are upgraded automatically:
  - Kofax TotalAgility
  - Kofax Import Connector (KIC)
  - Kofax Transformation Designer
  - Utility for Kofax Export Connector

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

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

6. Save and close the file.

## Perform a standard installation

You can install TotalAgility on-premise multi-tenancy using the standard installer wizard.

See also:

- [Install Database Only](#)
- [Install Web server](#)
- [Install Application server or Web/Application server](#)
- [Install Real time transformation server \(RTTS\)](#)

### Install Database Only

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` 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 installation.

2. In the **Kofax TotalAgility Multitenancy Installation** window, click **Next** or press Enter to move to the next window.

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

3. In the **Kofax Inc. Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
4. In the **Type of Install** window, select **Database Only**.
5. Click **Next**.  
The **Tenant Databases** window opens.
6. Enter the database name for Master and DataCenter databases.
  - If the database with the same name already exists, and if you want to overwrite the existing database, select the **Overwrite databases if they exist?** check box. On overwriting, the databases will be re-initialized and the existing data will be lost. To continue, click **Yes**.
  - If you want to manually install the databases, see [Install databases manually](#). For a clean installation, run the setup.exe wizard to this screen, and do not select the **Overwrite databases if they exist?** check box.
  - To use Windows authentication to connect to SQL Server, select the check box for **Windows authentication for databases**.
  - If you are not using the local server and want to create databases on a different machine, enter a name for the databases; click ellipsis for **Server**; select the database server where the databases reside; in the **Security** group, either use **Windows Authentication**, or select the **SQL Server Authentication** (default) providing the user name and password, and then click **OK**. If all the

databases reside on the same server, select the **Apply these settings to all other Databases** check box.

**Note** If you have already selected the check box for Windows authentication for databases in the Tenant Databases window, you can only use the Windows Authentication in the Security group.

7. Click **Next**.

The **DB Connection Results** window opens and displays the results of connecting to databases.

8. Click **Next**.

The **Software Checks** window opens. The system displays a list of required software and whether the software is installed.

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

10. Click **Next**.

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

The **Licensing** window opens.

11. To connect to the license server, do the following:

- a. In the **License Server** field, enter the location of the License Server.

**Note** To connect to the shared License Server, enter the name or the IP address of the shared License Server.

- b. In the **Port Number** field, enter the port number on which the License Server listens.

12. Click **Next**.

Alternatively, click **Skip** if you want to skip connecting to the License Server now but connect when launching TotalAgility.

13. Click **Finish**.

Your installation is now complete.

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

## Install Web server

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` 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 installation.

2. In the **Kofax TotalAgility Multitenancy Installation** window, click **Next** or press Enter to move to the next window. Click **Cancel** or press Esc to exit setup.
3. In the **Kofax Inc. Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
4. In the **Type of Install** window, select **Web Server** and click **Next**.
5. In the **Environment Type** window, select either environment type from the following and click **Next**:
  - **Live**: Installs the production environment.
  - **Dev**: Installs the development environment.

The **Destination** window opens.

6. Use the default installation folder or click **Browse** to select a different path and click **Next**. The **Tenant Management website** window opens.
7. Keep the **Install Tenant Management Components** check box selected and click **Next**. The **Choose Server Location with Options** window opens.
8. Enter the **Server Name** or provide the IP Address.

**Note** You must enter the name of the TotalAgility Multi Tenant Server machine. You must provide the server name (port number, if it is other than the default port) in the following format: `<machinename>.<fullyqualifieddomainname>:<portnumber>`.

- If installing Live, open the Application server's Web.config file, copy the TotalAgilityHostNameLive app setting value and paste it into the Server Name box in the wizard.
- If installing Dev, open the Application server's Web.config file, copy the TotalAgilityHostNameDev app setting value and paste it into the Server Name box in the wizard.

9. Click **Next**. The **Credentials** window opens.
10. Enter the credentials for the user who will run the TotalAgility On-Premise Multi-Tenancy.
11. On the **Root Website to host TotalAgility Application** list, select the website to host the TotalAgility application. By default, the **Default Web Site** is selected.

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

12. Click **Next**. The **Software Checks** window opens. The system displays a list of required software and whether the software is installed.
13. 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 **Installation Review** window opens and displays the settings.
14. Review the settings and click **Next**. The **Installation Progress** window opens. The setup installs the required files, databases, and other integrated products.
15. Click **Finish**. Your installation is now complete for the Web Server.

## Install Application server or Web/Application server

On performing standard installation for the Application Server or Web-Application Server, based on the install type selected, the following items are installed automatically:

- TotalAgility
- Core Worker Server
- Reporting Server
- License Server
- Transformation Server

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` 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 installation.

2. In the **Kofax TotalAgility Multitenancy Installation** window, click **Next** or press Enter to move to the next window.

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

3. In the **Kofax Inc. Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
4. In the **Type of Install** window, select **Application Server** or **Web/Application Server** and click **Next**.
5. In the **Environment Type** window, select either of the following:
  - **Live**: Installs the production environment.
  - **Dev**: Installs the development environment.

The **Application Server** window opens.

6. By default, the Windows Services and WCF Services are selected and installed. The Windows Services include: Core Worker, Reporting, License and Transformation. The WCF Services include Core services. If you do not want to install any service, clear the check box for the service, otherwise, click **Next**.

The **Destination** window opens.

7. Use the default installation folder or click **Browse** to select a different path and click **Next**. The **Tenant Management website** window opens.

8. In the **Tenant Management website** window, do the following:
  - Select the **Install Tenant Management components** for install type, Application Server.
  - Select **Setup Tenant Management website** for install type, Web/Application Server.

**Note** This website helps you to launch the Tenant Management website in the browser.

9. Click **Next**. The **Email Configuration** window opens.

10. Enter the details for the SMTP configuration.
  - a. **Host Name**, such as smtp.office.com
  - b. **Port Number**, such as 587
  - c. **User Name**, such as kofax@kofaxindiapvtlimited.com
  - d. **Password**
  - e. **From Address**: Email address from where the email is sent. For example, kofax@kofaxindiapvtlimited.com
  - f. **BCC**: Email addresses of the users who need to receive the copy of the email.
  - g. Select **Enable SSL** to use HTTPS communication.

An email is triggered from the configured SMTP server when the tenant is created.

11. Click **Next**.  
The **Credentials** window opens.
12. In the **Credentials** window, enter the credentials for the user who will run TotalAgility On-Premise Multi-Tenancy.
13. On the **Root Website to host TotalAgility Application** list, select the website to host the TotalAgility application. By default, the **Default Web Site** is selected.

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

14. Click **Next**.  
The **Tenant Databases** window opens.
15. Enter the database name for Master and DataCentre databases.
  - If the database with the same name already exists, and if you want to overwrite the existing database, select the **Overwrite databases if they exist?** check box. On overwriting, the databases will be re-initialized and the existing data will be lost. To continue, click **Yes**.
  - To use Windows authentication to connect to SQL Server, select the check box for **Windows authentication for databases**.
  - If you are not using the local server, click the ellipsis and select the Master and DataCentre databases.
  - If you want to manually install the databases, see [Install databases manually](#). For a clean installation, run the setup.exe wizard to this screen, and do not select the **Overwrite databases if they exist?** check box.
  - If you want to point to existing databases in a different machine, enter a name for the databases; click ellipsis for **Server**; select the database server where the databases reside; in the **Security** group, either use **Windows Authentication**, or select the SQL Server authentication providing the



user name and password, and then click **OK**. If all the databases reside on the same server, select the **Apply these settings to all other Databases** check box.

**Note** If you have already selected the check box for Windows authentication for databases in the Tenant Databases window, you can only use the Windows Authentication in the Security group.

**Note** If you install TotalAgility without any databases, you can use the Configuration Utility to point to the databases when they are available at a later a stage. See the *Kofax TotalAgility Configuration Utility Guide*.

16. Click **Next**.  
The **DB Connection Results** window opens.
17. If you wish to make any changes, click **Back** and make your changes, otherwise, click **Next**.  
The **Software Checks** window appears. The system displays a list of required software and whether the software is installed.
18. 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**.
19. On-Premise Multi-Tenant runs on a single data center, therefore you must provide the Web server location to connect to the On-Premise Multi-Tenant data center. However, follow this additional step only if you use Application Server as Install Type. In the **Choose WebServer Location** box, enter the **Server Name** in the following format:  
<machinename>.<fullyqualifieddomainname>:<portnumber> where <servername> is the name of the On-Premise Multi-Tenant Web Server machine. Alternatively, you can provide the port number if it is other than the default port.

**Note** You can modify the name of the server later by running the following SQL command:

```
UPDATE [MasterTenants].[dbo].[DATA_CENTER] SET [LIVE_HOST_NAME] =  
'<WebServerName>/TotalAgility',  
[DEV_HOST_NAME] = '<WebServerName>/TotalAgility'
```

20. Click **Next**.  
The **Install Options** window opens.
21. To automatically start the services, keep the **Automatically Start Services** check box selected.
22. Click **Next**.  
The **Installation Review** window opens and displays the settings.
23. Review the settings and click **Next**.  
The **Installation Progress** window appears. The setup installs the required files, databases, and other integrated products. The **Licensing** window opens.

**24.** To connect to the License Server, perform the following steps:

- a. In the **License Server** field, enter the location of the License Server.

**Note** To connect to the shared License Server, enter the name or the IP address of the shared License Server.

- b. In the **Port Number** field, enter the port number on which the License Server listens.
- c. Click **Next**. The second Licensing window opens.

**Note** To skip connecting to the License Server now but connect when launching TotalAgility, click **Skip** and proceed to the next step.

**25.** Enter your TotalAgility **Serial Number** and **Product Code**.

**Note** The ID of the selected License Server appears in the **Machine ID** field. The **Serial Number** and **Product Code** appear by default if the License Server is shared.

26. To activate the license, select the license activation method:
- **Automatic:** Use this option when Internet connectivity is available. The license is activated online.
  - **Manual:** Use this option when there is no Internet connectivity or if automatic activation is not successful from the installer or license utility for your Kofax product. The Activation Code box is displayed. To obtain the activation code:

- a. Enter the following URL in your browser:

`http://activatelegacy.Kofax.com/support/Activation/manual.aspx.`  
The Kofax Product License Activation page appears.

- b. Enter the **Serial Number** issued to you at the time of purchase. If you have a hardware key, the serial number (usually 7 characters) is printed on the key.
- c. Enter the email address where Kofax can send the information you need to activate the product license.
- d. Click **Next** to proceed with the activation process.

**Note** Ignore the **Version** selection field if you do not have Kofax Capture or Ascent Capture.

- e. Copy and paste the **Activation Code** into the field on the **Licensing** window.
- f. Either click **Activate** to activate the license or click **Skip** to skip activating license. If you skip activating the license, a warning informs that you need to activate the license later.

**Note** The license period starts once the license is activated. You can skip activation during installation and only activate it when you are ready to use TotalAgility. You must activate the license when you log in to TotalAgility for the first time.

The **Kofax TotalAgility Installation Complete** window displays the summary of the installation.

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

27. Click **Finish**.

- Your installation is now complete. See [Log on to TotalAgility On-Premise Multi-Tenancy](#) for more information.
- The Transformation Server installation window appears.

**Note** The Transformation Server installation window only appears if you have selected the transformation service option in the **Application Server** window.

28. Click **Yes** to install Transformation Server.

The installation for Transformation Server is launched. See [Transformation Server Bundle installation](#).

## Install Real time transformation server (RTTS)

RTTS is supported in a multi tenant environment. However, each tenant must have their own setup and this mode of installation should be done in the same environment as on-premise multi-tenant, that is, it must be setup by the BPO or by Cloud Services (if installed on an Azure environment).

1. On the installation media, navigate to `\\OnPremiseMultiTenancyInstall` 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 installation.

2. In the **Kofax TotalAgility Multitenancy Installation** window, click **Next** or press Enter to move to the next window.

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

3. In the **Kofax Inc. Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
4. In the **Type of Install** window, select **Real Time Transformation Server** and click **Next**.
5. In the **Environment Type** window, select either of the following:
  - **Live**: Installs the production environment.
  - **Dev**: Installs the development environment.
6. 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 TotalAgility On-Premise Multi-Tenancy.
9. On the **Root Website to host TotalAgility Application** list, select the website to host the TotalAgility application. By default, the **Default Web Site** is selected.

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

10. Click **Next**.  
The **Databases** window opens.
11. Enter the database name for **Tenant** and **DataCenter** databases.
  - a. For the **Tenant** database, enter the tenant name, click ellipsis for **Server** and point to an existing tenant database on an existing TotalAgility environment. In the **Security** group, select **SQL Server authentication**, provide the user name and password, and then click **OK**.
  - b. For the **DataCenter** database, enter the name for the database, click ellipsis for **Server** and select the database server where the databases reside. In the **Security** group, either use **Windows Authentication**, or select the SQL Server authentication providing the user name

and password, and then click **OK**. If all the databases reside on the same server, select the **Apply these settings to all other Databases** check box.

**Note** If you have already selected the check box for "Windows authentication for databases" in the Databases window, you can only use the Windows authentication in the Security group for a datacenter database.

- c. Select the check box for **Kofax hosted tenant** when you point to existing azure databases.
12. Click **Next**.  
The **Software Checks** window appears. The system displays a list of required software and whether the software is installed.
13. 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 **Installation Review** window opens.
14. Review the settings. If you wish to make any changes, click **Back** and make your changes, otherwise, click **Next**.  
The **Installation Progress** window opens. The setup installs the required files, databases, and other integrated products.
15. Click **Finish**.  
Your installation is now complete. See [Log on to TotalAgility On-Premise Multi-Tenancy](#) for more information.

## Perform TotalAgility installation in a Docker container

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 allows you to run many containers simultaneously on a given host using less resources than virtual machines.

You can deploy TotalAgility application into your production environment, as an independent container or an orchestrated set of containers. This works the same whether your production environment is a local datacenter, a cloud provider, or a hybrid of the two. This means you would not need to use the TotalAgility installation program when TotalAgility is deployed in a Docker container. Instead the container would already have TotalAgility 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, it does not run in the TotalAgility container.

See also:

- [Docker installation on the Windows server](#)
- [Create a TotalAgility docker container image](#)

- [Run a docker container](#)
- [Use Windows authentication with IIS and SQL server](#)

## Docker installation on the Windows server

Setup Docker on your Windows server.

