

## 3.0 - Release Notes -



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# Installing Prerequisite Software

### Overview

Before you install 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)

After you complete the installation of these components, you need to enable Internet Information Services (IIS).

SMART Quality uses your Q-DAS license.

## Enable Internet Information Services

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

È	Server Manager		_ <b>_</b> X
💮 👻 Server Ma	nager • Dashboard	• 🅄   🚩 Manage Io	ools ⊻iew <u>H</u> elp
Dashboard	WELCOME TO SERVER MANAGER		^
All Servers	1 Configure this local	lserver	
	2 Add roles and feature	es	=
	3         Add other servers to           WHAT'S NEW         4         Create a server group	manage p	
	5 Connect this server t	o cloud services	Hide
	ROLES AND SERVER GROUPS		
	File and Storage 1 Local Serve	er   1	
	Manageability     Events     Performance     Services	by	
	BPA results Performance		v

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.

2	Add Roles and Features Wizard
Select installation Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard  DESTINATION SERVER WIN-2CT76058IE7  Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).  Role-based or feature-based installation Configure a single server by adding roles, role services, and features.  Remote Desktop Services installation Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.
	< Previous Next > Install Cancel

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

elect destinati	on server		DESTINATION SERVE WIN-2CT7605815
Before You Begin Installation Type	Select a server or a virtu Select a server from	al hard disk on which	h to install roles and features.
Server Selection	<ul> <li>Select a virtual hard</li> </ul>	disk	
Server Roles Features Confirmation	Filter:		
	Name	IP Address	Operating System
	WIN-2CT76058IE7	10.0.2.15	Microsoft Windows Server 2012 R2 Standard
	1 Computer(s) found		
	This page shows servers Add Servers command i collection is still incomp	that are running Wi in Server Manager. O lete are not shown.	ndows Server 2012, and that have been added by using t ffline servers and newly-added servers from which data

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

elect server ro	bles		DESTINATION SERVE WIN-2CT76058IE
Before You Begin Installation Type	Select one or more roles to install on the selected server. Roles		Description
Server Selection	Active Directory Certificate Services	^	Active Directory Certificate Services
Server Roles Features Confirmation Results	<ul> <li>Active Directory Domain Services</li> <li>Active Directory Federation Services</li> <li>Active Directory Lightweight Directory Services</li> <li>Active Directory Rights Management Services</li> <li>Application Server</li> <li>DHCP Server</li> <li>DNS Server</li> <li>Fax Server</li> <li>File and Storage Services (1 of 12 installed)</li> <li>Hyper-V</li> <li>Network Policy and Access Services</li> </ul>	н	certification authorities and related role services that allow you to issue and manage certificates used in a variety of applications.
	Network Policy and Access Services     Print and Document Services     Remote Access     Remote Desktop Services	~	

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

	Add Roles and Features Wizard
Ac	d features that are required for Web Server (IIS)?
The hav	following tools are required to manage this feature, but do not e to be installed on the same server.
⊿	Web Server (IIS)
	▲ Management Tools
	[Tools] IIS Management Console
~	Include management tools (if applicable)
	Add Features Cancel

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.

elect features		DESTINATION SERVER WIN-2CT760581E
Before You Begin Installation Type	Select one or more features to install on the selected server. Features	Description
Server Selection Server Roles Features Application Server Role Services Web Server Role (IIS) Role Services Confirmation Results	Image: NET Framework 3.5 Features         Image: Net Features <td>.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.</td>	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

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.

Select role serv Before You Begin Installation Type Server Selection Server Roles Features Application Server Role Services Web Server Role (IIS) Role Services Confirmation Results	Select the role services to install for Application Server Role services	Description Distributed Transactions provides services that help complete transactions over multiple databases hosted on multiple computers on the network. This results in high-performance business applications that are more resilient and reliable.
---	---	---

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.

#### Readme



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

Select role servi	ces		DESTINATION SERVER WIN-2CT76058IE7
Before You Begin Installation Type Server Selection	Select the role services to install for Web Server (IIS) Role services		Description Veb Server provides support for HTML
Server Roles Features Application Server Role Services Web Server Role (IIS) Role Services Confirmation Results	<ul> <li>Common HTTP Features</li> <li>Default Document</li> <li>Directory Browsing</li> <li>HTTP Errors</li> <li>Static Content</li> <li>HTTP Redirection</li> <li>WebDAV Publishing</li> <li>Health and Diagnostics</li> <li>HTTP Logging</li> <li>Custom Logging</li> <li>Custom Logging</li> <li>QDBC Logging</li> <li>ODBC Logging</li> <li>Request Monitor</li> <li>Tracing</li> <li>Performance</li> </ul>	V A et to o d a	Veb sites and optional support for SP.NET, ASP, and Web server xtensions. You can use the Web Server o host an internal or external Web site or to provide an environment for levelopers to create Web-based pplications.

