Tungsten TotalAgility
Integration Server Installation Guide

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TUNGSTEN
AUTOMATION

Table of Contents

Preface

This guide includes instructions for installing and upgrading to Tungsten TotalAgility Integration Server 8.1.0, and integrating it with other products.

Read this guide completely before installing the software.

TotalAgility documentation

To access the full documentation set online, see the Tungsten TotalAgility 8.1.0 Product Documentation page.

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

> ℹ️ When upgrading to TotalAgility 8.1.0 from an earlier version, ensure that the check box for "Import system Workspace package" is selected to view the Workspace help online; otherwise, you must import the WorkspaceHeader form from the TotalAgility Workspace package.

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

Full documentation set

A complete set of TotalAgility documentation includes the following items.

Guide/Help	Description
Administrator's Guide	Provides information for administrators who are responsible for configuring and maintaining a TotalAgility installation.
API Documentation	Includes the details of the supported APIs (excludes deprecated methods), supported methods for each service, and all input and output including the required fields, field types, and enumerations, any special information about each method, coding examples, and related details.
Architecture Guide	Provides an overview of the TotalAgility architecture, covering various deployments for on-premise, on-premise multi-tenancy, and Azure environments.
Best Practices Guide	Describes the best practices to follow when using TotalAgility to improve performance, cost, maintenance, availability, and security.
Configuration Utility Guide	Provides instructions for using the Configuration Utility to update settings across various configuration files for different installation and deployment types.

Guide/Help	Description
Designer Help	Provides details about using TotalAgility Designer to design business jobs and cases, assign resources, create forms, integrate with external applications, and more.
Features Guide	Provides an overview of the TotalAgility features.
Installation Guide	Provides instructions on installing TotalAgility and integrating it with other products.
Integration Server Installation Guide	Provides instructions on installing TotalAgility Integration Server and integrating it with other products.
On-Premise Multi-Tenant Installation Guide	Provides instructions on installing and configuring a TotalAgility On-Premise Multi-Tenant system.
Prerequisites Utility Guide	Provides system requirements for installing TotalAgility, instructions for running the Pre-requisite Utility, and a software checklist for various installation types.
Reporting Tables	Describes the Dimension and Fact tables of the Reporting data warehouse that store information related to Capture client activities in TotalAgility.
Reporting Views	Describes the sample views provided with Reporting.
Tables for Analytics	Describes the TotalAgility tables and fields used by Analytics for TotalAgility.
Tenant Management System Help	Describes how to create and manage tenants using the TotalAgility On-Premise Multi-Tenant system.
Tenant Management System Installation Guide	Provides instructions for installing the TotalAgility Tenant Management System.
TotalAgility Apps Help	Provides details about using the TotalAgility Apps application that allows citizen developers to configure the workflow and capture items with little or no training. The *TotalAgility Apps Help* encapsulates the help for the following applications. • Business Data • Import • Tungsten Copilot • Quick Capture • Quick Classification • Quick RPA • Quick Rules • Quick Skins • Quick Workflow
Web Capture Control Help	Provides details for using a Web Capture control in creating multi-page documents, creating a new document in a new folder, deleting pages that have been incorrectly scanned, and more; also, describes the buttons available in a Web Capture control toolbar.

Guide/Help	Description
Workspace Help	Provides details for using TotalAgility to design business jobs and cases, assign resources, create forms, integrate with external applications, and more.
Other documentation	
Capture Client help for Capture activities	Provides help for using Capture activities in TotalAgility. It includes the following help systems: • Document Review Activity Help • Scan Activity Help • Scan Create New Job Form Help • Validation Activity Help • Verification Activity Help
Devices Help	Provides details for managing devices connected to TotalAgility.
Document Converter Help	Provides instructions on how to configure the parameters that determine the tools to use for document conversion, connection to the Adobe Experience Manager output server that is used to convert XFA forms to PDF format, and log files and traces.
Export Connector Help	Provides instructions on managing an Export Connector and setting up an Export Connector for a document type.
Transformation Converter Help	Provides instructions on how to convert Tungsten Capture and Tungsten Transformation projects into the correct format so that they can be used in TotalAgility.
Front Office Server .NET Restful Web Service API for the Device Client	Provides documentation for the .NET Restful Web Service API for the Device Client.
Front Office Server .NET Legacy API for the Device Client	Provides documentation for the .NET Legacy API for the Device Client.
Message Connector Help	Provides instructions on how to configure and use Message Connector.
MFP Starter Pack Getting Started Guide	Provides instructions on how to use TotalAgility to import and process the MFP Starter Pack.

