

Q-Station

User Manual

4535 616 40761 Rev A
June 2012



© 2012 Koninklijke Philips Electronics N.V. All rights reserved. Published in USA.

PHILIPS

Manufactured by Philips Ultrasound

22100 Bothell-Everett Highway

Bothell, WA 98021-8431

USA

Telephone: +1 425-487-7000 or 800-426-2670

Fax: +1 425-485-6080

www.healthcare.philips.com/ultrasound



This Medical Device meets the provisions of the transposition of the Medical Device Directive 93/42/EEC within the country of origin of the Notified Body concerned with the device.

European Union Representative

Philips Medical Systems Nederland B.V.

Quality & Regulatory Affairs

Veenpluis 4-6

5684PC Best

The Netherlands

WARNING

United States federal law restricts this device to sale by or on the order of a physician.

This document and the information contained in it is proprietary and confidential information of Philips Healthcare ("Philips") and may not be reproduced, copied in whole or in part, adapted, modified, disclosed to others, or disseminated without the prior written permission of the Philips Legal Department. This document is intended to be used by customers and is licensed to them as part of their Philips equipment purchase. Use of this document by unauthorized persons is strictly prohibited.

Philips provides this document without warranty of any kind, implied or expressed, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Philips has taken care to ensure the accuracy of this document. However, Philips assumes no liability for errors or omissions and reserves the right to make changes without further notice to any products herein to improve reliability, function, or design. Philips may make improvements or changes in the products or programs described in this document at any time.

Unauthorized copying of this document, in addition to infringing copyright, might reduce the ability of Philips to provide accurate and current information to users.

This product may contain remanufactured parts equivalent to new in performance, or parts that have had incidental use.

Philips Ultrasound products may be manufactured under or operate in accordance with one or more of the following United States patents and corresponding patents in other countries: U.S. Patent Numbers 5,533,510; 5,800,356; 6,447,453; 6,447,454; 6,582,367; 6,676,606; 6,692,438. Other patent applications are pending in various countries.

"QLAB" is a trademark of Koninklijke Philips Electronics N.V.

Non-Philips product names may be trademarks of their respective owners.

Contents

I	Read This First.....	7
	Intended Audience.....	7
	Intended Use.....	7
	User Information Components.....	8
	User Information Conventions.....	8
	Upgrades and Updates.....	10
	Customer Comments.....	10
	Customer Service.....	10
2	Q-Station Installation.....	11
	Computer Requirements.....	12
	Removing MSXML 6 SP2.....	13
	Network Requirements.....	14
	Network Requirements for Q-Station Installation.....	14
	Network Requirements for Configuring the Q-Station Computer.....	15
	Computer Security Policy Option.....	21
	Computer Security Policy Settings and Default Values.....	21
	Changing the OS Policy Settings.....	22
	Installing the Software.....	22
	Software Registration.....	25
	Automatically Registering the Software.....	25
	Manually Registering the Software.....	27
	User Accounts.....	29
	Creating a New User Account.....	30
	Adding a User to the PMW Clinical User Group.....	30
	Managing User Accounts.....	31
	Verifying the Software Installation.....	31
	Administrator Account Removal.....	32

3	Remote Services.....	33
	Configuring Remote Services Connection Settings.....	33
	Enabling Remote Access.....	34
	Requesting Online Support.....	35
	Viewing Support-Request History.....	36
4	Q-Station Basics.....	37
	Security.....	38
	Logging On.....	39
	Locking the Q-Station Software.....	39
	Logging Off.....	40
	Common Elements.....	40
	Data Type Icons.....	41
	Messages and Notifications.....	42
	Job Viewer.....	43
	Using the Job Viewer.....	43
	Full-Screen Mode.....	43
	Q-Assistant.....	44
	Q-Station Options.....	45
	Viewing Installed Q-Station Options.....	46
	Q-Station Compatibility.....	46
5	Working with the Q-Station Software.....	49
	Studies.....	49
	Data Panel.....	49
	Retrieving Study Data from PACS/Archive.....	50
	Transferring Studies Data to Your Workstation.....	51
	Archiving Data to a DICOM Archive.....	52
	Setting CD/DVD Write Preferences.....	52
	Writing a Disc Using Preferred Settings.....	52
	Viewing.....	53
	Displaying the Image Toolbar.....	53

Image Toolbar Controls.....	53
Performing Wall Motion Scoring.....	55
Making Measurements.....	56
Annotating an Image.....	58
Capturing an Image.....	58
Analyzing Images in QLAB.....	59
Reports.....	60
Viewing an Approved Report.....	61
Editing a Report.....	61
Setting Electronic Signatures on Reports.....	62
Approving a Report.....	63
Printing a Report.....	63
Custom Report Templates.....	63
Export.....	64
Export Toolbar Controls.....	64
Patient Data Export.....	65
Exporting Data in DICOM Format.....	66
Saving Images.....	67
Saving a Loop as a Movie.....	68
6 System Management.....	69
Specifying System Information.....	69
Q-Station Data Locations.....	69
Configuring a Windows 7 Network Share.....	70
Configuring a Windows XP Network Share.....	71
Configuring a Local File Repository or NTFS USB Drive.....	73
Specifying Storage Locations for Q-Station Data.....	74
Backing Up Configuration Settings.....	75
Restoring Configuration Settings.....	76
7 Network and DICOM Settings.....	77
Checking Network Settings.....	78

Adding DICOM Devices.....78

Editing DICOM Devices.....80

Deleting DICOM Devices.....80

Testing DICOM Devices.....80

ECG Configuration.....81

 Activating the ECGServiceUser Account.....82

 Configuring Access to ECG Reports.....83

 Configuring Access to ECG Raw Data.....84

 Specifying the Date Format for StressVue XML.....84

 ECG Data Flow Troubleshooting.....84

Index.....87

1 *Read This First*

The *Q-Station Help* and *Q-Station User Manual* are intended to assist you with the safe and effective operation of your product. Before attempting to use the product, read the user information and strictly observe all warnings and cautions.

The user information for your Philips product describes the most extensive configuration of the product, with the maximum number of options and accessories. Some functions described may be unavailable on your product's configuration.

Intended Audience

Before you use your Q-Station, you need to be familiar with diagnostic techniques. Sonography training and clinical procedures are not included here.

This document is intended for sonographers, physicians, IT personnel, and biomedical engineers who operate and maintain your Philips product.

Intended Use

This product is intended to be installed, used, and operated only in accordance with the safety procedures and operating instructions given in the product user information, and only for the purposes for which it was designed. However, nothing stated in the user information reduces your responsibility for sound clinical judgment and best clinical procedure.

Installation, use, and operation of this product is subject to the law in the jurisdictions in which the product is used. Install, use, and operate the product *only* in such ways that do not conflict with applicable laws or regulations, which have the force of law.

Use of the product for purposes other than those intended and expressly stated by Philips, as well as incorrect use or operation, may relieve Philips or

its agents from all or some responsibility for resultant noncompliance, damage, or injury.

WARNING

System users are responsible for image quality and diagnosis.

User Information Components

The user information provided with your product includes the following components:

- **Q-Station User Manual:** Introduces you to features and concepts and helps you set up and configure your software.
- **Q-Station Help:** Available on the product in some languages, the *Q-Station Help* contains comprehensive instructions for use. It also provides descriptions of all controls and display elements. To display the Help, click **Help**.
- **Q-Station Operating Notes:** Contains information that clarifies certain product responses that might be misunderstood or cause user difficulty.
- **Shared Roles for System and Data Security:** Contains guidelines to help you understand how the security of your Philips product could be compromised and information on Philips' efforts to help you prevent security breaches.

User Information Conventions

The user information for your product uses the following typographical conventions to assist you in finding and understanding information:

- All procedures are numbered, and all subprocedures are lettered. You must complete steps in the sequence they are presented to ensure success.
- Bulleted lists indicate general information about a particular function or procedure. They do not imply a sequential procedure.
- Control names and menu items or titles are spelled as they are on the system, and they appear in bold text.

- The *pointer* is the cursor used to select elements on the display.
- *Point* means to position the tip of the pointer or cursor on an item on the display.
- *Click* or *select* means to move the pointer to an object and press the primary mouse button.
- *Double-click* means to quickly click twice to select an object or text.
- *Right-click* means to point at an item and then press the right mouse button, without moving the mouse.
- **Shift**+*click* means to press and hold the **Shift** key while clicking an item on the display.
- **Ctrl**+*click* means to press and hold the **Ctrl** key while clicking an item on the display.
- *Drag* means to place the cursor over an object and then press and hold the mouse button while moving the mouse.

Information that is essential for the safe and effective use of your product appears throughout your user information as follows:

WARNING

Warnings highlight information vital to the safety of you, the operator, and the patient.

CAUTION

Cautions highlight ways that you could damage the product and consequently void your warranty or service contract or ways that you could lose patient or system data.

NOTE

Notes bring your attention to important information that will help you operate the product more effectively.

Upgrades and Updates

We are committed to innovation and continued improvement. Upgrades may be announced that consist of software improvements. Updated user information will accompany those upgrades.

Customer Comments

If you have questions about the user information, or you discover an error in the user information, in the USA, please call Philips at 800-722-9377; outside the USA, please call your local customer service representative.

Customer Service

Customer service representatives are available worldwide to answer questions and to provide maintenance and service. Please contact your local Philips representative for assistance. You can also contact the following office for referral to a customer service representative, or visit the Philips Healthcare "Contact Us" website:

www.healthcare.philips.com/main/about/officelocator/index.wpd

Philips Ultrasound Headquarters

22100 Bothell-Everett Highway, Bothell, WA 98021-8431, USA
800-722-9377

2 *Q-Station Installation*

To ensure that the Q-Station software installs successfully and operates correctly, it is critical that you perform the installation procedure exactly and in the order written. Also, because Philips provides remote support for the Q-Station software, Philips requires that the Q-Station computer have internet access.

Some procedures require using the computer's operating system (OS) software and not the Q-Station software. Detailed instructions for performing those OS procedures are not included here, because the procedures could vary depending on the OS type and version. See the OS Help for detailed instructions. This user manual provides suggested phrases to search for in the OS Help.

The installation procedure comprises the following tasks:

1. Verify that the computer meets or exceeds the minimum requirements (see ["Computer Requirements" on page 12](#)).
2. Confirm or collect the network information (see ["Network Requirements" on page 14](#)).

CAUTION

If the Q-Station PC is part of a wireless network, use only secured wireless technologies. For more information about network security, see *Shared Roles for System and Data Security*, which is included with your Q-Station software.

3. Decide whether to enable OS Hardening (see ["Computer Security Policy Option" on page 21](#)).
4. Install the software (see ["Installing the Software" on page 22](#)).
5. Register the software and obtain the license file (see ["Software Registration" on page 25](#)).
6. Restart the computer.

7. Manage user accounts (see ["User Accounts" on page 29](#)).
8. Verify the software installation (see ["Verifying the Software Installation" on page 31](#)).
9. Remove the administrator account from the **PMWClinicalUserGrp** group (see ["Administrator Account Removal" on page 32](#)).
10. Establish the remote connection (see the ["Remote Services"](#) section).

Computer Requirements

Before the software can be used on your computer, your computer must meet or exceed the following minimum requirements. For more information, search the Windows Help for **get information about your computer**.

- Windows XP Professional (32 bit, with Service Pack 3) or Windows 7 (32 bit and 64 bit) (Windows Vista is unsupported)
- Intel Core 2 Duo or greater processor or AMD Athlon 64 X2 or greater processor
- 2 GB RAM
- 64 MB or greater video card with Open Graphics Library (OpenGL) and Pixel Shader 3.0 support
- 7,200 RPM hard drive with a minimum of 40 GB of available space
- CD-ROM/DVD RW drive
- USB port
- LAN port
- Microsoft Word 2007 or Microsoft Word 2010
- Mouse with a scroll wheel
- Standard Microsoft (or equivalent) keyboard
- Monitor with 1600x1024 or greater resolution

NOTES

- If you are installing on Windows XP, you must remove MSXML 6 Service Pack (SP) 2 from the destination computer before installing the Q-Station

software. If MSXML 6 SP2 is present, the system configuration check fails. See "[Removing MSXML 6 SP2](#)" on page 13.

