

# **Installation Guide**

## **Worksoft<sup>®</sup> Execution Suite**

# Worksoft Execution Suite Installation Guide

## Version 10

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## Patent

Worksoft Certify®

U.S. Patent No. 7,600,220

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# Table of Contents

<b>Chapter 1 Preparing For Installation</b>	<b>6</b>
Understanding Worksoft Execution Suite	7
System Requirements	7
Port Requirements	7
Configuring Your Application Server	8
Adding Roles and Features	8
Configuring the Web Server Role (IIS)	14
Configuring Application/Json MIME Type Compression	16
Enabling IIS Services	18
Configuring HTTPS on Your Application Server	19
<b>Chapter 2 Preparing Your SAP Systems for Certify Impact</b>	<b>20</b>
Overview	21
Creating a Certify System Account in your SAP System	21
Installing Certify Impact Transports in Your SAP System	22
<b>Chapter 3 Installing Worksoft Application Server</b>	<b>23</b>
Installing Worksoft Application Server	24
Disabling Interactive Service Detection Service	27
<b>Chapter 4 Configuring the Worksoft Management Studio</b>	<b>29</b>
Overview	30
Exploring Worksoft Management Studio	30
Creating Your Worksoft Management Studio Database	32
Registering and Creating Certify Execution Suite Databases	35
Registering SAP Systems	39
Configuring Certify Impact	41
Registering Users	42
Exporting a List of Users	44
Configuring Your Email Service	45
Disabling Notifications	46
Configuring Your LDAP Authentication Service	46

Adding RDP Servers .....	49
Modifying Maintenance Window Text .....	50
<b>Chapter 5 Adding Bookmarks .....</b>	<b>52</b>
Creating Bookmarks .....	53
Executing a Bookmark .....	57
<b>Chapter 6 Configuring Multi-Tenant Spaces .....</b>	<b>58</b>
Overview .....	59
Adding Tenants .....	59
Switching Between Tenants .....	60
Adding Users to Tenants .....	61
<b>Chapter 7 Installing Remote Certify Execution Manager Agents .....</b>	<b>64</b>
Installing Remote Certify Execution Manager Agents .....	65
Installing the Agent from Execution Manager .....	68
Configuring Resource Client Machines .....	69
Configuring Resource Machine to be Responsive to Execution Manager Pings .....	69
Disabling Windows Fast User Switching Mode .....	70
Accessing the Certify Execution Manager Agent .....	71
Best Practices for Using RDP with Multiple Local Users .....	72
Avoiding Initial Log on Time Consumption .....	72
Avoiding Requests Failure .....	72
Troubleshooting RDP Sessions .....	73
<b>Chapter 8 Upgrading Worksoft Execution Suite .....</b>	<b>74</b>
Upgrading Worksoft Execution Suite v9.2 to v10 .....	75
Upgrading Databases for Multi-Tenancy .....	77
Updating Resources .....	78
Upgrading Worksoft Execution Suite v10.0.0 to v10.0.X .....	79
<b>Chapter 9 Accessing Worksoft Execution Suite .....</b>	<b>80</b>
Accessing Certify Impact .....	81
Accessing Certify Execution Manager .....	81
REST API Support for Execution Manager .....	81
<b>Chapter 10 Configuring Micro Focus ALM/Quality Center Integration .....</b>	<b>82</b>
Overview .....	83
Installing the ALM/Quality Center Connectivity Add-On Tool .....	83
Integrating Worksoft Execution Suite with ALM/Quality Center .....	84
Integrating with Certify Impact .....	85

<b>Chapter 11 Configuring Panaya TDx Integration</b> .....	<b>86</b>
Overview .....	87
Configuring Certify BPP .....	87
Adding Panaya TDx Information to Worksoft Management Studio .....	88
Creating Bookmarks for Panaya TDx Integration .....	90
Creating a Worksoft Automation Cycle .....	90
<b>Appendix A Troubleshooting</b> .....	<b>92</b>
Verifying the Worksoft Management Studio Configuration File .....	92
<b>Appendix B Creating Worksoft Execution Suite Databases with Apply.exe</b> .....	<b>93</b>
Creating or Updating the Worksoft Management Studio Database .....	93
Creating or Updating Your Execution Manager Database .....	94
Creating or Updating a Certify Impact Database .....	95
<b>Appendix C Creating a Task in the Windows Task Scheduler</b> .....	<b>97</b>
<b>Appendix D Silent Installation</b> .....	<b>104</b>
Silent Install .....	104
Installation Log File .....	104
Silent Uninstall .....	104
Execution Manager Agent .....	104
Silent Install .....	104
Installation Log File .....	105
Silent Uninstall .....	105



# Chapter 1      Preparing For Installation

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## In This Chapter

- Understanding Worksoft Execution Suite ..... 7
- Configuring Your Application Server ..... 8
- Enabling IIS Services ..... 18
- Configuring HTTPS on Your Application Server..... 19

## Understanding Worksoft Execution Suite

The Worksoft® Execution Suite consists of the following applications:

- ◆ Worksoft Management Studio™ - Registers database settings, data sources, and SAP systems that you intend to use with the Worksoft products.
- ◆ Certify Execution Manager™ - Schedules and manages the remote execution of Worksoft Certify® processes.
- ◆ Certify Impact™ - Provides you with the ability to quickly deploy changes to your SAP® systems by identifying and executing a minimal set of Worksoft Certify processes for impacted programs and transactions.

### System Requirements

Before you begin to install the Certify Execution Suite, verify that your environment has the needed system requirements installed. For information about system requirements and planning your environment, see the [Worksoft Help Portal](#).

**Warning:**



Do not install Worksoft Execution Suite on the same server as the Worksoft Certify API data service because of the constraint of bandwidth on the network interface controller (NIC card).

### Port Requirements

Worksoft Execution Suite requires that you use the following ports when configuring the product:

Component	Port Number
Worksoft Application Server	80 and 443

### LDAP Port Requirements

If you are using LDAP for authentication, you will need to use the following ports and protocol:

Type of Traffic	AD and AD DS Usage	Protocol and Port Number
LDAP	Directory, Replication, User and Computer Authentication, Group Policy, Trusts	TCP and UDP 389
LDAP SSL	Directory, Replication, User and Computer Authentication, Group Policy, Trusts	TCP 363
LDAP GC	Directory, Replication, User and Computer Authentication, Group Policy, Trusts	TCP 3268
LDAP GC SSL	Directory, Replication, User and Computer Authentication, Group Policy, Trusts	TCP 3269

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## Configuring Your Application Server

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One or more web application servers are required. There are window services and web applications that will be installed for each of the products in the Worksoft Execution Suite. Read [Planning and Provisioning for the Worksoft Execution Suite](#) in the [Worksoft Help Portal](#) to determine if additional web application servers will be required.

In order to transform your application server into a web server, 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 15](#) have been selected.

You need to first configure your server with HTTP, and then you can reconfigure the application server to use HTTPS.

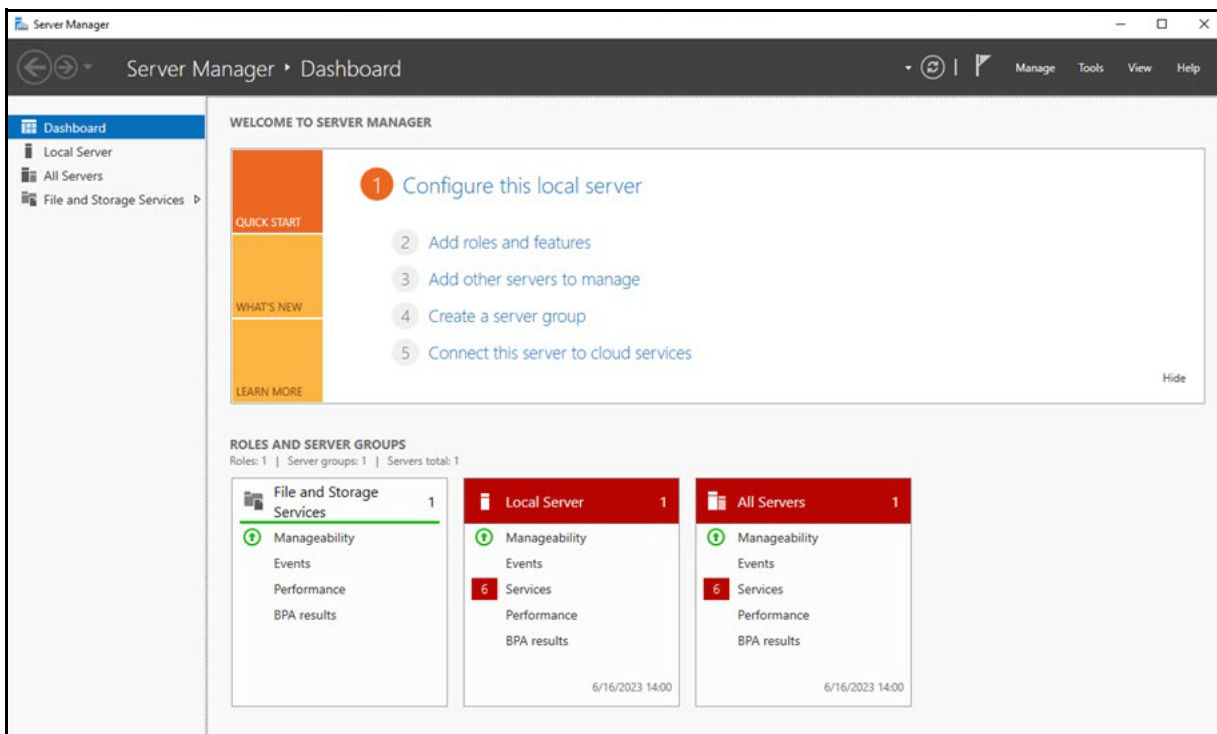
### Adding Roles and Features

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**.

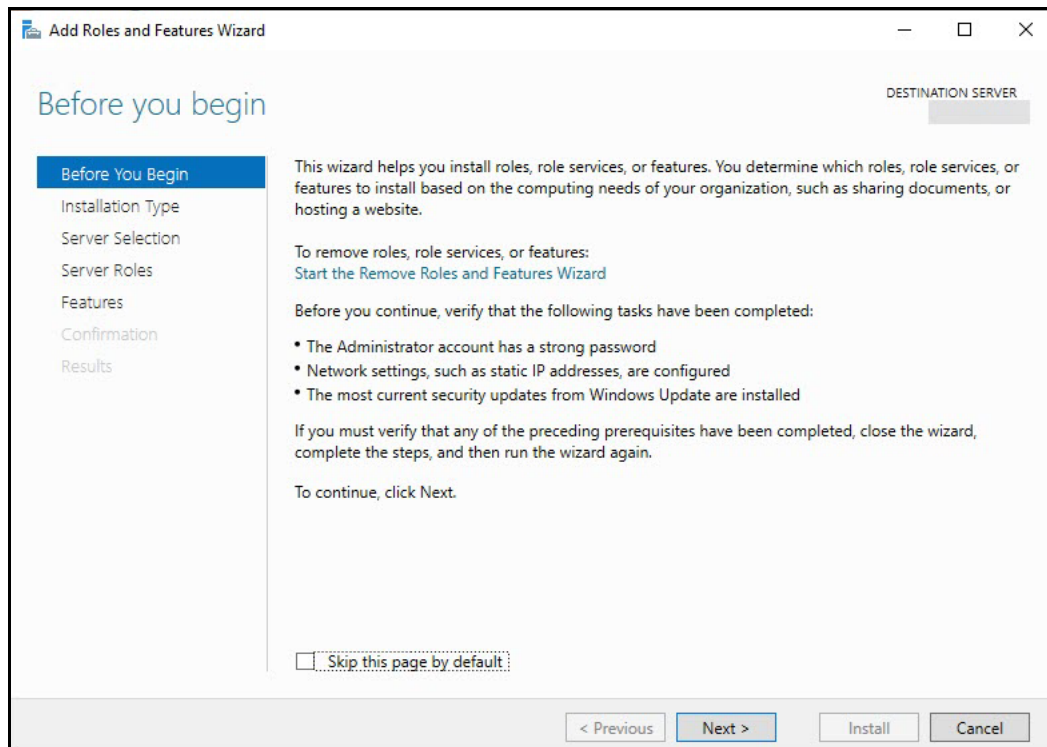
The Server Manager opens.



- 2 In the Navigation pane, select **Dashboard**.
- 3 In the Summary Tasks pane, select **Add Roles and Features**.

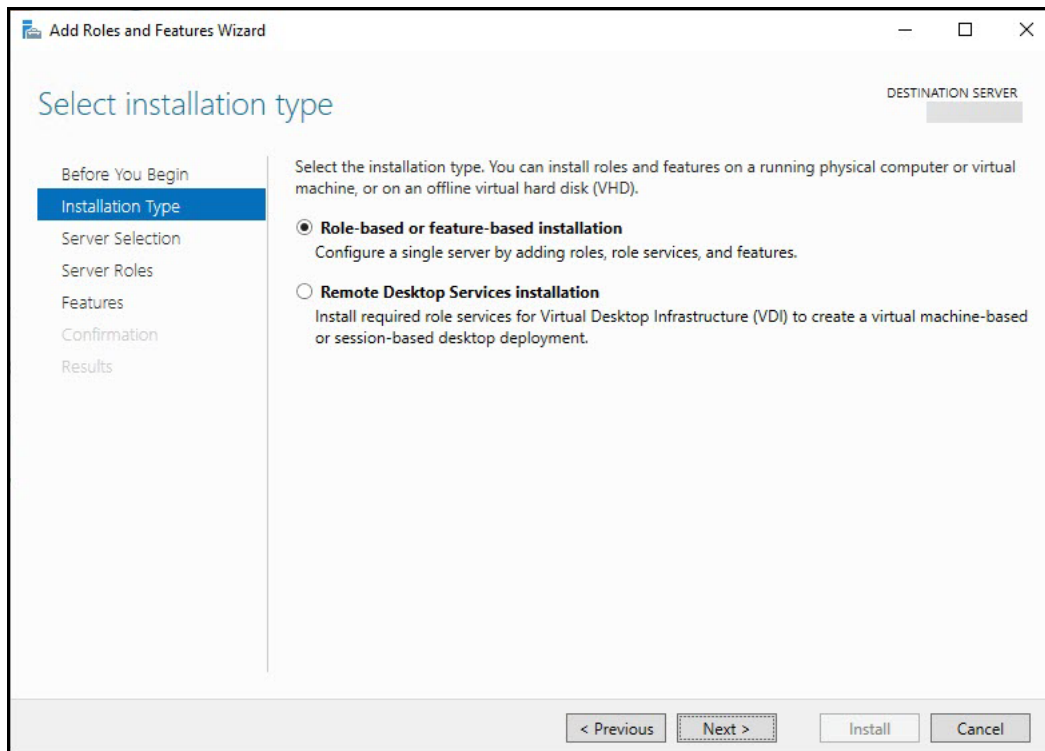


The Add Roles and Features Wizard opens.



4 Click **Next**.

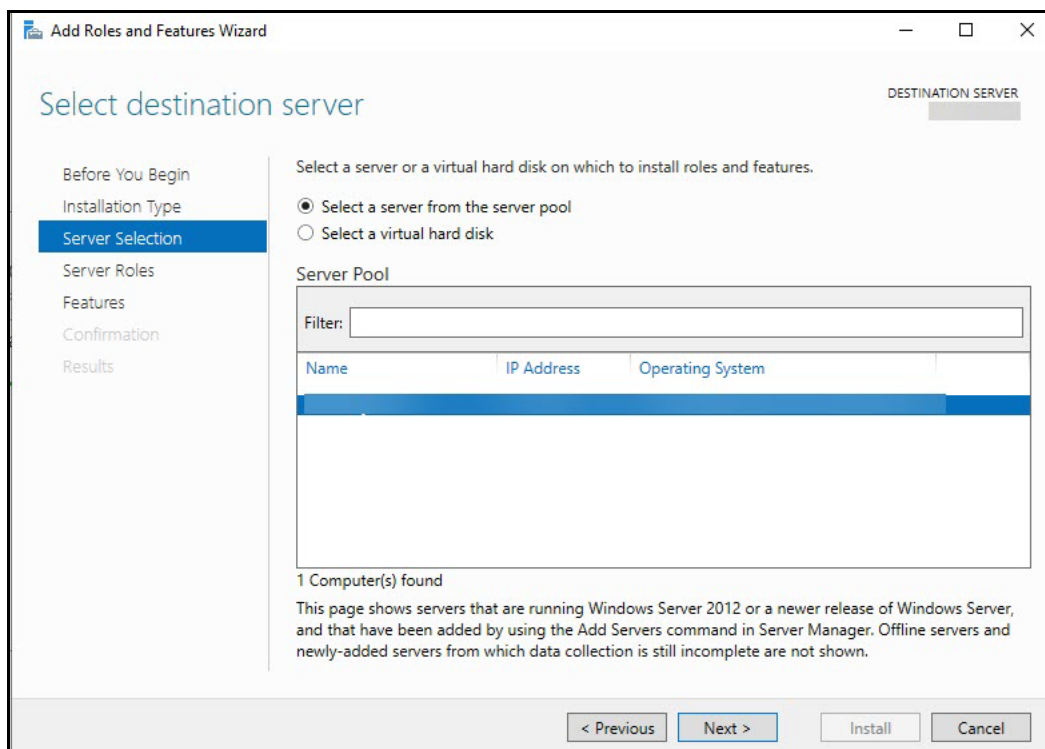
The Select Installation Type page opens.



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

6 Click **Next**.

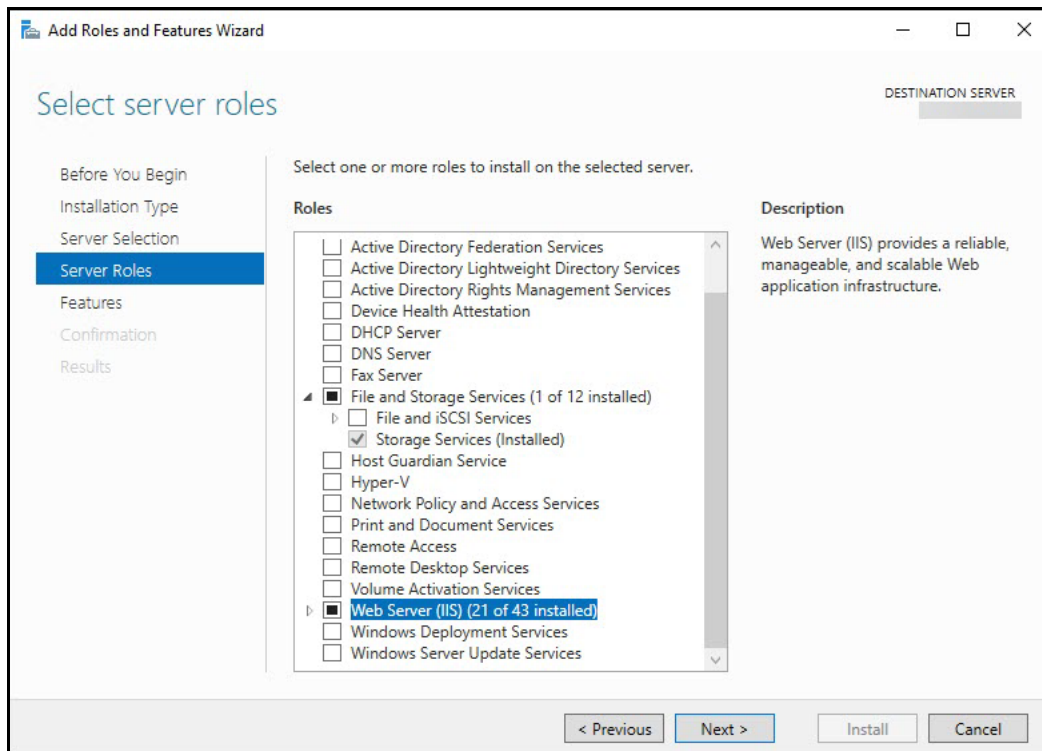
The Select Destination Server page opens.



7 Select a server.

8 Click **Next**.

The Select Server Roles page opens.

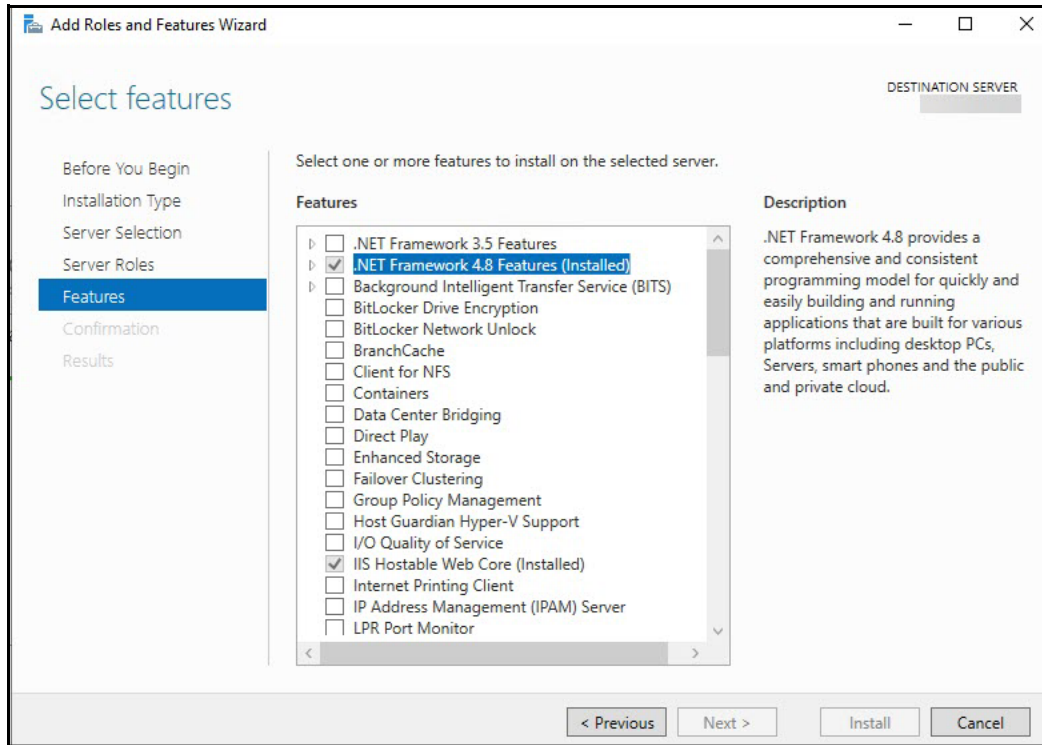


9 From the Server Roles list, select the following roles:

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

10 Click **Next**.

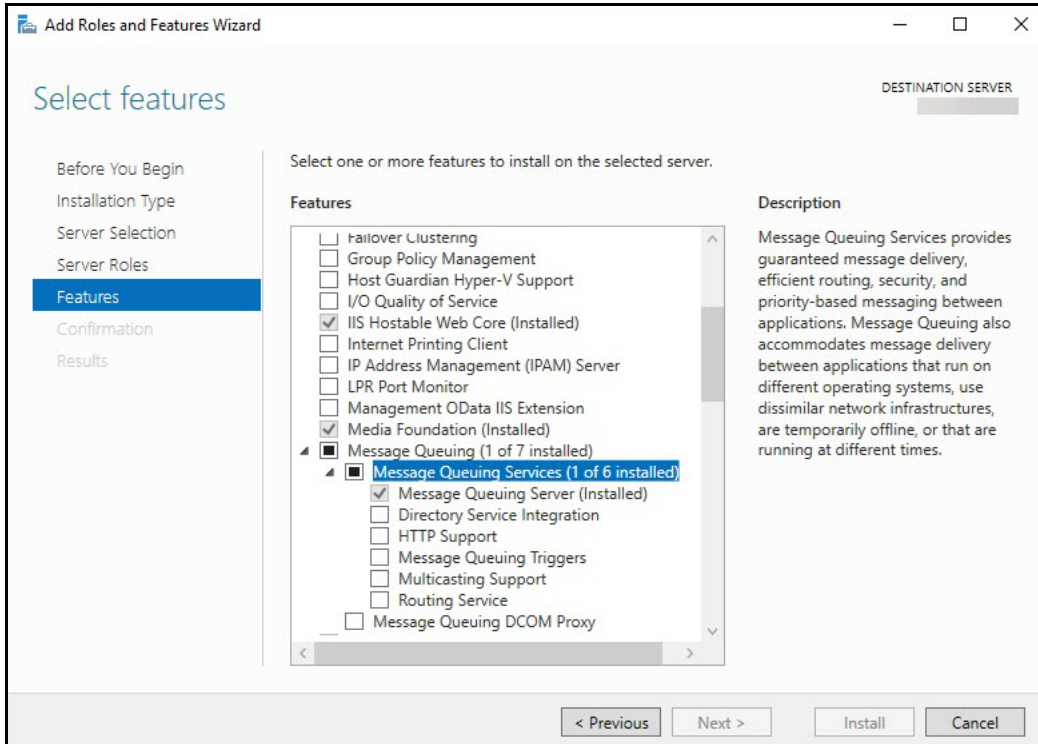
The Select Features page opens.



