

SonoSite

PDAS

Patient Data Archival Software

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Chapter 1: Introduction

About the SonoSite Patient Data Archival Software (PDAS) User Guide

The *SonoSite PDAS User Guide* provides information about installing, configuring, and using the features of the SonoSite PDAS software. SonoSite PDAS stores images and clips from ultrasound systems compatible with the Digital Imaging and Communications in Medicine (DICOM) standard.

Supported SonoSite ultrasound systems include:

- ▶ X-Porte
- ▶ FC1
- ▶ Edge
- ▶ Edge II
- ▶ M-Turbo
- ▶ S-Series
- ▶ SII
- ▶ NanoMaxx

Process overview

| Step | Refer to this document |
|--|---|
| 1a For a wireless connection, install a wireless dongle or adapter. or | 1a <i>Setting Up a Network Connection User Guide</i> . or |
| 1b For a LAN connection, connect an Ethernet cable. | 1b The "Preparing the system" section of your ultrasound system user guide. |
| 2a To configure the system to work with DICOM, follow the installation and configuration steps in... or | 2a <i>The Sending and Receiving DICOM Data on SonoSite Systems User Guide</i> or |
| 2b To configure the system to work with PDAS, follow the installation and configuration steps in... | 2b <i>"Configuring SonoSite PDAS"</i> on page 7. |

For more information about any FUJIFILM SonoSite ultrasound system, see the appropriate ultrasound system user guide.

Document conventions

The document follows these conventions:

- ▶ A **WARNING** describes precautions that are helpful in preventing a breach in Protected Health Information (PHI).
- ▶ A **Caution** describes precautions that are helpful in protecting the products.
- ▶ A **Note** provides supplemental information.
- ▶ Numbered and lettered steps must be performed in a specific order.
- ▶ Bulleted lists present information in list format but do not imply a sequence.

Software intended use

SonoSite PDAS is a medical device data system (MDDS) whose purpose is to transfer and store patient data and images. Unlike Picture Archiving Communications System (PACS), SonoSite PDAS is not intended or certified for diagnostic purposes or for use in active patient monitoring.

SonoSite PDAS provides an image data management service (on a local or departmental level) for transferring and storing data and images from multiple ultrasound systems. You don't need a dedicated workstation to use SonoSite PDAS.

SonoSite PDAS stores images and clips from FFSS DICOM-compatible ultrasound systems on a PC. Supported formats include DICOM and/or JPEG or BMP (images), and DICOM and/or MJPEG AVI for video clips. Using standard JPEG or BMP image formats allows you to use a variety of image-viewing software tools.

Note Viewing DICOM format files requires use of a DICOM file viewer.

WARNING Healthcare providers who maintain or transmit health information are required by the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and the Final Privacy Rule and Final Security Rule codified in 45 C.F.R. § 160 and 164, and the European Union Data Protection Directive (95/46/EC), to implement appropriate procedures to ensure the integrity and confidentiality of information; to protect against any reasonably anticipated threats or hazards to the security or integrity of the information or unauthorized uses or disclosures of the information.

Note To protect patient confidentiality, FFSS strongly suggests you encrypt all patient images, files, and records before sending them electronically.

NIST and Security RA Mitigation rules

FFSS recognizes the following NIST and Security RA Mitigation rules:

- ▶ FFSS recommends the use of a best practice policy to keep Windows up to date and secure.
- ▶ FFSS recommends a minimum system spec to maintain functionality. Refer to "[Hardware and OS requirements](#)" on page 5.
- ▶ FFSS recommends proper configuration of a firewall for use in conjunction with SonoSite PDAS.
- ▶ There can be a risk to data in removable media. Only use such media (for example, thumb drives), that have been scanned and confirmed to be free of malicious software or malware.
FFSS recommends adopting use of an AES-256 compliant encrypted removable media device (Encrypted USB Flash Drive).