1. Open an elevated PowerShell command prompt, and type the following commands.

```
Install-Module DockerMsftProvider -Force
Install-Package Docker -ProviderName DockerMsftProvider -Force
```

2. Check if a reboot is required. If 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 hello-world container.

```
docker run hello-world:nanoserver

Unable to find image 'hello-world:nanoserver' locally
nanoserver: Pulling from library/hello-world
bce2fbc256ea: Pull complete
3ac17e2e6106: Pull complete
8cac44e17f16: Pull complete
5e160e4d8db3: Pull complete
Digest: sha256:25eac12ba40f7591969085ab3fb9772e8a4307553c14ea72d0e6f98b2c8ced9d
Status: Downloaded newer image for hello-world:nanoserver
Hello from Docker!
```

This message shows that your installation appears to be working correctly.

## Create a TotalAgility docker container image

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

To create a docker image, you need internet connectivity because docker uses the Microsoft's "microsoft/aspnet" image as a base onto which the prerequisites get installed (from the base OS or from Internet when any feature is not available on the image).

1. Extract the contents of KofaxTotalAgility-7.6.0\_OPMT.ZIP to a "<source directory>".
2. Create a "<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\OPMT.

The file structure should be as follows:

```
<working directory>\Dockerfile
<working directory>\ContainerFiles\KCMProxyInstallation
<working directory>\ContainerFiles\Licensing
<working directory>\ContainerFiles\OnPremiseMultiTenancyInstall
<working directory>\ContainerFiles\REporting
<working directory>\ContainerFiles\RepositoryBrowser
<working directory>\ContainerFiles\ScanAgentService
<working directory>\ContainerFiles\TenantManagementInstall
<working directory>\ContainerFiles\TransformationServer
<working directory>\ContainerFiles\Utilities
<working directory>\ContainerFiles\PowerShellScripts
```

5. On the installation media, navigate to \\TotalAgility\OnPremiseMultiTenancyInstall and open SilentInstallConfig.xml using a text editor and update the parameters as needed for each container type. See [Perform a silent installation](#) for more information.
6. To create the image, open a PowerShell window on the container host and run the following command:

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

**Note** Container host is the machine where docker server is installed. Performance of a build command depends on the number processors in the container host machine. Command may take approximately one hour to complete with quad core processors configuration.

**Example** The following command generates the image with the name "kofaxopmt" using the contents inside the C:\Docker\Kofax TotalAgility directory:

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

## Perform a silent installation

Use the TotalAgility silent installation to install TotalAgility automatically in a docker container from a command line or a batch file. After you edit the silent installation file, the installation proceeds without any user interaction.

1. On the installation media, navigate to \\TotalAgility\TotalAgilityInstall and open SilentInstallConfig.xml using a text editor.

2. In SilentInstallConfig.xml, update the following parameters.
  - [Demo](#)
  - [Application Server](#) (Core Services and Core Worker)
  - [Web Server](#)
  - [Web Server and Application Server](#) (Core Services and Core Worker)
  - [Reporting Server](#)
  - [Real Time Transformation Service](#)

**Note** Fix the line breaks if you copy and paste the code from this guide.

## Demo

Update the following parameters for a Demo server installation.

Parameter	Default value	Description
<b>ServicesInstallOptions</b>		
LicenseService	FALSE	Accept the default, as we do not support Import Service inside Docker containers.
CoreWorkerService	TRUE	
ReportingService	TRUE	
TransformationService	TRUE	
CoreServices	TRUE	
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.
RunAsSystemAccount	TRUE	Accept the default. If set to true, the AppPool and Kofax TotalAgility services are created with LocalSystem account. <b>Note</b> If you set this parameter to true, the databases should be created using SQL authentication.
<b>Install Info</b>		
InstallType	Both	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.



## Application Server (Core Services and Core Worker)

Update the following parameters for Application server installation.

Parameter	Default value	Description
<b>ServicesInstallOptions</b>		
LicenseService	FALSE	Accept the default, as we do not support Import Service inside Docker containers.
CoreWorkerService	TRUE	
ReportingService	FALSE	
TransformationService	FALSE	
CoreServices	TRUE	
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.  <b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.
<b>Install Info</b>		
InstallType	ApplicationServer	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

## Web Server

Update the following parameters for Web server installation.

Parameter	Default value	Description
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

Parameter	Default value	Description
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.  <b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.
<b>Install Info</b>		
InstallType	WebServer	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

## Web Server and Application Server (Core Services and Core Worker)

Update the following parameters for both Web and Application server installation.

Parameter	Default value	Description
<b>ServicesInstallOptions</b>		
LicenseService	FALSE	Accept the default, as we do not support License Service inside Docker containers.
CoreWorkerService	TRUE	
ReportingService	FALSE	
TransformationService	FALSE	
CoreServices	TRUE	
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.  <b>Note</b> If you set this parameter to true, databases should be created using SQL authentication.
<b>Install Info</b>		
InstallType	Both	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

## Reporting Server

Update the following parameters for a Reporting server installation.

Parameter	Default value	Description
<b>ServicesInstallOptions</b>		
LicenseService	FALSE	Accept the default, as we do not support License Service inside Docker containers.
CoreWorkerService	FALSE	
ReportingService	TRUE	
TransformationService	FALSE	
CoreServices	FALSE	
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.
<b>Install Info</b>		
InstallType	Both	Accept the default.

## Transformation Server

Update the following parameters for a Transformation server installation.

Parameter	Default value	Description
<b>ServicesInstallOptions</b>		
LicenseService	FALSE	Accept the default, as we do not support License Service inside Docker containers.
CoreWorkerService	FALSE	
ReportingService	FALSE	
TransformationService	TRUE	
CoreServices	FALSE	
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

Parameter	Default value	Description
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.
<b>Install Info</b>		
InstallType	Both	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

## Real Time Transformation Service

Update the following parameters for a Real Time Transformation service installation.

Parameter	Default value	Description
<b>DatabaseInformation</b>		
InstallDatabases	FALSE	Accept the default to ignore installing databases.
<b>Identity Information</b>		
UserName	KTA_admin	A user inside the docker image for installing Kofax TotalAgility, so it should not be modified.
RunAsSystemAccount	TRUE	Accept the default to allow the AppPool and Kofax TotalAgility services to be created with LocalSystem account.
<b>Install Info</b>		
InstallType	RTTS	Accept the default.
<b>Transformation Server Info</b>		
WindowsServiceAccount	KTA_admin	A user (KTA_admin) inside the docker image for installing Kofax TotalAgility, so it should not be modified.

## 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.

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

Before running a docker container, it is expected that databases are already setup (using Database only installation mode) before bringing the containers up and running.

1. Generate "dockersettings.env" using Configuration Utility in the docker mode. The file will be used later for the container initialization. Refer the *Kofax TotalAgility Configuration Utility Guide* for more information.

2. To run the TotalAgility container using Windows authentication:
  - a. Set up an account and create win.json using Windows authentication.  
Win.json contains the credentials in the Json format which will be passed to the container during creation.
  - b. To bring the container up, use the settings provided inside the env file using the Windows authentication account with credentials specified under the win.json file.  
To run the TotalAgility container using manual authentication, configuration is not needed.
3. Container access can be limited to the container host or can be port forwarded for the global access. Enable the required exposed port number in firewall settings of host machine.

4. Execution commands:

- a. Container access can be limited to container host with windows authentication `"docker run --env-file <fullpathtoenvfile> --security-opt "credentialspec=file://win.json" <imagenamegoeshere>"`

**Example** The following command will bring a container up using the kofaxopmt image with the Kofax TotalAgility settings applied from dockersettings.env file using Windows authentication with the credentials specified in the win.json file.

```
docker run --env-file "C:\Docker\TotalAgility\dockersettings.env" --security-opt "credentialspec=file://win.json" kofaxopmt,
```

- b. Container access can be limited to container host with client credentials: `"docker run --env-file <fullpathtoenvfile> <imagenamegoeshere>"`.

**Example** The following command will bring a container up using the kofaxopmt image with the Kofax TotalAgility settings applied from dockersettings.env file using client credentials.

```
docker run --env-file "C:\Docker\TotalAgility\dockersettings.env"
```

- c. Port forwarded container access which is not limited to the container host with Windows authentication using the following command to bring the container up using the settings provided inside the env file forwarding the site from within the container in port <portonimage> on to port <dockerserverexposedport> on the docker server.

```
"docker run --env-file <fullpathtoenvfile> --security-opt "credentialspec=file://win.json" -p <dockerserverexposedport>:<portonimage> <imagenamegoeshere>"
```

**Example** The following command will bring a container up using the kofaxopmt image with the Kofax TotalAgility settings applied from dockersettings.env file with the credentials for Windows authentication specified under the win.json file, and forwarding the port 80 from the container into the 5000 port on the container host:

```
docker run --env-file "C:\Docker\TotalAgility\dockersettings.env" --security-opt "credentialspec=file://win.json" -p 5000:80 kofaxop
```

- d. Port forwarded container access which is not limited to the container host with client credentials, using the following command to bring the container up using the settings provided inside

the env file forwarding the site from within the container in port <portonimage> onto port <dockerserverexposedport> on the docker server.

```
"docker run --env-file <fullpathtoenvfile> -p
<dockerserverexposedport>:<portonimage> <imagenamergoeshere>"
```

**Example** The following command will bring a container up using the kofaxopmt image with the Kofax TotalAgility settings applied from dockersettings.env file with the credentials and forwarding the port 80 from the container into the 5000 port on the container host:

```
docker run --env-file "C:\Docker\TotalAgility\dockersettings.env" -p
5000:80 kofaxopmt
```

- e. Port forwarded container access which is not limited to the container host with client credentials, using the following command to bring the container up using the settings provided inside the env file forwarding the site from within the container in port <portonimage> onto port <dockerserverexposedport> on the docker server with specified container host name.

```
"docker run --hostname <containergoeshere> --env-file
<fullpathtoenvfile> -p <dockerserverexposedport>:<portonimage>
<imagenamergoeshere>"
```

**Example** The following command will bring a container up using the kofaxopmt image with the Kofax TotalAgility settings applied from dockersettings.env file with the credentials and forwarding the port 80 from the container into the 5002 port on the container host:

```
"docker run -p 5002:80 --hostname opmtdemotest --env-file "C:\Docker
\OPMT\DockerSettings.env" opmtdemo"
```

5. To attach the current powershell session in the docker server to a command prompt one inside the container, you can use "docker attach <containerIDgoeshere>" or add "-it" parameter as part of the "docker run" command .

## 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 attach <containerID>	Attaches the powershell session to the session inside the container with ID <containerID>.
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 command	Purpose
<code>docker cp "&lt;containerID&gt;:/&lt;fullfilepathoncontainer&gt;" "&lt;pathtofolderonserver&gt;"</code>	Copies a file from the container to the server.
<code>docker cp "&lt;fullfilepathonserver&gt;" "&lt;containerID&gt;:/&lt;fullfilepathoncontainer&gt;"</code>	Copies a file from the container to the server.

## Use Windows authentication with IIS and SQL server

Docker containers cannot join an Active Directory domain. However, when running a container, you can specify that it should use a specific AD Group Managed Service Account (gMSA) for any local Windows services and IIS Application pool in the container that are configured to run as LocalSystem or NetworkService accounts.

When running as these accounts in the container, the services and App pool will automatically get the access rights of the gMSA to allow them to use Windows authentication to access other VMs/machines outside of the container.

When setting up a TotalAgility docker container to use Windows authentication, you must modify the SilentInstallConfig.xml file to specify LocalSystem as the account to use for all TotalAgility services and IIS App pool. This account will be used when the container is built.

Ensure the following prerequisites are met:

- Add docker server, SQL server machine and machines that will use gMSA under required domain controller.
- Add these machines in the Active Directory under "Computer" folder.
- Create a Global Security group, such as " ContainerHostName" in the Active Directory under "Builtin" folder.
- Add docker server, SQL server machine or machines that will use gMSA as members to the new group.

Perform the following steps to use Windows authentication with IIS and SQL server.

### 1. Create the KDS root key.

This key is used by the KDS service on DCs (along with other information) to generate passwords. You can generate this key only once per domain.

#### a. Login to domain controller and execute the following commands:

```
Import-module ActiveDirectory
Add-KdsRootKey -EffectiveImmediately
```

#### b. Verify your key using the following command:

```
Get-KdsRootKey
```

### 2. Create a gMSA account.

#### a. Login to domain controller and execute the following command:

```
GMSA account name : containerhost
Domain name: TotalAgilityexample.com

New-ADServiceAccount -Name containerhost -DNSHostName TotalAgilityexample.com
-PrincipalsAllowedToRetrieveManagedPassword "Domain Controllers",
```

```
"domain admins", "CN= ContainerHostGroupName,CN=Builtin, DC=
TotalAgilityexample, DC=COM" -KerberosEncryptionType RC4, AES128, AES256
```

- b. Verify the new gMSA account using the following command:
 

```
Get - ADServiceAccount - Identity containerhost
```
- c. A new gMSA object appears in your domain's Managed Service Account.
3. Add gMSA account to the servers you want to use.
  - a. Open the Active directory Admin Center and go to Managed service accounts.
  - b. Select the gMSA account and click **Properties**.
  - c. Select the security and click **Add**.
  - d. Select the computers where you want to use gMSA such as docker server and SQL server machine.
  - e. Reboot Domain controller for the changes to take effect.
  - f. Reboot the computers that will be using gMSA.
4. Install gMSA Account on servers.

- a. Login to the machine that will be used as docker server.
- b. If Active Directory features are not available, execute the following command:
 

```
Enable-WindowsOptionalFeature -FeatureName ActiveDirectory-Powershell
-online -all
```
- c. To install and test gMSA, execute the following commands:

```
// check whether you are able to account
Get-ADServiceAccount -Identity containerhost //Name of GMSA

// install on machine
Install-ADServiceAccount -Identity containerhost

// test
Test-AdServiceAccount -Identity containerhost
```

If the output does not contain any errors, it will look like as follows:

```
Path :
Online : True
RestartNeeded : False
DistinguishedName : CN=containerhost,CN=Managed Service Accounts, DC=local
Enabled : True
Name: containerhost
objectClass : msDs-GroupManagedServiceAccount
ObjectGUID : containerhost$
SamAccountName : containerhost$
SID : S-1-5-21-3914853822-719528391-929614657-1606
UserPrincipalName :

True
```



**5. Associate Service Principal Name with the gMSA:**

- a. This step is required for kerberos authentication to work and for automatic login in Chrome and Internet Explorer browsers. If you skip this step, authentication still works but will always prompt for username/password since it will fallback to NTLM.

