HEXAGON
MANUFACTURING INTELLIGENCE

4.0

- Release Notes -

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Release Notes

HxGN SMART Quality 4.0 is a significant development release of the software. For detailed information and video tutorials about this release, visit

http://www.hexagonmi.com/products/hxgn-smart-quality

The following information details what's new or improved in SMART Quality 4.0:

- Added the ability to view supporting documents for products in the **Products** tab. A supporting document file can be an electronic document file, image file, audio file, video file, or some other file. Supporting documents can provide mounting or operating instructions or other information (MMSCE-5611).
- Added the ability to view supporting files for a measurement routine in the **Products** tab. These files provide mounting information, operating instructions, or other information (MMSCE-5542).
- SMART Quality has a new Workflow Report in the **Reports** tab to view a list of completed workflows (MMSCE-5412).
- Added the ability to assign a user to each step in the workflow. You can do this when you initiate a workflow for a machine (MMSCE-5532)
- Added the ability to open an application with a **Link** button in the **My Tasks** dialog box to complete the workflow step (MMSCE-5533).
- Added the ability in the **Workflows** tab to show only those workflows that are related to a factory (MMSCE-5534).
- Added the ability in the **Dashboard** tab to display Pulse status icons with its current status information on the machines' tiles (MMSCE-5410).
- Added the ability to drag the tiles in the **Dashboard** tab to rearrange the layout: Productivity Summary, Machines' Overview, Machines' Statuses, Notifications, Machines' OEE, Factory OEE, Measurement Reports, and Machine Status Chart (MMSCE-5538).
- Added the ability to show or hide the user data to protect the privacy with the **Display user data** check box in the **New Factory** screen. This check box shows or hides the **User Report** in the **Reports** tab and the **All Operator Performance** chart in the **All Factories Dashboard** screen (MMSCE-5505).

- Added the ability to relocate the machine to another factory or department (MMSCE-5540).
- Added the ability to show the serial number, last calibration date, and next calibration date for a machine (MMSCE-5881).
- Added a new **Calibration Scheduler** dialog box to create a machine calibration scheduler task that initiates a workflow (MMSCE-5956).
- Improved the **Calibration Scheduler** dialog box to include the **Months** and **Years** options for the machine calibration interval time (MMSCE-6347).
- Added the ability to upload a checklist to the current workflow step. The checklist provides the items to complete the workflow step (MMSCE-5955).
- Added the ability to show the machine idle and exception status during execution (MMSCE-6114).
- Added the ability to show the Overall Equipment Effectiveness (OEE), Availability, and Performance for all the machines in the factory or department on the **Dashboard** tab (MMSCE-6115).
- Added a new machine status chart on the **Dashboard** tab that displays a horizontal status bar to show the variation in status for a selected date for all the machines in the factory or department (MMSCE-6116).
- Added the ability to show the OEE, Availability, and Performance of the whole factory on the **Dashboard** tab (MMSCE-6117).
- Added support for two additional parameters (PARAM4 and PARAM5) to better support PULSE events (MMSCE-6153).
- Improved the performance of Dashboard's **Notifications** panel to show machine activities for the current factory, including machine deletion, machine creation, machine exceptions, and machine relocation (MMSCE-6774).
- Added support for the additional machine status to include Idle during execution (MMSCE-6114).
- Added a new SMART Quality Verification Tool to troubleshoot SMART Quality configuration issues. The tool checks the SPF connection, Q-DAS License, DataServer Service, Pulse Broker Service, and so on (MMSCE-5404).
- Added tooltips to the Pulse sensor icons that are displayed on the machine tiles on the **Dashboard** tab (MMSCE-6741).

- Added support for the second crash sensor (MMSCE-6731).
- Added password peek functionality to all password fields such as the sign-in screen and the **New Account** screen (MMSCE-6759).
- Added support for the UTC dates in the Pulse environment data (MMSCE-6371).
- Added the ability to configure the workflow templates from the **Workflow Configuration** screen in SMART Quality (MMSCE-5856).
- Added the ability to rotate the CAD model in the CAD window on the **Products** tab for different views such as bottom, top, right, back, left, isometric, front, and 3-D rotation (MMSCE-5347).

Recommended System Requirements

For HxGN SMART Quality to function, you need to have an application server and a database server that can be on the same physical or virtual server, or located separately on different servers. These servers also needs to be networked and accessible to the computers contained inside the SMART Quality environment. During the installation of SMART Quality, we recommend that you have access to your IT personnel to ensure any IT issues are resolved. Your IT department needs to allow internet traffic to communicate with these servers without firewall or subnet issues. SMART Quality Installation also requires an SQL user account that has DBO (Database Owner) and read/write permissions to access the database.

Application Server System Requirements

- **Operating System** - Windows Server 2016 and Windows Server 2012.
- **RAM** - 32 GB
- **CPU** - Quad-Core or higher processor
- **Hard Drive** - 500 GB of free hard drive space
- **Internet Information Server (IIS)** - Enabled IIS Manager components

Database Server System Requirements

- **Operating System** - Windows Server 2016 and Windows Server 2012.
- **RAM** - 32 GB
- **CPU** - Quad-Core or higher processor
- **Hard Drive** - 500 GB of free hard drive space
- **Microsoft SQL Server** - Microsoft SQL Server 2014 64-bit or later

Client Computer System Requirements

- **Operating System** - 64-bit Windows 10, Windows 8.1, Windows 8, and Windows 7
- **RAM** - 8 GB

- **Microsoft .NET Framework** - Microsoft .NET Framework 4.6.1 for Windows. If you do not have Microsoft .NET Framework 4.6.1, the SMART Quality installer will install it for you.
- **Browser** - Google Chrome (recommended), Mozilla Firefox, or Internet Explorer 10 or later

Anti-Virus Software

Hexagon Manufacturing Intelligence used the Sophos anti-virus tool to test SMART Quality. The user will need to confirm the performance of any other anti-virus tool.

http://sophos.com/products/enterprise/endpoint/security-and-control/

Prerequisite Components

Before you install HxGN SMART Quality, you need to install these components:

- Microsoft Windows Server 2012 R2 64-bit (Datacenter or Standard edition)
- Oracle Database 12c Release 1 (12.1.0.2.0) for Microsoft Windows (x64) or Microsoft SQL Server 2014 for Microsoft Windows (x64)

SMART Quality uses your Q-DAS license.

Install SMART Quality

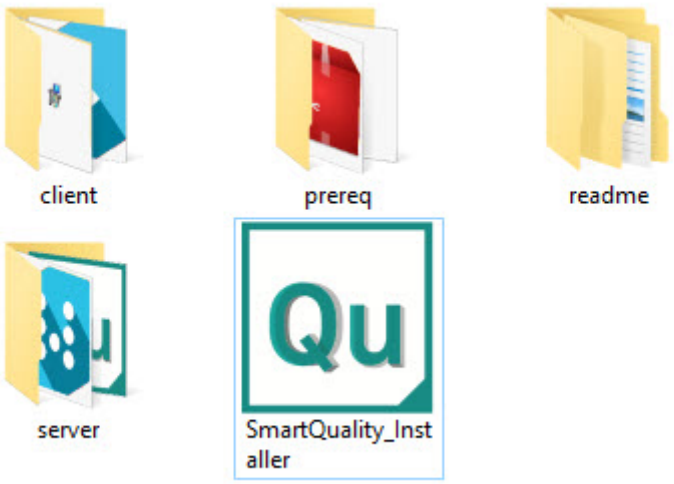
Overview

This section covers the installation of the HxGN SMART Quality application.

Step 1: Run SmartQuality_Installer.exe and Start the Wizard

If you install from a CD or DVD, double-click **SmartQuality_Installer.exe**.

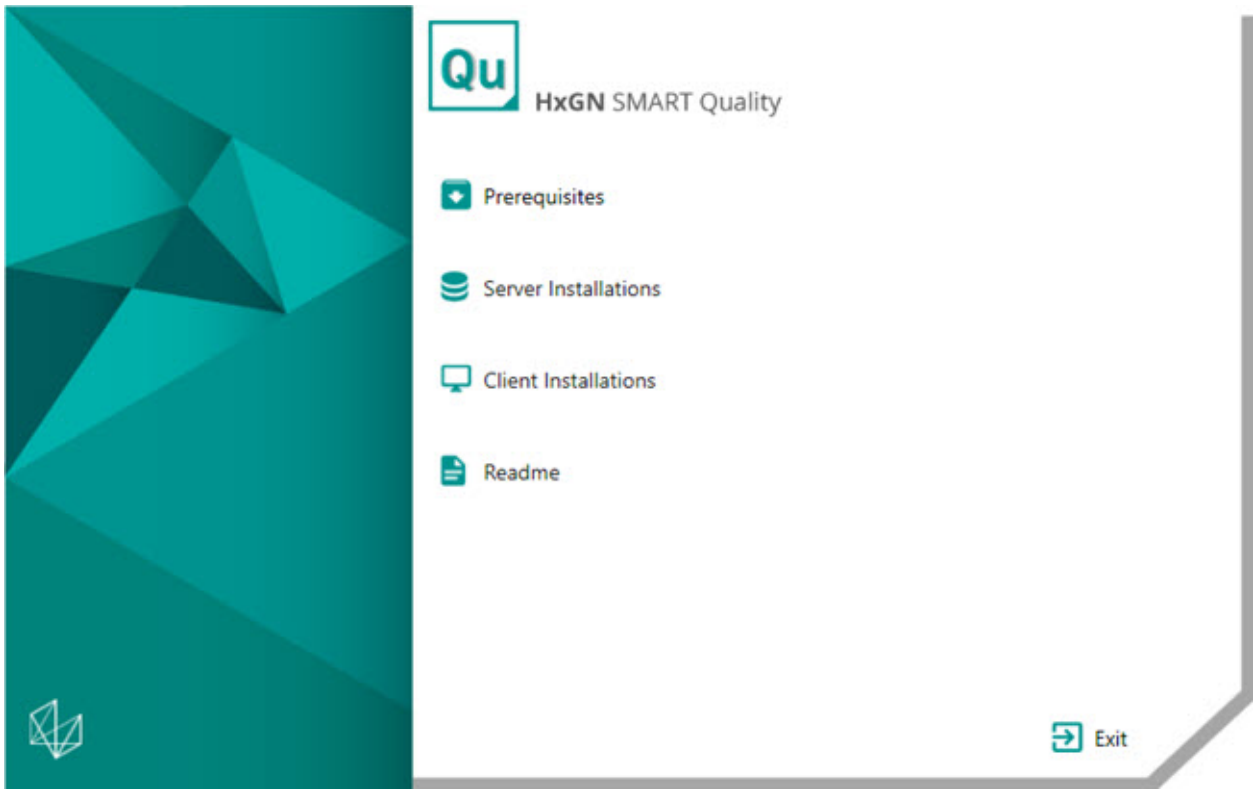
If you install from a downloadable file, extract the contents from the downloaded archive and double-click **SmartQuality_Installer.exe**:



The SmartQuality_Installer.exe file

The **HxGN SMART Quality** screen appears with the following options:

:

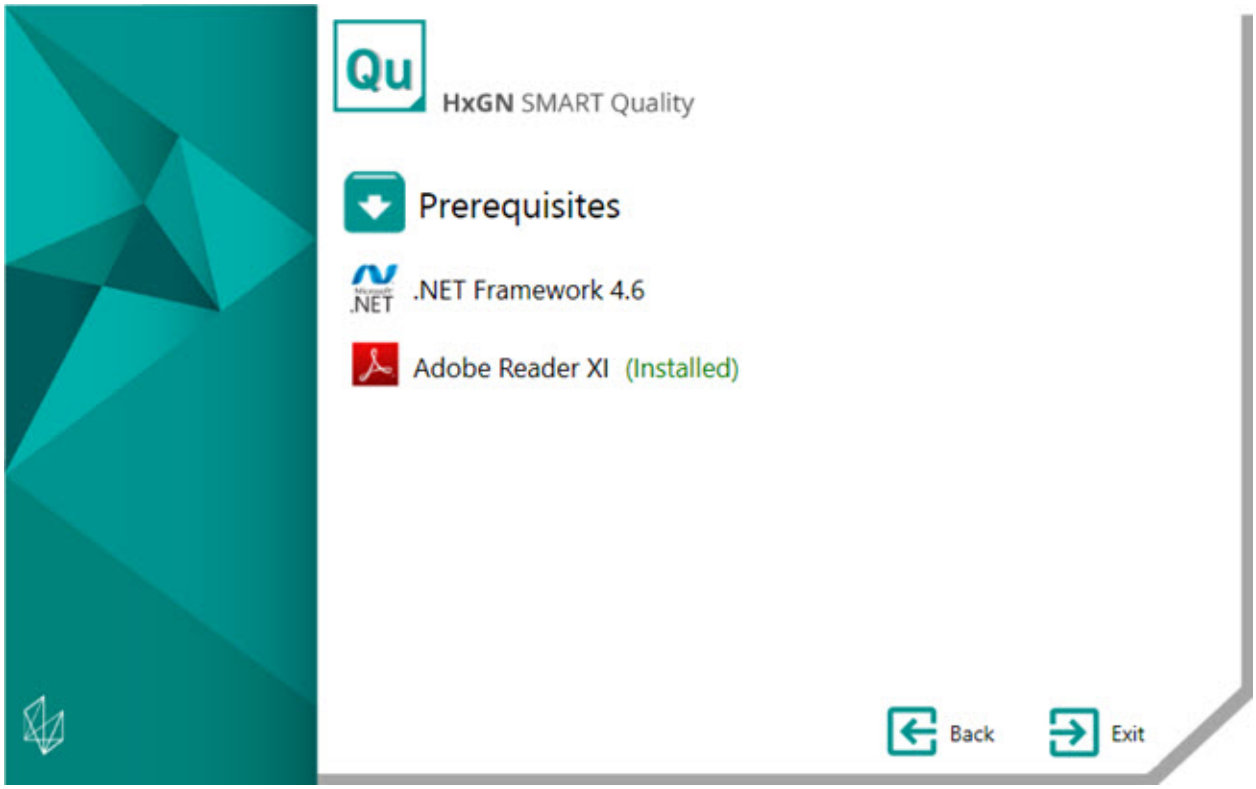


- **Prerequisites** - This option installs these additional prerequisite components if they are not already installed on your computer:
  - Microsoft .NET Framework 4.6
  - Adobe Reader XI
- **Server Installations** - This option installs these servers:
  - Q-DAS Desktop
  - SMART Quality
  - SMART Task
- **Client Installations** - This option installs these applications:
  - PC-DMIS
  - Inspect
  - PC-DMIS - Q-DAS Converter
  - DataSync
  - Pulse

- **Readme** - This option opens a folder that contains the installation guides:
  - SMART Quality Readme
  - PC-DMIS Readme
  - Q-DAS Readme

Step 2: Install Additional Prerequisites

On the main screen, click **Prerequisites** to open the screen below:



If you already installed the tool, the green text (Installed) appears next to the tool's name.

Install Microsoft .NET Framework 4.6

This installer lets you install .NET Framework 4.6 if you want to install it separately.

1. From the main installation screen, double-click **.NET Framework 4.6** to begin the installation process. The file extracts to a temporary directory and then the main setup screen appears.

2. Read and accept the license agreement. Then click **Install** to open the installation screen.
3. Once the installation finishes, the final screen appears.
4. Click **Finish** to close the installation program.

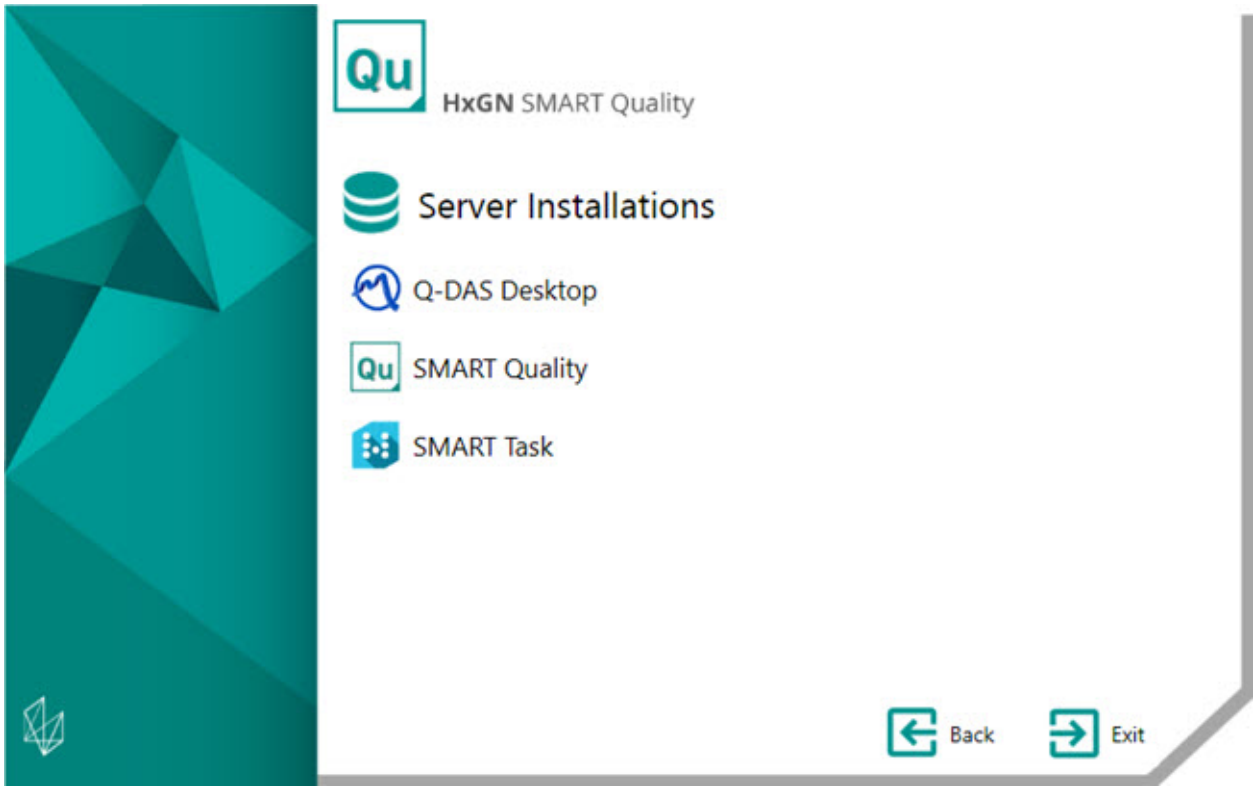
Install Adobe Reader XI

This installer lets you install Adobe Reader XI to view PDF reports in HxGN SMART Quality. If you already have PDF Reader or don't have any PDF reports, then you don't need Adobe Reader XI.

1. From the main installation screen, double-click **Adobe Reader XI** to begin the installation process.
2. The main setup screen then appears. You can use the **Change Destination Folder** box to specify a different destination folder.
3. Click **Next** to open the install updates screen.
4. From the install updates screen, select the appropriate option for your security updates:
    - **Install updates automatically (recommended)** - This option automatically installs any periodical security updates and enhancement updates from Adobe.
    - **Download updates for me, but let me choose when to install them** - This option automatically downloads the updates but does not install them. Once the updates are downloaded, you can install them from the notification area.
    - **Notify me, but let me choose when to download and install updates** - This option provides a notification in the notification area to download and install the updates.
    - **Manually check for and install updates (not recommended)** - This option does not download, install, or provide notification. You need to manually check for the updates.
5. Click **Install** to open the installation screen.
6. Once the installation finishes, the final screen appears.

7. Click **Finish** to close the installation program.

Step 3: Server Installations



Q-DAS Desktop - This option installs the Q-DAS Desktop application.

SMART Quality - This option installs these components that make up the HxGN SMART Quality server:

- Application Server and IIS
- Data Server
- Pulse Broker
- Q-DAS Web

The installer also configures the SMART Quality application. The configuration includes creating sites.

The SQL server cannot create a database if the database server and the SMART Quality server exist on separate computers. To resolve this issue, see "Install SMART Quality Database".

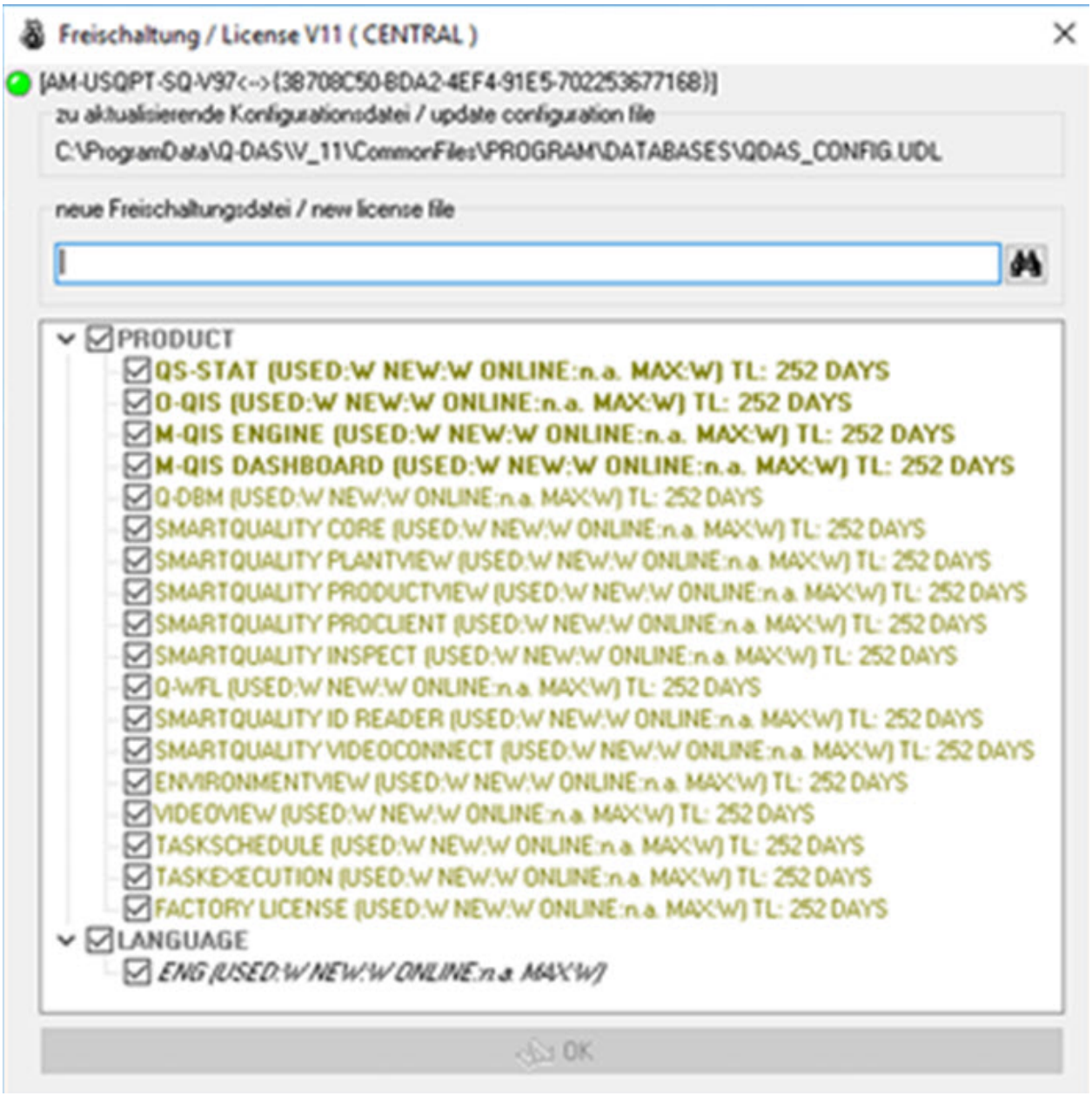
SMART Task - This option installs the SMART Task application.

Install Q-DAS Desktop

For detailed instructions on this installation, see the "Q-DAS Readme.pdf" file. To open the Readme, see the "Readme" topic.

To install SMART Quality components, in the **Frieschaltung** (Activation) dialog box, from the **Product** list, select the SMART Quality features that you need. The available SMART Quality options are those that start with **SMART QUALITY CORE** and go through the end of the list.

Step 3: Server Installations



Requirements:

- To see the **QS-STAT** tab in SMART Quality, you need a QS-STAT license.
- To use the Upload tool that connects to a Q-DAS database, you need a Q-DBM license.

Install SMART Quality

Install the SMART Quality Server

This option installs these components that make up the HxGN SMART Quality server:

- Phase 1: Install Additional Softwares
- Phase 2: Install SMART Quality (web application)
- Phase 3: SMART Quality Configuration

During the installation, the main SMART Quality setup application has a progress bar that shows the overall progress. For phase 2, the SMART Quality setup opens other setup applications with their own progress bars. For phase 3, configuration screens appear.