**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:

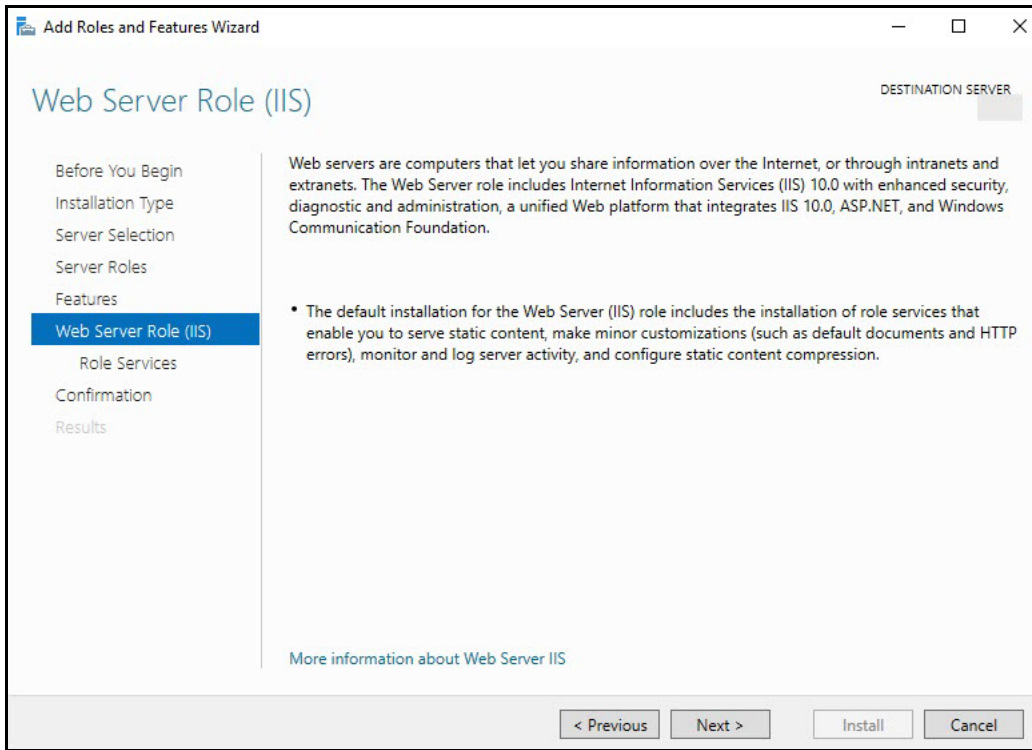
- **Process Model**
- **Configuration APIs**

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

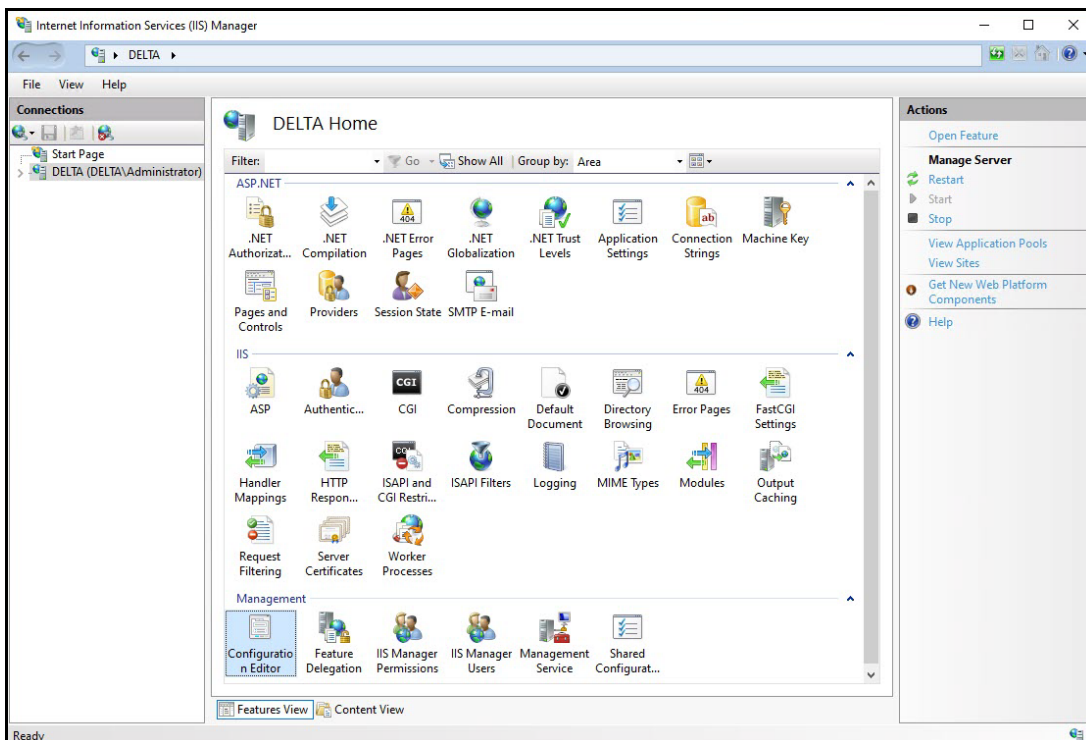
## Configuring Application/Json MIME Type Compression

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:

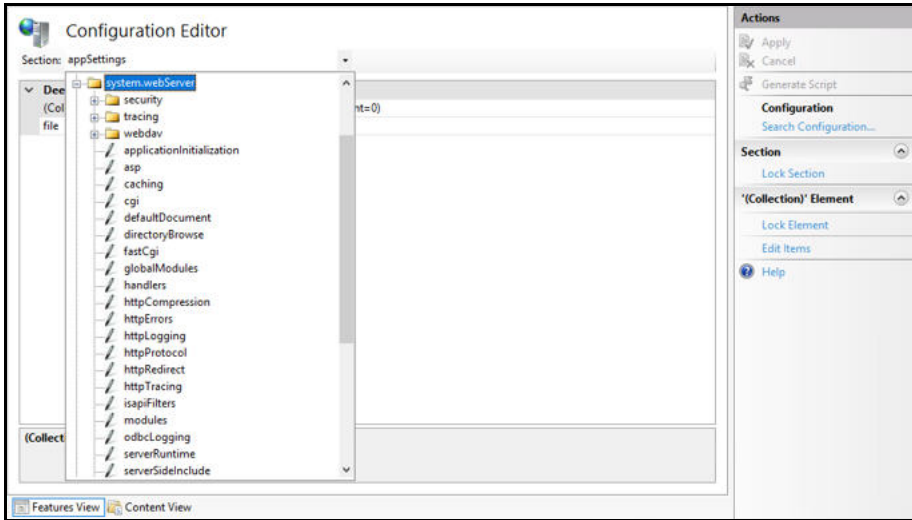
- 1 Open **IIS Manager**.
- 2 In the left Navigation pane, click on your server.
- 3 In the Management section, double-click the **Configuration Editor**.



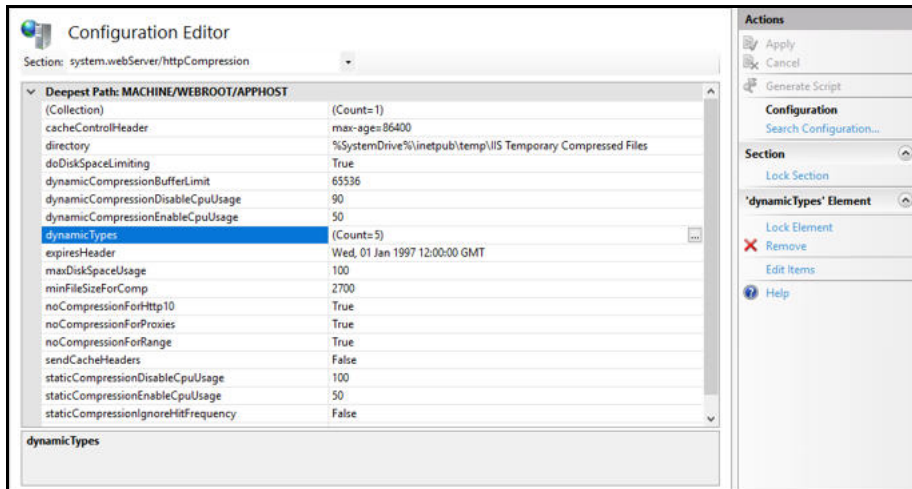
The Configuration Editor opens.



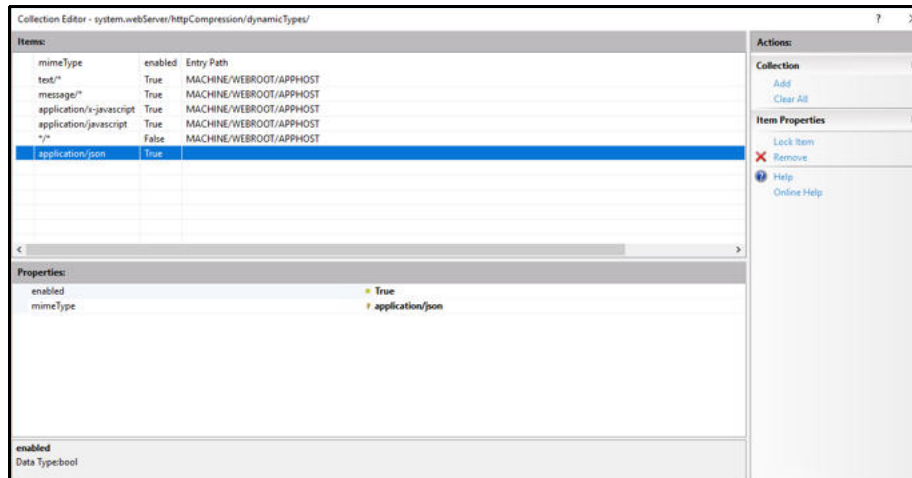
- 4 From the Section drop-down list, select **system.webServer > httpCompression**.



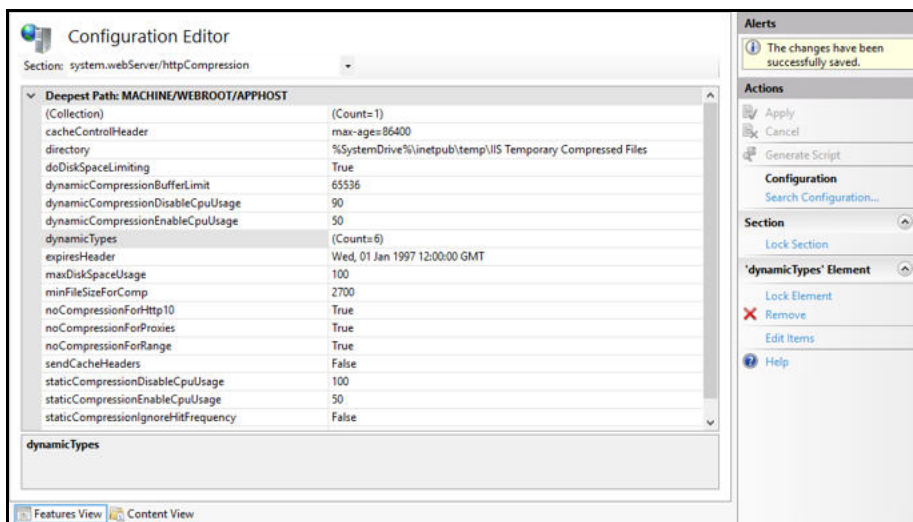
- 5 In the httpCompression section, click **dynamicTypes**.



- 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.

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## Enabling IIS Services

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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.

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## Configuring HTTPS on Your Application Server

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To use HTTPS on your application server, leave the HTTP binding on default port 80. After you have reconfigured the application server to use HTTPS, the port now defaults to 443.

You need both ports open.

Complete the following tasks to configure HTTPS on your application server:

- ◆ Request an SSL Certificate from your IT department.
- ◆ Add the certificate to IIS.
- ◆ Add new binding to port 443.

Verify your SSL Settings on your application server.



## Chapter 2      Preparing Your SAP Systems for Certify Impact

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### In This Chapter

Overview .....	21
Creating a Certify System Account in your SAP System.....	21
Installing Certify Impact Transports in Your SAP System.....	22

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## Overview

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If you do not intend to use Certify Impact, you do not need to follow these instructions.

If you plan to use Certify Impact, you must have your SAP BASIS administrator assist you with preparing the SAP systems. In order to prepare your SAP system, you will need to do the following:

- ◆ Create a Certify system account in your SAP systems
- ◆ Install Certify Impact transports in your SAP systems

If you choose to use the SAP Business Process Change Analyzer (BPCA) analysis type, one of the systems you register with the Worksoft Management Studio must be your SAP system hosting SAP® Solution Manager. You will later supply an alias system name during registration to the Certify Execution Suite web installer.

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## Creating a Certify System Account in your SAP System

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Certify Impact connects to SAP systems through a Remote Function Call (RFC) by using a configured user account. Use the **SU01** transaction code and create the user account with the following information:

Setting	Value
User Type	SAP CPIC user for RFC communication
User Name	Account user name Name must have the same account credentials as when you register your SAP systems with the Worksoft Management Studio.
Password	User password
Defaults	Date format: "MM/DD/YYYY" Decimal notation: 1,234,567.89
Profiles	Ability to execute the following transport function modules: <ul style="list-style-type: none"> <li>• S_A.CPIC</li> <li>• S_A.SCON</li> <li>• S_A.SYSTEM</li> </ul>
Type of User	System

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## Installing Certify Impact Transports in Your SAP System

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Your SAP BASIS administrator needs to install Certify Impact transports into your SAP system. These transport files are located in the [Worksoft Customer Portal](#). You need a User ID and password to access these transports.

Select the transports that are best suited for your SAP system:

- ◆ **IDES / ECC**
- ◆ **S4Hana**

When running the SAP transports, turn off component checking because these SAP transports were created in a Worksoft SAP system that contains different components than your system.



## Chapter 3      Installing Worksoft Application Server

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### In This Chapter

Installing Worksoft Application Server .....	24
Disabling Interactive Service Detection Service .....	27

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## Installing Worksoft Application Server

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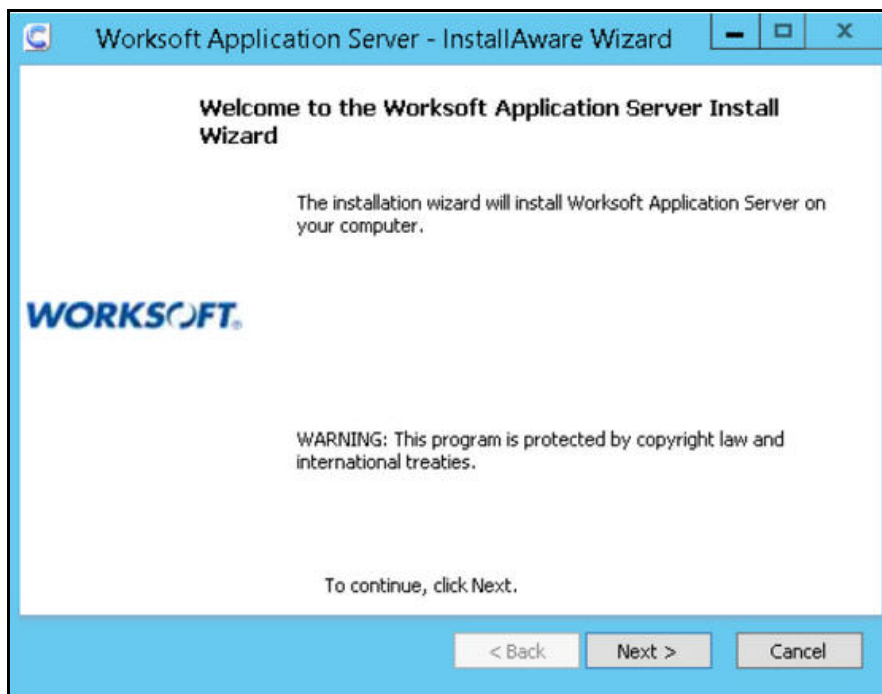
The Worksoft Application Server installs the Worksoft Management Studio. The Management Studio tool registers database settings, data sources, and SAP systems that you intend to use with the Worksoft products.

The domain user name is required for installation. The domain user must be an administrator of the machine in order to install the Worksoft Application Server.

► **To install the Worksoft Application Server:**

- 1 In your software distribution folder, right-click the **WorksoftApplicationServer.exe** file and select **Run as administrator**.

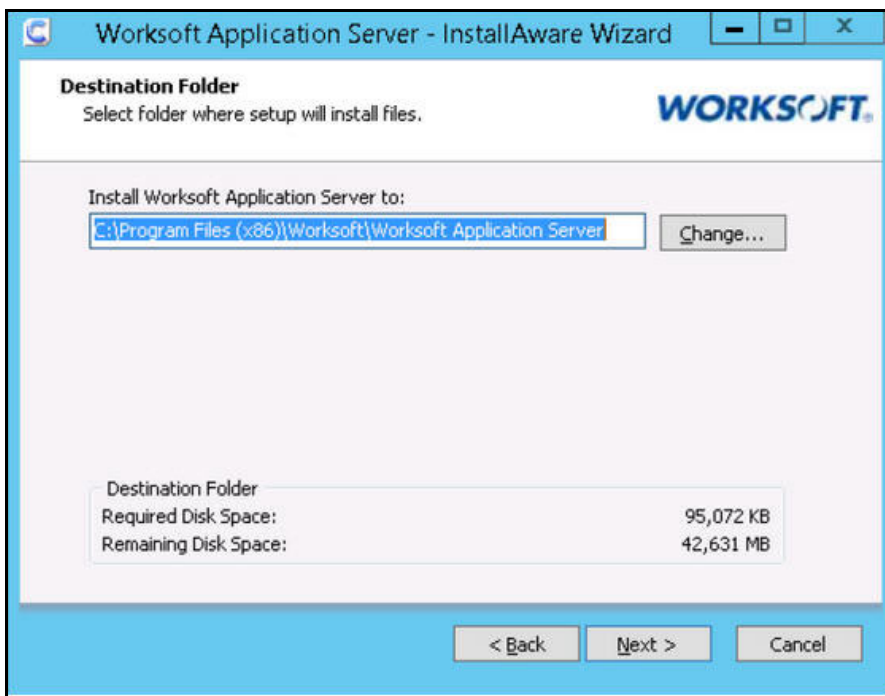
The Worksoft Application Server Wizard opens.



- 2 Click **Next** to begin the installation process.

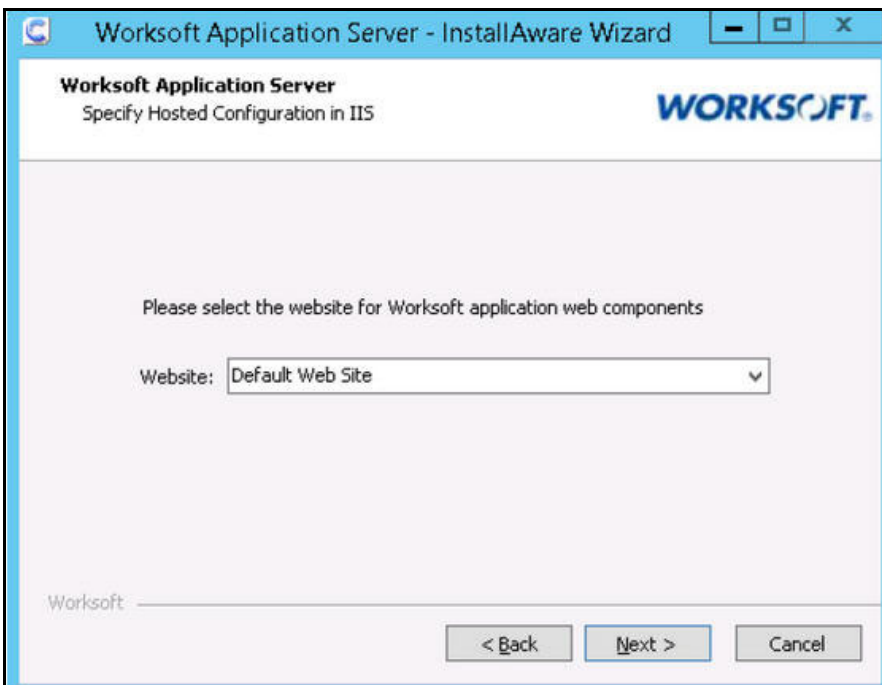


After your system has been analyzed, the Destination page appears.



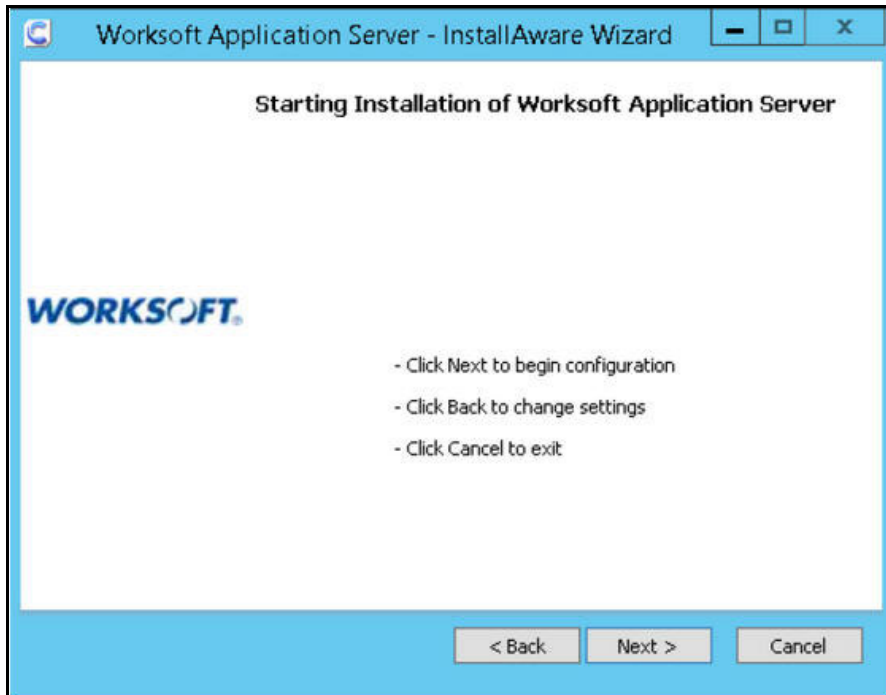
- 3 If you want to accept the default directory for your installation files, click **Next**.  
If you do not want to accept the default directory for the installation files, click the **Change** button to select a different installation directory for the Certify client, and then click **Next**.

The Worksoft Application Server page appears.

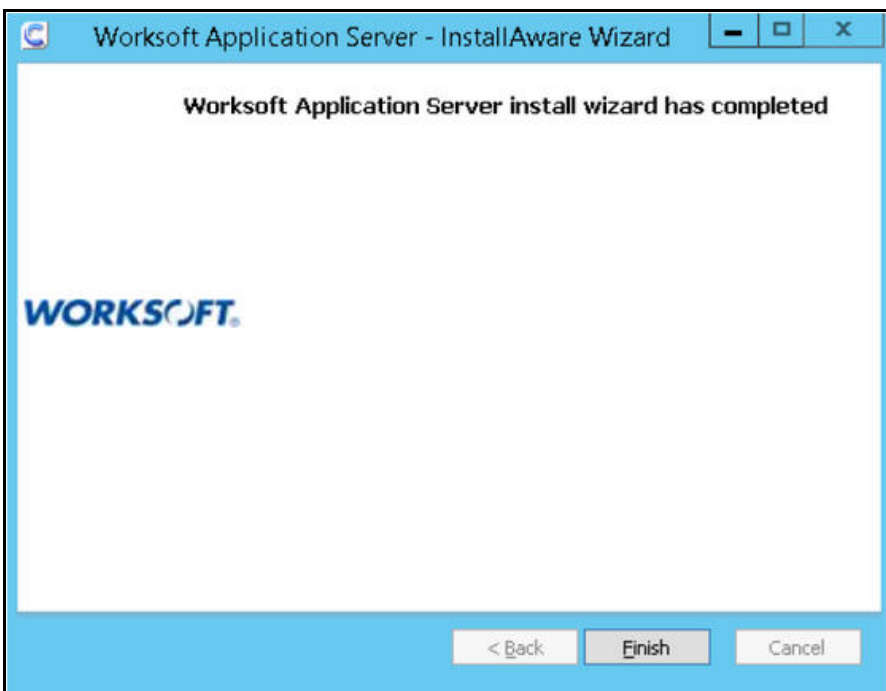


- 4 If you want to accept Default Web Site as your website, click **Next**.  
If you have other websites configured in the IIS, select the server from the drop-down list and click **Next**.

The Starting Installation page appears.



- 5 Click **Next**.  
Then the installation completes, the Completed Installation page appears.