Guide/Help	Description
MFP Administrator's Guides for Devices	Describe how to prepare MFP devices to work with TotalAgility. The administrator's guides for the following devices are available: • Canon MEAP • Canon ScanFront • Emulator • Fujitsu • HP • Konica Minolta • Kyocera • Lexmark • Ricoh • Xerox
MFP Web Services Connector SDK Developer's Guide	Provides an overview and instructions for developing inputs with the MFP Web Services Connector Software Developer Kit (SDK). Along with this guide, the SDK provides documentation for the Web services.
Repository Browser Help	Provides instructions on how to use the Repository Browser to view the extraction results for a set of folders and documents.
Search and Matching Server documentation	Provides documentation of the Tungsten Search and Matching Server, which handles search requests from various Tungsten Automation applications for large volumes of data located at a remote site.
Transformation Designer Help	Provides instructions on how to use Transformation Designer to set up, store, and test projects that contain all the necessary information for processing documents.
Transformation Designer Scripting Help	Provides an introduction to the WinWrap Basic Editor and an overview of the available scripting events.
XDoc Browser Help	Provides help on using the XDoc Browser, a program that provides direct access to the document representation that is used by TotalAgility. With XDoc Browser, you can open and display an XDoc along with any referenced images for testing, demonstration, and debugging purposes.
Documentation only available on the Product Documentation page (and not in the Offline documentation package)	
Federated Security in TotalAgility	Provides information about claims-based identity in TotalAgility.
Release Notes	Includes key details about the new and enhanced features and any changes in behavior in TotalAgility 8.1.0. It also lists any known and resolved issues in this version of TotalAgility.
Technical Specifications	Provides technical specifications for TotalAgility.
Tutorial for Capture Starter Pack	Lets you test drive a predefined TotalAgility solution that requires minimal configuration to create and process TotalAgility jobs right away.

Guide/Help	Description
Tutorial for Data Objects	Provides information about how to create a solution using Data objects and create and update data using Data objects and RESTful service.
Tutorial for Online Learning	Explains how to create a Machine Learning project that uses Online Learning for classification and extraction of documents.
Tutorial for Quick Workflow	Provides information about how to create a workflow quickly so you can start working with a fully functional TotalAgility solution.

Offline documentation

If you require offline documentation, you can download it from the Tungsten Automation Fulfillment Site. For each language, a separate documentation package is available to download as a compressed file, such as TotalAgilityDocumentation_8.1.0_EN.zip for English or TotalAgilityDocumentation_8.1.0_FR.zip for French.

Following is the list of TotalAgility supported languages and the language codes used in the ZIP files.

Language	Code
Brazilian Portuguese	pt_BR
English	EN
French	FR
German	DE
Italian	IT
Japanese	JA
Spanish	ES

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

The following procedure describes accessing TotalAgility documentation offline for English.

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

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

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

4. Navigate to the installation folder.

For the help	Perform the following steps
• TotalAgility Designer • Devices • Transformation Designer • XDoc Browser • Transformation Converter	**a.** Open TotalAgility Web.config in a text editor from the following location: `\\TotalAgilityInstall\Agility.Server.Web` **b.** Locate the `<appSettings>` section and remove `http://docshield.tungstenautomation.com/KTA` from the key value: `<add key="OnlineHelpURL" value="http://docshield.tungstenautomation.com/KTA"/>`. ⓘ For the Transformation Designer, XDoc Browser, and Transformation Converter Help to work offline and make sure that TotalAgility is actively connected to Transformation Designer. To connect TotalAgility to Transformation Designer, log in to Transformation Designer and click **File > Connections** and provide the connection path.
TotalAgility Export Connector	**a.** Open Agility.Server.ExportConnector.exe.config in a text editor from the following location: `\\TotalAgilityInstall\Agility.Server.Web\bin` **b.** Locate the `<appSettings>` section and remove `http://docshield.tungstenautomation.com/KTA` from the key value: `<add key="OnlineHelpURL" value="http://docshield.tungstenautomation.com/KTA"/>`. Alternatively, run TotalAgility.ConfigurationUtility.exe (available from the TotalAgility Product installation files at `\\Tungsten TotalAgility-8.1.0\Utilities\ConfigurationUtility`) and remove the URL for online help from the OnlinehelpURL setting.
TotalAgility Message Connector	**a.** Open configuration.xml in a text editor from the following location: `\\Kofax\KIC-ED\MC\web` **b.** Locate the `<OnlineHelp>1</OnlineHelp>` section and replace 1 with 0.
TotalAgility Document Converter	**a.** Open configuration.xml in a text editor from the following location: `\\Tungsten\Document Converter\web` **b.** Locate the `<OnlineHelp>1</OnlineHelp>` section and replace 1 with 0.

5. Save and close the configuration file.
Clicking the Help icon ❷ launches the help for the installed product.

Training

Tungsten Automation offers both on-demand and instructor-led training to help you make the most of your product. To learn more about training courses and schedules, visit the Tungsten Automation Learning Cloud.

Getting help with Tungsten Automation products

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

To access the Tungsten Automation Knowledge Portal, go to https://knowledge.tungstenautomation.com/.

> ℹ️ The Tungsten Automation Knowledge Portal is optimized for use with Google Chrome, Mozilla Firefox, or Microsoft Edge.

The Tungsten Automation Knowledge Portal 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.

  To locate articles, go to the Knowledge Portal home page and select the applicable Solution Family for your product, or click the View All Products button.

From the Knowledge Portal home page, you can:
- Access the Tungsten Automation Community (for all customers).

  On the Resources menu, click the **Community** link.
- Access the Tungsten Automation Customer Portal (for eligible customers).

  Go to the Support Portal Information page and click **Log in to the Customer Portal**.
- Access the Tungsten Automation Partner Portal (for eligible partners).

  Go to the Support Portal Information page and click **Log in to the Partner Portal**.
- Access Tungsten Automation support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.

  Go to the Support Details page and select the appropriate article.

Installation planning

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

This chapter describes the system requirements, prerequisites, and various third-party and Tungsten Automation products that you can integrate to use with TotalAgility.

System requirements

See the Tungsten TotalAgility Technical Specifications document on the Product Documentation page site.
- For supported operating systems and other system requirements.
- If your solution includes multiple Tungsten Automation products.