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**.

1	Add Roles and Features Wizard	-	•	×
Installation prog	ress	DESTINATION WIN-2CT	1 SERVE	ER E7
Before You Begin Installation Type Server Selection	View installation progress Feature installation			
Server Roles Features Application Server Role Services Web Server Role (IIS) Role Services Confirmation	.NET Framework 3.5 Features .NET Framework 3.5 (includes .NET 2.0 and 3.0) HTTP Activation .NET Framework 4.5 Features ASP.NET 4.5 WCF Services HTTP Activation			< III
Results	Message Queuing (MSMQ) Activation Named Pipe Activation TCP Activation Application Server You can close this wizard without interrupting running tasks. View task progress or o	open this page	e agai	> in
	Image: by clicking Notifications in the command bar, and then Task Details.         Export configuration settings         < Previous	se C	ancel	

# Install SMART Quality

## Overview

This section covers the installation of the 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 **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
- Client Installations This option installs these applications:
  - PC-DMIS
  - INSPECT
  - PC-DMIS Q-DAS Converter
  - PC-DMIS Listener
  - DataSync
  - Pulse
- Server Installations This option installs these servers:
  - Q-DAS Desktop

#### Readme

- SMART Quality
- SMART Task
- **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**

- 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

- 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: Client Installations**



**PC-DMIS** - This option installs the PC-DMIS 2016.0 version of the application.

**INSPECT** - This option installs the INSPECT 3.0 application. INSPECT can work with any version of PC-DMIS since version 4.3.

**PC-DMIS Listener** - This option installs the PC-DMIS Listener tool.

**<u>DataSync</u>** - This option installs the DataSync service.

**PULSE** - This option installs the Pulse Desktop application.

#### Install PC-DMIS 2016.0

For detailed instructions on this installation, see "PC-DMIS\_Readme.pdf". To open this pdf, see the "<u>Readme</u>" topic.

### Install INSPECT 3.0

- 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 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.

### **Installing PC-DMIS Listener**

This tool listens to the PC-DMIS COM-port. If you do not use INSPECT, this tool provides information to Smart Quality.

1. From the main installation screen, double-click **PC-DMIS Listener** to begin the installation process. The **SMART Quality** configuration screen opens:

😼 Setup - PC-DMIS Listener	-	[		×
Configuration				
Smart Quality			ē	
Please specify Smart Quality connection, then dick Next.				
Smart Quality host:				
Smart Quality site name:				
Login user:				
Password:				
	Next >		Cance	I

SMART Quality screen

**SMART Quality host** - Type the server's host address. This is the same address that the SMART Quality Web server uses.

**SMART Quality site name** - Type the server's host name. This is the same site name that the SMART Quality Web server users.

Login user - Type your user name.

Password - Type your password.

2. After filling in the information, click Next. The Factory configuration screen opens:

🛃 Setup - PC-DMIS Listener	-		×
Configuration			
Factory		Q	
Please specify your machine and factory, then click Next.			
Factory name:			
Machine name:			_
< Back Ne	ext >	Can	cel

Factory screen

3. Type your factory name and machine name and then click **Next**. This opens a **Version** screen to select your PC-DMIS version.

#### Readme

Setup - PC-DMIS Listener	—	
Version Which PC-DMIS version do you use?		<u> </u>
Please specify th correct PC-DMIS version and click next.		
O PC-DMIS 2013		
O PC-DMIS 2013MR1		
O PC-DMIS 2014.0		
O PC-DMIS 2014.1		
O PC-DMIS 2015.0		
O PC-DMIS 2015.1		
O PC-DMIS 2016		
O PC-DMIS 2017R1		
O PC-DMIS 2017R2		
< Back	Next >	Cancel

**PC-DMIS** Version screen

4. Select your version, then click **Next** to open the **Select Destination Location** screen.

🛃 Setup - PC-DMIS Listener	—		×
Select Destination Location			
Where should PC-DMIS Listener be installed?			Ì
Setup will install PC-DMIS Listener into the following folder.			
To continue, click Next. If you would like to select a different folder,	click Bro	owse.	
C:\Program Files (x86)\PC-DMIS Listener	В	rowse	0
At least 2.4 MB of free disk space is required.			
< Back Nex	t>	Ca	ancel

Destination Folder screen

5. Specify where you want to install PC-DMIS Listener, and click **Next**. Once the installation has all the information it needs, the **Ready to install** screen opens:



Ready to Install screen

6. Click Install. When the installation finishes, a final screen shows the installation results:



Installation results screen

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

### Install DataSync

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

- 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, this 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 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.

