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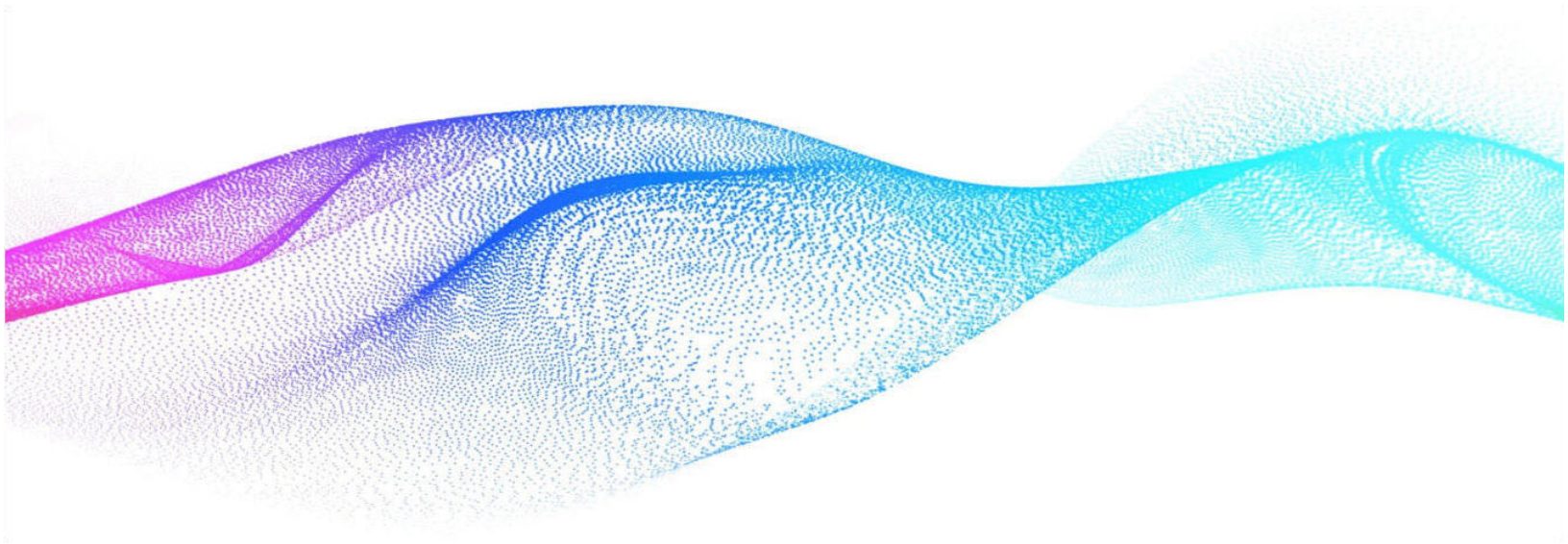

Worksoft Process Intelligence Installation Guide

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Version 14.1

Trademarks

PN WAIG 141 01022025

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Chapter 1 Before You Install Process Intelligence

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Overview

Before installing and configuring Worksoft Process Intelligence, complete the following tasks:

- Install and configure Worksoft Portal and all infrastructure services.
- Verify that your Process Intelligence server has the needed system requirements installed.
- Configure Microsoft® Internet Information Services (IIS) on your Process Intelligence Server.
- Enable IIS Services.

Installing Worksoft Portal and Infrastructure Services

Process Intelligence leverages information from the administration tool Worksoft Portal and its infrastructure services. The Worksoft Portal registers database settings, licenses, users, and integrations for Worksoft products.

When installing Worksoft Portal, use the external URL for the Authentication service, and do not use a localhost. If you use a localhost, it will cause the applications to break.

You must use a fully qualified domain name or a Domain Name System (DNS) alias.

Go to the Worksoft Customer Portal to download Worksoft Infrastructure Services.

To view the Worksoft Infrastructure Services system requirements and installation guide, see the Worksoft Help Portal.

Verifying Process Intelligence System Requirements

Verify that your environment has the needed system requirements installed. For information about system requirements and port requirements, see the Worksoft Help Portal.

You must use a fully qualified domain name or a Domain Name System (DNS) alias.

Configuring the Process Intelligence Application Server

In order to transform your application server into a web server to host Process Intelligence, Microsoft® Internet Information Services (IIS) must be installed and the Server Manager must be configured.

These procedures assume that you have not already configured your IIS. If you have already set up the Roles and Features, verify that the following Role Services on page 14 have been selected.

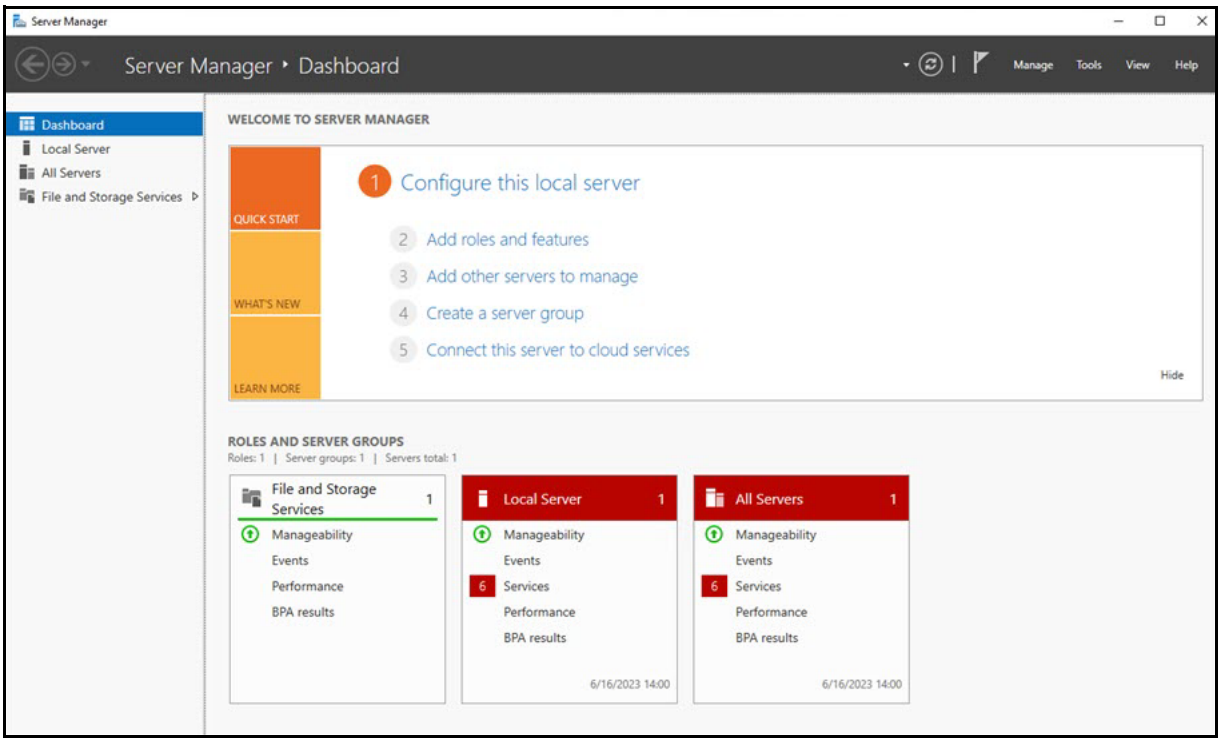
Adding Roles and Features

The Server Manager allows you to add specific roles and features to your web server that are required for Worksoft products.

▶ *To add roles and features to your web server:*

1 From the Start menu, select **Server Manager**.

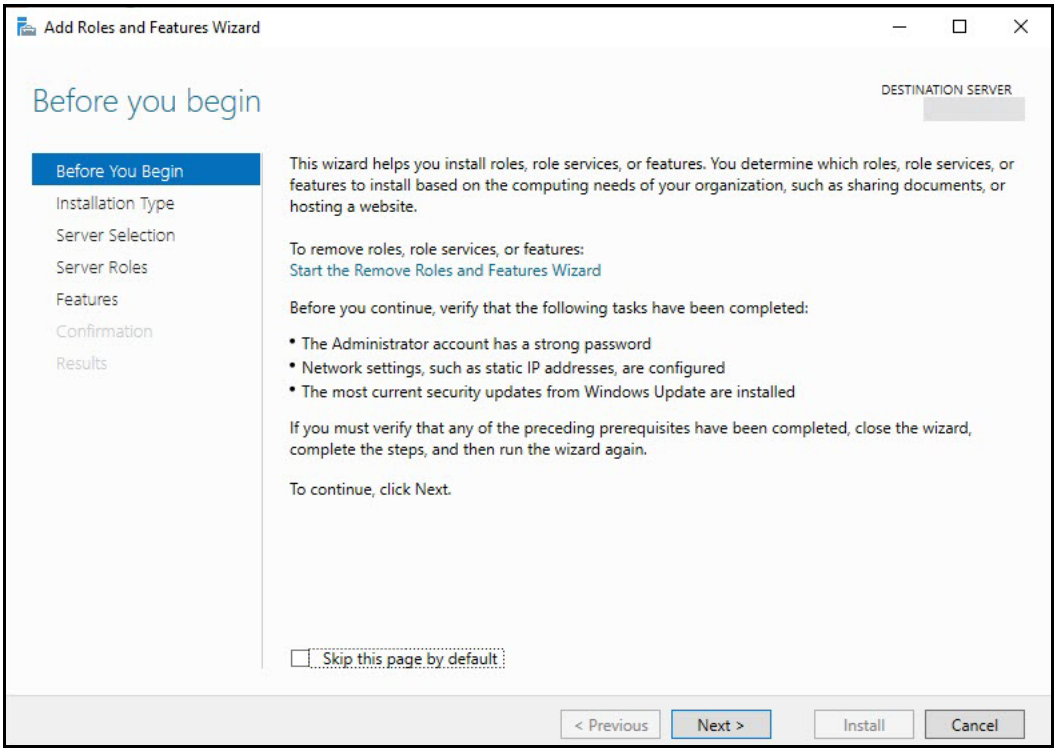
The Server Manager opens.