The document is updated regularly, and we recommend that you review it carefully to ensure success with your TotalAgility product.

Prerequisites

- Before extracting the TotalAgility installation ZIP file, unblock the file from the File Properties window.
- Run the Prerequisites Utility to ensure all the required software is installed on your computer before installing TotalAgility. For more information on prerequisites and the software checklist for various installation types, refer to the *Tungsten TotalAgility Prerequisites Guide*.
- You must have an administrator account to install TotalAgility.
- The user who will run TotalAgility must have "Log on as Service" rights.
- The user who will run TotalAgility with the IIS service account must have "Log on as a Batch Job" permission.
- You must set the HTTPS site binding for the Integration Server.

SQL

The TotalAgility servers must run in the same time zone; otherwise, unexpected issues may occur.

Licensing

Obtain a license key for the Integration Server either from your Account Manager or from Tungsten Automation Support.

Transformation Designer

The Transformation Designer is typically installed as part of a full TotalAgility Integration Server installation. Transformation Designer is installed only when the TransformationDesignerInstaller.exe is available in the TotalAgility build folder.

If you did not install the Transformation Designer when installing the TotalAgility Integration Server or want to install Transformation Designer separately, you can use the standalone Transformation Designer installer that is available from the Tungsten TotalAgility installation files. Before installation, make sure the supported version of the .NET Framework is already installed on that machine.

OpenText Content Manager

You can integrate OpenText Content Manager with TotalAgility Integration Server.

Dynamics CRM

You can integrate Microsoft Dynamics CRM with TotalAgility Integration Server.

Dynamics 365 CRM

You can integrate Microsoft Dynamics 365 CRM with TotalAgility Integration Server.

Tungsten TotalAgility Repository Browser

The Tungsten TotalAgility Repository Browser is a utility intended to aid in developing and testing TotalAgility projects and uses direct SQL access to the database. As such, you should not use the utility in a production environment, or against large datasets.

Chapter 2

TotalAgility Integration Server installation

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

Silent installation of TotalAgility Integration Server

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

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

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

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

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

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

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

4. Save and close the file.
5. On the Command Prompt, change the command line to the root directory of the Setup.exe file.
6. Run `Setup.exe /Silent`.
    - The following items are installed automatically:
        - Tungsten TotalAgility Integration Server
        - Utility for Tungsten Export Connector
        - Tungsten Import Connector
    - The system generates a summary of log, TungstenTotalAgilityIntegrationServerSilentInstallLog.txt, on the desktop.
    - If any errors occur, by default, TotalAgility creates a log file, TungstenTotalAgilityInstallErrorLog.txt, on the desktop. Fix those errors and repeat the above steps.
    - The success or failure of installation is indicated in the event log.
    - When automating the installation, if you run setup.exe from Command line, or as a silent installation, one of the codes returns to indicate the following:
        - 0=Success
        - 1-Success with warnings
        - 2=Failure

Standard installation of TotalAgility Integration Server

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

> ⓘ You can use hotkeys to navigate to next screen.

1. From your TotalAgility installation files, navigate to `\ TungstenTotalAgility-8.1.0_IS \IntegrationServerInstall` and run one of the following commands:
    - If UAC (User Account Control) is enabled, right-click **Setup.exe** and select **Run as administrator**.
    - If UAC is not enabled, run **Setup.exe**.

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

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

2. Click **Next**.

3. In the **Software License Agreement** window, accept the terms in the License Agreement and click **Next**.
   The **Type of Install** window opens.

4. In the **Type of Install** window, choose **Web/Application Server**, and select instances for **Import Service** .

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

   Installs the Web and Application servers on a single machine.

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

6. Review the **Detected Software** list and proceed as follows:
   - If your system does not have all the required software, click **Cancel** to close the installer and install the software.
   - If your system has all the required software, click **Next**.

     The **Destination** window opens.

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

8. Enter the credentials for the user who will run Integration Server.

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

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

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

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

    > ℹ️ The SSL option is only available if you have configured the https binding in IIS.

11. Click **Next**.
    Depending on the type of installation, the following window appears:
    - When installing the Web/Application server, the **Tenant Information** window opens: Enter the following information:

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

         Example for on-premise multi-tenancy: `https://TenantName.<fullyqualifieddomainname>/TotalAgility`

         Example for Azure: `https://tenantname.cloudserviceURL/`

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

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

12. Click **Next**.

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

13. Click **Next**.

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

14. Click **Finish**.

    Your installation is now complete.

    - If any errors occur, by default, TotalAgility creates a log file, TungstenTotalAgilityInstallErrorLog.txt, on the desktop. Fix those errors and repeat the above steps.
    - The success or failure of installation is indicated in the event log.

After installing, further configure Integration Server to:
- Integrate with Microsoft Dynamics CRM
- Integrate with OpenText Content Manager
- Integrate with Tungsten Communications Manager

TotalAgility installation in a Docker container

This chapter describes the prerequisites, limitations, procedure for creating and running a Docker container, and silent installation configuration.

Overview

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

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

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

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

Limitations

The Export Connectors are not supported in a Docker environment.