### **Step 4: Server Installations**



**<u>Q-DAS Desktop</u>** - This option installs the Q-DAS Desktop application.

**<u>SMART Quality</u>** - This option installs these components that make up the SMART Quality server:

- MMS DataServer
- Q-DAS Web
- SMART Quality (web application)

The installer also configures the SMART Quality application. The configuration includes creating sites and installing the SmartPlant License Manager server.

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 "<u>SQL Server Cannot Create</u> <u>a Database</u>" in the "<u>Troubleshooting</u>" section. **<u>SMART Task</u>** - This option installs the SMART Task application.

### **Install Q-DAS Desktop**

For detailed instructions on this installation, see "Q-DAS Readme.pdf". To open this pdf, see the "<u>Readme</u>" topic.

### **Install SMART Quality**

#### Install the SMART Quality Server

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

- <u>Phase 1: Install DataServer</u>
- Phase 2: Install Pulse Broker
- Phase 3: Install Q-DAS Web
- Phase 4: Install SMART Quality (web application)
- <u>Phase 5: SMART Quality Configuration</u>

During the installation, the main SMART Quality setup application has a progress bar that shows the overall progress. For the first three phases, the SMART Quality setup spawns other setup applications with their own progress bars.

#### Phase 1: Install DataServer

This phase starts the installation of the SMART Quality server. In this first part of the installation, it installs the Central DataServer.

The Central DataServer lets a factory to access all the measurement and environment data from one database.

- 1. From the main installation screen, double-click **SMART Quality** to begin the installation process.
- 2. Read and accept the license agreement. Then click Install to open the installation screen.
- 3. During the installation, the installer opens the DataServer Setup Wizard.
- 4. Read and accept the license agreement. You can also change the installation folder. Then click **Install** to open the installation screen.

5. When the installation finishes, this final screen appears. Click **Close** to close this wizard. The Q-DAS Web setup program then opens (see <u>Phase 2</u>).

#### Phase 2: Install Pulse Broker

#### **About Pulse Broker**

The Pulse Broker is a Windows service to record environmental data and save it in the DataServer database. All CMM's in a factory with a Pulse hardware installation sends 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 Pulse tab in the SMART Quality.
- To do advance statistical analysis, you can use Q-DAS.

#### **Installation Process**

This phase continues the installation of the SMART Quality server. It installs Pulse Broker.

- 1. The installer immediately opens the Pulse Broker wizard. Read and accept the license agreement. You can also change the installation folder.
- 2. Click **Install**. During the installation, the mosquitto Setup wizard opens.
- 3. Click **Next** to open the **Dependencies** screen. This lists the packages that requires installation.
- 4. Click **Next** to open the **Choose Components** screen. Clear the check boxes of the components that you don't want to install.
- 5. Click **Next** to open the **Choose Install Location** screen.

Do not change the default folder location. SMART Quality does not support custom location for the mosquitto installation.

- 6. Click **Install**. When the installation finishes, the final screen appears for the mosquitto setup.
- 7. Click **Finish** to close the mosquitto setup.

8. Click **Close** on the main Pulse Broker installation screen.

#### Phase 3: Install Q-DAS Web

This phase continues the installation of the SMART Quality server. In this part of the installation, it installs the Q-DAS Web application.

- 1. The installer immediately opens the Q-DAS Web 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, specify a directory name that contains your Q-DAS Web files. The default directory is QDasWeb.

- 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 Q-DAS Web** screen appears.
- 5. Click **Install**. When the installation finishes, the final screen appears.
- 6. Click **Finish** to close this wizard. The SMART Quality (web application) setup program then opens (see <u>Phase 3</u>).

#### Phase 4: Install SMART Quality (web application)

This phase continues the installation of the 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.
- 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 then opens (see <u>Phase 4</u>).

#### Phase 5: SMART Quality Configuration

The SMART Quality server installation is now done. This phase configures the SMART Quality settings, and the SQL server or Oracle database. It also creates web sites for SMART Quality.

1. The **SMART Quality Configuration** screen appears:
| erver Settin  | gs               |        |
|---------------|------------------|--------|
| Server:       | 192.168.0.109    |        |
| Site name:    | MMSServer        |        |
| File server:  | 192.168.0.109    | •      |
| File site nam | e: MMSFileServer |        |
| Vault:        | C:\Vaults        | Browse |
| Other Setting | js               |        |
| Create site   | es               |        |

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 sets the vault folder. The default is C:\Vaults.