Getting help

FUJIFILM SonoSite Technical Support

In addition to this user guide, the following resources are available:

- ▶ FUJIFILM SonoSite Technical Support:

**Phone
(U.S. or Canada)** 877-657-8118

**Phone
(outside U.S. or Canada)** 425-951-1330, or call your local representative

Fax 425-951-6700

Email ffss-service@fujifilm.com

Web www.sonosite.com

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English support: +44 14 6234 1151
French support: +33 1 8288 0702
German support: +49 69 8088 4030
Italian support: +39 02 9475 3655
Spanish support: +34 91 123 8451

Asia Service Center +65 6380-5581

Chapter 2: Installation and Configuration

Hardware and OS requirements

Use this section to determine the hardware and software requirements for SonoSite PDAS. Once complete, you can configure the application and system.

Hardware

- ▶ 1.4 GHz processor
- ▶ Four (4) GB RAM
- ▶ Ethernet or Wireless Connectivity

Operating System

- ▶ Windows 7 SP1 64-bit
- ▶ Windows 8.1 64-bit

Software (other)

- ▶ .NET Framework 4.5.1 (SonoSite PDAS will request you install it if it is not already on the PC)

Configure incoming port traffic through firewalls

The firewall protecting your systems will need to be updated to allow the desired port number through the security perimeter. This may require assistance from your IT department.

Save the PC information

Write down your PC, ultrasound, and DICOM configurations for future reference. Refer to the [Chapter 5, "System configuration information"](#) at the end of this Guide.

Installing SonoSite PDAS

Follow the instructions in the *SonoSite PDAS Installation Instructions*. The installation process begins automatically. The computer restarts after the installation completes. (Tampering with files in the program folder can result in unexpected and undefined behavior, including a loss of functionality.)

- ▶ For Windows 7: The **Configure SonoSite PDAS** shortcut is automatically added to the desktop.
- ▶ For Windows 8.1: The **Configure SonoSite PDAS** tile is automatically added to the desktop.
- ▶ Click on the shortcut. The SonoSite PDAS Home Page appears.

Note

You can remove the SonoSite PDAS application by using the Windows **Uninstall a Program** utility. If you remove SonoSite PDAS, the uninstall process will not remove the following:

- ▶ Archived data. To remove the data, do a manual delete of the files (physically remove the files instead of using the automated process).
- ▶ License data. This is to support any necessary reinstall on the same system.

Licensing SonoSite PDAS

To license the SonoSite PDAS application

- 1 Once the installation completes, contact FFSS Support to request a license key.
 - ▶ +1.877.657.8118 (US and Canada)
 - ▶ +1.425.951.1330 (worldwide)
 - ▶ www.sonosite.com
 - ▶ service@sonosite.com
- 2 Locate and click on the **Product Licensing** link on the left side of the SonoSite PDAS window.
- 3 Provide FFSS Support the following information found on the **Product Licensing** page:
 - ▶ User name
 - ▶ Computer ID
 - ▶ BIOS ID
 - ▶ Software version

- 4 Locate and click on **Product Licensing** on the SonoSite PDAS home page.
- 5 Type the license key in the **Product License** box provided by contacting FFSS Support. Refer to Step 1 on page 6 of this procedure.

Note The information presented in the Product Licensing window will be of assistance during your dialog with FFSS Service personnel.

- 6 Click **Save**. The SonoSite PDAS options on the left navigation are now active.

Configuring DICOM Application Entities

- 1 Locate and click on the **AE Hosts** button. This allows the user to configure the AE Hosts.

Note "WhitelList", i.e. a tabulation of identifying information about those systems permitted to exchange data with SonoSite PDAS. The types of systems to be identified include the specific ultrasound devices authorized to send data to SonoSite PDAS, along with any DICOM workstation software packages (using a Query/Retrieve operation) used to view the DICOM image data stored by SonoSite PDAS.

- 2 Specify the following information under AE Hosts:

- ▶ AE title
- ▶ IP address
- ▶ Port number.

Configuring SonoSite PDAS

- ▶ The configuration utility restricts which characters you can enter into file name and path name fields. File names and path names cannot contain international characters, spaces, or any of the following special characters: \ / : * ? " < > | (the backslash character, \, is reserved as the Windows directory separator).
- ▶ FUJIFILM SonoSite recommends that you configure the Windows user accounts (both the local and network permissions) to protect data stored by SonoSite PDAS.
- ▶ The Application Entities (AE) Host table must be populated with information for any system (both ultrasound or workstation) that needs to function with SonoSite PDAS.
- ▶ SonoSite PDAS can only access drives mapped by the System User account.