Prerequisites

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

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

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

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

Create a TotalAgility Docker container image

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

1. Extract the contents of Tungsten TotalAgility 8.1.0.ZIP to a `<source directory>`.
2. Create a new folder, `<workingdirectory>`.
   Your Docker commands will be run from this directory.
3. Copy the contents of `<source directory>\Utilities\Docker` to `<working directory>`.
4. Move the contents of the `<source directory>` folder to `<working directory>\ContainerFiles`.
   The file structure should be as follows:

   ```
   <working directory>\Dockerfile
   <working directory>\ContainerFiles\ContentManagerInstallation
   <working directory>\ContainerFiles\DAXInstallation
   <working directory>\ContainerFiles\DynamicsCRMInstallation
   <working directory>\ContainerFiles\IntegrationServerInstall
   <working directory>\ContainerFiles\KIC
   <working directory>\ContainerFiles\RepositoryBrowser
   <working directory>\ContainerFiles\TransformationServer
   <working directory>\ContainerFiles\Utilities
   <working directory>\ContainerFiles\PowerShellScripts
   ```
5. Update the parameters as needed for each container type. See Silent installation configuration.
6. To create the image, open a PowerShell window on the container host and run the following command:

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

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

   Example: The following command generates the image with the name "totalagilityis" using the contents inside `C:\Docker\TungstenTotalAgility`:

   ```
   docker build -t totalagilityis "C:\Docker\TungstenTotalAgility"
   ```

Silent installation configuration

Update the following parameters for a Silent installation in a Docker container.

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

Run a Docker container

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

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

1. Open **DockerSettings_IntegrationServer_FullInstall.Env** available at `Utilities\Docker \ContainerFiles\PowershellScripts`
2. Do the following:
   a. Replace all instances of "`<localhostorISContainermachinename>`" with the machine name of the IS container you intend to create (value of –host-name in your "docker run" command).
   b. Replace all instances of "`<tenantname>.<fqdn>`" with the appropriate "tatenantname.machinename" (similar to the entry you make for accessing the OPMT tenant in the hosts file).

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

4. For non-Windows authentication:

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

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

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

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

Access TotalAgility Designer

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

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

For containers hosting IIS – TotalAgilityWebsite:

When you configure the container for the Designer / Workspace, we recommend that you use a VirtualHost file to configure the port and URl exposure through the host OS before you access the URL. You may also consider using a rewrite rule to ensure that any URL access is redirected to a lowercase representation.

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

The Docker daemon and cache hold case-sensitive resolutions of the URL and this can cause issues if the casing of the URL is changed before first access. This caching issue occurs because of Docker's use of WSL v1 and should be resolved in WSL v2. Within Docker, you cannot expose the same

container port for multiple protocols, and having previously cached a case-sensitive URL, the cache must be cleared to replace it with the lowercase URL.

Useful Docker commands

This table includes some useful Docker commands.

Docker command	Purpose
docker images	Gets the list of all Docker images currently available on the server.
docker ps -a	Gets a list of all containers available on the server.
docker start <containerID>	Starts the container with the ID <containerID> on the server.
docker stop <containerID>	Stops the container with the ID <containerID> on the server.
docker rm <containerID>	Deletes the container with the ID <containerID> on the server.
docker rmi <imagename>	Deletes the image with the ID <imagename> on the server. Deletion is successful only if no child containers use this image.
docker inspect -f "{{ .NetworkSettings.Networks.nat.IPAddress }}" <containerID>	Gets the IP address of the container with the ID <containerID>.
docker cp "<containerID>:/<fullfilepathoncontainer>" "<pathtofolderonserver>"	Copies a file from the container to the server.
docker cp "<fullfilepathonserver>" "<containerID>:/ <fullfilepathoncontainer>"	Copies a file from the server to the container.
docker logs <containerID>	Displays all logs for a particular container.
docker logs - tail n <containerID>	Displays the last "n" logs for a particular container.
type <FQDN of text file>	Displays the content of text file within powershell instance.
Get-Process	Gets the list of all processes.
Get-Service	Gets the list of all services (running and stopped).
start-service ServiceNameGoesHere	Starts a particular service.
Stop-service ServiceNameGoesHeres	Stops a particular service.
Get-WMIObject Win32_Service | select startname, name, status	Gets a list of all services with some additional columns.
Get-EventLog -LogName Application -newest 10 | format-table -auto -wrap	Gets the last 10 application logs from event viewer.
import-module webadministration	Runs before the below commands.
get-iisapppool	Gets the name of the Application pool.
get-itemProperty -path IIS:\APPPOOLS\TotalAgilityAppPool -name	Gets the identity information of the Application pool.

Install Docker on the Windows server

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

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

1. Open an elevated PowerShell command prompt, and type the relevant command to install Docker on the Windows server.

   ℹ If you use the "Key Value Pairs" extraction feature in Quick Capture or use the Key Value Pairs locator in the Transformation Server, you must run the following command:

   ```
   docker pull mcr.microsoft.com/windows
   ```

2. If a reboot is required, restart your instance using the following command:

   ```
   (Install-WindowsFeature Containers).RestartNeeded
   ```

   If the output of this command is Yes, restart the server using the following command:
   `Restart-Computer`.

3. Test your Docker Engine - Enterprise installation by running the "docker info" command.

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

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

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

   b. Append the following text to daemon.json:

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

   c. Restart the Docker Engine service.

Chapter 4

Transformation Designer installation

This chapter describes two methods for installing the Transformation Designer:

- Silent installation
- Standard installation

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

Prerequisites

If you install the Transformation Designer independent of TotalAgility, make sure the supported version of .NET Framework is already installed on that machine.