**Create sites** - Select this check box to create sites for SmartPlant Foundation. The site is the fixed geographic area surrounding the site license machine.

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

Qu		SMART Quali	ty Configu	ation	_ □	x
s	MART Quality Data pecify the database type	base System and associated sys	tem informati	on.		
Use ex	xisting database a type:					
Site data	er base server: 50AVGG8SCG\SC	LEXPRESS				
System u	iser:		System pa	ssword:		
sa	/indows authentication	on	*******	**		
		6	Back	Next	🕑 Exi	t

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 SqlServer. Items in reddish brown refer to Oracle. Items in black are common to both. The screen images are from SqlServer.

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:

Qu	SMART Quality Configuration					
SMART Quality Data Enter the location of the d	Schema latabase dump file and the user information for the Data schema.					
Schema data source Dump file location:						
C:\inetpub\wwwroot\SC	Q\SpfFiles\Databases\MMS_DATA.bak					
Database server						
Physical database file location	n: Log file location:					
Default SQL Location	Default SQL Location Default SQL Location					
Database username:	Database name:					
Mms_Data	MMSDATA					
Database password:	Confirm password:					
*****	*****					
	🕞 Back 📀 Next 🕑 Exit					

**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.

Qu	SMART Quality Configuration	×
Create Creating	Web Sites	
70% Import	ing Database	
	Nex	t 🕑 Exit

5. Once the web sites creation finishes, the final screen appears.



6. Click **Finish** to close the configuration wizard. This 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.

	QU HxgN SMART Quality		
	Readme		
	SMART Quality Readme		
	PC-DMIS Readme		
	🧼 Q-DAS Readme		
<b>₽</b>		Back	Exit

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

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

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

## Using SMART Quality for the First Time

# Step 1: Change User Properties for the Uploads folder

This step guides you through changing the properties for the IIS users to upload the files.

- 1. Navigate to the directory C:\inetpub\wwwroot\SmartQuality.
- 2. To open the **Uploads Properties** dialog box, right-click on **Uploads** folder and click **Properties**.

Second 1					
Shann		Security	Previous Versions	Customize	
L	U	ploads			
Type:	Fil	File folder			
Location:	C:	\inetpub\w	www.root\mms		
Size:	48	.0 KB (49,	152 bytes)		
Size on di	sk: 48	48.0 KB (49,152 bytes)			
Contains:	1	1 Files, 0 Folders			
Created:	27	27 September 2013, 15:07:32			
Attributes		Read-only (Only applies to files in folder)			
		Hidden		Advanced	
			K Cance	Apply	

Uploads Properties dialog box

- 3. Click the **Security** tab.
- 4. Click the Edit button to open the Permissions for Uploads dialog box.

		8
object name. C. whetpub www	wood mins toploads	
Group or user names:		
Administrators (IN-HXMTW	/1 25\Administrators)	
& Users (IN-HXMTWL25\Us	ers)	
& IIS IUSRS (IN-HXMTWL2	25\IIS IUSRS)	
StrustedInstaller		
		Pamaura
	Auu	Nemove
Permissions for IIS_IUSRS	Allow	Deny
Full control	1	-
Modify		
Read & execute	<b>V</b>	
List folder contents	$\checkmark$	
Read	$\checkmark$	-
		(and a second se

Permissions for Uploads dialog box

- 5. In the Group or user names area, select IIS\_IUSRS.
- 6. In the Permissions for IIS\_IUSRS area, select Allow for the Full control option.
- 7. Click **Apply** and **OK** to accept the changes.

## Step 2: Define SMART Quality Settings

This dialog box configures the server settings so that you can connect to the 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		
Server:	WIN2012VBServer	
Site name:	MMSServer	
File server:	WIN2012VBServer	
File site name:	MMSFileServer	
Vault:	C:\Vaults	Browse
Q-DAS web server:	180.168.202.164	
Q-DAS web site name:	QDasWeb	
DataServer:	WIN2012VBServer	
Upload Folder		
C:\inetpub\wwwroot\s	q3\Uploads 2MB	Clear
English 🗸	ОК	Cancel

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.



## **Overview**

If you have problems getting 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 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.