- You cannot install the Q-Station software on a computer if the DPI (text size) setting is set to **Large Size**. The DPI setting must be **Normal Size**.
- To determine your computer's hardware specifications, see the computer's hardware documentation, contact the manufacturer, or search the Internet.
- If you are unsure that your computer meets the minimum requirements, continue the installation. The System Configuration Check will alert you to any discrepancy.
- If your computer meets only the minimum requirements, the software installation could require more time to complete than it would on a computer that exceeds the requirements.

Removing MSXML 6 SP2

The Q-Station SQL database does not install correctly if the Microsoft MSXML 6 SP2 is installed on the destination computer. Before installing the Q-Station software, remove the MSXML 6 SP2.

1. On the destination computer, open **Add/Remove Programs** (Windows XP) or **Programs and Features** (Windows 7).
2. If the Microsoft MSXML 6 SP2 is listed as an installed program, select it and click **Remove**.
3. Do one of the following:
 - If the removal is successful, you can ignore the remaining steps of this procedure and install the Q-Station software.
 - If the removal fails, go to step 4.
 - If the removal is successful, but Q-Station installation still fails, go to step 4.
4. In the **Tools** directory of the Q-Station Installation DVD, double-click **msicuu2.exe**.
5. Install the **Clean Up** utility by following the prompts in the **Windows Installer Clean Up Setup** wizard.

6. Click **Start** and **All Programs**, and then select **Windows Install Clean Up**.
7. In the list of programs, select **MSXML 6 Service Pack 2 (KB954459) [6.20.1099.0]**.
8. Click **Remove**.

Network Requirements

CAUTION

If the Q-Station PC is part of a wireless network, use only secured wireless technologies. For more information about network security, see *Shared Roles for System and Data Security*, which is included with your Q-Station software.

Before installing the Q-Station software and to ensure a complete and successful installation, Philips recommends that you confirm or collect specific network information. The network information is required for these purposes:

- To allow installation of the Q-Station software
- To enable the Q-Station computer to operate in your network environment, exchange data with DICOM devices (PACS and ultrasound systems), and accept remote support from Philips

If your facility has an information-technology (IT) department, confer with the IT network administrator as necessary.

Network Requirements for Q-Station Installation

The following network requirements are for installing the Q-Station software onto your computer.

- Access to the Internet
- Port 443 (outbound only) open in the firewall
- Port 80 (to enable automatic registration) open in the firewall
- If a proxy server is used, you need the proxy server address, the user name, and the password.

NOTE

Port 443 is used for secure Web sites (URLs that begin with "https://"), and port 80 is used for regular Web sites. Most facilities that have Internet access have those ports open in the firewall.

Network Requirements for Configuring the Q-Station Computer

The items listed in the "Setting Name" column of the following tables are the network requirements for configuring the Q-Station computer to operate in your network environment and accept remote support from Philips. Some of these items may not apply to your network. Write the settings that apply to your network in the spaces provided.

Q-Station Computer Settings

Setting Name	Setting for Your Network
Automatic IP Address	
Fixed IP Address	
Subnet Mask	
Default Gateway	
DNS Server	
AE Title	
Port Number	

Ultrasound System I Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Port Number	

Setting Name	Setting for Your Network
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

Ultrasound System 2 Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Port Number	
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

Ultrasound System 3 Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Port Number	
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

Archive PACS Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Port Number	
Does the system support Native Data ?	
Does the system support ECG Data ?	
Does the system support Structured Report ?	
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

Query/Retrieve PACS Settings

Setting Name	Setting for Your Network
Does this system use the same settings as the archive PACS?	
IP Address	
AE Title	

Setting Name	Setting for Your Network
Port Number	
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

Send PACS Settings

Setting Name	Setting for Your Network
Does this system use the same settings as the archive PACS?	
IP Address	
AE Title	
Port Number	
Device Name ¹	

1. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

DICOM Storage Commit Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Device Name ¹	

Setting Name	Setting for Your Network
Port Number	

- I. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

DICOM MPPS:RIS Settings

Setting Name	Setting for Your Network
IP Address	
AE Title	
Device Name	
Port Number	

- I. The **Device Name** is a name you choose for a specific device (such as an ultrasound system or server). It is the name that appears in Q-Station messages and dialog boxes regarding that device.

StressVue ECG System Settings

Setting Name	Setting for Your Network
Computer name	
ECG raw data locations ¹	
ECG report locations ¹	
If used, computer name for report archive location(Destination Directory) ¹	
Report formats to transfer to archive	PDF
	Philips XML
	Alternate XML
	TIFF

1. Write the path to the directory in this format:
\\computername\Shared_Folder_Name.

Audit Server Settings

Setting Name	Setting for Your Network
IP Address	
Host Name	
Network Protocol	TCP
	UDP
Port Number	

Computer Security Policy Option

The computer security policy option offered during the software installation is designed to increase the security of patient data by changing some of the Windows OS settings. It is intended for use in office environments that do not have an information technology (IT) department. If your office has an IT department, your office probably has a security policy. Ask your IT department if you should select this option during installation. After the **Computer Security Policy** option is enabled, no "undo" function is available, and the system administrator must manually restore the OS settings.

Computer Security Policy Settings and Default Values

If you select the **Computer Security Policy** option during installation, it changes the **Administrator** account name, changes the policies for passwords and the locking and disabling of accounts, and sets default values for those policies. The policies and their default values are as follows:

The **Computer Security Policy** option changes the **Administrator** account name for these reasons:

- **Administrator** is an easy access point for hackers, because it has a known name.
- Changing the name increases system security.

An account is locked for 5 minutes, if 10 invalid log-on attempts occur within 5 minutes.

The password policy is enforced as follows:

- Logging on requires a user name and password.
- Strong passwords are required.
- A password-protected screen saver appears after 15 minutes of inactivity.
- The 12 previous passwords are not allowed.

A strong password has the following properties:

- A minimum length of eight characters
- Three of four character types (uppercase, lowercase, number, and a special character)
- Must be changed every 90 days
- Cannot contain the associated user name
- Cannot contain words that can be found in a dictionary
- Cannot contain repeated or sequential letters or numbers (for example: abcd, aaa, 5432, 1111)

Changing the OS Policy Settings

You must have administrator privileges and use the Windows OS interface and tools to change the policy settings. For details, search the Windows Help for **local security settings**.

Installing the Software

To install the software, you must be logged on with local administrator privileges. Philips recommends that you create a unique local administrator account named **QAdmin** to install the Q-Station software. Using the **QAdmin** account increases the security of the Q-Station software installation and data. You can use that account after the installation to verify Q-Station operation.

CAUTION

If you are upgrading the Q-Station software from version 1.x, do not uninstall the previous version. Uninstalling the previous version before upgrading to the current version may result in an inability to reattach an existing patient database.

NOTES

- Installing Q-Station software automatically upgrades any previous version.
 - During installation, some anti-virus applications or other software programs designed to protect the PC may display warning messages that alert you that unknown software is being installed. Ignore or close those messages, and allow the Q-Station installation to proceed.
-

The Installation Wizard performs the software installation and prompts you at various times during the installation as it proceeds through the installation sections.

1. Before you begin the installation:

- Ensure that the target computer meets the minimum requirements (see ["Computer Requirements" on page 12](#)).
- If the target computer is on a network, ensure that the network meets the minimum requirements (see ["Network Requirements for Q-Station Installation" on page 14](#)).
- Ensure that you have the original Q-Station DVD case available. It has the Q-Station serial number, which is required for the registration process.

2. Create the **QAdmin** account. For details, search the Windows Help for **add a new user to the computer**.

3. Use the **QAdmin** account to log on to the computer.

4. Place the installation DVD in the DVD drive and wait a few moments for the Installation Wizard to start.

5. If the Installation Wizard does not start automatically, use Windows Explorer to navigate to **Setup.exe** on the DVD, and then double-click **Setup.exe** to start the installation.

6. On the **Welcome** display, select the installation language and click **Next**.

7. Read and accept the license agreement. (If you do not accept the license agreement, the Installation Wizard prompts you to exit the installation.)
8. Click **Next**.
9. In the **System Configuration Check** dialog box, do one of the following:
 - If the system passed the System Configuration Check, click **Next**.
 - If any item has a warning, review it carefully. You may choose to correct the item before proceeding with the software installation, or you may choose to continue the software installation without correcting it. If you choose to continue the software installation, click **Next**.
 - If any item failed, the software installation stops. Exit the software installation and resolve the item before restarting the software installation.
10. In the **Configure Patient Database** dialog box, select a destination drive and set the amount of disk space for the patient database.
11. Click **Next**.
12. The Installation Wizard prompts you to select whether to apply the **Computer Security Policy** option. For details about this feature, see ["Computer Security Policy Option" on page 21](#). If you do not want to apply the **Computer Security Policy** option, select **Maintain existing computer security policies**.

NOTE

After the **Computer Security Policy** option is enabled, no "undo" function is available, and the system administrator must manually restore the OS settings.

13. Click **Install**.
14. The Installation Wizard checks for Microsoft .NET Framework. If the computer has Microsoft .NET Framework installed, the Q-Station software installation continues. If the computer does not have Microsoft .NET Framework installed, the Installation Wizard installs it and restarts the computer to complete the .NET Framework installation; this requires you to log on to continue the Q-Station software installation.

15. The main part of the software installation continues, which requires approximately 30 minutes to complete. Meanwhile, the main progress indicator may seem to be inactive for several minutes, but other dialog boxes in the background show activity. This is normal. Allow the dialog boxes to process; do not click them or press any key.
16. In the **Installation Succeeded** dialog box, click **Register** to launch the Registration Wizard and obtain the license file.

NOTE

If the **Installation Failed** dialog box appears, follow its instructions to restart the computer and restart the software installation.

Software Registration

Before you can use the Q-Station software, you must register it to obtain the license file. There are two methods for registering the software and obtaining the license file:

- Automatic registration, which occurs when the Q-Station computer is connected to the Internet.
- Manual registration, which is required when the Q-Station computer is not connected to the Internet. This method requires using another computer that is connected to the Internet.

Automatically Registering the Software

If the Q-Station computer is connected to the Internet, complete the following steps. If the Q-Station computer is not connected to the Internet, see ["Manually Registering the Software" on page 27](#).

- I. Ensure that you have the following items available:
 - A registration name (your name)
 - Your valid e-mail address
 - The Q-Station software serial number from the Q-Station DVD case

2. In the Q-Station Registration Wizard, select **I Am Connected to the Internet and Would Like to Register Now**, and then click **Next**.
3. Type the required information, and then click **Next**.
4. Type the Q-Station serial number (from the CD case) in the **Serial Number** text box and click **Next**. The Registration Wizard automatically obtains the license file and displays the **Registration Complete** message.

NOTE

The license file is specific to your Q-Station computer and cannot be used with another computer.

5. In the **Registration Complete** dialog box, select **I Would Like to Back Up My License File**, and click **Finish** to make a backup copy of the license file.
6. In the **Select Backup Location** dialog box, select the location to which you want to save the license file and click **Save**.
7. Do one of the following:
 - If the **Installation Succeeded** dialog box appears, click **Restart** to restart the computer and complete the software installation.
 - If the **Installation Succeeded** dialog box does not appear, manually restart the computer to complete the software installation.
 - If the **Installation Failed** dialog box appears, follow the instructions to restart the computer and restart the software installation.
8. Verify that the following icons are on the desktop:
 - Q-Station icon, for opening the Q-Station application.
 - Q-Assistant icon, for opening the Q-Assistant tool, which is for configuring the Q-Station application

Manually Registering the Software

NOTE

The license file is specific to your Q-Station computer and cannot be used with another computer.