Silent installation of the Transformation Designer

If you did not use the full installer or want to install Transformation Designer separately, you can use the standalone Transformation Designer installer in silent mode. The installer is available as part of the Tungsten TotalAgility installation files.

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

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

   The installer runs in the background.

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

Standard installation of the Transformation Designer

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

   The system starts the installation.

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

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

Uninstall the Transformation Designer

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

Use the silent mode

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

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

Use the installation wizard

1. Click **Start > Tungsten Transformation Designer**, right-click the Transformation Designer and click **Uninstall**.

The Programs and Features window is displayed.

2. Right-click Tungsten TotalAgility Transformation Designer 8.1.0 and select **Uninstall**.

The Installer window is displayed and the Uninstall option is selected.

3. In the Tungsten TotalAgility Transformation Designer (8.1.0) Setup window, click **Next**.

4. Review the message and when ready, click **Uninstall**.

A progress message is displayed showing the status of the application removal.

5. When the uninstallation is complete, click **Finish**.

The Transformation Designer application is removed.

Chapter 5

TotalAgility Integration Server configuration

This chapter provides the instructions for configuring TotalAgility Integration Server such as changing or updating any installation parameters post installation, encrypting and decrypting the TotalAgility configuration files, and more.

After installing the Integration Server, you can update the configuration settings by modifying the configuration file or by running the Configuration Utility available from the installation files. You must manually copy the utility onto the server where the configuration settings are to be modified. See the *Tungsten TotalAgility Configuration Utility Guide*.

Encrypt and decrypt the configuration files

The Integration Server configuration files include the database connection settings and sensitive information. Therefore, we recommend that you encrypt the following Integration Server files.
- **Web.config**
- **Agility.Server.Core.WorkerService.exe.config**
- **Agility.Server.Core.ExportService.exe.config**

Encrypt and decrypt the Web configuration file

The Integration Server **Web.config** is located under `TungstenTotalAgility-8.1.0_IS \IntegrationServerInstall\Agility.Server.Web`.

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

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

Encrypt and decrypt the Core Worker or Export Worker configuration files

The Integration Server **Agility.Server.Core.WorkerService.exe.config** and **Agility.Server.Core.ExportService.exe.config** are located under `TungstenTotalAgility-8.1.0_IS\IntegrationServerInstall\CoreWorkerService`.

The TotalAgility Server supports two encryption methods:

- DPAPI encryption
- RSA encryption

Use the TotalAgility.EncryptConfig.exe utility to encrypt and decrypt files with either of these methods.

Use the TotalAgility.Encryption.exe utility

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

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

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

ℹ️ Add the following security provider to the configuration file before encrypting the file:

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

Use the DPAPI encryption method

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

Run the utility on each TotalAgility Server individually.

1. Stop the Tungsten TotalAgility Core Worker service.
2. Navigate to \\TungstenTotalAgility-8.1.0_IS\IntegrationServerInstall\CoreWorkerService and open a command-line window.
3. Run the following command:

    TotalAgility.EncryptConfig.exe -f Agility.Server.Core.WorkerService.exe.config -s "appSettings" -p DPAPIProtection -enc
4. Run the following command for the Export Worker service:

    TotalAgility.EncryptConfig.exe -f Agility.Server.Core.ExportService.exe -s "appSettings" -p DPAPIProtection -enc

Use the RSA encryption method

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

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

Prepare the key

Perform these steps on one source TotalAgility Integration Server.

1. Create the custom RSA key container:

    a. Logon to the Integration Server with administrator rights.

    b. Open a command-line window.

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

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

    d. Run the following command:

       aspnet_regiis -pc "<KeysFile>" -exp

       where:

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

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

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

    where:

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

3. Encrypt the file:

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

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

    c. Run the following command:

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

       TotalAgility.EncryptConfig.exe -f Agility.Server.Export.WorkerService.exe.config -s "appSettings" -p RSAProvider -enc

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

4. Export the key by running the following command:

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

where:

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

Import the key

Perform these steps on every target TotalAgility Server.

1. Import the key:

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

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

   c. Open a command-line window.

   d. Run the following command:

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

   where:

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

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

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

   aspnet_regiis -pa "<KeysFile>" "TotalAgilityserviceuser"

   where:

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

3. Repeat these steps on all remaining TotalAgility Servers.

Decrypt the configuration file

1. Stop the **Tungsten TotalAgility Core Worker** service.
2. Navigate to the TotalAgility Server installation directory and open a command-line window.
3. Run the following command:

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

   TotalAgility.EncryptConfig.exe -f Agility.Server.Export.WorkerService.exe.config -s "appSettings" -p DPAPIProtection -dec

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

Encrypt the configuration files in a docker container

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

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

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

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

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

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

Edit the TotalAgility server configuration file

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

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

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

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

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

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

   ℹ️ 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 Tungsten TotalAgility Core Worker service.

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

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

1. Navigate to the TotalAgility Integration Server location (default: C:\Program Files\Tungsten \TotalAgility\Agility.Server.Web).

2. Open Web.config in a text editor.

3. Locate the following section:

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

4. Save and close the configuration file.

Edit the TotalAgility configuration settings

After installing TotalAgility, to change or update any parameters, edit the following configuration files available in the installation directory.

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

You can either edit each of these files separately or run the TotalAgility Configuration Utility to modify all the settings in one go. The Configuration Utility is available from the TotalAgility installation files and must be manually copied to your TotalAgility server. See the *Tungsten TotalAgility Configuration Utility Guide*.