Phase 1: Install Additional Software

This phase starts the installation of the HxGN SMART Quality server. In this first part of the installation, it installs this additional software:

- **Application Server and IIS** - The Application Server installation process provides an option to add web server support. This option installs the Internet Information Services (IIS) web server that is built into Windows Server 2012.

The Application Server installs only on Windows Server 2012. If you don't have Windows Server 2012 operating system, you need to manually update the Windows features. For information on how to update the Windows features, see "Enable Internet Information Services.

- **Data Server** - The Central DataServer lets a factory access all the measurement and environmental data from one database.
- **Pulse Broker** - The Pulse Broker is a Windows service that records environmental data and saves it in the DataServer database. All CMMs in a factory with a Pulse hardware installation send environmental data. Pulse sends data about the local environment such as temperature, humidity, and vibration to

the local SMART Quality server. The Pulse Broker records and saves this information for future analysis.

To view the data immediately, you can use the **Pulse** tab in SMART Quality.

To do advanced statistical analysis, you can use Q-DAS.

- **Q-DAS Web** - The Q-DAS Web application generates both textual statistical reports and chart statistical reports to analyze measurement results.

To install the additional software, follow these steps:

1. From the main installation screen, double-click **SMART Quality** to begin the installation process.
2. Read and accept the license agreement. Then click **Next** to open the **Install Additional Software** screen.
3. Select the check boxes for the additional software that you want to install.
4. Click **Install** to start the installation.
5. When the installation finishes, the installer immediately opens the Q-DAS Web Setup Wizard. Click **Next** to open the **End-User License Agreement** screen.
6. Read and accept the license agreement. Then click **Next** to open the **Select Installation Address** screen.

   From the **Site** list, keep the default of **Default Web Site**.

   In the **Virtual directory** box, specify a directory name that contains your Q-DAS Web files. The default directory is QDasWeb.
7. Click **Next** to open the **Destination Folder** screen. You can also change the installation folder.
8. Once the installation has all the information it needs, the **Ready to install Q-DAS Web** screen appears.
9. Click **Install** to start the installation. When the installation finishes, the final screen appears.
10. Click **Finish** to close this wizard. The SMART Quality (web application) setup program then opens (see Phase 2).

Phase 2: Install SMART Quality (web application)

This phase continues the installation of the HxGN SMART Quality server. It installs SMART Quality (web application).

1. The installer immediately opens the SMART Quality Setup Wizard. Click **Next** to open the **End-User License Agreement** screen.
2. Read and accept the license agreement. Then click **Next** to open the **Select Installation Address** screen.

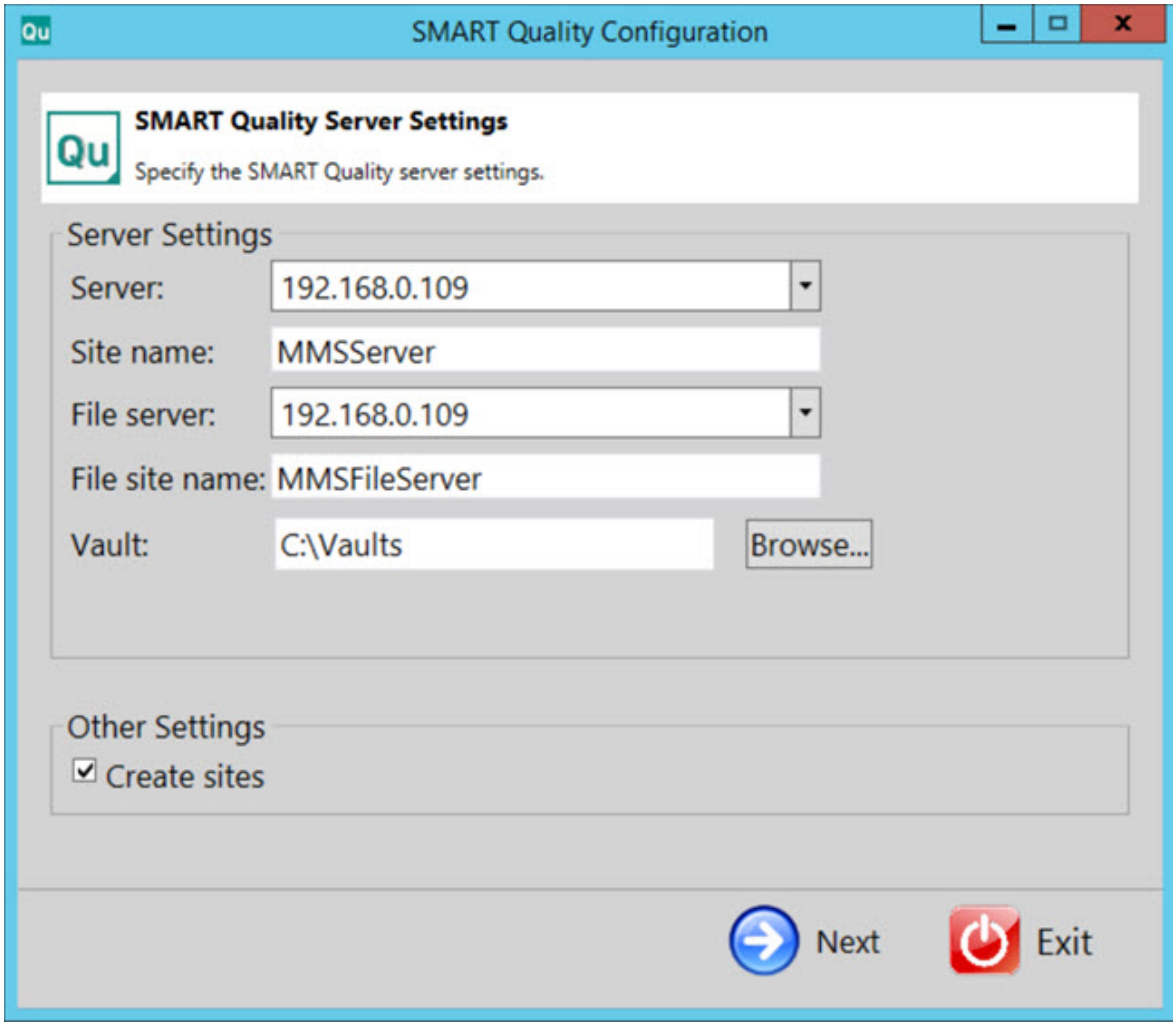
   From the **Site** list, keep the default of **Default Web Site**.

   In the **Virtual directory** box, you can specify a directory name that contains your SMART Quality files. The default value is SmartQuality.
3. Click **Next** to open the **Destination Folder** screen. You can also change the installation folder.
4. Once the installation has all the information it needs, the **Ready to install SMART Quality** screen appears.
5. Click **Install**. When the installation finishes, the final screen appears.
6. Click **Finish** to close the SMART Quality (web application) installation program.
7. The SMART Quality server installation screen appears with the installation results. If any errors are detected or necessary component aren't installed, this screen shows those results.
8. Click **Close** on the main SMART Quality server installation screen. The SMART Quality Configuration screen then opens (see Phase 3).

Phase 3: SMART Quality Configuration

The HxGN SMART Quality server installation is now done. This phase configures the SMART Quality settings and the SQL Server or Oracle database. It also creates websites for SMART Quality.

1. The **SMART Quality Configuration** screen appears:



Server Settings - Configure the following options to define the server:

Server - Type or select your server's name or Internet Protocol (IP) address.

Site name - Type the server's site name.

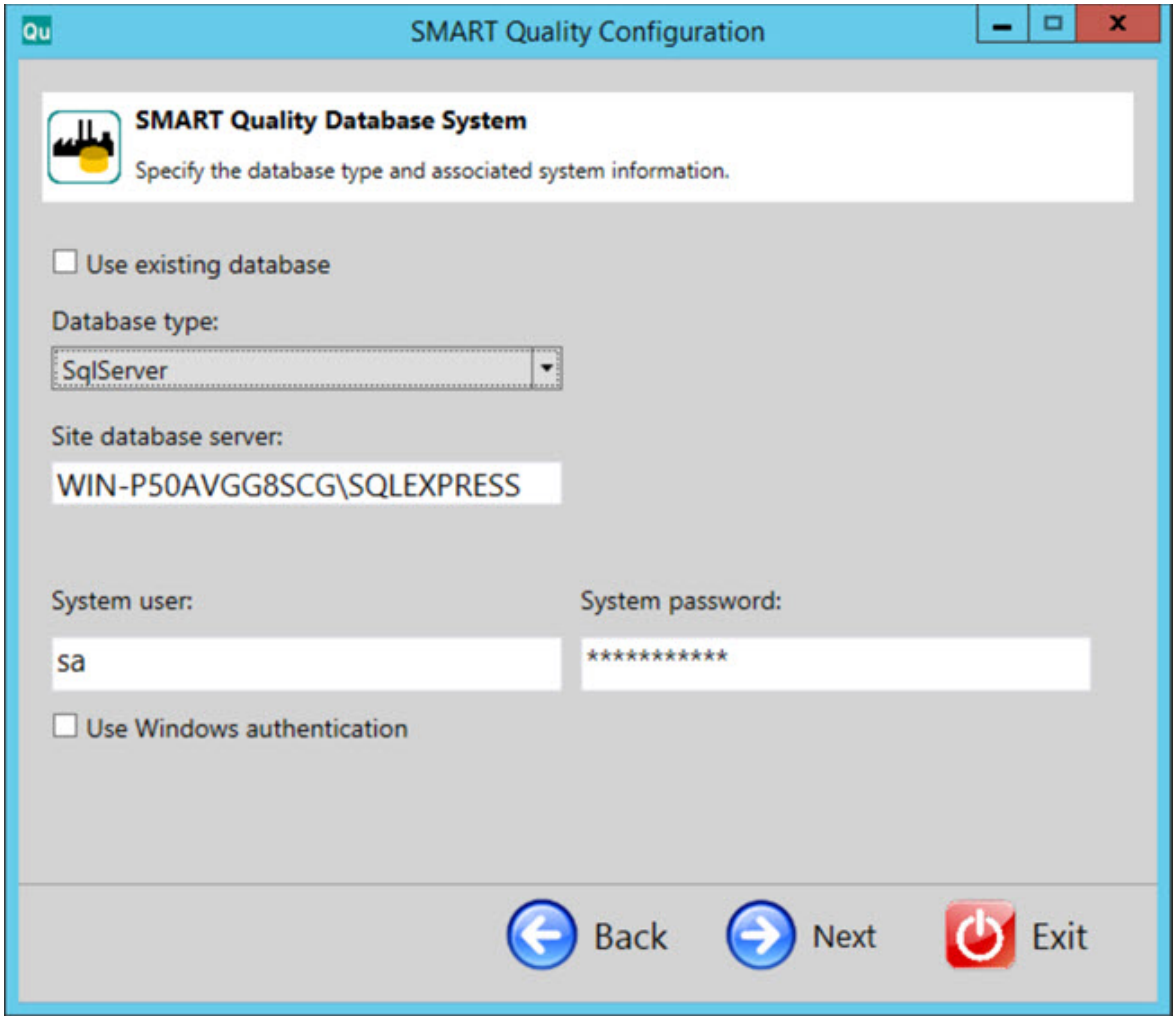
File server - Type or select your file server's name or IP address.

File site name - Type the file server's site name.

Vault - This option sets the vault folder. The default is C:\Vaults.

Create sites - Select this check box to create additional sites for SMART Quality.

2. Click **Next** to open the **SMART Quality Database System** screen:



Use existing database - Select this check box to use the current database.

Database type - From the list, select the type of database: **Oracle** or **SqlServer**.

For the rest of this procedure, items in blue refer specifically to SQL Server. Items in reddish brown refer to Oracle. Items in black are common to both. The screen images are from SQL Server.

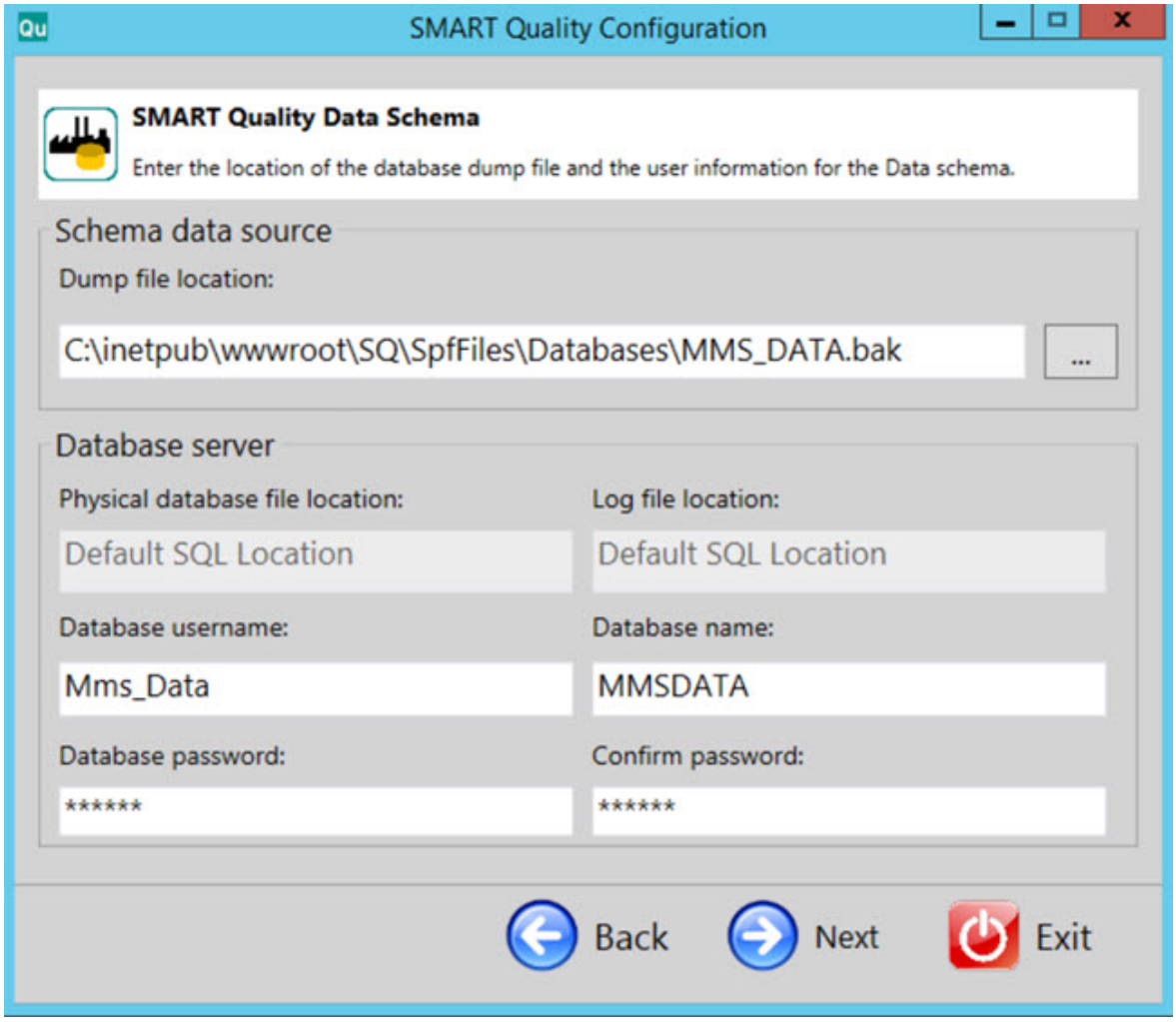
Site database server / Oracle Alias - Type the name of the database server.

System user - This box is not available if you select the **Use existing database** or **Use Windows authentication** check box. You can type your computer user name in the box.

System password - This box is not available if you select the **Use existing database** or **Use Windows authentication** check box. You can type your computer password in the box.

Use Windows authentication - Select this check box to use the Windows user name and password.

3. Click **Next** to open the **SMART Quality Data Schema** screen:



Dump file location - Select the directory to store the dump files of the Oracle database.

Physical database file location - Type the directory of the database.

Log file location - Type the directory of the log file.

Oracle tablespace - From the list, select the tablespace to store your database's data.

Oracle temp tablespace - From the list, select the tablespace to manage the space for database sort operations and storing global temporary variables.

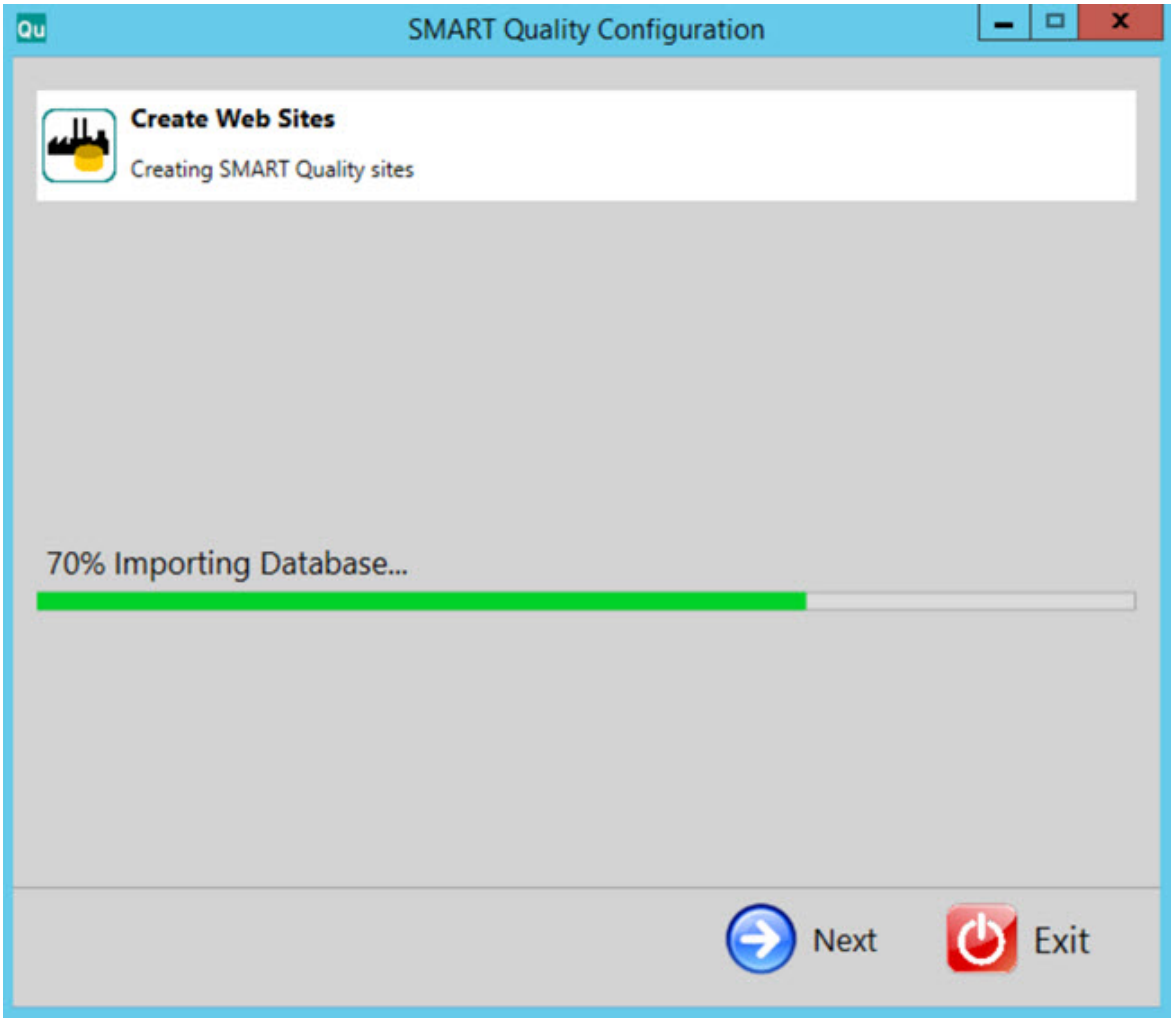
Database username - Type the user name for your database.

Database name - Type the name of the database.

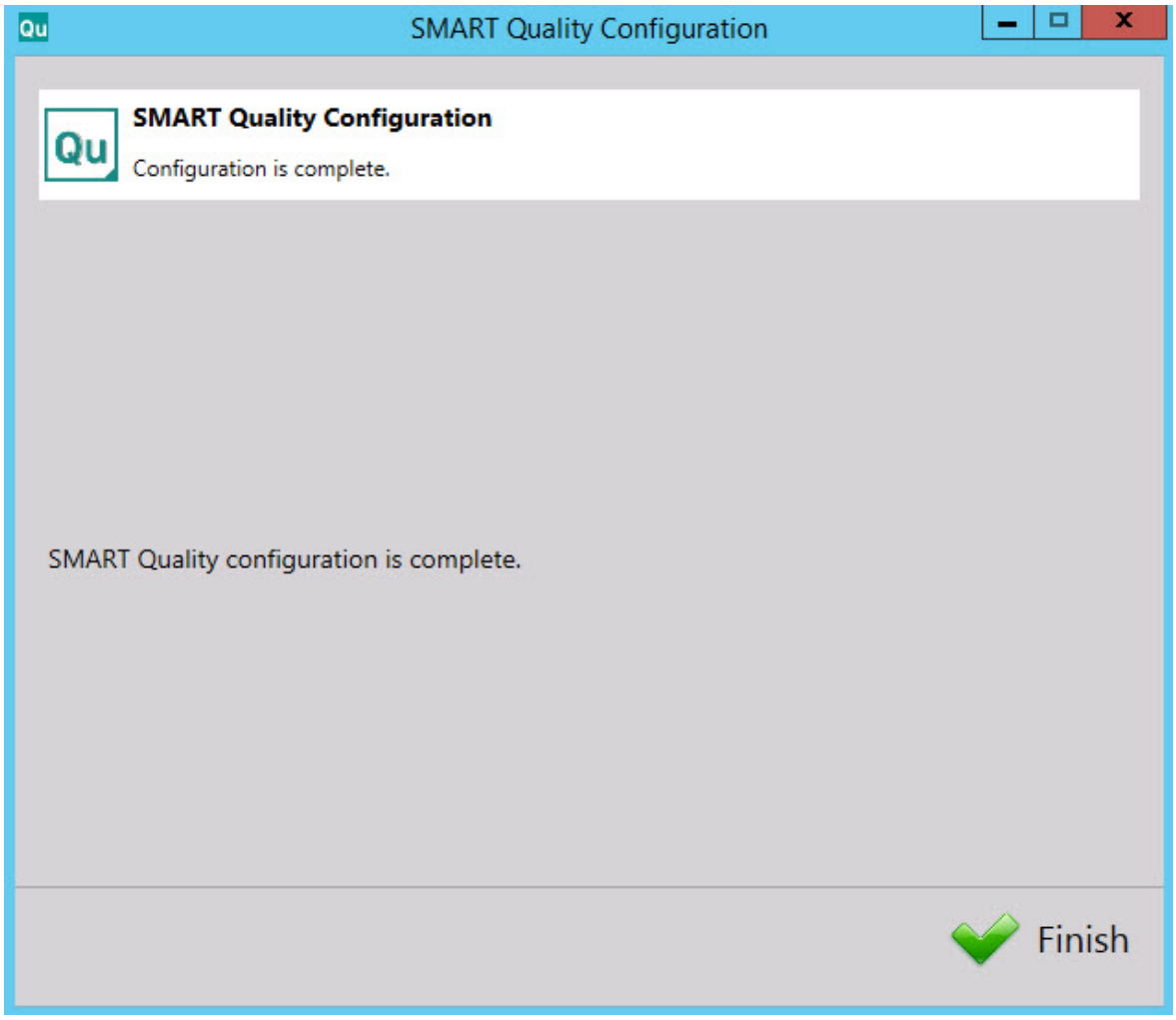
Database password - Type the password for your database.

Confirm password - Retype your password for confirmation.

4. Click **Next** to create the SMART Quality sites.



5. After the websites have been created, click **Next** to open the final screen.



6. Click **Finish** to close the configuration wizard. This step completes the SMART Quality server installation.

Install SMART Task

1. From the main installation screen, double-click **SMART Task** to begin the installation process.
2. Click **Next** to open the **End-User License Agreement** screen.
3. Read and accept the license agreement. Then click **Next** to open the **Select Installation Address** screen.

   From the **Site** list, keep the default of **Default Web Site**.

   In the **Virtual directory** box, specify a directory name that contains your SMART Task files. The default directory is SmartTask.

4. Click **Next** to open the **Destination Folder** screen. You can also change the installation folder.
5. Once the installation has all the information it needs, the **Ready to install SMART Task** screen appears.
6. Click **Install**. When the installation finishes, this final screen appears.
7. Click **Finish** to close this wizard.