GMSA account : containerhost

Domain name: TotalAgilityexample .com

Container host machine: machine1

- b. Login to domain controller and execute the following command:

```
setspn -c -s HTTP/ machine1 TotalAgilityexample \ containerhost
setspn -c -s HTTP/ machine1.TotalAgilityexample.com TotalAgilityexample \
containerhost
```

**6. To test Active Directory access on the container host, run the following command on the host machine: `nltest /parentdomain`**

At this point, if no errors occurs, the LocalSystem account on the container will be a proxy for the configured gMSA account. Any process run as the LocalSystem principal on the container will appear to be the GMSA principal to all assets on the Active Directory domain.

- 7. Generate credential specifications file which must be passed to the docker during container creation to utilize this service account. Run the following commands to download module which will create this file from Microsoft github account and will create a JSON file containing required data.**

```
GMSA account : containerhost
Domain name: TotalAgilityexample.com

Invoke-WebRequest "https://raw.githubusercontent.com/Microsoft/Virtualization-
Documentation/live/windows-server-container-tools/ServiceAccounts/
CredentialSpec.psml" -UseBasicParsing -OutFile $env:TEMP\cred.psml

import-module $env:temp\cred.psml

New-CredentialSpec -Name win -AccountName containerhost
#This will return location and name of JSON file
Get-CredentialSpec

Name Path
---- ----
win C:\ProgramData\docker\CredentialSpecs\win.json
```

- 8. For SQL server configuration to allow gMSA, enter the gMSA account as "containerhost" and domain name as "TotalAgilityexample.com" and run the following SQL commands on your SQL database:**

```
CREATE LOGIN " TotalAgilityexample \containerhost$"
FROM WINDOWS
GO
```

To create user for all the TotalAgility databases:

```
CREATE USER containerhost FOR LOGIN " TotalAgilityexample \ containerhost$"
GO

EXEC sp_addrolemember 'db_datareader', containerhost
EXEC sp_addrolemember 'db_datawriter', containerhost
```

- 9. If there are no errors, the LocalSystem account on the container will be a proxy for the configured gMSA account. Any process run as the LocalSystem principal on the container will appear to be the gMSA principal to all assets on the Active Directory domain. To test Active Directory access on the container, run the following command on the container: `nltest /parentdomain`**

## 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, it is required to point the Integration Server 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, perform the following steps on the on-premise multi-tenant Web server.

1. Either install IIS URL Rewrite 2.0 and Microsoft Application Request Routing (2.5 or higher) for IIS, or install the Microsoft plugin - Web Platform from the Microsoft website.
2. In the IIS Manager, do the following:
  - a. On server level, double-click Application request routing cache.
  - b. Click **Server Proxy Settings**.
  - c. Select **Enable Proxy**.
  - d. Click **Apply**.
3. Configure a URL rewrite rule in Kofax TotalAgility Web.config on the on-premise multi-tenant Web server to redirect /Services/Core requests to the on-premise multi-tenant Application Server.

```
<rewrite>
  <rules>
    <rule name="CoreServicesRule" enabled="true" stopProcessing="true">
      <match url="Services/Core/(.*)" />
      <action type="Rewrite" url="https://{C:1}.OPMAppServerHostNameGoesHere/
TotalAgility/services/core/{R:1}" logRewrittenUrl="false" />
      <conditions trackAllCaptures="true">
        <add input="{HTTP_HOST}" pattern="([^.]*)(.*)" />
      </conditions>
    </rule>
  </rules>
</rewrite>
```

**Note** Replace the <OPMAppServerHostNameGoesHere> with the host name of the on-premise multi-tenant Application Server.

## Encrypt and decrypt the configuration files

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

- Web
- Agility.Server.Core.WorkerService.exe
- Agility.Server.Core.ExportService.exe

### Encrypt Web.config

1. Navigate to the location of TotalAgility Web.config:

```
<Kofax Install location>\TotalAgility\Agility.Server.Web
```

2. 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 the Microsoft website.

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

## Encrypt the Core Worker or Export Worker configuration file

Use the **Kofax.CEBPM.Encryption.exe** utility (located in the TotalAgility installation directory) to encrypt (-enc) and decrypt (-dec) any section of Agility.Server.Core.WorkerService.exe.config or Agility.Server.Core.ExportService.exe.config.

Use this utility with either method, DPAPI or RSA supported by the TotalAgility Server.

Kofax.CEBPM.EncryptConfig.exe only works with configuration files of executables. It does not work with Web.config.

1. Navigate to the location of TotalAgility Agility.Server.Core.WorkerService.exe.config and Agility.Server.Core.ExportService.exe.config:

```
<Kofax Install location>\TotalAgility\CoreWorkerService
```

2. Add the following security provider:

```
<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>
```

3. Encrypt the file using either encryption method:

- [DPAPI encryption](#)
- [RSA encryption](#)

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

## 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 Kofax TotalAgility Core Worker Server service.
2. Navigate to the Kofax TotalAgility Core Worker installation directory and open a Command Prompt window.

3. Run the following command:

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

## RSA encryption method

Use this method if you have several Servers with the same configuration.

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.

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 Server.

1. Create the custom RSA key container:
  - a. Log on to the TotalAgility Server with administrator rights.
  - b. Open a Command Prompt window.
  - c. Navigate to the .NET Framework version 4.5 directory. For example, enter the following command:

```
cd \WINDOWS\Microsoft.Net\Framework\v4.5.*
```
  - 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 Kofax TotalAgility 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 Kofax TotalAgility Core Worker Server service user.
3. Encrypt the file:
  - a. Log on to the TotalAgility Server as the Kofax TotalAgility Core Worker Server service user.
  - b. Navigate to the installation directory for the TotalAgility server and open a Command Prompt 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. Run the following command to export the key:

```
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. Log on to the TotalAgility Server with administrator rights.
2. Copy the keys.xml file from the source TotalAgility Server to the root directory of the target TotalAgility server.
3. Open a Command Prompt window.
4. 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.
5. Delete the keys.xml file on the target Server because it contains the unprotected private key.
6. Run the following command to grant the Kofax TotalAgility 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.
  - <TotalAgilityserviceuser> is the Kofax TotalAgility Core Worker Server service user.
7. Repeat these steps on all remaining TotalAgility Servers.

Repeat these steps to encrypt the Export Worker configuration file.

## Decrypt the Core Worker or Export Worker configuration file

1. Stop the **Kofax TotalAgility Core Worker Server** service.
2. Navigate to the TotalAgility Server installation directory and open a Command Prompt 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 decrypt the Export Worker configuration file.

## Edit a configuration file

When you install TotalAgility On-Premise Multi-Tenancy, the system stores the configuration settings in a .NET file, Agility.Server.Core.WorkerService.exe.config. To change the value for any parameter, you can edit the Agility.Server.Core.WorkerService.exe.config file or run the TotalAgility configuration utility to

modify the settings. The configuration utility is available on the installation media and must be manually copied to your Kofax TotalAgility server. See the *Kofax TotalAgility Configuration Utility Guide*.

1. If you encrypted the configuration file after you installed the TotalAgility Server, decrypt the file. See [Decrypt a configuration file](#).

**Note** 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 On-Premise Multi-Tenancy configuration files](#).

**Note** 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 Core Worker Server service.

## Edit the configuration files for safe scripting

Using the Safe Scripting option, you can configure TotalAgility to prevent malicious scripts and code from being executed on a multi-tenant environment without affecting the execution of other tenant's assemblies and ensure that tenant's data is isolated and cannot be accessed in any way by another tenant.

For example, you can configure C# scripts, VB .NET scripts, Expressions, .NET assemblies, or .NET Form actions, which when run into TotalAgility on a multi-tenant environment, allow or restrict certain actions.

Restrict:

- Accessing data from different tenants such as reading memory, file system or database.
- Breaking or affecting the process execution from the current or other tenants.
- Modifying operating system systems, update registry or reboot the machine.
- Reading or writing to file system outside of its allocated sandbox for its tenant.
- Executing non-CLR managed code.
- Running external OS process.
- Crashing hosted application.

Allow:

- Executing .NET managed code.

- Reading and writing to allocated sandbox folder for its tenant.
- Accessing internet (call web services using http protocol).
- Accessing a public database, if they have the credentials.
- Invoking APIs exposed by the TotalAgility SDK.

On installing TotalAgility, the safe scripting option is set to true by default. To set this option to false do the following:

1. Locate the setting, `<add key="SafeScripting" value="true"` in the following files:
  - `Web.config` available at `\\TotalAgility\Agility.Server.Web`
  - `Agility.Server.Core.Executor.exe` available at `\\TotalAgility\CoreWorkerService`
  - `Agility.Server.StreamingService.exe` available at `\\TotalAgility\CoreWorkerService`
  - `Agility.Server.Core.WorkerService.exe` available at `\\TotalAgility\CoreWorkerService`
2. Replace the value with "false".

## Add custom job thread pools

A job thread performs multiple operations at a time, such as job evaluation, raising an exception job or ingestion through Kofax Import Connector. Multiple operations can lead to bottlenecks in the production systems. For example, when there are thousands of jobs to be archived, ingestion and job evaluation take longer time because the job threads are busy archiving jobs. Adding custom job thread pools, helps in achieving better throughput and prioritizing the background tasks.

You can add custom job thread pools, specify the number of threads in the thread pool and assign the worker task to a thread pool 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:  
`\\TotalAgility\Agility.Server.Web`

3. Locate the following section:

```
<configSections>
  <section name="CoreWorker" type="Agility.Server.Core.Worker.Configuration,
    Agility.Server.Core.Worker"/>
</configSections>
```

4. Add one or more job thread pools within the `CoreWorker` section and add worker tasks, as required. The following is a sample from the configuration file.

#### Example

```
<CoreWorker>
  <JobThreadPools>
    <add Id ="1" Size ="16" WorkerTasks ="ArchiveJobTask, DeleteItemTask,
    CreateExceptionTask, CreateJobTask, EvaluateJobTask,
    ProcessStateActionTask, IngestSystemTask, CaptureBatchTask "/>
  </JobThreadPools>
</CoreWorker>
```

**Note** You must assign the following worker tasks to some thread pool, otherwise, an error message is displayed and the Core Worker Service stops working. You cannot assign the same worker task to more than one thread pool.

- ArchiveJobTask
- EvaluateJob Task
- CreateException Task
- CreateJob Task
- IngestSystem Task
- CaptureBatch Task
- DeleteItem Task
- ProcessStateAction Task

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

## Using Configuration Utility

Run the Configuration utility and add or update the custom job thread pools, specify the number of threads in the thread pool and assign the worker task to a thread pool.

## 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 timeout. The thread pool monitoring interval is defined per deployment.

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:  
\\TotalAgility\Agility.Server.Web
3. Locate the following section and add a thread pool monitoring interval (default:60).

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

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



## Using Configuration Utility

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

## Add performance monitoring counters

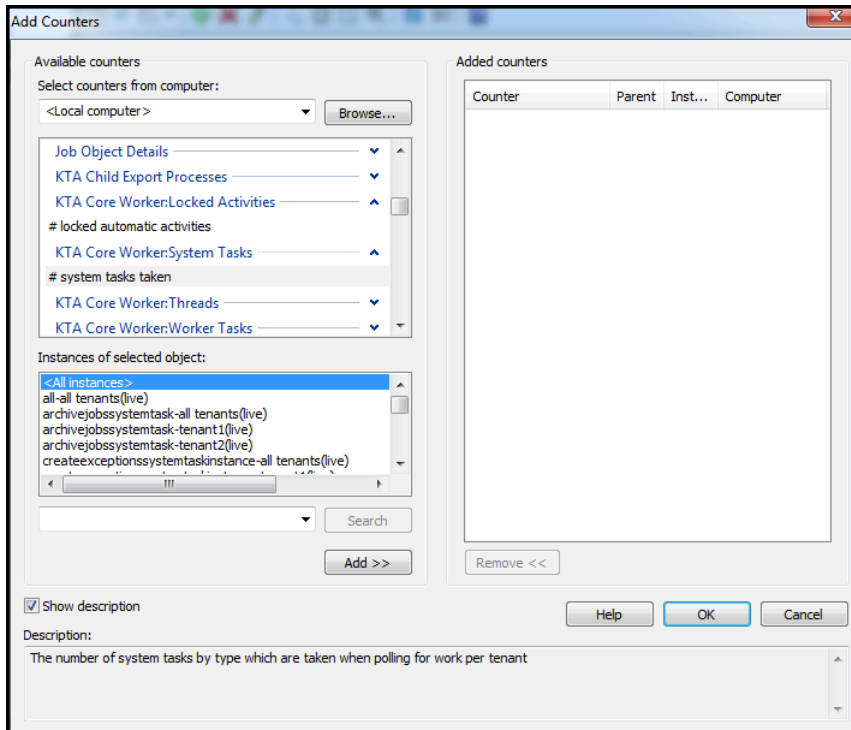
Use the performance counters to record application states and activities.

The following categories for TotalAgility performance monitoring counters are automatically installed on the target machine when the Core Worker Service and the Export Service are installed:

- Kofax TotalAgility Core Worker: Locked Activities
- Kofax TotalAgility Core Worker: System Tasks
- Kofax TotalAgility Core Worker: Threads
- Kofax TotalAgility Core Worker: Worker Tasks
- Kofax TotalAgility Export Service
- Kofax TotalAgility Child Export Processes

Each category is associated with the performance counters. When the performance monitor is launched, you can select the installed counters and add to the current monitoring session. The performance counters for Core Worker records "per tenant" instances for TotalAgility multi-tenanted installation. For example, the Lock Activities performance counter records multiple instances per tenant to show the number of activities locked per tenant when polling for work. You can log each performance counter to the TotalAgility log file by enabling the logging function.

The image below shows the tenant instances recorded for the "system tasks taken" performance monitoring counter.



You can log each performance counter to the TotalAgility log file by enabling the logging function. For more information on performance monitoring counters, see the *Kofax TotalAgility Administrator's Guide*.

## Log on to TotalAgility On-Premise Multi-Tenancy

After you install TotalAgility Tenant Management application, it will create a shortcut in All Programs.

1. Navigate to **Start > All Programs > Kofax TotalAgility Tenant Management > TenantAdmin**. Alternatively, enter the following URL in the browser:

```
http://<TA server hostname or IP>/TenantManagementWebSite/  
TenantManagement/TenantLogon.html
```

The TotalAgility Tenant Management application is started.

2. Enter the **Username** and the **Password**.

Kofax TotalAgility On-Premise Multi-Tenancy is launched in the browser.

**Note** The default username and password is **Administrator**. Please change the username and password for security reasons. See "Manage Users" in the *Kofax TotalAgility On-Premise Multi-Tenancy Guide*.

3. To access TotalAgility Designer, you must create a tenant. See the *Kofax TotalAgility On-Premise Multi-Tenancy Guide*.

4. After creating a tenant, an email is sent to the tenant's email address with login credentials. Based on the tenant's permissions, links are sent for the TotalAgility Designer and TotalAgility Workspace for production and development environments.

**Note** A Wildcard DNS must be used along with the Wildcard SSL certificate to resolve the tenant URL. You can update the Windows hosts file (`%windir%\System32\drivers\etc\hosts`) to allow the URLs to be resolved for demo testing purposes. Updating the Windows hosts file approach must not be used in a production environment.

## Secure cookies

The Secure attribute for sensitive cookies in HTTPS sessions is not set by default. This allows a browser to send these cookies in plain text over an HTTP session.

To secure the cookies, uncomment the `httpCookies` tag, `<httpCookies requireSSL="true"/>` in the Kofax TotalAgility Web.config file.

## Install the language pack

The languages files are available at the following location in the installation directory:

```
\\TotalAgility\Agility.Server.Web\LocalizationFiles
```

After installing TotalAgility, import the **<Language>.zip** file using the Import Languages feature of the TotalAgility Form Designer.

When you change your browser to one of the supported languages, the corresponding translation is displayed.

**Note** The translations only apply to TotalAgility Workspace; they do not apply to the TotalAgility Designer.

## Install the .NET Framework language packs

To localize the system error messages from .NET, you must install the .NET Framework language packs on both the Web and Application servers.

You can download the .NET Framework language pack from the Microsoft website.

## Access TotalAgility documentation

You can access help online as well as in offline mode.

## Online documentation

The product documentation for Kofax TotalAgility 7.6.0 is now available at the following location:

<https://docshield.kofax.com/Portal/Products/KTA/7.6.0-d4fslp3xyr/KTA.htm>

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

### Note

- After upgrading to TotalAgility 7.6.0 from an earlier version, to view the TotalAgility Workspace help, you must import the WorkspaceHeader form from the TotalAgility Workspace package.
- When upgrading to TotalAgility 7.6.0 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 Workspace package.

## Offline documentation

To access the documentation offline, 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 Kofax TotalAgilityDocumentation7.6.0\_EN.zip for English or Kofax TotalAgilityDocumentation7.6.0\_FR.zip for French.

The English .zip file includes both help and print folders. The print folder contains all guides, such as installation guide and administrator's guide. The .zip files for other languages contain only the localized help files.

1. From the Kofax Fulfillment Site, download the documentation.zip file for the applicable language.

2. Extract the contents of the compressed documentation file and do the following:

**Note** In a distributed environment, perform copying files on the Web server, and the Web.config changes on the Application and Web servers.

- Copy the contents of the extracted TotalAgility\_help to:  
\\TotalAgility\Agility.Server.Web\Help\TotalAgility\_designer
- Copy the extracted KTAW\_EN (for Workspace help in English) folder to:  
\\TotalAgility\Agility.Server.Web\Help
- Copy the extracted KTAWCC\_EN (for Web Capture control help in English) folder to:  
\\TotalAgility\Agility.Server.Web\Help
- Copy the extracted TotalAgility\_opmt\_help folder to:  
\\TotalAgility\Agility.Server.Web.TenantManagement\TenantManagement\Help
- Copy the extracted TotalAgility\_KEC\_help folder to:  
\\TotalAgility\Agility.Server.Web\Help\ExportConnector\_help
- Copy the contents of the extracted ThinClientServer help to:  
\\TotalAgility\Agility.Server.Web\Forms\Controls\Capture\help
- Copy the contents of KFS\_adminconsoleTA (Devices help) to:  
\\TotalAgility\Agility.Server.Web\bin\Administrative\Help
- Copy the contents of TotalAgility\_repositorybrowser help to:  
\\TotalAgility\Agility.Server.Web\Help\TotalAgility\_repositorybrowser
- Copy the contents of the extracted SDK\_Documentation to:  
\\TotalAgility\Agility.Server.Web\Help\API
- Copy the contents of the extracted TotalAgility\_documentconverterhelp to:  
\\Kofax\Document Converter\web\help

**3. Navigate to the installation folder and do the following:**

- For TotalAgility help and Devices help:

- a. Open TotalAgility Web.config in a text editor from the following location:**

- `\\TotalAgility\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"/>`.**

- Alternatively, run the Configuration Utility (available from the Installation media: `\\TotalAgility\Utilities\ConfigurationUtility`) and remove the URL for online help from the OnlinehelpURL setting.

- For Kofax Export Connector help:

- a. Open Agility.Server.ExportConnector.exe.config in a text editor from the following location:**

- `\\TotalAgility\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"/>`.**

- For Message Connector help:

- 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.**

- For Document Converter help:

- 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.**

**4. Save and close the configuration file.**

Clicking the Help icon will launch the help for the installed product.

## Chapter 3

# Transformation Server Bundle installation

The Transformation Server Bundle includes:

- Transformation Server
- Transformation Core modules

To install any component, you must install the entire Transformation Server Bundle

You can install the Transformation Server Bundle when you install TotalAgility or install the Transformation Server Bundle separately.

Note the following:

- For development environments, install the Transformation Server Bundle where you installed TotalAgility. For production environments, install the Transformation Server Bundle on a separate computer.
- The user who will run the Transformation Server must have the rights described in [Configure the user account](#).
- After installing the Transformation Server, you can modify the configuration settings by editing the Transformation Server configuration file or by running the configuration utility. See the *Kofax TotalAgility Configuration Utility Guide*.

## Perform a silent installation

This section describes the steps to silently install the Transformation Server Bundle without any interaction with TotalAgility. For development environments, install the Transformation Server Bundle where you installed TotalAgility. Otherwise, install the Transformation Server Bundle on a separate system in the same domain where you installed TotalAgility.

**Note** If you copy and paste the code from this guide, fix any incorrect line breaks.

1. Launch a Command Prompt window and navigate to `\\TotalAgility\Transformation Server\`.
2. Run the following command:

```
TransformationServerSetup.exe /quiet /log %LogFile% TS_INSTALLLOCATION=
%InstallLocation% TS_SERVICE_ACCOUNT=%WindowsServiceAccount%
TS_SERVICE_PASSWORD=%WindowsServicePassword% TS_USE_SPECIFIC_POOL=
%UseSpecificPool%TS_POOL_NAME=%PoolName% TS_OL_ENABLED=%OLEnabled
% TS_WCF_PORT=%WcfPort% TS_RESERVED_SLOTS=%ReservedSlots%
TS_OVERRIDE_DEF_SLOTS=%OverrideDefSlots% TS_MAX_SLOTS=%MaxSlots
% TS_ENABLE_SYNC_CALLS=%EnableSyncCalls% TS_STARTSERVICE=TRUE
TS_MULTITENANT_INSTALL=1 TS_TENANT_DB_CONNECTION_STRING=
```

```
%DataCentreDatabase% TS_DEPLOYMENT_TYPE=%MultiTenancyInstallMode%  
(deployment type is case sensitive and should be in lower case only)
```

For description of these parameters, see [Silent installation of Web and Application on the same server](#).

**Note** Enter more parameter values as necessary. If the value of a parameter has spaces, enclose the value in quotation marks.

#### Example: Silent installation command

##### TransformationServerSetup.exe /quiet /log TSinstallationLog.log

```
TS_USE_SPECIFIC_POOL=true  
TS_POOL_NAME=Pool1  
TS_OVERRIDE_DEF_SLOTS=true  
TS_MAX_SLOTS=2  
TS_TENANT_DB_CONNECTION_STRING="Server=dbserver;Database=TotalAgility;User ID=dbo_id;  
Password=dbopassword;
```

## TS\_SETUP\_CONFIG\_FILE sample

```
TS_SERVICE_ACCOUNT=.\serviceUser  
TS_SERVICE_PASSWORD=secretPwd  
TS_TENANT_DB_CONNECTION_STRING=Server=localhost;Trusted_Connection=Yes;Database=DataCenter_Tenants
```

## Perform a standard installation

Use the Installation Wizard to install and configure Transformation Server for a multi-tenant configuration. This approach provides different options than a non-tenant configuration. Before you start the installation, ensure that you have fulfilled all of the requirements, which include granting the user who will run the Transformation Server service the rights described in [Configure the user account](#).



**Note** If you install Transformation Server for a multi-tenant installation and you later need to switch to a non-tenant configuration, reinstall Transformation Server.

1. Start the Installation Wizard. Use the appropriate method for your type of system.
  - Production systems: Install the Transformation Server Bundle separately from TotalAgility. Navigate to the `TransformationServer` folder and do either of the following:
    - To install without creating a log file, run **TransformationServerSetup.exe**.
    - To install and create a log file, open a Command Prompt window and enter the following command:

```
TransformationServerSetup.exe \log <path\install_log.txt>
```

Where `<path\install_log.txt>` is the path and name of the log file.

- Development systems: If you are installing the Transformation Server Bundle as part of the TotalAgility installation, the Transformation Server Bundle installer opens automatically.

The Kofax Transformation Server Bundle window appears.

**Note** Perform steps 2, 3 and 5 only if you are installing Transformation Server Bundle separately from TotalAgility. If you are installing Transformation Server Bundle as part of the TotalAgility installation, you are directly taken to step 4.

2. Click **Options**.  
The Setup Options window appears.
3. Select **Multitenant installation** and click **OK**.  
You return to the first window.
4. Click **Install**. When the welcome screen appears, click **Next**.  
The license agreement window appears.

**Note** The license agreement window does not appear if you are installing Transformation server as part of TotalAgility installation.

5. Accept the terms in the license agreement and click **Next**.  
A window appears where you select the folder where Transformation Server is installed.
6. Use the default installation path or change it by typing it in the field or selecting it from the window by clicking **Change**. To continue with the installation, click **Next**.
7. Type the name and password of the user account used to run the Transformation Server service. To specify a domain user, enter the user name in the format `Domain\User`. Click **Next**.

**Note** Perform step 8 only if you are installing Transformation Server Bundle separately from TotalAgility. If you are installing Transformation Server Bundle as part of the TotalAgility installation, the connection string for the tenant database is automatically displayed.

**8. Set up data to connect to the tenant database.****a.** Select either dev or live.**b.** Enter the connection string to connect to and authenticate with the tenant database. Use the following syntax:

- SQL authentication:

```
Server=<server address or name>;Database=DataCenterTenants;User  
ID=<user_name>; Password=<password>;
```

Specify the address of the database server and the user name and password to authenticate with database where indicated. Example:

```
Server=dbserver;Database=DataCenterTenants;User ID=dbo_id;  
Password=dbopassword;
```

- Windows authentication:

```
Server=<server address or  
name>;Trusted_Connection=Yes;Database=DataCenterTenants;
```

Example:

```
Server=dbserver;Trusted_Connection=Yes;Database=DataCenterTenants;
```

**c.** Click **Next**.**9. Select either advanced execution option:**

- **Enable synchronous calls processing:** To select the TCP/IP port and number of reserved processing slots. The default TCP/IP port is 9001, and the number of reserved processing slots is 0.

**Note** If you are upgrading from version 7.0, "**Enable synchronous calls processing**" is disabled if the number of reserved processing slots is zero and enabled if there are one or more reserved processing slots.

- **Override default number of processing slots:** To specify a number of slots other than the default.

Click **Next**.

**10. Click **Install** to install the Transformation Server.**

The system displays the installation status and a message when Transformation Server setup is complete.

**11. Click **Finish** to continue.**

The system displays the Transformation Server Bundle setup status and a message when the Transformation Server Bundle installation is successful.

**12. Click **Close** to close the success message window.**

## Encrypt and decrypt the configuration file

The configuration file includes the Transformation Server settings, including sensitive information. Therefore, we recommend that you encrypt this file. The Transformation Server supports two encryption methods:

- DPAPI encryption: Because you must decrypt the file on the same machine where it was encrypted, use this utility to encrypt one server at a time. See [Use Kofax.CEBPM.encryptconfig.exe](#).
- RSA encryption: An algorithm for public key encryption and digital signatures that uses two separate keys. Create a key and encrypt the configuration file on one Transformation Server, and export the key to all the other Transformation Servers. All the Transformation Servers with the exported key installed can access the configuration file. Use this method if you have several Transformation Servers with the same configuration (TAService ID, pool name, and so on). See [Use RSA encryption](#).

To decrypt the configuration file, see [Decrypt the configuration file](#).

### Use Kofax.CEBPM.EncryptConfig.exe

The Kofax.CEBPM.EncryptConfig.exe utility encrypts (-enc) or decrypts (-dec) the CPUServer and AppSettings sections of the configuration file. The CPUServer section of the configuration file includes the TotalAgility Session ID. The AppSettings section of the configuration file includes the user ID and password as well as other information. Use the optional **-h** flag to display help for the command.

### Encrypt a file with Kofax.CEBPM.EncryptConfig.exe

Run the utility on each Transformation Server individually.

1. Stop the Transformation Server service.
2. Navigate to the Transformation Server installation directory and open a Command Prompt window.
3. Run the following command:

```
Kofax.CEBPM.EncryptConfig.exe -f Kofax.CEBPM.CPUServer.ServiceHost.exe.config -s "appSettings" -p DPAPIProtection -enc
```

### Use RSA encryption

Use RSA encryption to encrypt the configuration file, export the encryption key, and install the encryption key file on multiple Transformation Servers. Use this method if you have several Transformation Servers with the same configuration (TAService ID, pool name, and so on).

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

## Prepare the key

Perform these steps on one source Transformation Server.

1. Create the custom RSA key container:
  - a. Log on to the Transformation Server with administrator rights.
  - b. Open a Command Prompt window.
  - c. Navigate to the .NET Framework version 4.5 directory. For example, enter the following command:  
**cd \WINDOWS\Microsoft.Net\Framework\v4.5.\***
  - 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 Transformation Server service user permission to read the <KeysFile> RSA container file.