2 In the Navigation pane, select **Dashboard**.

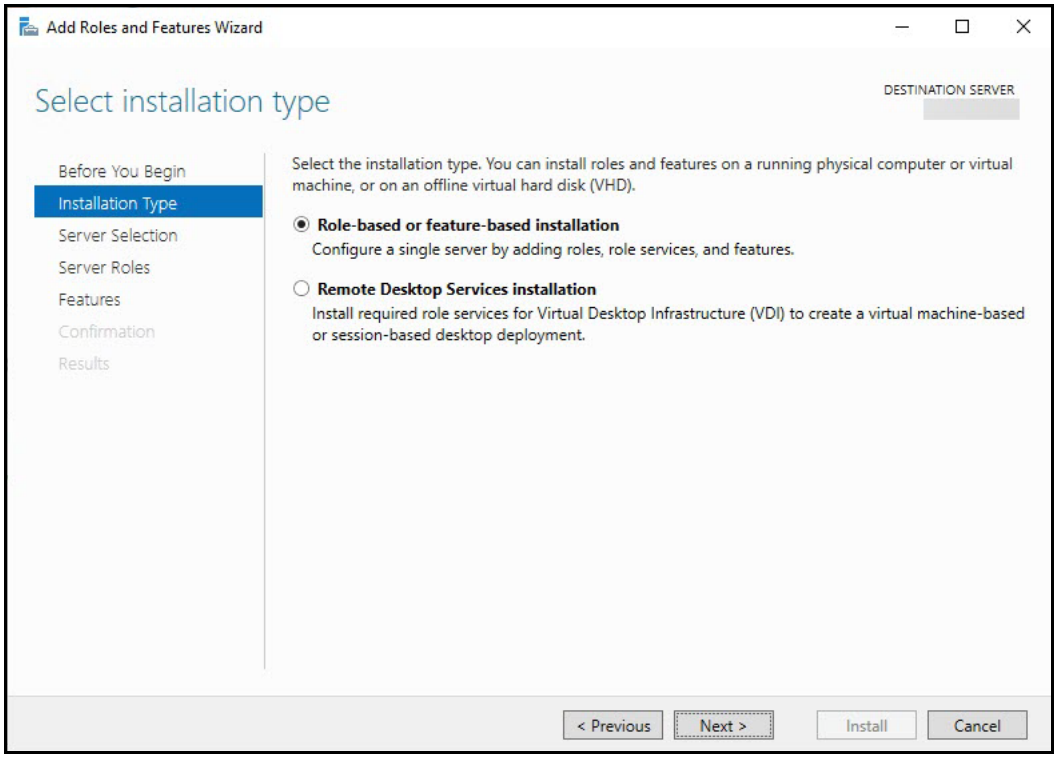
3 In the Summary Tasks pane, select **Add Roles and Features**.

The Add Roles and Features Wizard opens.



4 Click **Next**.

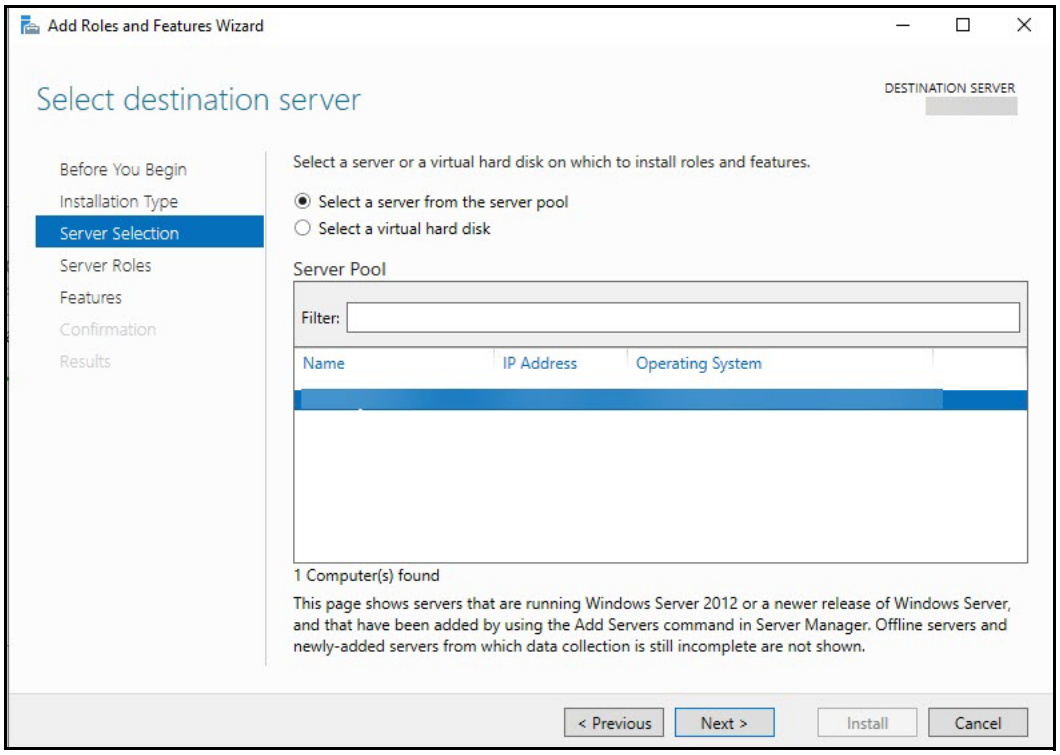
The Select Installation Type page opens.



5 Select the **Role-based or feature-based Installation** option.

6 Click **Next**.

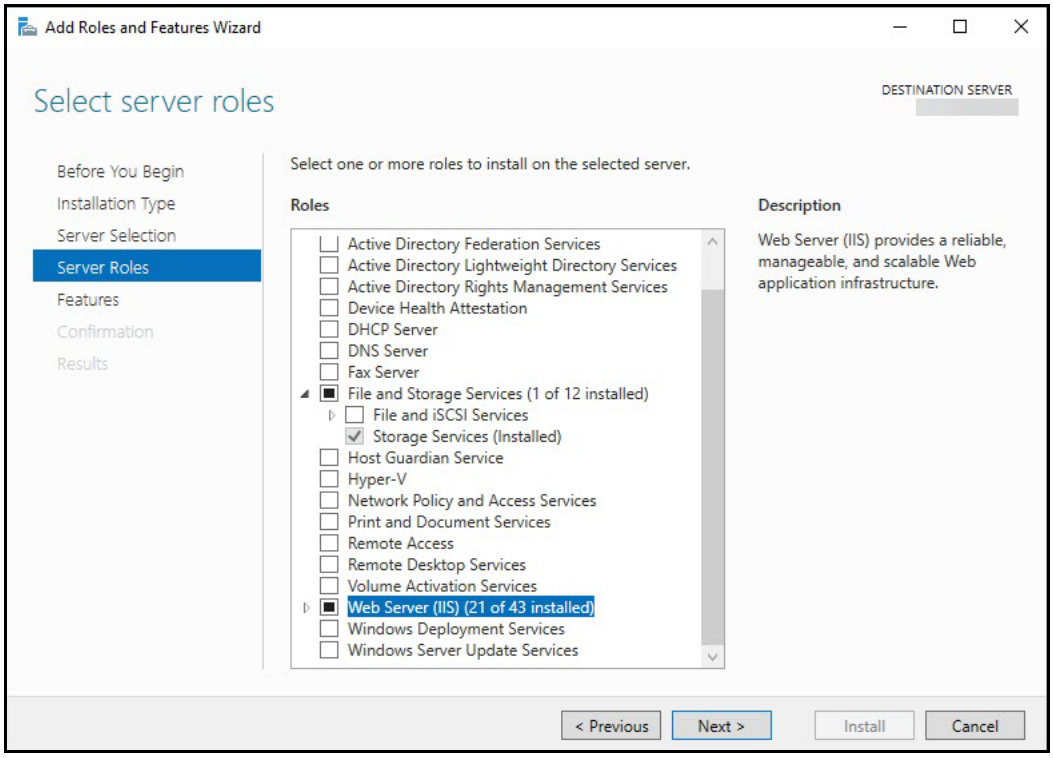
The Select Destination Server page opens.



7 Select a server.

8 Click **Next**.

The Select Server Roles page opens.