Separately

Install HxGN SMART Quality Database

This installer is useful when you only want to install the HxGN SMART Quality database and not the SMART Quality websites (the SMART Quality application server). This installer create a database that contains tablespaces, users, and tables for SPF and DataServer. This also installs HxGN SMART Quality Database in Database Server.

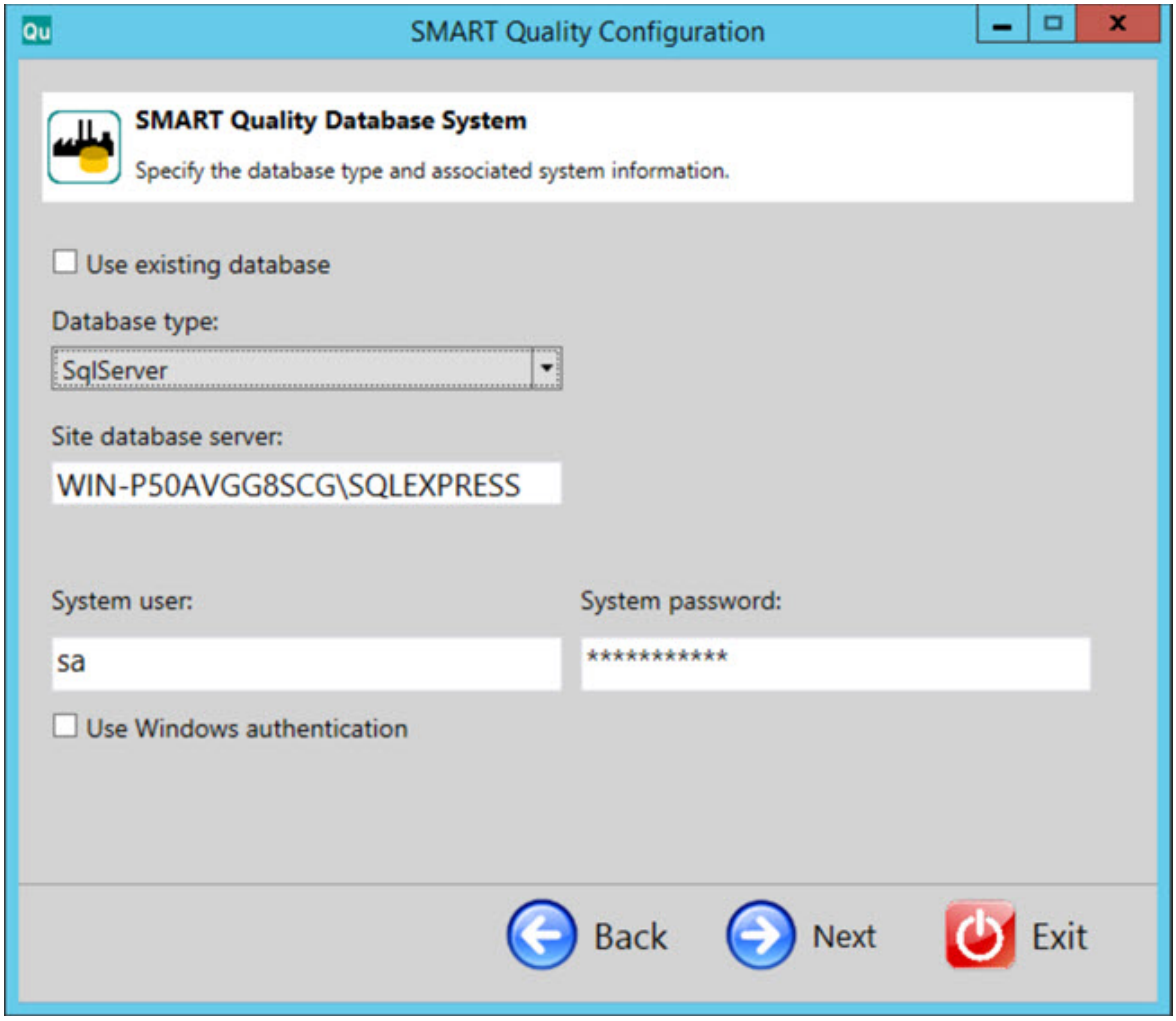
If you want to configure the HxGN SMART Quality settings, configure the Microsoft SQL Server data management software or Oracle database, and create websites for SMART Quality, see "Phase 4: SMART Quality Configuration".

If you only want to install the SMART Quality database (the SQL Server or Oracle database) for SPF and DataServer, you can follow this procedure:

1. Locate the installation file on your installation media; or, if you downloaded the file, open the directory that contains the downloaded file. The installation file looks like this:

   SetupDatabaseForSQ_Release_#.#.###.exe

   Where the # symbols represent the specific version numbers.
2. The **SMART Quality Database System** screen opens:



Use existing database - Select this check box to use the current database.

Database type - From the list, select the type of database: **Oracle** or **SqlServer**.

For the rest of this procedure, items in blue refer specifically to SQL Server. Items in reddish brown refer to Oracle. Items in black are common to both. The screen images are from SQL Server.

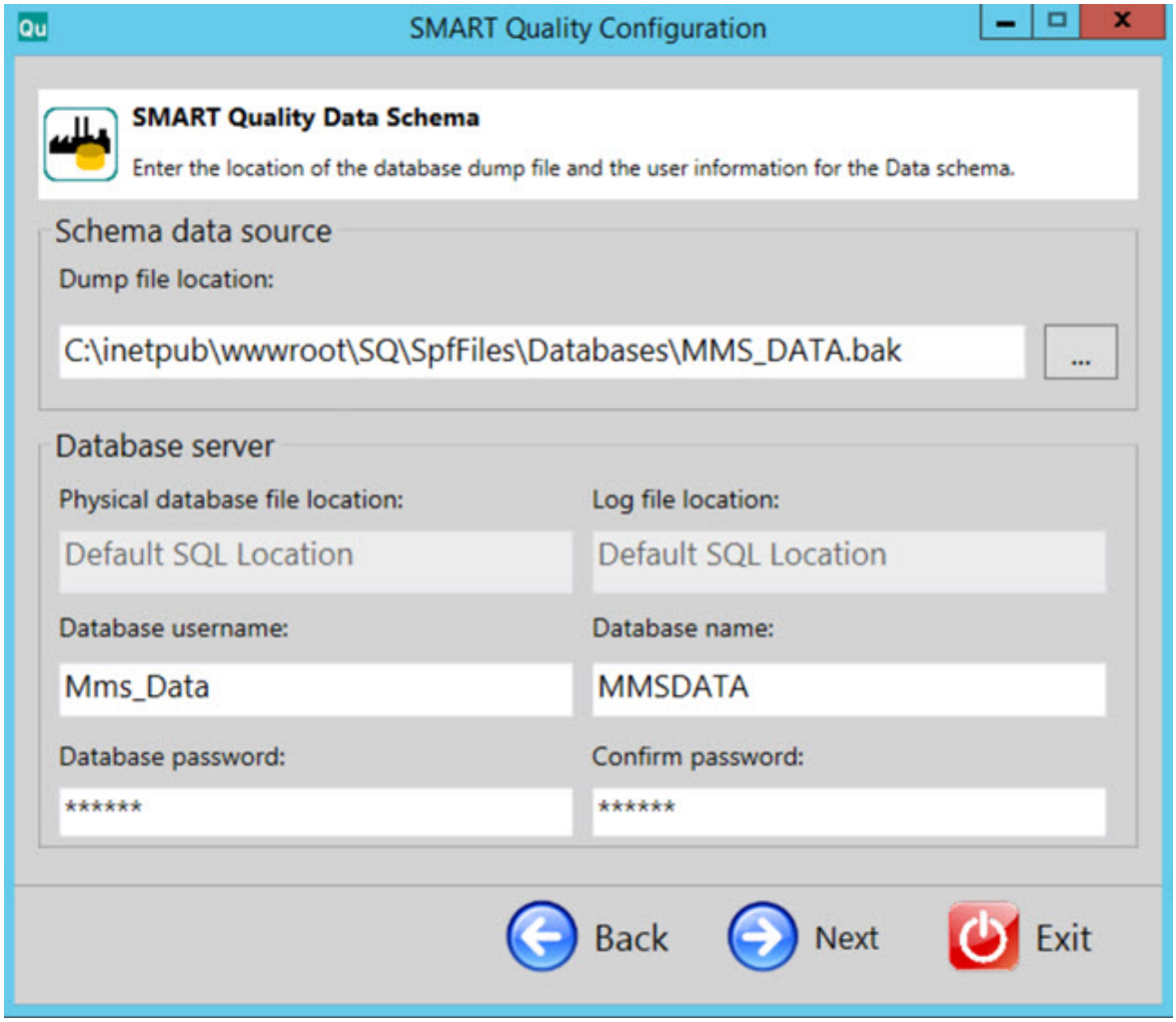
Site database server / Oracle Alias - Type the name of the database server.

System user - This box is not available if you select the **Use existing database** or **Use Windows authentication** check box. You can type your computer user name in the box.

System password - This box is not available if you select the **Use existing database** or **Use Windows authentication** check box. You can type your computer password in the box.

Use Windows authentication - Select this check box to use the Windows user name and password.

3. Click **Next** to open the **SMART Quality Data Schema** screen.



Dump file location - Select the directory to store the dump files of the Oracle database.

Physical database file location - Type the directory of the database.

Log file location - Type the directory of the log file.

Oracle tablespace - From the list, select the tablespace to store your database's data.

Oracle temp tablespace - From the list, select the tablespace to manage the space for database sort operations and storing global temporary variables.

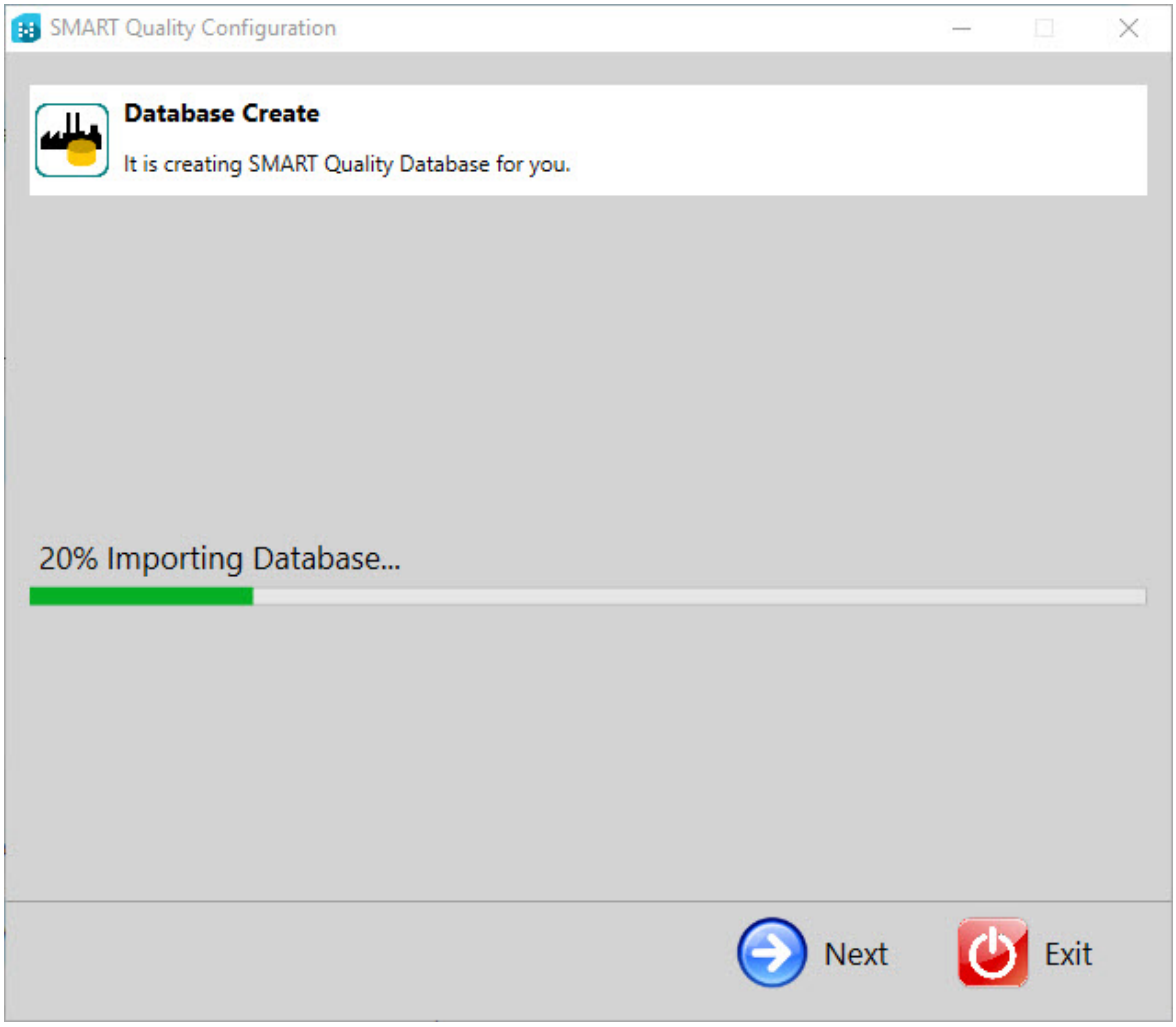
Database username - Type the user name for your database.

Database name - Type the name of the database.

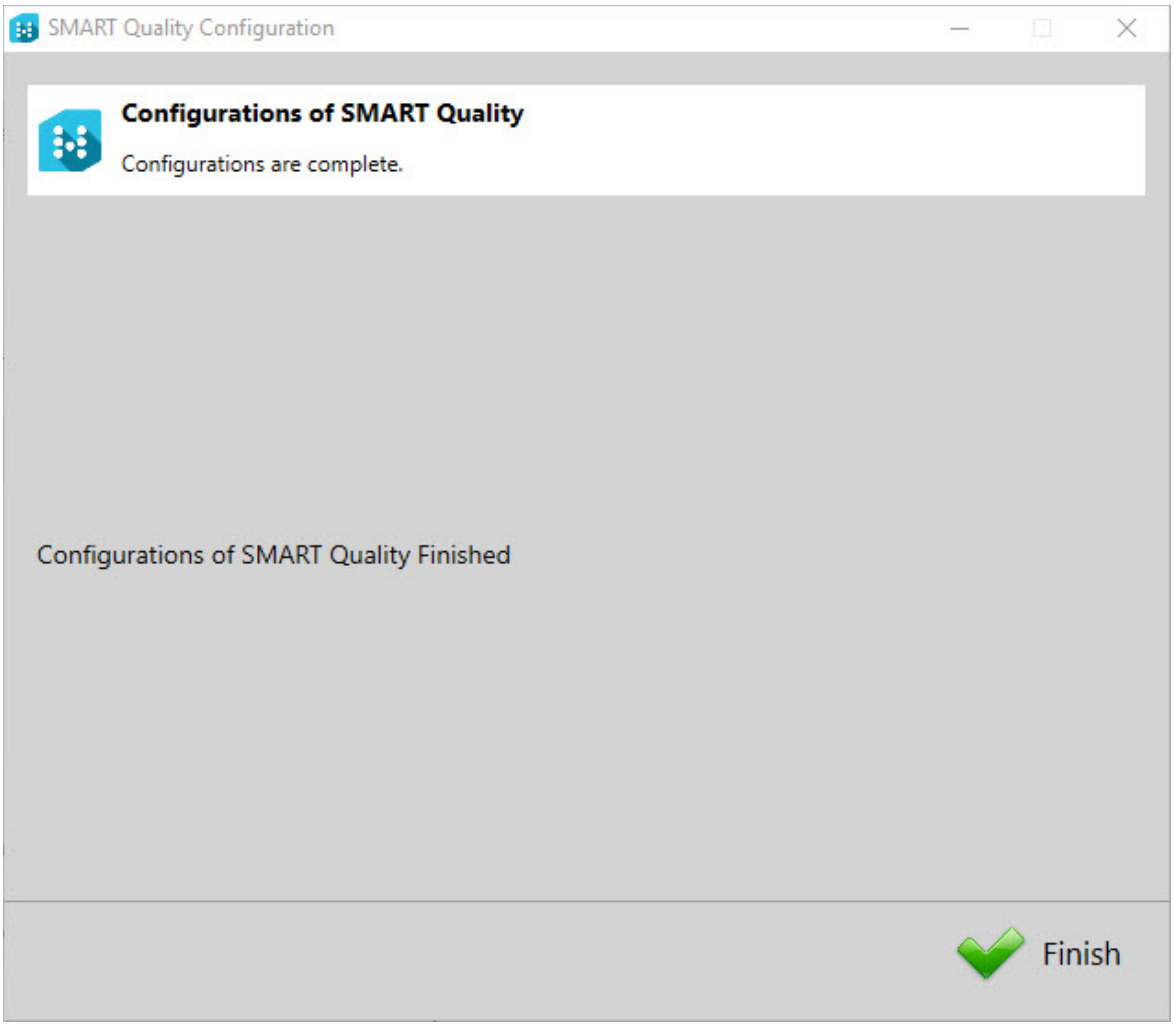
Database password - Type the password for your database.

Confirm password - Retype your password for confirmation.

4. Click **Next** to create the database.



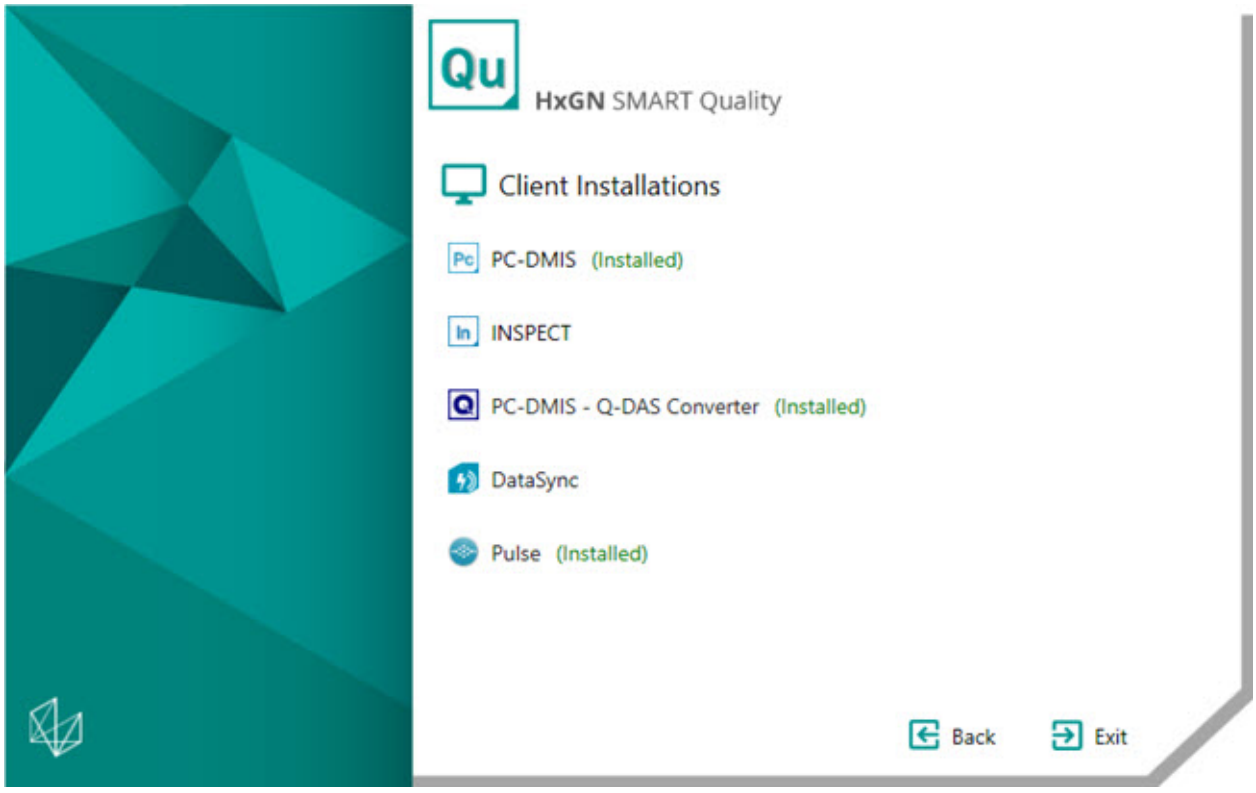
5. After the database has been created, click **Next** to open the final screen.



6. Click **Finish** to close the configuration wizard. This step completes the SMART Quality database installation.

Step 4: Client Installations

Before you proceed to the client installations, complete the server installations.



PC-DMIS - This option installs the PC-DMIS 2018.0 R2 version of the application.

Inspect - This option installs the Inspect 4.0 application. Inspect can work with any version of PC-DMIS since version 4.3.

PC-DMIS - Q-DAS Converter - This option installs the PC-DMIS to Q-DAS Converter.

DataSync - This option installs the DataSync service.

PULSE - This option installs the Pulse Desktop application.

Install PC-DMIS 2018.0 R2

For detailed instructions on this installation, see "PC-DMIS_Readme.pdf". To open this pdf, see the "Readme" topic.

Install Inspect 4.0

1. From the main installation screen, double-click **Inspect** to begin the installation process. The file extracts to a temporary directory and then the main setup screen appears.
2. On the main screen, read and accept the license agreement. You can also change the installation folder.
3. Click **Install** to start the installation to the defined installation directory.
4. Once HxGN SMART Quality installs the needed files and shortcuts, the **Installation complete** screen becomes available. From this screen, you can choose these items:
    - **Launch Inspect** - To launch the application once you click **Close**, select this check box.
    - **Show Release Notes** - To display a .pdf that shows what is new or has changed in this release once you click **Close**, select this check box.
5. Click **Close** to close the installation program.

Install PC-DMIS - Q-DAS Converter

This tool measures a measurement routine and converts the results into a Q-DAS (.dfq) format.

1. From the main installation screen, double-click **PC-DMIS - QDAS Converter** to begin the installation process.
2. From the list, select the language, and click **OK**. The **PC-DMIS - Q-DAS Converter Setup Wizard** opens.
3. Click **Next** to open the **License Agreement** screen.
4. Read and accept the license agreement. Then, click **Next** to open the **Choose Components** screen.
5. Clear the check boxes for the components you don't need. Then, click **Next** to open the **Choose Install Location** screen. You can change the installation folder.
6. Click **Install**. When the installation finishes, the final screen appears.

7. Click **Finish** to close this wizard.

Install DataSync

The DataSync service migrates measurement data from a local 360 SIMS DataServer (1.x) system to a central HxGN SMART Quality DataServer. The service migrates Coreview Feature/Dimension data and CTO/CTN surface analysis data for the Video of the Day (VOD) functionality. You can then view this data in the SMART Quality and Q-DAS software packages for advanced statistical analysis.

About DataSync Windows Service Prerequisites

Below are the prerequisites to install and implement the DataSync Windows Service:

- DataServer version 1.5.0 or higher for all database and service instances.
- The Local DataServer database must be installed on at least one local cell.
- An instance of the Local DataServer service with a connection string that points to the Local Database.
- In the ServiceOptions.config file, the Local DataServer service must have its CentralDataServer option set to "0" (zero) . For more information, see the "DataServer User Guide".
- An instance of the Central DataServer database must be installed on a separate computer.
- An instance of the Central DataServer Service with a connection string that points to the Central Database.
- In the ServiceOptions.config file, the Central DataServer Service must have the CentralDataServer option set to "1". For more information, see the "DataServer User Guide".

Installation Process

1. From the main installation screen, double-click **DataSync** to begin the installation process.
2. Read and accept the license agreement. You can also change the installation folder. Then click **Next** to open the DataSync Service settings screen.

Local DataServer Address - Type the local DataServer's address.

Central DataServer Address - Type the central DataServer's address.

3. Click **Test Connections**. This displays a valid connection message.
4. Click **OK** and then click **Install** to open the installation screen.
5. When the installation finishes and the final screen appears, click **Close** to close this wizard.