General Securit	y Privacy	Conten	Connections	Programs	Advance
Home page —	5.1 			Si di di	
то с	reate home pa	age tabs,	type each add	ress on its o	own line.
ab 🐨	out:blank				*
					-
	Use curr	rent	Use default	Use n	ew tab
Startup ——					
O Start with	tabs from the	e last ses	sion		
@ at 1 11					
Start with	home page				
Tabs	home page				
Start with Tabs Change how	home page webpages are	e displaye	ed in tabs.	Ta	abs
Start with Tabs Change how Browsing histor	home page webpages are y —	e displaye	ed in tabs.	Ta	abs
Start with Tabs Change how Browsing histor Delete tempo	home page webpages are y rary files, hist	e displaye	ed in tabs. kies, saved pas	Ta sswords, and	abs
Start with Tabs Change how Browsing histor Delete tempo form informa	home page webpages are y rary files, hist	e displaye tory, cool	ed in tabs. kies, saved pae	Ta sswords, and	abs
<ul> <li>Start with</li> <li>Tabs</li> <li>Change how</li> <li>Browsing histor</li> <li>Delete tempor</li> <li>form informa</li> <li>Delete browsing</li> </ul>	home page webpages are y rary files, hist tion.	e displaye tory, coo v on exit	ed in tabs. kies, saved pas	Ta sswords, and	abs
<ul> <li>Start with</li> <li>Tabs</li> <li>Change how</li> <li>Browsing histor</li> <li>Delete tempor</li> <li>form informa</li> <li>Delete browsing</li> </ul>	home page webpages are y rary files, hisi tion. owsing history	e displaye tory, coo v on exit	ed in tabs. kies, saved pas Delete	Ta sswords, and	abs d web tings
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Start with Tabs Change how Browsing histor Delete tempo form informa     Olete bro Appearance Colors	home page webpages are y rary files, hist tion. owsing history	e displaye tory, cool v on exit	ed in tabs. kies, saved pas Delete	Sswords, and	abs d web tings
<ul> <li>Start with</li> <li>Tabs</li> <li>Change how</li> <li>Browsing histor</li> <li>Delete tempor</li> <li>form informa</li> <li>Delete browsing</li> <li>Delete browsing</li> <li>Appearance -</li> <li>Colors</li> </ul>	home page webpages are y rary files, hist tion. owsing history Langu	e displaye tory, cool o on exit	ed in tabs. kies, saved pas Delete Fonts	Ta sswords, and Set	abs d web tings ssibility

Internet Options dialog box

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

elete Browsing History	23
Preserve Favorites website data	
Keep cookies and temporary Internet files that enable your favo websites to retain preferences and display faster.	rite
Temporary Internet files and website files	
Copies of webpages, images, and media that are saved for fast viewing.	er
Cookies and website data	
Files or databases stored on your computer by websites to save preferences or improve website performance.	
History	
List of websites you have visited.	
Download History	
List of files you have downloaded.	
Form data	
Saved information that you have typed into forms.	
Passwords	
Saved passwords that are automatically filled in when you sign in to a website you've previously visited.	1
ActiveX Filtering and Tracking Protection data A list of websites excluded from filtering, and data used by Trad Protection to detect where websites might be automatically shar details about your visit.	king ing
About deleting browsing history Delete Cance	

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**.

## SQL Server Cannot Create a Database

**Problem** - The SQL server cannot create a database if the database server and the SMART Quality server exist on separate computers.

Solution - After the installation of SMART Quality, follow these steps:

- 1. Install Microsoft SQL Server 2014 on the SMART Quality server computer. From the **Feature Selection** screen, select the check boxes for these features:
  - Client Tools Connectivity
  - Client Tools Backwards Compatibility
  - Client Tools SDK
  - Management Tools Basic
  - Management Tools Complete
  - SQL Client Connectivity SDK

As an alternative to installing the above shared features, you can install these feature packages:

- Microsoft ODBC Driver 11 for SQL Server Windows (msodbcsql.msi)
- Microsoft Command Line Utilities 11 for SQL Server (MsSqlCmdLnUtils.msi)
- 2. On the SMART Quality server computer:
  - a. Access this folder: C:\inetpub\wwwroot\SmartQuality\SpfFiles\Databases
  - b. From that folder, make a copy of the **MMS\_DATA.bak** file.
- 3. On the database server computer, on the C:\ drive, paste the MMS\_DATA.bak file.
- 4. On the SMART Quality server computer:
  - a. Access this folder: C:\inetpub\wwwroot\SmartQuality\SpfFiles
  - b. From that folder, run the SpfServerManager.exe file to open the SMART Quality Configuration wizard.

- 5. From the "<u>Install SMART Quality</u>" topic, follow Step 8 and Step 9. Once those are done, return to the procedure below.
- 6. On the **SMART Quality Cadence Database System** screen, from the **Database type** list, select **Microsoft Sql Server**.
- 7. Click Next to open the SMART Quality Cadence Data Schema screen.
- 8. In the **Dump file location** box, type **C:\MMS\_DATA.bak**.