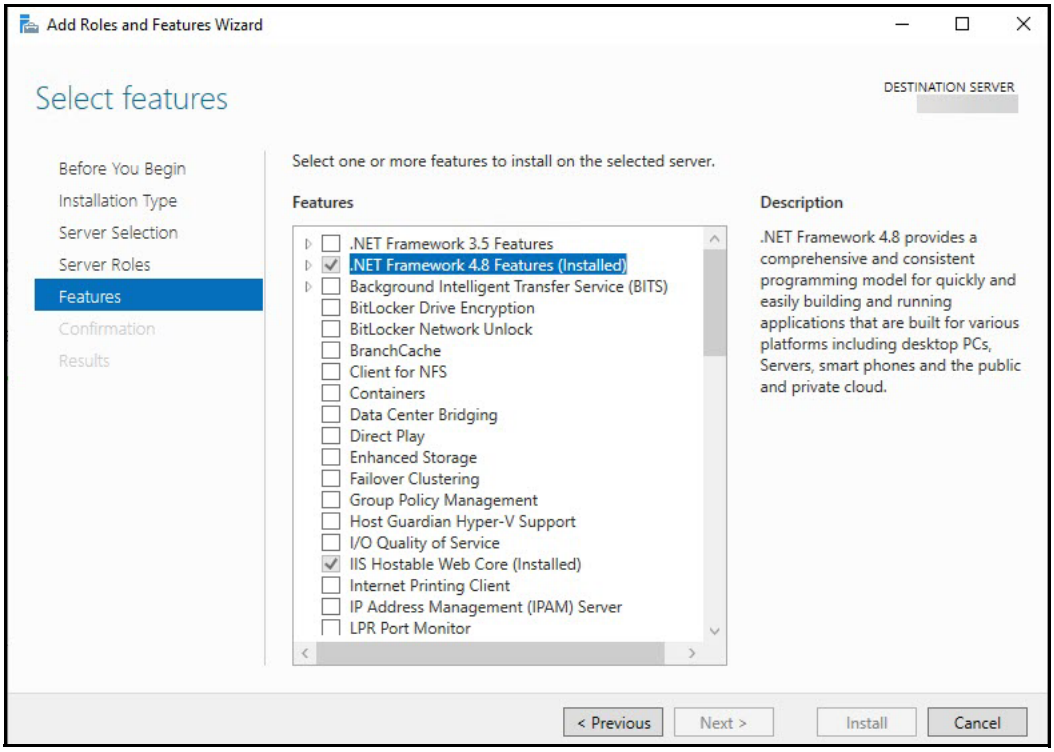


9 From the Server Roles list, select the following roles:

- **File Services**
- **Web Server (IIS)**

10 Click **Next**.

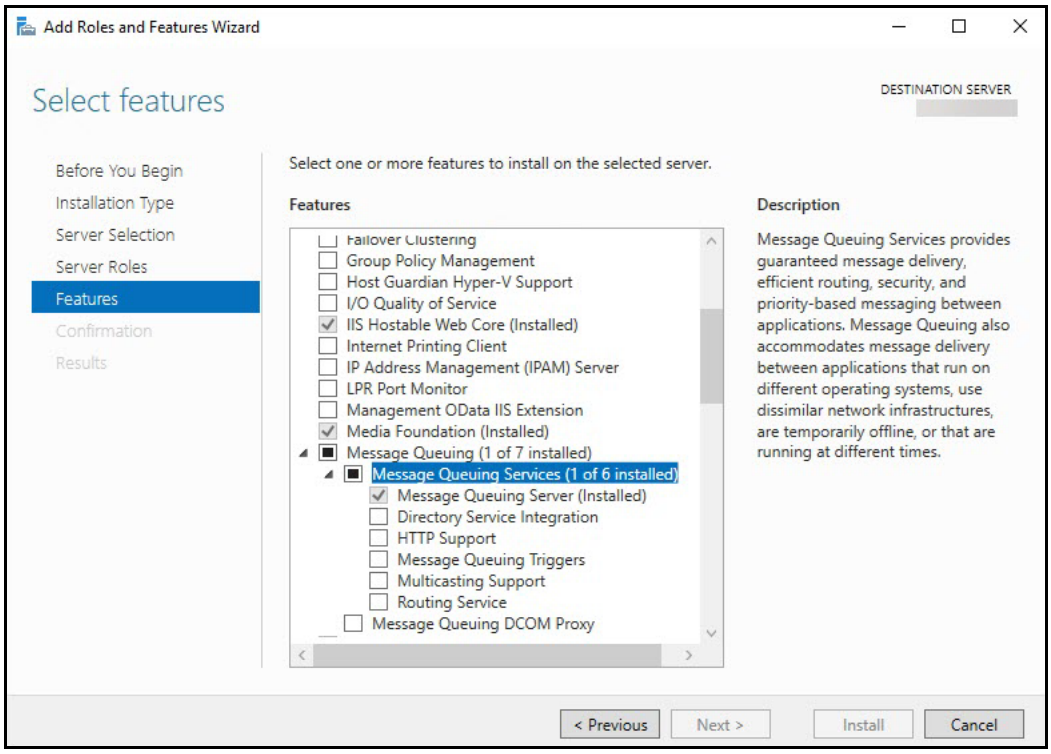
The Select Features page opens.



11 Select the following features:

- **.NET Framework 4.8 Features** and all of its child nodes
- **WCF Services** and all of its child nodes
- **IIS Hostable Web Core** and **Media Foundation**

12 Verify that **Message Queuing Services** and **Message Queuing Server** are enabled.



13 Use the scroll bar to verify the **Windows Process Activation Service** is enabled with the following child nodes:

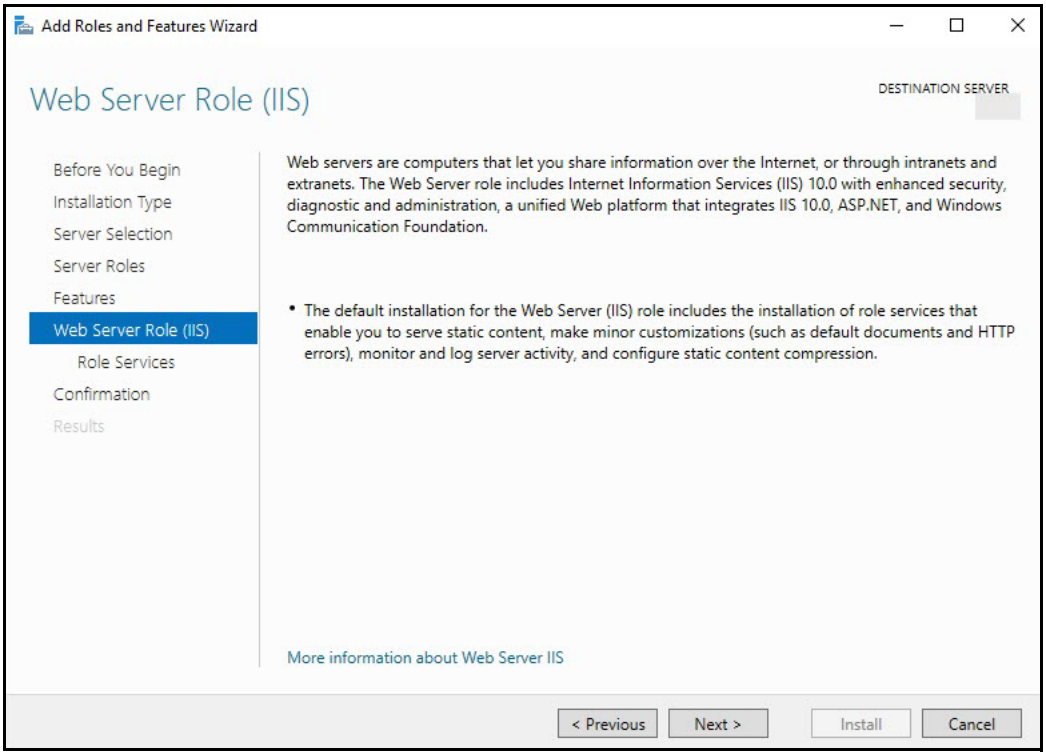
- **Process Model**
- **Configuration APIs**

14 Click **Next**.

Configuring the Web Server Role (IIS)

The Web Server Role (IIS) page opens if you have not already installed the web server.

1 In the Navigation pane, click **Role Services** under Web Server Role (IIS).



The Select Role Services page opens.

2 In the Role Services list, use the scroll bar to select the following services.

If you have already set up the Roles and Features, verify that the following services have been selected.

Node	Child Nodes
Common HTTP Features	Default Document Directory Browsing HTTP Errors Static Content WebDAV - Verify that this option is disabled. Worksoft's RESTful Services will not work correctly if enabled.
Health and Diagnostics	HTTP Logging Request Monitor
Performance	Static Content Compression Dynamic Content Compression
Security	Request Filtering Basic Authentication
Application Development	.NET Extensibility 4.8 Application Initialization ASP ASP.NET 4.8 CGI ISAPI Extensions ISAPI Filters WebSocket Protocol
Management Tools	IIS Management Console IIS Management Scripts and Tools Management Service

3 Click **Next**.

The Confirm Installation Selections page opens.

4 Click **Install** to install the role services.

Configuring Application/Json MIME Type Compression

After you have enabled Dynamic Content Compression within IIS, you need to verify HTTP Compression for the application/json MIME type. Worksoft uses Dynamic Content Compression to improve performance, and HTTP compression must be enabled for the application/json MIME type.

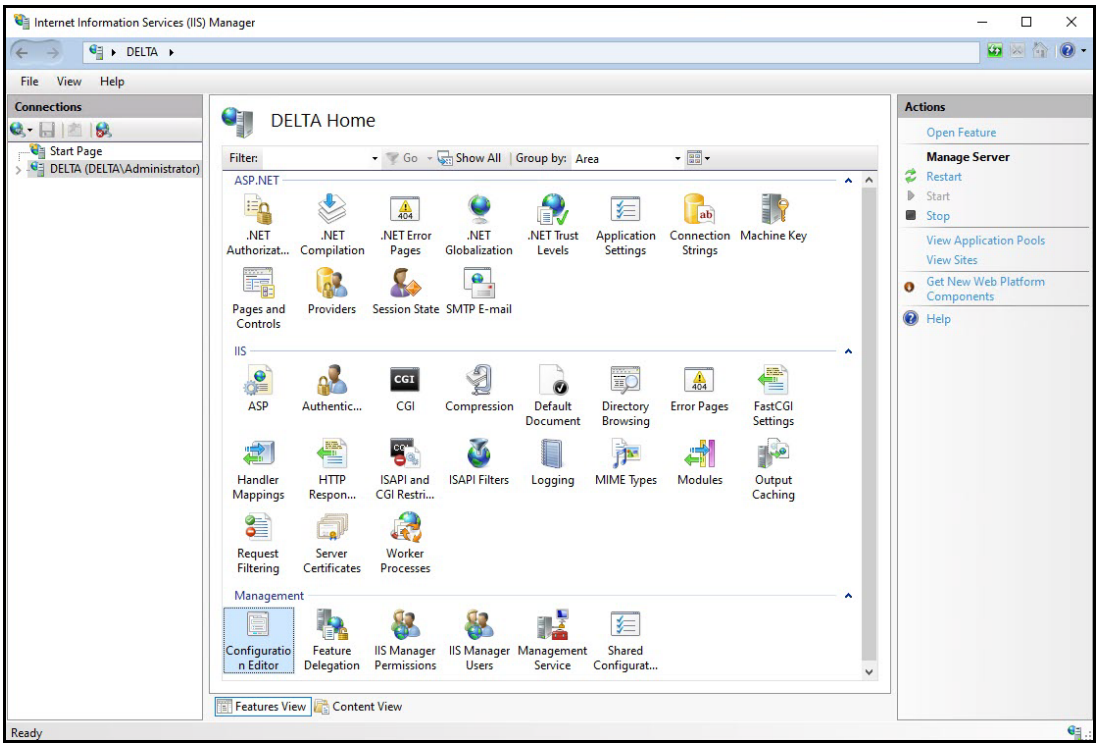
When the Dynamic Content Compression feature is enabled, it will overwrite any previous HTTP compression settings.

▶ *To verify application/json MIME type compression:*

1 Open **IIS Manager**.

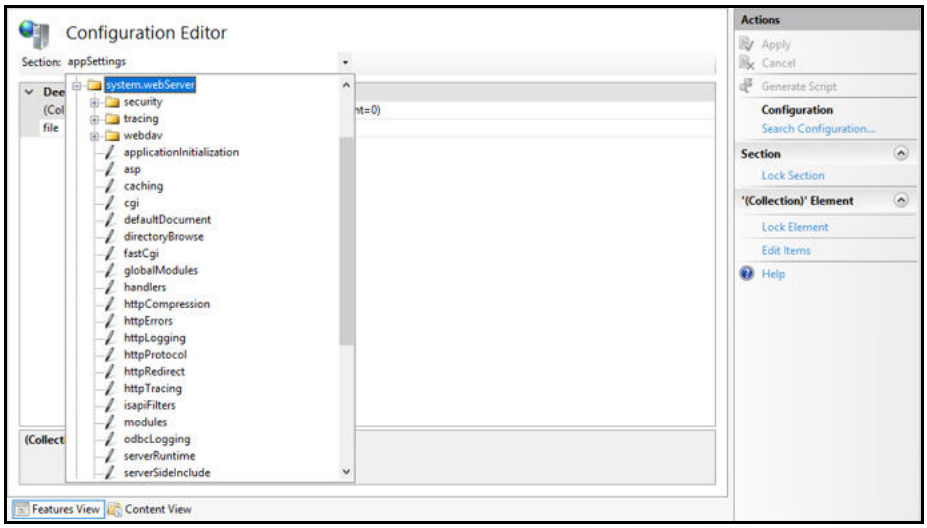
2 In the left Navigation pane, click on your server.