```
aspnet_regiis -pa "<KeysFile>" "<TSserviceuser>"
```

where:

- **<KeysFile>** is the name of the key file you created in step 1d.
- **<TSserviceuser>** is the Transformation Server service user.

3. Encrypt the file:
  - a. Log on to the Transformation Server as the Transformation Server service user.
  - b. Navigate to the installation directory for the Transformation Server and open a Command Prompt window.
  - c. Run the following command:  

```
Kofax.CEBPM.EncryptConfig.exe -f  
Kofax.CEBPM.CPUServer.ServiceHost.exe.config -s "appSettings" -p  
RSAProvider -enc
```

This command encrypts the CPUServer and appSettings sections of the configuration file. The CPUServer section includes the TotalAgility Session ID. 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 Transformation Server.

1. Import the key:
  - a. Log on to the Transformation Server with administrator rights.
  - b. Copy the keys.xml file from the source Transformation Server to the root directory of the target Transformation Server.
  - c. Open a Command Prompt 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 Transformation Server service user permissions to use the **<KeysFile>** RSA container file:

```
aspnet_regiis -pa "<KeysFile>" "TSserviceuser"
```

where:
  - **<KeysFile>** is the name of the key file you imported in step 1.
  - **<TSserviceuser>** is the Transformation Server service user.
3. Repeat these steps on all remaining Transformation Servers.

## Decrypt the configuration file

1. Stop the Transformation Server service.
2. Navigate to the Transformation Server installation directory and open a Command Prompt window.
3. Run the following command:

```
Kofax.CEBPM.EncryptConfig.exe -f Kofax.CEBPM.CPUServer.ServiceHost.exe.config -s "appSettings" -p DPAPIProtection -dec
```

## Edit the configuration file

Modify the Transformation Server configuration file, Kofax.CEBPM.CPUServer.ServiceHost.exe.config, only if the system configuration has changed, or if you need to resolve a technical or performance issue.

You can edit the configuration file or run the configuration utility to modify the settings post installation. See the *Kofax TotalAgility Configuration Utility Guide*.

1. If you encrypted the configuration file after you installed the Transformation Server, decrypt the file. See [Decrypt the configuration file](#) .

**Note** If you used RSA encryption, decrypt the configuration file only on the source Transformation Server where you initially encrypted the file.

2. Navigate to the installation directory for the Transformation Server and locate `Kofax.CEBPM.CPUServer.ServiceHost.exe.config`.
3. Back up the file and save it in a secure location.
4. Open the file in a text editor.
5. To change system configuration options, modify the keys in the `<appSettings>` section.  
The section contains a list of keys for setting configuration options. The keys that can be modified have comments that describe the setting and supported values, as in this example.

```
<!-- Maximum number of instances allowed for Executor Process -->  
  <add key="MaxNumberOfTenantProcesses" value="1"/>
```

6. Change the value within the quotation marks to a supported value, as indicated in the comments.
7. To change how errors are reported in the application event log, which can be viewed in the Event Viewer, modify the `<system.diagnostics>` section as follows:
  - a. Under `<switches>`, locate the following element:

```
<add name="TraceLevelSwitch" value="Warning"/>
```

By default, the value is set to `Warning`, which reports error and warning messages. Change the value to any of the options listed in the comment to change the type of messages reported.

- b. Under `<sharedListeners>`, locate the following line:

```
<add name="CPUServerLogTxt"  
  type="Kofax.CEBPM.CPUServer.Common.Diagnostics.DateTimeTaggedTraceListener,  
  Kofax.CEBPM.CPUServer.Common" initializeData="KofaxCPUServerLog.log" >
```

To specify a different log file or change the format for timestamps, change the value of `initializeData` as shown in the comments in the file.

8. Save and close the configuration file.
9. To re-encrypt the configuration file, run the encryption utility. See [Encrypt and decrypt the configuration files](#).

**Note** If you used RSA encryption, export the key, and install the encryption key file on any target Transformation Servers imported the original encrypted configuration file.

10. Restart the Kofax Transformation Server service.

## Uninstall Transformation Server

Uninstall Transformation Server depending on how you have installed it.

- When you install Transformation Server as a part of Kofax TotalAgility standard installation, uninstalling Kofax TotalAgility will automatically uninstall Transformation Server.
- When you install the Transformation Server Bundle on a separate system, uninstall the Transformation Server Bundle from the Control Panel.

- To uninstall in a silent mode, do the following:
  1. Navigate to the root directory of the TransformationServerSetup.exe file.
  2. Run TransformationServerSetup.exe / uninstall / quiet.  
The system uninstalls the Transformation Server. The log file is created if there are any errors or warnings.

## Chapter 4

# Reporting Server installation

This chapter describes two methods for installing Kofax Reporting Server:

- [Silent installation](#)
- [Standard installation](#) using the installation wizard

## Perform a silent installation

The following table describes the parameters to set when you silently install the Reporting Server independent of TotalAgility. For development environments, install the Reporting Server where you installed TotalAgility. Otherwise, install the Reporting Server on a separate system in the same domain where you installed TotalAgility.

**Note** If you copy and paste the code from this guide, fix any incorrect line breaks.

Parameter	Default Value	Description
INSTALLLOCATION	C:\Program Files\Kofax \TotalAgility\Reporting Server\	Specify the Reporting Server destination directory.
WINSERV_ACCOUNT	no default	Enter the name of the user who will run the Reporting Server. To specify a domain user, enter the user name in the format Domain\User.  Ensure that the account details are correct, as under this account Reporting Server authenticates in all places where Windows authentication is used. Example: TA database.  All communication and resource access is run under this account. Therefore, the account under which Reporting Server is running must not be a dummy account.
WINSERV_PASSWORD	no default	Enter the password for the user.
DEPLOYMENT_TYPE	live or dev	Specify the deployment type as live or dev.



Parameter	Default Value	Description
TENANT_DB_CONNECTION_STRING	Server=localhost; Trusted_Connection=Yes; Database=DataCenterTenants;	Enter a connection string to the TotalAgility tenants database (DataCenterTenants).

**Note** Parameter names are case-sensitive.

1. Launch a Command Prompt window and navigate to **\\TotalAgility\Reporting\**.
2. Run the following command:

```
msiexec.exe /i Kofax.Reporting.TAService.msi /q MULTITENANT_INSTALL=1
WINSERV_ACCOUNT=%WindowsServiceAccount% WINSERV_PASSWORD=
%WindowsServicePassword%TENANT_DB_CONNECTION_STRING="%DataCentreDatabase
%" INSTALLLOCATION="%InstallDirectory%" DEPLOYMENT_TYPE=
%MultiTenancyInstallMode% (deployment type is case sensitive and should be
lower case only)
```

**Note** Enter more parameter values as necessary. If the value of a parameter has spaces, enclose the value in quotation marks.

## Perform a standard installation

1. On the installation media, navigate to **TotalAgility > Reporting > Reporting.TAService**. The Kofax TotalAgility Reporting Server Setup window appears.
2. Click **Next**.
3. In the End-User License Agreement window, select **I accept the terms in the License Agreement** and click **Next**.
4. In the Destination Folder window, select the default folder (C:\Program Files (x86)\Kofax\TotalAgility\Reporting Server\) for the Reporting server or click **Change** to choose another folder.
5. Click **Next**.
6. In the Service Account Setup window, enter the credentials for the user who will run the Kofax TotalAgility Reporting Server service:
  - a. In the Username field, enter the user name.
  - b. To specify a domain user, enter the user name in the format Domain\User.
  - c. Enter and confirm the password.
  - d. Click **Next**.
7. In the Obtaining TotalAgility Configuration window, enter the URL of the Reporting Server service where the configuration settings reside and click **Next**.  
Use the following format: `http://<server_name>/TotalAgility/Services/Core/TenantService.svc`  
where <server\_name> is the TotalAgility server name  
The system downloads the settings.

8. Click **Install** to install the Reporting Server.
9. Click **Finish**.

## Uninstall the Reporting Server

Uninstall the Reporting Server depending on how you have installed it.

- When you install the Reporting Server as part of Kofax TotalAgility standard installation, uninstalling TotalAgility will automatically uninstall the Reporting Server.
- When you install the Reporting Server on a separate system using the Wizard, uninstall the Reporting Server from the Control Panel.
- If you install the Reporting Server in a silent mode, you must do the following to uninstall the Reporting Server in a silent mode:
  1. On the Command Prompt, change the command line to the root directory of the `Kofax.Reporting.TAService.msi` file.
  2. Run `msiexec.exe/quiet/x Kofax.Reporting.TAService.msi/L*V"%LogFileName%".`  
The system uninstalls the Reporting Server and automatically creates a log file in the temporary files folder. This log file contains information on errors, if any. You can use "`msiexec/help`" (Windows installer help) to check options for the installation and logging.

## Chapter 5

# Integrate Microsoft SharePoint with TotalAgility

Integrate Microsoft SharePoint 2010 or SharePoint 2013 with TotalAgility to use SharePoint in On-Premise Multi-Tenant TotalAgility.

1. Navigate to `\\SharePointInstallation` on the installation media, and run **Setup.exe**.  
The system opens the TotalAgility for SharePoint Setup wizard.
2. Click **Next**.  
The system displays the TotalAgility SharePoint Components window.
3. Select the TotalAgility SharePoint components to install:
  - a. To install the SharePoint web parts, select the **TotalAgility SharePoint WebParts** check box.
  - b. To install the SharePoint web service and event-handler dlls, select the **TotalAgility SharePoint Event-Handling Components** check box.
  - c. To install the TotalAgility SharePoint custom pages, select the **TotalAgility SharePoint Custom Pages** check box.
    - By default, the **Add Assembly To GAC** check box is selected. The files are automatically added to GAC.
    - If you do not have access to GAC, clear the **Add Assembly To GAC** check box and enter the SharePoint Site Port Number. The files are automatically added to the bin folder (default location is `C:\inetpub\wwwroot\wss\VirtualDirectories\[PortNumber]\bin`) within the site.

**Note** You can rerun the setup at a later date to install the custom pages if you did not do it initially.

4. Click **Install**.
5. Update the **Web.config** file to get custom pages, support event handlers and configure SharePoint site. See [Update the Web configuration file](#).

Further configure:

- [TotalAgility custom web pages in SharePoint](#).
- [TotalAgility web parts in the SharePoint server](#).
- [Microsoft SharePoint and TotalAgility servers to provide fault tolerance](#).

## Update the Web configuration file

Update Web.config for the TotalAgility components.

## To get custom pages

Add the following optional “appsettings” key values to the Web.config file in the target SharePoint web application folder, for example, C:\inetpub\wwwroot\wss\VirtualDirectories\<PortNumber> where <PortNumber> is the port number of the target SharePoint web application.

Appsetting	Description	If not specified
<b>TAEmbeddedSolutionURL</b>	Point to the On-Premise Multi-Tenant TotalAgility site URL to integrate into the SharePoint web application.	The On-Premise Multi-Tenant TotalAgility Form site is available at the same location as the SharePoint web application.
<b>TALogonUserIdentifier</b>	Point to the identifier that passes the SharePoint logon user name into embedded forms in the TotalAgility Forms site.	The LOGON_USER is used as the identifier.
<b>TAWorkqueueEmbeddedForm:</b>	Point to the form in the TotalAgility Form site to use in the Workqueue custom page.	The WorkQueue.form is used.
<b>TAJobListEmbeddedForm</b>	Point to the form in the TotalAgility Form site to use in the JobList custom page.	The JobList.form is used.
<b>TADocURLIdentifier</b>	Point to the identifier that passes the SharePoint document URL into embedded CreateNewJob forms in TotalAgility.	The DOC_URL is used.
<b>TADocNameIdentifier</b>	Point to the identifier that passes the SharePoint document name into embedded CreateNewJob forms in TotalAgility.	The DOC_NAME is used.

### Example: Web.config settings to get custom pages

```
<appSettings>
<add key="TAEmbeddedSolutionURL" value="http://domainname1:80/Forms/SharepointSite" />
<add key="TALogonUserIdentifier" value="LOGON_USER" />
<add key="TAWorkqueueEmbeddedForm" value="WorkQueue.form" />
<add key="TAJobListEmbeddedForm" value="JobList.form"/>
<add key="TADocURLIdentifier" value="DOC_URL"/>
<add key="TADocNameIdentifier" value="DOC_NAME"/>
</appSettings>
```

## To support event handlers

**Note** 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 & 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.TextExceptionHandler,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling,
Version=5.0.505.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" priority="0" />
</exceptionHandlers></add>
</exceptionTypes>
</add>
</exceptionPolicies>
</exceptionHandling>