SMART	SMART Quality Configuration					
SMART Quality Data Schema						
Enter the location of the database dur	np file and the user information for the Data schema.					
Schema data source						
Dump file location:						
C:\MMS_DATA.bak						
Database server						
Physical database file location:	Log file location:					
Default SQL Location	Default SQL Location					
Database username:	Database name:					
Mms_Data	MMSDATA					
Database password:	Confirm password:					
****	****					
	🕞 Back 📀 Next 🚺 Exit					

9. From the "Install Smart Quality" topic, follow Step 12 through Step 16.

## Configuration

## Setup an Email Server

Once the new 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. Click **Start**, point to **All Programs**, right-click **SmartPlant Foundation Server Manager**, and click **Run as administrator**.
- 2. From the left pane of the **SmartPlant Foundation Server Manager** dialog box, expand **SmartPlant Foundation Sites**, expand **SPF**, and then click **Settings**.

SmartPlant Foundation Server Manager		
Eile Edit Database Iools Help		
→ ▲ ■ ■ × ↓ ↓ ↓ ↓ ↓	1 million and the second se	
Sinan-Tart Foundation Server Manager     Sinan-Tart Foundation File Server     Sinan-Tart Foundation File Server     Sinan-Tart Foundation File Server     Sinand-Tart Foundation File Server     Sinand-Tart Foundation Remote Services     Sinand-Tart Foundation Server     Sinand-Tart Foundation Server	Properties Data Source Data Catalog D Multiple active result sets D User ID D Password	Value CHENHTOCHENSOL MMS_DATA True MMS_DATA
- File Service Settings - B FTR Settings - B FTR Settings - B System Settings - B SmartPlant Foundation Web Ponals	Site path     Site vincel directory     De ConfigServiceURL     De databaseVpe     DecembernativeOracle     DevembernativeOracle     DevembernativeOracle	D'SmanPlant Foundation 2009 Server Files(Web_Sites(SPFR4Server SPFR4Server net pps://CHE04/200/SPFConfigSvc SQLSERVER True False
	B DefaultConfgTreeLevels B ProgressLogDirectory B Fiels Service Timeout B Fiels Service Timeout B RemoteService Timeout B XMLCompression Enabled B MMSV/ewDir	3 c:Verrp SPFFileServer 40000 40000 Palse D1SmarPlant Foundation 2014 Server Files/FileServiceI/MMSViewDir
	LighMSVewOHtostP LigEnail:DefaulFionAdvess LigEnail:MalDiant LigEnail:SMTPHost LigEnail:SMTPHost LigEsbAubLogin LigSteSchemol.comion LigDetailPublishWokkow LigSkipFailedDocumentshLoad	MMS@HexagonMetrology.com CD0 smtp1hexagonmetrology.com False C-Phogram Files (x66)(Common Files(Intergraph)EPSchema False
	U)LoaderOutputGroupCount	20
	Becommand imeduteconds DefethSize DCDWEnabled DEnableScheduler BDTCTiteDisplay	600 1216000 False Trose (Server name \$SERVERNAME Site \$WEBHOST(\$WEBD(R User \$USER)
	DefaultSPFServerURL DefaultSPFServerURL DefaultServiceURL DefaultServerURL	http://CHEN4700/SPFR4Sorver net.pipe://CHEN4700/SPPCacheSwc Http://CHEN4700/SPPLS

- 3. 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 systemgenerated 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 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 "<u>Settings for Authentication</u>" and "<u>Settings for Application Pools</u>".

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## **Settings for Authentication**

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

 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.

Group by: No Grouping	· · · · · · · · · · · · · · · · · · ·	
Name 🔺	Status	Response Type
Anonymous Authentication	Disabled	
ASP.NET Impersonation	Disabled	
Basic Authentication	Disabled	HTTP 401 Challenge
Digest Authentication	Disabled	HTTP 401 Challenge
Forms Authentication	Disabled	HTTP 302 Login/Redirect
Windows Authentication	Enabled	HTTP 401 Challenge

- 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	? ×
Enabled Providers:	
NTLM Negotiate	Move <u>U</u> p
	Move <u>D</u> own
	<u>R</u> emove
Select a provider from the list of available providers and click Add to add it to the enabled providers.	
Available Providers:	
	<u>A</u> dd
ОК	Cancel

- 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 "<u>Windows Authentication</u>".

- **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 "<u>Anonymous Authentication</u>".

## **Settings for Application Pools**

#### **Windows Authentication**

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

	y X
ord:	
OK	Cancel
	ord:

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.