If the Q-Station computer is not connected to the Internet, complete the following steps. If the Q-Station computer is connected to the Internet, see ["Automatically Registering the Software" on page 25](#).

1. Ensure that you have the following items available:
 - A registration name (your name)
 - Your valid e-mail address
 - The Q-Station software serial number from the Q-Station CD case
 - A USB flash memory drive
2. On the Q-Station computer, do the following:
 - a. Open the Windows Notepad accessory program.
 - b. In the Q-Station Registration Wizard, select **I am not connected to the Internet. Tell me how to register.**
 - c. Click **Next**.
 - d. Copy the URL from the dialog box and paste it into Notepad.
 - e. Copy the node ID and paste it into Notepad.
 - f. Connect your USB flash drive.
 - g. Save the Notepad file, with a name of your choice, to the USB flash drive.
 - h. Close Notepad and disconnect the USB flash drive.
3. On the computer that is connected the Internet, do the following:
 - a. Open an Internet browser window.
 - b. Connect the USB flash drive that contains the Notepad file with the registration URL and node ID.
 - c. Open the Notepad file.
 - d. Copy the registration URL from Notepad, paste it into the browser's address field, and go to that URL.

- e. Copy the node ID from Notepad, and paste it into the **Node ID** field of the registration Web site.
 - f. Enter the remaining required information (name, e-mail address, and Q-Station serial number) and click **OK**. The registration Web site sends the license file to your e-mail address.
 - g. Access your e-mail account and retrieve the license file.
 - h. Save the license file to the USB flash drive.
 - i. Disconnect the USB flash drive, and take it to the Q-Station computer .
4. On the Q-Station computer, if the Registration Wizard displays the **Welcome to the Registration Wizard**, select **I already have a license file** and click **Next**.
 5. If the Registration Wizard is not displayed, do the following:
 - a. On the Windows desktop, double-click the **Q-Assistant** icon to open Q-Assistant.
 - b. Click **Options**.
 - c. Click **Registration Wizard**.
 - d. In the **Welcome to the Registration Wizard** dialog box, select **I already have a license file** and click **Next**.
 6. Connect the USB flash drive to the Q-Station computer.
 7. Click . . . and navigate to the USB flash drive.
 8. Right-click the license file and select **Open**, or double-click the license file.
 9. Click **Next**.
 10. In the **Registration Complete** dialog box, select **I Would Like to Back Up My License File** and click **Finish** to make a backup copy of the license file.
 11. In the **Select Backup Location** dialog box, select the location to which you want to save the license file and click **Save**.
 12. Do one of the following:
 - If the **Installation Succeeded** dialog box appears, click **Restart** to restart the computer and complete the software installation.
 - If the **Installation Succeeded** dialog box does not appear, manually restart the computer to complete the software installation.

- If the **Installation Failed** dialog box appears, follow the instructions to restart the computer and restart the software installation.
13. Verify that the following icons are on the desktop:
- Q-Station icon, for opening the Q-Station application.
 - Q-Assistant icon, for opening the Q-Assistant tool, which is for configuring the Q-Station application

User Accounts

The Q-Station software automatically creates a local user account named **ECGServiceUser**, which is the service account that runs StressVue. **ECGServiceUser** must be active for you to access StressVue from your Q-Station system. Additionally, each Q-Station user must have a unique user account and be a member of the **PMWClinicalUserGrp** group.

In addition to creating the **ECGServiceUser** user account, the Q-Station software also creates several local groups, as described in the following table.

Groups Created during Q-Station Installation

Group Name	Description	Comments
PMWClinicalUserGrp	Clinical user group	Each active Q-Station user must be a member of this group.
PMWHospitalITUserGrp	Hospital IT group	Each Q-Assistant user must be a member of this group.
PMWInternalAccountsGrp	Group for internal (factory) use	Factory use; do not modify.

Group Name	Description	Comments
SQLServer2005MSSQLServer ADHelperUser\$PHILIPS-D8327EC		Factory use; do not modify.
SQLServer2005MSSQLUser \$PHILIPS-D8E27EC\$QSTATIONDB		Factory use; do not modify.
SQLServer2005SQLBrowserUser \$PHILIPS-D8E27EC		Factory use; do not modify.

To create and manage the user and group accounts, you must have administrator privileges and use the Windows operating system (OS) interface and tools. For details, search the Windows Help for **using local users and groups**.

Creating a New User Account

Before being able to use the Q-Station software, each user must have a unique ID and password in an individual account. For details, search the Windows Help for **create a new user account**.

Each user account must meet the following criteria:

- Users must be required to change their passwords the first time that they log on.
- Each password must meet the password policy in use.
- The user account must be enabled.
- Each user must be a member of the **PMWClinicalUserGrp** group.

Adding a User to the PMW Clinical User Group

Before being able to use the Q-Station software, each user account must be a member of the **PMWClinicalUserGrp** group.

For details, search the Windows Help for **add a user to a group**.

NOTE

The administrator account that you used for installing the Q-Station software is automatically added to the **PMWClinicalUserGrp** group.

Managing User Accounts

You can change a user name or other account properties or delete an account. For details, search the Windows Help for **change a user's group or account type** or **delete a user account**.

Verifying the Software Installation

After you finish installing the software, use this procedure to verify that it installed correctly and is ready for use, and to perform some administrative duties.

1. On the Windows desktop, double-click the **Q-Station** icon. If the application opens, the software installed correctly.
2. If the application does not open, ensure that the user account in use is a member of the **PMWClinicalUserGrp** group, and then try opening the application again. For instructions, search the Windows Help for **change a user's group or account type**.
3. If the user account in use is a member of the **PMWClinicalUserGrp** group, and the application still does not open, reinstall the license file as follows, and then trying opening the application again.
 - a. On the Windows desktop, double-click the **Q-Assistant** icon to open Q-Assistant.
 - b. Click **Options**.
 - c. Click **Registration Wizard**.
 - d. In the **Welcome to the Registration Wizard** dialog box, select **I already have a license file** and click **Next**.
 - e. Click **...** and navigate to the location of the license file.
 - f. Select the license file and click **Open**.
 - g. Click **Next**.
 - h. Click **Finish**.

- i. In the **New License File** dialog box, click **Activate Now** and then click **OK**.
4. If reinstallation of the license file does not enable you to open the application, do the following:
 - a. Uninstall Q-Station software, Q-Assistant, and the Philips Service Agent.
 - b. Reinstall Q-Station software, which also reinstalls Q-Assistant and the Philips Service Agent.
 - c. Perform the verification procedure again.
5. Verify that the license options are correctly installed:
 - a. Double-click the **Q-Assistant** icon.
 - b. Click **System Management**.
 - c. Ensure that the Q-Station serial number shown matches the serial number on the software DVD case.
 - d. Click **Options** and ensure that the plug-ins and features listed match the plug-ins and features that you purchased.

Administrator Account Removal

Before using the Q-Station software in a clinical environment, it is a good practice to remove the administrator account (**QAdmin**) that you used to install the software from the **PMWClinicalUserGrp** group. Doing so prevents the administrator from accidentally accessing patient data.

To remove the account, you must have administrator privileges and use the Windows operating system (OS) interface. For details, search the Windows Help for **change a user's group or account type**.

3 *Remote Services*

After installing the Q-Station software, Philips recommends that you enable remote access in Q-Assistant. Remote access allows Philips representatives to provide any support you may need. You have full control over remote access. No one can access the Q-Station software remotely if you do not enable remote access.

After remote access is enabled, the Q-Station software communicates only with the Philips server specified in the **Settings** area of the **Remote Services** tab.

Configuring Remote Services Connection Settings

If your site uses a firewall, ensure that port 443 (outbound only) is open before you configure remote services connection settings.

1. In Q-Assistant, click the **Remote Services** tab.
2. Click **Settings**.
3. Under **Connection Settings**, ensure that the **Server Address** is set to **M2M Enterprise Server**.

NOTES

- Selecting **M2M Enterprise Server** automatically selects **Enterprise URL**, **Tunnel URL**, and **RA URL**.
 - The **M2M Enterprise Server** is the standard server address. Do not select **Custom** or any other setting, unless a Philips representative instructs you to do so.
-

4. In the **Connection Type** menu, ensure that **Internet** is selected.

NOTE

Internet is the standard connection type. Do not select **VPN**, unless a Philips representative instructs you to do so.

5. In the **Proxy Settings** area, if your site uses a proxy server to control Internet access, type the proxy IP address, user name and password (if used), and indicate whether the proxy server uses NTLM.

NOTE

You can add only an IP address and port number in the **Proxy Settings** area (for example, 192.168.0.1:8080). URLs are not accepted.

6. Click **Save**. Q-Assistant registers with the Philips M2M server.
7. Click **Test Connection** and verify that **OK** appears. **OK** indicates that a path to the server exists.
8. If **Failed to Connect** appears instead of **OK**, ensure that:
 - The computer is connected to the Internet.
 - Network settings are configured correctly.
 - Port 443 (outbound) is open in the firewall.

Enabling Remote Access

1. In Q-Assistant, click the **Remote Services** tab.
2. Click **Access/Status**.
3. Under **Remote Desktop**, do one of the following:
 - To enable permanent remote desktop access, select **Enable Permanently**.
 - To enable remote desktop access only until a date and time that you specify, select **Enable Until**, select a date from the menu, and enter a time.
4. In the **Remote Desktop** confirmation dialog box, click **OK** to enable remote access. Q-Assistant displays a yellow triangle. When the yellow triangle changes to a green circle, Q-Assistant has successfully established contact with the Philips remote server. (Establishing contact may require a few minutes.)
5. Under **Software Download**, do one of the following:

- To allow a Philips representative to download software to the Q-Station computer, select **Enable Download**.
- To allow automatic installation of downloaded software, select **Install Automatically**.

Q-Assistant displays a yellow triangle. When the yellow triangle changes to a green circle, Q-Assistant has successfully established contact with the Philips remote server. (Establishing contact may require a few minutes.)

Requesting Online Support

The ability to request online support is an optional feature, available in some countries, that enables you to send a request to Philips for technical or clinical assistance.

NOTE

The **Request Support** tab is visible only after you enable online support and submit a support request.

1. If you are creating an online-support request for the first time, enable online support as follows. Otherwise, go to step 2.
 - a. In Q-Assistant, click the **Options** tab.
 - b. Click **Service Options**.
 - c. Click **Enable**.
 - d. Enter an access code to enable online support. For an access code, contact your Philips representative.
2. Do one of the following:
 - At the top of the Q-Assistant desktop, click the **Request Support** tab.
 - In Q-Assistant's lower left corner, click **Request Support**.
3. Complete the fields in the **Request Support** form.,
4. Click **Request Service** to send your support request to Philips.

Viewing Support-Request History

If **Request Support** is enabled, you can view a history of your online-support requests.

1. In Q-Assistant, click the **Request Support** tab.
2. Click **History** to view the details of previous support requests.

4 *Q-Station Basics*

The Q-Station software-application package is designed to manage, view, and report image data acquired by ultrasound systems and ECG data from Philips StressVue ECG Systems. It is a DICOM viewer that provides an environment for review and quantification of cardiovascular and general imaging ultrasound studies. You can manage study data, review images, perform wall-motion scoring, and make basic unlabeled measurements in the Q-Station software. You can also create patient reports and export patient data to DICOM archives, removable media, or network storage locations.

When you purchase QLAB plug-ins, the Q-Station software integrates QLAB software to provide advanced quantification and includes the most clinically relevant QLAB software analysis results in the report.

If you have purchased the StressVue ECG Connect software option, you can also do the following:

- Import StressVue ECG waveform data, the ECG SR, and a PDF of the ECG report.
- Display stress ECG ST maps and stress echo ultrasound data side-by-side in the report and in the QLAB CMQ-Stress plug-in for analysis.
- Display, in the QLAB CMQ-Stress plug-in, ECG waveforms with stress echo ultrasound.