3 In the Management section, double-click the **Configuration Editor**.

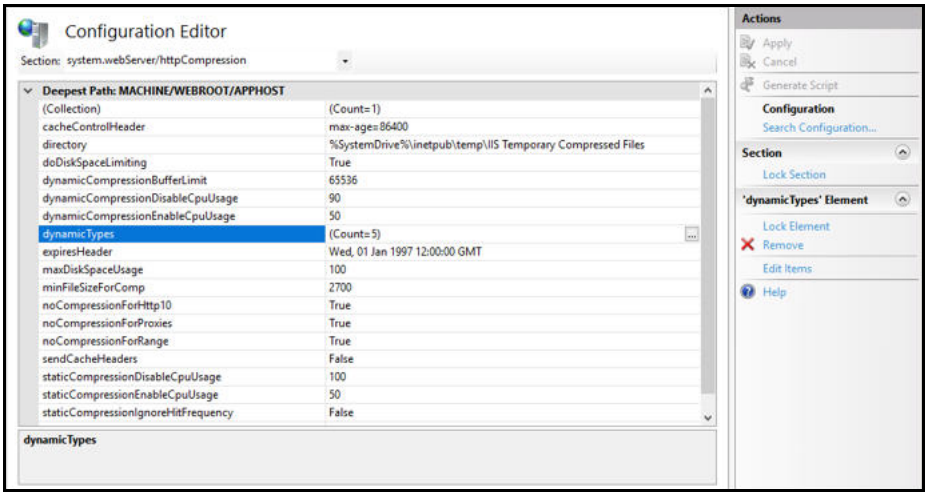


The Configuration Editor opens.

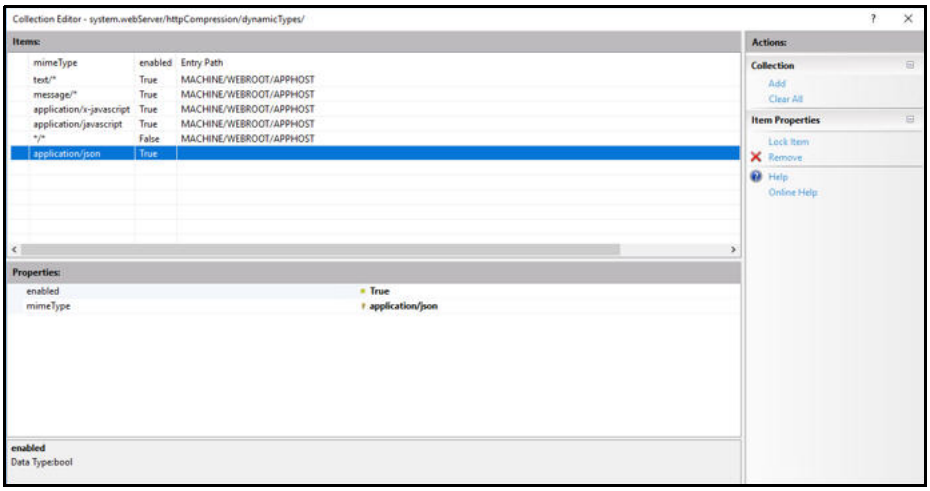
4 From the Section drop-down list, select **system.webServer > httpCompression**.



5 In the httpCompression section, click **dynamicTypes**.

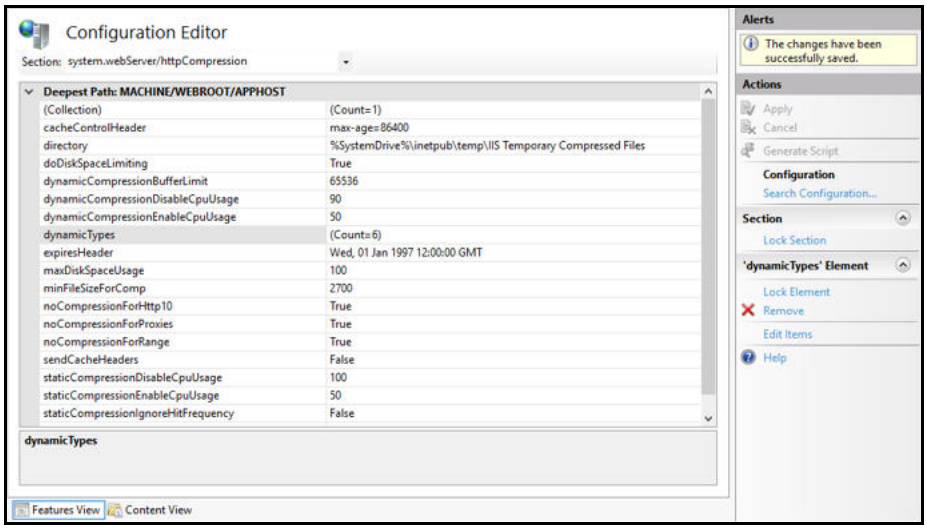


6 Verify that **application/json** is listed in the dynamic compression mime types. If it is not listed, click the **Add** button in the Collection section to add it.



7 After you completed your verification or addition, click the **Close** button

The Configuration Editor opens.



8 Click **Apply** to apply your changes.

9 Verify that dynamicTypes lists a count of six.

10 Close the editor.

Enabling IIS Services

You will now need to verify that several IIS services are enabled.

▶ *To verify IIS services are enabled:*

1 If the Server Manager is not open, select **Administrative Tools > Server Manager** from the Start menu.

The Server Manager opens.

2 In the Navigation pane, select **IIS**.

3 Scroll down to the Services section.

4 In the Services pane, verify that the following services are enabled and running:

- **World Wide Web Publishing Service**
- **Web Management Service**
- **Application Host Helper Service**
- **Windows Process Activation Service**

5 If any of these window services are not running, start the services.

To start a service, select the service from the list and click **Start** in the right menu. You can also start services by going to **Administrative Tools > Services** on your machine.

Chapter 2 Installing Worksoft Process Intelligence

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Process Intelligence Package

The Process Intelligence package consists of the following components:

Component	Description
Worksoft Process Intelligence (version).exe	Executable that installs Process Intelligence.
WorksoftCertifyResultsExporter (version).exe	Executable that installs Worksoft Certify Results Exporter. The Certify Results Exporter is used to export results from Worksoft Certify to Process Intelligence.
PIDatabaseScripts. (version).zip	Zip file contains the utility and database scripts that create and upgrade your Process Intelligence database.
CREDatabaseScripts. (version).sql	Zip file contains the utility and database scripts that create and upgrade your Certify Results Exporter database.

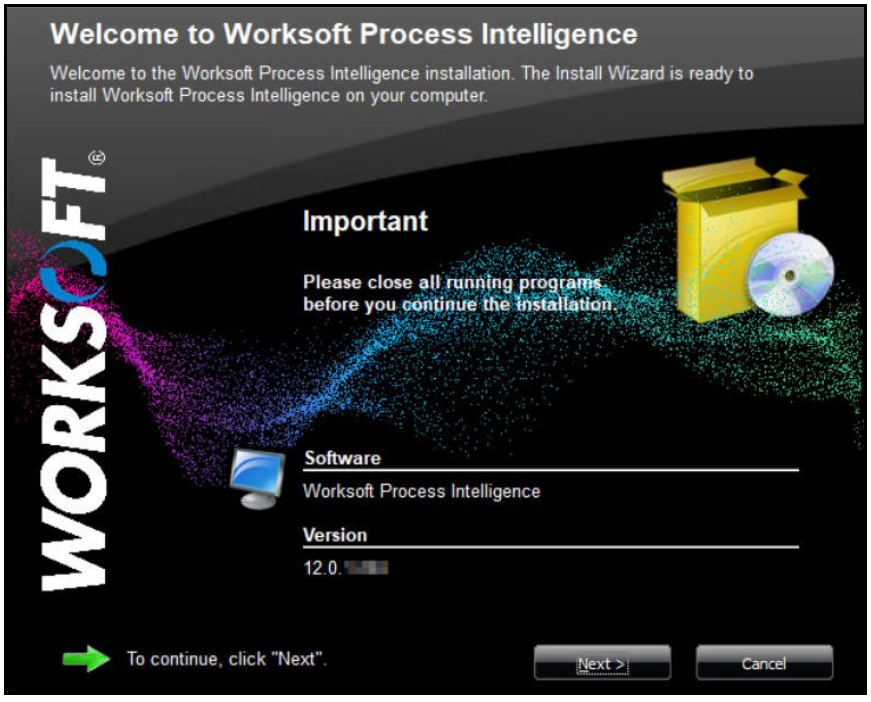
Installing Process Intelligence

Verify that your environment has the needed system requirements installed before you begin to install Process Intelligence. For information about system requirements and port requirements, see the Worksoft Help Portal.

▶ *To install Process Installation:*

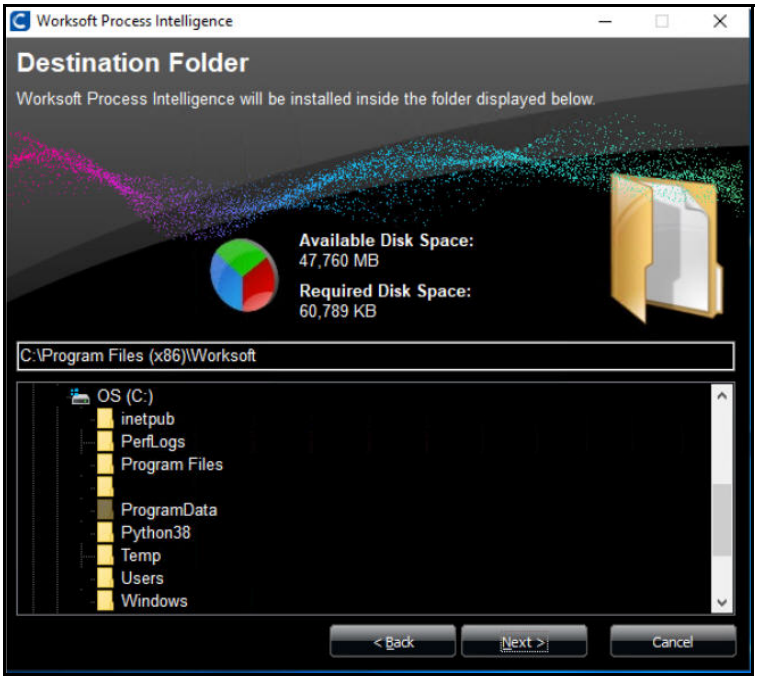
1 In your software distribution folder, double-click the **Worksoft Process Intelligence (version).exe** file.

The Worksoft Process Intelligence Install Wizard opens.