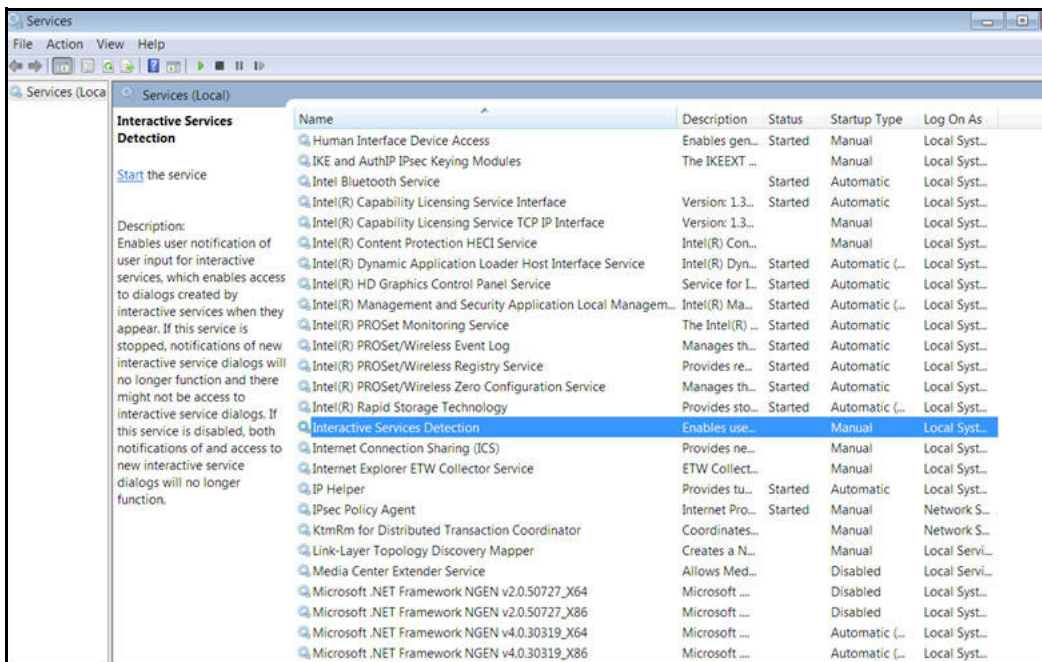
- 6 Click **Finish**.

## Disabling Interactive Service Detection Service

You need to disable the Interactive Service Detection service on your application server because it interferes with RDP functionality.

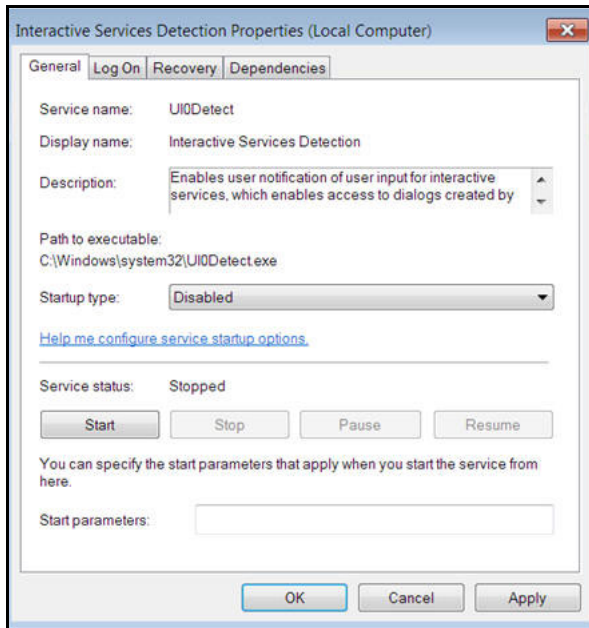
### ► To disable Interactive Service Detection service:

- 1 On your application server, open the Services program.



- 2 From the Services list, right-click on **Interactive Service Detection** and select **Properties**.

The Properties dialog box opens.



- 3 From the Startup type drop-down list, select **Disabled**.
- 4 Verify that the Service status is marked **Stopped**.
- 5 Click **OK**.



# Chapter 4      **Configuring the Worksoft Management Studio**

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## **In This Chapter**

- Overview ..... 30
- Creating Your Worksoft Management Studio Database ..... 32
- Registering and Creating Certify Execution Suite Databases ..... 35
- Registering SAP Systems ..... 39
- Configuring Certify Impact ..... 41
- Registering Users ..... 42
- Configuring Your Email Service ..... 45
- Configuring Your LDAP Authentication Service ..... 46
- Adding RDP Servers ..... 49
- Modifying Maintenance Window Text ..... 50

## Overview

On your web server where IIS is installed, you will need to configure your system in the Worksoft Management Studio. The Worksoft Application Server installed the Worksoft Management Studio.

Within the Worksoft Management Studio, you will need to do the following Management Studio configuration tasks:

- ◆ Create a Worksoft Management Studio database
- ◆ Register all Worksoft Certify databases
- ◆ Create and register a Worksoft Execution Manager database
- ◆ Create and register a Certify Impact database
- ◆ Configure Certify Impact
- ◆ Specify product users
- ◆ Configure services

The Management Studio database maintains configuration information used by Worksoft applications and services. Certify Execution Manager and Certify Impact leverage information from the Worksoft Management Studio.

## Exploring Worksoft Management Studio

Worksoft Management Studio consists of the following navigation tabs:

Navigation Tab	Description
<b>User Administration</b>	Register users and roles for each product.
<b>Master Configuration</b>	Create the following databases: <ul style="list-style-type: none"> <li>• Management Studio</li> <li>• Execution Manager</li> <li>• Impact</li> <li>• Analyze</li> <li>• BPP</li> </ul> Configure the following: <ul style="list-style-type: none"> <li>• SMTP settings</li> <li>• Maintenance window text</li> <li>• Tenant administration</li> </ul>

Navigation Tab	Description
<b>Configuration</b>	<ul style="list-style-type: none"> <li>• LDAP Configuration - Configure your LDAP authentication service.</li> <li>• Execution Manager - Disable notifications for each Certify process.</li> <li>• Impact - Select your analysis engine and test execution integration.</li> <li>• Certify Configuration - Add your Certify databases.</li> <li>• Bookmark Administration - Create a shortcut to specific Certify process folders, Certify processes, or Micro Focus® Application Lifecycle Management® (ALM) Quality Manager test sets that you are able to run through web API.</li> </ul>
<b>Integration</b>	Configure your connections with the following products: <ul style="list-style-type: none"> <li>• ALM integration</li> <li>• Panaya integration</li> <li>• Analyze connections</li> <li>• Certify/Analyze integration</li> <li>• SAP systems</li> </ul>
<b>Change History</b>	Display change history.

When you open Worksoft Management Studio, you will be able to see what part of your configuration requires attention by visual indicators.



Listed below are the visual indicators:

1. A red X means that there is either mandatory missing information or a failure with the current configuration. Each tab provides diagnostic information that will explain what failed and how to resolve the failure.
2. An animated circle means a diagnostic test is being performed to see if the configuration is complete and functional. If the test is successful, the circle will disappear, and if not successful, a red X will show a failure.
3. An exclamation mark means that there is an optional configuration that is available. No configuration has been made in these tabs, and you may want to configure these options in the future.

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## Creating Your Worksoft Management Studio Database

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The Management Studio database maintains configuration information used by Worksoft applications and services. Certify Execution Manager and Certify Impact leverage information from the Worksoft Management Studio.

Only one Management Studio database is needed regardless of how many Certify databases already exist.

► **To create the Worksoft Management Studio database:**

- 1 Open the Worksoft Management Studio on your web server by navigating to the following address: <http://localhost/ManagementStudio>.

The Management Studio Installation page opens.

The screenshot shows the 'Management Studio Installation' web page. At the top, there is a blue header with the 'WORKSOFT MANAGEMENT STUDIO' logo. Below the header, the page title is 'Management Studio Installation' with a 'Continue' button in the top right corner. The main content area contains the following elements:

- A text block: "To complete the installation, please provide the Database and URL for this configuration. If this is a new installation, use the default Login and Password to configure Management Studio after selecting continue."
- An input field for 'Management Studio URL' with the value 'http://VABENNEY15/managementstudio'.
- A section titled 'Management Studio Database' containing four input fields: 'SQL Server', 'SQL User', 'SQL Password', and 'Database Name'.
- A 'Test Configuration' button.
- A 'Status' section at the bottom with a 'Connection' field showing 'Not tested yet'.

- 2 Enter the Worksoft Management Studio URL address.

If you did not use the default website during installation, your URL address will be different. The implementation of your network landscape will need to be considered when choosing a URL address. Verify that the URL can be accessed by all users.

The URL address should either be a domain or a machine name for on-premise installations. If using a machine name, you will need to decide if a fully-qualified domain and machine name is required. Do not use IP addresses.

If your DNS settings require a fully-qualified machine name complete with domain, please make those changes accordingly.



If there is a load balancer in front of one or more web servers, then the URL address should point to the load balancer domain. If you have any questions about your specific URL address, ask your IT administrator.

- 3 In the Management Studio Database section, enter the server name in the SQL Server field.



**Note:** *If your SQL Server database administrator does not approve of creating or updating the databases from within the web application for any reason, then they are able to manually create databases by using database scripts that are packaged within our distribution folder. For more information, see [Appendix B "Creating Worksoft Execution Suite Databases with Apply.exe."](#)*

- 4 For SQL Database Authentication, type the SQL user name and password in the fields to access the database server.

The user name and password must have enough SQL Server permissions to create a database. After you created your database, you are able to use a different SQL user name and password.

- 5 In the Database Name field, enter the name of the Management Studio database.

Worksoft recommends using the database name *ManagementStudio* for easy identification.

- 6 Click the **Test Configuration** button to test your connection.

If the test fails, the reason for the database connection failure appears.

After it detects that the database does not exist, a Create button appears.

- 7 Click the **Create** button to create a new database.

If your SQL Server database administrator created the database with the Apply.exe tool or you are upgrading your database, then you will click the **Update** button.

After creating the database, your SQL Server database administrator should review the database settings and configuration so that it meets expectations and adheres to appropriate best practices, such as using an appropriate recovery model.

- 8 Click **Continue**.

After saving the Management Studio configuration, you will be prompted to log on to the Management Studio.

- 9 If you are a new user, type `admin@worksoft.com` in the User Name field.

If you are upgrading from v9.2 to v10, use your existing Worksoft Management Studio email address as your user name.

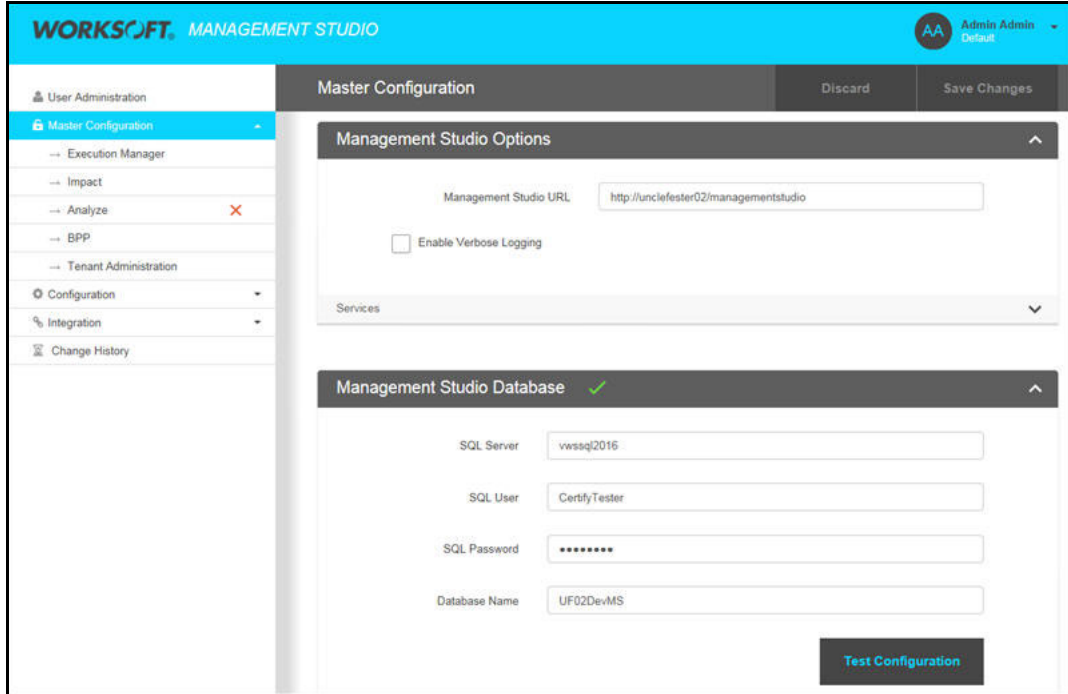
- 10 If you are a new user, type `password` in the password field.

If you are upgrading from v9.2 to v10, use the password that you created for your Worksoft Management Studio.

**11** Click **Login**.

After applying this configuration, you have successfully enabled Management Studio to be operational. The User Administration tab opens.

**12** Click the **Master Configuration** tab.



**13** If you want to enable verbose logging, select the **Enable Verbose Logging** option in the Management Studio Options section and click **Save Changes**.

## Registering and Creating Certify Execution Suite Databases

Databases that should be created or registered in Worksoft Management Studio include the following:

- ◆ Execution Manager database
- ◆ Worksoft Certify databases
- ◆ Certify Impact database

If you are upgrading from v9.2 to v10, see [Chapter 8 “Upgrading Worksoft Execution Suite.”](#)

### ► To create a Certify Execution Manager database:

- 1 In the Worksoft Management Studio, click the **Master Configuration** tab.
- 2 Click the **Execution Manager** tab.

The Execution Manager tab opens.

Status	
Connection	✓ Successful
Database Version	✓ 10.0.12.19
Software Version	✓ 10.0.12.19
SQL User Permissions	✓ Success

- 3 In the SQL Server field, enter the name of your SQL server.



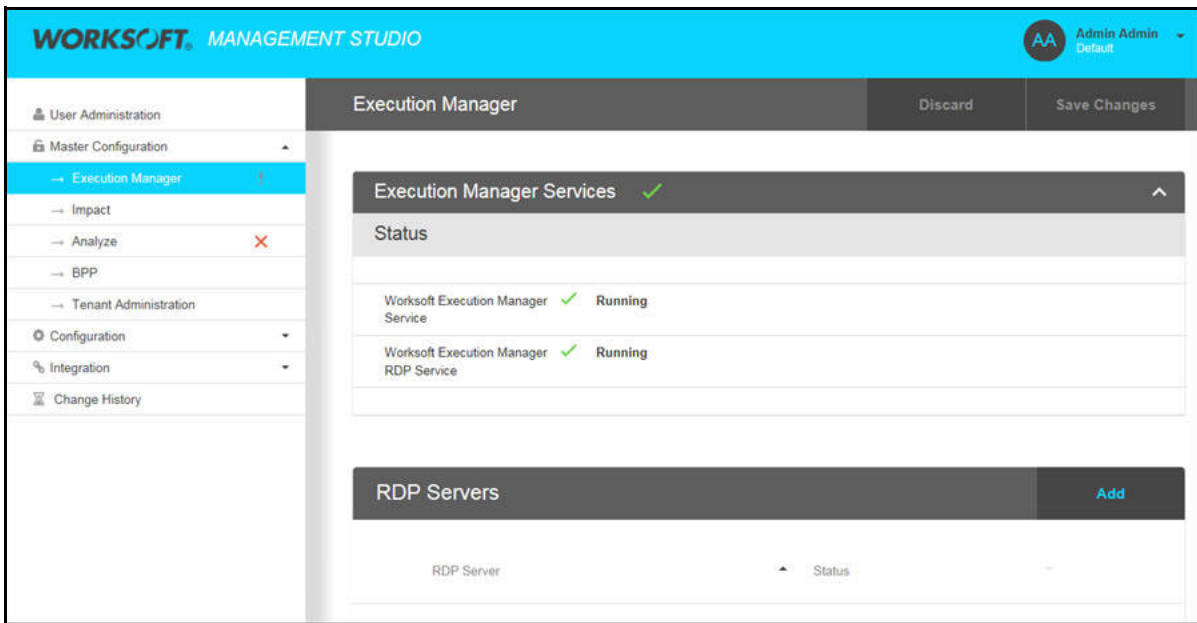
**Note:** If your SQL Server database administrator does not approve of creating or updating the databases from within the web application for any reason, then manually create databases by using database scripts that are packaged within our distribution folder. For more information, see [Appendix B “Creating Worksoft Execution Suite Databases with Apply.exe.”](#)

- 4 In the SQL User and Password fields, enter the SQL server user name and password.  
The user name and password that you use will need to have enough SQL Server permissions to create a database. After you created your database, you are able to use a different SQL user name and password for use of the product.
- 5 In the Database Name field, enter the name for your new database.  
Worksoft recommends using the database name *ExecutionManager* for easy identification.
- 6 Click the **Test Configuration** button to test the connection.
- 7 After it detects that the database does not exist, click **Create** to create a new Certify Execution Manager database.

If your SQL Server database administrator created the database with the Apply.exe tool, then you will click the **Update** button.

After creating the database, your SQL Server database administrator should review the database settings and configuration so that it meets expectations and adheres to appropriate best practices, such as using an appropriate recovery model.

- 8 Scroll down the Execution Manager tab to verify that the Execution Manager services are running.



- 9 Click **Save Changes**.



**Note:** If you want to register additional Remote Desktop Protocol (RDP) servers, you can add servers in the RDP Servers section. Only a single web server is required for the Certify Execution Suite. For more information, see ["Adding RDP Servers" on page 49](#).

► **To register Worksoft Certify databases:**

- 1 In the Worksoft Management Studio, click the **Configuration > Certify Configuration** tab.  
The Certify Databases tab opens.
- 2 Click the **Add** button on the right side of the screen.  
The Add Certify Database dialog box opens.

The screenshot shows a dialog box titled "Add Certify Database". It features five text input fields labeled "Name", "SQL Server", "SQL User", "SQL Password", and "Database". A "Test Configuration" button is positioned to the right of the "Database" field. Below the input fields is a "Status" section with a table containing one row: "Connection" with the value "Not tested yet". At the bottom of the dialog are "Cancel" and "Add" buttons.

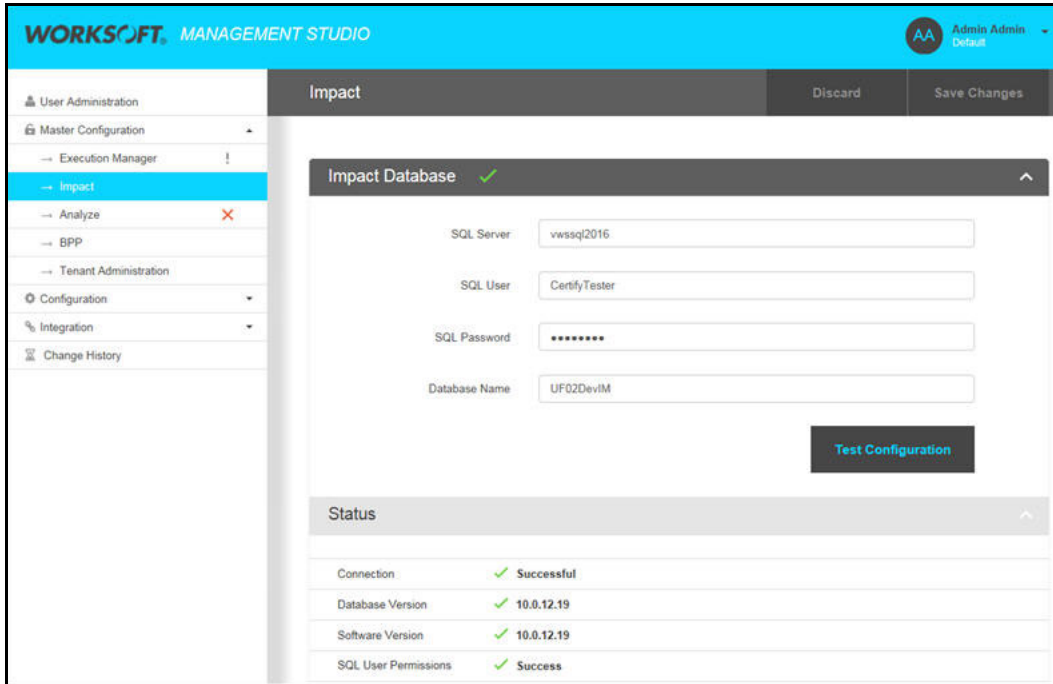
- 3 In the Name field, enter a unique name for your database. This name will appear in Certify Execution Manager and Certify Impact as the database alias.
- 4 In the SQL Server field, enter the name of your SQL server.
- 5 In the SQL User and Password fields, enter the SQL server user name and password.
- 6 In the Database field, start typing in the name for your database.  
A list of Certify database names appear.
- 7 Select a database.  
If your database does not appear in the list, the permissions for the SQL User must not be adequate, or the database does not exist. Consult your database administrator.
- 8 Click the **Test Configuration** button to test the connection.  
If the test fails, the reason for the database connection failure appears.
- 9 Click **Add** to save your registered Certify database.  
When you save your Certify database, this database appears in the Certify Databases pane.
- 10 If you need to add another Certify database, repeat this process.

► **To create a Certify Impact database:**

If you do not intend to use Certify Impact, you do not need to create a database.

- 1 In the Worksoft Management Studio, click the **Master Configuration** tab.
- 2 Click the **Impact** tab.

The Impact tab opens.



- 3 In the SQL Server field, enter the name of your SQL server.



**Note:** *If your SQL Server database administrator does not approve of creating or updating the databases from within the web application for any reason, then manually create databases by using database scripts that are packaged within our distribution folder. For more information, see [Appendix B "Creating Worksoft Execution Suite Databases with Apply.exe."](#)*

- 4 In the SQL User and Password fields, enter the SQL server user name and password.  
The user name and password that you use will need to have enough SQL Server permissions to create a database. After the database is created, you are able to use a different SQL user name and password.
- 5 In the Database Name field, enter the name for your new database.  
Worksoft recommends using the database name *Impact* for easy identification.
- 6 Click the **Test Configuration** button to test the connection.

- 7** After it detects that the database does not exist, click **Create** to create a new Certify Impact database. If your SQL Server database administrator created the database with the Apply.exe tool, then you will click the **Update** button.
- After creating the database, your SQL Server database administrator should review the database settings and configuration so that it meets expectations and adheres to appropriate best practices, such as using an appropriate recovery model.
- 8** Click **Save Changes**.

---

## Registering SAP Systems

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If you plan to use Certify Impact, then you must register one or more SAP systems in Worksoft Management Studio. If you intend to just use Execution Manager, go to ["Registering Users" on page 42](#).

Before you register your SAP system, you must have prepared your systems. For more information, see [Chapter 2 "Preparing Your SAP Systems for Certify Impact."](#)

### ► To register SAP systems:

- In the Worksoft Management Studio, click the **Integration > SAP Systems** tab.  
The SAP Systems tab opens.
- Click the **Add** button on the right side of the screen.  
The Add SAP System dialog box opens.

The screenshot shows the 'Add SAP System' dialog box. It has a title bar with the text 'Add SAP System' and a close button (X). The main area contains several input fields: 'Name' with the value 'WorksoftSAP', 'App Server Host' with the value '192.168.3.56', 'Sys Num' with the value '01', 'SAP Client' with the value '800', 'SAP User' with the value 'lrowley', and 'Password' which is masked with dots. Below these fields is a section labeled 'Or use' with a large grey box for 'SAP Connection String'. At the bottom right, there is a 'Test Configuration' button.

You have the option of providing your SAP information in the text fields or an SAP connection string. For more information about using the SAP connection string, go to page [40](#).

- 3 In the Name field, enter the name of your SAP system.
- 4 In the App Server Host field, type the IP address of where your application server is being hosted.
- 5 Enter the system number and SAP client number in their respective fields.
- 6 Enter the SAP user and password in their respective fields.
- 7 Click **Test Configuration**.

The Status section shows if your configuration was successful.

Status		
Connection	✓	Successful
Worksoft Transports		
	Transport	Description
Certify Discovery	R3IK900746	Certify Discovery - Version 9.0.1 - Non-Unicode
Certify Learn	R3IK900994	Certify Live Learn - Version 8.6.4 NonUnicode Old Namespace
Certify Data	R3IK901246	Changes For Data - Ty Henson
Certify Impact	R3IK901250	Certify Impact - IDOC Changes
Certify Performance	R3IK900787	Certify Performance Load Test Details Extract
Certify Security	R3IK900468	Worksoft Security Testing Initial Transport
Certify Capture	R3IK900651	Certify Capture- Version 8.5.10 - Non-Unicode - Pre 4.7
		<span>Cancel</span> <span>Save</span>

- 8 Click **Save** to save your SAP system.  
Your SAP system is now listed in the tab.

► **To use an SAP connection string to register your SAP system:**

Instead of completing all the fields, you can just use an SAP connection string to register your system.

- 1 In the SAP Connection String field, enter a string for your SAP system.  
**Example:** TYPE=3; ASHOST=192.168.3.56; SYSNR=01; CLIENT=800; LANG=EN; USER=jdoe; PASSWD=password123;
- 2 Click **Test Configuration**.  
The Status section shows if your configuration was successful.
- 3 Click **Save** to save your SAP system.