NOTES

- The Q-Station software is not intended for long-term storage and should only be used to store patient data that you are currently investigating. To ensure data security, patient data should also be stored on a secure storage device (a PACS).
- Your ability to analyze images in the Q-Station software depends heavily on the quality of the image data you intend to analyze. Image quality is highly dependent on a number of factors, including the quality and grayscale standard display function (GSDF) calibration of the reviewing monitors, the ambient lighting in the viewing environment, and the compression applied to the image when it is exported in DICOM format. For more

information on compression options available on the ultrasound system and other export options that affect image quality, see the documentation that accompanies your ultrasound system.

- Make sure to maintain the accurate date and time on the computer on which the Q-Station software is installed.
 - If you are combining stress ECG data with stress-echo ultrasound data, ensure that the date and time on the StressVue system and on the ultrasound system are accurate.
-

The Q-Station software guides you through your workflow using task-oriented activities. Each activity is described in detail in Help. The following activities are available:

- Use the **Studies** tab to manage patient data and select studies for processing in other available activities.
- Use the **View** tab to view patient data.
- Use the **QLAB** option on the **View** tab to analyze images using QLAB software plug-ins.
- Use the **Report** tab to create, edit, approve, and print reports about patient data.
- Use the **Export** tab to export patient data to DICOM archives and media (DICOM format) or to export in PC format to your local drive or media.

Security

The Q-Station software uses the following security features to protect patient data from unauthorized access:

- Unique user groups, names, and passwords
- Workstation locking
- Computer Security Policy (optional in Setup)
- Screen blanking
- Audit logging
- Secure remote access

For further details, contact your Hospital IT Administrator, and see the *User Manual* and *Shared Roles for System and Data Security*, included with your software.

Logging On

If security features have been set up through the Computer Security Policy option during installation of the Q-Station software, each user of the system is identified with a unique user name. Each user name is assigned a password. User names and passwords are created during installation of the Q-Station software, or by your Hospital IT Administrator.

The Q-Station software displays the user name of the user currently logged on in the message bar.

CAUTIONS

- If access to the Q-Station software is not restricted to authorized persons by your hospital's security policy, you must not leave it unattended while you are logged on. If you need to leave the Q-Station software unattended, you must lock it or log off.
 - Access to the Q-Station software by users with administrative privileges, or by users with sophisticated and malicious methods, cannot be restricted except by restricting physical access to the workstation.
-

1. In the **Windows Security** panel, type your user name in the **Name** field.
2. Type your password in the **Password** field.
3. Click **OK**.

Locking the Q-Station Software

If you need to leave the Q-Station software unattended for a period of time, but will return and continue working, you can lock it to prevent unauthorized access to patient data while you are away.

1. Press **Ctrl+Alt+Delete** to display the **Windows Security** panel.
2. Click **Lock Computer**.

You are not logged off, but the Q-Station software is secured. The **Log On** panel is displayed. You can unlock it using your password and continue your work where you left off.

Logging Off

1. Press **Ctrl+Alt+Delete** to display the **Windows Security** panel.
2. Click **Log Off**.

Your work is saved and the **Windows Security** panel is displayed for the next user.

Common Elements

The following tools are available in all activities.

Menu Bar

The menu bar provides access to frequently used commands for performing tasks. Depending on your current activity, some commands may be unavailable. Commands are described with relevant procedures in the activity sections later in Help.

Shortcut Menu

You can click items with the right mouse button (called 'right-click') to see a shortcut menu containing commands and tools relevant to the item. The shortcut menu is also available by holding down **Shift** and pressing **F10**.

Main Toolbar

The main toolbar provides quick access to the tools most relevant to your current activity. Tools found on the main toolbar are described with relevant procedures in the Help.

Activity Bar

The activity bar provides access to each activity with the focus on the patient data selected in the **Studies** tab. If an activity is not available in your current situation, the tab is dimmed, and you cannot switch to that activity. You can close an activity and return to the **Studies** tab by clicking **Close** on the **File** menu.

Patient Info Panel

The **Patient Info** panel is visible in activities beyond the **Studies** tab, and provides demographic details of the current patient.

The **Series** tab of the **Patient Info** panel provides a pictorial index display of a thumbnail of each image or report contained in the study.

You use the pictorial index to select images and reports for processing in available activities. In the pictorial index, images and reports are grouped by study. Studies are separated by a divider. Studies are grouped chronologically, with the most recent first.

Each image or report in the pictorial index is identified by a pictorial, which provides information about the image or report.

NOTE

Information may not always be available.



A status mark indicates that an image has been opened in the **View** tab during the current viewing activity. Status marks are only available in the **View** tab.

To open an image or report, double-click the pictorial. Double-clicking an image pictorial opens the image on the **View** tab. Double-clicking a report pictorial opens the report on the **Report** tab.

Data Type Icons

Icons on thumbnails indicate the data type of the image.

Data Type Icons

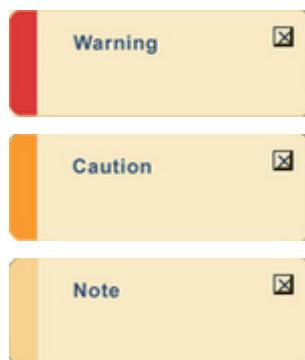
Icon	Data Type
	QLAB-compatible image
	Multi-frame loop

Messages and Notifications

The message bar provides feedback of the state of the system and notification of system events. These messages are for your information only, providing an acknowledgement of jobs you have submitted or a status update on the progress of a job. System events are displayed with an icon of the event in progress. The user name of the user currently logged on is also shown in the message bar. To show/hide the message bar, select **Message Bar** on the **View** menu.

Notifications provide more detailed information about a system event and are displayed in a pop-up window just above the message bar. The severity of the notification is indicated by its color.

Q-Station Notification Types











Job Viewer

The Job Viewer provides details of export, print, DICOM, removable media, and network jobs that you have submitted to the system. You can open the Job Viewer at any time to check the status of your jobs, or to modify a job.

Jobs are executed according to their priority. Concurrent jobs that have the same priority are executed in the order that they were submitted. You can make jobs execute sooner by increasing their priority in the Job Viewer.

Using the Job Viewer

1. To open the Job Viewer panel, select **Job Viewer** on the **View** menu, or double-click a system-event icon in the system-event area.
2. Select a command and do any of the following:
 - To disable a job, click .
 - To enable a disabled job, click .
 - To cancel a job, click .
 - To abort a job, click .
 - To delete a job, click .
 - To resubmit a job, click .
 - To increase the priority of a job, click .
 - To decrease the priority of a job, click .

Full-Screen Mode

You can operate the Q-Station software in full-screen mode, hiding the main toolbar, the activity bar, and the message bar to maximize the display area. The menu bar remains visible to provide access to commands. In particular, commands

for switching between the activities are available on the **Navigation** menu, allowing you to continue with your workflow in full-screen mode.

To switch to full-screen mode, select **Full Screen** on the **View** menu or press **F11**. To exit full-screen mode, press **F11**.

Q-Assistant

Q-Assistant is the configuration application for the Q-Station software. This separate application is installed when you install the Q-Station software.

NOTE

To run Q-Assistant, you must be a member of the local administrators group and the **PMWHospitalITUserGrp**.

Use Q-Assistant to do the following:

- Back up and restore configuration settings and your license file (see "[Backing Up Configuration Settings](#)" on page 75 and "[Restoring Configuration Settings](#)" on page 76)
- Establish a remote connection (see "[Configuring Remote Services Connection Settings](#)" on page 33) and enable **Remote Desktop** and **Request Support**
- Configure network settings (see "[Checking Network Settings](#)" on page 78)
- Configure DICOM settings for connections to ultrasound systems, PACS servers, and a StressVue ECG system (see "[Adding DICOM Devices](#)" on page 78 and "[Editing DICOM Devices](#)" on page 80)
- Update the license file by using the **Registration Wizard** (see "[Manually Registering the Software](#)" on page 27)
- Select a storage location for Q-Station reports (see "[Specifying Storage Locations for Q-Station Data](#)" on page 74)

To start Q-Assistant, double-click the **Q-Assistant** icon on the desktop.

Q-Station Options

Besides the DICOM viewer features available in the Q-Station software, the QLAB Cardiovascular 3D viewer and the QLAB General Imaging 3D viewer are standard with all configurations. Other features are available as purchasable options. The types of options available include connectivity capabilities, ECG capabilities, and QLAB Advanced Quantification Software plug-ins.

NOTE

Purchasable options can be used only on a single Q-Station installation.

NOTE

Some QLAB plug-ins may be unavailable in some countries.

The following licensed options are available for Q-Station software:

- Q-Station Base (required for all configurations)
- DICOM Export
- DICOM Query/Retrieve
- StressVue ECG Connect
- Cardiac 2D Quantification plug-in
- Cardiac Motion Quantification plug-in
- Cardiac Motion Quantification-Stress plug-in
- Cardiac 3D Quantification plug-in
- Cardiac 3D Quantification Advanced plug-in
- Mitral Valve Quantification plug-in
- Strain Quantification plug-in
- Region of Interest Quantification plug-in
- Intima Media Thickness plug-in
- Parametric Quantification plug-in
- MicroVascular Imaging plug-in

- General Imaging 3D Quantification plug-in
- General Imaging Parametric Quantification plug-in (This plug-in is unavailable in the United States.)
- Elastography Analysis (This plug-in is only available in the United States.)
- Elastography Quantification (This plug-in is unavailable in the United States.)
- Vascular Plaque Quantification plug-in (This plug-in requires FDA 510(k) clearance and is not yet available in the United States.)
- Fetal Heart Navigator plug-in (This plug-in requires FDA 510(k) clearance and is not yet available in the United States.)

Viewing Installed Q-Station Options

1. On the Windows desktop, double-click the Q-Assistant icon to open Q-Assistant.
2. Click **Options** to see a list of the plug-ins and optional features installed on your system.

Q-Station Compatibility

Philips Ultrasound systems produce clinical image data in a variety of file formats, such as DICOM, DSR, and ResearchLink. Some image file formats created on Philips Ultrasound systems are incompatible with Q-Station software.

In addition to clinical image data, Q-Station software also recognizes some ECG data and communicates with PACS from various manufacturers.

File Compatibility

Q-Station software can open files from any of the following ultrasound systems:

- CX50
- HD11 XE
- HD15

- iE33
- iU22
- Sparq
- ClearVue

Additional analysis capabilities are available when the images from those systems contain Philips native data. (Native data is raw image data saved with an ultrasound image that enables post-acquisition adjustments to the image.) Q-Station software also can open files from any ultrasound system that can export patient studies in DICOM format.

ECG Data Compatibility


This release of Q-Station software can accept ECG data only from the Philips StressVue Diagnostic Stress Test system.

PACS Compatibility

Q-Station software can query and retrieve patient lists and studies from any PACS that supports standard DICOM Query/Retrieve capability. This is a purchasable Q-Station option.

5 *Working with the Q-Station Software*

This section guides you through procedures commonly used in working with patient study data on the Q-Station software. These procedures include importing and exporting patient study data, reviewing images, and performing advanced quantification.

For detailed information on the controls, features, and tasks mentioned here, as well as information on additional tasks, see the *Q-Station Help*. To display the *Help*, click **Help** and then click **Q-Station Help**. For instructions on using QLAB plug-ins, click  while you are using a plug-in.

Studies

The **Studies** tab provides an overview of patient study data on your workstation, and allows you to access additional data sources.

To open patient study data for processing, the data must reside in the local **Studies** database. This usually means your first task is to import patient study data from another source (for example, DICOM archive, ultrasound system, or removable media). You use the **Studies** tab to do this. After importing patient study data to your workstation, you can open the data for processing. After processing, you should export the data to a DICOM archive.

NOTE

You can sort the studies list by clicking the heading of the selected column. You can reorganize columns by dragging them to the preferred position.

Data Panel

The **Data** panel displays data locations that are available to you. The panel is divided into two sections: **Local Data** and **Remote Data**.