```

**Note** SharePoint event handler executes in the context of the user who initiated the action.

## For a SharePoint site

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

- Update the <system.serviceModel> section:

```

<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://[TotalAgility 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.

**Note** Point the endpoint address to the integration service URL for TotalAgility.

## Network authentication for SharePoint and TotalAgility

### TotalAgility and SharePoint are on the same domain

1. Ensure that TotalAgility site has Windows Authentication in Internet Information Services (IIS) and the required SharePoint users are added to the TotalAgility server. Perform the following in the TotalAgility server:
  - a. Open **Internet Information Services (IIS) Manager**.
  - b. Click **Sites > Default Web Site > TotalAgility**.
  - c. On the **Features View** tab, double-click **Authentication**.
  - d. Right-click **Windows Authentication** and click **Providers**.
  - e. Check if, **Negotiate** and **NTLM** are available as providers. If not, add them from the **Available Providers** list.
2. Ensure that TotalAgility SharePoint Communicator site has windows authentication in Internet Information Services (IIS). Perform the following in the SharePoint server:
  - a. Open **Internet Information Services (IIS) Manager**.
  - b. Click **Sites > Default Web Site > TotalAgilitySharepointCommunicator**.
  - c. On the **Features View** tab, double-click **Authentication**.
  - d. Right-click **Windows Authentication** and click **Providers**.
  - e. Check if, **Negotiate** and **NTLM** are available as providers. If not, add them from the **Available Providers** list.
  - f. Ensure that Site App pool is changed to SharePoint site App pool.

## TotalAgility and SharePoint are on different domains

Ensure that TotalAgility and SharePoint domains are trusted. If domains are not trusted, Windows authentication will not work, so it must be disabled and Anonymous authentication must be enabled in IIS. The Web.config files must also be updated. The steps to modify the Web.config files are given in the sub section.

Perform the following steps in the TotalAgility server and SharePoint server:

1. Open **Internet Information Services (IIS) Manager**.
2. Click **Sites > Default Web Site > TotalAgility**.  
For SharePoint server, click **Sites > Default Web Site > TotalAgilitySharePointCommunicator**
3. On the **Features View** tab, double-click **Authentication**.
4. Right-click **Windows Authentication** and click **Disable**.
5. Right-click **Anonymous Authentication** and click **Enable**.

## Updating the Web.config files

Update the Web.config files if TotalAgility and SharePoint are on different domains.

1. In the **Web.config** file for TotalAgility, replace `<transport clientCredentialType="Windows" />` with `<transport clientCredentialType="None" />` in the following bindings:
  - BasicHttpBinding\_SharepointCommunicatorService
  - BasicHttpBinding\_Service
  - CustomBinding\_CoreService
  - WebHttpBinding\_Service
2. In the **Web.config** file for TotalAgilitySharePointCommunicator site on SharePoint server, replace `<transport clientCredentialType="Windows" />` with `<transport clientCredentialType="None" />` for BasicHttpBinding\_SharepointCommunicatorService binding.
3. In the **Web.config** file for SharePoint site (C:\inetpub\wwwroot\wss\VirtualDirectories\<site port>), replace `<transport clientCredentialType="Windows" />` with `<transport clientCredentialType="None" />` for BasicHttpBinding\_SharepointCommunicatorService binding.

## Configure the TotalAgility custom web pages in SharePoint

Integrate a TotalAgility site directly into the SharePoint web interfaces to add the following TotalAgility forms to SharePoint:

- Create new job/workflow
- Work queue
- Take activities (displaying TotalAgility take activity forms)
- Job/workflow list and job properties



TotalAgility site forms are hosted within custom ASPX web pages that are added to the target SharePoint web application.

## Enable single sign-on

Provide single sign-on to access the SharePoint website and the TotalAgility site.

**Note** Disable the Header Form option while creating the custom pages.

Use the default username initialization variable, LOGON\_USER in the top-level forms (CreateNewJob, WorkQueue and JobList) in the TotalAgility site.

**Note** You can modify the name in the LOGON\_USER if needed.

When implementing these forms, SharePoint passes the LOGON\_USER variable into the embedded TotalAgility forms to call the TotalAgility API `UserService::GetSession()`.

1. Map form variable, LOGON\_USER to `userId`.
2. Provide 7 to `logOnProtocol`.
3. Map global variable, SESSION\_ID to `SessionId`.
4. Map global variable, RESOURCE\_ID to `ResourceId`.

Using the `GetSession()` API, you can avoid a separate logon to the TotalAgility forms that are integrated into SharePoint. The `GetSession()` API gets the TotalAgility session ID for the user if they are already logged on, otherwise it just logs the user.

**Note** The SharePoint user must also be a user in TotalAgility for single logon to work.

Add links to the top-level TotalAgility custom web pages in the SharePoint Quick Launch menu.

## Add the TotalAgility custom web pages to the SharePoint quick launch menu

1. Go to **Site Actions > Site Settings**.
2. Under Look and Feel category, click **Quick Launch**.
3. Add the following new headings and rename the headings if needed.

Heading	Web Address
TotalAgility Workqueue	<code>/_layouts/WorkQueue.aspx?EmbeddedForm=WorkQueue.form</code> <p><b>Note</b> Rename <code>WorkQueue.form</code> to point to your TotalAgility work queue form; do not change the name if the form is called <code>WorkQueue.form</code>. If the Quick Launch menu is on a subsite, prefix the subsite name in the link as follows:</p> <code>/SubSiteName/_layouts/WorkQueue.aspx?EmbeddedForm=WorkQueue.form</code>

Heading	Web Address
TotalAgility Create Workflows	<p><code>/_layouts/CreateJob.aspx?EmbeddedForm=Create%20Jobs.form</code></p> <p><b>Note</b> Rename Create%20Jobs.form to point to your TotalAgility CreateNewJob form; do not change the name if the form is called Create Jobs.form.</p> <p>You can create multiple TotalAgility Create Workflow headings to point to different TotalAgility CreateNewJob embedded forms.</p> <p>If the Quick Launch menu is on a subsite, prefix the URL with SubSiteName as explained for TotalAgility Workqueue.</p>
TotalAgility Workflows	<p><code>/_layouts/JobList.aspx?EmbeddedForm=JobList.form</code></p> <p><b>Note</b> Rename JobsList.form to point to your TotalAgility JobList form; do not change the name if the form is called JobList.form.</p> <p>If the Quick Launch menu is on a subsite, prefix the URL with SubSiteName as explained for TotalAgility Workqueue.</p>

## Add the create TotalAgility workflow context menu item to a document library

Provide context menu links in SharePoint document libraries to launch the TotalAgility Create Workflow custom page. Pass in the selected SharePoint document URL as an initialization variable to the new TotalAgility workflow or job so it can be used in TakeActivity forms to provide hyperlinks to the document.

Before you add a new context menu item to a document library, complete the following steps:

1. Create a process with two initialization parameters, DOC\_URL and DOC\_NAME.
2. Build a Create New Job form and add these initialization parameters:
  - DOC\_URL
  - DOC\_NAME
  - LOGON\_USER
3. Modify the `Getinitvarlist` action to clear the DOC\_URL and DOC\_NAME parameters to retain values from the query string.

Add the new context menu item:

1. Create a text file with the following JavaScript:

```
<script>
function Custom_AddDocLibMenuItems(m, ctx)
{
// parse the URL out of the itemTable
var URL = "";
var DocName = "";
var index = itemTable.innerHTML.indexOf("href=");
if (index > 0)
{
var str = itemTable.innerHTML.substr(index + 6);
index = str.indexOf('"');
if (index > 0)
{
URL = str.substr(0, index);
}
}
}
</script>
```

```

        index = str.indexOf('>');
        var index2 = str.indexOf('<');
        DocName = str.substr(index + 1, index2 - index - 1);
    }
}
if (URL != "")
{
strAction = 'window.location = "http://[domainname]:
[Port Number]/[SubSiteName]/_layouts/CreateJob.aspx?DocUrl='
+ URL + '&DocName=' + DocName +
'&EmbeddedForm=[CreateNewJobFormName.form]';

    var strDisplayText = "Create workflow in TA";
    var strAction;
    var strImagePath = "";

    // Add menu item
    CAMOpt(m, strDisplayText, strAction, strImagePath);

    // add a separator to the menu
    CAMSep(m);
}
return false;
}
</script>

```

2. Replace [ domainname ] with the location of the SharePoint web application that contains the TotalAgility custom web pages.
3. If required, specify the SharePoint subsite name in [ SubSiteName ].
4. Replace the [ CreateNewJobFormName.form ] text with the name of your TotalAgility CreateNewJob form.
5. If required, rename the menu item display text "Create workflow in TA" in the script.
6. Upload this file to SharePoint Shared Documents.
7. Provide the link to this file in Content Editor Web Part:
  - a. Go to **Site Actions > Edit page**.
  - b. Click **Add a Web Part**.
  - c. In the **Media and Content** group, select **Content Editor Web Part**.  
This mechanism injects JavaScript into the SharePoint page.
8. Save the changes to the SharePoint page and exit the Edit mode.  
A new menu item, "Create Workflow in TA" becomes available from the Context list for a document in this document library. Select the menu item to go to the CreateJob.aspx TotalAgility custom web page and pass in the document URL and name.
9. Add more context menu items to use multiple Create Workflow pages.

## Configure the custom web pages

Perform the following steps if you configure the TotalAgility custom web pages in SharePoint.

1. Download a copy of existing Seattle.master from the Master Page gallery and rename it to KTA.master.
2. Open the KTA.master file in the editor.

3. To change the page logo to Kofax, update the LogoImageUrl as follows.  

```
LogoImageUrl= <SharePoint:SiteLogoImage CssClass="ms-siteicon-img"
name="onetidHeadbnnr0" id="onetidHeadbnnr2" LogoImageUrl="/_layouts/15/
images/<Image>?rev=23" runat="server">
```

 Replace <image> with the Kofax image name.
4. If using Internet Explorer, update the content attribute value of <meta> tag to "IE=Edge" in the KTA.master file as follows:  

```
<meta http-equiv="X-UA-Compatible" content="IE=Edge"/>.
```
5. Upload the new KTA.master in the Master Page gallery as ASP NET Master Page file.
6. Publish the new KTA.master as a major version.
7. Set the new Master Page as Primary master page of your site.
8. Navigate to Site settings > Master Page and select the KTA.master page.
9. Update custom pages to use KTA.master.

## Configure the TotalAgility web parts in the SharePoint server

Configure the SharePoint site that contains the TotalAgility web parts to communicate with TotalAgility using web services or enabling session.

### Use web services

1. Open Web.config.
2. Add the key: `<add key="SPPServerName" value="<TotalAgility server name>:<port>/<SiteName>"/>`. For example, `<add key="SPPServerName" value="DL-WDEML-32:85">`

Do not mention the Port if running under port 80.

If you do not add the key, the web services communications layer to TotalAgility is not configured.

### Enable session

1. Navigate to the `C:\Inetpub\wwwroot\VirtualDirectories\<Port>` directory.

**Note** Get the <Port> from the address bar in Internet Explorer.

2. Open Web.config and do the following:

- a. Uncomment the line, `"<add name="Session">`.

**Note** If add name = "Session" is not available, add the following code: `<add name="Session" type="System.Web.SessionState.SessionStateModule, System.Web, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a" />`

- b. Search for the `"<pages enableSessionState">` tag and change the value of `"enableSessionState"` from `"false"` to `"true"`.

## Set up the Microsoft SharePoint and TotalAgility servers to provide fault tolerance

### Set up the TotalAgility server

1. Prior to setting up the TotalAgility Server, install the MSMQ support.
  - a. Open Server Manager on the SharePoint Server.
  - b. Select to add the Message Queuing feature.
  - c. Select the Message Queuing Server, Directory Service Integration and HTTP Support.
2. Create a physical MSMQ queue on the TotalAgility Server.

- a. Navigate to Computer Management\Message Queuing\Private Queues.
- b. Create a Transactional private queue, TotalAgility/Services/Core/IntegrationEventService.svc.

**Note** Select **Transactional** when creating the queue.

3. Enter the following two commands to configure IIS 7 to enable WAS to listen to the message queue, and activate your service when new messages arrive:

```
appcmd set site "Default Web Site" -+bindings.
[protocol='net.msmq',bindingInformation='localhost']
appcmd set app "Default Web Site/TotalAgility" /
enabledProtocols:net.msmq,http
```

4. Open Web.config located in the TotalAgility\Agility.Server.Web directory in your install location. For example, C:\Program Files\Kofax\TotalAgility\Agility.Server.Web.
5. Add the following msmq binding in the <bindings> section:

```
<netMsmqBinding>
  <binding name="MsmqBindingTransactionalNoSecurity" maxRetryCycles="3"
receiveErrorHandling="Move" receiveRetryCount="3" retryCycleDelay="00:01:00">
  <security mode="None"/>
  </binding>
</netMsmqBinding>
```

6. Open Web.config located in the Core directory in your install location (for example, C:\Program Files\Kofax\TotalAgility\Agility.Server.Web\Services\Core) and locate for the service tag:

```
<service
  name="Agility.Server.Core.Services.IntegrationEventService"
  behaviorConfiguration="Agility.Server.Web.Services.Behavior">
```

7. Add the following endpoint below this service tag:

```
<endpoint address=
"net.msmq://localhost/private/TotalAgility/Services/Core/
IntegrationEventService.svc"
binding="netMsmqBinding" bindingConfiguration="MsmqBindingTransactionalNoSecurity"
contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService" /
>
```

8. Verify that the Microsoft Windows net.msmq Listener Adapter service is started.

## Set up the Microsoft SharePoint server

1. Open Web.config for a SharePoint site.
2. Add the following tags under <bindings> section:

```
<netMsmqBinding>
  <binding name="MsmqBindingTransactionalNoSecurity" maxRetryCycles="3"
receiveErrorHandling="Move" receiveRetryCount="3" retryCycleDelay="00:30:00">
  <security mode="None"/>
  </binding>
</netMsmqBinding>
```

3. Add the following tags under <client> section:

```
<endpoint address=
"net.msmq://<TA_MACHINENAME>/private/TotalAgility/Services/Core/
IntegrationEventService.svc"
behaviorConfiguration="MsmqBindingTransactionalTransportSecurity"
binding="netMsmqBinding"
  bindingConfiguration="MsmqBindingTransactionalNoSecurity"
contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService"
name="Agility.Server.Core.Services.IntegrationEventService" />
```

4. Remove or comment out the following tag under <appSettings> section:

```
<add key="SPP_EventHandler_WebServiceURL" value="" />
```

5. Replace <TA\_MACHINENAME> with the TotalAgility server name.

## Chapter 6

# Integrate Microsoft Dynamics CRM with TotalAgility

To install and work with Dynamics CRM, you must have administrator rights.

## Install Dynamics CRM

1. Navigate to `\\DynamicsCRMInstall` on the installation media, and double-click **Setup.exe**. The installation wizard appears.
2. Click **Next**.
3. In the **CRM Server URL** box, replace the `<ServerName>` with the CRM server name and replace `<Port>` with the port number on which CRM is running.
4. In the **CRM Service URL** box, replace the `<ServiceName>` with the CRM service name.
5. In the **Metadata Service URL** box, replace the `<MetaDataServiceName>` with the CRM metadata service name.
6. In the **Domain** box, enter the domain name.
7. Enter the **Username** and **Password**.
8. Click **Finish**. The installation starts and registers 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:

**Note** 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 & 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://<TotalAgility server name or IP Address>/TotalAgility/Services/Core/
IntegrationEventService.svc"/>
</client>
</system.serviceModel>

```

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

# Integrate Microsoft Dynamics AX with TotalAgility

To install and work with Dynamics AX, you must be a user in TotalAgility, and must have Deployment Administrator rights. If not using the default Deployment Administrator, you must meet the following criteria:

- Be the system administrator in AX.
- Have full CAL access.

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

1. Navigate to the `//DynamicsAXInstall` on the installation media, 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.

**Note** If the required software is not installed, you must 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 directory:

Destination Directory	Sample Path for Dynamics AX 2009	Sample Path for Dynamics AX 2012
<b>DAX website Physical Location</b>	C:\inetpub\wwwroot \MicrosoftDynamicsAXAif50\	C:\inetpub\wwwroot \MicrosoftDynamicsAXAif60
<b>DAX website URL</b>	Default Web Site/ MicrosoftDynamicsAXAif50/	Default Web Site/ MicrosoftDynamicsAXAif60/
<b>DAX Client Physical Location</b>	C:\Program Files\Microsoft Dynamics AX\50\Client\Bin\	C:\Program Files (x86)\Microsoft Dynamics AX\60\Client\Bin
<b>DAX Server Physical Location</b>	C:\Program Files\Microsoft Dynamics AX\50\Server \DynamicsAx1\Bin	-NA-

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

6. Enter your **Username** and **Password** to associate with DAX Application pool.
7. Click **Next**.  
The system displays the installation status and a summary of installation report when installation is complete.
8. Click **Finish**.

**Important** If 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 a 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 Microsoft website for more information.