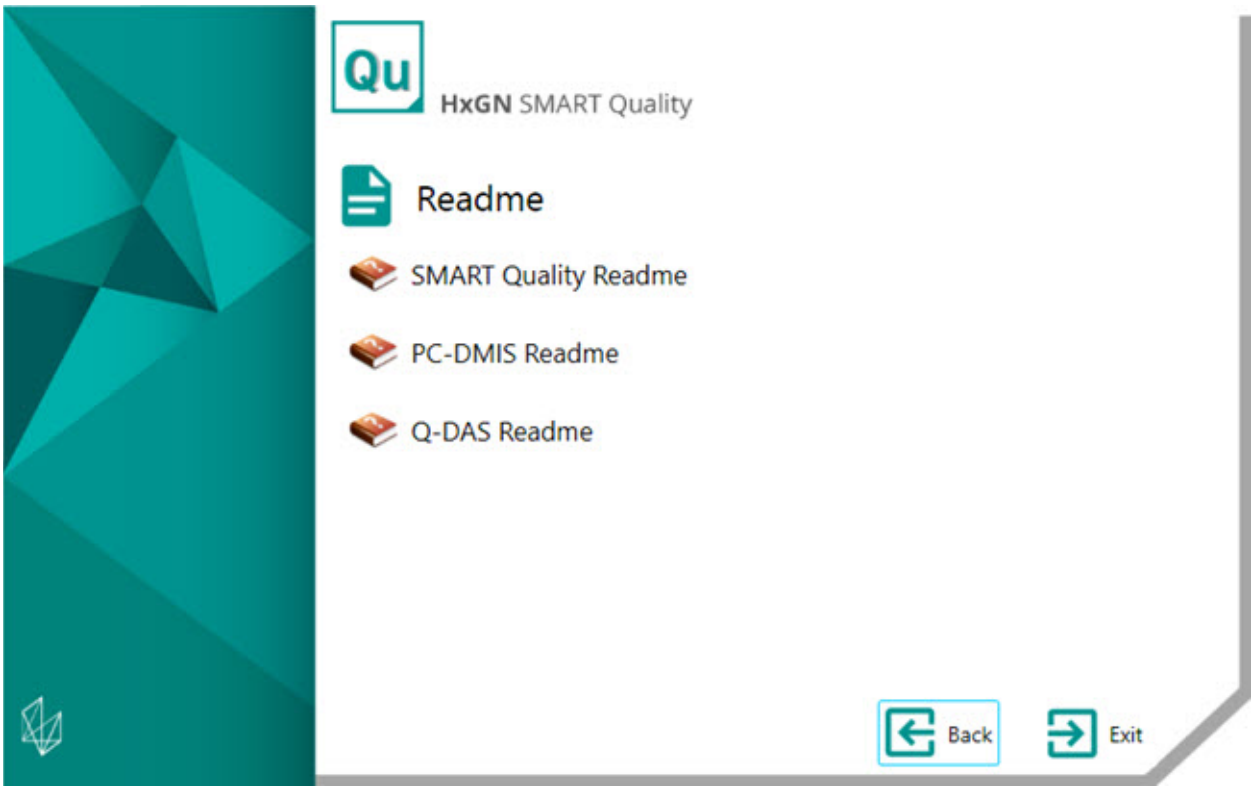
Install PULSE

1. From the main installation screen, double-click **PULSE** to begin the installation process. The main setup screen appears.
2. On the main screen, read and accept the license agreement. Click **Options** to change the installation folder.
3. Click **Install** to start the installation to the defined installation directory.
4. Once HxGN SMART Quality installs the needed files and shortcuts, the **Installation complete** screen becomes available. From this screen, you can choose these items:

Launch - To launch the application, click this button.

Close - To close the installation program, click this button.

Readme



SMART Quality Readme - This option opens the HxGN SMART Quality Readme.

PC-DMIS Readme - This option opens the PC-DMIS Readme.

Q-DAS Readme - This option opens the Q-DAS Readme.

Troubleshooting

Overview

If you have problems getting HxGN SMART Quality or any of the required software components to install or run properly, an internet options settings issue, or some other configuration issue.

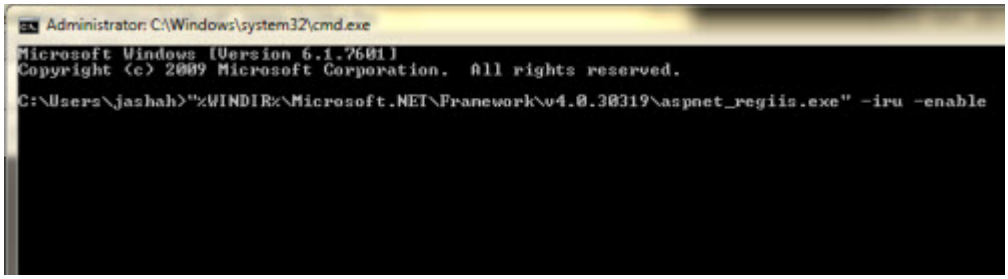
The following topics cover fixes for common errors you may encounter when connecting to the SMART Quality server and other useful procedures.

HTTP Error 500.19 or HTTP Error 500.21

Problem: Attempting to connect to the server gives a "HTTP Error 500.19" or "HTTP Error 500.21".

Solution: Follow the steps below:

1. Open a Command Prompt window. To do this, select **Start**, and then in the **Search programs and files** box type **Cmd** and press Enter.
2. At the command prompt, type **"%WINDIR%\Microsoft.NET\Framework\v4.0.30319\aspnet_regiis.exe" -iru** and then press Enter. This applies Microsoft .NET Framework 4 on IIS.



3. Restart your browser.
4. Access the http://[SMART Quality server host]/[SMART Quality site name]/ page again, where [SMART Quality server host] is the server's Internet Protocol (IP) address and SMART Quality site name is the name of the site.

SMART Quality Does Not Open Properly

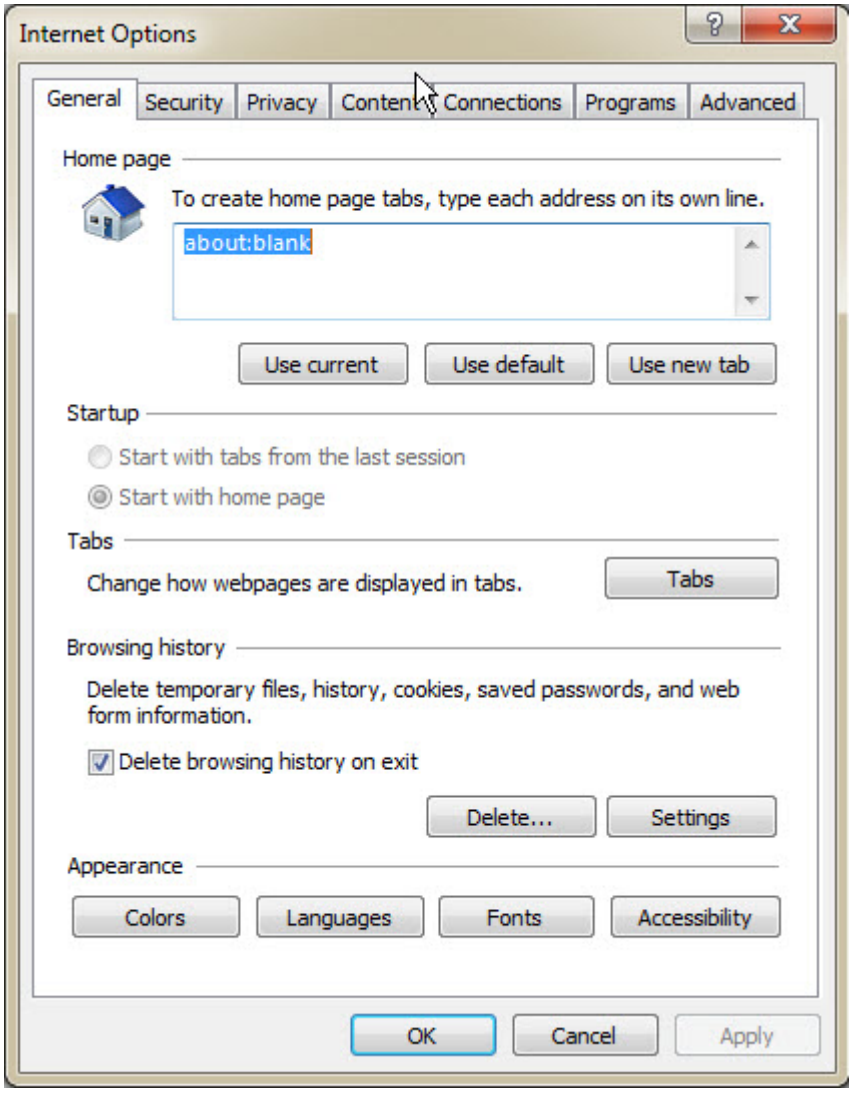
Problem: This can manifest itself in different ways. These can include:

- An error appears when you open HxGN SMART Quality
- A white screen appears with no data
- The sign in screen is off center and an error message appears.

Solution: If you see something like one of the above symptoms, from your browser, delete your temporary internet files.

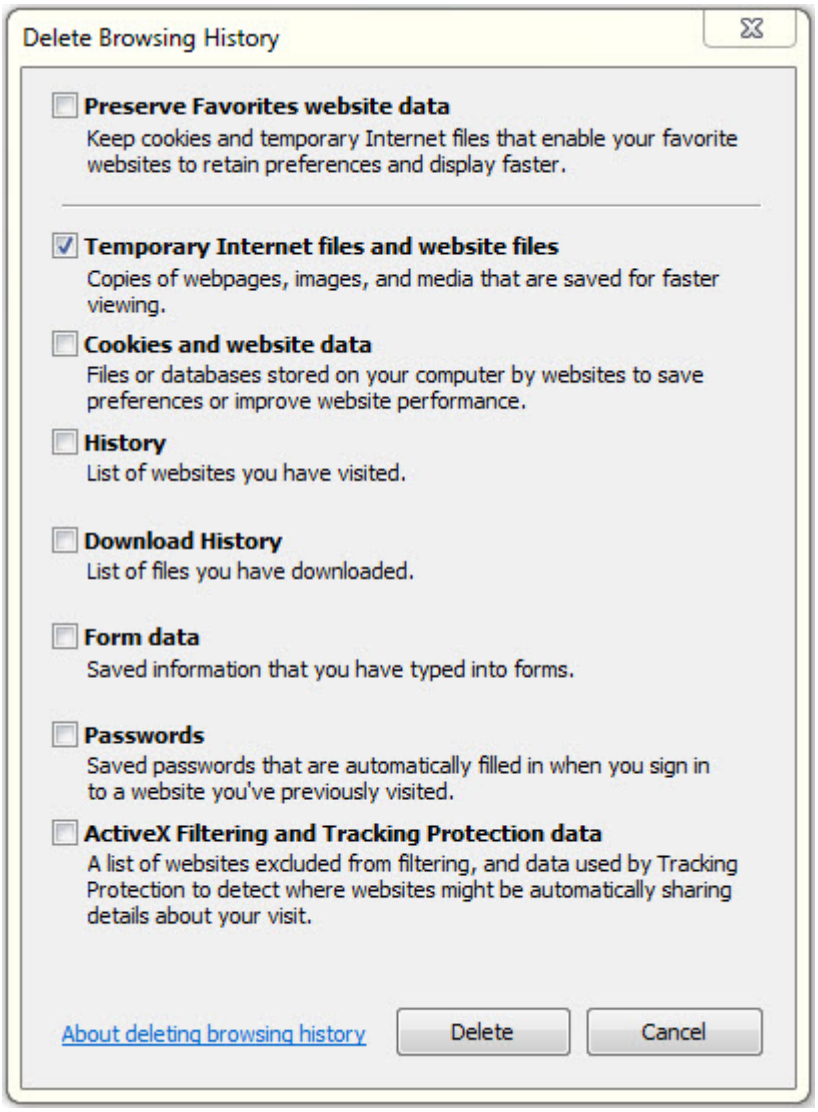
The procedure below is for Internet Explorer. If you don't use Internet explorer, search the Internet for how to do this same procedure in your browser:

1. From the **Tools** menu, click **Internet options** to open the **Internet Options** dialog box.



Internet Options dialog box

2. From the **Browsing history** area, click **Delete** to open the **Delete Browsing History** dialog box.



Delete Browsing History dialog box

3. Select **Temporary Internet files and website files**, and then click **Delete** to clear out the temporary files.
4. Access SMART Quality again.

Cannot Access the Help Because Pop-Ups Aren't Allowed

Problem: An error appears when you press F1 to open the online help.

Solution: If you press F1 and the online help does not appear, you need to change Internet Explorer settings to enable pop-ups from the online help.

When you press F1, the pop-up message appears. On the **Options** menu, you can select **Always allow pop-ups from this site**.

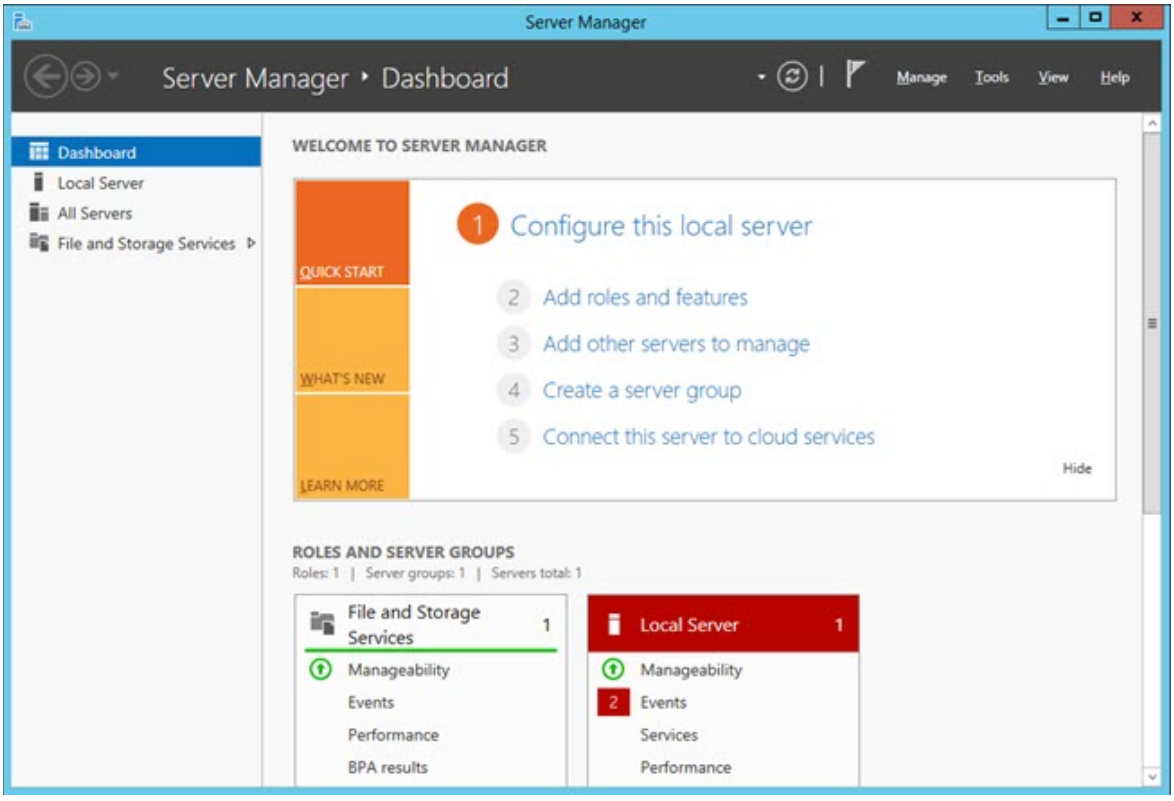
You can also change it from the Internet Explorer browser toolbar. On the **Tools** menu, point to **Pop-up Blocker**, and click **Always allow pop-ups from this site**.

Enable Internet Information Services

Problem: The Internet Information Services (IIS) web server is not installed appropriately in the Phase 1: Install Additional Softwares of the Step 3: Server Installations.

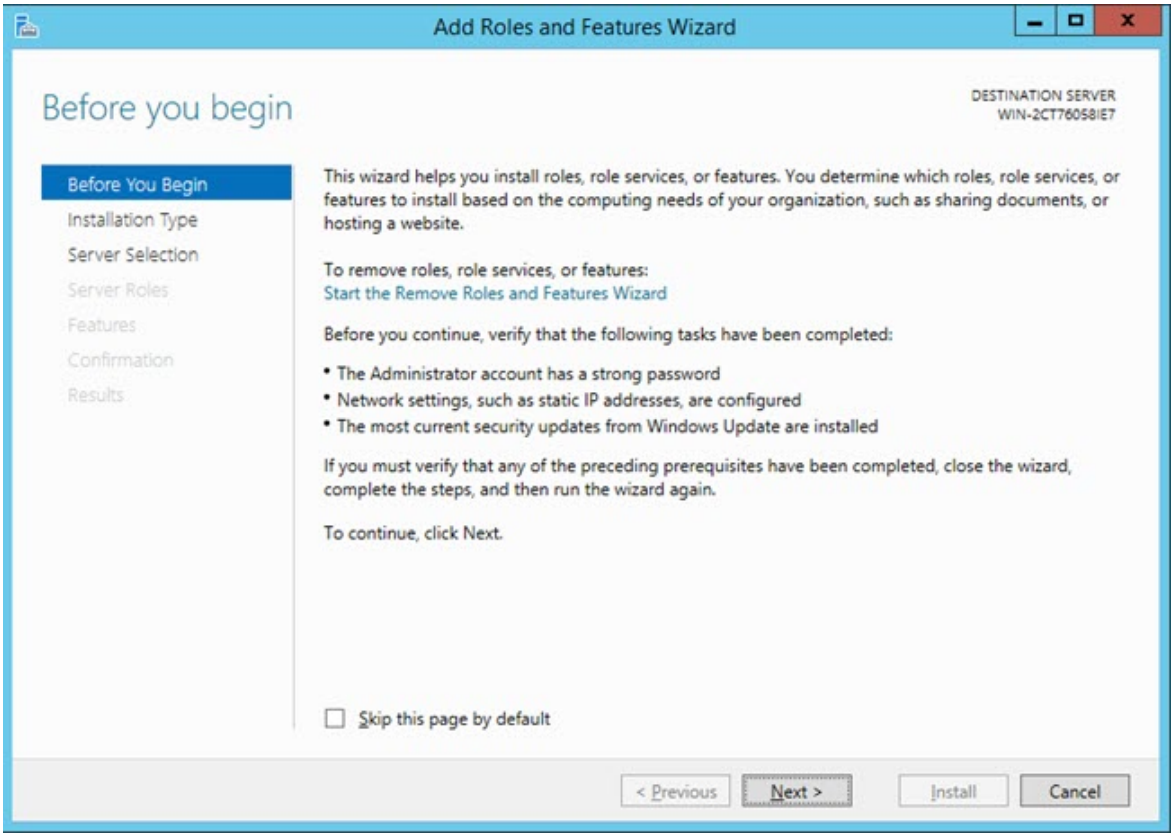
Solution: To install IIS manually, follow the steps below:

1. To open the **Server Manager** dialog box, click **Start** and then click **Server Manager**.

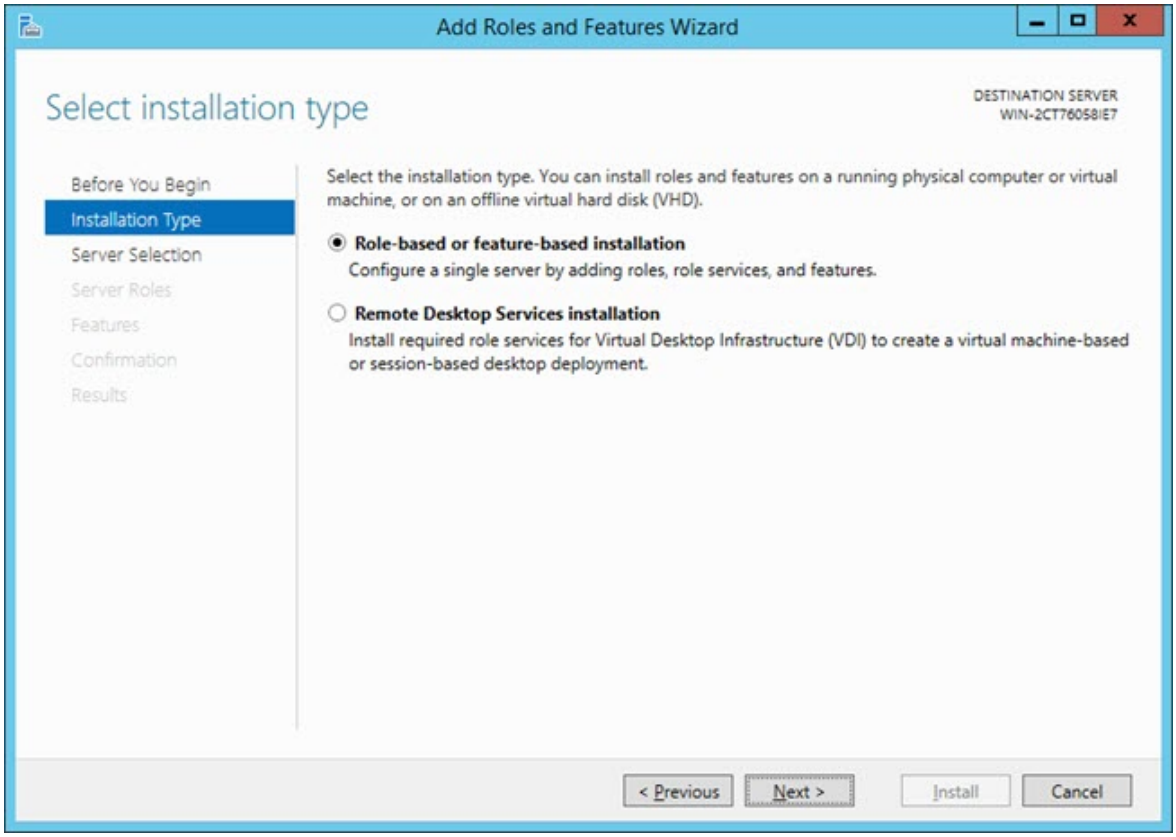


Server Manager dialog box

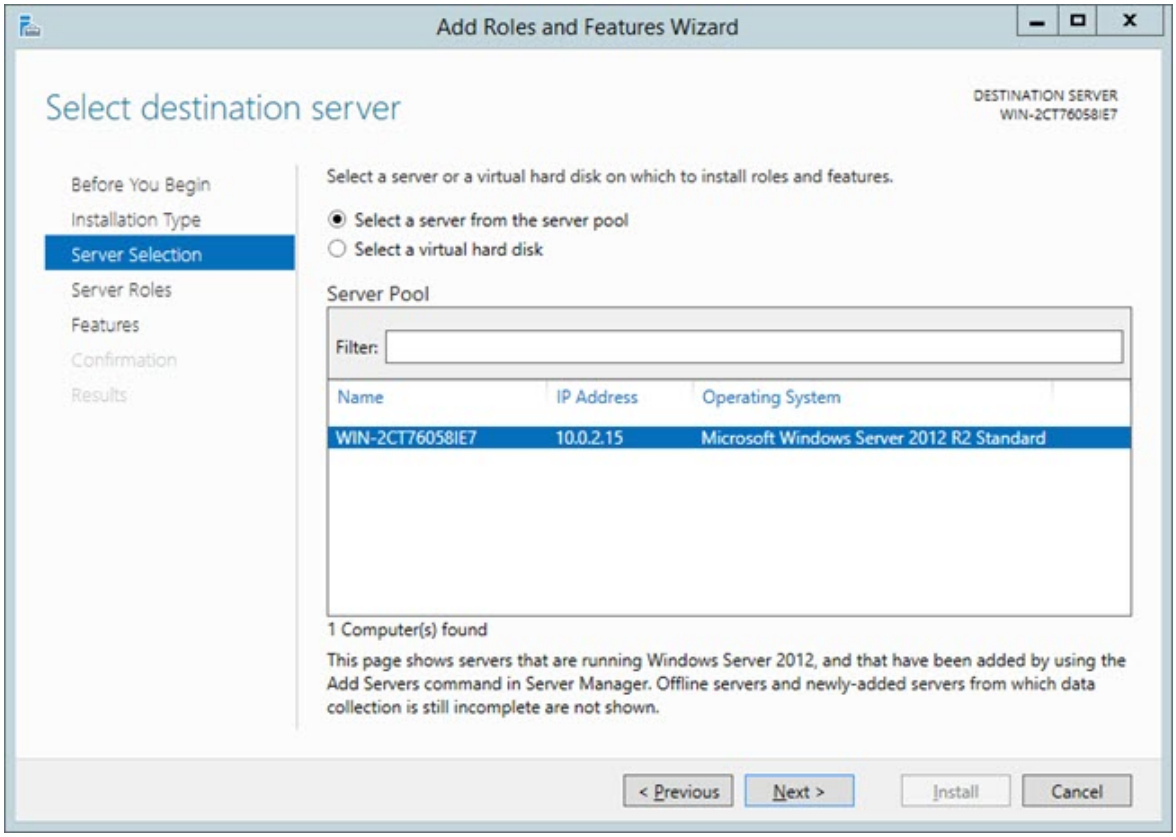
2. From the right pane, click **Add roles and features** to open the **Before you begin** screen on the **Add Roles and Features Wizard**.