- **Local Data** provides access to the **Studies** data location, the database where patient study information is stored on your workstation. The **Local**

Data section also provides access to studies stored on CD/DVD drives, USB storage devices, and one or more **User Selectable Repository** locations on local or network disk drives.

- **Remote Data** provides access to data locations stored on workstations or PACS connected to your network. You can copy data from remote data locations to your workstation for viewing, printing, or export. You can copy data to remote data locations for archiving.

For convenience in working with more than one local data location, you can right-click the location you want to view and add it to the display as a new tab. Once added, you can right-click the tab to close it or choose other options.

- If you want additional display space, you can close the **Data** panel by clicking the **X** in the upper-right corner, or by clicking **Data** on the **View** menu. To reopen the **Data** panel, click **Data** on the **View** menu again.

NOTES

- For information about configuring network shares for use as Q-Station data storage locations, see ["Configuring a Windows 7 Network Share" on page 70](#) or ["Configuring a Windows XP Network Share" on page 71](#).
 - For information about configuring local file repositories or NTFS-formatted USB drives for use as Q-Station data storage locations, see ["Configuring a Local File Repository or NTFS USB Drive" on page 73](#).
 - The **Free Space** indicator at the bottom of the **Data** panel compares the amount of unallocated database space with the amount of free space on the hard drive and displays the lesser of those values as an indicator of the amount of space available for storing data in the **Studies** database.
-

Retrieving Study Data from PACS/Archive

Study lists stored on a PACS/archive are retrieved by query.

CAUTION

When retrieving patient data from a connected PACS/archive, you must formulate a specific query to ensure that all relevant data is retrieved.

1. In the **Data** panel, click a **Remote Data** location.
2. Type or select search terms in the available query fields. Additional fields can be accessed by clicking the query panel expander.

NOTE

Available query fields and the format in which you must enter data in the query fields depend on the configuration of the selected PACS/archive. For example, many PACS require patient names to be entered in uppercase text. For more information, contact the administrator of the PACS/archive.

3. To reset the query form, click **Clear**.
4. To submit your query, click **OK**.

NOTE

You cannot perform processing tasks on study data displayed in a remote study list. To perform further actions on the study data, import the data to the studies data location. Also, pictorial representations of the images are marked "archive," do not contain any imaging data, and may not accurately represent the number of images in the series.

Transferring Studies Data to Your Workstation

1. In the **Data** panel, select the data location you want to transfer patient data from.
2. Select the data you want to transfer. You can select:
 - One or more images or reports from a single study
 - One or more studies from the **Studies** list
3. Drag the selected data to the **Studies** data location.

NOTES

-
- If the selected data belongs to a patient that already exists in the destination location, the data is automatically merged with the existing patient.
 - You can also transfer data using the **Copy** and **Paste** tools.
-

Archiving Data to a DICOM Archive

1. Select the data you want to archive. You can select:
 - One or more images or reports from a single study
 - One or more studies from a single patient
 - One or more patients from a **Patients** list (all data for each patient is archived)
2. Drag the selected data to the destination DICOM archive in the **Remote Data** section of the **Data** panel. If the selected data belongs to a patient that already exists in the destination DICOM archive, the data is automatically merged with the existing patient. You can also transfer data using the **Copy** and **Paste** tools.


Setting CD/DVD Write Preferences

Before writing a disc for the first time, set the CD/DVD write preferences. You can then write patient data using the same settings each time.

1. On the **Tools** menu, click **Customize CD/DVD Write Preferences**.
2. Configure the settings and then click **Save**.

Writing a Disc Using Preferred Settings

Before writing a disc for the first time, set the CD/DVD write preferences. See ["Setting CD/DVD Write Preferences" on page 52](#).

1. Insert a blank disc in CD/DVD writer.
2. Select studies data to write to disc.
3. On the toolbar, click .

Viewing

Use the **View** tab to view and measure images, play loops from stress echo and non-stress echo studies, select subloops, and perform wall-motion scoring on stress echo studies. You can view both single-frame images and loops (a sequence of images) in Q-Station.

The **View** tab incorporates the pictorial index, which you use to select images for viewing. Images that are currently open for viewing are highlighted in blue in the pictorial index. To delete one or more images from a study, right-click the selected pictorial or group of pictorials, and then click **Delete**.

NOTE

The image **Delete** operation does not have an "undo" feature.

You can make adjustments to the displayed images using tools provided in the **View** tab. Menu commands and tools on the main toolbar affect all images. Tools on the image toolbar affect only the image with which you are working.

Displaying the Image Toolbar

The image toolbar contains tools that let you adjust the view of an image, select subloops, make basic unlabeled measurements, and annotate the image. You can see the image toolbar only if you choose to display it.
























Click  on the upper-right corner of the image.

Image Toolbar Controls

Control	Control Description
	Selects the image.
	Scrolls the image.


Control	Control Description
	Adjusts contrast and brightness.
	Zooms the image.
	Pans the image.
	Displays subloops (stress echo images only).
	Displays the next subloop (stress echo images only).
	Displays the previous subloop (stress echo images only).
	Sets a subloop as the preferred loop (stress echo images only).
	Displays the measurement tools.
	Enables you to draw a line.
	Enables you to draw an angle.
	Enables you to draw an open contour.
	Enables you to draw a smoothed polygon.

Control	Control Description
	Enables you to draw a closed contour.
	Enables you to draw an arrow with an annotation.
	Resets the image viewing settings.
	Marks the image for inclusion in the report.
	Captures the image and appends it to the study. (This control is available when a loop is playing; however, it only captures and appends the frame that was active at the time of the mouse click.)
	Displays image information.
	Plays a loop. Available only when Sync Mode is set to Free Run .
	Pauses a loop. Available only when Sync Mode is set to Free Run .

Performing Wall Motion Scoring

NOTE

Wall motion scoring is allowed only on protocols with eight or fewer stages.

1. On the toolbar, click .
2. Drag the slider at the top of the window to indicate the stage you are scoring. If **Display Stages** is selected on the **Display Mode** menu, Q-Station displays the corresponding stage in the image viewer.

3. Click the view icons to see the wall segments from different perspectives. If **Display Views** is selected on the **Display Mode** menu, Q-Station displays the corresponding view in the image viewer.
4. Do one of the following:
 - If all wall segments are normal, click **All Normal**.
 - Click the wall segment in the left-ventricle graphic or in the bull's eye, and click the wall score for the segment (scores are synchronized between the graphic and the bull's eye).
5. Before scoring the next stage, click **Save** to store your input for the current stage.
6. Repeat step 2 through step 5 for each stage. To apply the scores from the previous stage to the current stage, click **Carry Over**.

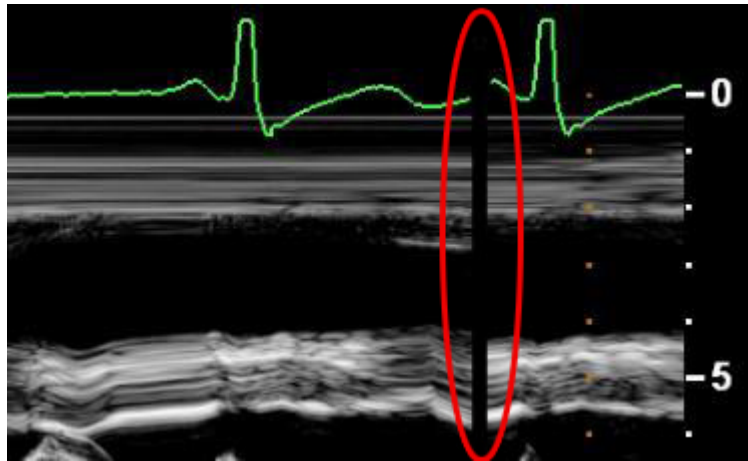
Making Measurements

Results of unlabeled measurements appear on the image but are not saved in the report. You can, however, capture the image to save the measurement and result on the image.

WARNING ---





Do not make measurements in the Q-Station software across the scrolling bar boundary between new and old M-mode or Doppler data. Such measurements are inaccurate.




Scrolling Bar Boundary



NOTES



- To view a captured image in the viewer, **Display Mode** must be set to **Display Sequence**.
- Measurements can be made only on single frame images or frames within a loop.

1. If necessary, click  to display the image toolbar.
2. Click  to display the **Measurements** menu.
3. Do any of the following:
 - To make a line measurement, click  and click two points. To constrain the line vertically or horizontally, press and hold down **Shift** while placing and clicking the second point.
 - To make an angle measurement: click ; position the cursor where you want the first point, and then click to select the position; position the cursor where you want the vertex of the angle and click; position the cursor where you want the third point and click.


- To create an open contour, click  and click two points.
- To create a closed contour, click , click an initial point, and drag it to trace the contour. Click again to complete the contour.
- To create a smoothed polygon, click , click an initial point, and drag, clicking additional points on the contour as you drag. Double-click to complete the measurement.

Annotating an Image

You can add an arrow with a text box to an image. Annotation can be added only to single frame images or frames with within a loop.

1. If necessary, click  to display the image toolbar.
2. Click .
3. Click on the image to place the arrow, and click again to display the text box.
4. Type the annotation in the text box and click to complete the annotation.
5. To edit the annotation, put the cursor on the text box and type changes.

Capturing an Image

When you capture an image, Q-Station appends it to the study as a JPEG-compressed DICOM image. Q-Station displays  on captured images in the pictorial index.


1. If necessary, click  to display the image toolbar.
2. Click .



Analyzing Images in QLAB

As an option, Q-Station can include QLAB Advanced Quantification Software, a built-in analysis tool that enables you to perform advanced quantification using one of several plug-ins. Some analysis results from the QLAB software are included in the report, and some are not. For example, discreet numbers are exported from the CMQ and CMQ-Stress plug-ins as measurements; in addition, these plug-ins produce bulls-eye diagrams as pictures in the Advanced Analysis section of the report. However, no results of any kind from the ROI and PQ plug-ins are included in the Q-Station report.

WARNING





The heart rate (HR) in the Q-Station report and the HR that is included with the QLAB CMQ and CMQ-Stress exported bulls-eye diagrams have different clinical meanings. The HR in the exported bulls-eye diagrams is an averaged HR from three views, and the individual HR for each view is not from DICOM.

For instructions on using the QLAB software, click  while you are using a QLAB plug-in.

- I. To start the QLAB software and display a list of the available plug-ins, do one of the following:
 - On the **View** tab, right-click any image in the viewing area (one-up or four-up), and then click **QLAB**.
 - On the **View** tab, click  on any image in the viewing area.
 - On the **Studies** tab, right-click any image thumbnail in the patient folder **Series** tab, and then click **QLAB**.
 - If you want to use the CMQ plug-in, on the **View** tab, click the check box for one or more images in the viewing area (one-up or four-up), and then click  on the toolbar.
 - If you want to use the CMQ-Stress plug-in, in the **View** tab's pictorial index, right-click any stress echo thumbnail image and select **QLAB**.

NOTE

Only the CMQ and CMQ-Stress plug-in supports review of more than one image.

2. On the left side of the display, click the icon of the plug-in that you want to use. The available plug-ins depend on the type of file that you open and which plug-ins have been purchased.
3. To save an image from QLAB software into the sequence of images for the study:
 - a. Display the frame that you want to export, or click  to export an AVI file.
 - b. Customize the image content by using the **Show/Hide** options for the border and waveforms.
 - c. Click . The image from QLAB software is saved as a secondary capture. Moving images are saved as multi-frame DICOM loops. Still frames are saved as still DICOM images.
 - d. To export discreet results to the report, click , click **Export to PACS**, and then click **Save**. Or, if you want to save the results to a spreadsheet, click , click **Save to File**, and then click **Save**.

Reports

Patient reports contain the measurements and quantification results that were completed in the patient study as well as images that you specifically add. If you have purchased the option to do so, the report also can contain associated ECG information.