To discover the host IP address

Use the tool of your choice to locate the IP address for the PC. You will need it to configure your ultrasound

system.

Note SonoSite PDAS requires a network connection

To set up the wired or wireless connections

Refer to the appropriate manufacturer instructions depending on your type of network connectivity.

To set up the storage parameters

- 1 Select the **Storage** option in the left navigation window.
- 2 In the **Port Number** box, type the Port number. The port number must be an integer between 1 and 65535. The default port is set to 104 if you do not or cannot set a port number.

Note Required fields contain an asterisk (*).

- 3 In the **AE Title** box, type the AE Title. The system allows titles with the following:

- ▶ Alphanumeric
- ▶ Uppercase and lower case (title is case sensitive)
- ▶ Special characters (for example, \$%^&*) except for any defined in the following note.

Note DICOM rules state the AE Title cannot contain the backslash “\”.

- 4 In the **Storage** folder box, type the storage folder path. The system allows the following for a path name:

- ▶ Windows file name and path rules, network path rules, and NO SPACES in the path
- ▶ The storage location cannot be the drive root
- ▶ SonoSite PDAS does allow the use of local drive subfolders

5 Select the storage format you desire (Multimedia, DICOM, Multimedia plus DICOM) in the drop down box.

Note The **DICOM Only** option is used for image & video clip viewing of ultrasound data via a DICOM Workstation software package, and is the preferred format for forwarding data on for long term storage -- via a hospital or department PACS Picture Archiving and Communications System (PACS).

The **Multimedia Only** option is used to make image and video clip data available to an Electronic Health Record (EHR) system. It is also useful via compatibility with widely available presentation and word processing software applications.

The combined **Multimedia Plus DICOM** is used to support both styles of use as described above.

6 To launch the service, click **Save**, then **Start**.

- a If the service is already running: Click **Save**, then **Stop**, to apply the changes.
- b Click the **Start** button to restart the service.

Note Each time the storage parameters change, you should **Save**, **Stop**, and then restart the service.

Confirm the SonoSite PDAS installation

Use this section to confirm the previous portion of the installation/configuration was successful. If you have issues and need to contact SonoSite Support, you can use this information to help isolate the issue.

For your convenience, SonoSite has included some configuration forms at the end of this guide for you to record your SonoSite PDAS, PC, ultrasound, and DICOM information. Refer to [Chapter 5, "System configuration information"](#).

To verify the SonoSite PDAS installation was successful

- 1 Click on the shortcut. The SonoSite PDAS Home Page appears.
- 2 Click **Start** at the bottom of the Storage form page to start the service.
 - a If the service is already running, the **Stop** button will be active (Red) instead.

To verify SonoSite PDAS is registered

Note If the product registration is complete and correct, the left navigation options will be active.

- 1 Locate and click on **Product Licensing** on the left navigation window.
- 2 If the license key is correct, the other features will be active. Otherwise, only the License option will be active.

To verify SonoSite PDAS configuration is correct

- 1 Select **Storage** in the left navigation window and confirm the path is correct.
- 2 Select **AE Title** in the home page window and confirm the title is correct.
- 3 Select **Port Number** in the home page window and confirm the port number is correct
- 4 Select **Storage format** in the home page window and confirm it is set to **the appropriate format (Multimedia, DICOM, Multimedia plus DICOM)**.
 - a If you cannot find the images in SonoSite PDAS, do the following:
 - i Confirm the storage path is valid. Refer to the pathname variables Configuring SonoSite PDAS on page 7.
 - ii Confirm the storage format is correct (Multimedia/DICOM/Multimedia plus DICOM).

Note A DICOM viewer cannot see a JPEG or .AVI format file. Likewise, an AVI or JPEG viewer cannot read a DICOM format.

Setting Up the Ultrasound System Hardware

Write down your ultrasound system configuration for future reference. Refer to the [Chapter 5, "System configuration information"](#) at the end of this Guide.