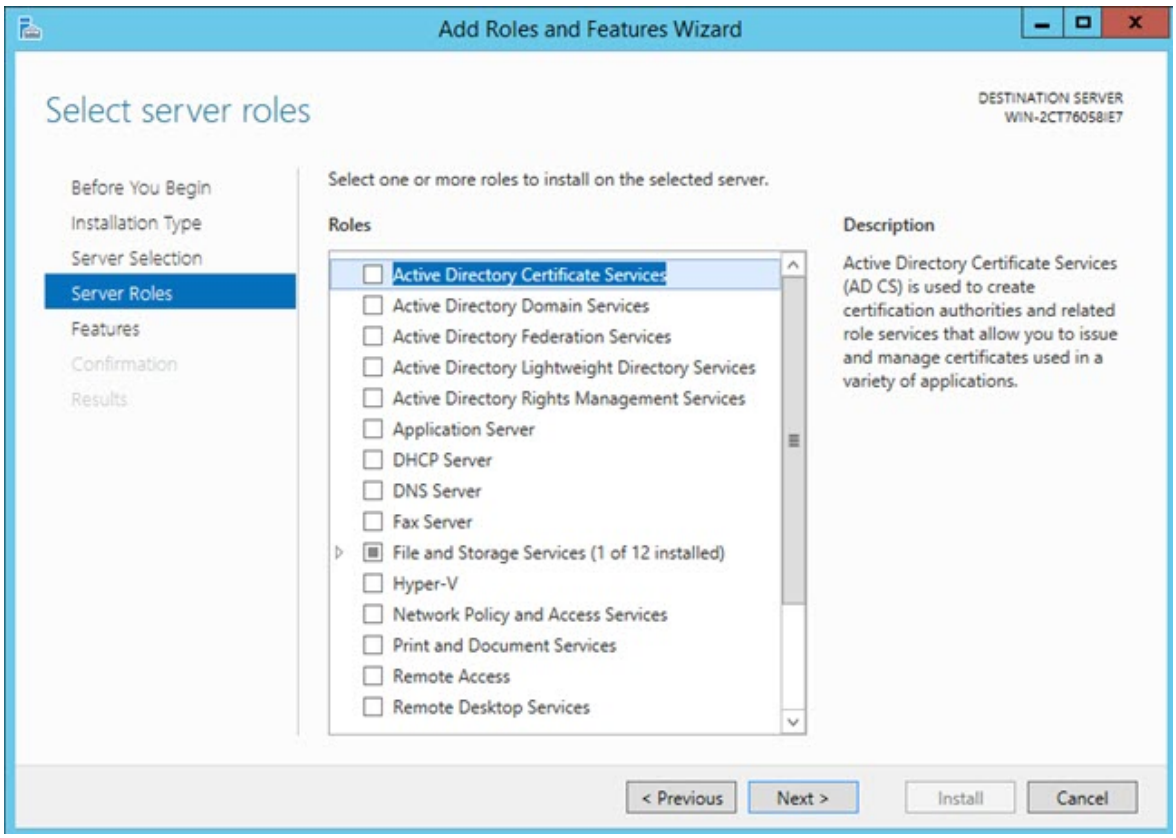
3. Click **Next** to open the **Select installation type** screen.



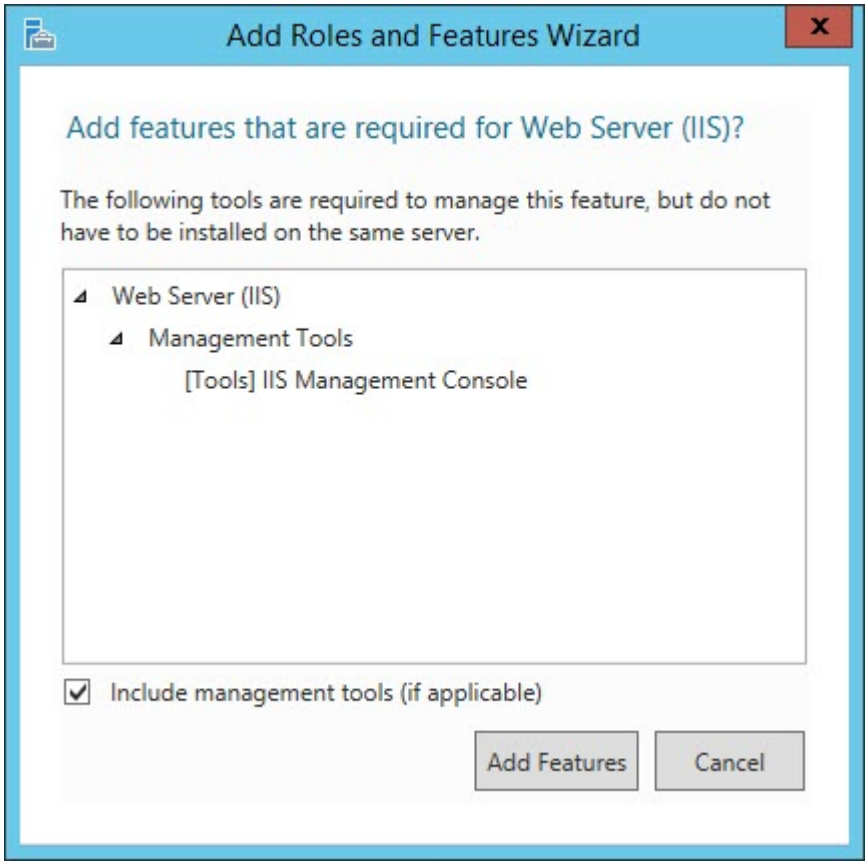
4. Make sure the **Role-based or feature-based installation** option is selected. Then click **Next** to open the **Select destination server** screen.



5. Make sure the **Select a server from the server pool** option is selected. Then click **Next** to open the **Select server roles** screen.

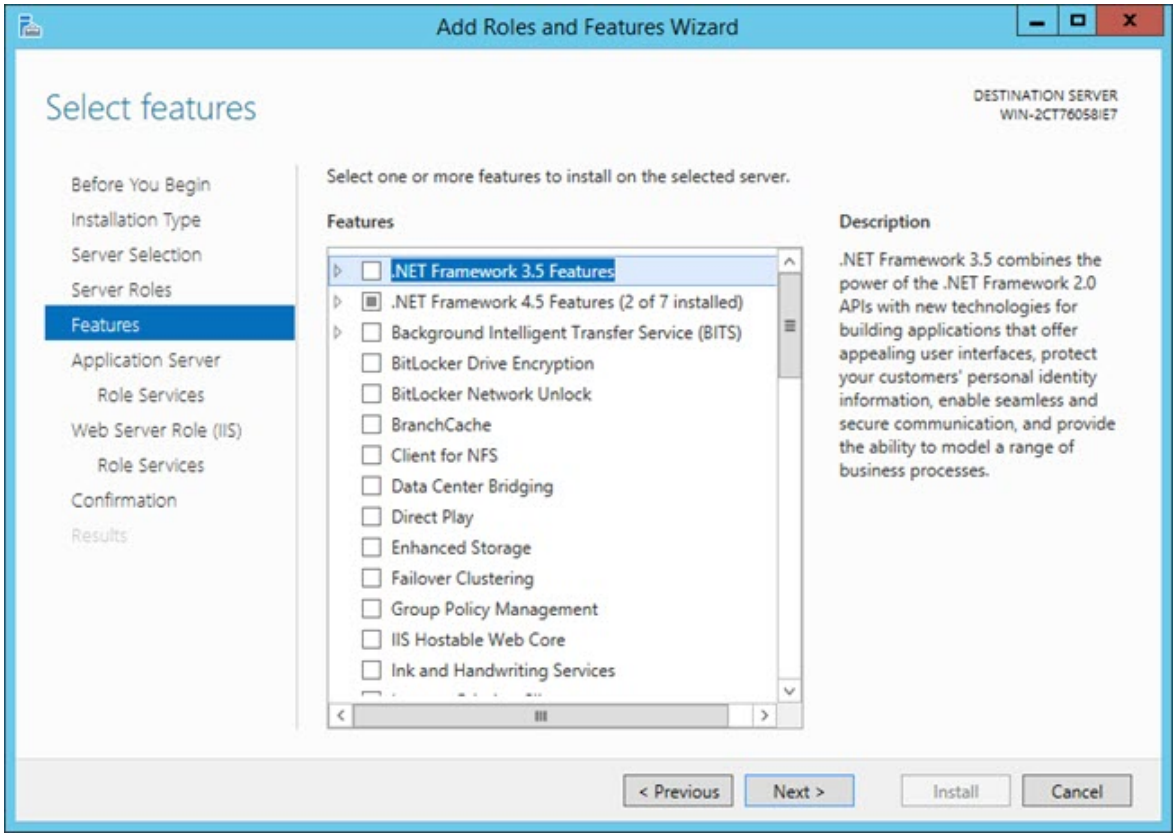


6. From the **Roles** list, select the **Application Server** check box.
7. Then select the **Web Server (IIS)** check box to open the **Add features that are required for Web Server (IIS)** dialog box.



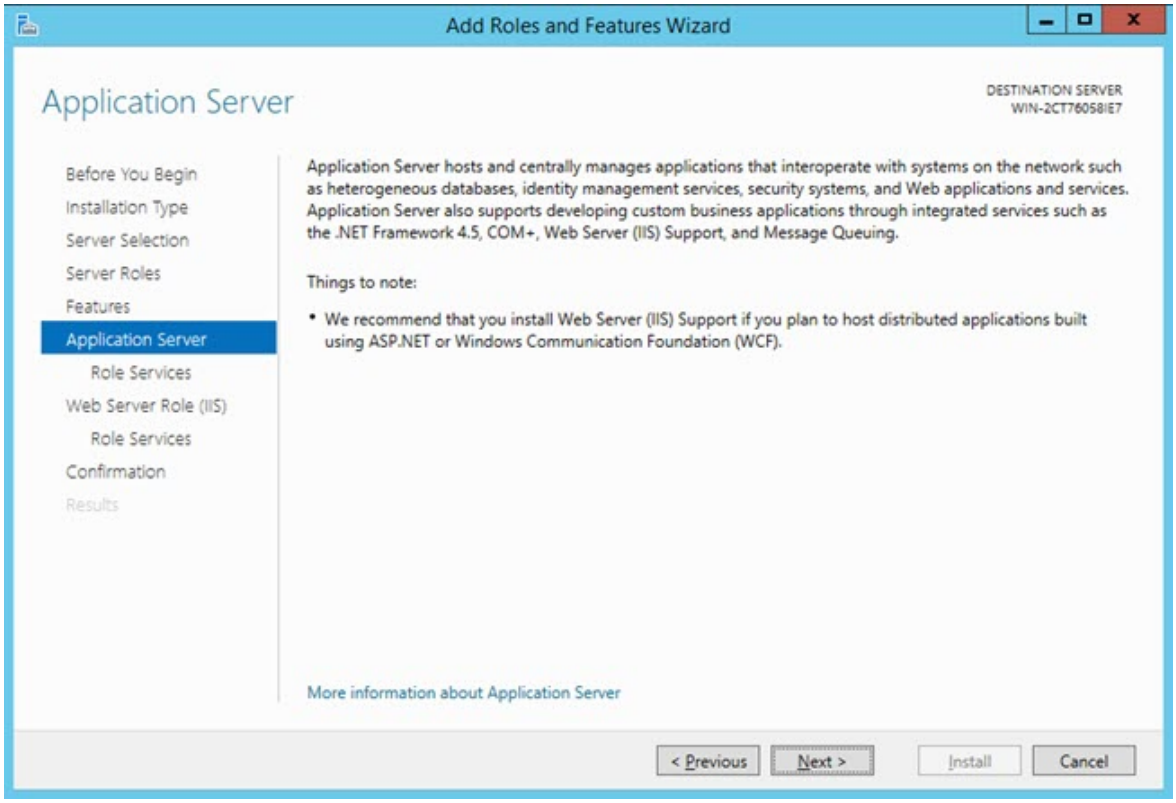
Other check boxes that you select throughout this procedure also open the **Add Features that are required for <item>** dialog box. (**<item>** is a placeholder for the check box name.) Whenever this occurs, click **Add Features** to continue.

8. Click **Add Features** to add the default features for the web server. This then closes the **Add features that are required for Web Server (IIS)** dialog box.
9. From the **Select server roles** screen shown above, click **Next** to open the **Select features** screen.

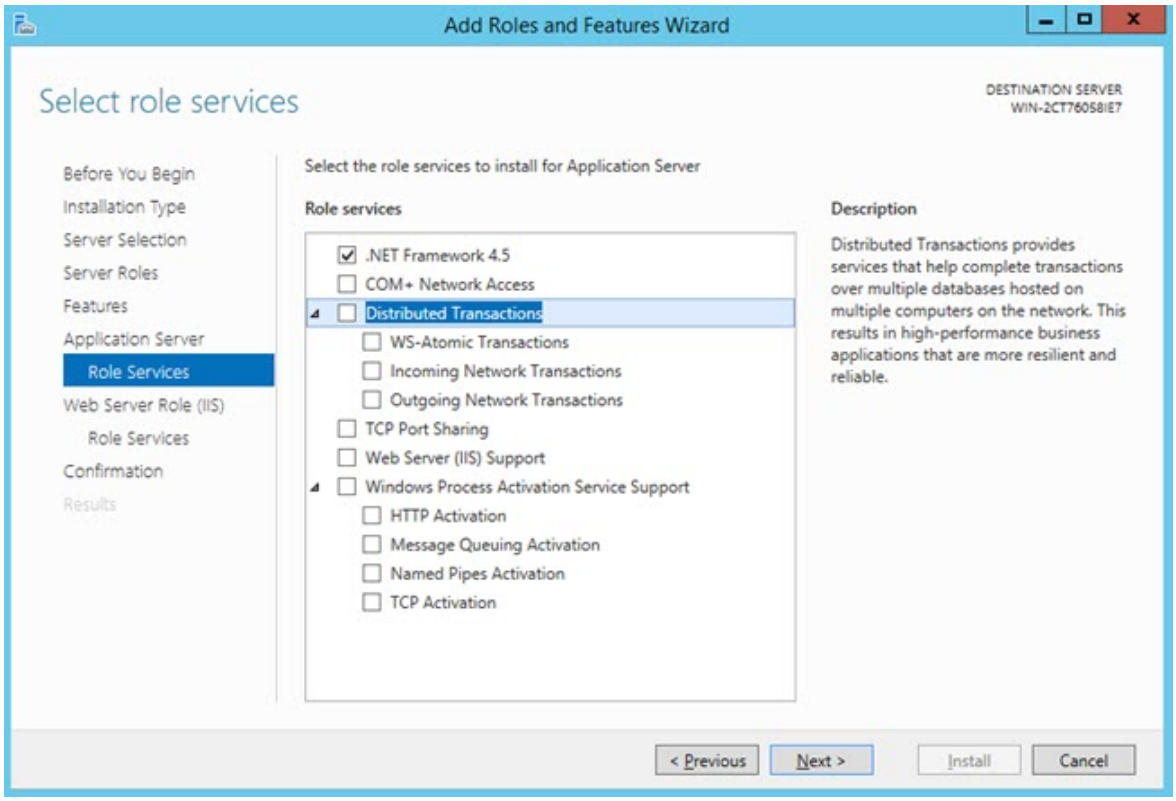


10. Expand **.NET Framework 3.5 Features** and select these check boxes:
    - **.NET Framework 3.5 Features**
    - **.NET Framework 3.5 (includes .NET 2.0 and 3.0)**
    - **HTTP Activation**
11. Expand **.NET Framework 4.5 Features** and select these check boxes:
    - **.NET Framework 4.5**
    - **ASP .NET 4.5**
12. Within **.NET Framework 4.5 Features**, expand **WCF Services** and select these check boxes:
    - **HTTP Activation**
    - **Message Queuing (MSMQ) Activation**
    - **Named Pipe Activation**
    - **TCP Activation**
    - **TCP Port Sharing**

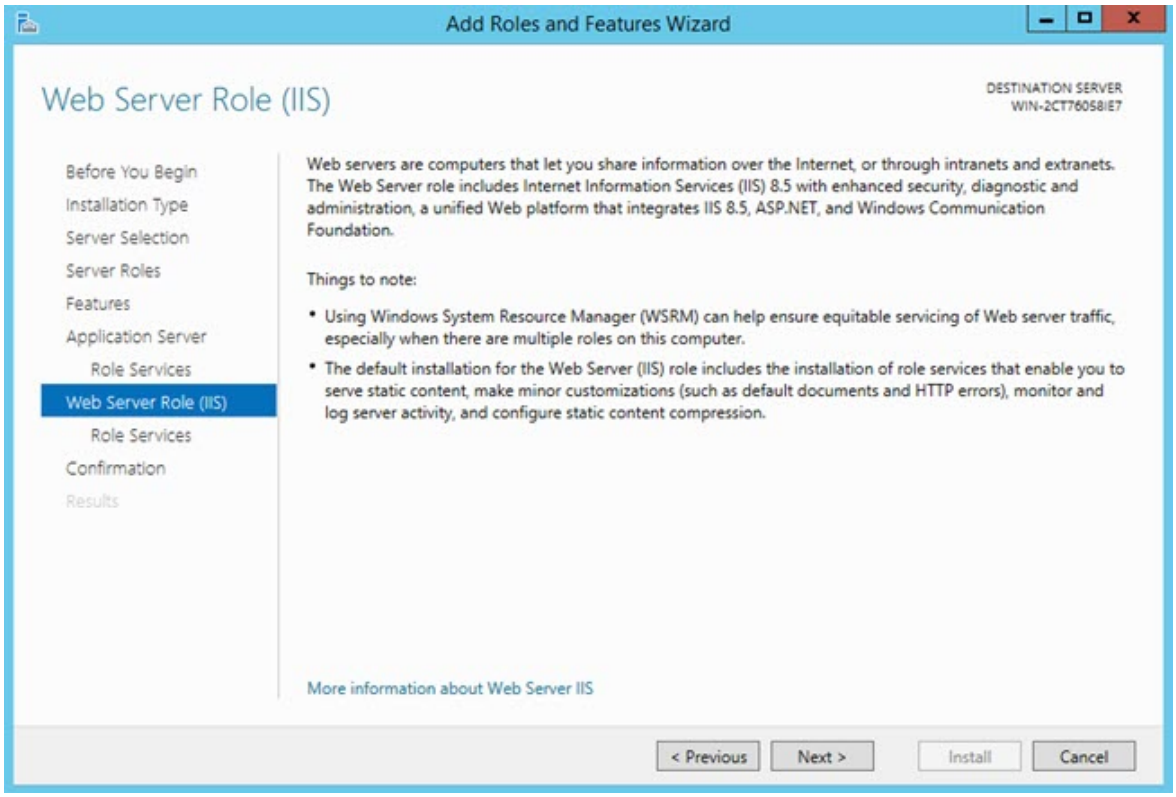
13. From the **Select features** screen shown above, click **Next** to open the **Application Server** screen.



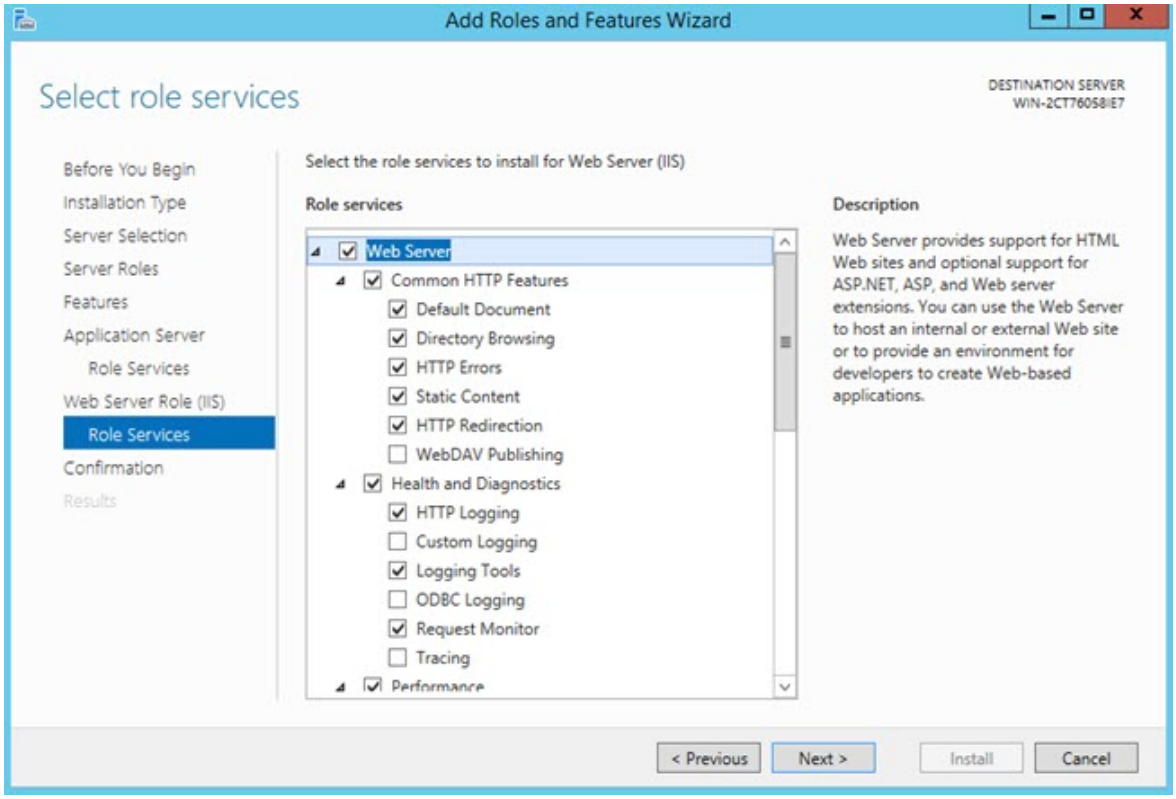
14. Click **Next** to open the **Select role services** dialog box.



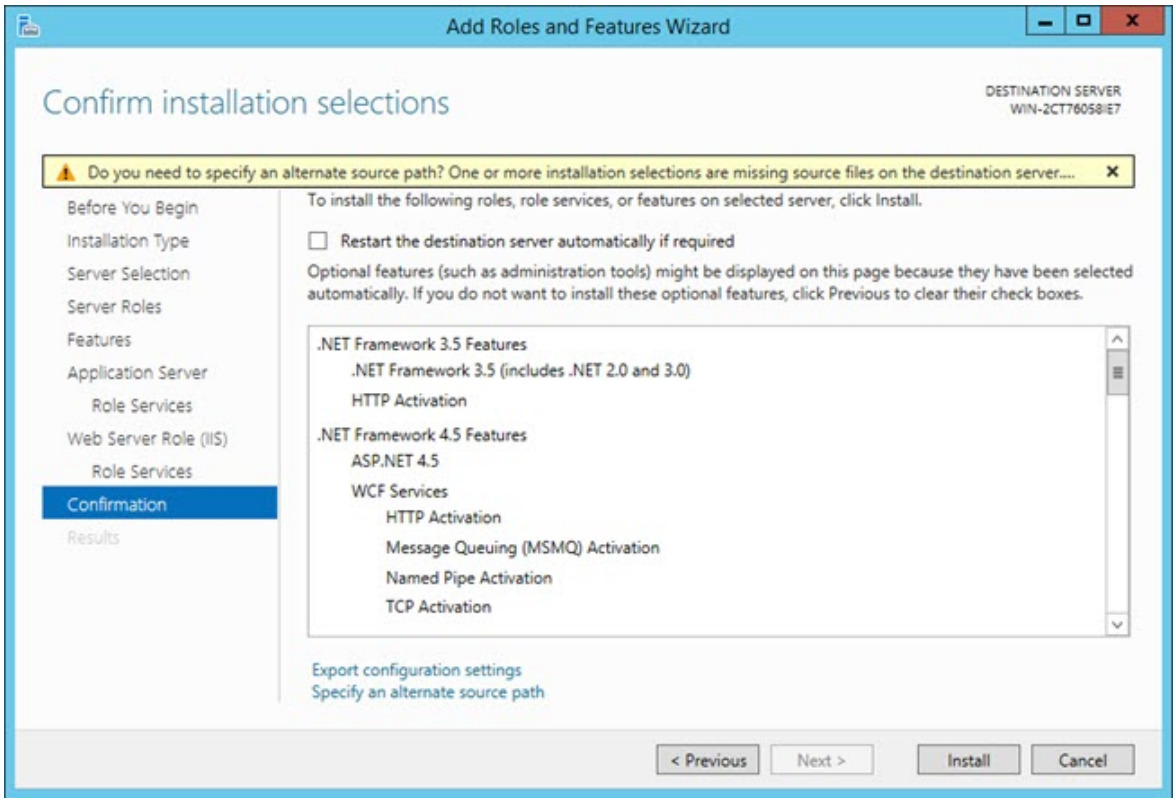
15. From the **Role services** list, select these check boxes:
    - **.NET Framework 4.5**
    - **TCP Port Sharing**
    - **Web Server (IIS) Support**
    - **Windows Process Activation Service Support**
    - **HTTP Activation**
    - **Message Queuing (MSMQ) Activation**
    - **Named Pipe Activation**
    - **TCP Activation**
16. Click **Next** to open the **Web Server Role (IIS)** screen.