A patient report generates automatically while you conduct a study that includes both labeled measurements and image acquisitions. To access the report, click the **Report** tab.

Viewing an Approved Report

Reports that have not been approved can be viewed in the **Report** tab.

NOTE

As an alternative to the following procedure, you can view an approved report by double-clicking the report thumbnail on the **View** tab's pictorial index.


1. In the **Studies** tab, select an examination that has an approved report.
2. Click the **Report** tab.
3. Click . All approved reports for the selected patient are displayed in the **Approved Reports** table in the control panel.
4. Select one or several reports in the **Approved Reports** table. Each selected report is displayed as a PDF in a dedicated tab in the main display area.

Editing a Report

The department name and institution name that appear in the report are specified when you configure Q-Station using the **System Management** tools in Q-Assistant. For more information, see ["Specifying System Information" on page 69](#).

WARNING


Edits to measurements in the report do not update derived calculations.

1. In the **Studies** tab, select an examination.
2. Click the **Report** tab.
3. If the report data includes both stress echo stages and ECG events, select the ECG stages that correspond to the echo stages listed in the **Associate Stress Echo Stages to ECG Events** dialog box, and click **OK**.
4. Click .
5. Enter a title for the report in the **Title** field in the control panel.

6. Under **Advanced Analysis**, select one or more of the following image types to include in the report, as appropriate:
 - **CMQ-Stress Bulls Eye**
 - **WMS Bulls Eye**
 - **WMS Anatomic**
 - **ECG ST Maps**

NOTE

If you select **CMQ-Stress Bulls Eye** and **ECG ST Maps**, only the **WMS Bulls Eye** can be included in the report. (**WMS Anatomic** is unavailable.)


7. Under **Advanced Analysis**, select one or more of the stages to include in the report. The report supports stress studies with up to eight stages. The stages are named as they were during the exam acquisition.
8. Under **Findings**, select any applicable codes to include findings statements in the report. A **Findings** section is added to the report and the statements associated with the selected codes are entered.
9. Enter text in the draft report using the standard word-processing tools (Microsoft Word) in the main display area.
10. Click  to save the draft report as work in progress.

Setting Electronic Signatures on Reports


The user name (electronic signature) that appears in the footer of the report is set or edited by changing the user name that defines the active user account.

1. Open the Windows **User Accounts** dialog box. For more information, search the Windows Help for **user accounts overview**.
2. Select the user account that you want to edit.
3. Edit the **User Name** that appears in the account.
4. Restart the computer to reset the account information. All new reports will display the new user name as the report's electronic signature. Existing reports will continue to display the original electronic signature name.

Approving a Report

1. Open the draft report that you want to approve.
2. Click . The report is converted to a DICOM Encapsulated PDF and is moved from the **Edit** workstep to the table of approved reports in the **View** workstep.

Printing a Report

1. Select the report that you want to print in the **Approved Reports** table, or if the report is already displayed, ensure its tab is selected.
2. Click . The report is printed to the workstation's default paper printer.

Custom Report Templates

You can create report templates to customize the sections of your Q-Station reports.

The following lookup fields are available for adding to your custom report templates:

- Patient Name
- Patient ID
- Accession Number
- Date of Birth
- Patient's Age
- Gender
- Study Data
- Referring Physician's Name
- Institution Name
- Institution Address
- Department Name
- Patient's Size

- Patient's Weight
- Study Description
- Operator's Name

NOTE






For guidelines and detailed instructions on creating and editing custom report templates, see the *Q-Station Help*.











Export

The **Export** tab displays images from the selected study in the image viewer. Also displayed is the **Export Settings** panel, which you use to configure and send the export job.

To collapse or expand the **Export Settings** panel, click its title bar.

Export Toolbar Controls

Control	Control Description
	Selects the image
	Scrolls the image
	Adjusts contrast and brightness
	Zooms the image
	Pans the image

Control	Control Description
	Selects the format in which images are displayed
	Selects the previous frame
	Selects the next frame
	Plays a loop.
	Stops playback of a loop.
	Not currently functional.
	Not currently functional.
	Defines an area of the display for an anonymization template.
	Saves an anonymization template.
	Applies an anonymization template.

Patient Data Export

You can export images in either DICOM format or PC format.

If you use anonymization when exporting patient data to a CD/DVD or Windows folder, certain patient attributes are replaced with anonymized values.

WARNING

When exporting data, the presentation state of images at the time of export is preserved in the exported data. You should be aware that important diagnostic information, for example annotations, may not be visible when viewing the exported images.

CAUTION

Exported data is not anonymized by default. If data is exported to a system or storage device that is not protected by password or other method, it is accessible by all clinical users. It is your responsibility to ensure that patient privacy is not compromised at the export location.

Exporting Data in DICOM Format

CAUTIONS

- To prevent unauthorized persons taking the disc when an export task finishes, you must not leave the system unattended while an export task is in progress. Alternatively, the system must be accessible by authorized persons only.
 - Exporting to CD or DVD should be considered as temporary storage only, and should not be considered a long-term backup solution.
 - Objects that are not supported by a DICOM PACS or archive may be skipped during export to that PACS. Objects that may be unsupported include DICOM Encapsulated PDF, DICOM General ECG Waveforms, and with older PACS, DICOM Structured Report. To alleviate this issue, deselect the ECG and SR options in the advanced settings area for the PACS DICOM device in the DICOM settings tab of the Q-Assistant configuration utility.
 - Although exported DICOM information can be anonymized, there is no mask applied to images to obscure the patient data that may be visible in the images.
-



NOTE

You cannot remove native data from an image to reduce file size prior to export.

1. Select one or more loops or single frame images from a single study.


NOTE

Clicking **Select All** exports the complete study.

2. In the **Export Settings** panel, click the **DICOM** tab.
3. Do one of the following:
 - To export patient data in DICOM format to a DICOM archive, a CD, a DVD, or a USB drive, select a destination on the **Destination** menu.
 - To export patient data in DICOM format to a Windows folder, click  and select a folder on the workstation, CD, DVD, or USB drive.
4. To export the stand-alone DICOM Viewer application with the patient data, select **Include DICOM Viewer**.
5. To make patient data anonymous, select **Anonymize**. If you want to change the default anonymization name after selecting **Anonymize**, click .
6. Click **Export**.

Saving Images

1. In the image viewer, select the images that you want to save. You can select one or more images at a time.
2. On the **File** menu, click **Save Image As**.
3. Select a quality setting.
4. To change the file name, type a new name in the **File Name** field. By default, the patient name is used as the file name and images are saved as JPEG files (.jpg). However, you can select other formats from the **Image Format** menu.
5. To change the destination, do one of the following:
 - Select a previously used destination on the **Destination** menu.


- Click  and select an available destination (Windows folder on the workstation or USB drive).

NOTE

When saving data in PC format, you can save only to Windows destinations and not to DICOM nodes.

6. Click **OK**.

Saving a Loop as a Movie

1. Open a loop and select its tab on the image viewer.
2. On the **File** menu, click **Save Movie As**.
3. Select a quality setting.
4. To change the default file name, type a new file name in the **File Name** field. By default, the patient name is used as the file name. Movies are saved as AVI files (.avi).
5. To change the destination, do one of the following:
 - Select a previously used destination on the **Destination** menu.
 - Click  and select an available destination (Windows folder on the workstation or USB drive).

NOTE

When saving data in PC format, you can save only to Windows destinations and not to DICOM nodes.

6. Click **OK**. The movie is saved as it appears in the image viewer.

6 *System Management*

The **System Management** tab in Q-Assistant lets you specify system information such as audit server and language settings, specify locations in which to store Q-Station data, and back up and restore the Q-Station license file and configuration settings.

Specifying System Information

The Q-Assistant software displays your Q-Station serial number, which it reads from the license file, in the **System Information** area of the **System Management** tab.

1. In Q-Assistant, click the **System Management** tab.
2. Click **System Information**.
3. Do any of the following:
 - Type information in **Institution Name** and **Department**.
 - Select the language in which you want to run the Q-Station software and the Q-Assistant software from the **Language** menu.
 - If your site uses an audit server, enter its **IP Address**, **Host Name**, and **Port Number**, and select the appropriate **Network Protocol**.
4. Click **Save**.

Q-Station Data Locations

In the **Media/Store** section of the Q-Assistant **System Management** tab, you can specify local folders, network shares, and local storage devices as Q-Station data locations.

Configuring a Windows 7 Network Share

On a Windows 7 computer, you can create a folder and then configure it as a network share for use as a Q-Station data location.

NOTE

The computer where the network share resides must be in the same domain as the Q-Station computer.

1. If the folder you want to share does not already exist, using **Windows Explorer**, create a folder in the location where you want the network share to reside.
2. Right-click the folder and then click **Properties**.
3. In the **Properties** dialog box, click the **Security** tab.
4. Do one of the following:
 - If **Everyone** appears in the **Group or user names** list, go to step 13.
 - If **Everyone** does not appear in the **Group or user names** list, go to step 5.
5. Click **Edit**.
6. Click **Add**.
7. In the **Select Users or Groups** dialog box, click **Object Types**.
8. In the **Object Types** dialog box, select **Built-in security principals** and then click **OK**.
9. In the **Select Users or Groups** dialog box, click **Locations**.
10. In the **Locations** dialog box, select the name of the local computer and then click **OK**.
11. In the **Select Users or Groups** dialog box, type **Everyone** in the text entry field and then click **Check Names**. When the name is underlined, the system has verified its availability.
12. Click **OK**. **Everyone** now appears in the **Security** tab **Group or user names** list.

13. Click **Everyone**, and then select **Modify** in the **Allow** column of the **Permissions** list. Selecting **Modify** automatically selects the **Read & Execute, List Folder Contents, Read, and Write** permissions.
14. Click **OK**.
15. In the **Properties** dialog box, click the **Sharing** tab.
16. Click **Share**.
17. In the **File Sharing** dialog box, type **Everyone** in the text entry field, and then click **Add**.
18. In the **Name** list, click **Everyone**, and then select **Read/Write** on the **Permission Level** menu.
19. Click **Share**.

The folder is now shared and can be accessed directly from the **User Selectable Repository** option of the Q-Station **Data** panel (see "[Data Panel](#)" on page 49). Alternatively, you can select the network share as a storage location on the Q-Assistant **System Management** tab (see "[Specifying Storage Locations for Q-Station Data](#)" on page 74).

Configuring a Windows XP Network Share

On a Windows XP computer, you can create a folder and then configure it as a network share for use as a Q-Station data location.

NOTE

The computer where the network share resides must be in the same domain as the Q-Station computer.

1. If the folder you want to share does not already exist, using **Windows Explorer**, create a folder in the location where you want the network share to reside.
2. Right-click the folder and then click **Properties**.
3. In the **Properties** dialog box, click the **Security** tab.
4. Do one of the following:
 - If **Everyone** appears in the **Group or user names** list, go to step 12.

- If **Everyone** does not appear in the **Group or user names** list, go to step 5.
- 5. Click **Add**.
- 6. In the **Select Users, Computers, or Groups** dialog box, click **Object Types**.
- 7. In the **Object Types** dialog box, select **Built-in security principals** and then click **OK**.
- 8. In the **Select Users, Computers, or Groups** dialog box, click **Locations**.
- 9. In the **Locations** dialog box, select the name of the local computer and then click **OK**.
- 10. In the **Select Users, Computers, or Groups** dialog box, type **Everyone** in the text entry field and then click **Check Names**. When the name is underlined, the system has verified its availability.
- 11. Click **OK**.
- 12. In the **Group or user names** list, click **Everyone**.
- 13. In the **Allow** column of the **Permissions** list, select **Modify**. Selecting **Modify** automatically selects the **Read & Execute, List Folder Contents, Read,** and **Write** permissions.
- 14. Click **Apply**.
- 15. In the **Properties** dialog box, click the **Sharing** tab.
- 16. Select **Share this Folder**.
- 17. Click **Permissions**.
- 18. In the **Group or user names** list, click **Everyone**.
- 19. In the **Allow** column of the **Permissions** list, select **Full Control**. When you select **Full Control**, the **Change**, and **Read** permissions are automatically selected.
- 20. Click **OK**.
- 21. In the **Properties** dialog box, click **OK**.