## Configuring Certify Impact

If you intend to use Certify Impact, you will need to configure the following:

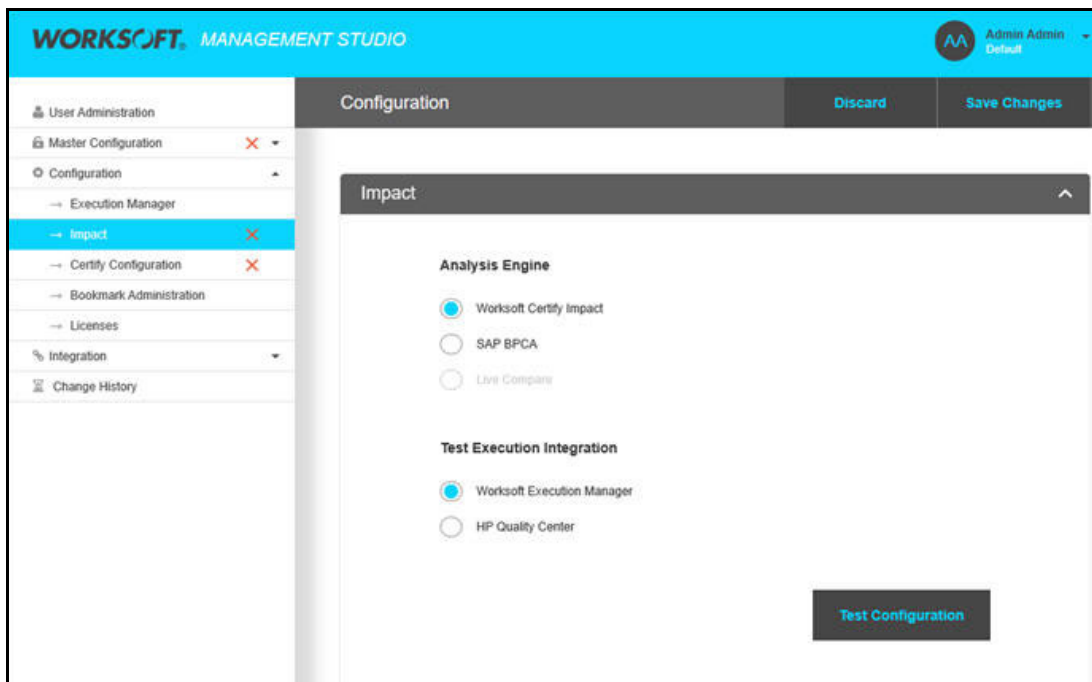
- ◆ Analysis engine
- ◆ Test execution integration

You will also need to add one or more SAP systems. For more information, see [Chapter 2 “Preparing Your SAP Systems for Certify Impact.”](#)

### ► **To configure Certify Impact:**

- 1 Click the **Configuration > Impact** tab.

The Impact tab opens.



- 2 Select an Analysis Engine option:

- **Worksoft Certify Impact**
- **SAP BPCA**

If you choose to use the SAP Business Process Change Analyzer (BPCA) analysis type, one of your SAP systems registered with Worksoft Management Studio must be hosting SAP® Solution Manager.

- 3 Select a Test Execution Integration option:

- **Worksoft Execution Manager**
- **HP Quality Center**

For more information on how to integrate with Micro Focus® Application Lifecycle Management® (ALM) Quality Manager, see [Chapter 10 “Configuring Micro Focus ALM/Quality Center Integration.”](#)

- 4 Click **Test Configuration** to test the connection.

## Registering Users

The next step to configuring Worksoft Management Studio is to register users who will be using the Worksoft Execution Suite. There are two ways to register users:

- ◆ Manually create users in Worksoft Management Studio
- ◆ Import users from a Microsoft Excel® spreadsheet

► **To manually create users in Worksoft Management Studio:**

- 1 In the Worksoft Management Studio, click the **User Administration** tab.
- 2 In the User Administration tab, click **Add**.

The Add User dialog box opens.

- 3 To create an active user, verify that **Active** is selected. To deactivate a user, select **Inactive**.

- 4 In the related fields, enter the following information:

- **First name**
- **Last name**
- **Email**
- **Password**
- **Confirm Password**

If you select LDAP authentication, you do not need to enter a password.

5 From the Authentication drop-down list, select an authentication option:

- **LDAP**
- **Worksoft**

The LDAP option only appears if you have already configured it. For more information, see ["To configure your LDAP authentication service:"](#) on page 46.

6 If you want to give the user administrative rights, select the **Administrator** option. Administrators have access to all products.

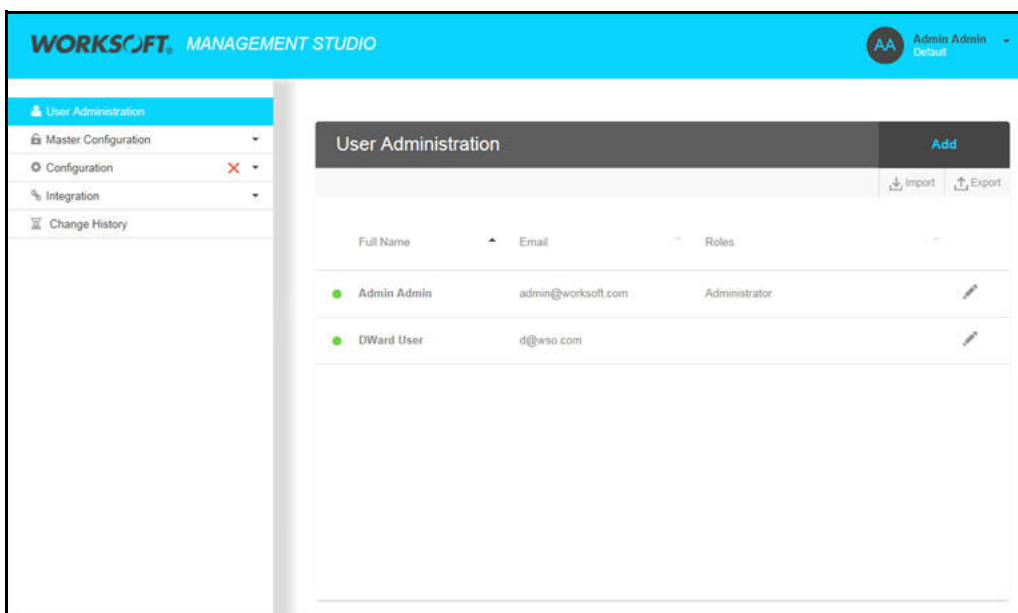
The Upload Only option is for Worksoft Analyze users.

7 Select the **Execution Manager** and/or **Impact** roles for the user.

8 From the Default Time Zone drop-down list, select your preferred time zone for Certify Execution Manager or keep it as the server default time.

9 Click **Add**.

The user name appears in the User Administration tab.



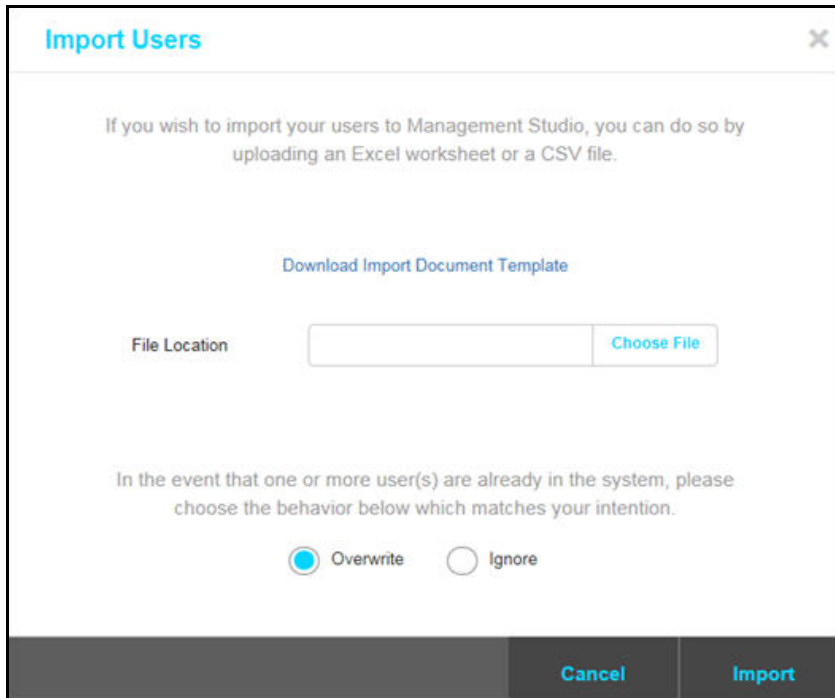
Users with a green icon are active, and users with a gray icon are inactive.

10 Repeat this process to add more users. To edit a user, click the **Edit** icon next to the user.

► **To register users by importing from a Microsoft Excel spreadsheet:**

- 1 In the Worksoft Management Studio, click the **User Administration** tab.
- 2 In the User Administration tab, click **Import**.

The Import User dialog box opens.



- 3 To download an Excel template, click **Download Sample Upload File**. Use this template to create your own Excel spreadsheet.
- 4 Click the **Choose File** button and select the CSV file that you want to import.
- 5 After you have selected your file, click the **Import** button. The users are imported into the Worksoft Management Studio and appear in the User Administration tab.

## Exporting a List of Users

From the Users Administration tab, you can export a list of the users in a CSV file.

► **To export a list of users:**

- 1 Click **Export** in the Users Administration tab. A message appears.



- 2 Click **Open** to open the file in Microsoft Excel or click **Save** to save the CSV file.

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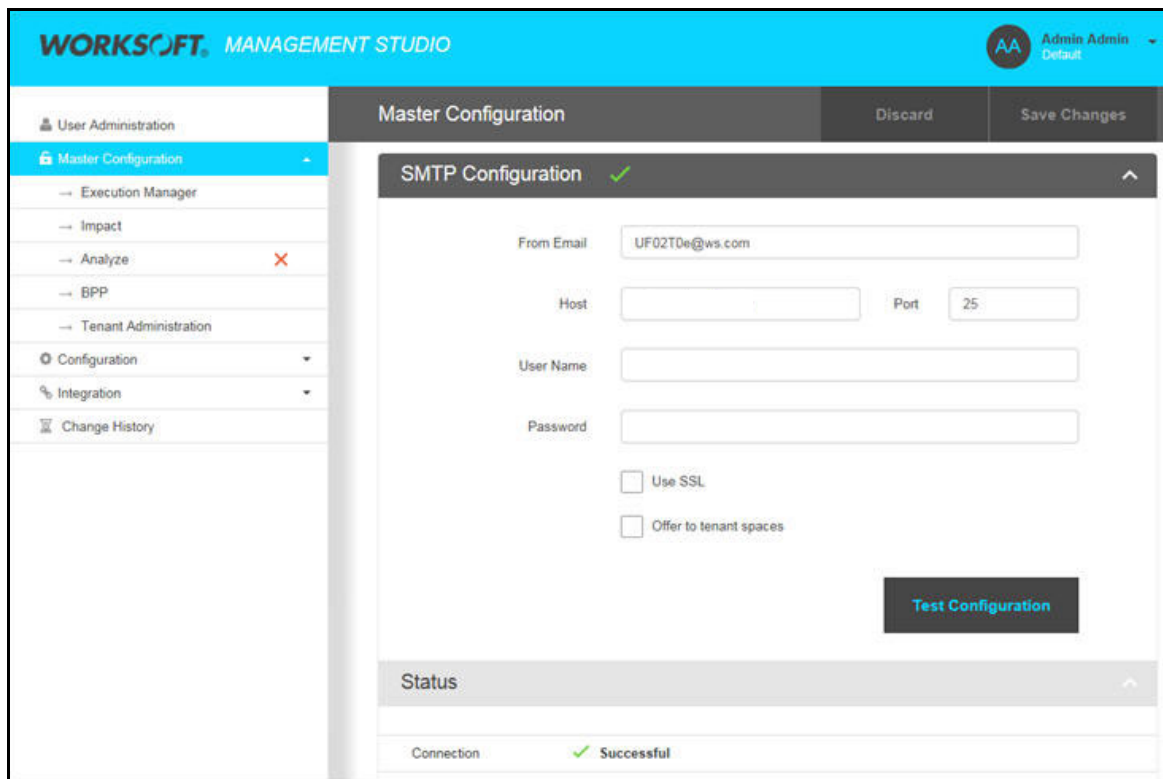
## Configuring Your Email Service

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The Certify Execution Manager and Certify Impact sends out email notifications when Certify Execution Manager request or Certify Impact analysis completes execution. You will need to specify the SMTP server that will send out the email notifications.

► **To configure your email service:**

- 1 In the Worksoft Management Studio, click the **Master Configuration** tab.  
The Master Configuration tab opens.
- 2 Scroll down to the SMTP Configuration section.



The screenshot shows the Worksoft Management Studio interface. The top navigation bar is blue with the 'WORKSOFT MANAGEMENT STUDIO' logo on the left and a user profile 'AA Admin Admin Default' on the right. Below the navigation bar is a sidebar with a menu including 'User Administration', 'Master Configuration', 'Execution Manager', 'Impact', 'Analyze', 'BPP', 'Tenant Administration', 'Configuration', 'Integration', and 'Change History'. The main content area is titled 'Master Configuration' and contains a 'SMTP Configuration' section with a green checkmark. The 'SMTP Configuration' section has the following fields: 'From Email' (UF02TDe@ws.com), 'Host' (empty), 'Port' (25), 'User Name' (empty), and 'Password' (empty). There are two checkboxes: 'Use SSL' (unchecked) and 'Offer to tenant spaces' (unchecked). A 'Test Configuration' button is located at the bottom right of the section. Below the configuration fields is a 'Status' section with a 'Connection' status of 'Successful' indicated by a green checkmark.

- 3 In the SMTP Configuration section, enter the following information:
  - **From Email**
  - **SMTP Host**
  - **SMTP Port**
  - **SMTP User Name**
  - **SMTP Password**

- 4 If you want to use a SSL certificate, select the **SSL** option.
- 5 If you are using tenant spaces and want to use the Master Configuration SMTP configuration, select the **Offers to Tenant Spaces** option.
- 6 Click the **Test Configuration** button to test your connection.

If the test fails, the reason for the failure appears.

If the settings are not valid, the Certify Execution Suite will still be functional; however, the size of your log file will be affected since the products will log errors for all of the failed email notifications.

## Disabling Notifications

You are able to disable email notifications to reduce the number of emails.

### ► To disable notifications:

- 1 In the Worksoft Management Studio, click the **Configuration** tab.
- 2 Click the **Execution Manager** tab.
- 3 Select the **Disable notifications for each Certify process** option.
- 4 Click **Save Changes**.

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## Configuring Your LDAP Authentication Service

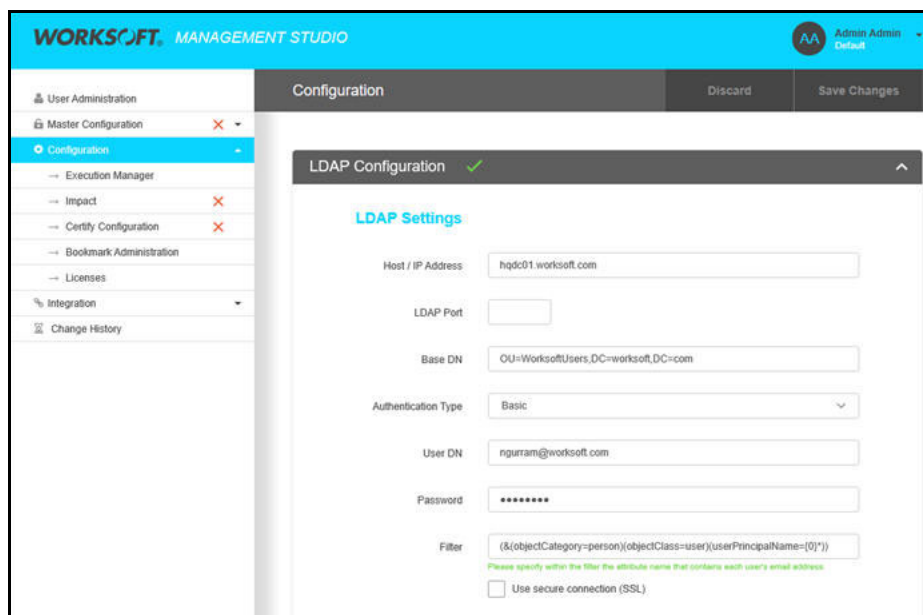
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Worksoft Execution Suite allows you to authenticate users against your Lightweight Directory Access Protocol (LDAP) system. During the log on process, the user name and password combinations will be validated against LDAP.

### ► To configure your LDAP authentication service:

- 1 In the Worksoft Management Studio, click the **Configuration** tab.

The Configuration tab opens.



## 2 Enter the following information:

Field	Description
<b>Host/IP Address</b>	Enter the domain name or IP address of the LDAP directory server. Domain example: worksoft.com
<b>LDAP Port</b>	<i>Optional</i> - Enter the host port. The default port number is 389. If a value is not specified, the default port will be used. For secure connections using Secure Sockets Layer (SSL), the default port number is 636.
<b>Base DN</b>	Enter the Base Distinguished Name (DN) for LDAP. LDAP references an object by its DN. The Base DN identifies the starting point of a search with a sequence attributes connected by commas and no spaces. Example: ou=test,ou=sales,dc=example,dc=com If the LDAP authentication throws request time-out errors, make the base DN search more specific. Example: ou=people,dc=treea,dc=foobar,DC=com instead of dc=treea,dc=foobar,dc=com If you do not know the Base DN, consult your LDAP administrator or check your LDAP browser.
<b>Authentication Type</b>	Select the authentication method for your LDAP server: <ul style="list-style-type: none"> <li>• Anonymous</li> <li>• Basic (Default)</li> <li>• Negotiate</li> <li>• Ntlm</li> </ul> If you do not know your Authentication Type, consult your LDAP administrator.
<b>User DN</b>	Enter the user who will connect to the server. This user must have read and execute permissions for the whole sub-tree. If your LDAP directory server requires a domain for logging on to the system, include the domain for the user as well.

Field	Description
<b>Password</b>	<p>Enter the password to connect to the LDAP service on the specified LDAP Server.</p> <p>Although the LDAP default character length is 128 characters, Certify supports only 100 characters.</p>
<b>Filter</b>	<p>The default logical expression is  <code>(   (uid={0}*) (sAMAccountName={0}*) )</code></p> <p>This expression specifies attributes the requested LDAP entries must contain. Substitute the {0} with the user name in which you plan to use when logging on to LDAP.</p> <p>If the LDAP authentication throws request time-out errors, edit the filter expression to the following:</p> <pre>( &amp; (objectCategory=person) (objectClass=user) (sAMAccountName={0}*) )</pre> <p><b>Example 2:</b></p> <pre>( &amp; (objectCategory=person) (objectClass=user) (userPrincipalName={0}*) )</pre> <p>Each customer may need to tailor this filter differently.</p>

- By default, LDAP traffic is transmitted unsecured. Select the **Use Secure Connection (SSL)** option to make LDAP traffic secure.
- In the Verify LDAP User section, specify an email address and password to validate the accuracy of the Base DN and filter.

Verify LDAP User

Please specify an email address and password below to validate the accuracy of the Base DN and Filter

Email

Password

- Click **Test Configuration** to verify that your LDAP configuration is valid. If the test fails, the reason for the database connection failure appears.
- Click **Save Changes**.



## Adding RDP Servers

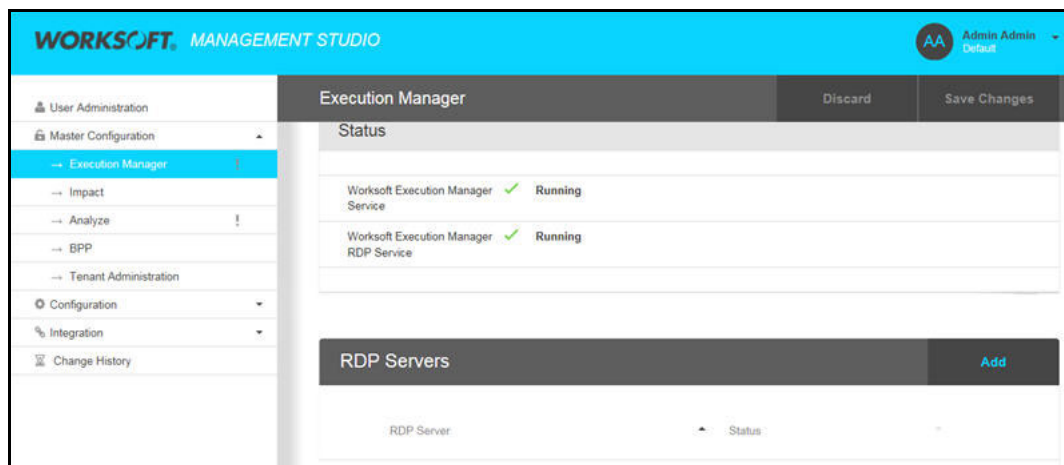
You are able to register additional Remote Desktop Protocol (RDP) servers within the Worksoft Management Studio. Only a single web server is required for the Certify Execution Suite.

However, if you determined that you need additional RDP servers after reviewing the system requirements at [docs.worksoft.com](https://docs.worksoft.com), then you will need to add these additional Execution Manager web servers in Worksoft Management Studio.

Any additional RDP servers must have the same system requirements and configuration as your main web server. Also, all of the servers must have the same version of Certify Execution Manager installed. If any requirement is not met or a different version of Execution Manager is installed, then the RDP server will report failures.

### ► To add additional RDP servers:

- 1 In the Worksoft Management Studio, click the **Master Configuration** tab.
- 2 Click the **Execution Manager** tab.  
The Execution Manager tab opens.
- 3 Scroll down the tab until you see the RDP Servers section.



- 4 Click **Add**.  
The Add RDP Server dialog box opens.

5 In the Name field, enter the name of your additional RDP server.  
The name of the server must be different from the original web server.

6 Click **Test Configuration**.

Worksoft Management Studio inspects the server to verify the requirements, services are running, and the version of Certify Execution Manager. If conditions are not met, the status reports errors and failures. Before you can add the server, you will need to fix the errors on your server.

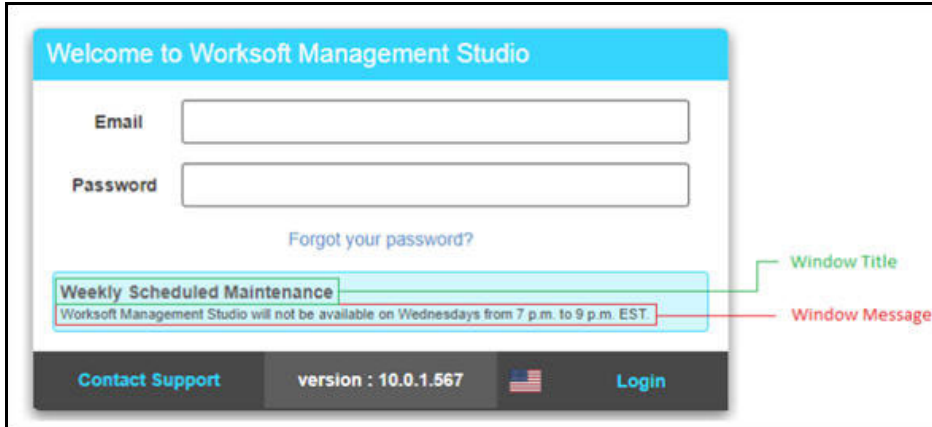
7 If your server passes the test, click **Add** to add your server.  
The server is listed in the RDP Servers section.

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## Modifying Maintenance Window Text

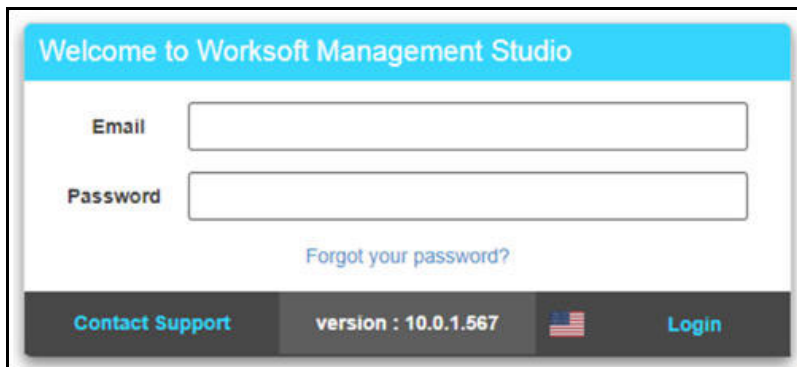
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An administrator is able to modify the text shown in the login dialog box for Worksoft Management Studio and Worksoft Execution Suite.



The text that can be modified is meant for notifying when a product will not be available due to weekly scheduled maintenance. However, it can be modified and used for different purposes.