To configure your ultrasound with SonoSite PDAS

To configure your ultrasound for DICOM communications, refer to the manufacturer's instructions.

Note For optimum performance of single and multi-frame images with SonoSite PDAS, we suggest using the JPEG transfer format.

Configuring the ultrasound to connect to SonoSite PDAS

Overview

Before you can transfer or export patient exams, you need to properly configure the ultrasound. To enable transferring, connect the ultrasound to the network. In the DICOM connectivity settings, specify the following SonoSite PDAS settings:

- ▶ Port Number
- ▶ IP address
- ▶ AE title
- ▶ JPEG (recommended) or Monochrome or RGB image format

Refer to the manufacturer instructions for more information.

Configuring a FIPS wireless connection

- 1 Press or tap **Settings**.
- 2 Select the **Connectivity** settings page.
- 3 On the **Connectivity** settings page, choose **SiteLink** from the **Transfer Mode** list.
- 4 Restart the system when prompted.
- 5 On the **Connectivity** settings page, select **SiteLink Setup**.
- 6 Select **New** to configure a new wireless connection.
- 7 Under the wireless **Location**, select one of the wireless network types (other than LAN) from the **Network** drop down menu, then select **FIPS**.

Notes

- ▶ You must have a Wireless and Security Module installed to use FIPS. Refer to *Setting Up a Wireless Network*.
- ▶ FIPS is not available with LAN.
- ▶ Selecting FIPS restricts the available Security Policy choice on the next page to **WPA2**, the **Encryption** to **AES**, and the **Authentication Type** to **EAP-TLS**. All Profiles associated with a Location must have a WPA2 Security Policy, an AES Encryption, and an EAP-TLS Authentication Type before the FIPS option is enabled.

- 8 Select **Next** to continue to the second page of the setup screen, and fill out the information fields according to your preferences.

9 Select **Save**, then select **Done** twice to exit system settings.

10 Restart the system to enable the new connection.

Note

In order for the Wireless and Security Module to work with a specific location, you must restart the system with the location selected and the module already installed.

Confirm the ultrasound system configuration

Refer to the manufacturer's configuration instructions and verify the DICOM connectivity settings on the ultrasound. Be sure to specify the following ultrasound parameters:

- ▶ IP address
- ▶ AE Title
- ▶ Port number

Confirm the ultrasound is configured to connect to the SonoSite PDAS and the SonoSite PDAS connectivity settings match the settings on the ultrasound.

Confirming the connection between the PC and ultrasound

For your convenience, SonoSite has included some configuration forms at the end of this guide for you to record your SonoSite PDAS, PC, ultrasound, and DICOM information. Refer to [Chapter 5, "System configuration information"](#)

To verify the connection

- 1 Check to see that the transfer mode matches on the PC and the ultrasound system.
- 2 Confirm SonoSite PDAS as an archiver.

Note

There can be multiple archivers, so you should verify you are looking at the SonoSite PDAS archiver.

Connecting the equipment to the network

Connect the ultrasound system to the network, either wirelessly or by Ethernet. Refer to the manufacturer documentation for more information.

Note FIPS is not available when using LAN connections.

Power plan options

FUJIFILM SonoSite recommends implementing a high-performance power plan for server systems where the SonoSite PDAS service is expected to be available continuously. Here are some guidelines:

- ▶ Disable power saving; at a minimum, set the hard disk **Turn off hard disk after power** option to **Never** and the **Sleep Hibernate after** option to **Never**.
- ▶ If SonoSite PDAS is configured to access storage on a USB-connected drive, set the **USB selective suspend** setting to **Disabled**.
- ▶ If you are connecting through a wireless network, set the **Wireless Adapter Settings Power Saving Mode** to **Maximum Performance**.

Chapter 3: Using SonoSite PDAS

Use this section to familiarize yourself with using the SonoSite PDAS features.

WARNING: To prevent loss of patient images or mixing of patient images, always enter the correct patient name and unique ID into the ultrasound system, and verify that the system date and time are correct.

Start SonoSite PDAS

- ❖ Launch the SonoSite PDAS application. The splash screen appears.
The home page replaces the splash screen after a short period.