### Create a Dynamics AX 09 service reference to the TotalAgility web service

1. Click **AOT** and press **Ctrl+D**.
2. In the application object tree, right-click **References** and select **Add service reference**.
3. 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.
4. Click **OK**.

### Create a Dynamics AX 12 service reference to the TotalAgility web service

1. Click **AOT** and press **Ctrl+Shift+W**.
2. In the application object tree, right-click **References** and select **Add Reference**.
3. Browse to the TotalAgility assembly, KtaEvents.Services.dll that was installed previously. For example, `C:\Program Files (x86)\Microsoft Dynamics AX\60\Client\Bin`.
4. Click **OK**.

## Add a reference

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. Browse to the Dynamics AX Setup installation 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.

**Note** Once the class is imported, the Status tab in the compiler output page displays errors, if any.

## Edit the database X++ event methods

1. To alter the Application CUD (create, update and delete) class event methods, call the custom class method `EventChangeNotifyKtaWebService` when a CUD event is 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:

- a. **Insertlog method:** new

```
ktaController().EventChangeNotifyKtaWebService("Create",  
recordInserted, null, conNull(), recordInserted.RecId);
```

- b. **Deletelog method:** new

```
ktaController().EventChangeNotifyKtaWebService("Delete",  
recordDeleted, null, conNull(), recordDeleted.RecId);
```

- c. **Updateolog method:** new

```
ktaController().EventChangeNotifyKtaWebService("Update", recordOrig,  
recordUpdated, changedFields, recordUpdated.RecId);
```

**Note** The onsite AX administrator registers the Databaselog events for various AX documents. For example, if the *Customer*, *SalesOrder* and *Purchase Requisition* documents have the Insert, Update and Delete events registered against them, and when one of these events executes for one of these documents, TotalAgility is informed through a WCF call.

## Verify the Application Pool account

Verify that the Application pool account is using a valid Business Connector.NET (BC.NET) Windows credentials.

1. On the Start menu, select **All Programs > Accessories > 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 same as the BC.NET Windows credentials.
5. If credentials differ, do the following:
  - a. On the Actions pane, 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**.

## Chapter 8

# Integrate Micro Focus Content Manager with TotalAgility

1. Prior to installing Content Manager server, install the following software:
  - IIS
  - .NET Framework 4.6.1
  - TotalAgility (optional)
2. Identify the TRIM SDK version:
  - a. Navigate to the `C:\Program Files\Kofax\TotalAgility\` directory.
  - b. Right-click **TrimSDKPIA20.dll** and select **Properties**.  
The TrimSDKPIA20.dll properties window appears.
  - c. On the properties window, select the **Version** tab.  
The File Version displays the current TRIM version, for example, 7.3.0.

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

## Set up the Micro Focus Content Manager server

To install and work with TRIM, users must have administrator rights.

1. Log on as Administrator.
2. Navigate to `\\ContentManagerInstallation` on the installation media, right click on the executable **Setup.exe** and **Run as administrator**.  
The User Account Control window appears.
3. Click **Yes**.  
The installation wizard appears.
4. Click **Next**.
5. Click **Finish**.
6. Configure the Web.config file:
  - a. In `C:\Program Files\Kofax\TotalAgility\TotalAgilityTrimCommunicatorService`, open Web.config in a 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> section as follows:

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

- Replace the DocumentRecordType with the document URI value. If you do not know the document URI value, enter **4**.
- Replace the FolderRecordType with the folder URI value. If you do not know the folder URI value, enter **3**.
- 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.

**Important** When you first install the TotalAgility Content Manager integration, a TrimIntegrationAppPool with a local system identity is created. This causes an error, if the Content Manager server is remote.

To resolve this error, update the TrimIntegrationAppPool identity to an account with administrator permissions.

## Configure the event handler in Content Manager

Configure TotalAgility events for actions in the Content Manager System.

1. Copy the following DLLs to the TRIM binaries directory (usually C:\Program Files\Hewlett-Packard\HP TRIM):
  - **Agility.Server.Integration.Trim.dll**
  - **Agility.Server.Integration.Model.dll**
  - **Agility.Server.Integration.Common**

2. Register the dll.
  - a. Open **Content Manager**.
  - b. Select **Tools > Context Administration > External Links**.  
The TRIM 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 box, enter the  
ProgId,**Agility.Server.Integration.Trim.TrimIntegrationEventHandler**
  - f. Click **OK**.  
The TRIM Context External Links window displays the new link.
  - g. Select the link and click **Properties**.  
The Record AddIn Properties window appears.
  - h. Click the **Used By** tab.
  - i. Check the Document and File Folder under Record list and click **OK**.  
This configures the Event handler on TRIM.
3. In C:\Program Files\Hewlett-Packard\HP TRIM\, open the **trim.exe.config** file in a text editor and add or replace the following tags:

**Note** If you cut and paste 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="Loggng 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.TextExceptionHandler,
```



```
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="None" />
</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>
```

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

## Chapter 9

# 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 callback to occur when the signing is completed. The SignDoc server can be configured per SignDoc account to allow the same SignDoc server to callback 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.

## Chapter 10

# KCM proxy installation on the Web server

This chapter describes two methods for installing the KCM Proxy Web server:

- [Silent installation](#)
- [Standard 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. On the installation media, 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 file with KCM server details and enables the proxy rewrite rules on the web server (IIS).
3. Press **Enter**.  
The KCM Proxy is installed in the silent mode.  
The system generates a log file on the desktop which reports errors (if any).

## Standard installation

1. On the installation media, 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**.

## 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:

```
\\TotalAgility\Agility.Server.Web
```

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.

## Using 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 KCM proxy without using 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 server level, double-click **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 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 [Manually update the KCM Server URL in TotalAgility Web.config](#).
5. Uncomment the `<rewrite>` section.
6. Save and close the configuration file.

## Chapter 11

# Configure VRS Elite for TotalAgility

Install Kofax VRS and configure the VRS license server. Refer to the *Kofax VRS Elite Installation Guide* for more details.

## Kofax VRS Basic or Professional OEM installations

If your scanner includes an OEM version of VRS Basic or Professional, install VRS by running **setup.exe** on the scan station. The VRS software is automatically activated based on the attached scanner model.

## Standalone installations

If you purchased a standalone VRS license, install VRS by running **setup.exe** and select **Standalone** as the setup type. When prompted, specify the part number (such as VP-P005-0001), product code, and serial number to activate the software.

**Note** VRS remains activated on the workstation unless you manually deactivate it.

## Kofax VRS Elite licensing managed by the Kofax TotalAgility License Server

Use this configuration to manage VRS licenses through the TotalAgility License Server while also enabling VRS Elite shared profiles and auto profile training data.

This configuration requires installation of VRS Elite 5.1.2 or higher.

**Note** This configuration may be convenient if you have a limited number of scanners, however, it does not enable support for shared VRS profiles and training data.

### Install VRS Elite Server

1. Run **setup.exe** from the VRS Elite installation media.
2. When prompted, select **Server** as the setup type
3. Confirm the KTA license server information
4. Complete the steps in the installation wizard.

5. When prompted to activate the license during VRS Elite server installation, click **Cancel** as you will be using the [license proxy](#) instead.
6. Use the generated deployment Kofax VRS.msi to install VRS on the scan stations. Refer to the *Kofax VRS Elite Installation Guide* for details.

## Install TotalAgility License Proxy

You can install the License Proxy manually or when installing TotalAgility.

1. To install manually, run **Kofax.Licensing.TotalAgility.Proxy.Installer.msi** available at the following location on the Kofax Total Agility installation media:

```
\\TotalAgility\Licensing\Installs
```

The License Proxy Setup Wizard starts.

2. Click **Next**.
3. In the **End-User License Agreement** window, select **I accept the terms in the License Agreement** and click **Next**.
4. In the **Destination Folder** window, change or accept the default path where the Kofax TotalAgility License Proxy will be installed, and click **Next**.
5. In the **Service Account setup** window, enter user name and password, and confirm password for the service account, and then click **Next**.

This account must have access to the specified TotalAgility URL. These credentials are used for Kofax License Proxy service.

6. In the **TotalAgility connection setup** window, enter the TotalAgility connection details.
  - a. Provide information to connect to the TotalAgility License Server service URL.  
If using SSL, you must have a trusted, valid certificate.
  - b. Enter the System Session ID.  
For the System Session ID, you must obtain the Session ID value from the TotalAgility Designer (System Settings>Settings page).
  - c. Click **Next**.
7. Click **Install** to begin installation.
8. Click **Finish** to finish License Proxy wizard.

Once the Kofax TotalAgility License Proxy for VRS Server is installed, you can verify if the proxy is working properly by navigating to `C:\Program Files\Kofax\Imgctls\bin\Application` and running **KSALicenseUtility**. If the proxy is configured properly, the license information appears in the Kofax License Utility UI, otherwise, an error appears. You may need to reconfigure the System Session ID to match with the TotalAgility Server.

## Use Kofax VRS Elite with the TotalAgility Scan Client

After you install VRS Elite, Kofax Software VRS - TWAIN appears in the list of scanners when you scan a document in TotalAgility. See the *Kofax TotalAgility Scan Client help* for more information.

## Use the Kofax TotalAgility license for VRS Elite

The Kofax TotalAgility license includes at least one VRS Elite license.

To support tenant licensing for VRS Elite, a new component replaces the VRS Elite license server in TotalAgility environments and communicates with TotalAgility for tenant-specific licensing.

Servers are linked to either Azure or On-Premise tenant deployment. In such cases, the linked server licensing needs to come from Azure.

### **Shared Licensing for On-Premise Linked Servers**

This is the standard on-premise linked server configuration. In this scenario, the license server is deployed at a single site. The other sites share the license server deployed at one of the sites.

### **Shared Licensing for On-Premise Multi-Tenant Linked Servers**

This scenario includes multiple sites to improve performance. The license server is deployed at one of the sites. The other sites share this existing shared license server. TotalAgility user-interactive runtime license requests are optimized.

### **Tenant Licensing for On-Premise Multi-Tenant with a Linked Server for One Tenant**

This scenario includes a tenant using a local instance to improve performance. The license server is deployed at the main location, but the linked server must use the tenant-specific licensing.

### **Tenant Licensing for SaaS with a Linked Server for One Tenant**

The linked server feature can be combined with SaaS deployments. This scenario includes a tenant using a local instance to improve performance.





## Chapter 12

# Kofax Web Capture Service installation

Install the Kofax Web Capture Service either at the default location or to a custom location.

## Install at the default location

1. When opening a scan-enabled form for the first time, a prompt appears asking you to install the new Web Capture Service. See *Build a Scan Create New Job form in TotalAgility Help*.
2. Click **Run**.
3. Select **Save As** if you want to keep a copy of the msi installer. The msi installer can be used for Enterprise central deployment scenarios.
4. Refresh the page once installation completes.
5. The View and Change Settings icon  on the Scan Create New Job form becomes available after page refresh.
6. The Kofax Web Capture Service icon  in the System Tray icons indicates if the service is running.

## Install at custom location

For enterprise deployment scenarios where a custom Web Capture service installation location is required, install Web Capture service as follows.

On the Command Prompt, type the following command:

```
msiexec /i Kofax.WebCapture.Installer.msi INSTALLFOLDER=<Installation Folder>
```

## Use the Web Capture Service on multiuser environment

You can use the Web Capture Service on multiuser environments, such as MS Terminal Server and Citrix. Multiple users can work with Web Capture Service at the same time from different Windows logon sessions.

### Use the Web Capture Service on MS Terminal Server

When using a Terminal Server, users can connect to the scan server simultaneously and perform scanning tasks or import files in parallel. The Web Capture Service Host determines who exactly has made the request and forwards the request to the appropriate Web Capture Service Worker. The Web Capture Service Worker then works with devices and files that are available to the specific user.

**Note** The Web Capture Service can only work with scanners attached to a remote Terminal Server; it cannot work with locally connected scanners.

Similarly, for file import, the Web Capture Service provides access to files on a Terminal Server.

## Use the Web Capture Service on Citrix

When both the Browser app and Web Capture Service are installed on the Citrix Server, the Web Capture Service physically runs on a remote Citrix server, while a scanner is connected to the client user's computer. This works transparently for Web Capture Service when Citrix TWAIN Redirection is enabled.

**Note** The number of simultaneously active user sessions for one Citrix Server is limited to 50 sessions.

## Install the Web Capture Service as Windows Service

To deploy and upgrade the Web Capture Service installed as Windows Service, you must have Administrator rights.

To install the Web Capture Service as a Windows Service, enable the multiuser support features by using the `INSTALLSERVICE` command line option as follows:

```
msiexec /I Kofax.WebCapture.Installer.msi INSTALLSERVICE=1
```

The MSI installation package is available in the TotalAgility installation folder at:

```
\\TotalAgility\TotalAgilityInstall\Agility.Server.Web\Forms\Controls\Capture  
\external\webcapture
```

## Upgrade the Web Capture Service

To upgrade the Web Capture Service installed as Windows Service, use the same command line parameter that you used for installing the Web Capture Service.

**Note** You cannot upgrade the Web Capture Service installed as a Windows Service to the standalone version. If you try to do so, the following message appears: This application cannot be installed because you already have Web Capture Service installed as Windows service.

However, you can upgrade from the standalone installation to Windows.

## Chapter 13

# Scan Agent Service installation

The Scan Agent Service is offered through lightweight local agents that can be deployed through an msi file included in the TotalAgility installation media.

You must have sufficient privileges to install system services, otherwise the Scan Agent Service (ScanAgentService) cannot be installed.

### **Service account to use for Scan Agent Service:**

If TotalAgility is configured to use Windows authentication then Active Directory account must be specified that can authenticate within TotalAgility. Otherwise, the LocalSystem account can be used.

As Scan Agent Service needs access to user profile specific folders (to access scanned images) then service account that is used for Scan Agent Service must have access to different user profiles. This means that this account must have administrative privileges. For example, when Scan Agent Service is installed on terminal server and/or different users (scan operators) use the same computer.

If Scan Agent Service is going to be deployed to end user computer then you may not require administrator privileges. For example, if Scan Agent Service is going to upload images only for a particular user then you can install Scan Agent Service under this user account.

## Standard installation

1. On the installation media, navigate to `\\ScanAgentService`.
2. Double-click **Kofax.TotalAgility.ScanAgentService.Installer.msi**.  
The Kofax TotalAgility Scan Agent Service Setup wizard starts.
3. Click **Next**.
4. In the **End-user License Agreement** window, select **I accept the terms in the License Agreement**.
5. Click **Next**.
6. In the **Destination Folder** window, either accept the default location where the Scan Agent Service must be installed, or click **Change** to choose another folder.
7. Click **Next**.
8. In the **Service account setup** window, specify the logon account (Windows account) for the Kofax TotalAgility Scan Agent service.
9. Click **Next**.
10. Click **Install** to begin installation.  
Once installed, a local service, "Kofax TotalAgility Scan Agent Service", is created on the workstation. A companion "Scan Agent Monitor" is available, which can be used to monitor job upload status.

## Scanning with Scan Agent Service

The status bar of the Scan Create New Job form indicates if the session is connected to Scan Agent Service.

The Scan Create New Job form offloads actual upload of images to Scan Agent Service. However if image enhancement is enabled, the Scan Create New Job form performs image processing in a regular way.

Once image processing operation (if any) is done, the "Create Job" button becomes available, even if images have not been completely uploaded to the server. When you click "Create Job", the job appears in the Scan Agent Monitor.

The Scan Agent Monitor can be used to monitor job upload status. The job upload statuses include:

- **Pending:** Job is being prepared for upload.
- **In Progress:** Job is currently being uploaded.
- **Finished:** Job has successfully being uploaded.
- **Error:** Job encountered an error and has been stopped.
- **Paused:** Job has been paused.

Depending on the job status, the following actions are available.

- **Abort:** Aborts and cancels the corresponding job, and prompts you for a TotalAgility user account to cancel the job with.

**Note** This action uses a separate TotalAgility user session; if "Allow Multiple Logon" is not enabled, the abort action ends any other session using the same user account.

- **Pause:** Pauses the upload session for the job. You must explicitly resume a paused job.
- **Retry:** Queues uploading job again if the job encounters an error. This action helps in recovering from an upload error.
- **Resume:** Resumes a paused job.
- **Clear Completed:** Removes all uploaded complete jobs from the list.

# Uninstall TotalAgility

Uninstalling TotalAgility only removes the application and not the database.

## Use the silent mode

1. On the Command Prompt, change the command line to the root directory of the Setup.exe file.
2. Run the command `Setup.exe /Silent /U`.

The system uninstalls TotalAgility and automatically creates a log file on your desktop. Check this log file for information about any errors.

**Note** 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.

## Use the installation wizard

1. Click **Start > All Programs > Kofax TotalAgility** and select **Uninstall**.  
The **Uninstall** window appears.
2. Select **Uninstall** and click **Next**.
3. Follow the prompts until you are informed that the product is uninstalled, and then click **Finish**.

The summary report lists the components, servers, applications and services uninstalled.

If any errors occur during uninstallation, you can view them in the TotalAgility log file called `Kofax TotalAgilityInstallationErrorLog.txt` on your desktop. This log file contains information about any errors.

## Chapter 15

# Upgrade process

You can upgrade TotalAgility On-Premise Multi-Tenancy from 7.5.0 (or any interim patches) to 7.6.0. Tenants must be updated through the Tenant Management system.

You can choose to upgrade [TotalAgility components](#) and [databases](#) independent of each other or upgrade [TotalAgility components including databases](#).

**Note** Before upgrading TotalAgility, ensure TotalAgility App Pool and all the TotalAgility Services are stopped, and the databases are backed up.

On upgrade, TotalAgility installer restores the following configuration settings:

- All existing AppSettings
- All existing Security Bindings
- All HTTP URL Rewrites to be done for TotalAgility 7.6.0

When upgrading TotalAgility On-Premise Multi-tenancy, you can choose to switch from SQL Authentication to Windows Authentication to connect tenant databases. The upgrade will not automatically create the separate tenants database; the databases must be created manually by the database administrator using SQL Server management tools.

The databases created should be in the following format

- TotalAgility\_Main\_Live\_TenantName
- TotalAgility\_Reporting\_Live\_TenantName
- TotalAgility\_Reporting\_Staging\_Live\_TenantName
- TotalAgility\_Simulator\_Live\_TenantName
- TotalAgility\_Documents\_Live\_TenantName

Before changing the mode of authentication from SQL authentication to Windows, do the following:

1. Create the tables for Main, Reporting, Reporting Staging, Simulator and Documents databases.
2. Copy all the data from live, reporting live and simulator live databases to the newly created databases to work with the tenant.
3. Open the CEBPM\_Settings.xml from the SERVER\_DATA table and update the RepositoryDBConnectionString for DataLayerConfiguration.

```
<Common_Settings>
  <ReportingSettings />
  <DataLayerConfiguration RepositoryDBConnectionString=";Data
Source=<MachineName>;Initial Catalog=TotalAgility_Documents;User
ID=;Password=;Integrated Security=True;Connect
Timeout=30;Encrypt=False;TrustServerCertificate=False"
RepositoryBlobStorageAccountConnectionString="{DATA_LAYER_BLOB_CONNSTRING}"
```

```
RepositoryBlobStorageContainerName="{DATA_LAYER_BLOB_CONTAINER}"  
RepositoryBlobStorageEncryptionKey="{DATA_LAYER_BLOB_ENCRYPTION_KEY}" />  
</Common_Settings>
```

To upgrade TotalAgility On-Premise Multi-Tenancy in a silent mode, see [Upgrade in silent mode](#).

## Upgrade TotalAgility components

1. Navigate to TotalAgility Installation media and double-click **Setup.exe**.  
The User Account control window opens.
2. Click **Next**.
3. In the Kofax TotalAgility MultiTenancy Upgrade window, select **TotalAgility components**.
4. If Tenant Management system, Development environment and Live environment are installed independent of each other, to upgrade Development environment and Live environment, provide the MasterTenants database name in the **Master** field.
5. To use Windows authentication to connect to SQL Server, select the check box for **Windows authentication for databases**.
6. Click **Next**.  
The Credentials window opens.
7. Enter the credentials (password and confirm password) and click **Next**.  
The Installation Progress window opens. The setup installs the required components.
8. Click **Finish** to complete the installation.  
If any errors occur during upgrade, TotalAgility creates a log file on your desktop. Fix the errors.  
After upgrading TotalAgility components, if you want to upgrade databases, do the following:
  - a. Navigate to TotalAgility Installation media and double-click **Setup.exe**.  
The Repair/Uninstall window opens.
  - b. Select **Upgrade Databases** and click **Next** and follow the instructions.

## Upgrade TotalAgility databases

1. Navigate to TotalAgility Installation media and double-click **Setup.exe**.  
The User Account control window opens.
2. Click **Next**.
3. In the Kofax TotalAgility MultiTenancy Upgrade window, select **TotalAgility databases**.
4. If Tenant Management system, Development environment and Live environment are installed independent of each other, to upgrade Development environment and Live environment, provide MasterTenants database name in the **Master** field.
5. To use Windows authentication to connect to SQL Server, select the check box for **Windows authentication for databases**.

6. Click **Next**.  
The Credentials window opens.
7. Enter the credentials (password and confirm password) and click **Next**.  
The Installation Progress window opens. The setup installs the required components.
8. Click **Finish** to complete the installation.  
If any errors occur during upgrade, TotalAgility creates a log file on your desktop. Fix the errors.  
After upgrading databases, if you want to upgrade TotalAgility components, do the following:
  - a. Navigate to TotalAgility Installation media and double-click **Setup.exe**.  
The User Account control window opens.
  - b. Click **Next**.  
The Installation Progress window opens. The setup installs the required components.

## Upgrade Kofax TotalAgility components including databases

1. Navigate to TotalAgility Installation media and double-click **Setup.exe**.  
The User Account control window opens.
2. Click **Next**.
3. In the Kofax TotalAgility MultiTenancy Upgrade window, select TotalAgility components including databases.
4. If Tenant Management system, Development environment and Live environment are installed independent of each other, to upgrade Development environment and Live environment, provide MasterTenants database name in the **Master** field.
5. To use Windows authentication to connect to SQL Server, select the check box for **Windows authentication for databases**.
6. Click **Next**.  
The Credentials window opens.
7. Enter the credentials (password and confirm password) and click **Next**.  
The **Installation Progress** window opens. The setup installs the required components and databases.
8. Click **Finish** to complete the installation.  
If any errors occur during upgrade, TotalAgility creates a log file on your desktop. Fix the errors.

## Upgrade databases manually

To run scripts manually, do the following:

1. Go to `\OnPremiseMultiTenancyInstall\DatabaseScripts\SQL Server\Upgrade Database Scripts`.



2. Run the conversion scripts (if exist) for all releases and patches starting from the version upgrading from to the version being upgraded to.  
Example: If upgrading from 7.2.0.0 to 7.6.0, run the following conversion scripts.
  - 7.2.0.0 to 7.2.1.0 Conversion Scripts
  - 7.2.1.0 to 7.2.2.1 Conversion Scripts
  - 7.2.2.1 to 7.3.0.0 Conversion Scripts
  - 7.3.0.0 to 7.3.0.2 Conversion Scripts
  - 7.3.0.2 to 7.3.1.0 Conversion Scripts
  - 7.3.1.0 to 7.3.1.2 Conversion Scripts
  - 7.3.1.2 to 7.4.0.0 Conversion Scripts
  - 7.4.0.0 to 7.4.0.1 Conversion Scripts
  - 7.4.0.1 to 7.4.1.0 Conversion Scripts
  - 7.4.1.0 to 7.4.1.1 Conversion Scripts
  - 7.4.1.1 to 7.5.0.0 Conversion Scripts
  - 7.5.0.0 to 7.5.0.5 Conversion Scripts
  - 7.5.0.5 to 7.5.0.10 Conversion Scripts
  - 7.5.0.10 to 7.6.0.0 Conversion Scripts
3. Navigate to `\\TotalAgility\Agility.Server.Web\bin>` and open **Agility.Installation.Server.Upgrade.exe.config**. In the `<appSettings>` section, update the value for the following settings.
  - `<add key="UserName" value="" />` where the user name is the currently logged on user's name.
  - `<add key="TenantDBConnectionString" value="Server=(local);Trusted_Connection=Yes;Database=DataCenterTenants;" />`
  - `<add key="MasterTenantDBConnectionString" value="Server=(local);Trusted_Connection=Yes;Database=<MasterTenants database>;" />`  
Point the connection strings to where the databases are installed.
4. From the command prompt, run `Agility.Installation.Server.Upgrade.exe` by passing the parameters, "UpgradeMasterTenants" and "UpgradeDataCenter", such as `Agility.Installation.Server.Upgrade.exe "UpgradeMasterTenants" and Agility.Installation.Server.Upgrade.exe "UpgradeDataCenter"`.
5. Ensure that no error log is created. If any errors occur, a log file called **KofaxUpgradeDatabaseUtilityError.txt** is created on your desktop. Fix those errors and repeat the above steps.
6. Start the Kofax TotalAgility Core Worker service manually:
  - a. At Run, type **Services.msc** and press **Enter**.
  - b. Right-click **Kofax TotalAgility Core Worker** and click **Start**.

## Reset passwords

When upgrading TotalAgility On-Premise Multi-tenancy, all passwords are set to **password** and encrypted using the new hashing algorithm.

On creating a new dev environment for a tenant:

- If the live instance has Scrypt as its hashing algorithm, the dev instance will have the same password as the live instance.
- If the live instance has SHA1 as its hashing algorithm, the dev instance will have the default password as password.

By default, any new (live or Dev) instance will have Scrypt as its hashing algorithm.

## Chapter 16

# Troubleshooting

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

## Installation failure in IPv6 environment

If SQL server is configured to listen only on IPv6 addresses on a dual-stack (IPV46), client connection attempts using IPv4 addresses will fail. These failures may take longer than the default TCP timeout established during connection handshakes. Even though the subsequent IPv6 connection may succeed immediately, the connection may still fail.

To resolve this issue, disable IPv4 in the SQL Server Configuration Manager.

1. Start **SQL Server Configuration Manager**.
2. Open the Properties for the TASServerInstance TCP/IP protocol.
3. Set **Listen All** to **No**.

**Note** This setting allows fine control over which interfaces the TASServerSQLInstance will listen for connections.

4. Click the **IP Address** tab.
5. Set **Enabled** to **No** for all entries except for ::1 which is the IPv6 local host address.
6. Click **OK** to commit changes and click **OK** at the service restart dialog box.
7. Restart the SQL Server (<TASServerInstance>) service where TASServerInstance is the actual instance used by TotalAgility. Example: Kofax TotalAgility.

## TotalAgilityAppPool exists

TotalAgility Tenant Management creates an application pool called TotalAgilityAppPool. If an application pool with the same name exists, it is deleted and a new one is created.

## Exception during Transformation Designer project import

An exception is generated while importing projects using Transformation Designer that is connected to a TotalAgility web service that uses SSL.

1. If you run your server using SSL, set the **Client certificates** option to **Ignore** under SSL Settings.

2. To use Client certificates for authentication (Accept or Require), set the value for `uploadReadAheadSize` in IIS in one of the following ways:
  - In the IIS Manager:
    - a. Open the Configuration Editor of the TotalAgility site.
    - b. In the Section list, expand **system.webServer** and select **serverRuntime**.
    - c. In the From list, select **ApplicationHost.config <location path='Default Web Site/TotalAgility'/>**.
    - d. Set an appropriate value in bytes for **uploadReadAheadSize**.

Deepest Path: MACHINE/WEBROOT/APPHOST/Default Web Site/TotalAgility	
<code>alternateHostName</code>	
<code>appConcurrentRequestLimit</code>	5000
<code>authenticatedUserOverride</code>	UseAuthenticatedUser
<code>enabled</code>	True
<code>enableNagling</code>	False
<code>frequentHitThreshold</code>	2
<code>frequentHitTimePeriod</code>	00:00:10
<code>maxRequestEntityAllowed</code>	4294967295
<code>uploadReadAheadSize</code>	48000

- Modify the IIS main configuration file:
  - a. Open the **applicationHost.config** file located in the `C:\Windows\System32\inetsrv\config\` directory.
  - b. If the `<serverRuntime>` node does not exist, add the node below the `<security>` node in the `<system.webServer>` section.

```
<location path="Default Web Site">
  <system.webServer>
    <security>
...
    </security>
    <serverRuntime uploadReadAheadSize="10485760" />
  </system.webServer>
</location>
```

- c. Set an appropriate value in bytes for **uploadReadAheadSize**.

## String argument is empty error

When you update the Web.config settings manually, apply the same settings in the streaming service configuration file before you restart the streaming server service. Otherwise the following error occurs:

```
String argument is empty Parameter name: cacheName.
```

For example, if deployment type value is updated to Live in the Web.config file, and the deployment type value is Dev in the streaming service configuration file, the error occurs.