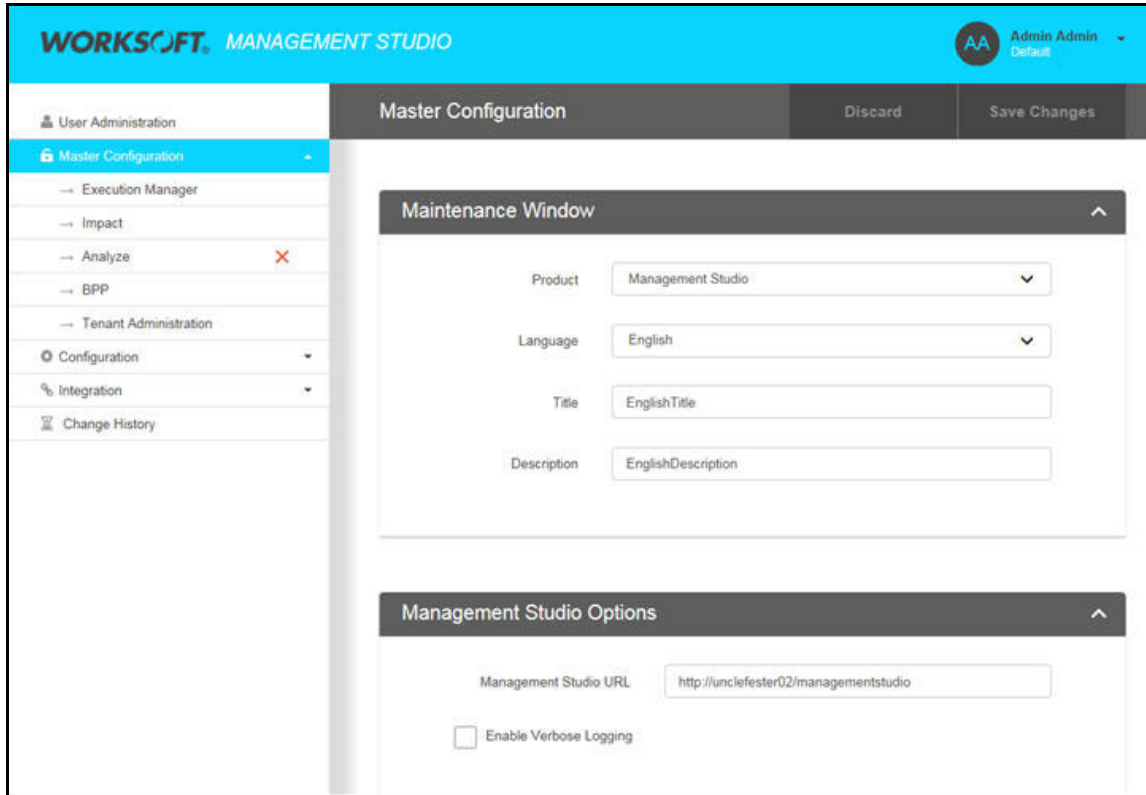
If you decide not to modify the text, then no information appears in your login dialog box, as shown below.



► **To modify Maintenance window text:**

- 1 Log on to Worksoft Management Studio.
- 2 In the Worksoft Management Studio, click **Master Configuration** tab.

The Master Configuration tab opens.



The Maintenance Window section is where you will specify your modifications.

- 3 In the Maintenance Window section, select **Management Studio** from the drop-down list.



**Note:** Currently, only Worksoft Management Studio and Analyze are enabled.

- 4 From the Language drop-down list, select a language.
- 5 In the Title text field, enter the window title.  
Titles can have a maximum of 60 characters.
- 6 In the Description text field, enter a message that will appear in the window.  
Descriptions can have a maximum of 90 characters.
- 7 Click **Save Changes**.
- 8 If you have other products in which you want to customize the login dialog box, repeat this process and select that product.



## Chapter 5 Adding Bookmarks

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### In This Chapter

Creating Bookmarks.....	53
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## Creating Bookmarks

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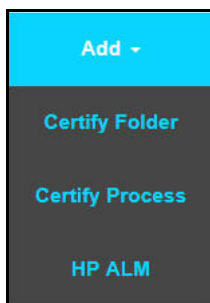
Within the Worksoft Management Studio, you are able to save your favorite Certify folders, Certify processes, and ALM/Quality Manager test sets by creating a bookmark. You will be able to run tests using the Execution Manager RESTful API.

The Bookmark Administration tab in the Worksoft Management Studio is where you create bookmarks for execution. You can create bookmarks for the following:

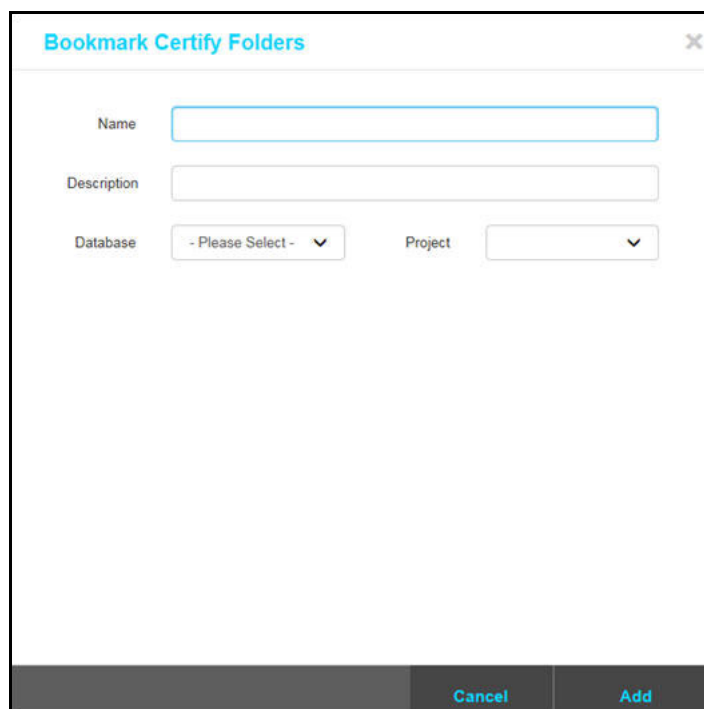
- ◆ Certify folder
- ◆ Certify process
- ◆ ALM/Quality Manager test sets

► **To create a Certify folders bookmark:**

- 1 Log on to Worksoft Management Studio as an administrator.
- 2 Under Configuration, click the **Bookmark Administration** tab.
- 3 In the Bookmark Administration tab select **Add > Certify Folder**.



The Bookmark Certify Folders dialog box opens.



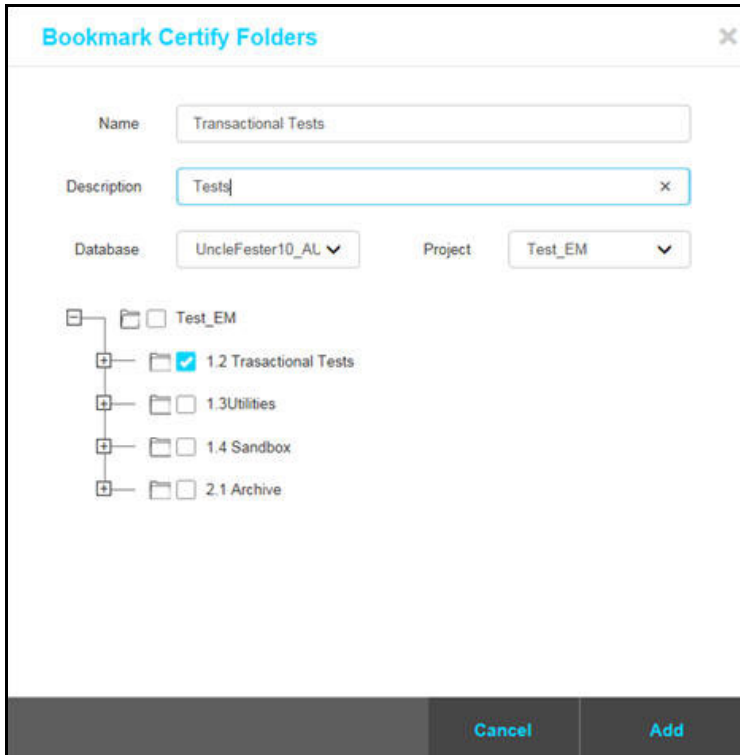
## Creating Bookmarks

- 4 In the Name text field, type the name for your Certify folders bookmark.
- 5 In the Description text field, type a description for this Certify folders bookmark.
- 6 From the Database drop-down list, select the Certify database that contains the project which contains the process folder(s) you want to bookmark.

All Certify databases that are registered in Worksoft Management Studio are listed.


- 7 From the Project drop-down list, select the project that contains the process folder(s) you want to bookmark.

Folders within the project are shown.



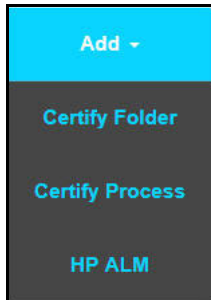
- 8 Select the Certify process folders that you want to include in your bookmark.
- 9 Click **Add**.

The bookmark is added to the Bookmark Administration tab.

You will notice that the Certify folders bookmark that you created has a Folder  icon next to it.

► **To create a Certify processes bookmark:**

- 1 Log on to Worksoft Management Studio as an administrator.
- 2 Under Configuration, click the **Bookmark Administration** tab.
- 3 In the Bookmark Administration tab select **Add > Certify Process**.

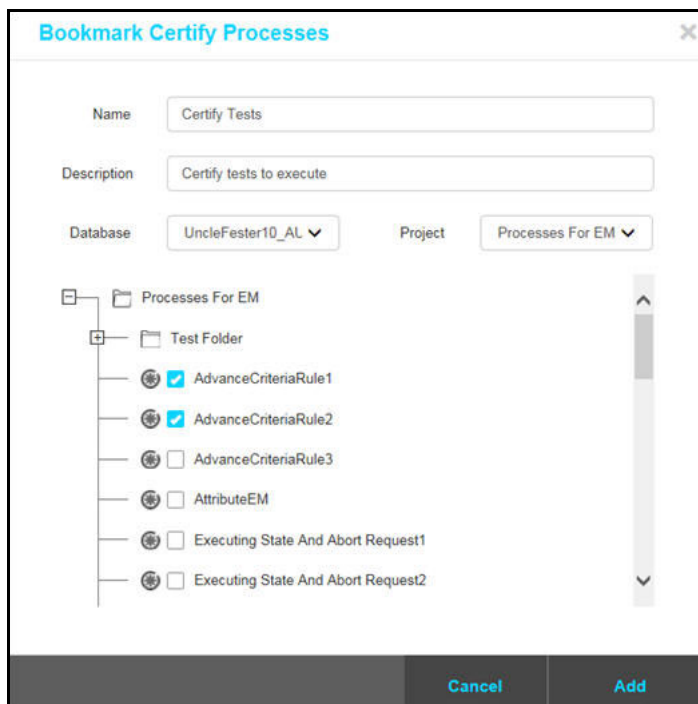


The Bookmark Certify Processes dialog box opens.

- 4 In the Name text field, type the name of your Certify processes bookmark.
- 5 In the Description text field, type a description for this Certify processes bookmark.
- 6 From the Database drop-down list, select the Certify database that contains the project which contains the processes you want to bookmark.

All Certify databases that are registered in Worksoft Management Studio are listed.


- 7 From the Project drop-down list, select the project that contains the processes you want to bookmark. Folders and processes within the project are shown.



8 Select the Certify processes that you want to include in your bookmark.

9 Click **Add**.

The bookmark is added to the Bookmark Administration tab.

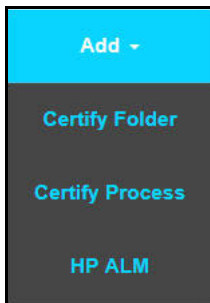
You will notice that the Certify processes bookmark that you created has a Process  icon next to it.

► **To create an ALM/Quality Manager test sets bookmark:**

1 Log on to Worksoft Management Studio as an administrator.

2 Under Configuration, click the **Bookmark Administration** tab.

3 In the Bookmark Administration tab select **Add > HP ALM**.



The Bookmark ALM Test Sets dialog box opens.

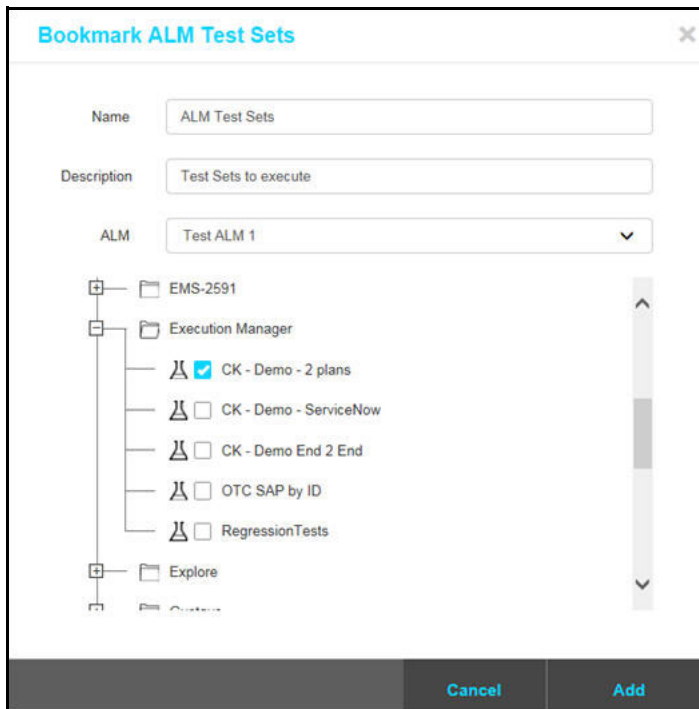
4 In the Name text field, type the name of your ALM test sets bookmark.

5 In the Description text field, type a description for this ALM test sets bookmark.

6 From the ALM drop-down list, select the ALM instance that contains the test sets you want to bookmark.  
All ALM instances that you registered in Worksoft Management Studio are listed.




Test Lab folders with their test sets appear,




**7** Select the test sets that you want to include in your bookmark.

**8** Click **Add**.

The bookmark is added to the Bookmark Administration tab.

You will notice that the ALM test sets bookmark that you created has a Test Sets  icon next to it.

### ► **To edit or delete a bookmark:**

**1** If you need to edit or delete a bookmark, click the **Edit**  button next to the bookmark in the Book Administration tab.

The Bookmark dialog box appear.

**2** If you want to edit the bookmark, apply your edits and click **Save Changes**.

**3** If you want to delete the bookmark, click **Delete**.

## Executing a Bookmark

After you have created a bookmark, you will be able to execute it through the REST API calls with just the bookmark name or bookmark ID. Certify Execution Manager supports REST API calls from various development operating tools, such as Jenkins, to execute requests. For help and examples, see

`http://<ServerName>/ExecutionManager/apidocs/`

If you want to use this specification directly, the Swagger UI has a link that leads to the consumable Worksoft Execution Manager API Swagger Specification.

For more information on how to execute a bookmark, see the Worksoft Help Portal at [docs.worksoft.com](https://docs.worksoft.com).



## Chapter 6      Configuring Multi-Tenant Spaces

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### In This Chapter

Overview .....	59
Adding Tenants .....	59
Adding Users to Tenants .....	61

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## Overview

---

Tenant Administration Option is for large companies who want to add multi-tenant support. Each tenant has isolated data for each of the products, and it is able to leverage the SMTP settings or configure a specific one.

When Worksoft Management Studio is installed, a single primary tenant is created by default, and this tenant is responsible for configuring the master configuration. From the primary tenant space, an administrator can create other tenant spaces if they want to partition data within their organization.

The administrator manages all tenants within Management Studio and assigns users to each tenant. These users will be managed by administrators in that tenant space.

---

## Adding Tenants

---

Administrators add tenants in the Tenant Administration tab within the Worksoft Management Studio.

► **To add tenants:**

- 1 Log on to Worksoft Management Studio as an administrator.
- 2 Under Master Configuration, click the **Tenant Administration** tab.  
The Tenant Administration tab opens.
- 3 Click **Add** to create a new tenant.  
The Add Tenant dialog box opens.

The screenshot shows the 'Add Tenant' dialog box. At the top right, there is a close button (X) and an 'ACTIVE' toggle switch. Below these are several input fields: 'Tenant Name', 'Email', 'First Name', 'Last Name', 'Website', and 'Phone'. Under 'User Limit', there is a checked checkbox for 'No user limit'. At the bottom, there is a 'Default Time Zone' dropdown menu showing 'Server Default - (UTC-06:00) Central Time (US & Canada)'. The dialog has a dark footer bar with 'Cancel' and 'Add' buttons.

4 To create an active tenant, verify that **Active** is selected.

5 In the related fields, enter the following information:

- **Tenant Name**
- **Email**
- **First Name**
- **Last Name**
- **Website**
- **Phone**

The user that you specify will be the main administrator for this new tenant space. The default password for the administrator is **password**.

6 If you want to limit the number of users, deselect the **No user limit** option and enter the number of users.

If you do not want to limit the number of users, leave this option selected.

7 From the Default Time Zone drop-down list, select your preferred time zone for Certify Execution Manager.

The time zone that you selected becomes the default time zone for this tenant and all users added to this tenant.

8 Click **Add**.

The new tenant appears in the Tenant Administration tab.

9 Log out of Worksoft Management Studio by clicking the arrow in the right-hand corner and selecting **Logout**.

10 Log on to Worksoft Management Studio with the email address you specified when creating the tenant and the default **password**.

You will now be able to perform administration tasks for the newly created tenant.

11 Repeat this process for creating additional tenants.

When creating additional tenants, an email account can be associated with more than one tenant space.

## Switching Between Tenants

To switch between tenants, the administrator must log out of the Worksoft Management Studio. When logging on to Management Studio, the administrator must select a tenant from the Tenant list.

As long as the passwords for the tenant administrators are the same, then they will be able to select tenants from the Tenant list. If the password for either administrator is changed, then the user will not see the Tenant list and will only be able to manage the tenant in which it was created.

## Adding Users to Tenants

You will now add users to your multiple tenants by one of the following methods:

- ◆ Manually add users in Worksoft Management Studio
- ◆ Import users from a Microsoft Excel® spreadsheet

► **To manually add users to tenants:**

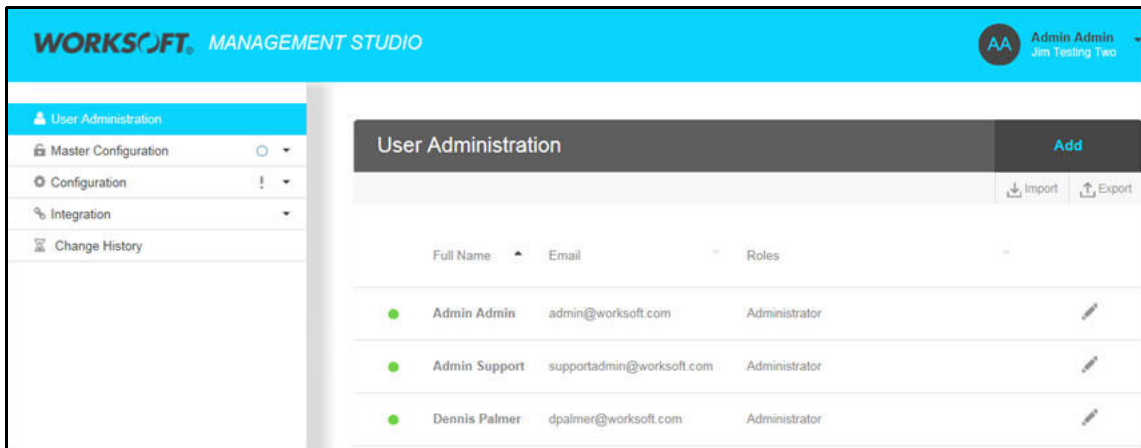
- 1 Log on to Worksoft Management Studio as the tenant administrator.
- 2 From the Tenant list, select the tenant in which you would like to create a new Execution Manager or Certify Impact user.
- 3 In the Worksoft Management Studio, click the **User Administration** tab.
- 4 In the User Administration tab, click **Add**.

The Add User dialog box opens.

- 5 To create an active user, verify that **Active** is selected.  
To deactivate a user, select **Inactive**.

- 6 In the related fields, enter the following information:
  - **First Name**
  - **Last Name**
  - **Email**
  - **Password**
  - **Confirm Password**
- 7 From the Authentication drop-down list, use the default authentication option **Worksoft**.  
If you have configured LDAP authentication, select the **LDAP** option.
- 8 If you want to give the user administrative rights, select the **Administrator** option.
- 9 If you want the user to only be able to upload Worksoft Capture files, select **Upload Only**.
- 10 Select **Execution Manager** and/or **Impact** under User Roles.
- 11 If you need to change the default time zone specified by the tenant, select a time zone from the Default Time Zone drop-down list of this user. This time zone is used for Certify Execution Manager.
- 12 Click **Add**.

The user appears in the left User Administration tab.



- 13 Repeat this process to add more users.

To edit a user, click the **Edit**  icon next to the user.

► **To add users by importing from a Microsoft Excel spreadsheet:**

- 1 In the Worksoft Management Studio, click the **User Administration** tab.
- 2 In the User Administration tab, click **Import**.

The Import User dialog box opens.

**Import Users** [X]

If you wish to import your users to Management Studio, you can do so by uploading an Excel worksheet or a CSV file.

[Download Import Document Template](#)

File Location  [Choose File](#)

In the event that one or more user(s) are already in the system, please choose the behavior below which matches your intention.

Overwrite  Ignore

[Cancel](#) [Import](#)

- 3 To download an Excel template, click **Download Sample Upload File**. Use this template to create your own Excel spreadsheet.
- 4 Click the **Choose File** button and select the CSV file that you want to import.
- 5 After you have selected your file, click the **Import** button. The users are imported into the Worksoft Management Studio and appear in the Users Administration tab.



## Chapter 7    Installing Remote Certify Execution Manager Agents

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### In This Chapter

Installing Remote Certify Execution Manager Agents .....	65
Configuring Resource Client Machines .....	69
Accessing the Certify Execution Manager Agent .....	71
Best Practices for Using RDP with Multiple Local Users .....	72



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## Installing Remote Certify Execution Manager Agents

---

In order to use the Worksoft Certify Execution Manager, you will need to install a Certify Execution Manager Agent on each dedicated machine allocated for remote execution. The Certify Execution Suite Server communicates with the Agents and sends requests to start executing processes and projects.

You are able to install Certify Execution Manager Agents two different ways:

- ◆ From the software distribution folder
- ◆ From Certify Execution Manager

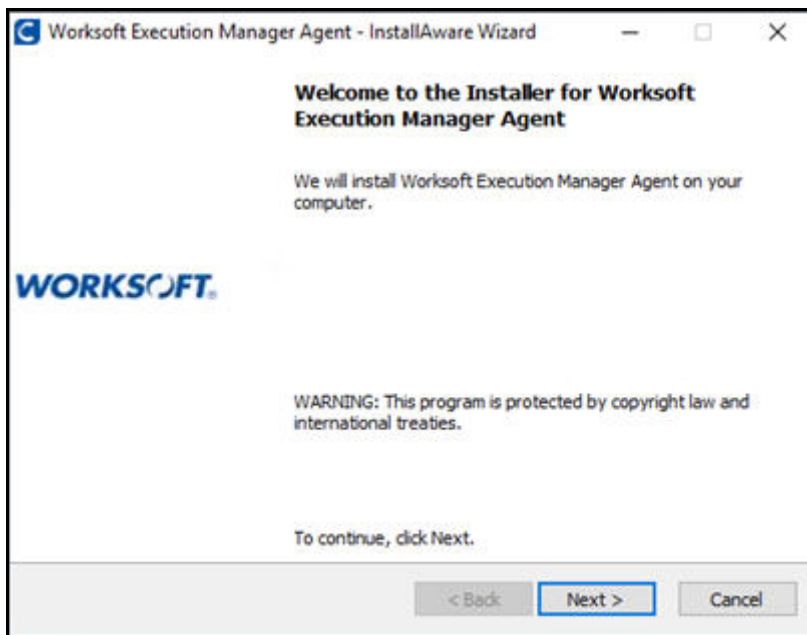


**Note:** *If the Certify Execution Manager Agent is not installed on the default C: drive, then you will need to create an `AGENT_LOCATION` parameter when you configure a resource in Execution Manager.*

*Also, if Worksoft Certify is not installed on the default C: drive, then you will need to create a `CERTIFY_LOCATION` parameter when you configure a resource.*

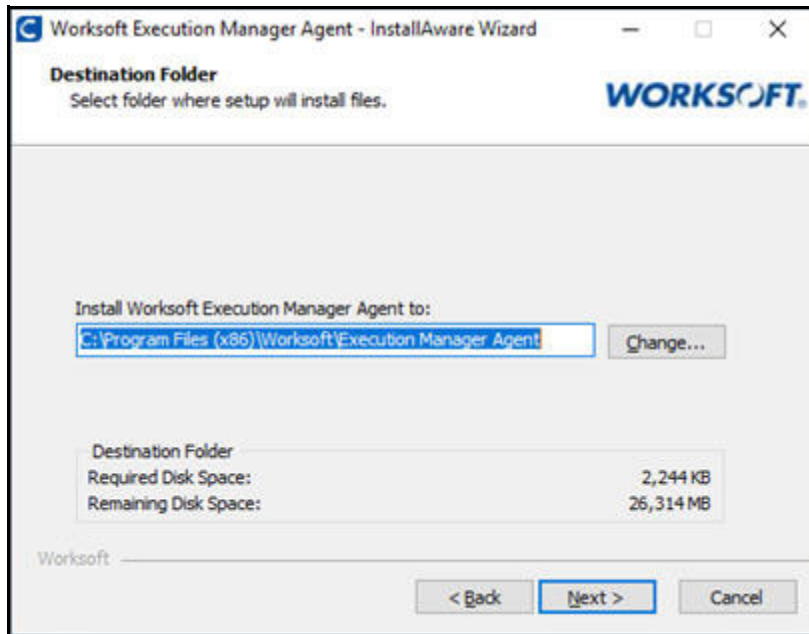
### ► **To install a Certify Execution Manager Agent from the software distribution folder:**

- 1 In your software distribution folder, double-click the **Remote Execution Agent.exe** file.  
The Certify Execution Manager Agent installer opens.