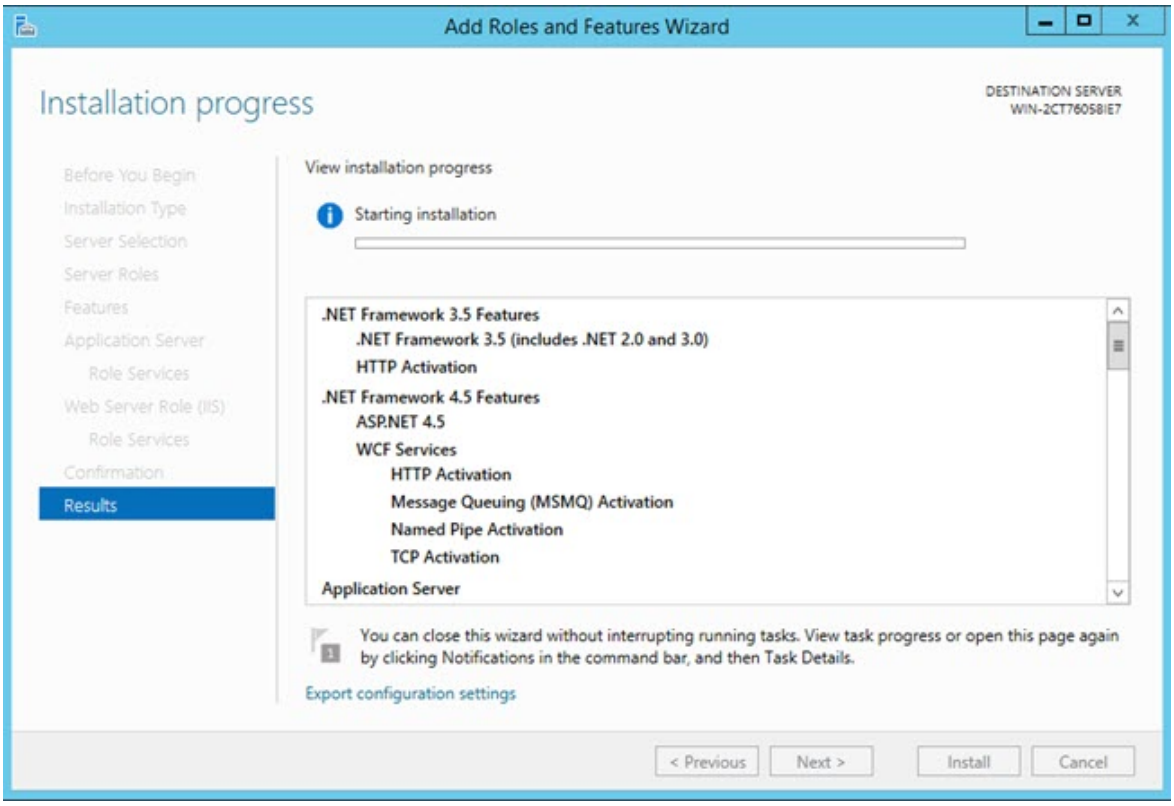
17. Click **Next** to open the **Select role services** screen.



18. From the **Role services** list many check boxes are selected by default. Click **Next** to accept these defaults and open the **Confirm installation selections** screen.

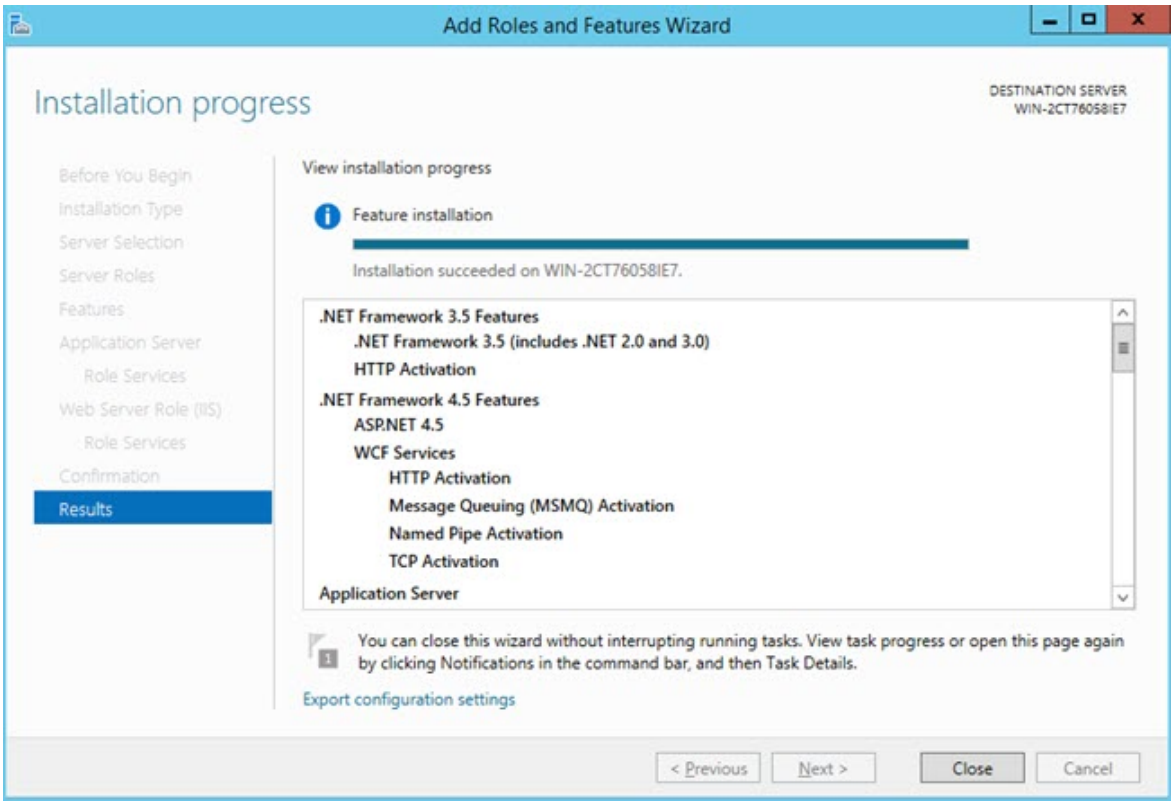


19. Select the **Restart the destination server automatically if required** check box.
20. On the message that appears, click **Yes** to confirm that you allow the destination server to automatically restart.
21. Click **Install** to start the installation.



22. Once the installation finishes, and you see an installation succeeded message below the installation progress bar, click **Close**.

Enable Internet Information Services



Appendix

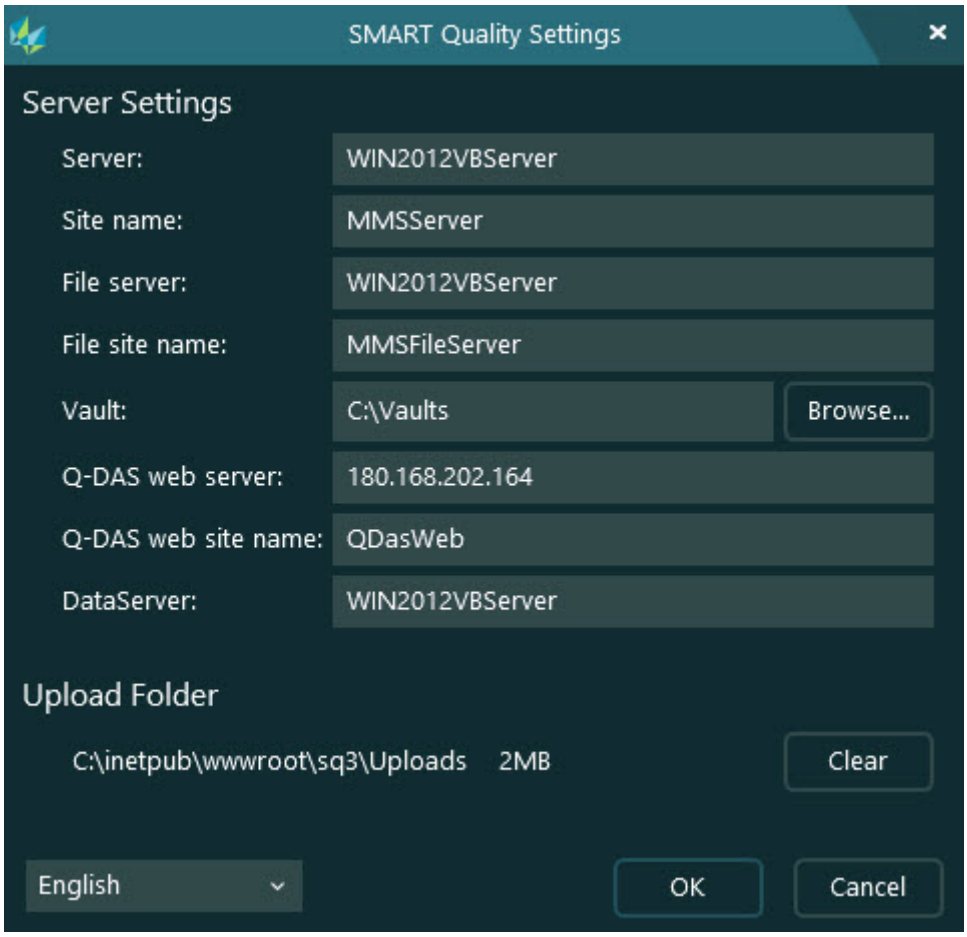
These settings should only be changed for advanced troubleshooting and for a limited time. You might need instruction from the Hexagon Technical Support.

Define SMART Quality Settings

This dialog box configures the server settings so that you can connect to the HxGN SMART Quality server.

To open the **SMART Quality Settings** dialog box, click **Start**, point to **All Programs**, click **SMART Quality**, and then click **SMART Quality Settings**.

The SMART Quality application restarts if you make any changes in the **SMART Quality Settings** dialog box.



SMART Quality Settings

Server Settings - You can configure the following options to define server access:

Server - This defines your server's name or Internet Protocol (IP) address.

Site name - This defines the web site's domain name.

File server - This defines your file server name or IP address.

File site name - This defines the file web site domain name.

Vault - This sets the vault folder.

Q-DAS web server - This defines the Q-DAS server's name or IP address.

Q-DAS web site name - This defines the Q-DAS web site's domain name.

Data server - This defines your data server's name or IP address.

Upload folder - This folder stores any files uploaded to the server as temporary files. You can click the **Clear** button to delete all files from the folder.

Advanced DataServer Configuration

Database Configuration

This file contains the connection string to link the database to the service. You need to modify it for the environment where the service is installed. You can find the DataServerHostService.exe.config file in this folder:

C:\Program Files\Hexagon\DataServer <version> 64-bit\

Where <version> is your version of the DataServer.

1. Open the DataServerHostService.exe.config configuration file in a text editor, such as Notepad.
2. Near the bottom of the file, locate the lines between <connectionStrings> and </connectionStrings>. You need to modify the item for the database type (Oracle or SQL Server) that you will use for HxGN SMART Quality.
3. For the source, modify the connectionString value to specify the SQL Server or Oracle instance to use. This may involve identifying the name of the computer running the Central DataServer. To identify the name of the source for SQL Server, open SQL Server Management Studio.

To identify the name of the source for SQL Server, open **SQL Server Management Studio**.

1. To open the **SQL Server Management Studio** dialog box:

    - For Windows 10, on the **Start Page**, type **SQL Server Management Studio**. Click the program to open the **SQL Server Management Studio**.
    - For older versions of Windows, on the **Start** menu, point to **All Programs**, point to **Microsoft SQL Server 2014**, and then click **SQL Server Management Studio**.

2. The **Connect to Server** dialog box opens. The **Server name** box displays the instance name.

Once you identify the name you can name in the .config file as shown in the example below.

Here's an example of the SQL Server:

Suppose, your SQL Server instance name is **OPERATOR\SQLSERVER2012**. In that case, you need to update the name in the data source value in the following line in the .config file:

<add name="SQLServer" connectionString="

data source=SQLSERVERINSTANCENAME;

Initial Catalog=DataServer;Persist Security Info=True;UserID=hexmet_datauser;Password=HEXMET_DATAUSER_PASSWORD;MultipleActiveResultSets=True" providerName="System.Data.SqlClient"/>

It should say:

data source=OPERATOR\SQLSERVER2012;

4. In the .config file, set Initial Catalog to the same database name that the scripts used to create the database. For example, “initial catalog=Q-DAS;” logs you into a database named Q-DAS. Make the database visible in SQL Server Management Studio.
5. The User ID field contains the name of the user logged into the database. Ensure you have the correct Q-DAS database user id.
6. The Password field contains the password for the user. Ensure you have the correct Q-DAS database password.

You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataServer Service".

Log File Settings

Each day DataServer generates a log file. You can use these log files to troubleshoot issues with the DataServer service. To troubleshoot issues with HxGN SMART Quality data, you need the latest log file.

You can find the log files in this folder:

C:\Program Files\Hexagon\DataServer <version> 64-bit\Logs

Where <version> is your version of the DataServer.

The DataServerLogger.config file lets you change the log file settings for the DataServer service. You can find the DataServerLogger.config file in this folder:

C:\Program Files\Hexagon\DataServer <version> 64-bit\

Where <version> is your version of the DataServer.

Based on the information you want to record in the log file, you can enable (1) or disable (0) these options:

Only enable options for advanced troubleshooting and for a limited time. Disable options to reduce the file size.

- **LogInfo** - This records general information about the service. The default value is 1.
- **LogError** - This records service errors. The default value is 1.
- **LogSQL** - This records the SQL statements sent to the database. The default value is 0.
- **LogEnterExit** - This records detailed information about all service behaviors. You can enable this option to do advanced troubleshooting for a limited time. The default value is 0.
- **LogServiceEnterExit** - This records the API's tracing information that invokes from external applications. The default value is 1.
- **LogImportStats** - This records statistics information when you import data from external applications. The default value is 1.
- **LogEventInfo** - This records events. The default value is 1.
- **LogParameters** - This records parameter data sent to the service API from the external applications. The default value is 1.
- **LogPulseEnterExit** - This records detailed information on the Pulse behavior. You can enable this option if you want to do advanced troubleshooting for a limited time. The default value is 0.
- **LogPulseSQL** - This records the SQL statements sent to the database for the Pulse API. The default value is 0.

- **LogPulseServiceEnterExit** - This records the Pulse API's tracing information that invokes from external applications. The default value is 0.
- **LogPulseParameters** - This records parameter data sent to the Pulse API from external applications. The default value is 0.
- **LogPulseError** - This records errors that occur in the service for the Pulse API. The default value is 1.

You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataServer Service" below.

Service Options

You can use the ServiceOptions.config file to change advanced settings and enable additional DataServer service features. You can find the ServiceOptions.config file in this folder:

C:\Program Files\Hexagon\DataServer <version> 64-bit\

Where <version> is your version of the DataServer.

You can enable or disable these options:

- **DatabaseConnection** - This lets you select the Oracle or SQL Server database. The default value is SQL Server.
- **SaveTheoreticalEachTime** - This duplicates theoretical data from measurement software packages. The default value is 1.
- **SaveSourceData** - This saves the original measurement results from measurement software packages. The default value is 1.
- **EventBusEnabled** - This turns on the Event Bus for 360 SIMS systems. If you set the value to 0, this turns on RabbitMQ as a messaging technology for 360 SIMS systems. The default value is 0.
- **CentralDataServer** - This specifies whether the DataServer uses a central or a local database. The default value is 1.

- **SPFEnabled** - This turns on the SPF processing for the video of the day data sent from the DataSync service. The default value is 0.
- **SPFServerHost** - This defines the SPF server's host name.
- **SPFServerSite** - This defines the SPF server's site name.
- **SPFFileSiteName** - This defines the SPF file's site name.
- **SPFUserName** - This defines the SPF's user name.
- **SPFUserPassword** - This defines the SPF's user password.
- **SPFDataFolder** - This defines the SPF's data folder. The folder should be a network directory similar to this structure: \\COMPUTERNAME\FOLDER NAME
- **QDASEnabled** - This enables the Q-DAS migration of measurement data to Q-DAS-specific database tables. The default value is 1. For more information on installation and configuration of the data migration feature, see Q-DAS Readme.
- **QDASDataFolder** - This defines the folder for Q-DAS to process the measurement data.

You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataServer Service" below.

EventBus Configuration

You can use the EventManagerOptions.config file to change the EventBus connection. These settings in this configuration file are used in 360 SIMS systems.

You can find the EventManagerOptions.config file in this folder:

C:\Program Files\Hexagon\DataServer <version> 64-bit\

Where <version> is your version of the DataServer.

You can enable or disable the following options:

- **EventBusIpAddress** - This defines the Internet Protocol (IP) address and port number of the event bus.

- **EventBusConnectionTimeoutSeconds** - This defines the number of seconds before the EventBus connection times out.

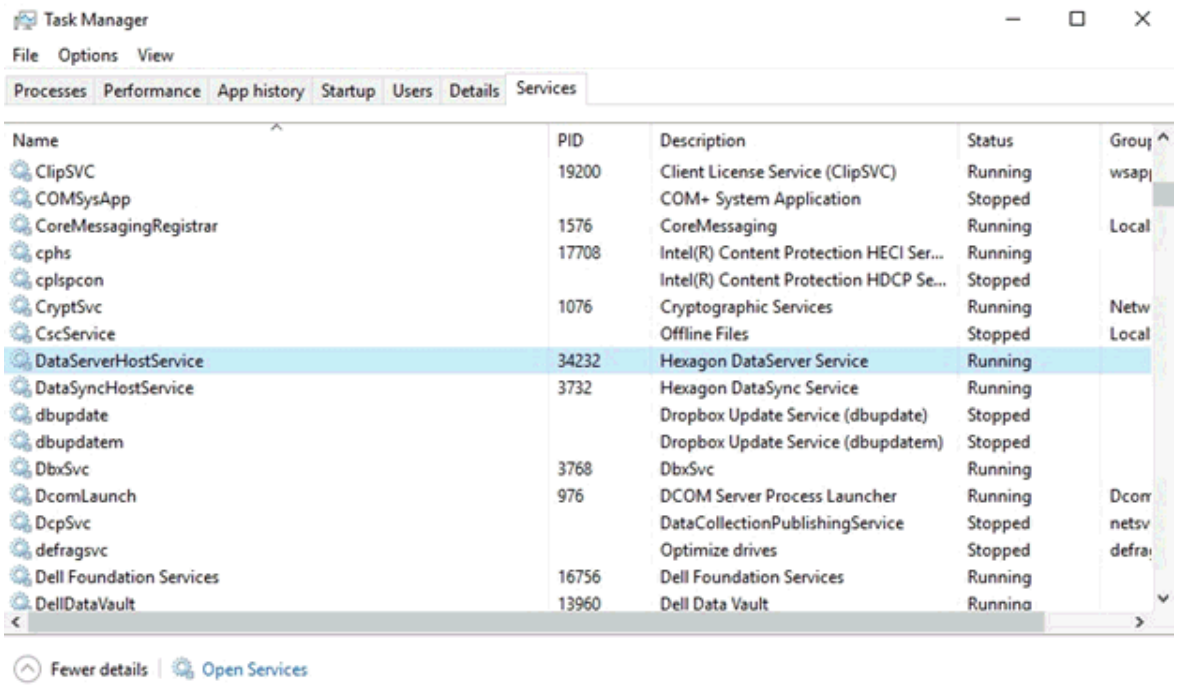
You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataServer Service" below.

Restart the DataServer Service

You need to restart the DataServer service to affect any changes made in the configuration files. To restart the service, follow these steps:

1. Right-click the taskbar and click **Task Manager**. This opens the Windows **Task Manager**.
2. Click the **Services** tab. From the list, locate **DataServerHostService**.



3. Right-click **DataServerHostService** and select **Stop**.
4. After the DataServerHostService's status displays **Stopped** in the **Status** column, right-click on it again and select **Start**.

5. The **Status** column changes to display **Running** for the **DataServerHostService**.

Advanced Pulse Broker Configuration

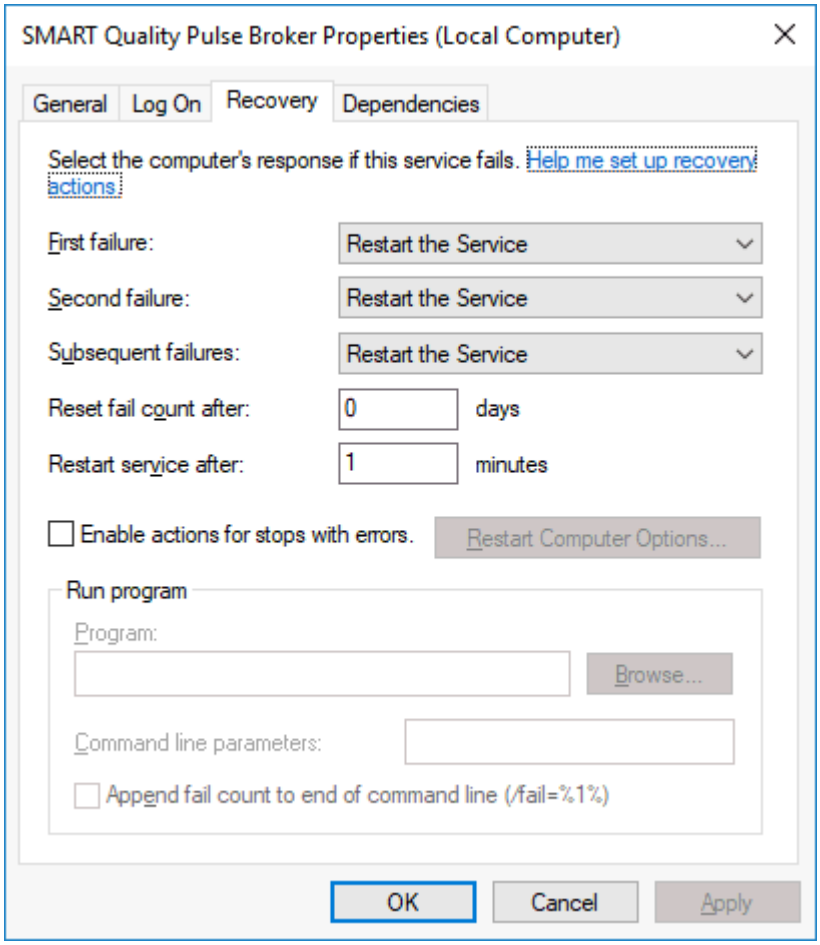
Pulse Broker Properties dialog box

By default, the Pulse Broker service automatically restarts if there's a system error.

You can change settings with the **SMART Quality Pulse Broker Properties** dialog box.

To open the **SMART Quality Pulse Broker Properties** dialog box, follow these steps:

1. To open the **Services** application, click **Start**, search **Services**, and then click **Services**.
2. From the list, locate **SMART Quality Pulse Broker**.
3. Right-click **SMART Quality Pulse Broker** and from the menu list, select **Properties**. This opens the **SMART Quality Pulse Broker Properties** dialog box.



Log File Settings

Each day Pulse Broker generates a log file. You can use these log files to troubleshoot issues with the Pulse Broker service. To troubleshoot issues with HxGN SMART Quality data, you need the latest log file.

You can find the log files in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\logs

The SQPulseBrokerLogger.config file lets you change the log file settings for the Pulse Broker service.

You can find the SQPulseBrokerLogger.config file in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\

Based on the information you want to record in the log file, you can enable (1) or disable (0) these options:

Only enable options for advanced troubleshooting and for a limited time. Disable options to reduce the file size.

- **LogInfo** - This records general information about the service. The default value is 1.
- **LogError** - This records service errors. The default value is 1.
- **LogEnterExit** - This records detailed information about all service behaviors. You can enable this option to do advanced troubleshooting for a limited time. The default value is 0.
- **LogServiceEnterExit** - This records the API's tracing information that invokes from external applications. The default value is 0.
- **LogPulseInfo** - This records the environmental data received from all Pulse devices. You can enable this option to do advanced troubleshooting for a limited time. The default value is 0.
- **LogPulseEventInfo** - This records the environmental events such as Temperature, Critical, Humidity, and Warning. The default value is 0.
- **LogMMSWebInfo** - This records information about the communication with the SMART Quality. The default value is 1.