The folder is now shared and can be accessed directly from the **User Selectable Repository** option on the Q-Station **Data** panel (see "[Data Panel](#)" on page 49). Alternatively, you can select the network share as a storage location on the

Media/Store page of the Q-Assistant **System Management** tab see "[Specifying Storage Locations for Q-Station Data](#)" on page 74.

Configuring a Local File Repository or NTFS USB Drive

On a Windows 7 or a Windows XP computer, you can configure local file repositories and NTFS-formatted USB drives for use as Q-Station data storage locations.

NOTES

- The Windows system groups **Everyone** and **Authenticated Users** both have **Network Service** as a member.
 - Q-Station **Export**, **Import**, and **Delete** operations on local file repositories and NTFS-formatted USB drives are possible only if **Network Service** has **Read**, **Write**, and **Delete** permissions on the local file repository or NTFS-formatted USB drive.
 - If **Network Service** does not have **Read** access, an error message is generated when you try to open the folder contents using the Q-Station **User Selectable Repository** feature. In Q-Assistant, an error message is generated if you try to add such a location.
 - If **Network Service** does not have **Write** and **Delete** access on a folder, when you open the repository for the first time, a warning message indicates that **Export** and **Delete** operations are not allowed.
-

To grant the necessary permissions to **Network Service**, perform the following procedure.

1. In **Windows Explorer**, right-click the NTFS-formatted USB drive or the folder you want to configure as a local file repository, and then click **Properties**.
2. In the **Properties** dialog box, click the **Security** tab.
3. Do one of the following:
 - If the **Group or user names** list includes **Everyone**, **Authenticated Users**, or **Network Service**, go to step 10.

- If the **Group or user names** list does not include **Everyone**, **Authenticated Users**, or **Network Service**, go to step 4.
4. On the **Security** tab of the **Properties** dialog box, click **Add**.
 5. In the **Select Users, Computers, or Groups** dialog box, click **Object Types**.
 6. In the **Object Types** dialog box, select **Built-in security principals**, and then click **OK**.
 7. Click **Locations**, select the name of the local computer, and then click **OK**.
 8. In the **Select Users, Computers, or Groups** dialog box, type **Everyone** in the text entry field and then click **Check Names**. When the name is underlined, the system has verified its availability.
 9. Click **OK**.
 10. In the **Group or user names** list, click any one of the following names: **Everyone**, **Authenticated Users**, or **Network Service**.
 11. In the **Allow** column of the **Permissions** list, select **Modify**. Selecting **Modify** automatically selects the **Read & Execute**, **List Folder Contents**, **Read**, and **Write** permissions.
 12. Click **OK**.

Specifying Storage Locations for Q-Station Data

The storage directories that you specify in **Q-Station Data Locations** appear in the **Local Data** area of the **Q-Station Studies** tab. The directories you specify there are different from the local patient database, the location of which you select when you install the Q-Station software.

1. In Q-Assistant, click the **System Management** tab.
2. Click **Media/Store**.
3. In the **Q-Station Data Locations** area, click **Add**, and browse to a local directory or network share that you want to use for exporting and importing DICOM data.
4. Click **Activate Now** to activate the new directory immediately, or click **Activate Later** to specify additional data locations and activate the new

directories later, when prompted by Q-Assistant. When you activate new directories, Q-Assistant restarts.

NOTE

If the Q-Station software is open when the Q-Assistant software restarts, the Q-Station software closes, and you must manually restart it.

5. If you want to add a USB drive as a local storage device, connect the USB drive.

NOTE

FAT-formatted and NTFS-formatted USB drives are supported for Q-Station data locations. FAT-formatted USB drives do not have special configuration requirements. For information about configuration requirements for NTFS-formatted USB drives, see "[Configuring a Local File Repository or NTFS USB Drive](#)" on page 73.

6. In the **Q-Station Local Devices** area, select the drive letters that correspond to the **CD/DVD** and **USB** drives on the Q-Station computer.
7. If the selected CD/DVD drive is read/write, select **R/W**.
8. Click **Save**.

Backing Up Configuration Settings

You can back up the Q-Station configuration settings and license file in Q-Assistant.

1. In Q-Assistant, click the **System Management** tab.
2. Click **Backup/Restore**.
3. Select **Backup To**.
4. Click **Browse** and select a location to which you want to back up the data.
5. To start the backup, click **Backup**. When the backup is complete, a notification message appears.

Restoring Configuration Settings

In the Q-Assistant software, you can restore the Q-Station configuration settings and license file from a backup location.

CAUTION

The Q-Station software does not support transferring configuration settings from one Q-Station computer to another. Restore configuration settings only on the Q-Station computer from which they were backed up.

1. In the Q-Assistant software, click the **System Management** tab.
2. Click **Backup/Restore**.
3. Select **Restore From**.
4. Click **Browse** and select the location from which you want to restore the data.
5. Select the data that you want to restore. You can select **Configuration Repository**, **License File**, or both.
6. Click **Restore**. When the restoration is complete, a notification message appears, and Q-Assistant restarts.

7 *Network and DICOM Settings*

You can use the Q-Assistant software to connect the Q-Station software to ultrasound systems, PACS, and one StressVue ECG system. (You can enter up to five report and archive locations for a StressVue ECG system or an archive computer.) For a list of settings required for configuring Q-Station network and DICOM settings, see ["Network Requirements for Configuring the Q-Station Computer"](#) on page 15.

NOTE

Q-Station software supports the DICOM Storage Commit service, which is used to confirm that a study has been committed to permanent storage on a PACS. This confirmation ensures that it is safe to delete the local copy of the study. When the Q-Station software receives this confirmation, it flags the local copy of the study for deletion by the Q-Station Automatic Cleanup service.

The Q-Station software supports any of the following connected workflows:

- If you do not archive studies to a PACS, you can connect directly to an ultrasound system, obtain data from the ultrasound system for analysis in the Q-Station software, and then generate a report.
- If your PACS does not support storage of native data from the ultrasound system, you can connect directly to an ultrasound system, obtain native data from the ultrasound system for analysis in the Q-Station software, and then archive the data to a PACS without including native data. (Native data is raw image data saved with an ultrasound image that enables post-acquisition adjustments to the image.) You can configure this workflow in the Q-Assistant software by clearing the **Native** check box for **Archive** in the **Advanced Settings** area of the **PACS Device in DICOM Settings** dialog box.
- If the ultrasound systems at your institution are configured to send data to a PACS, you can query the PACS to obtain a list of patients and studies, request that the PACS send the Q-Station computer a study for analysis, and then archive the data back to the PACS.

Checking Network Settings

You can view the Windows network settings for the computer on which the Q-Station software is installed in the **Network Settings** area of the **Network/DICOM** tab in the Q-Assistant software.

CAUTION

If the Q-Station PC is part of a wireless network, use only secured wireless technologies. For more information about network security, see *Shared Roles for System and Data Security*, which is included with your Q-Station software.

1. In Q-Assistant, click the **Network/DICOM** tab.
2. Click **Network Settings**.
3. If your computer has more than one network card, select the appropriate card from the **Select Network Card** menu.
4. Click **Network Connections** to open the Windows **Network Connections** control panel and view settings for your network connection.
5. Do either of the following:
 - To see detailed information about the network settings, click **IPConfig/All**.
 - To release and then renew the network connection, click **IP Config/Release** and then **IPConfig/Renew**.
6. To check the connection status of a server on the network, type the IP address of the computer in the **IP Address** field and click **Ping**.

Adding DICOM Devices

1. In Q-Assistant, click the **Network/DICOM** tab.
2. Click **DICOM Settings**.
3. Enter the Q-Station AE title and port number in the **AE Title** and **Port Number** fields, and then click **Save**.
4. Click **Add**.

5. In the **Add DICOM Device** dialog box, select a device type from the **Device Type** menu.
6. Enter a device name, AE title, IP address, and port number for the device to which you want to connect.

NOTES

- If you are connecting to an ultrasound system that has a dynamic IP address, the IP address you enter is used only when you test the connection to the ultrasound system. The ultrasound system can still send studies to the Q-Station software, even if the IP address changes.
 - An Ultrasound system that uses DICOM Query/Retrieve or DICOM Storage Commit must have a static IP address.
 - If the Q-Station computer sends data to any DICOM destination, the destination and the Q-Station computer both require a static IP address.
-
7. If you are adding a PACS, click **Advanced Settings** and do the following:
 - a. Select the functions supported by the PACS: **Archive**, **Query/Retrieve**, or **Send**. Some PACS use the same AE title and port number for all three functions. If the PACS to which you are connecting uses a different AE title or port number for different functions, use the **Add DICOM Device** dialog box to add a separate device connection for each function.
 - b. If you selected the **Archive** function, select the optional data types to be sent (still images and loops are always archived): **Native**, **ECG**, and **SR**. You can ask your network or PACS administrator to determine if your PACS supports native or ECG data.
 - c. Only if your network or PACS administrator requests it, change the **Association (Artim) Timeout** and a **Storage Commit Max. Reply Waiting Time**. The default settings are suitable for most PACS.
 - d. Click **OK**.
 - e. For each **Storage Commit Device** you are connecting to, select the following in the **Storage Commit Association** section of the **DICOM Settings** dialog box:
 - Click **PACS Device**, and then select the PACS name.

- Click **Storage Commit Device**, and then select the name of the device that performs the storage commit function..
8. Click **Save**.
 9. Click **Activate Now** to restart the Q-Assistant software and activate the devices that you added, or click **Activate Later** if you want to perform additional Q-Assistant tasks before activating the devices.

Editing DICOM Devices

1. In Q-Assistant, click the **Network/DICOM** tab.
2. Click **DICOM Settings**.
3. Select the DICOM device that you want to edit, and click **Edit**.
4. Make changes in the **Edit DICOM Device** dialog box, and click **Save**.
5. If you are editing a PACS, click **Advanced Settings** to make changes in the **Advanced Settings** dialog box.
6. Click **Activate Now** to apply the changes and restart the Q-Assistant software, or click **Activate Later** if you want to perform additional Q-Assistant tasks before activating the changes.

Deleting DICOM Devices

1. In the Q-Assistant software, click the **Network/DICOM** tab.
2. Click **DICOM Settings**.
3. Select the DICOM device that you want to delete and click **Delete**.
4. In the **Delete DICOM Device** dialog box, click **Yes**.
5. Click **Activate Now** to complete the deletion and restart the Q-Assistant software.

Testing DICOM Devices

1. In the Q-Assistant software, click the **Network/DICOM** tab.

2. Click **DICOM Settings**.
3. Select the DICOM device that you want to test, and click **Verify**. Verification may require up to one minute. The Q-Assistant software displays the results of a DICOM test (DICOM Verify and TCP/IP Ping) in the **Verify** column and in the **Verification Results** area of the **DICOM Services Configuration** dialog box.

ECG Configuration

If you have purchased the option to do so, you can configure the Q-Assistant software to access ECG raw data and ECG reports from shared directories on a StressVue ECG system. Q-Assistant software can connect to only one StressVue ECG system.

When you export an ECG report on the StressVue system, the report is stored in designated export folders.

Before the Q-Assistant software can access the ECG reports and raw data, the StressVue administrator must:

- Create the **ECGServiceUser** account on the StressVue ECG system (if the account does not already exist).
- Assign the same password to this account as the **ECGServiceUser** account on the Q-Station system.
- Share the folders that contain the ECG reports and raw data, and give permission to the **ECGServiceUser** account to access the folders.

For more information, see the *StressVue Instructions for Use*.

After you have configured the Q-Assistant software to access the ECG reports and raw data, it monitors the export folders on the StressVue system, converts the ECG data to DICOM, and provides it to the Q-Station software. The Q-Station software can then combine the stress ECG data with the appropriate stress echocardiogram in a report.