- 2 Click **Next**.

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

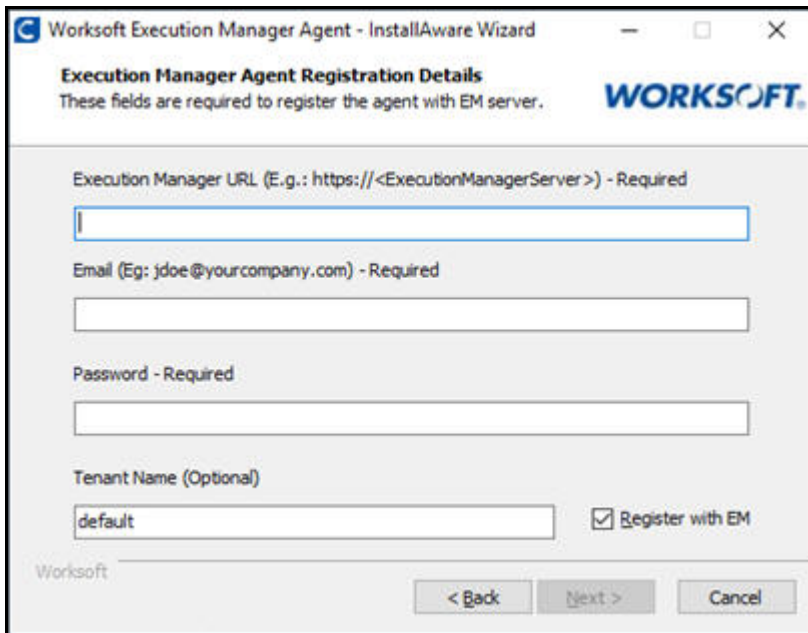


3 If you want to accept the default directory for your installation files, click **Next**.

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

If the directory is different, you will also need to update the directory in the Execution Manager Resources page.

The Registration Details page appears.

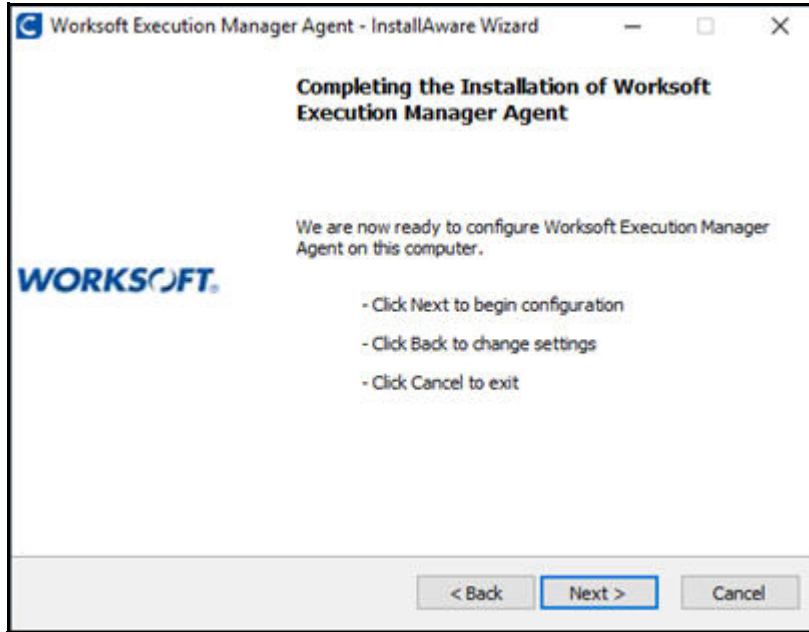


4 In the Execution Manager URL text field, enter the URL address for your Execution Manager.

5 In the Email and Password fields, enter your credentials to log on to Execution Manager.

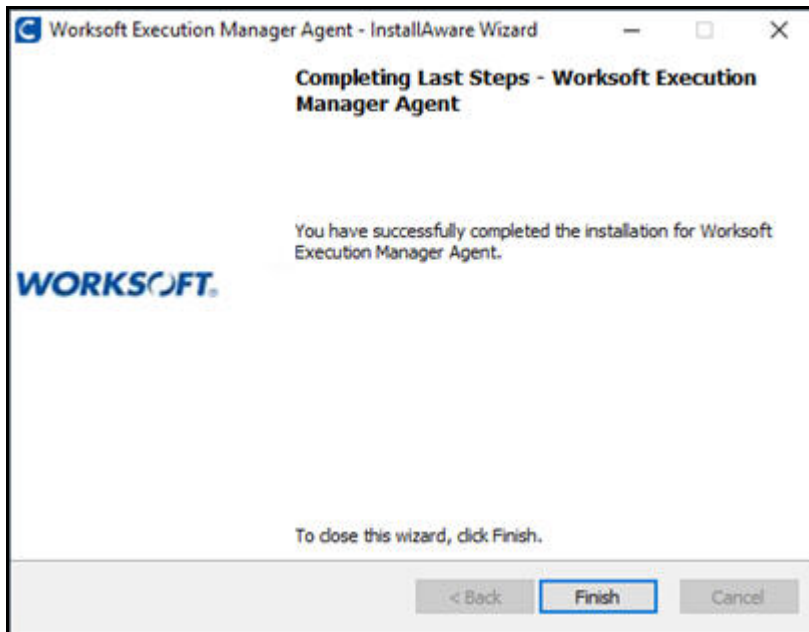
- 6 If you have a tenant, enter the name in the Tenant Name field.
- 7 If you want to register your machine as a resource, select the Register with EM option.
- 8 Click **Next**.

The Completing the Installation page appears.



- 9 Click **Next**.

The Completing Last Steps page appears.



**10** Click **Finish**.

Certify Execution Manager Agent installation is complete. Repeat this installation process for all of the client machines that you intend to use with the Execution Manager Server.

The Certify Execution Manager Agent must be running in order for the Execution Manager Server to connect with the machine that will be executing Certify processes. When you start Certify Execution Manager, the agent will automatically start. When you log off, the Agent shuts down.

### AutoDispose Parameter

When you register the agent as an Execution Manager resource during installation by selecting the Register with EM option, an AutoDispose parameter is added to the resource. This parameter warns the user that after the self-registered resource has been idle after a period of time, it will be deleted. The default time is six hours.

Parameter Name	Description	Value	
AutoDispose	Resource added by the Agent, will automatically be deleted.	True	<input type="button" value="REMOVE"/>

This parameter's value can be changed in the ProductSettings database table in Worksoft Management Studio by changing the parameter value to False or deleting the parameter.

### Installing the Agent from Execution Manager

You can also install an Agent from Execution Manager.

► **To install a Certify Execution Manager Agent from the Execution Manager:**

- 1** From Certify Execution Manager, click the **Resources** tab.
- 2** In the right pane, click **Download E/M Agent**.  
A message appears asking if you want to open or save the **ExecutionManagerAgent.zip** file.
- 3** Click **Open**, **Save**, or **Save As**.
- 4** If you clicked Save or Save As, unzip the ExecutionManagerAgent.zip file.
- 5** Right-click **Execution Manager Agent.exe**.  
The Certify Execution Manager Agent installer opens.

## Configuring Resource Client Machines

The resource machine where Certify Execution Manager Agent is installed needs to be able to respond to pings from the web server when you utilize Remote Desktop Protocol (RDP). You will need to complete the following settings in order for your machines to successfully execute requests:

- ◆ Configure resource machines to be responsive to Execution Manager pings
- ◆ Disable Windows Fast User Switching mode

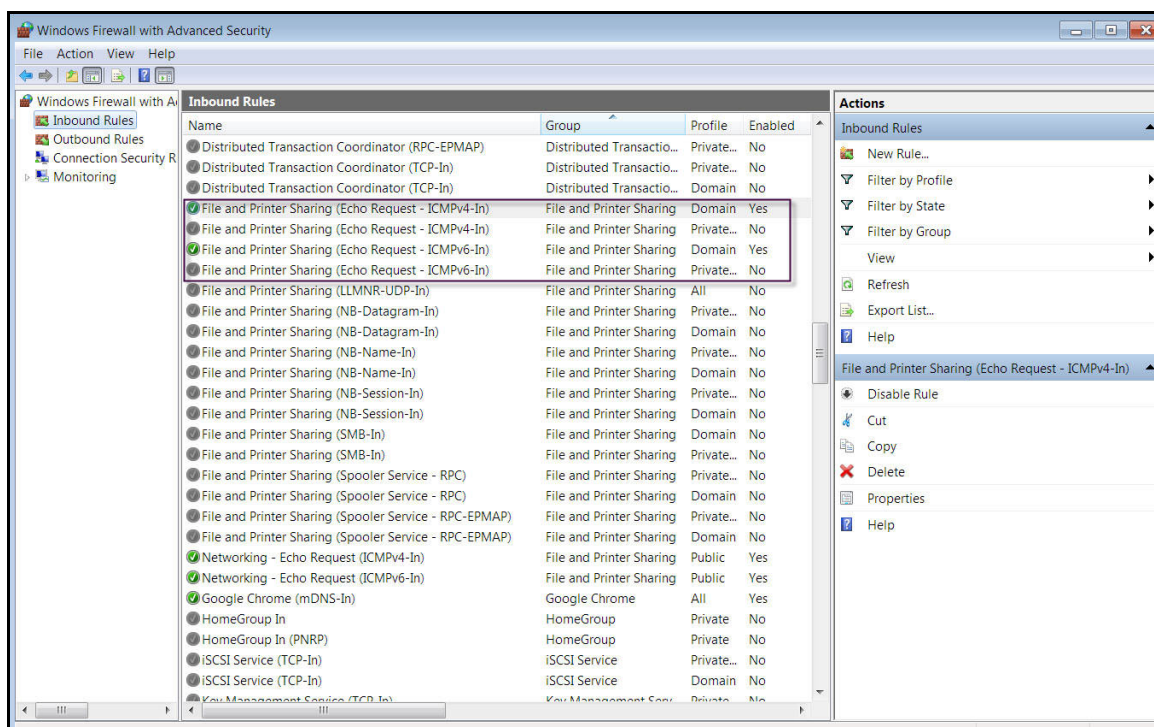
### Configuring Resource Machine to be Responsive to Execution Manager Pings

In order for you to be able to ping your resource machine in the Certify Execution Manager Resources screen, you will need to enable the following inbound rules:

- ◆ File and Printer Sharing (Echo Request - ICMPv4-In)
- ◆ File and Printer Sharing (Echo Request - ICMPv6-In)

#### ► To configure your resource machine to be responsive to pings:

- 1 Open Windows Firewall with Advanced Security tool on your machine.
- 2 In the left Navigation pane, click **Inbound Rules**.



- 3 Verify that the following inbound rules are enabled:
  - File and Printer Sharing (Echo Request - ICMPv4-In)
  - File and Printer Sharing (Echo Request - ICMPv6-In)
- 4 If any of these rules are not enabled, right-click on the **No** next to the rule in the Enabled column and select **Enable Rule**.
- 5 After you have enabled all of these rules, close the Windows Firewall with Advanced Settings tool.



**Note:** *If you have a Citrix environment, the Citrix server must be configured to support RDP sessions. Test your configuration by running `mstsc.exe`. This configuration setting is not enabled by default.*

## Disabling Windows Fast User Switching Mode

Execution Manager Agents require the ability to enter a user name and password on the screen. If the login screen displays a Switch User button, then the Agent will not start. Consult your IT administrator about disabling the Fast User Switch mode in the Local Group Policy Editor.

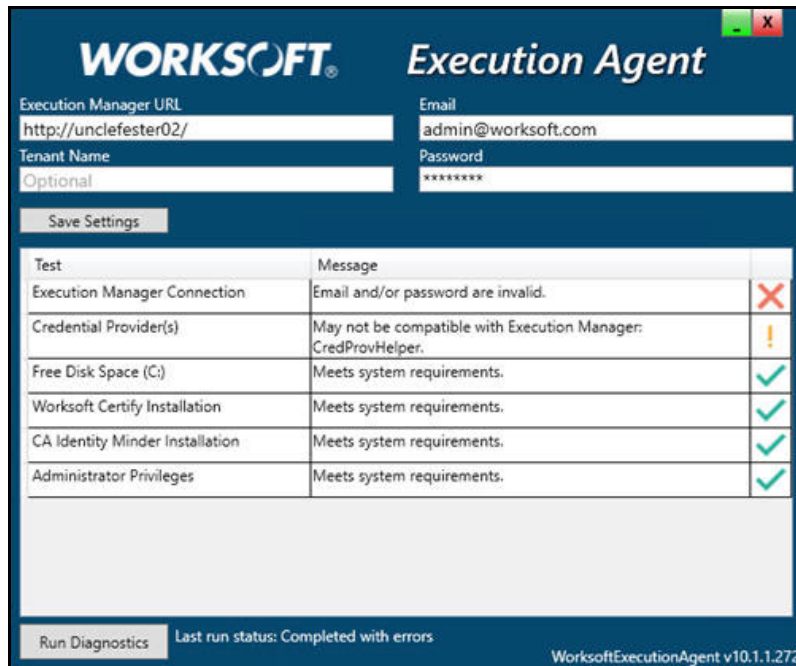
### ► To disable Windows Fast User Switch mode:

- 1 From the Windows Start menu, type `gpedit.msc`, and press **Enter**.  
The Local Group Policy Editor opens.
- 2 In the Local Group Policy Editor Navigation pane, drill down and select **Computer Configuration > Administrative Templates > System > Logon**.
- 3 In the Setting pane, double-click **Hide entry points for Fast User Switching**.  
The Properties dialog box for this setting opens.
- 4 Select the **Enabled** option.
- 5 Click **OK**.




## Accessing the Certify Execution Manager Agent

On the client machine, select **Start > Programs > Worksoft Execution Manager Agent > Worksoft Execution Manager Agent**.

The Execution Agent opens.



When you start the Execution Agent, you will see a list of diagnostic tests that have been performed on your machine. Each test displays one of the following status icons:

Icon	Description
	Test passed.
	Mandatory configuration was not met and must be fixed. You will not be able to execute requests.
	Warning that there is a failure, but requests still might be able to run.

The last run diagnostics status also displays below the grid.

Each time the Execution Manager starts, it automatically performs the analysis and reports these findings. If you make adjustments to the configuration and policy, click **Run Diagnostics** to run the tests again and to see if all the tests passed.

---

## Best Practices for Using RDP with Multiple Local Users

---

If you have multiple local users running tests using RDP, you will need to configure your machine to avoid initial log on time consumption and requests failing to execute.

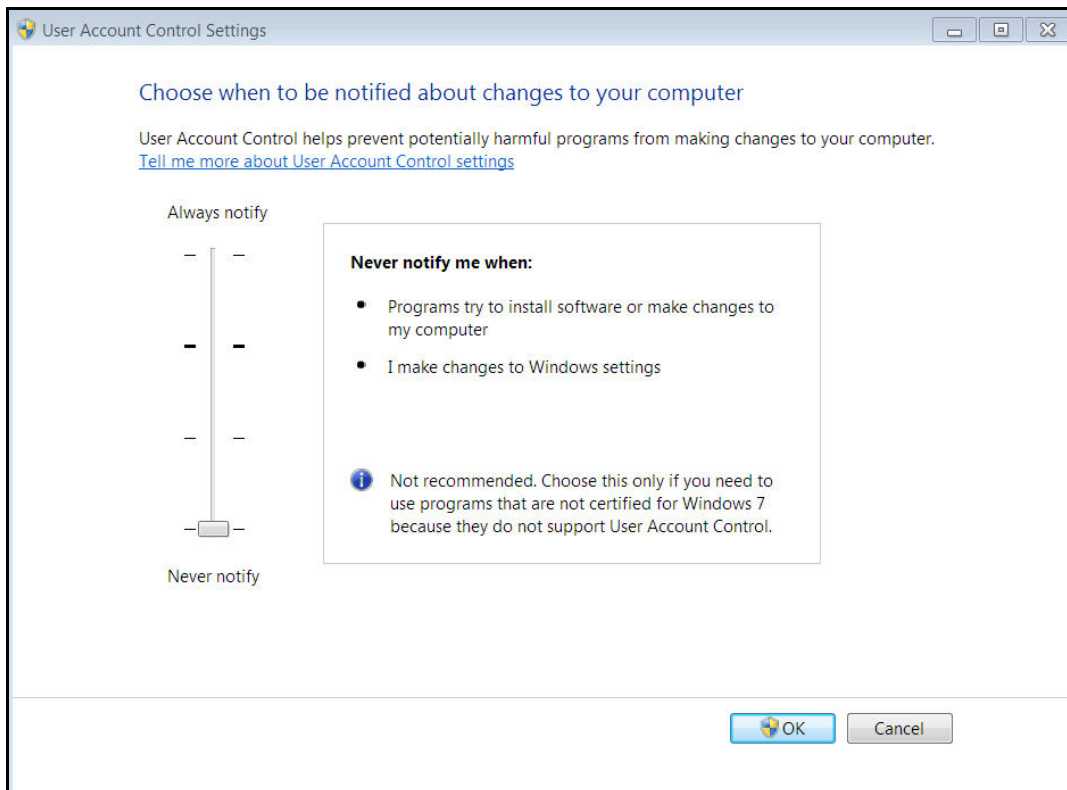
### Avoiding Initial Log on Time Consumption

After creating a local user on a machine, manually log on as the new user because the initial log on to Windows is sometimes time consuming.

### Avoiding Requests Failure

Even if the local user running tests belongs to the Administrator group on the machine, you will still need to turn off the User Account Control notifications. If you do not turn them off, the requests fail to execute.

Open the User Account Control Settings window and select **Never Notify** to prevent any unexpected notifications that might get in the way of the Execution Manager Agent.





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## Troubleshooting RDP Sessions

---

If any of the following conditions occur, then it will result in black screen captures and the automation will fail:

- ◆ Minimizing an RDP session
- ◆ RDP session disconnected

**Examples:** User clicks **Close** button, maximum CPU utilization, network NIC card maximized, VPN turned off, or any network communication issues

- ◆ Machine gets locked

**Examples:** Screen saver locks it or user or domain policy locks the machine

- ◆ Execution Manager Agent does not start automatically. For more information, see [Appendix C "Creating a Task in the Windows Task Scheduler."](#)



## Chapter 8      Upgrading Worksoft Execution Suite

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### In This Chapter

Upgrading Worksoft Execution Suite v9.2 to v10 .....	75
Upgrading Databases for Multi-Tenancy .....	77
Updating Resources .....	78
Upgrading Worksoft Execution Suite v10.0.0 to v10.0.X.....	79

## Upgrading Worksoft Execution Suite v9.2 to v10

- 1 Uninstall Worksoft Execution Suite v9.2.
- 2 After you uninstall the Execution Suite, delete the **Worksoft Application Server** folder in the following default location:  
C:\Program Files (x86)\Worksoft
- 3 Install the Worksoft Application Server v10. For information on how to install the server, see [Chapter 3 "Installing Worksoft Application Server"](#)
- 4 Open the Worksoft Management Studio on a local machine by navigating to the following address:  
**http://localhost/ManagementStudio.**  
The Management Studio Installation page opens.

- 5 Enter the Worksoft Management Studio URL address.

If you did not use the default website during installation, your URL address will be different. The implementation of your network landscape will need to be considered when choosing a URL address. Verify that the URL can be accessed by all users.

The URL address should either be a domain or a machine name for on-premise installations. If using a machine name, you will need to decide if a fully-qualified domain and machine name is required. Do not use IP addresses.

If your DNS settings require a fully-qualified machine name complete with domain, please make those changes accordingly.

If there is a load balancer in front of one or more web servers, then the URL address should point to the load balancer domain. If you have any questions about your specific URL address, please ask your IT administrator.

If you intend to use HTTPS for your application server, you will need to first configure your server with HTTP, and then you will be able to reconfigure the application server to use HTTPS. For more information, see [Appendix B "Creating Worksoft Execution Suite Databases with Apply.exe."](#)

**6** If you want to enable verbose logging, select the **Enable Verbose Logging** option.

**7** To view the status of your services, click the **Services** down arrow.

**8** In the Management Studio Database section, enter the server name in the SQL Server field.

**9** For SQL Database Authentication, type the SQL user name and password in the fields to access the database server.

The SQL Server user account must have necessary permissions to create or update the database. If needed, you are able to use a temporary SQL Server administrator with permissions, and then update the SQL Server user credentials for only this database.

**10** In the Database Name field, enter the name of the Management Studio database.

**11** Click the **Update** button.

A message appears asking if you want to update the Worksoft Management Studio database.

**12** Click **Update**.

**13** Click **Continue**.

After saving the Management Studio configuration, you will be prompted to log on to the Management Studio.

**14** In the User Name field, use your existing Worksoft Management Studio email address as your user name.

**15** In the Password field, use the password that you created for Worksoft Management Studio.

**16** Click **Login**.

**17** In the Worksoft Management Studio, click the **Master Configuration** tab.

**18** Click the **Execution Manager** tab.

The Execution Manager tab opens.

**19** Click the **Update** button to update the database.

A message appears asking if you want to update the Certify Execution Manager database.

**20** Click **Update**.

**21** Click the **Impact** tab.

The Impact tab opens.

- 22 Click the **Update** button to update the database.

A message appears asking if you want to update the Certify Impact database.

- 23 Click **Update**.



**Note:** *If you have more than one Certify Execution Manager and Certify Impact databases, you are able to easily update the database. Start typing the name of the database in the field, and a list of database names appear. If your database does not appear in the list, the permissions for the SQL User must not be adequate. Consult your database administrator.*

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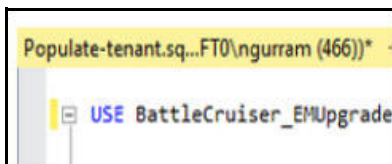
## Upgrading Databases for Multi-Tenancy

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To finish the upgrade process, open the Microsoft SQL Management Studio to configure databases for multi-tenancy. Because of the major architecture updates, there is an extra manual step that is required by your Microsoft SQL Server database administrator. You will need to have permissions and access to manually run two database scripts.

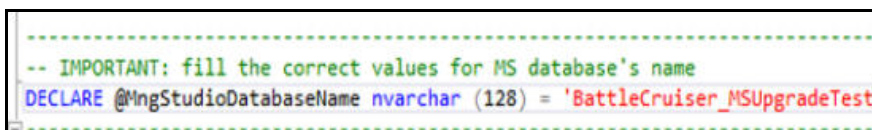
► **To upgrade Certify Execution Manager database for multi-tenancy:**

- 1 Open the Microsoft SQL Management Studio.
- 2 Open the Databases folder for ExecutionServer.
- 3 Open the **Populate-tenant.sql** file in the Microsoft SQL Management Studio.
- 4 In the Use line, add the Execution Manager database name that needs to be upgraded for multi-tenancy.



This line verifies that the Execution Manager database is the focus, and it will be the actual database updated during this operation. Use the full name of the Execution Manager database.

- 5 In the Declare line, add your Execution Manager database and the SQL Management Studio database that you will need sync with for the multi-tenancy.



This line verifies that this TSQL script knows the name of the Management Studio database, and it will be querying information required from the Management Studio database to perform the update on the Execution Manager database. Use the full name of the Management Studio database within the single quotes at the end of this line, as shown in red.

- 6 Run the SQL query.
- 7 Verify that you get a success message after the query has completed.

► **To upgrade Certify Impact database for multi-tenancy:**

- 1 Open the Microsoft SQL Management Studio.
- 2 Open the Databases folder for Impact.
- 3 Open the **Populate-tenant.sql** file in the Microsoft SQL Management Studio.
- 4 In the Use line, add the Certify Impact database name that needs to be upgraded for multi-tenancy.  
This line verifies that the Certify Impact database is the focus, and it will be the actual database updated during this operation. Use the full name of the Certify Impact database.
- 5 In the Declare line, add your Certify Impact database and the SQL Management Studio database that you will need sync with for the multi-tenancy.  
This line verifies that this TSQL script knows the name of the Management Studio database, and it will be querying information required from the Management Studio database to perform the update on the Certify Impact database. Use the full name of the Management Studio database within the single quotes at the end of this line.
- 6 Run the SQL query.
- 7 Verify that you get a success message after the query has completed.

---

## Updating Resources

---

Certify Execution Manager v10 provides the ability for concurrent Remote Desktop Protocol (RDP) user sessions on remote machines for continuous testing in parallel and helps remove several constraints and limitations.

With this version, you will need to add users to your resources. Resource machines need to be powered on, but they no longer need to have the Execution Manager Agent running. Execution Manager starts the Agent before execution. You will need to edit each resource and configure user credentials in order for processes to execute properly.