2 Click **Next**.

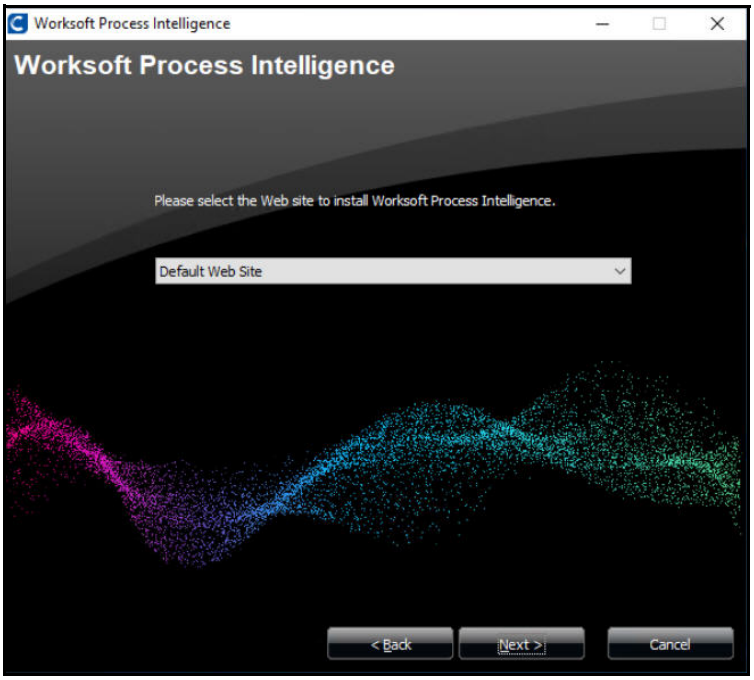
When the system analysis has completed, the Destination Folder page opens.



3 If you want to accept the default directory for your installation files, click **Next**.

If you do not want to accept the default directory for the installation files, click the **Change** button to select a different installation directory, and then click **Next**.

The Process Intelligence URL page opens.



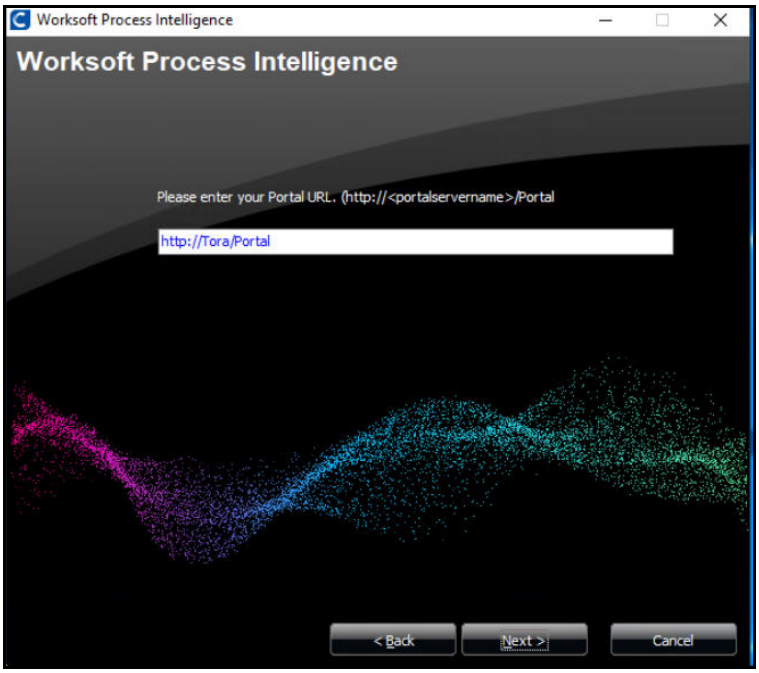
4 Enter the external URL address for Process Intelligence.

You must use a fully qualified domain name or a Domain Name System (DNS) alias.

Example: `https://servername.worksoft.com`

5 Click **Next**.

The Worksoft Portal URL page opens.

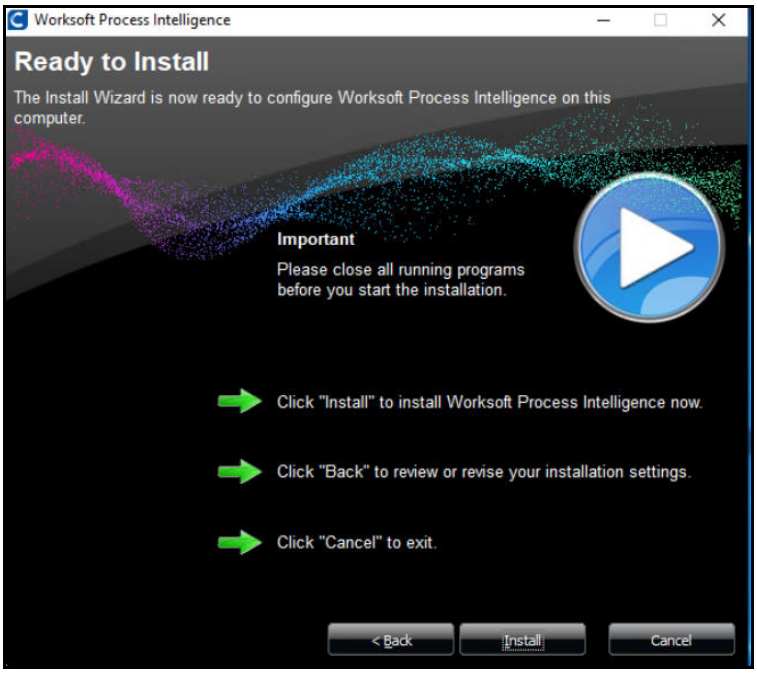


6 Enter the external URL address for Worksoft Portal.

You must use a fully qualified domain name or a Domain Name System (DNS) alias.

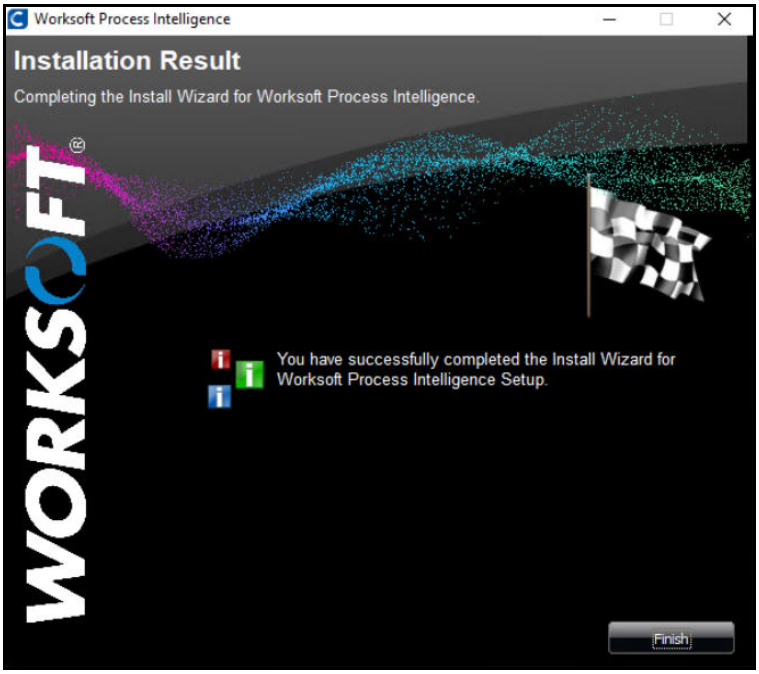
Example: `https://servername.worksoft.com/portal`

The Ready to Install page opens.



7 Click **Next**.

The Worksoft Process Intelligence Installation Completed page opens.



8 Click **Finish** to complete the installation.

Chapter 3 Creating and Configuring a Process Intelligence Database

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Creating a Process Intelligence Database

To use Process Intelligence, you must create a database on your Microsoft® SQL Server. Use the Apply utility tool provided in your Worksoft Process Intelligence distribution package.

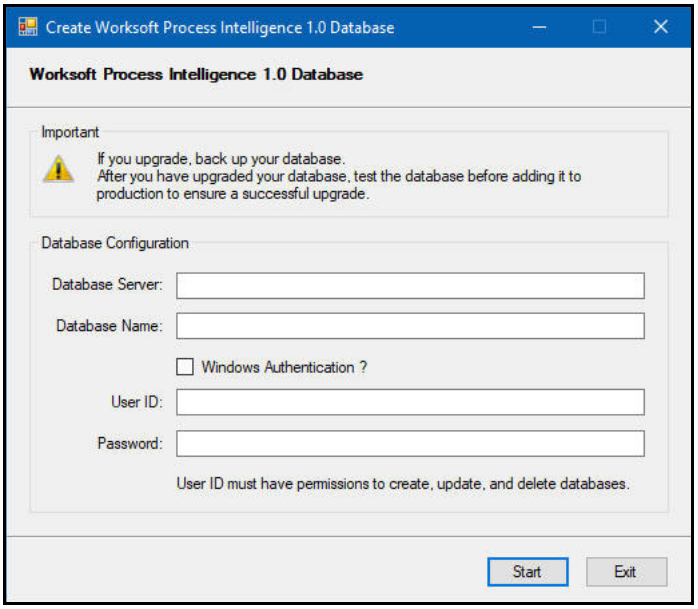
If you are creating a database on a remote server, the SQL Server must be installed.

▶ *To populate the Process Intelligence database:*

1. From your Process Intelligence distribution package, unzip the **PIDatabaseScripts (version).zip** file.
2. In the PIDatabaseScripts (version) folder, navigate to the following directory:

   `PIDatabaseScripts > PIDatabase`
3. Double-click **Apply.exe**.

   The Create Worksoft Process Intelligence Database tool opens.



4. In the Database Server field, enter the server name.
5. In the Database Name field, enter the database name.
6. If you want to use Windows authentication, select the **Windows Authentication** option.
7. If you want to use SQL Server authentication, enter the SQL Server user name and password in the respective fields.
8. Click the **Start** button.

   The Apply utility begins to create a new database. After the database creation process is completed, a message opens. You are now ready to configure your Process Intelligence database in Worksoft Portal.

Upgrading Your Database

When you upgrade the Process Intelligence database, you must run the Apply tool in the **PIUpdateDatabase** folder. If patches need to be applied, refer to the Readme file for information on how to upgrade your database.

Registering Process Intelligence

You must register Process Intelligence and configure the database in the Worksoft Portal. Process Intelligence leverages information from the Portal—`https://servername.worksoft.com/portal`. Product and services automatically register themselves in the Worksoft Portal when they are installed.

If for some reason Process Intelligence does not automatically register, you can trigger the registration by manually loading Process Intelligence from the Process Intelligence API Swagger page:

`https://<servername>/processintelligence/swagger`

Opening the Swagger page automatically registers Process Intelligence.

If you sign in the first time with the localhost, it will register the localhost, which will cause problems. If this happens, click the **Deregister** button, sign in through the URL address, and register Process Intelligence again.