Select this object type:	
Groups	Object Types
From this location:	
USWAI-PC-Q1807	Locations
Enter the object names to select (examples):	
	Check Names
	1.8

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

lect Groups	
Select this object type:	
Groups	Object Types
From this location:	
USWAI-PC-Q1807	Locations
Common Queries	
Name Starts with *	Columns
Description Starts with	FingNow
Disabled accounts	Stop
Nón expiring password	
Days since last logon:	
Search results:	OK Cancel
lame (RDN) In Folder	

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

Search results:		OK	Cancel
Name (RDN)	In Folder		^
R vnware	USWALPC-G1807		
Administrators	USWAI-PC-Q1807		=
Backup Oper	USWAI-PC-Q1807		11
R Cryptographic	USWAI-PC-Q1807		
Distributed C	USWAI-PC-Q1807		
Event Log Re	USWAI-PC-Q1807		
Guests	USWAI-PC-Q1807		
HelpLibraryUp	USWAI-PC-Q1807		
Home Users	USWAI-PC-Q1807		
RE IIS_IUSRS	USWAI-PC-Q1807		

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

Select this object type:	
Groups	Object Types
From this location:	
USWAI-PC-Q1807	Locations
Enter the object names to select ( <u>examples</u> ):	
USWAI-PC-Q1807\IIS IUSRS	Check Names

- 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.

Manha	Member C	Profile				
Milis Missofi Milisof	JUSRS Jser ers					
			Changes	to a user's gr	oup membe	ership
A-A-Add		Remove	are not e	ffective until t	he next tim	e the



#### Add 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**

- 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).

	Application Pools					_	
Ele View Help connections	Application Pools  Application Pools  Application Pools  This page lets you view and manage the I contain one or more applications, and pn  Fitter:  Application Pool  Application  Applica	ist of application pools on ovide isolation among diff Status NET Fram Started v4.0 Started v4.0 Started v2.0 Started v2.0 Started v4.0 Started v4.0 Started v4.0 Started v4.0 Started v4.0 Started v4.0 Started v4.0 Started v4.0	the server. Applicat rent applications. No Grouping Managed Pipel Integrated Classic Classic Classic Integrated Integrated Integrated Integrated Integrated Integrated Integrated	ion pools are associate ApplicationPoold ApplicationPoold ApplicationPoold MMSCacheSvc MMSSFileServer LocalSystem SPFLS	ed with worker processes,		Add deplication Pool Set Application Pool Tasks Set Application Pool Tasks Start Stop Recyclie Edit Application Pool Basic Settings Recycling Advanced Settings Retatame Remove View Applications Help Online Help

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

10.5
10
10.
10
10
1
*

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

Appli	cation Pool Identity	a starter	? X
0	Built-in account:		
	ApplicationPoolIdentity		
0	Custom account:		
			Set
		ок	Cancel