Add a thread pool monitoring interval

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

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

Manually

1. Navigate to the installed location (default: C:\Program Files\Tungsten\TotalAgility \CoreWorkerService) of the TotalAgility server .

2. In a text editor, open **Agility.Server.Core.WorkerService.exe.config** from the following directory: `\\IntegrationServerInstall\CoreWorkerService`

3. Locate the following section and add a thread pool monitoring interval (default:60).

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

The default value is 60.

4. Save and close the configuration file.

5. Restart the TotalAgility Core Worker service.

Use the Configuration Utility

Run the Configuration utility and configure the **Thread Pool Monitoring Interval** setting on the **Core Worker** tab. See the *TotalAgility Configuration Utility Guide*.

Update the settings for Anti-Cross Site Request Forgery (CSRF) measures

Use the following anti-CSRF measures to protect the site against Cross-site Request Forgery attacks.

- Configure the Anti-CSRF tokens
- Specify the Samesite attribute with value as Strict or Lax in the `<hostCookies>` tag of Web.config to prevent CSRF attacks. See the Microsoft website for more information.
- Enable Host prefix for cookies

Configure the Anti-Cross Site Request Forgery (CSRF) tokens

A CSRF attack relies on a user being authenticated on a website. The attack usually comes as an email or website hyperlink on which the user clicks while still authenticated. This URL then points back to the user's website and attempts to perform a privileged action (such as adding an administrator account) without the user's knowledge. In TotalAgility, the TargetHostName and TargetPortNo settings are added as Anti-CSRF tokens in the Web.config file. TargetHostName is the fully qualified domain name of the Web server and TargetPortNo is the website port number. When you provide these settings, the Anti-CSRF origin and referrer validations are performed on the request URL. If the validation fails, the request are terminated considering it a potentially dangerous request.

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

Manually

1. Navigate to the installed location of the TotalAgility server. The default location is: `C:\Program Files\Tungsten\TotalAgility\Agility.Server.Web`.

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

3. Locate the `<appSettings>` section and specify the target host name and target port number.

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

4. Save and close the configuration file.

Use the Configuration Utility

Run the Configuration Utility and specify the **Anti-CSRF Target Host Name** and **Anti-CSRF Target Port Number** settings. See the *Tungsten TotalAgility Configuration Utility Guide*.

Enable Host prefix for cookies

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

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

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

1. Navigate to the installed location of the TotalAgility server. The default location is: `C:\Program Files\Tungsten\TotalAgility\Agility.Server.Web`.
2. Open **Web.config** in a text editor.
3. Locate the `<appSettings>` section and make sure the value of UseHostPrefixForCookies is true.

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

Use the Configuration Utility

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

TotalAgility and Microsoft Dynamics CRM integration

You can integrate Microsoft Dynamics CRM and Microsoft Dynamics 365 CRM with TotalAgility.

Prerequisites

You must have administrator rights to install Microsoft Dynamics CRM and Microsoft Dynamics 365 CRM.

Standard installation of Dynamics CRM

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

1. Click **Next**.
2. In the **CRM Server** field, enter the IP address or machine name of the CRM server.
3. In the **CRM Port** field, enter the port on which CRM is running.
4. To enable SSL (Secure Sockets Layer), select **Use SSL** (default: Clear).
5. In the **Domain** field, enter the domain name.
6. Enter the **Username** and **Password**.
7. Click **Finish**.
    The installation starts and registers the Event Handler in CRM and places necessary files in Global Assembly Cache (GAC).

Update Web.config to support event handlers

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

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

```
<configSections>
<section name="exceptionHandling"
type="Microsoft.Practices.EnterpriseLibrary.
ExceptionHandling.Configuration.ExceptionHandlingSettings,
Microsoft.Practices.EnterpriseLibrary.ExceptionHandling,
```

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

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

```
</specialSources>
</loggingConfiguration>

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

Update Web.config for the CRM virtual directory

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

 contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService"
```

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

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

TotalAgility and OpenText Content Manager integration

This chapter provides the instructions for integrating OpenText Content Manager with TotalAgility.

Prerequisites

The following are the prerequisites for installing the Content Manager server.
- OpenText Content Manager server installed on your computer.

> ⓘ If the OpenText Content Manager is not installed, the following message appears: "Content Manager is not installed on your system. Please ensure that you have installed Content Manager before proceeding with this setup."

- .NET Framework 4.8
- TotalAgility (optional)

Install TotalAgilityCMCommunicatorService

1. Log on to the Content Manager server with Administrator privileges.
2. Navigate to `\\ContentManagerInstallation` from the TotalAgility installation files, right-click **Setup.exe**, and select **Run as administrator**.
   The **User Account Control** window appears.
3. Click **Yes**.
   The installation wizard appears.
4. Click **Next**.
5. Click **Finish**.
   The setup installs the TotalAgility integration components.
6. Configure the Web configuration file as follows:

Configure the Web Configuration file

1. In `C:\Program Files\Tungsten\TotalAgility\TotalAgilityCMCommunicatorService`, open **Web.config** in a text editor.

2. If TotalAgility is remote, update the `<bindings>` section as follows:

```
<bindings>
      <basicHttpBinding>
        <binding name="BasicHttpBinding_TrimCommunicatorService"
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"/>
          <!-- HTTP with Windows authentication-->
          <security mode="TransportCredentialOnly">
            <transport clientCredentialType="None"/>
          </security>
        </binding>
      </basicHttpBinding>
    </bindings>
```

If SSL is enabled in the TotalAgility server, change the security mode to "Transport".