Configuring the Process Intelligence Database in Worksoft Portal

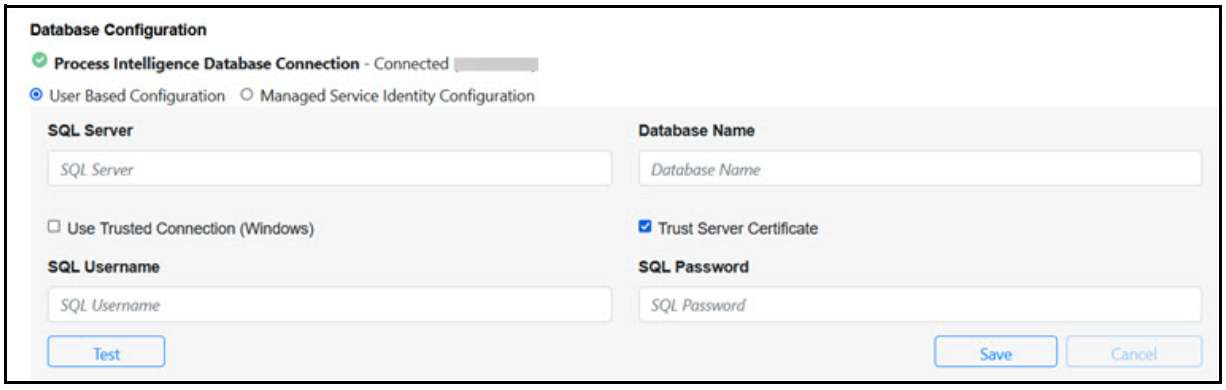
When you configure your Process Intelligence database, you can select how you want to set up your database security configuration. You need to be a superuser to configure both connections:

- **User Based Configuration**
- **Managed Service Identity Configuration**

▶ *To create a Process Intelligence database with a user-based configuration connection:*

1 From the Worksoft Portal menu, select **Product Configuration > Process Intelligence**.

The Database Configuration page opens.



2 Select the **User Based Configuration** option.

3 In the SQL Server field, enter the server name.

4 In the Database Name field, enter the database name.

5 If you want to use Windows authentication, select the **Use Trusted Connection (Windows)** option.

6 If you want to use SQL Server authentication, enter the SQL Server user name and password in the respective fields.

7 Select the **Trust Server Certificate** option.

8 Click **Test** to test your database connection.

A message opens stating if the connection was successful or failed. If the test fails, troubleshoot the database connection.

9 Click **OK** to close the message.

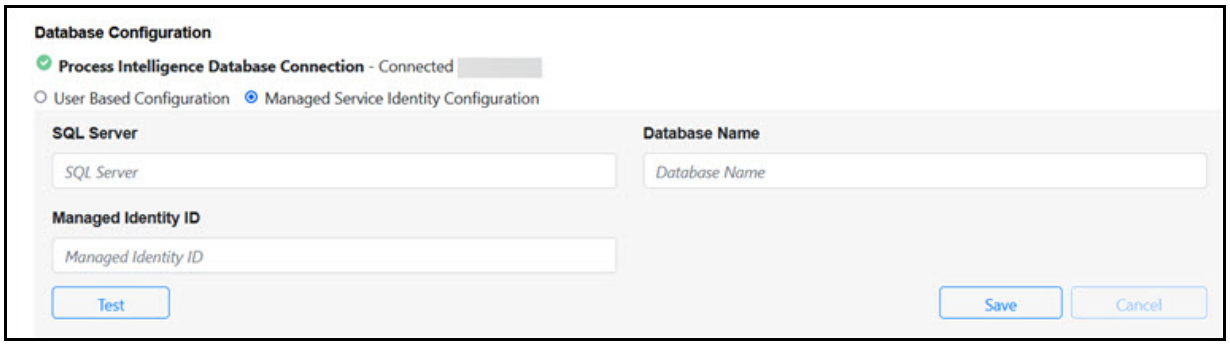
10 Click **Save** to save your database.

A message opens stating the connection was successful.

▶ *To create a Process Intelligence database with a Managed Service Identity configuration connection:*

1 From the Worksoft Portal menu, select **Product Configuration > Process Intelligence**.

The Database Configuration page opens.



2 Select the **Managed Service Identity Configuration** option.

3 In the Database Server field, enter the server name.

4 In the Database Name field, enter the database name.

5 In the Managed Identity ID field, enter the ID.

6 Click **Test** to test your database connection.

A message opens stating if the connection was successful or failed. If the test fails, troubleshoot the database connection.

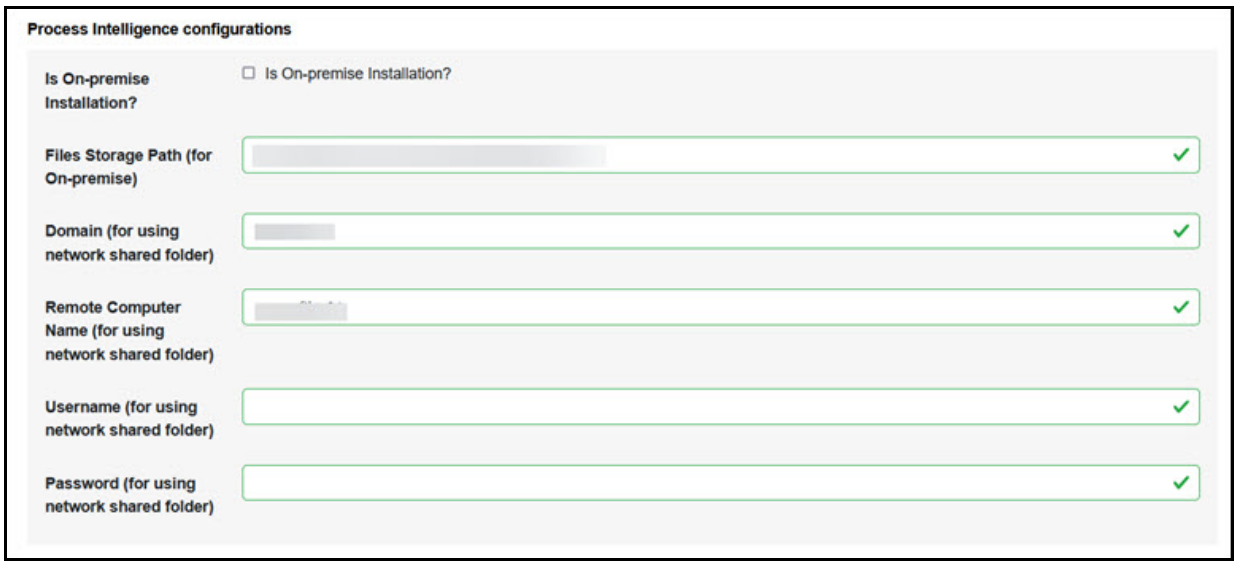
7 Click **OK** to close the message.

8 Click **Save** to save your database.

A message opens stating the connection was successful.

Configuring Network and On-Premise Environments

You can also configure the Process Intelligence environment in the Worksoft Portal. You can select to configure your environment to a network or an on-premise environment.



▶ *To configure a network environment:*

1 Scroll down the Process Intelligence page in the Worksoft Portal to the Process Intelligence Configurations section.

2 In the Process Intelligence Configurations section, enter the following information:

Parameter	Description
Domain	Enter the domain name for the shared folder.
Remote Computer Name	Enter the name of your remote computer for using the network shared folder.
Username	Enter the username for using the network shared folder.
Password	Enter the password for using the network shared folder.

The configuration is complete.

▶ *To configure an on-premise environment:*

1 Scroll down the Process Intelligence page in the Worksoft Portal to the Process Intelligence Configurations section.

2 In the Process Intelligence Configurations section, select the **Is On-premise Installation?** option.

3 In the File Storage Path field, enter the file path where you intend to store your files.

The configuration is complete.

Chapter 4 Configuring Process Intelligence

In This Chapter

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Overview

Before you can use Worksoft Process Intelligence, you need to complete the following tasks:

- Extract public and private keys from a Windows certificate
- Configure public and private keys in Process Intelligence
- Verify that the Process Intelligence task is running

Extracting Public and Private Keys

After installing Process Intelligence, you need to configure a Windows certificate to use with Process Intelligence. Process Intelligence API requires public and private keys for authentication.

These public and private keys need to be extracted from the same certificate that is being used by Process Intelligence.

Public and private keys can have any of following extensions:

- CER
- CRT
- PEM

Process Intelligence default extension is **PEM**. If you use the CER and CRT extension, then you will need to do additional configuration in Process Intelligence.

Public and private keys do not need to have same extension in Process Intelligence.

OpenSSL Tool

Use the OpenSSL tool to extract the public and private keys from the certificate. The OpenSSL tool is an open-source command line tool that is commonly used to extract public and private keys. To download the tool, go to https://www.openssl.org/source/.

OpenSSL for Windows has dependency on Microsoft® Visual C++ 2008 Redistributable Runtime. If it is not installed on the client machine, then it can be downloaded here.

Certificates are password protected. Clients must provide a password along with their certificate to extract public and private keys.

▶ *To extract a public key with the OpenSSL tool:*

Open the OpenSSL command tool to extract the public key. A public key can be extracted from certificate.pfx or certificate.p12 with any of the following commands:

- `openssl pkcs12 -in certificate.pfx -out certificate.crt -nokeys`
- `openssl pkcs12 -in certificate.pfx -out certificate.cer -nokeys`
- `openssl pkcs12 -in certificate.pfx -out certificate.pem -nokeys`

You will be prompted for the password that was used when creating the certificate.

Process Intelligence uses **certificate.pem** as its default public key.

▶ To extract a private key with the OpenSSL tool:

Open the OpenSSL command tool to extract the private key. A private key can be extracted from certificate.pfx or certificate.p12 with any of the following commands:

- `openssl pkcs12 -in certificate.pfx -nocerts -out privatekey.crt -nodes`
- `openssl pkcs12 -in certificate.pfx -nocerts -out privatekey.cer -nodes`
- `openssl pkcs12 -in certificate.pfx -nocerts -out privatekey.pem -nodes`

You will be prompted for the password that was used when creating the certificate.

Process Intelligence uses **privatekey.pem** as its default public key.

Configuring Public and Private Keys in Process Intelligence

After you have extracted the public and private keys, you will now add them to Process Intelligence.

▶ To add public and private keys to Process Intelligence:

1. Go to the following folder on the machine where Process Intelligence is installed:

   `C:\Program Files (x86)\Worksoft\ProcessIntelligence\ETLServices`

2. Copy and paste public and private keys to the ETLServices folder.

Configuring the appsettings.json File

The public and private keys are stored in the **appsettings.json** configuration file that is distributed with Process Intelligence.

If the name of your certificates are different from the default names, **certificate.pem** and **privatekey.pem**, then you need to modify the configuration file by adding the new file names.