Starting and stopping the SonoSite PDAS service

You can start or stop the SonoSite PDAS storage service using the **Start/Stop** button on the SonoSite PDAS page. After starting SonoSite PDAS, the service will continue to run in the background. This will allow exams to continue to automatically transfer without needing to have the SonoSite PDAS graphic user interface (GUI) running.

Note The SonoSite PDAS storage service monitors its worker process and will restart when the process stops or becomes unresponsive. Restart time is typically within five minutes of the monitor realizing there is a change of state.

Note The default service start-up type for SonoSite PDAS is Automatic. This means Windows will start the service on boot (or re-boot) of the PC.

In addition, the user can start/stop the service via the Windows Services administrative tool (**services.msc**) or the Microsoft Management Console.

Note The storage **Start/Stop** timeout field in the **Start/Stop** box sets the maximum time to start or stop the service. On slower systems, a larger value up to 60 seconds may be needed to avoid an application time-out.

Should you no longer need access to the SonoSite PDAS Home Page, it may be closed by selecting the following:

- 1 Click on the **File** link in the upper left corner of the window.

a Select **Exit** to close the GUI.

or

- b** Directly select the “X” in the upper right corner of the window.

You may restart the GUI at any time by selecting the desktop shortcut added to your desktop at the SonoSite PDAS installation should you need to adjust the configuration.

To start the service

- 1 Start the SonoSite PDAS application.
- 2 Click **Storage** in the **Available Services** column.
- 3 Click **Start** at the bottom of the window. SonoSite PDAS reports the service is starting.

To stop the service

- 1 Double-click on the SonoSite PDAS icon on the desktop.
- 2 Click **Storage** on the **Available Services** column.
- 3 Click **Stop**. SonoSite PDAS reports the service is starting.

Working with content on the PC

SonoSite PDAS user interface

The user interface is intended to facilitate configuring, starting, stopping, and managing the various SonoSite PDAS services. When the user clicks a link from the left navigation window, its corresponding view panel opens in the main window. There the user can view, enter, and save configuration settings for the services, and start or stop the services.

When a service is running, no additional window is displayed, nor are any taskbar icons displayed. Visual indication that a service is running or not is conveyed via the Run/Stop buttons being available or not, and whether the service’s corresponding icon in the left navigation window is active.

The **Clear** button on the Echo and DICOMDIR export pages clears the **Results** text box, but does not clear the contents of the settings fields.

The following describe the components of SonoSite PDAS.

Storage

Allows for the configuration of the storage portion of the service.

AE Hosts

Provides DICOM parameters for SonoSite PDAS and the ultrasound systems.

Administrative

These are utilities for managing the SonoSite PDAS system.

- ▶ License Key

SonoSite PDAS requires a valid license key to operate the application.

View Log Files

Provides a window to view and clear the log files for the supported services. The user can view a service's log file by selecting it from the left navigation window. The log file displays in the view panel to the right of the left navigation window. The user can clear that service's log data, through a confirmation dialog.

Utilities

A window for additional features and utilities.

- ▶ ECHO

PING the connection to confirm it is working.

- ▶ DICOMDIR

Provides the pathnames for the DICOM export.

Viewing files on the PC

FUJIFILM SonoSite strongly recommends not using the RGB transfer settings when transferring ultrasound images and clips through the SonoSite PDAS application for the following reasons:

- ▶ Lengthy data transfer times using the RGB version can cause time outs in some cases.
- ▶ Clips transfers in an RGB format will not create an .AVI file if configured to store Multimedia data. Instead, select a JPEG transfer setting.

SonoSite PDAS uses DICOM and multimedia image formats when storing the content it transfers from the ultrasound machine.

Multimedia files and clips

SonoSite PDAS saves image and clip files into a hierarchy of patient and exam folders using the following information:

- ▶ Patient Name
- ▶ Patient ID
- ▶ Exam Date

- ▶ Time of Image Save

Note Patient records are available in PDF format (default: *PT_REPORT.PDF*)

Ultrasound frame captures

- ▶ Single frame images
SonoSite PDAS stores these BMP or JPG files.
- ▶ Multi-frame images
SonoSite PDAS stores these as .AVI (MJPEG) files.