In this release, Certify Execution Manager will automatically:

- ◆ Identify an available machine and an available user account.
- ◆ Reserve the machine and user account for the duration of executing a Certify process.
- ◆ Log on to the reserved machine using the user account to automatically start the Execution Manager Agent.
- ◆ Start Certify to execute the process and results are saved in the Certify database.
- ◆ Close Certify and Execution Manager Agent when the execution of the Certify process is complete.
- ◆ Log out of the machine.

The machine and user account will then be available for subsequent executions of other Certify processes.

For information on how to configure and register your resources, see the topic [Upgrade to Certify Execution Manager v10](#) in the [Worksoft Help Portal](#).



**Note:** *If you are upgrading from v9.2 to v10, you will need to provide additional settings for your LDAP Connection. For more information, see ["To configure your LDAP authentication service:" on page 46.](#)*

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## Upgrading Worksoft Execution Suite v10.0.0 to v10.0.X

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Before upgrading Worksoft Execution Suite, verify that you have installed Media Foundation when you configured your application server. For more information, see [page 12](#).

► **To upgrade Worksoft Execution Suite v10 to v10.0.1:**

- 1** From the distribution package, run the installer.  
The application will install on top of the previous version.
- 2** In the Worksoft Management Studio, verify that all of your configurations are set correctly.  
Any configuration problems will be highlighted in the color red. After you have reset your configurations, you are ready to start using the applications.
- 3** Each time you perform an upgrade, you will need to update the following databases:
  - Management Studio
  - Execution Manager
  - Certify Impact



## Chapter 9      Accessing Worksoft Execution Suite

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### In This Chapter

Accessing Certify Impact .....	81
Accessing Certify Execution Manager .....	81
REST API Support for Execution Manager .....	81

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## Accessing Certify Impact

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The URL address for Certify Impact is `http://<servername>/Impact/`

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## Accessing Certify Execution Manager

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The URL address for Certify Execution Manager is `http://<servername>/ExecutionManager/`

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## REST API Support for Execution Manager

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Certify Execution Manager supports REST API calls from various development operating tools, such as Jenkins, to execute requests. For help and examples, see

`http://<ServerName>/ExecutionManager/apidocs/`

If you want to use this specification directly, the Swagger UI has a link that leads to the consumable Worksoft Execution Manager API Swagger Spec.



# Chapter 10      **Configuring Micro Focus ALM/Quality Center Integration**

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## **In This Chapter**

Overview .....	83
Installing the ALM/Quality Center Connectivity Add-On Tool .....	83
Integrating Worksoft Execution Suite with ALM/Quality Center.....	84

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## Overview

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You are able to integrate with Micro Focus® Application Lifecycle Management® (ALM) Quality Manager and leverage your test sets from Certify Execution Manager. The Certify Execution Manager runs ALM/Quality Center test sets in parallel which reduces the time needed for regression testing. The results are stored directly into ALM/Quality Center, and a consistent audit log is provided.

In order to run ALM/Quality Center test sets from Certify Execution Manager, the web server hosting Worksoft Execution Suite and each resource machine must have the following:

- ◆ ALM/Quality Center Client installed
- ◆ ALM/Quality Center Connectivity tools installed
- ◆ ALM/Quality Center Client registered

For information on how to install the ALM/Quality Center Client and register it, go to the Micro Focus ALM site.

---

## Installing the ALM/Quality Center Connectivity Add-On Tool

---

To connect ALM/Quality Center with the Worksoft Execution Suite, you need to install the ALM/Quality Center Connectivity Add-On tool on the web server hosting Worksoft Execution Suite and each resource machine.

► **To install the ALM/Quality Center connectivity add-on tool:**

- 1 Open the Micro Focus Application Lifecycle Management (ALM) site.
- 2 Click **Tools**.
- 3 On the Tools screen, click **HP ALM Connectivity**.
- 4 Click **Download HP ALM Connectivity**.
- 5 On the ALM Connectivity screen, click **Save** and save the **TDCconnect.exe** file.
- 6 Browse to where you saved the file, and right-click on **TDCconnect.exe** and select **Run as administrator**.  
After the installation completes, a message appears.
- 7 Click **OK**.

---

## Integrating Worksoft Execution Suite with ALM/Quality Center

---

If you plan to integrate with ALM/Quality Center, you will need to validate your connection with Worksoft Management Studio.

► **To validate ALM/Quality Center with Worksoft Execution Suite:**

- 1** In the Worksoft Management Studio, click the **Integration** tab.
- 2** Click the **ALM Integration** tab.  
The ALM Integration tab opens.
- 3** Click **Add**.  
The Add ALM Configuration dialog box opens.

**Add ALM Configuration** [X]

Validate that your web server is configured to access ALM. We will inspect if the correct version of ALM connectivity tools is installed, as well as details pertaining to how ALM dll's are registered.

Name

Instance URL

Domain

Project

User

Password

**Status** [^]

Connection	Not tested yet
------------	----------------

4 Enter the following information:

Field	Description
<b>Name</b>	Name for your ALM/Quality Center connection
<b>Instance URL</b>	ALM/Quality Center URL address
<b>Domain</b>	ALM/Quality Center domain
<b>Project</b>	ALM/Quality Center project
<b>User</b>	ALM/Quality Center user name
<b>Password</b>	ALM/Quality Center password

5 Click **Test Configuration**.

Information about the connection appears in the Status section.

Status	
Connection	✓ Successful
OTAClient.dll Registered	✓ Success <a href="#">Details</a>
COM Registration	✓ Success
Able to retrieve folders for Test Plans	✓ Success
Able to retrieve folders for Test Lab	✓ Success

## Integrating with Certify Impact

To integrate with Certify Impact, select ALM/Quality Center as the Test Execution Integration option in the Configuration tab. For more information, see ["Configuring Certify Impact" on page 41](#).



# Chapter 11      Configuring Panaya TDx Integration

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## In This Chapter

- Overview ..... 87
- Configuring Certify BPP ..... 87
- Adding Panaya TDx Information to Worksoft Management Studio ..... 88
- Creating Bookmarks for Panaya TDx Integration ..... 90
- Creating a Worksoft Automation Cycle ..... 90

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## Overview

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Worksoft supports the integration with the Panaya Test Dynamix (TDx) Platform. The common workflow for TDx is the reporting of test results based on build numbers. Worksoft Certify results can contain an application and build number to correlate results with reporting on changes in the build.

In order to enable this integration with TDx, you will need to complete the following:

- ◆ Enable Panaya TDx for API integration.
- ◆ Configure Certify Business Process Procedure (Certify BPP) in Worksoft Management Studio. Certify BPP is used to create comprehensive reports for test results.
- ◆ Add Panaya TDx information to Worksoft Management Studio for integration.
- ◆ Create bookmarks in Worksoft Management Studio for Certify processes that you want to make available in Panaya TDx.

---

## Configuring Certify BPP

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After you have enabled Panaya TDx for API integration, you will open Worksoft Management Studio to complete the configuration. The first step is to configure Certify BPP. Certify BPP is a web-based reporting tool that automatically generates comprehensive reports for development, quality assurance, training, and compliance.

For more information about Certify BPP, see the [Worksoft Help Portal](#).

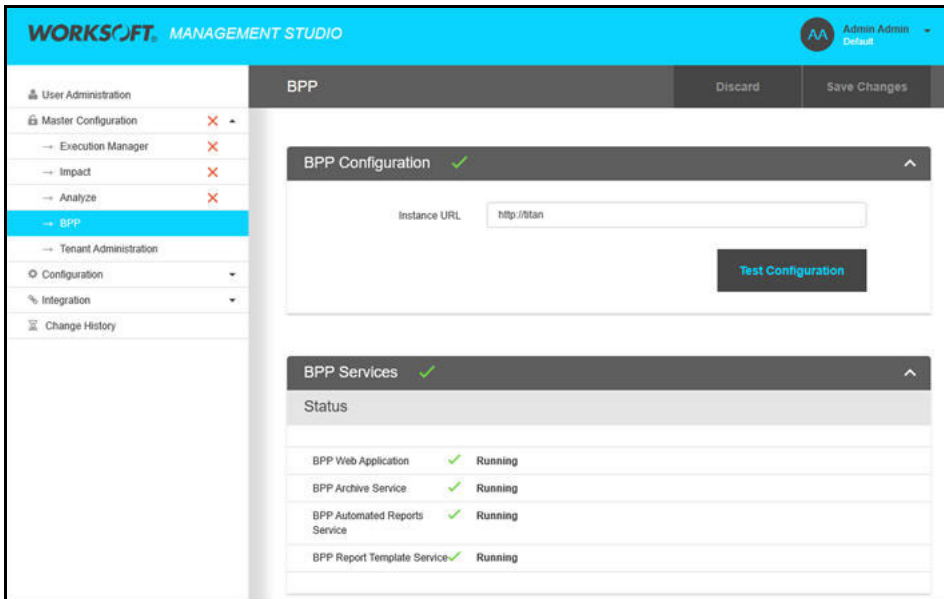
Certify BPP has Certify databases specified in its configuration file. Each Certify database in Certify BPP has an alias name, and each Certify database in Worksoft Management Studio has an alias name. You must verify that the Certify databases in the Certify BPP configuration file match the database names in Worksoft Management Studio.

If there are differences in the database names, Worksoft recommends that you change the names within the Certify BPP configuration file.

### ► *To configure Certify BPP:*

- 1 Open Worksoft Management Studio.
- 2 In the Worksoft Management Studio, click the **Master Configuration** tab.
- 3 Click the **BPP** tab.

The BPP tab opens.



- 4 In the Instance URL text field, enter the URL address for your Certify BPP instance.  
Examples: `http://machinename` or `https://machinename`
- 5 Click **Test Configuration**.

---

## Adding Panaya TDX Information to Worksoft Management Studio

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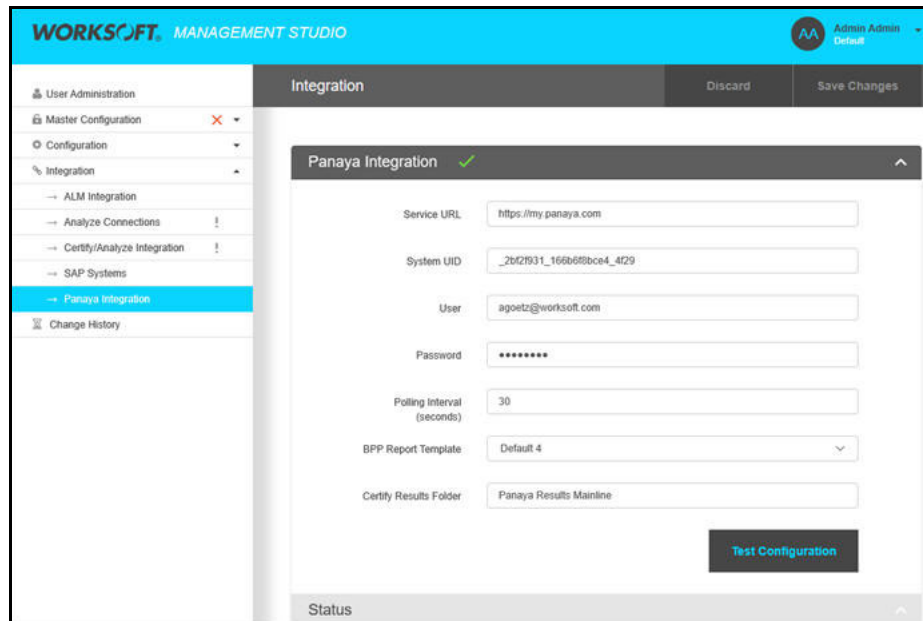
The next step is to add Panaya TDX information to Worksoft Management Studio so that the Worksoft Integration Gateway can point to the instance.

► **To add Panaya TDX information:**

- 1 In the Worksoft Management Studio, click the **Integration** tab.
- 2 Click the **Panaya Integration** tab.



The Panaya Integration tab opens.



- 3 In the Service URL field, enter the URL address for your Panaya instance.
- 4 In the System UID field, enter the unique identification number for Panaya.  
To find the UID in Panaya, open the Settings panel and select **Configuration**. In the Automatic Testing Tool section, click on **Copy UID To Clipboard**.
- 5 In the User and Password fields, enter your Panaya credentials in the respective fields.
- 6 In the Polling Interval field, enter the number of seconds Execution Manager will query for new tasks in Panaya TDx.  
The recommended value from Panaya is 60 seconds or greater.
- 7 In the BPP Report Template drop-down list, select the template that you want to use for your report.  
You must have Certify BPP configured in order to see the templates list.  
You can select multiple templates by pressing the **<Ctrl>** key while selecting several templates or by pressing the **<Shift>** key when selecting a consecutive range of templates. If more than one template is specified, one report is generated for each template. For example, if you selected three report templates, each process will generate three reports.
- 8 In the Certify Results Folder field, enter the name of the folder in which your results will be saved.
- 9 Click **Test Configuration**.  
A message appears if the connection was successful.

---

## Creating Bookmarks for Panaya TDx Integration

---

The next step is to create bookmarks in Worksoft Management Studio that will point to the Certify processes that you want to make available in Panaya TDx.

Worksoft Management Studio integrates with Panaya TDx with bookmarks. When using Panaya, a user can select either a single bookmark or all bookmarks. As a result, the Certify processes are added to a Panaya Worksoft Automation Cycle accordingly.

For information on how to create bookmarks, see [Chapter Chapter 5, “Adding Bookmarks,” on page 52](#).

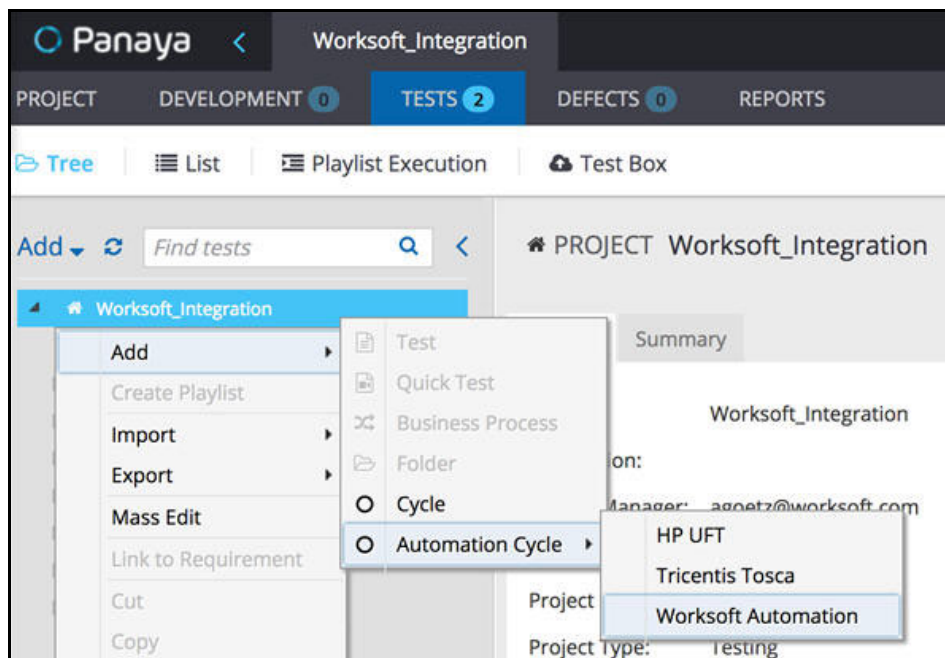
After you have completed creating bookmarks, your integration is complete.

---

## Creating a Worksoft Automation Cycle

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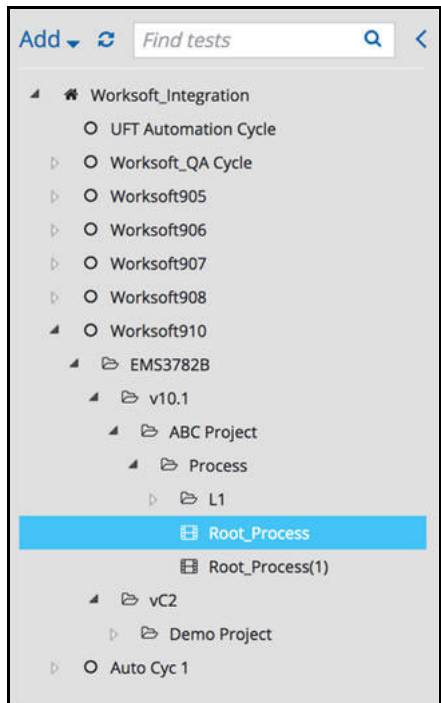
After you have configured the integration, create a new automation cycle in Panaya and select the **Worksoft Automation** option.



In order for Panaya to communicate with Worksoft Integration Gateway, you need to do the following:

- ◆ Select the new Worksoft cycle in the Navigation pane.
- ◆ Click the **Sync Settings** tab.
- ◆ In the Sync Settings tab, click **New**.
- ◆ From the Machine drop-down list, select the host name of Worksoft Management Studio and click **Save**.
- ◆ Click **Sync** and click the **Refresh** button.

Under the Worksoft cycle, the Worksoft project and processes appear.



Now that the Certify processes appear within Panaya, it is possible to create one or more Panaya playlists using one or more of these processes at any time. When you run the Panaya playlist, the Worksoft Integration Gateway will be instructed to begin execution. An Execution Manager request is created within Execution Manager automatically. The new request contains each of the Certify processes that were added to the Panaya playlist.

For more information about Panaya playlists, go to Panaya's [web](#) page.

After test execution is complete, you can view the results in Panaya TDx. The results appear in a report that utilizes the Certify BPP template you specified in Worksoft Management Studio.



## Appendix A Troubleshooting

Before contacting Worksoft Support, use the **Worksoft Diagnostics** tool that is located in the **Tools** folder of the installation package. When you run the Worksoft Diagnostics tool on your web server, this tool generates a diagnostic results file.

► **To create a diagnostic results file with the Worksoft Diagnostics tool:**

- 1 In the Tools folder of the installation directory, copy the **worksoftdiagnostics.exe** file to your web server.
- 2 Right-click on the **worksoftdiagnostics.exe** file and select **Run as Administrator**.
- 3 Click the **Start** button.

The process will take several minutes. The **WorksoftDiagnostic\_<machine name>.html** file opens in the default browser on the machine.

- 4 Review the diagnostic results file and follow the instructions listed in the file.
- 5 After you have completed the tasks listed in the file, rerun the tool again if you are still having trouble with installation.
- 6 If needed, send the last results file to Worksoft Support.

If you still have trouble installing the Worksoft Execution Suite, go to the **Worksoft Community** site to view solutions to issues that you may have encountered with the installation. In order to utilize the Worksoft Community site, you will need to register on this site: <http://portal.worksoft.com/>.

---

## Verifying the Worksoft Management Studio Configuration File

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If you are having trouble with Worksoft Management Studio's URL address, you can verify the address in the configuration file.

► **To verify the Worksoft Management Studio configuration file:**

- 1 Open the Worksoft Management Studio configuration file in Notepad. Go to the following default folder to open the file:

```
C:\Program Files (x86)\Worksoft\Worksoft Application Server\  
ManagementStudio\web.config
```

- 2 In the configuration file, find the setting `<add key="MgmtStudioURL" value=.`
- 3 Verify that the URL address matches the one that you entered in the Configuration tab of the Management Studio.

Example: `https://worksoftMSServer.worksoft.com/managementstudio`

- 4 Save the updated configuration file.

## Appendix B      Creating Worksoft Execution Suite Databases with Apply.exe

You will create and update your Worksoft Execution Suite databases in the Worksoft Management Studio. If your database administrator needs to create these databases, they are able to utilize the Apply.exe tools in the Databases folder within your Worksoft Execution Suite distribution package. This Appendix will show you how to update all of your databases with the Apply.exe tool.

---

### Creating or Updating the Worksoft Management Studio Database

---

The Worksoft Management Studio tool registers database settings, data sources, and SAP systems that you intend to use for Worksoft products. The Management Studio database maintains configuration information used by applications and services. Only one Management Studio database is needed regardless of how many Certify databases already exist.

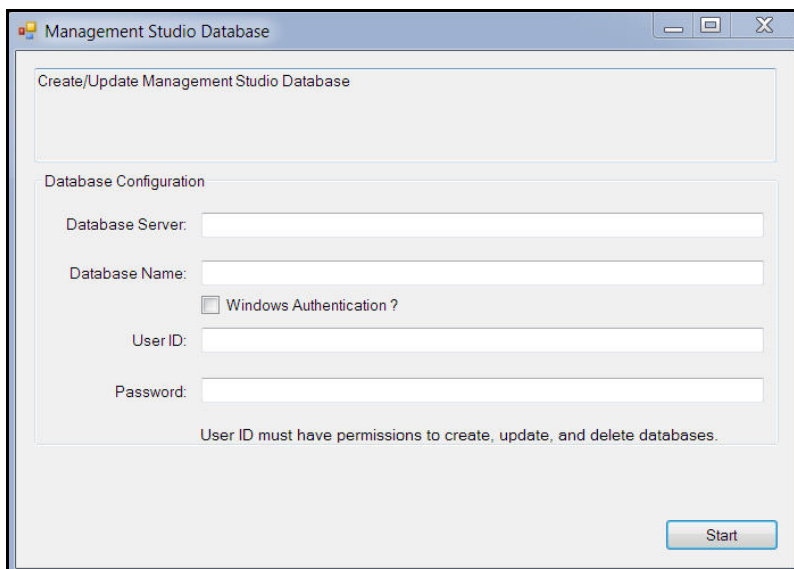
► **To create a Worksoft Management Studio database:**

- 1 Locate the **Apply.exe** utility within your Worksoft Execution Suite distribution package:

... \Databases\ManagementStudio

- 2 Double-click **Apply.exe**.

The Apply utility opens.



The screenshot shows a Windows-style dialog box titled "Management Studio Database". The main area contains the text "Create/Update Management Studio Database". Below this is a "Database Configuration" section with the following fields and options:

- Database Server: [Text input field]
- Database Name: [Text input field]
- Windows Authentication ?
- User ID: [Text input field]
- Password: [Text input field]

At the bottom of the configuration section, there is a note: "User ID must have permissions to create, update, and delete databases." A "Start" button is located at the bottom right of the dialog box.

- 3 In the Apply tool's text fields, enter the following database connection information:
  - Database server name
  - Database name
- 4 Do not select the **Windows Authentication** option. Worksoft Execution Suite does not support Windows authentication.
- 5 For SQL server authentication, type the user name and password in the text fields.
- 6 Click **Start**.  
The Apply utility begins to create your new database.  
If the database created successfully, then a message appears.
- 7 Click **OK**.

---

## Creating or Updating Your Execution Manager Database

---

You need to create your database for Execution Manager before you install the Worksoft Execution Suite. If you have an existing Execution Manager database, follow the instructions in this procedure to update it.

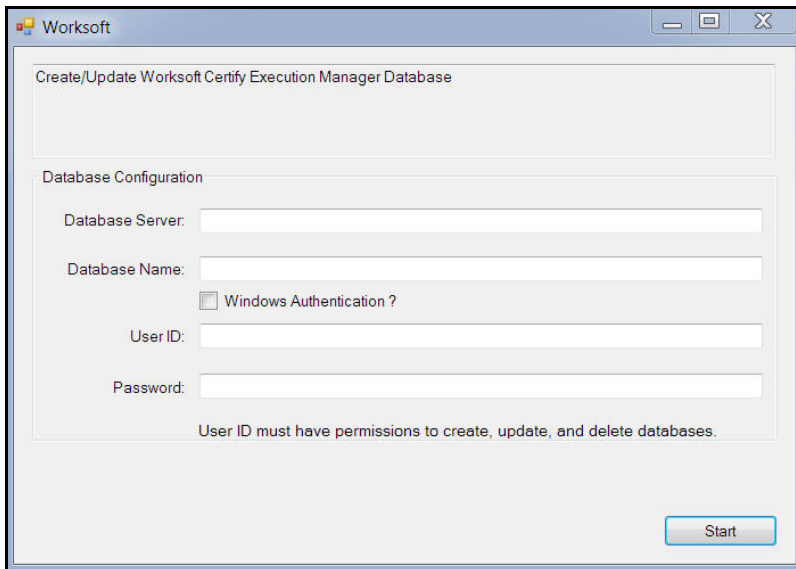
► **To create an Execution Manager database:**

- 1 Locate the **Apply.exe** utility within your Worksoft Execution Suite distribution package:

... \Databases\ExecutionServer

- 2 Double-click **Apply.exe**.

The Apply utility opens.



- 3 In the Apply tool's text fields, enter the following database connection information:
  - Database server name
  - Database name

- 4 Do not select the **Windows Authentication** option. Worksoft Execution Suite does not support Windows authentication.
- 5 For SQL server authentication, type the user name and password in the text fields.
- 6 Click **Start**.  
The Apply utility begins to create your new database.  
If the database created successfully, then a message appears.
- 7 Click **OK**.