▶ To edit the appsettings.json file:

1. Go to the following folder on the machine where Process Intelligence is installed:

   `C:\Program Files (x86)\Worksoft\ProcessIntelligence`

2. Open the **appsettings.json** file in a text editor.
3. Modify the last two lines in this section with the name of your key files:

```
"OnPremiseSettings": {
"IsOnPremise": true,
"BaseFolderPath": "C:\\Worksoft\ProcessIntelligence\PIFiles",
"NetworkShareDomain": "",
"NetworkShareComputerName": "",
"NetworkShareUserName": "",
"NetworkSharePassword": "",
"CertificateFolderPath": "./",
"KeyFile": "privatekey.pem",
"CertificateFile": "certificate.pem"
},
```

4. Save the updated file.

Verifying the Process Intelligence Task Is Running

Next, you need to open the Windows Task Scheduler to verify that the created Process Intelligence API (PIAPI) task is running or finished running successfully.

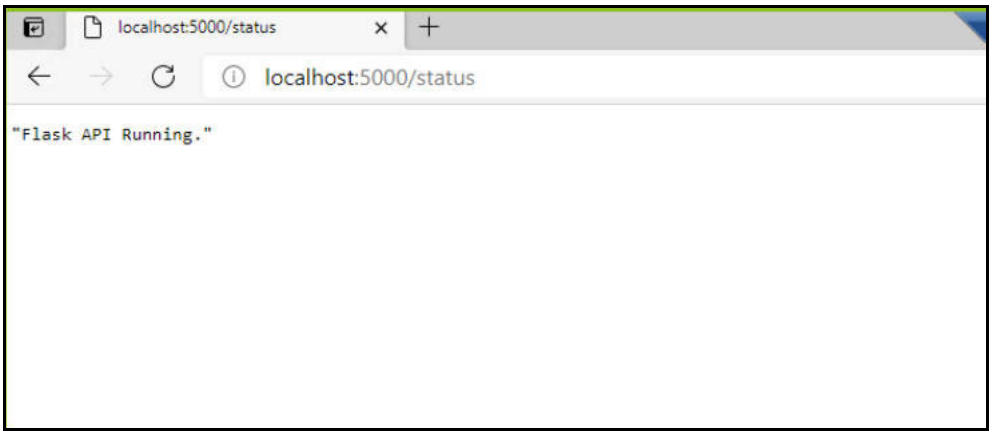
▶ *To verify the PIAPI task is running:*

1. From the Windows Start menu, enter **`task scheduler`** in the Search window.
2. Select Task Scheduler from the search results.

   The Task Scheduler opens.
3. In the Navigation pane, select **Task Scheduler Library**.

4. Right-click the **PIAPI** task and select **Run**.
5. Test the API status on a browser by going to **https://<hostname>:5000/status**.

   Do not use Windows Internet Explorer to test the status.



You have completed your Process Intelligence configuration. Now you will install and configure Certify Results Exporter.

Chapter 5 Installing and Configuring Certify Results Exporter

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Installing Certify Results Exporter

The Certify Results Exporter exports results from Worksoft Certify to Process Intelligence. If the product's system requirements are met, the Exporter can be installed on the same server as Worksoft Portal or Process Intelligence.

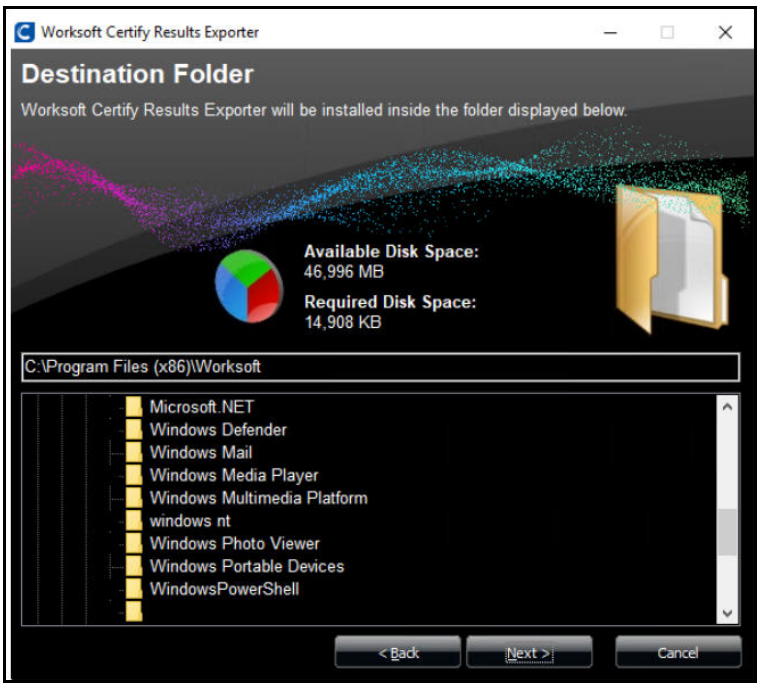
▶ *To install Certify Results Exporter:*

1 In your software distribution folder, double-click the **WorksoftCertifyResultsExporter (version).exe** file.

The Worksoft Certify Results Exporter Install Wizard opens.

2 Click **Next**.

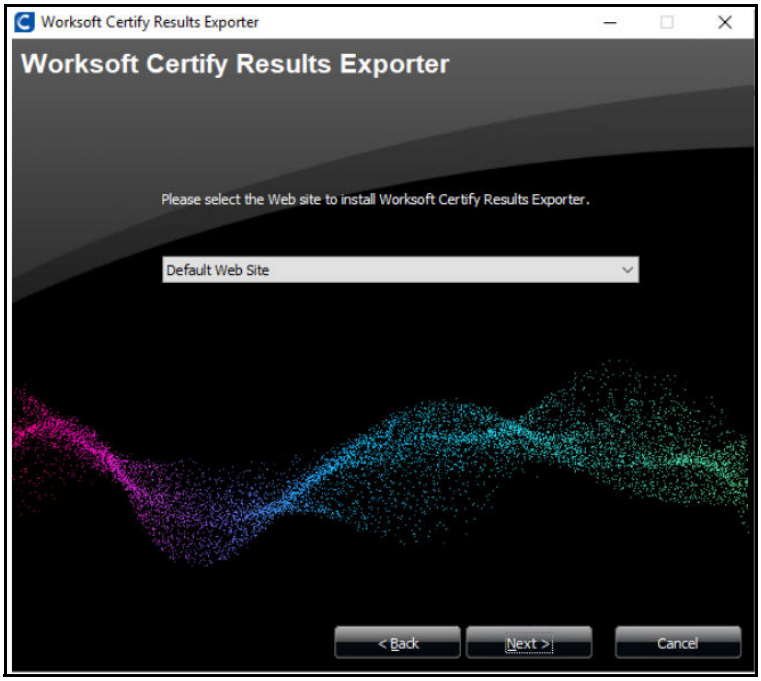
When the system analysis has completed, the Destination Folder page opens.



3 If you want to accept the default directory for your installation files, click **Next**.

If you do not want to accept the default directory for the installation files, click the **Change** button to select a different installation directory, and then click **Next**.

The Worksoft Certify Results Exporter URL page opens.



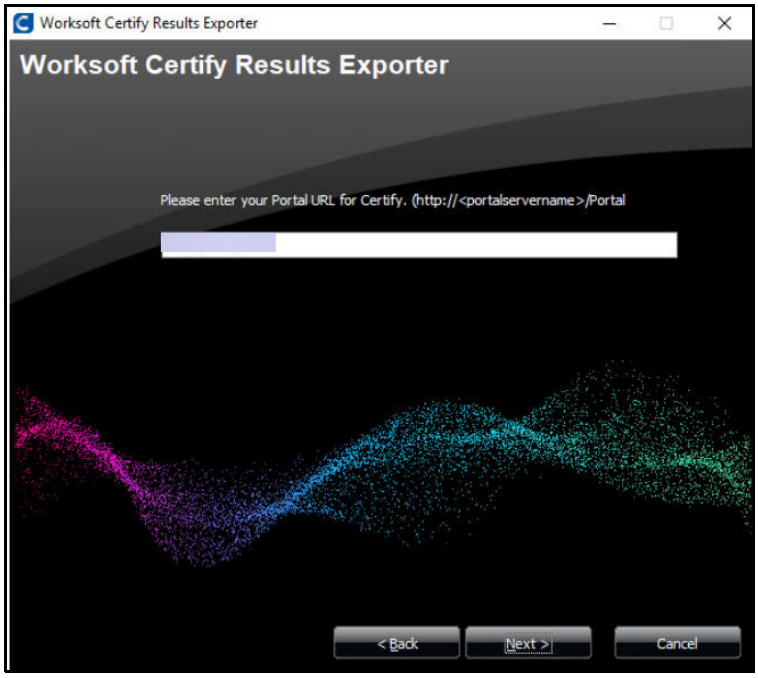
4 Enter the external URL address for Worksoft Certify Results Exporter.

You must use a fully qualified domain name or a Domain Name System (DNS) alias.

Example: `https://servername.worksoft.com`

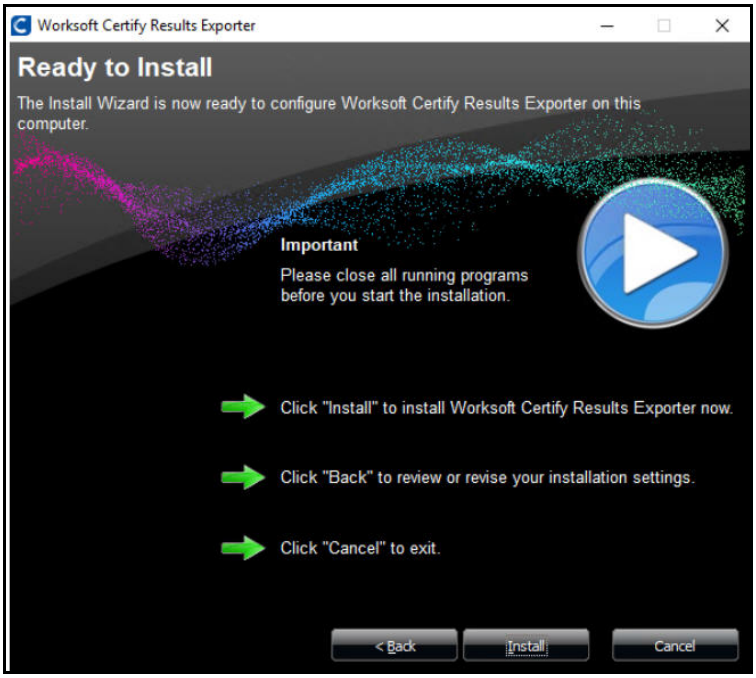
5 Click **Next**.

The Worksoft Portal URL page opens.