3. Locate the `<appSettings>` section:

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

Make the following changes:

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

  To get the DocumentRecordType, open Content manager Server>Manage>Select the record type as Document and select Containment>Container Level.

- Replace the **FolderRecordType** with the value taken from the Content Manager server by checking the record type of Folder.

  To get FolderRecordType, open Content manager Server>Manage>Select the record type as Folder and select Containment>Container Level.

- 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.

> ℹ When you first install the TotalAgility OpenText Content Manager, a CMIntegrationAppPool with a local system identity is created. This causes an error if the Content Manager server is remote. To resolve this error, you must update the CMIntegrationAppPool identity to account with Administrator permission.

Configure the event handler in Content Manager

Configure TotalAgility events for actions in the Content Manager System by creating an event handler in Content Manager.

1. Open **Content Manager**.

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

3. Right-click in the window and select **New External link**.
   The **Select External Link Type** pop-up appears.

4. Select the external link type as **Generic add-in (.NET)** and click **OK**.
   The **New External Link - Generic add-in (.NET)** dialog box is displayed. By default, the **General** tab is open.

5. Enter a **Link name**.

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

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

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

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

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

11. In Windows Explorer, find **trim.exe.config** (the default path of this file is `C:\Program Files \Micro Focus\Content Manager`), open it in a text editor and add or replace the following tags:

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

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

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

```
</exceptionHandlers>
</add>
</exceptionTypes>
</add>
</exceptionPolicies>
</exceptionHandling>
<system.serviceModel>
<bindings>
<basicHttpBinding>
<binding name="BasicHttpBinding_Service" openTimeout="00:10:00"
 closeTimeout="00:10:00"
sendTimeout="00:10:00" receiveTimeout="00:10:00" allowCookies="true"
 maxBufferSize="2147483647"
maxReceivedMessageSize="2147483647" maxBufferPoolSize="524288"> <readerQuotas
 maxDepth="2147483647"
maxStringContentLength="2147483647" maxArrayLength="2147483647"
 maxBytesPerRead="2147483647"
maxNameTableCharCount="2147483647" />
<security mode="TransportCredentialOnly">
<transport clientCredentialType="Windows" />
</security>
</binding>
</basicHttpBinding>
</bindings>
<client>
<endpoint name="CoreIntegrationEventServiceEndpoint"
binding="basicHttpBinding" bindingConfiguration="BasicHttpBinding_Service"
contract="Agility.Server.Core.Model.Interfaces.Services.IIntegrationEventService"
address="http://<TotalAgility server name or IP Address>/TotalAgility/Services/
Core/IntegrationEventService.svc"/>
</client>
</system.serviceModel>
</configuration>
```

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

If TotalAgility is installed in separate Web/App, then provide the name or IP address of the TotalAgility App server.

Uninstall Tungsten TotalAgility Content Manager integration components

You can uninstall the Content Manager integration components.

ⓘ Before uninstalling OpenText Content Manager installation components, make sure you close the Content Manager application.

1. Open the Control Panel on the Content Manager server.
2. Select and right-click Tungsten TotalAgility Content Manager Integration Components.
3. Click **Uninstall**.
4. Click **Finish**.

Chapter 8

TotalAgility and Tungsten Communications Manager integration

To integrate Tungsten Communications Manager (TCM) server with TotalAgility Integration server, do the following:

1. Open Web.config available in Agility.Server.Web.

2. Replace the placeholder, `{http://tcmserver:port}` in the following format: `http(s)://<TCMServer>:<Portnum>`

TotalAgility and Tungsten SignDoc integration

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

Set up the Tungsten SignDoc server

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

Refer to the "Integrate TotalAgility with SignDoc" topic in the *Tungsten TotalAgility Designer Help* to know how to set up the SignDoc server to point to the TotalAgility server.

Launch TotalAgility Integration Server

1. Enter `https://[TotalAgility server hostname or IP]/TotalAgility/Designer/default.htm` URL in the browser.
2. Enter the login credentials of the tenant used during installation.

   Tungsten TotalAgility Designer is launched in the browser.
3. Alternatively, click **Start** > **All Programs** > **Tungsten TotalAgility** > **Designer**.

Chapter 11

Uninstall TotalAgility Integration Server

Uninstalling TotalAgility only removes the application and not the databases.

Uninstalling in silent mode not only removes the applied fix pack or service pack but also removes the TotalAgility application completely. To install TotalAgility again, you must install its base version and then apply any patches again.

Use the silent mode

1. Navigate to the root directory of the **Setup.exe** file.
2. Run `Setup.exe /Silent/U`.
    The system uninstalls Integration Server.
    -   The system generates a summary of log, TungstenTotalAgilitySilentInInstallLog.txt, on the desktop.
    -   If any errors occur, by default, TotalAgility creates a log file, TungstenTotalAgilityInstallErrorLog.txt, on the desktop. Fix those errors and repeat the above steps.
    -   The success or failure of un installation is indicated in the event log.