Service Options

You can use the Settings.config file to change advanced settings and enable additional Pulse Broker service features. You can find the Settings.config file in this folder:

C:\ProgramData\Hexagon\SMART Quality Pulse Broker\

You can enable or disable the following options:

- **Enabled** - This enables the Pulse Broker service. The default value is true.
- **ProcessingIntervalInSeconds** - This is the frequency, in seconds, with which the service processes the data. The default value is 60.

- **DataServerProcessingIntervalInSeconds** - This is the frequency, in seconds, with which the Pulse data is saved to the database. This records the data based on the **PulseProcessingIntervalInSeconds**. The default value is 30.
- **PulseProcessingIntervalInSeconds** - This is the frequency, in seconds, with which the sample Pulse data is taken. This lets the database store a sample of the environmental values instead of all values. This increases the performance and minimize the network traffic and database size. The default value is 20.

If data is sent every second for each sensor, the Pulse Broker saves 3 samples per minute (one after 20 seconds interval) per sensor per hub in the factory.

To save all the data, you need to change the value to 1. This interval does not affect the rate to save the environmental events. The interval affects the reporting time for SMART Quality.

- **MMSWebProcessingIntervalInSeconds** - This is the frequency, in seconds, with which the Pulse Broker service communicates with SMART Quality. The default value is 30.
- **MMSWebAddress** - This defines the address of the SMART Quality website.
- **ValidateMosquitto** - This verifies the installation of the mosquitto broker and runs on the server. You can turn off this option for advance troubleshooting for a limited amount of time. The default value is true.

DataServer

The SQPulseBrokerHostService.exe.config file lets you change the Dataserver address. You can find the SQPulseBrokerHostService.exe.config file in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\

If you change the location of the DataServer service, you also need to update the localhost address within the <client></client> tags.

```
<client>
```

```
<endpoint
address="http://localhost/DataServerWCFService/streaming"
binding="basicHttpBinding" bindingConfiguration="basic"
contract="DataServerWCFService.IDataServerWCFService"
name="basic" />
<endpoint address="http://localhost/DataServerWCFService/wsHttp"
binding="wsHttpBinding" bindingConfiguration="wsHttp"
contract="DataServerWCFService.IDataServerWCFService"
name="wsHttp" />
</client>
```

Port

The Pulse Broker listens to port 4233. If this port is turn off, only your IT personnel can enable it. The web.config file lets you add a new port. You need to modify the Pulse Broker address.

You can find the web.config file in this folder:

C:\inetpub\<SMART Quality installation directory>\

To add a new port, you can change the following setting:

```
<add key="SQPulseBrokerPortNumber" value="4233"/>
```

From the SQPulseBrokerHostService.exe.config file, you need to change the Pulse Broker service address.

You can find the SQPulseBrokerHostService.exe.config file in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\

You need to change the following setting:

```
<baseAddresses>
<add
baseAddress="http://localhost:4233/SQPulseBrokerService" />
</baseAddresses>
```

Advanced DataSync Configuration

The DataSync service should be installed only on computers that have 360 SIMS and if there is a need to send the data to HxGN SMART Quality (such as Q-DAS or Video of the Day).

Log File Settings

Each day DataSync generates a log file. You can use these log files to troubleshoot issues with the DataSync service. To troubleshoot issues with HxGN SMART Quality data, you need the latest log file.

You can find the log files in this folder:

C:\Program Files\Hexagon\DataSync <version> 64-bit\Logs

Where <version> is your version of the DataSync.

The DataSyncLogger.config file lets you change the log file settings for the DataSync service. You can find the DataSyncLogger.config file in this folder:

C:\Program Files\Hexagon\DataSync <version> 64-bit\

Where <version> is your version of the DataSync.

Based on the information you want to record in the log file, you can enable (1) or disable (0) these options:

Only enable options for advanced troubleshooting and for a limited time. Disable options to reduce the file size.

- **LogInfo** - This records general information about the service. The default value is 1.
- **LogError** - This records service errors. The default value is 1.
- **LogEnterExit** - This records detailed information about all service behaviors. You can enable this option to do advanced troubleshooting for a limited time. The default value is 0.

- **LogServiceEnterExit** - This records the API's tracing information that invokes from external applications. The default value is 1.

You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataSync Service".

Service Options

You can use the ServiceOptions.config file that contains the location for an area for temporary files to be processed. You can find the ServiceOptions.config file in this folder:

C:\ProgramData\Hexagon\DataSync\

You can use the Settings.config file to change advanced settings and enable additional DataSync service features. You can find the Settings.config file in this folder:

C:\ProgramData\Hexagon\DataSync\

You can enable or disable these options:

- **Enabled** - This enables the DataSync service. The default value is true.
- **PollingIntervalInSeconds** - This is the frequency with which the service synchronizes the data. The default value is 30.

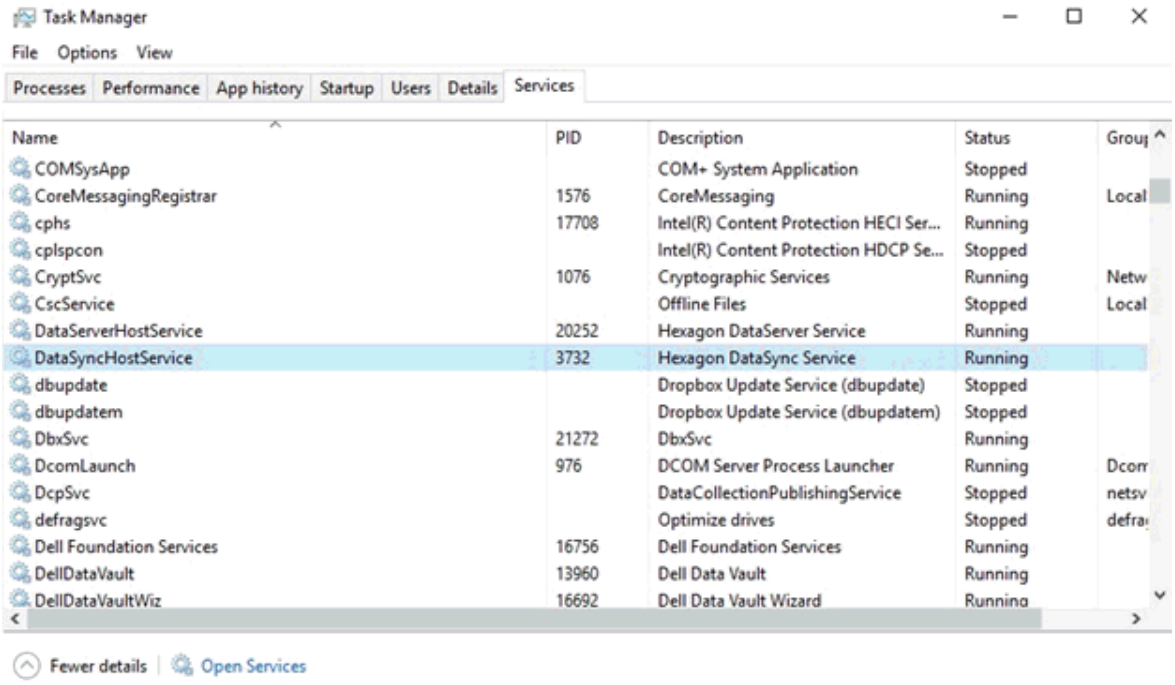
You need to restart the service to implement the changes.

For more information on how to restart the service, see "Restart the DataSync Service" below.

Restart the DataSync Service

You need to restart the DataSync service to affect any changes made in the configuration files. To restart the service, follow these steps:

1. Right-click the taskbar and click **Task Manager**. This opens the Windows **Task Manager**.
2. Click the **Services** tab. From the list, locate **DataSyncHostService**.



3. Right-click **DataSyncHostService** and select **Stop**.
4. After the DataSyncHostService's status displays **Stopped** in the **Status** column, right-click on it again and select **Start**.
5. The **Status** column changes to display **Running** for the **DataSyncHostService**.

Setup an Email Server

Once the new HxGN SMART Quality account is created, you must receive the notification email in your registered email address to verify your account. The email also provides your user name and temporary password.

The email contains the following format:

[Title]

A SMART Quality account has been created for you.

User name: [user name]

Password: [password]

Please change your password at first logon.

Thanks!

SMART Quality

Example

Welcome to SMART Quality

A SMART Quality account has been created for you.

User name: SMARTQualityEmailUser1

Password: 123456

Please change your password at first logon.

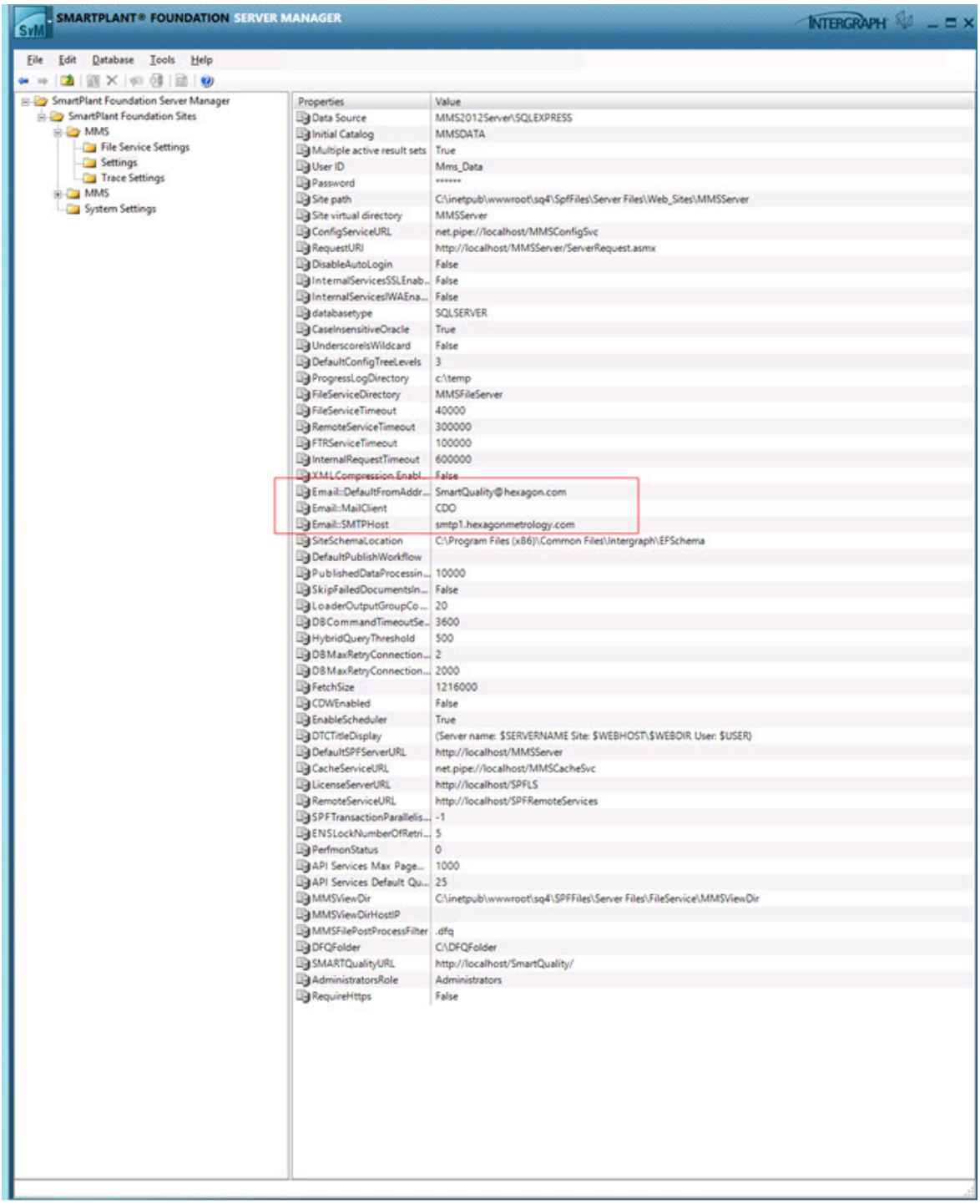
Thanks!

SMART Quality

To configure the settings, follow the steps below:

1. Navigate to the ServerManager folder in this location:

   C:\inetpub\wwwroot\SmartQuality\SpfFiles\ServerManager
2. Right-click on the **ServerManager.exe** file, and click **Run as administrator**.
3. From the left pane of the **SmartPlant Foundation Server Manager** dialog box, expand **SmartPlant Foundation Sites**, expand **SPF**, and then click **Settings**.



4. From the right pane of the **SmartPlant Foundation Server Manager** dialog box, the Email:DefaultFromAddress, Email:MailClient, and Email:SMTPHost display these properties:

- **Email:DefaultFromAddress** - This property sets the return address for system-generated emails. For example, the value is set to SmartQuality@hexagon.com.
- **Email:MailClient** - This property sends automated emails, either through CDO or JMAIL software. For example, the value is set to CDO.
- **Email:SMTPHost** - This property is the name of an email server that sends system-generated emails. For example, the value is set to smtp1.hexagonmetrology.com.

Logon Settings

You can configure HxGN SMART Quality and Inspect settings in one of the following ways:

Log on through user name and password (Anonymous authentication)

To use the user name and password to log on to the SMART Quality and Inspect applications, you need to configure the SMART Quality and SPF with Anonymous authentication. You can use any computer for these settings.

In this case, you can only use the user name and password to log on to the SMART Quality and Inspect applications. On the **Sign In** screen, the **Domain account** option does not appear.

Log on through domain account (Windows authentication)

If you want to use Windows authentication to log on to the SMART Quality and Inspect applications, you need to configure the SMART Quality and SPF with Windows authentication. You need to use the computer in the same domain. The logon account of the operating system (OS) must use the domain account.

In this case, you can use either the domain account or the user name and password to log on to the SMART Quality and Inspect applications.

Log on through mixed pattern

You can configure SMART Quality with Windows authentication and SPF with Anonymous authentication. Your computer can have any of the following specifications:

- Computers are in the domain and are logged on with a domain account.

- Computers are in the domain and are logged on with a user name and password.
- Computers are not in the domain and are logged on with a user name and password.

In all of the above cases, you can use either the domain account or the user name and password to log on to the SMART Quality application. Inspect can only use the user name and password.

Server Settings

These server settings need to be configured:

- SMART Quality web site and its application pool
- The three websites that SPF uses (MMSServer, MMSConfigSvc, MMSCacheSvc) and their application pool

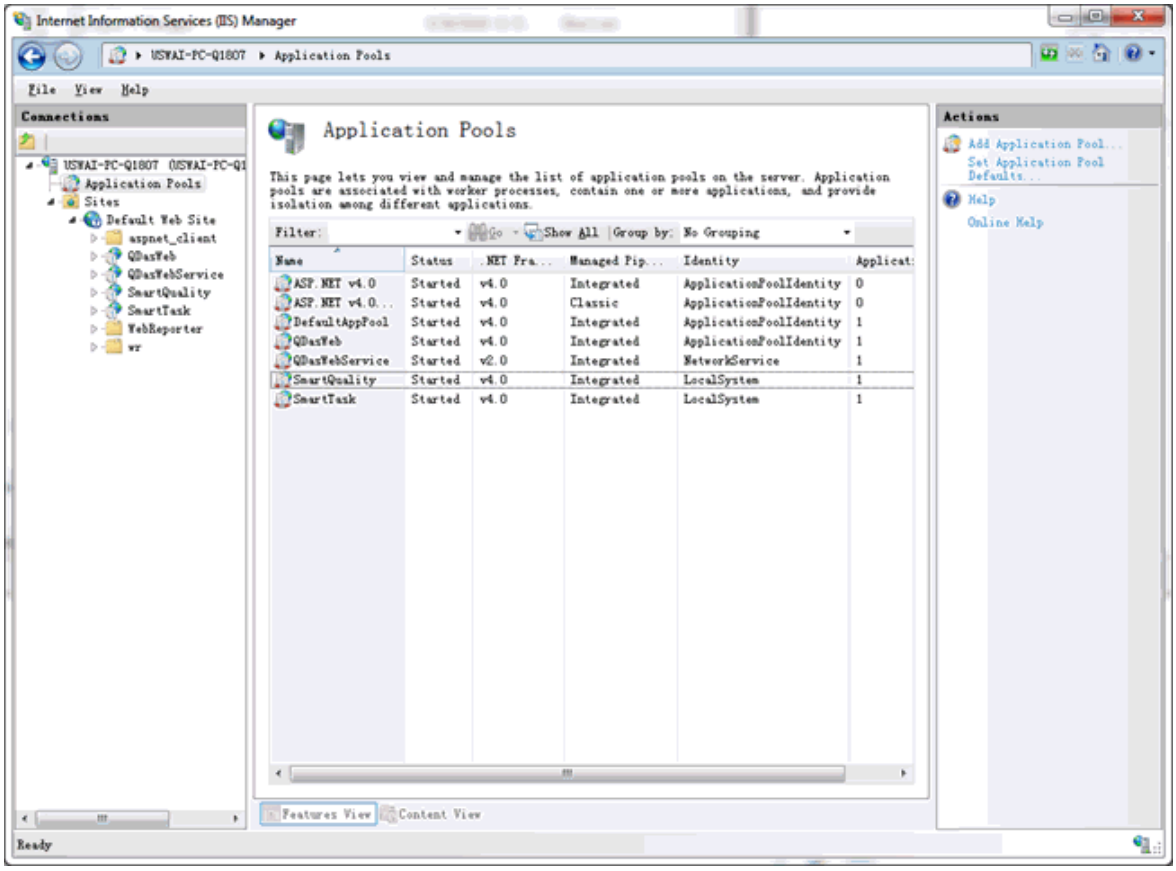
All the four application pools must have the same settings.

For information on these server settings, see "Settings for Authentication" and "Settings for Application Pools".

Settings for Authentication

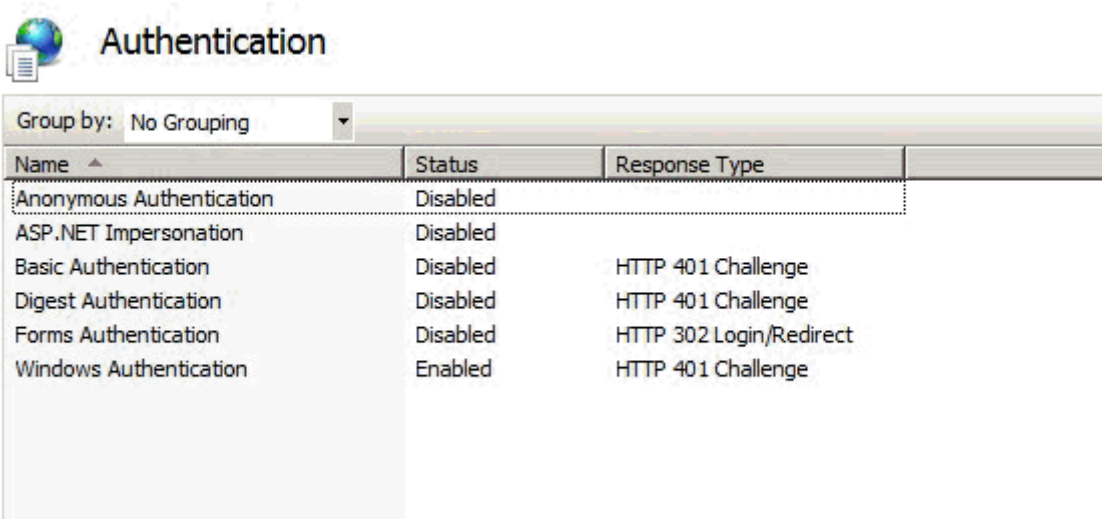
If you need to, you can access the **Authentication** window to change your authentication settings:

1. On the server, click **Start**. In **Search programs and files**, type **IIS**, and then click **Internet Information Services (IIS) Manager** to open the **Internet Information Services (IIS) Manager** dialog box.



Internet Information Services (IIS) Manager dialog box

2. Expand your computer node, expand **Sites**, expand **Default Web Site**, and then select the SPF server site (for example, SmartQualityTesting).
3. In the IIS area, double-click **Authentication** to display the **Authentication** window.

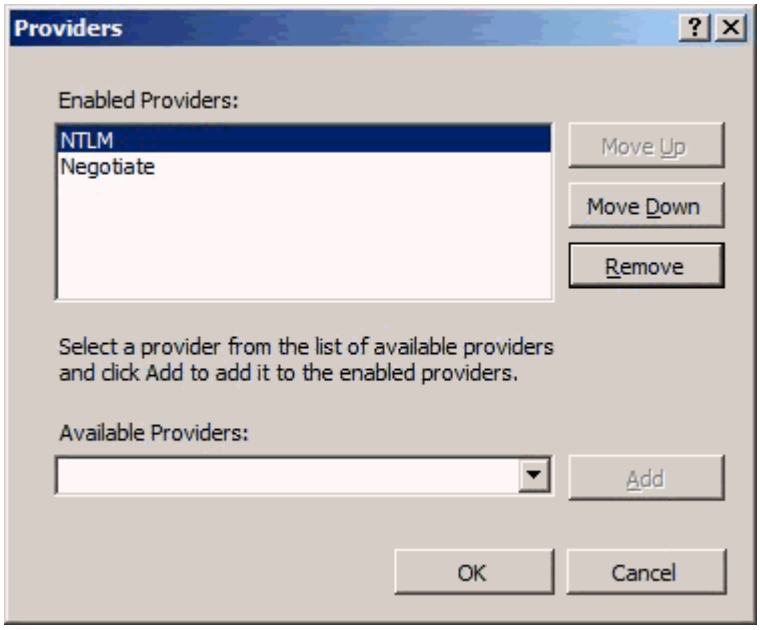


4. From the **Name** column, select either **Anonymous Authentication** or **Windows Authentication**. Right-click and select **Enabled**. Ensure that all the other options are **Disabled**.

    - **Windows Authentication** - Tells the system to use the Windows logon information for the user's authentication.

        A. Once you set the **Status** to **Enabled**, the **Providers** option is available.

        B. Click **Providers** to open the **Providers** dialog box.



Providers dialog box

        C. Select **NTLM** and then click **Move Up** to move it to the top. Click **OK**.

        D. Next, you need to change some settings in the application pool. For information on how to do this, see "Windows Authentication".

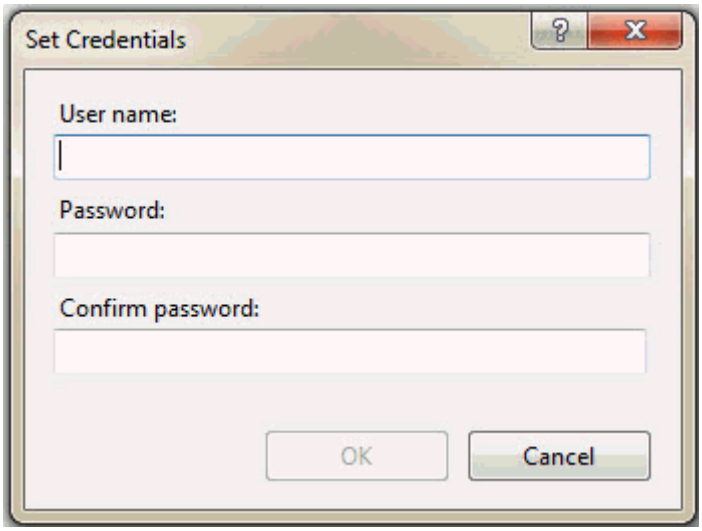
    - **Anonymous Authentication** - Tells the system to use the account name and password for the user's authentication.

        A. Next, you need to change need to change some settings in the application pool. For more information, see "Anonymous Authentication".

Settings for Application Pools

Windows Authentication

1. From the Anonymous Authentication, follow step 1 through step 5.
2. Select **Custom account**. Click **Set** to open the **Set Credentials** dialog box.



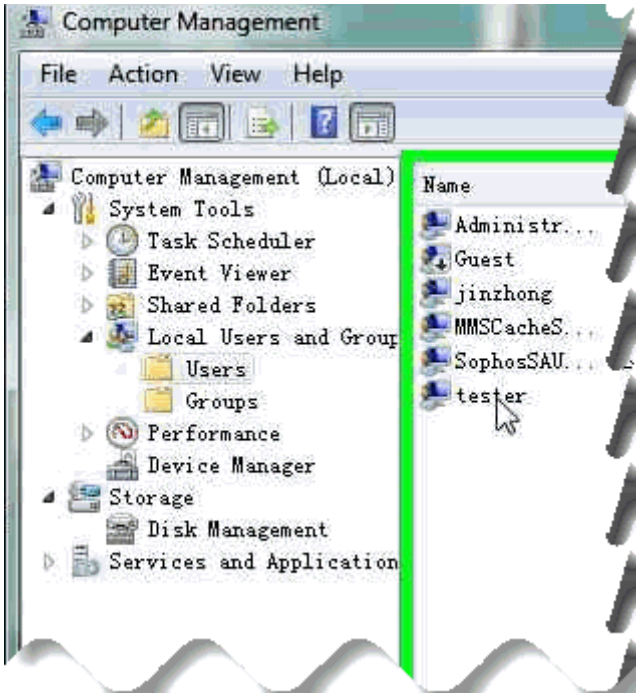
Set Credentials dialog box

In the **User name** box, type the domain user's name. Type the password in Password and Confirm password dialog boxes.