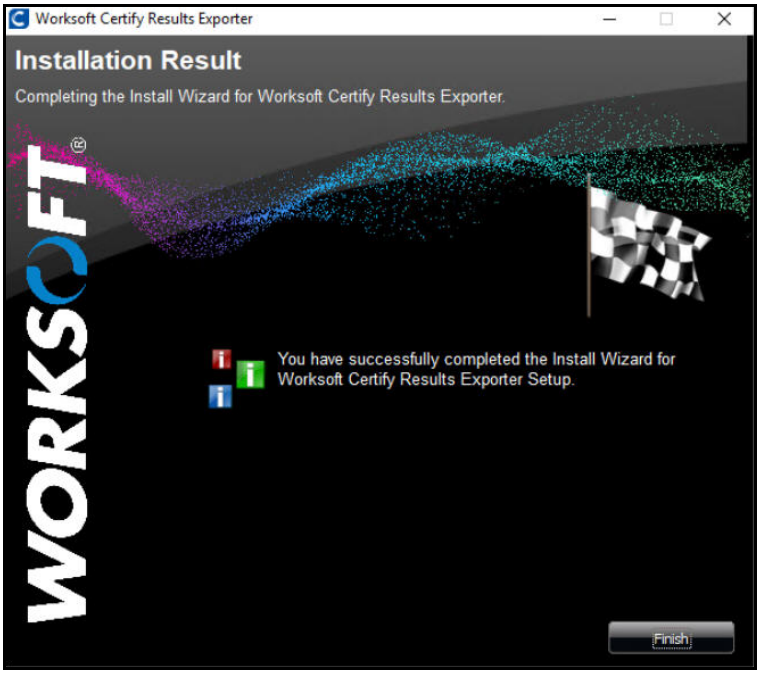
6 Enter the external URL address for Worksoft Portal.

The Ready to Install page opens.



7 Click **Next**.

The Worksoft Certify Results Exporter Installation Completed page opens.



8 Click **Finish** to complete the installation.

Verifying Configuration

After you install the Worksoft Certify Results Exporter, you need to verify the URL addresses in the **appsettings.json** file.

In the `C:\Program Files (x86)\Worksoft\Certify Results Exporter` folder, verify the following values:

- Base URL – Default value is `https://<servername>/CertifyResultsExporter`.
- ServerSettings:CertifyPortalUrl – This value should be populated with the Worksoft Portal URL entered during installation.

Creating a Worksoft Certify Results Exporter Database

Next, you will create an empty SQL Server database for the Certify Results Exporter. This database can reside on the same server as your Worksoft Certify databases.

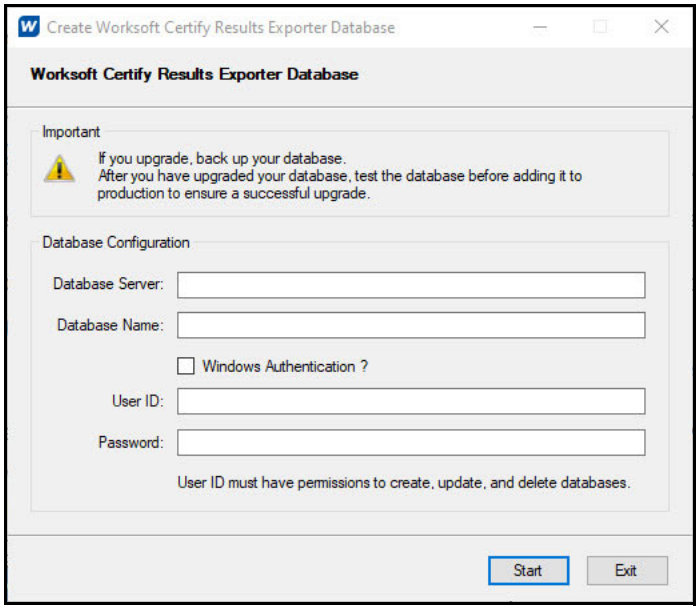
Use the Apply utility tool provided in your Worksoft Process Intelligence distribution package.

▶ *To populate the Certify Results Exporter database:*

1. From your Process Intelligence distribution package, unzip the **CREDatabaseScripts (version).zip** file.
2. In the CREDatabaseScripts (version) folder, navigate to the following directory:

   `CREDatabaseScripts > CREDatabase`
3. Double-click **Apply.exe**.

   The Create Worksoft Certify Results Exporter Database tool opens.



4. In the Database Server field, enter the server name.
5. In the Database Name field, enter the database name.
6. If you want to use Windows authentication, select the **Windows Authentication** option.
7. If you want to use SQL Server authentication, enter the SQL Server user name and password in the respective fields.
8. Click the **Start** button.

   The Apply utility begins to create a new database. After the database creation process is completed, a message opens.

   You are now ready to configure your Certify Results Exporter database in Worksoft Portal.

Upgrading Your Database

When you upgrade the Certify Results Exporter database, you must run the Apply tool in the **CREUpdateDatabase** folder. If patches need to be applied, refer to the Readme file for information on how to upgrade your database.

Registering the Certify Results Exporter

You must register Certify Results Exporter and configure the database in the Worksoft Portal. Certify Results Exporter leverages information from the Portal—`https://servername.worksoft.com/portal`. Product and services automatically register themselves in the Worksoft Portal when they are installed.

If for some reason Certify Results Exporter does not automatically register, you can trigger the registration by manually loading Certify Results Exporter from the Certify Results Exporter API Swagger page:

`https://<servername>/CertifyResultsExporter/swagger`

Opening the Swagger page automatically registers Certify Results Exporter.

Configuring the Certify Results Exporter Database in Worksoft Portal

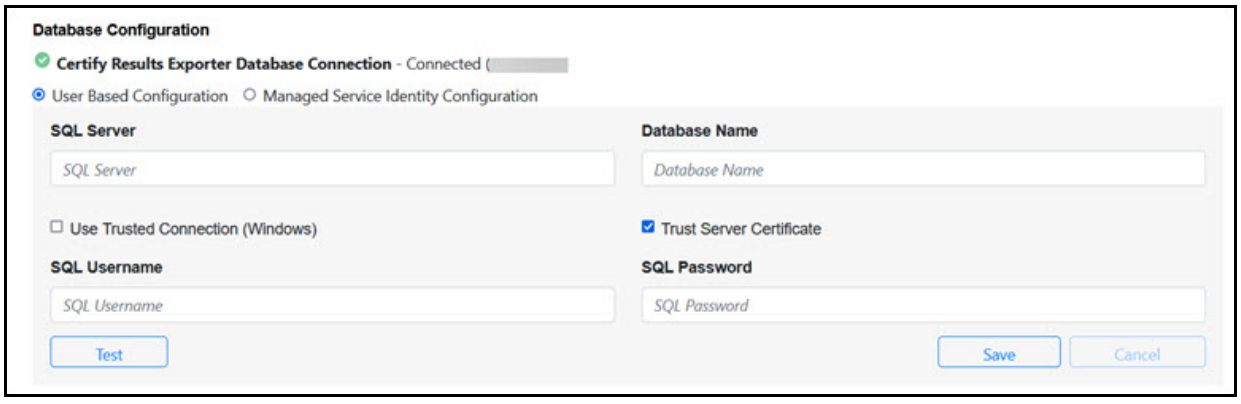
When you configure your Certify Results Exporter database, you can select how you want to set up your database security configuration. You need to be a superuser to configure both connections:

- **User Based Configuration**
- **Managed Service Identity Configuration**

▶ *To create a Certify Results Exporter database with a user-based configuration connection:*

1 From the Worksoft Portal menu, select **Product Configuration > Certify Results Exporter**.

The Database Configuration page opens.



2 Select the **User Based Configuration** option.

3 In the SQL Server field, enter the server name.

4 In the Database Name field, enter the database name.

5 If you want to use Windows authentication, select the **Use Trusted Connection (Windows)** option.

6 If you want to use SQL Server authentication, enter the SQL Server user name and password in the respective fields.

7 Select the **Trust Server Certificate** option.

8 Click **Test** to test your database connection.

A message opens stating if the connection was successful or failed. If the test fails, troubleshoot the database connection.

9 Click **OK** to close the message.

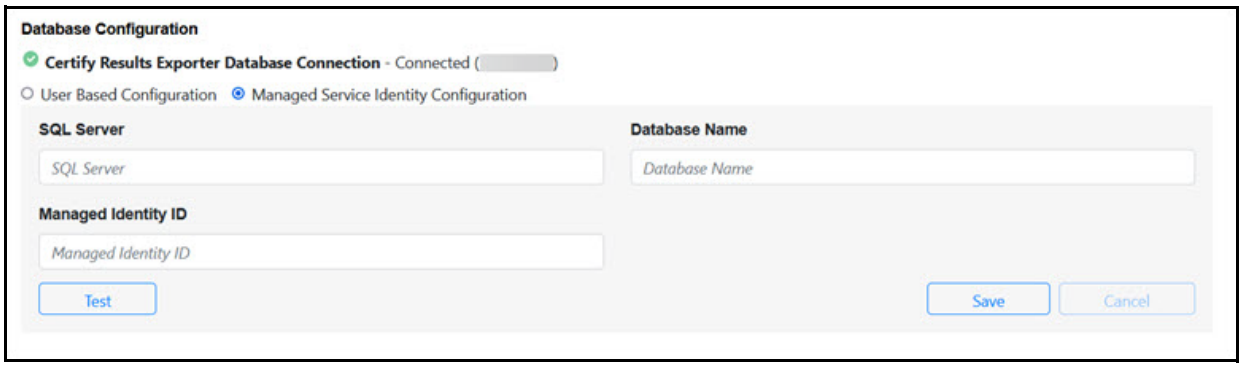
10 Click **Save** to save your database.

A message opens stating the connection was successful.

▶ *To create a Certify Results Exporter database with a Managed Service Identity configuration connection:*

1 From the Worksoft Portal menu, select **Product Configuration > Certify Results Exporter**.

The Database Configuration page opens.



2 Select the **Managed Service Identity Configuration** option.

3 In the Database Server field, enter the server name.

4 In the Database Name field, enter the database name.

5 In the Managed Identity ID field, enter the ID.

6 Click **Test** to test your database connection.

A message opens stating if the connection was successful or failed. If the test fails, troubleshoot the database connection.

7 Click **OK** to close the message.

8 Click **Save** to save your database.

A message opens stating the connection was successful.

Configuring Network and On-Premise Environments

You can configure a Certify Results Exporter storage folder to save Capture files. You have the option to export the Capture files to Process Intelligence or save them in a Certify Results Exporter folder.

▶ *To configure a storage folder for Capture files:*

1. Scroll down the Certify Results Exporter page in the Worksoft Portal to the Certify Results Exporter Configurations section.
2. If you are installing on-premise, select the **Is On-premise Installation** option.
3. If you want to store Capture files in the Certify Results Exporter, select the **Optionally Store Capture Files in CRE** option.
4. If installing on-premise, enter a folder path in the Capture Files Storage Path field where Capture files are saved.

   The Certify Results Exporter configuration is complete.