---

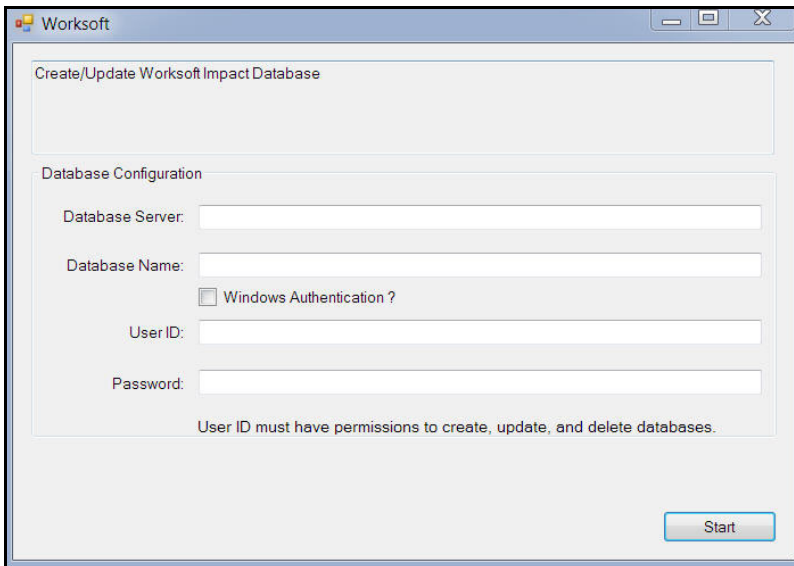
## Creating or Updating a Certify Impact Database

---

You need to create your database for Certify Impact before you install the Certify Execution Suite. If you have an existing Certify Impact database, follow the instructions in this procedure to update it.

► **To create a Certify Impact database:**

- 1 Locate the **Apply.exe** utility within your Certify Execution Suite distribution package:  
... \Databases\Impact
- 2 Double-click **Apply.exe**.  
The Apply utility opens.



- 3 In the Apply tool's text fields, enter the following database connection information:
  - Database server name
  - Database name

- 4** Do not select the **Windows Authentication** option. Worksoft Execution Suite does not support Windows authentication.
- 5** For SQL server authentication, type the user name and password in the text fields.
- 6** Click **Start**.  
The Apply utility begins to create your new Certify Impact database.  
If the database created successfully, then a message appears.
- 7** Click **OK**.

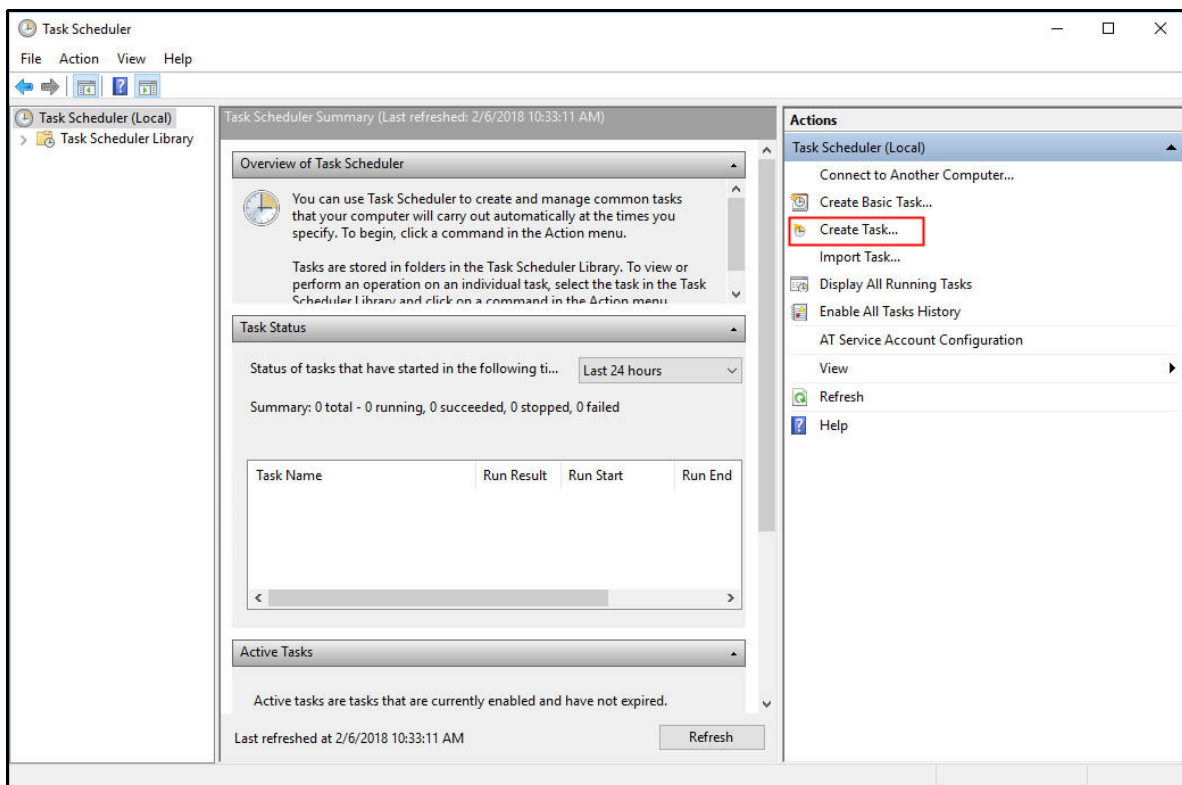


## Appendix C      Creating a Task in the Windows Task Scheduler

The Windows Task Scheduler can be used to start an Execution Manager Agent if you notice that the Agent does not automatically start after the RDP session starts. In some cases, the application security configuration prevents starting the Execution Manager Agent application with elevated privileges. In this case the Windows Task Scheduler should be used to initiate the Execution Manager Agent with elevated privileges on user login.

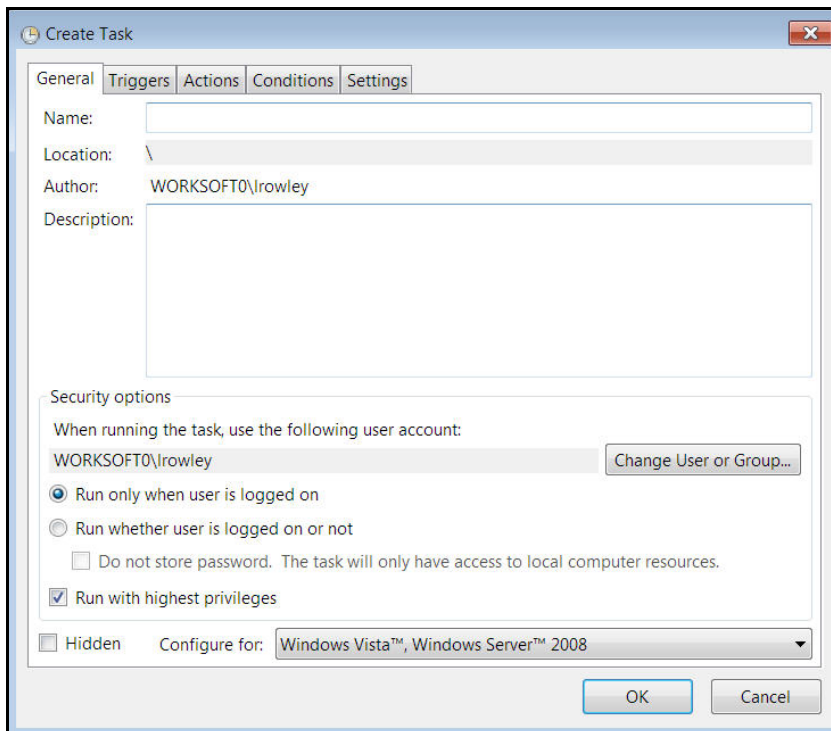
### ► *To create a task in Windows Task Scheduler:*

- 1 From the Windows Start menu, open **Task Scheduler**.



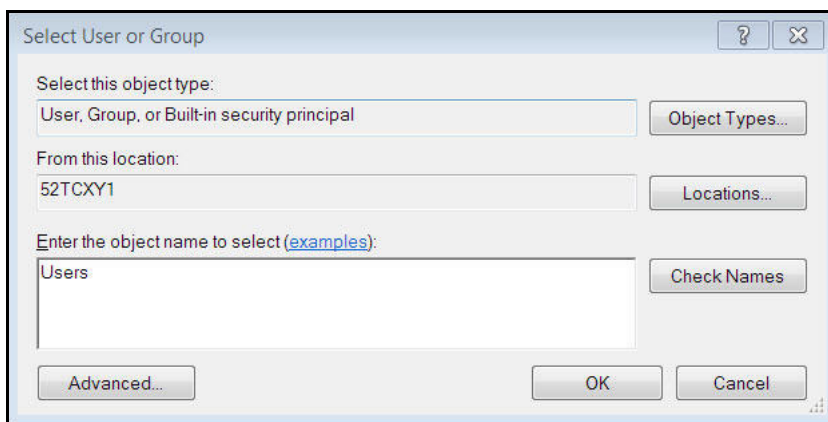
- 2 In the right Actions pane, select **Create Task**.

The Create Task dialog box opens.



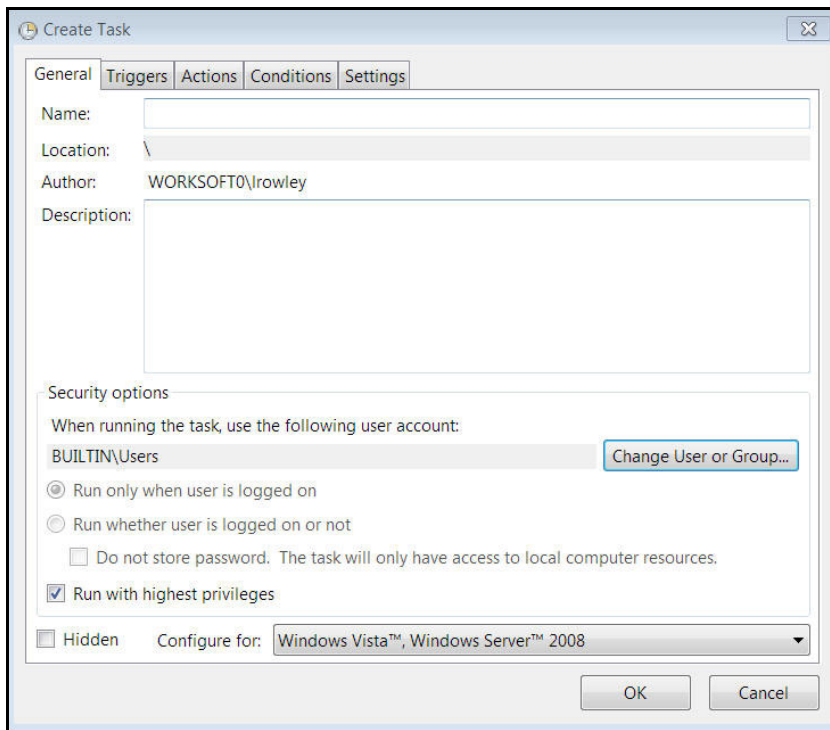
- 3 In the Name field of the General tab, enter **Start EM Agent**.
- 4 In the Description field, type **Start EM Agent on user login**.
- 5 Click the **Change User or Group** button.

The Select User or Group dialog box opens.



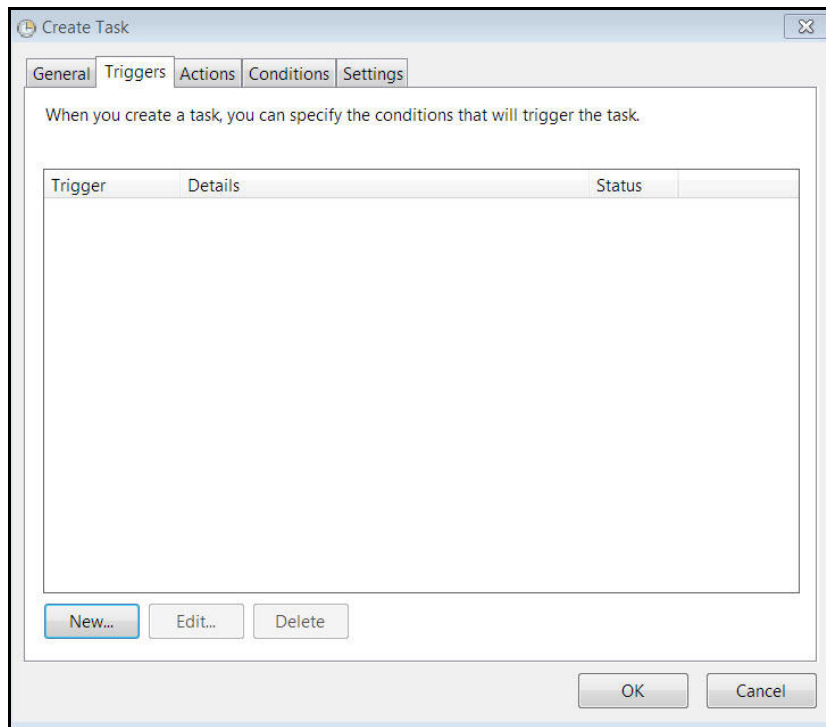
- 6 In the Enter the Object Name field, type **Users**.
- 7 Click **Check Names**.  
The text field auto populates with **<machine\_name>\Users**.
- 8 Click **OK**.

The dialog box closes, and **BUILTIN\Users** appears in the User Account field.



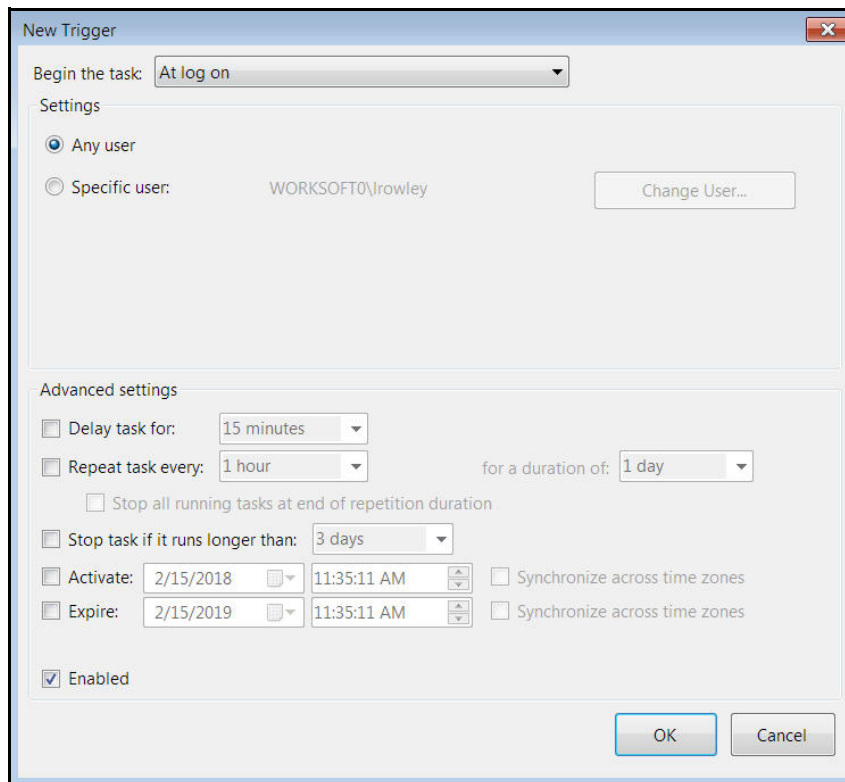
- 9 In the Security Options section, select the following:
  - **Run only when user is logged on**
  - **Run with highest privileges**
- 10 Click the **Triggers** tab.

The Triggers tab opens.



**11** To create a new trigger, click the **New** button.

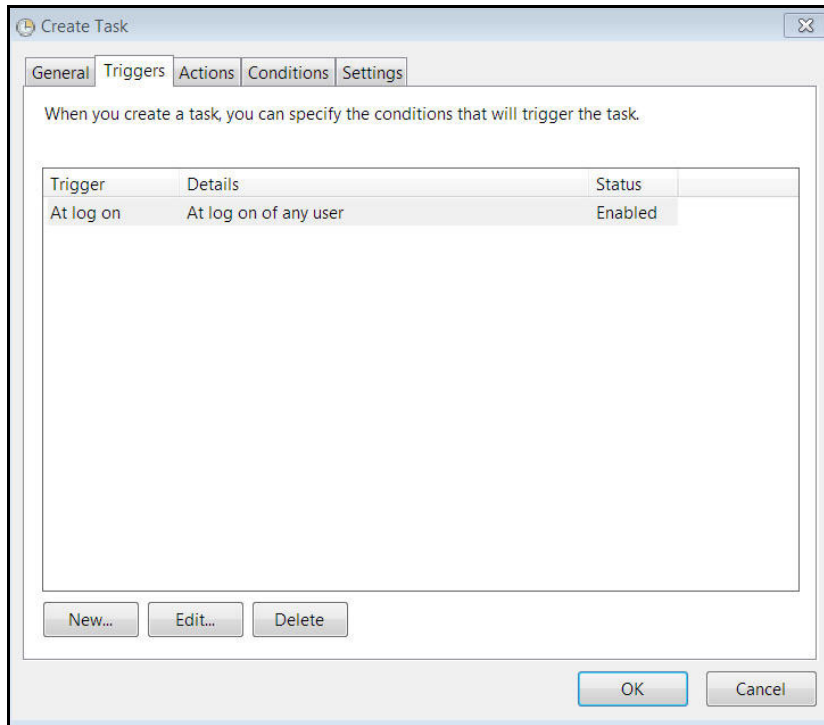
The New Trigger dialog box opens.



**12** In the Begin the task drop-down list, select **At log on**.

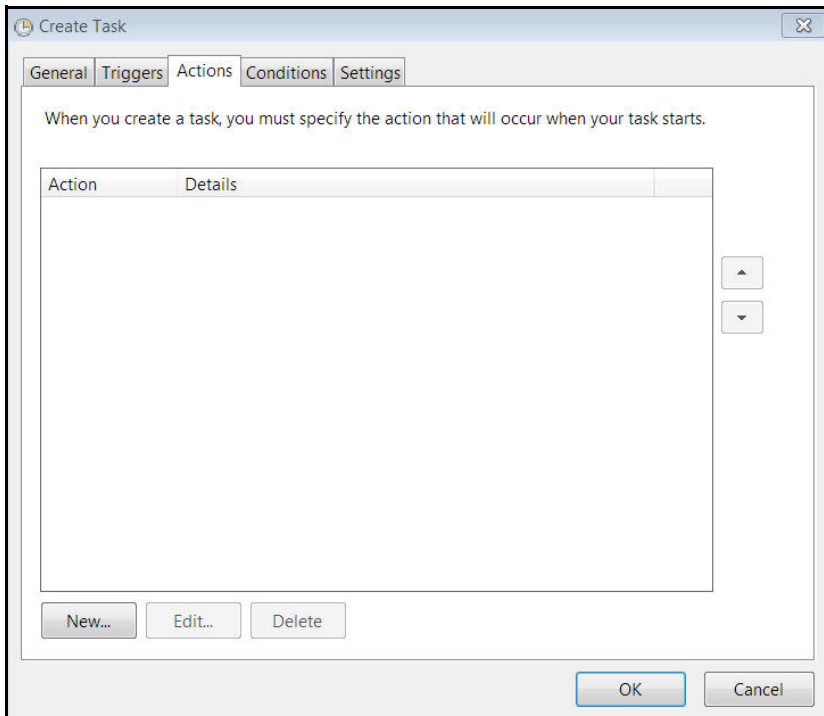
**13** Click **OK**.

The new trigger appears in the Triggers tab.



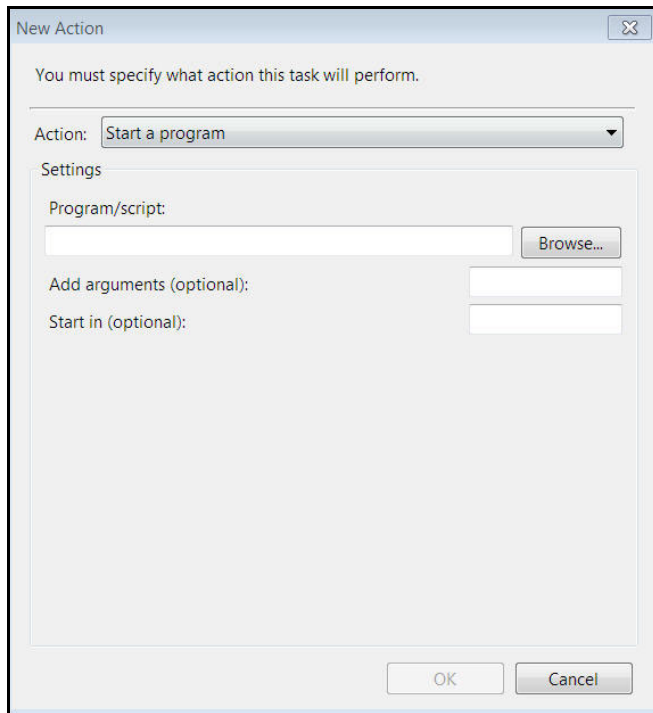
**14** Click the **Actions** tab.

The Actions tab opens.



- 15** To create a new action, click the **New** button.

The New Action dialog box opens.



- 16** From the Actions drop-down list, select **Start a program**.

- 17** Click the Program/Script **Browse** button and point to where **WorksoftExecutionAgent.exe** is installed.

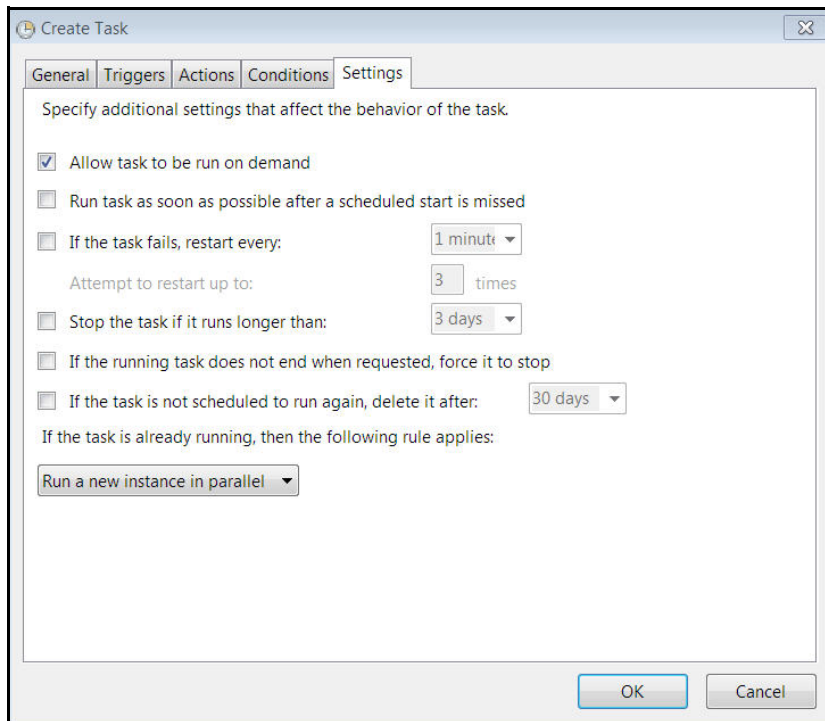
- 18** Click **OK**.

The new action appears in the Actions tab.

- 19** In the Conditions tab, keep all defaults.

- 20** Click the **Settings** tab.

The Settings tab opens.



**21** Verify that the following two options are NOT selected:

- **Stop the task if it runs longer than:**
- **If the running task does not end when requested, force it to stop.**

**22** From the If the task is running.... drop-down list, select **Run a new instance in parallel.**

**23** Click **OK.**



## Appendix D      Silent Installation

### Silent Install

To run Worksoft Execution Suite installation silently, run the installer from the command line and add **/s** option to the executable:

```
WorksoftApplicationServer.exe /s
```

### Installation Log File

The default installation log is located at **%userprofile%** of the user who installed Worksoft Execution Suite. To provide an alternative location for this installation file, enter the following command to override the original file location:

```
WorksoftApplicationServer.exe /s /l=C:\temp\WASiInstalllog.txt
```

### Silent Uninstall

To uninstall Worksoft Execution Suite silently, enter the following command:

```
WorksoftApplicationServer.exe /s MODIFY=FALSE REMOVE=TRUE UNINSTALL=YES
```

---

## Execution Manager Agent

---

### Silent Install

If using Worksoft Execution Suite version v10.1.0 or higher, enter the following command to install the Agent and register the Agent with Execution Manager:

```
Remote Execution agent.exe /s em_url=https://EMServer email=admin@worksoft.com  
password=password tenant=tenantname register=true
```

Enter the following command to install the Agent and skip registration of the Agent with Execution Manager:

```
Remote Execution agent.exe /s em_url=https://EMServer email=admin@worksoft.com  
password=password tenant=tenantname register=false (to NOT register)
```

If using an earlier version, run the installer from the command line and add **/s** option to the executable:

```
Remote Execution agent.exe /s
```



## **Installation Log File**

The default installation log is located at **%userprofile%** of the user who installed the Agent. To provide an alternative location for this installation file, enter the following command to override the original file location:

```
Remote Execution agent /s /l=C:\temp\EMAIInstalllog.txt
```

## **Silent Uninstall**

To uninstall Execution Manager Agent silently, run the installer from the command line and enter the following string:

```
Remote Execution agent.exe /s MODIFY=FALSE REMOVE=TRUE UNINSTALL=YES
```