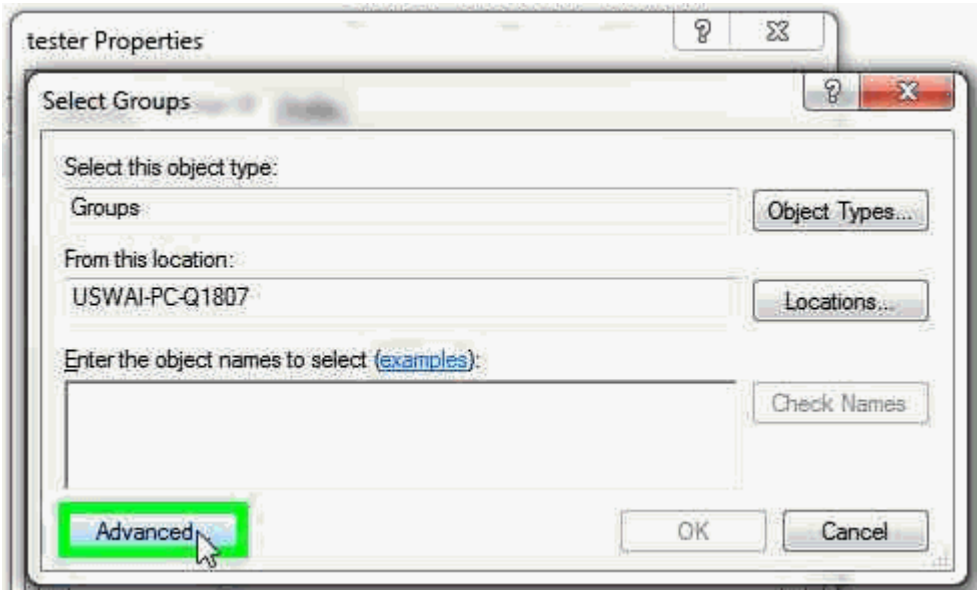
3. Click **OK**. This closes the **Set Credentials** dialog box.
4. Click **OK** to close the **Application Pool Identity** dialog box.
5. From the **Advanced Settings** dialog box, click **OK**.

Add the domain user to user group

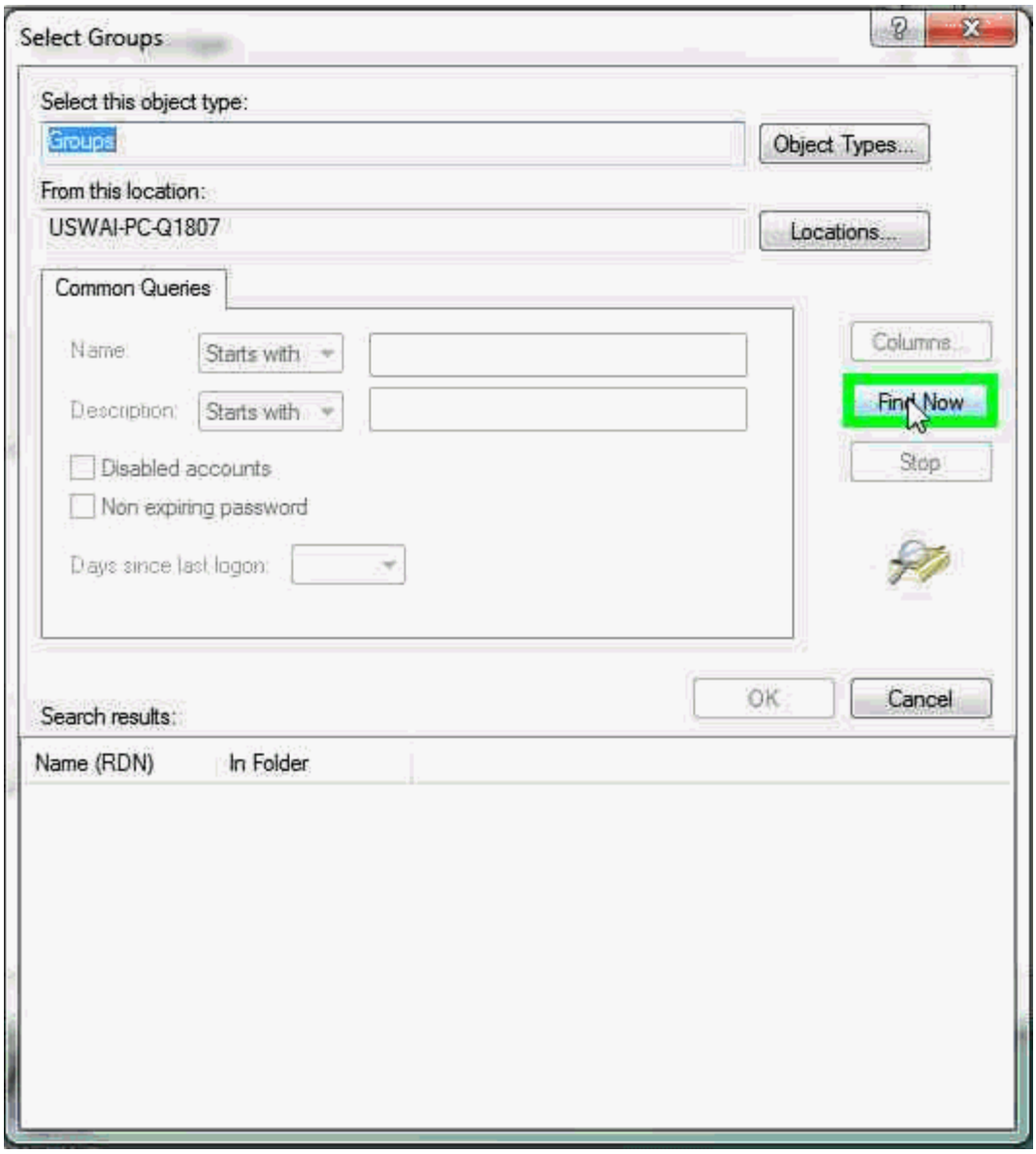
1. Click **Start**, right-click on **Computer**, and then from the menu list, click **Manage** to open the **Computer Management** screen.
2. From the **Computer Management** screen, on the left-pane, click **Local Users and Groups**.
3. From the right-pane, double-click on **Users** folder and then click **tester** to open the **tester Properties** dialog box.



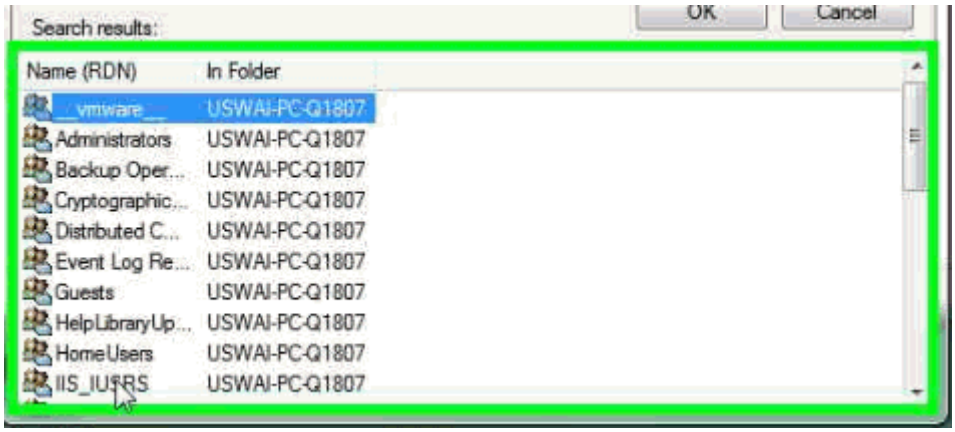
4. From the **tester Properties** dialog box, click **Member Of** tab and then click **Add** to open the **Select Groups** dialog box.
5. Click the **Advanced** button.



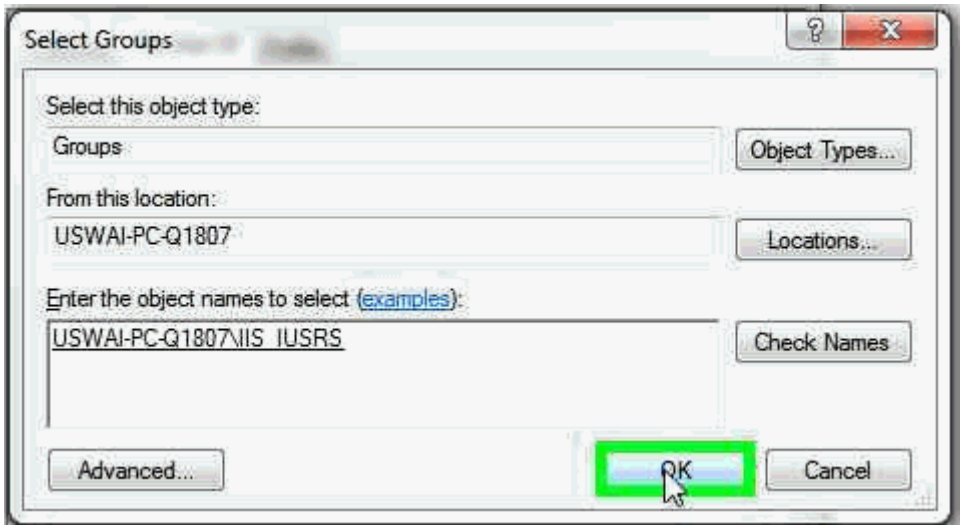
6. From the advanced area of the dialog box, click **Find Now** to find the groups within the specified location.



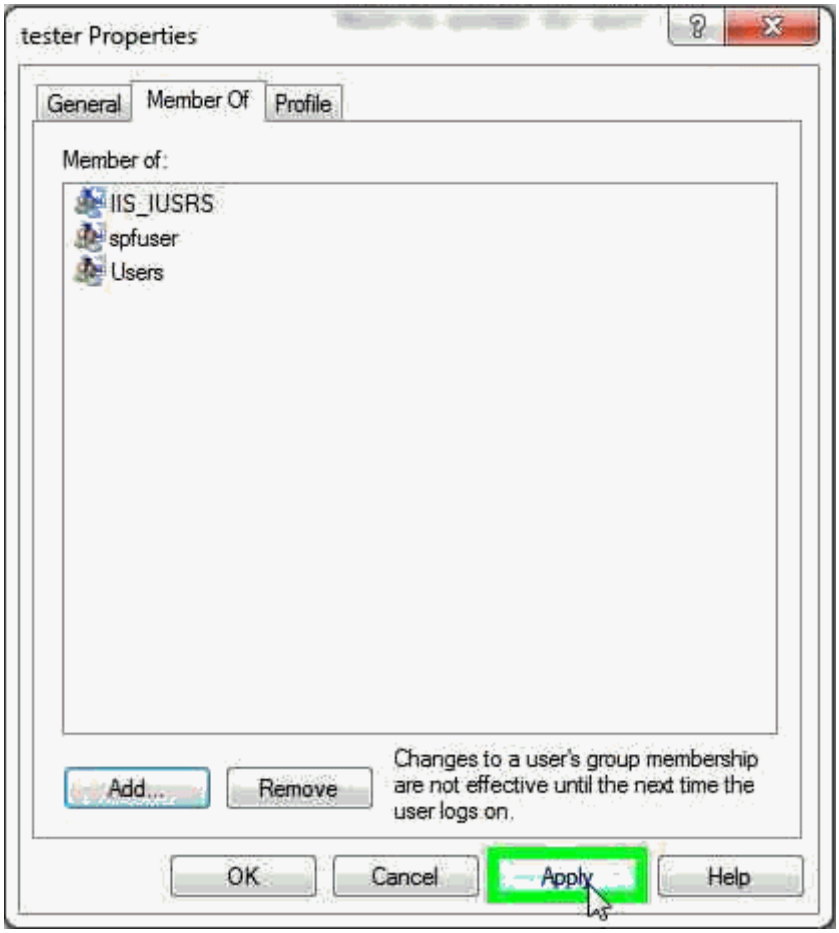
7. From the **Search results** area, double-click **IIS_IUSRS** item from the list:



8. Click **OK** to close the **Select Groups** dialog box.



9. From the **tester Properties** dialog box, select **IIS_IUSRS**. Then, click **Add** to open the **Select Groups** dialog box.
10. Click the **Advanced** button. From the advanced area, click **Find Now**.
11. From the **Search results** area, double-click **spfuser** item from the list.
12. Click **OK** to close down the **Select Groups** dialog box.
13. From the **tester Properties** dialog box, click **Apply** and then click **OK** to close this dialog box.



The server and client need to be in the same domain.

Add HxGN SMART Quality URL to the local intranet

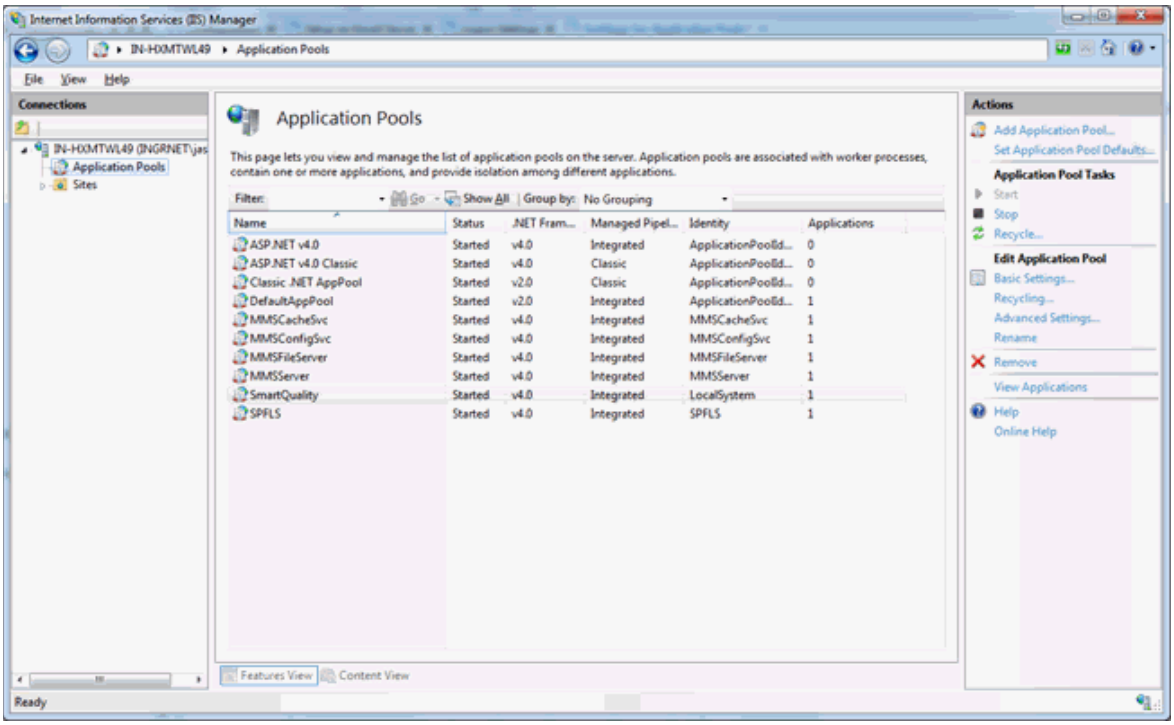
If you want to use Windows authentication, you also need to set the SMART Quality URL to the local intranet.

1. In Internet Explorer, on the **Tools** menu, click **Internet options** to open the **Internet Options** dialog box.
2. Click the **Security** tab, select **Local intranet** zone, and then click **Sites** to open the **Local intranet** dialog box.
3. Click **Advanced** to open the **Local intranet** dialog box.
4. In the **Add this website to the zone** box, type the URL of the SMART Quality. Click **Add**.

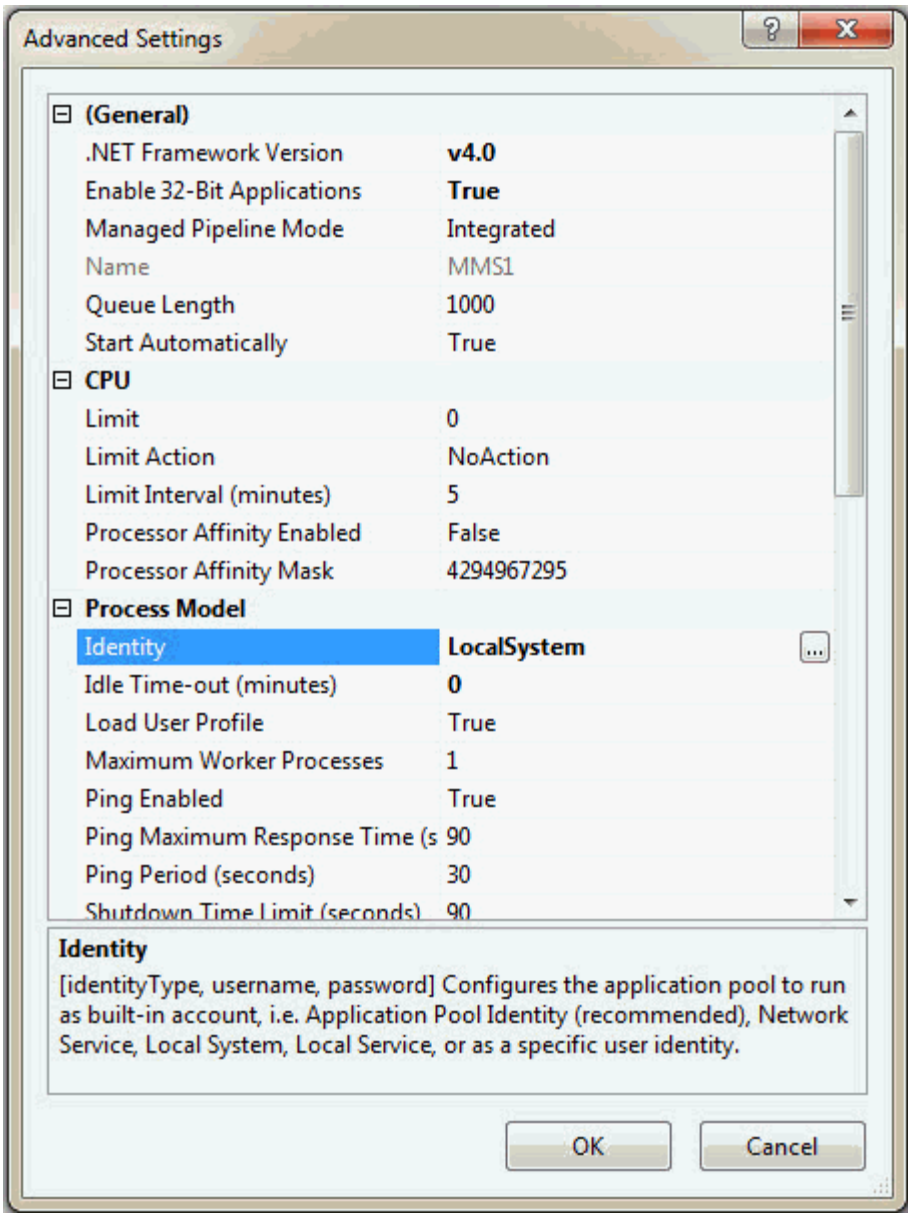
5. Click **Close**.
6. Click **OK** to close the **Local intranet** dialog box.
7. Click **OK** to close the **Internet Options** dialog box.

Anonymous Authentication

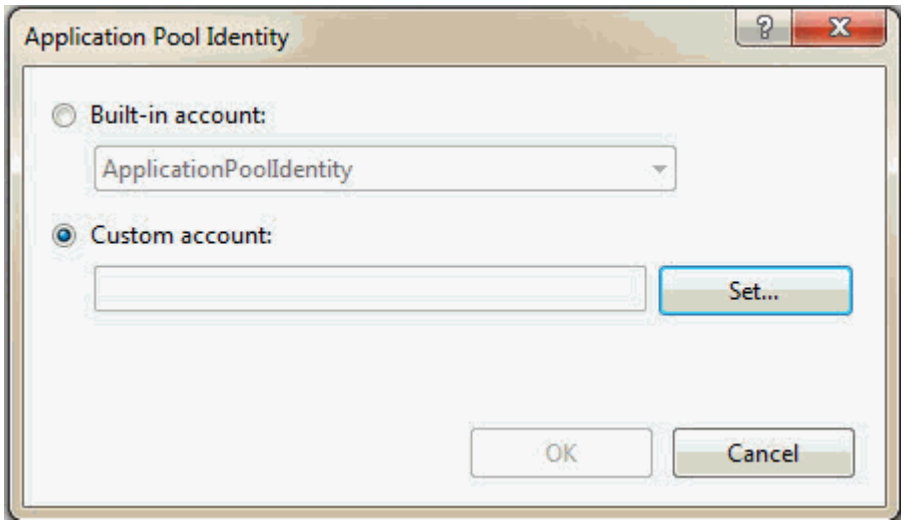
1. On the server, click **Start**, type IIS in **Search programs and files**, and then click **Internet Information Services (IIS) Manager** to open the **Internet Information Services (IIS) Manager** dialog box.
2. Expand your computer node, and select **Application Pools**.
3. In the **Features View**, under the **Application Pools** area, select the SPF server site (for example, SmartQuality).



4. Right-click, and select **Advanced Settings** to open the **Advanced Settings** dialog box.



5. In the **Process Model** area, select **Identity**, and then click **Browse** to open the **Application Pool Identity** dialog box.



Application Pool Identity dialog box

6. Select **Built-in-account**. From the list, select **LocalSystem**.
7. Click **OK** to close the **Application Pool Identity** dialog box.
8. From the **Advanced Settings** dialog box, click **OK**.

Add New Tabs in SMART Quality

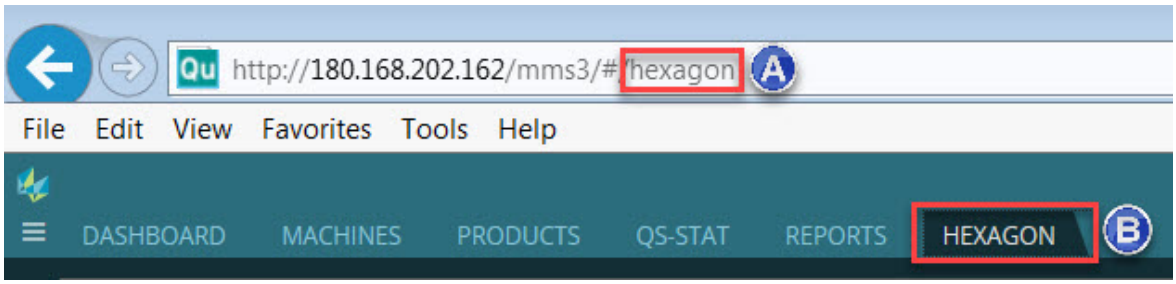
You can configure the HxGN SMART Quality application to contain custom tabs that point to custom URLs, such as a remote web application. This is helpful when you have other web-based applications that you want to combine into the SMART Quality application. This example below shows how to add a Hexagon tab that points to http://www.hexagonmi.com:

1. Once you install SMART Quality, navigate to this folder: C:\inetpub\wwwroot\SmartQuality\Settings
2. Open the **ServerSettings.xml** file in a text editor.
3. Within the <ServerSettings> node, you need to add a <CustomTabs> node that in turn contains a <tab> node that points to the URL, like this:

```
<ServerSettings>
<Settings ... />
    <CustomTabs>
```

```
        <tab title="hexagon" url="http://www.hexagonmi.com"
        name="Hexagon"/>
        </CustomTabs>
    </ServerSettings>
```

4. Once you complete your changes, save the file.
5. Then restart the browser and log back into the SMART Quality web site to see the new tab:



A - This comes from the <tab> node's title attribute. B - This comes from the <tab> node's name attribute.

Passing the User Name

The remote web application or URL that you add as a custom tab may have the ability to track the user name from the SMART Quality application.

When the new tab loads, the user name is automatically passed to the web application used by the tab. This happens automatically and is not visible to the user. The code that passes the data takes this form:

`http://www.hexagonmi.com`?UserCode=testuser1&Source=SmartQuality

The two parameters that are passed to the remote web application are UserCode and Source:

`UserCode` passes the user name. The above example passes "testuser1" as the user name.

`Source` passes the source application name. This is where the information comes from. The above example passes "SmartQuality" as the source.