SonoSite PDAS automatically generates numbers to uniquely identify the exam date and file name.

DICOM files and clips

DICOM is a machine-generated format that is not human-readable in its raw format. You will need DICOM viewer software or a DICOM workstation software package to read the DICOM format files.

Archiving exams

Verify you are following the ultrasound system's procedures for image transfers. For more information on non-SonoSite systems, refer to the specific ultrasound system user guide.

Managing Archiving locations

To manage archiving on the PC

- 1 When you launch SonoSite PDAS, you can set the storage parameters from the Home page under **Available Services**.
- 2 Create a valid archive storage path on the PC.

To manage the archiving of other media

- 1 If you would like SonoSite PDAS to store exams on a different type of storage device (i.e., an external hard drive or network server location), you must provide a valid path to that device as well.
- 2 Create a valid archive storage path to the other media repository.

Note Unless the user applies persistent mapping, as soon as the session ends and the PC reboots, the drive mapping will be lost.

Confirming archiving

To confirm archiving

For your convenience, SonoSite has included some configuration forms at the end of this guide for you to record your SonoSite PDAS, PC, ultrasound, and DICOM information. Refer to [Chapter 5, “System configuration information”](#).

Accessing SonoSite PDAS data from a DICOM workstation

Using a simple query/review process in SonoSite PDAS, DICOM images can be assessed quickly, and if a historical record is available, compared to look at changes in the target.

Query retrieve configuration

To access SonoSite PDAS data on a DICOM workstation

- 1 On SonoSite PDAS, add a DICOM application entity for the workstation.
- 2 Specify the following information:
 - ▶ AE title
 - ▶ IP address
 - ▶ Port number.
- 3 On the DICOM workstation, add the following SonoSite PDAS information in the appropriate query/retrieve form:
 - ▶ AE title
 - ▶ IP address
 - ▶ Port number

Save the DICOM information

Write down your DICOM parameters for future reference. Refer to the [Chapter 5, “System configuration information”](#) at the end of this Guide.

- ❖ Once you have set up the DICOM component, save and restart the service.

Generating Reports

SonoSite PDAS supports reports on the following SonoSite ultrasound systems:

- ▶ X-Porte
- ▶ Edge
- ▶ M-Turbo
- ▶ S-Series
- ▶ NanoMaxx

Verify the **Include Private Tags** check box is selected for the SonoSite PDAS configuration on the following FFSS ultrasound systems:

- ▶ Edge
- ▶ S-Series
- ▶ M-Turbo

Verify the **Include CDA** check box is selected for the SonoSite PDAS configuration on the following FFSS ultrasound systems:

- ▶ X-Porte

SonoSite PDAS content back up

This section describes the differences in backup and restore tools and methods between the two common operating systems, Windows 7 and Windows 8.1.

Use the DICOMDIR export mechanism to back up DICOM data.

Setting up the Windows back up and restore tools

In Windows 7, you can back up any files on your computer, including what is known as full system images. This back up can be used to restore your computer to its current state in the future.

In Windows 8, the **File History** feature is designed to back up users' personal files (for example, Contacts, desktop files, and browser favorites).

To back up on a Windows 7 and Windows 8.1 PC

Refer to Microsoft's respective Windows backup and restore instructions available on their web site.

Chapter 4: Troubleshooting

Use this section to help familiarize yourself with SonoSite PDAS troubleshooting errors and descriptions.

For your convenience, SonoSite has included some configuration forms at the end of this guide for you to record your SonoSite PDAS, PC, ultrasound, and DICOM information. Refer to [Chapter 5, "System configuration information"](#).

For more information on system compatibility, refer to the DICOM Conformance Statement (DCS).

Requesting assistance from FUJIFILM SonoSite

If you encounter a SonoSite PDAS issue that is not resolved by the following troubleshooting suggestions, please contact FUJIFILM SonoSite Technical Support.