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 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:

```
<ServerSetttings>
<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:

F	) 🔿 🔽 h	ttp:// <b>180.168.2</b> 0	<b>)2.162</b> /mms3/#	# <mark>/hexagon</mark> (	A		
File	Edit View	Favorites To	ols Help				
*	DASHBOARD	MACHINES	PRODUCTS	QS-STAT	REPORTS	HEXAGON	B

A - This comes from the  $\langle tab \rangle$  node's title attribute. B - This comes from the  $\langle tab \rangle$  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.

## **DataServer Configuration**

## **Database Configuration**

The DataServerHostService.exe.config 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 file in the directory below:

C:\Program Files\Hexagon\DataServer 3.0 64-bit\DataServerHostService.exe.config

- 1. Open the DataServerHostService.exe.config configuration file in a text editor, such as Notepad.
- 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 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**.

- 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;User ID=hexmet\_datauser;Password=HEXMET\_DATAUSER\_PASSWORD;MultipleActiveRe sultSets=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 SMART Quality data, you need the latest log file.

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You can find the log files in this folder:

C:\Program Files\Hexagon\DataServer 3.0 64-bit\Logs

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 3.0 64-bit\DataServerLogger.config

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".

## **Service Options**

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

C:\Program Files\Hexagon\DataServer 3.0 64-bit\ServiceOptions.config

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-DASspecific 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".

## **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 log files in this folder:

C:\Program Files\Hexagon\DataServer 3.0 64-bit\EventManagerOptions.config

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".
## **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.

👰 Task Manager	_			
File Options View				
Processes Performance Apphistory Startup Users Details	Services			
Name	PID	Description	Status	Group ^
😪 ClipSVC	19200	Client License Service (ClipSVC)	Running	wsap
G COMSysApp		COM+ System Application	Stopped	
CoreMessagingRegistrar	1576	CoreMessaging	Running	Local
😘 cphs	17708	Intel(R) Content Protection HECI Ser	Running	
😪 cplspcon		Intel(R) Content Protection HDCP Se	Stopped	
CryptSvc	1076	Cryptographic Services	Running	Netw
G CscService		Offline Files	Stopped	Local
DataServerHostService	34232	Hexagon DataServer Service	Running	
Cara Data SyncHost Service	3732	Hexagon DataSync Service	Running	
😪 dbupdate		Dropbox Update Service (dbupdate)	Stopped	
😪 dbupdatem		Dropbox Update Service (dbupdatem)	Stopped	
C DbxSvc	3768	DbxSvc	Running	
😪 DcomLaunch	976	DCOM Server Process Launcher	Running	Dcorr
😘 DcpSvc		DataCollectionPublishingService	Stopped	netsv
端 defragsvc		Optimize drives	Stopped	defra
Characteristics Construction Services	16756	Dell Foundation Services	Running	
🔍 DellDataVault	13960	Dell Data Vault	Runnina	*
<				>

🔿 Fewer details | 🆓 Open Services

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

# **DataSync Configuration**

## 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 SMART Quality data, you need the latest log file.

You can find the log files in this folder:

C:\Program Files\Hexagon\DataSync 3.0 64-bit\Logs

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 3.0 64-bit\DataSyncLogger.config

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

C:\ProgramData\Hexagon\DataSync\Settings.config

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".

### **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**.

🚱 Task Manager				_	o ×
File Options View					
Processes Performance App history Startup Users	Details	Services			
Name		PID	Description	Status	Group ^
COMSysApp			COM+ System Application	Stopped	
CoreMessagingRegistrar		1576	CoreMessaging	Running	Local
😘 cphs		17708	Intel(R) Content Protection HECI Ser	Running	
端 cplspcon			Intel(R) Content Protection HDCP Se	Stopped	
CryptSvc		1076	Cryptographic Services	Running	Netw
GscService			Offline Files	Stopped	Local
CataServerHostService		20252	Hexagon DataServer Service	Running	
G DataSyncHostService		3732	Hexagon DataSync Service	Running	
🧠 dbupdate			Dropbox Update Service (dbupdate)	Stopped	
🔍 dbupdatem			Dropbox Update Service (dbupdatem)	Stopped	
G DbxSvc		21272	DbxSvc	Running	
ComLaunch		976	DCOM Server Process Launcher	Running	Dcorr
端 DepSve			DataCollectionPublishingService	Stopped	netsv
端 defragsvc			Optimize drives	Stopped	defra
Contraction Services		16756	Dell Foundation Services	Running	
端 DellDataVault		13960	Dell Data Vault	Running	
CellDataVaultWiz		16692	Dell Data Vault Wizard	Runnina	~
<					>

Fewer details | Solution Open Services

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

## **Pulse Broker Configuration**

By default, the Pulse Broker service automatically restarts in case of a system error.

From the SMART Quality Pulse Broker Properties dialog box, you can change the settings.

#### Readme

SMART Quality Pulse Broker Properties (Local Computer)						
General Log On	Recovery	Dependencies				
Select the computer's response if this service fails. Help me set up recovery actions.						
<u>First failure:</u>		Restart the Service ~				
Second failure:		Restart the Service ~				
Subsequent failure	s:	Restart the Service ~				
Reset fail c <u>o</u> unt aft	er:	0 days				
Restart ser <u>v</u> ice afte	er:	1 minutes				
Enable actions for stops with errors. <u>R</u> estart Computer Options						
Program:						
<u>B</u> rowse						
Command line parameters: Append fail count to end of command line (/fail=%1%)						
OK Cancel Apply						

More:

## 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 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\SQPulseBrokerLogger.config

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, Warning, and so forth. 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 file in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\Settings.config

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 with which the service processes the data. The default value is 60.

- DataServerProcessingIntervalInSeconds This is the frequency 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 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 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 file in this folder:

C:\Program Files\Hexagon\SMART Quality Pulse Broker\SQPulseBrokerHostService.exe.config

If you change the location of the DataServer service, the localhost address also needs to update 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 the port 4233. If the port is turn off, IT can only enable it. The web.config file lets you add a new port. You need to modify the Pulse Broker address.

You can find the file in this folder:

C:\inetpub\<SMART Quality installation directory>\web.config

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 file in this folder:

```
C:\Program Files\Hexagon\SMART Quality Pulse
Broker\SQPulseBrokerHostService.exe.config
```

You need to change the following setting:

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