Use the installation wizard

1. Click **Start > All Programs > Tungsten TotalAgility** and select **Uninstall or Repair** Tungsten TotalAgility.
    The **Repair/Uninstall** window opens.
2. Select **Uninstall** and click **Next**.
    The **Uninstall** window opens.
3. Click **Next**.
    The **Uninstalling** window opens.
    When the uninstall is complete, the **Uninstallation Complete** window opens.
    The summary report lists the components, servers, applications, and services uninstalled.
4. Click **Finish**.
    The system uninstalls Integration Server.
    -   If any errors occur, by default, TotalAgility creates a log file, TungstenTotalAgilityInstallErrorLog.txt, on the desktop. Fix those errors and repeat the above steps.

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

Upgrade process

You can perform a direct upgrade from TotalAgility Integration Server 7.9.0 and higher to 8.1.0.

This chapter describes the methods of upgrading Integration Server:

- Silent upgrade process
- Interactive upgrade process

Silent upgrade process

1. Go to the root directory of setup.exe.
2. Open the Command Prompt window as an administrator and change the current directory to the root directory of Setup.exe.
3. Run `Setup.exe/Silent/Upgrade`.
   - The system generates a summary of log, TungstenTotalAgilityIntegrationServerSilentInstallLog.txt, on the desktop.
   - If any errors occur, by default, TotalAgility creates a log file, TungstenTotalAgilityInstallErrorLog.txt, on the desktop. Fix those errors and repeat the above steps.
   - The success or failure of installation is indicated in the event log.

Silent upgrade process using the TotalAgility.AutoUpgrader utility

1. Go to the installation directory at `//Programfiles/Tungsten/TotalAgility/ CoreWorkerService`.
2. Open the Command Prompt window as an administrator and change the current directory to the root directory of TotalAgility.AutoUpgrader.exe.
3. Run `TotalAgility.AutoUpgrader.exe IntegrationServer /Silent <path to the silent config of the Integration Server>`.

   Run the exe from the location where the TotalAgility.AutoUpgrader utility is placed.

   If any errors occur, by default, TotalAgility creates a log file, TotalAgilityAutoUpgradeSilentLog.txt. on the desktop. Fix those errors and repeat the above steps.

Interactive upgrade process

You can upgrade TotalAgility Integration Server using the wizard.

From your Integration Server installation files, navigate to **IntegrationServerInstall** folder, double-click **Setup.exe** and follow the upgrade instructions.

If any errors occur during the upgrade, TotalAgility creates a log file called **TungstenTotalAgilityInstallErrorLog.txt**. Fix the errors.

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

Upgrade using the TotalAgility. AutoUpgrader utility

When the Tungsten TotalAgility On-Premise Multi-Tenant deployments are upgraded but the dependent Integration Server is not upgraded, the version of On-Premise Multi-Tenant deployment is higher than Integration Server. To upgrade the Integration Server if a newer version is available, use the TotalAgility.AutoUpgrader utility.

> ⓘ The upgrade process using the TotalAgility.AutoUpgrader utility is only supported from Tungsten TotalAgility 8.0.0 and higher. For example, when upgrading TotalAgility from version 8.0.0 to 8.0.1.

1. On the machine where you have installed the Integration Server, restart the Tungsten TotalAgility Core Worker service.

   A compatibility check is performed to check if the version of On-Premise Multi-Tenant deployment and the Integration Server are same. If the versions are different, the following error is written to the event viewer detecting an upgrade.

   To upgrade, use TotalAgility.AutoUpgrade.exe utility which is available in the CoreWorkerService folder of the Tungsten TotalAgility Integration Server installed location.

2. Login to the Tenant Management System and configure the auto upgrade configuration. See the *Tungsten TotalAgility Tenant Management System Help* for more information.

3. On the machine where you have installed the Integration Server, navigate to `//Program Files/Tungsten/TotalAgility/CoreWorkerService`.

4. Right-click TotalAgility.AutoUpgrader and run as administrator.

5. The **Tungsten TotalAgility Auto Upgrader** window opens.

6. Click **Start**.

   The file transfer progress is displayed. A new folder, **SetUp** is created by the installer at `//ProgramData/Tungsten/SetUp`. The **TungstenTotalAgility-8.0.0_IS.zip** is transferred from the repository where you have defined in the Tenant Management auto upgrade setup configuration and the contents of the zip file are extracted.

7. Once the extraction is done, the Integration Server installer is invoked and Tungsten TotalAgility Integration Server Installation window opens.

   The installer deletes the **TungstenTotalAgility-8.0.0_IS.zip** from the **SetUp** folder.

8. Click **Next** and follow the wizard instructions to proceed with the upgrade process.

   If any errors occur, by default, TotalAgility creates a log file, AutoUpgradeErrorLog.txt. on the desktop. Fix those errors and repeat the above steps.

Chapter 13

Troubleshooting

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

TotalAgility Integration Server AppPool exists

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

Error on Linked servers page in TotalAgility Designer

When you click **Integrations > Linked servers** in TotalAgility Designer, an unknown error occurs instead of displaying the Linked Servers page. This is because client certificates are not supported when using TLS 1.3 with IIS, and only TLS 1.2 or lower can be used.

To resolve this issue, disable **TLS 1.3 over TCP in** the IIS Manager by doing the following:

1. Click **Start > Run > InetMgr > Sites > Default Web Site**.
   By default, the Default Web Site is selected.
2. Right-click on the **Default Website** and click **Edit Bindings**.
   The **Site Bindings** dialog box is displayed.
3. Select **https** and then click **Edit**.
   The **Edit Site Bindings** dialog box is displayed.
4. Select **Disable TLS 1.3 over TCP** and click **OK**.