NOTE

ECG reports can be reviewed in the Q-Station software only when they have been matched with a stress echo file.

Activating the ECGServiceUser Account

When you install the Q-Station software, the installer automatically creates an inactive local user account, **ECGServiceUser**, that corresponds to the **ECGServiceUser** account on the StressVue system. You must activate the account to receive the ECG data from a StressVue system.

Optionally, you can modify the password for the **ECGServiceUser** user account and the **SVGService** service. If you want to change the password, it must be the same for both the user account and the service. The default password for the **ECGServiceUser** account is **PasswordPMW2007**.

NOTES

- If you change the password for the **ECGServiceUser** account on the system on which the Q-Station software is installed, ensure that it is the same password used for the StressVue system's **ECGServiceUser** account.
 - Be sure to stop the **SVGService** service before changing its password.
-
1. Activate the **ECGServiceUser** account. For instructions on activating user accounts, search the Windows operating system Help for **activate a user account**.
 2. If you want to change the password for both the **ECGServiceUser** user account and the **SVGService** service, see the Windows operating system Help:
 - For instructions on changing the password for a user account, search the Windows operating system Help for **change user password**.
 - For instructions on changing the password for a service, search the **Microsoft Management Console** Help for **configure how a service is started**. (To access the **Microsoft Management Console**, right-click **My Computer** and select **Manage**.)

Configuring Access to ECG Reports

When you configure access to StressVue ECG reports, you can also specify that the reports be sent to an archive destination, such as a TraceMasterVue ECG Management System or another StressVue directory. If you specify an archive destination, the administrator of the archive destination must:

- Create an **ECGServiceUser** account on the archive computer
- Assign the same password to this account as the **ECGServiceUser** account on the Q-Station system
- Share the archive folder and give permission to the **ECGServiceUser** account to access the folder

1. In the Q-Assistant software, click the **Network/DICOM** tab.
2. Click **ECG Configuration**.
3. In the **ECG Reports (StressVue Export Directories)** area, type the path to the StressVue ECG reports directory.
4. Click **Add**.
5. Make sure that **Enable Q-Station access to reports** is selected. If this option is not selected, ECG report data will not be available in the Q-Station software.
6. To specify an archive computer for StressVue reports (for example, a TraceMasterVue ECG Management System), type the destination path in the **Destination Directory** field and select the file formats (**Philips XML**, **Alternate XML**, **PDF**, or **TIFF**) to be copied to the archive computer.
7. Click **Save**.
8. Verify that studies with ECG data appear in the Q-Station **Studies** list. See ["ECG Data Flow Troubleshooting" on page 84](#).
9. If you have configured the Q-Station software to send ECG reports to an archive computer, such as a TraceMasterVue ECG Management System, verify that reports appear on the archive computer. See ["ECG Data Flow Troubleshooting" on page 84](#).

Configuring Access to ECG Raw Data

1. In the Q-Assistant software, click the **Network/DICOM** tab.
2. Click **ECG Configuration**.
3. In the **ECG Raw Data (StressVue Archive Locations)** area, type the path to the StressVue ECG archive directory.
4. Click **Add**.
5. Click **Save**.
6. Verify that patients with ECG data appear in the Q-Station **Studies** list. See ["ECG Data Flow Troubleshooting" on page 84](#).
7. If you have configured the Q-Station software to send ECG reports to an archive computer, such as a TraceMasterVue ECG Management System, verify that reports appear on the archive computer. See ["ECG Data Flow Troubleshooting" on page 84](#).

Specifying the Date Format for StressVue XML

The StressVue XML date format setting on the Q-Station computer must match the corresponding date format setting on the StressVue system.

1. In the Q-Assistant software, click the **Network/DICOM** tab.
2. Click **ECG Configuration**.
3. In the **StressVue XML Date Format** area, select the date format that you want to use for StressVue XML data.
4. Click **Save**.

ECG Data Flow Troubleshooting

After you have configured the Q-Station software to receive ECG reports and raw data from the StressVue ECG system, verify that patients with ECG data appear in the Q-Station **Patients** list.

If you have configured the Q-Station software to send ECG reports to an archive computer, such as a TraceMasterVue ECG Management System, verify that reports appear on the archive computer.

ECG Data Does Not Appear in the Q-Station Studies List

If patients with ECG data do not appear in the Q-Station **Studies** list, review the folder that contains the ECG reports on the StressVue system. As the Q-Station software pulls the reports, they should disappear from the folder on the StressVue system. If that does not happen, verify the following:

- The **ECGServiceUser** account is activated on the Q-Station system.
- The **ECGServiceUser** account is activated on the StressVue system.
- The **ECGServiceUser** account name and password are the same on the StressVue system and on the Q-Station system.
- On the StressVue system, the folders that contain the ECG reports and raw data are shared, and full control of those folders has been granted to the **ECGServiceUser** account on the StressVue system.
- On the Q-Station system, the **SVGService** service has the same password as the **ECGServiceUser** account, and the **SVGService** service has been started on the Q-Station system.
- If patients with ECG data do not appear in the Q-Station **Studies** list, but they have been pulled from the folder that contains the ECG reports on the StressVue system, verify that the StressVue file name includes the last name and patient ID (PID), which are required fields.

ECG Data Does Not Appear on an Archive Computer

If ECG reports do not appear on an archive computer after you have configured the Q-Station software to send ECG reports to the archive computer, verify the following:

- The archive computer is available on the network: In Q-Assistant, ping the archive computer by entering its IP address in the **Network Settings** area of the **Network/DICOM** tab, and then clicking **Ping**.
- The **ECGServiceUser** account is activated on the archive computer.
- The **ECGServiceUser** account name and password are the same on the Q-Station system and on the archive computer.
- The archive folder on the archive computer is shared, and full control of that folder has been granted to the **ECGServiceUser** account on the archive computer.

Index

A

Administrator account, removing, [32](#)
Analysis in QLAB, [59](#)
Annotations, [58](#)
Anonymization
 during export, [66](#)
Approving reports, [63](#)
Assistance, [10](#)
Audience, intended, [7](#)
Audit server, configuring, [69](#)

B

Backing up settings and license, [75](#)

C

Capturing images, [58](#)
Caution notifications, [42](#)
CD/DVD write preferences, [52](#)
Closed contour measurements, [56](#)
Comments
 customer, [10](#)
Computer requirements, [12](#)
Computer security policy, [21](#), [22](#)
 changing settings, [22](#)
Computer security policy option
 settings, default values, [21](#)

Configuration settings
 backing up, [75](#)
 restoring, [76](#)
Configuring Q-Station, [44](#)
Controls
 export toolbar, [64](#)
 image toolbar, [53](#)
Conventions
 user information, [8](#)
Customer comments, [10](#)
Customer service, [10](#)

D

Data locations, [69](#)
Data panel, [49](#)
Data storage locations, [74](#)
Data types, [41](#)
Date format for StressVue XML, [84](#)
DICOM
 archival, patient data, [52](#)
 exporting data, [66](#)
DICOM devices
 adding, [78](#)
 deleting, [80](#)
 editing, [80](#)
 testing, [80](#)
DICOM settings, [77](#)
Drives, assigning, [74](#)

E

ECG configuration, [81](#)
ECG data
 accessing, [84](#)
 compatibility, [46](#)
 troubleshooting, [84](#)
ECG reports, accessing, [83](#)
ECGServiceUser account, activating, [82](#)
Editing reports, [61](#)
Electronic signatures, [62](#)
Export settings
 DICOM format, [66](#)
 panel, [64](#)
Export tab, [64](#)
Export toolbar, [64](#)
Exporting
 patient data, [65](#)
Exporting DICOM, [66](#)

F

Feedback area, [42](#)
File compatibility, [46](#)
Full-screen mode, [43](#)

H

Help, [8](#)
Hiding patient data
 during export, [66](#)
History, support, [36](#)

I

Image quality, [37](#)
Image toolbar, [53](#)
Images
 annotating, [58](#)
 capturing, [58](#)
 saving, [67](#)
 viewing, [53](#)
Installation
 overview, [11](#)
 procedure, [22](#)
 verifying, [31](#)
Institution name, [69](#)
Intended audience, [7](#)
Intended use, [7](#)

J

Job Viewer
 about, [43](#)
 using, [43](#)

L

Language settings, [69](#)
License file
 backing up, [75](#)
 restoring, [76](#)
Line measurements, [56](#)
Locking Q-Station, [39](#)
Logging off, [40](#)
Logging on, [39](#)

Loops

saving as movie, [68](#)

M

Managing user accounts

changing account properties, [31](#)

deleting accounts, [31](#)

Measurements, [56](#)

Menus, [40](#)

Message bar, [42](#)

MSXML 6 SP2, [13](#)

N

Network requirements, [14](#), [15](#)

configuration settings, [15](#)

installation, [14](#)

Network settings, [77](#)

Network settings, checking, [78](#)

Network shares

configuring on Windows 7, [70](#), [73](#)

configuring on Windows XP, [71](#)

Note notifications, [42](#)

Notifications, [42](#)

O

Open contour measurements, [56](#)

Operating notes, [8](#)

Options, [45](#), [46](#)

viewing, [46](#)

Overview, Q-Station, [37](#)

P

PACS compatibility, [46](#)

Patient data

DICOM archival, [52](#)

exporting, [65](#)

local, [49](#)

remote, [49](#)

securing, [38](#)

Philips contact information, [10](#)

Pictorial index

about, [40](#)

data types, [41](#)

Pinging servers, [78](#)

Printing

reports, [63](#)

Procedures, [49](#)

Purchasable options, [45](#)

Q

Q-Assistant, [44](#)

Q-Station

data locations, [69](#)

Q-Station basics, [37](#)

QLAB

analysis, [59](#)

saving images, [59](#)

R

Registration, [25](#)

- Remote access
 - configuring, [33](#)
 - enabling, [33](#)
- Remote service
 - configuring, [33](#)
 - enabling, [34](#)
- Removable media, [52](#)
 - settings, [52](#)
- Removing administrator accounts, [32](#)
- Reports
 - about, [60](#)
 - advanced analysis, [61](#)
 - approving, [63](#)
 - editing, [61](#)
 - electronic signatures, [62](#)
 - printing, [63](#)
 - storage location, [60](#)
 - viewing, [61](#)
- Requirements
 - computer, [12](#)
 - network, [14](#)
- Restoring settings and license, [76](#)
- Settings
 - network and DICOM, [77](#)
 - system, [69](#)
- Smoothed polygon measurements, [56](#)
- Software registration, [25](#), [27](#)
 - automatic, [25](#)
 - manual, [27](#)
- Storage locations, [74](#)
- Studies data
 - transferring, [51](#)
 - writing to removable media, [52](#)
- Studies database, [49](#)
- Studies tab, [49](#)
- Study data
 - retrieving remote, [50](#)
- Support history, [36](#)
- Support, requesting, [35](#)
- System event area, [42](#)
- System management, [69](#)
- System upgrades, [10](#)

S

- Saving
 - images, [67](#)
 - images in QLAB, [59](#)
 - loops, [68](#)
- Security, [38](#)
- Security policy, [21](#)
- Serial number, [69](#)
- Service, customer, [10](#)
- Service, requesting, [35](#)

T

- Toolbars, [40](#), [53](#), [64](#)
 - export, [64](#)
 - image, [53](#)

U

- Upgrades, system, [10](#)
- User accounts, [29](#), [30](#), [31](#)
 - adding, [30](#)
 - changing, [31](#)
 - deleting, [31](#)

User accounts (*continued*)

new, [30](#)

User groups, [29](#)

User information

about, [7](#)

components, [8](#)

conventions, [8](#)

V

Verifying software installation, [31](#)

View tab, [53](#)

Viewing

images, [53](#)

reports, [61](#)

W

Wall motion scoring, [55](#)

Warning notifications, [42](#)

Website, Philips, [10](#)