FUJIFILM SonoSite Technical Support:

| | |
|---|--|
| Phone (U.S. or Canada) | 877-657-8118 |
| Phone (outside U.S. or Canada) | 425-951-1330, or call your local representative |
| Fax | 425-951-6700 |
| Email | ffss-service@fujifilm.com |
| Web | www.sonosite.com |
| Europe Service Center | Main: +31 20 751 2020 English support: +44 14 6234 1151 French support: +33 1 8288 0702 German support: +49 69 8088 4030 Italian support: +39 02 9475 3655 Spanish support: +34 91 123 8451 |
| Asia Service Center | +65 6380-5581 |

Possible PC errors and solutions

Is the PC powered on?

Verify the power cord is plugged in and the PC is running.

Does SonoSite PDAS appear to be working correctly?

Does the SonoSite PDAS home page open and the left navigation feature list appear.

Possible SonoSite PDAS errors and solutions

Is SonoSite PDAS running?

You can verify this by looking in either Task Manager or Services window.

Refer to "Accessing SonoSite PDAS data from a DICOM workstation" on page 19 for instructions on starting and stopping the service.

Does the PC "see" the ultrasound?

- 1 Do a network PING or DICOM ECHO to search for the ultrasound system.
- 2 If SonoSite PDAS is unable to connect to the ultrasound, it will time out.
- 3 Confirm the destination folder for archiving.
- 4 Confirm the transfer format matches for the PC and the ultrasound.

Verify the network connection

To verify the network connection (Method #1)

- 1 Check to see that the transfer mode is set to the appropriate format on the ultrasound system.
- 2 Verify the ultrasound settings match the SonoSite PDAS settings.

To verify the network connection (Method #2)

- 1 Restart the PC.
- 2 Restart the ultrasound.

If using an FFSS ultrasound, check the Network status page. Refer to the ultrasound system user guide for more information regarding connectivity.

Is the storage location on the PC side a valid location?

Verify the path uses Windows file name and path rules, network path rules, and NO SPACES in the path.

If the storage location is on a network, do you need a user name and password to access it?

If the PC user has the required credentials, the storage location can be on a network.

Is the Port Number “open”?

If the permissions have been set allowing access to the port used by SonoSite PDAS. This may require assistance from your IT department.

Does the port number on the PC and the ultrasound port number match?

- 1 Launch the SonoSite PDAS application. The home pages opens.
- 2 Select the **Storage** option in the left navigation window of SonoSite PDAS home page.
- 3 Locate the port number in the second box in the SonoSite PDAS window.
- 4 Locate the Archiver port number on the ultrasound.
- 5 Verify the port numbers match
 - a If the port number does not match: Select one of the port numbers (either SonoSite PDAS or ultrasound) and change it so the port numbers match.

Is there adequate archive space on the drive to store the exams?

- ▶ The user can check available space on the selected drive using the available Windows tool.

Check the SonoSite PDAS Log file on the SonoSite PDAS home page. Also, the ultrasound will show a suspended exam.

Note There are multiple reasons for an exam to suspend, this is simply one of them.

Possible network connectivity errors and solutions

Use this section to confirm this portion of the installation/configuration was successful. If you have issues and need to contact FFSS Support, you can use this information to help isolate the issue.

For your convenience, SonoSite has included some configuration forms at the end of this guide for you to record your SonoSite PDAS, PC, ultrasound, and DICOM information. Refer to [Chapter 5, “System configuration information”](#).

To verify the connection to the network

- 1 Verify the transfer mode is set to DICOM on the ultrasound system.
- 2 Confirm the association.

Is the wireless/wired connection working?

Can you connect to another machine (PC or Ultrasound)?

Does the cable appear damaged? (hard wire only)

Check the cable for damage. If there is damage, replace it.

Possible ultrasound errors and solutions

Is the ultrasound powered on?

Verify the unit is powered on and has booted fully.

Does the ultrasound appear to be working correctly?

Refer to the ultrasound manual.

If you encounter an issue not addressed in the manual, please contact FFSS Support.

Exams do not transfer

This generally means the ultrasound and PC are not communicating. Make sure that the ultrasound system is configured properly.

- 1 Refer to the ultrasound system manufacturer documentation.
- 2 Confirm the Host name.
- 3 Confirm the IP address.
- 4 Confirm the port number.
- 5 Confirm the AE title.

No reports

SonoSite PDAS supports reports on the following SonoSite ultrasound systems:

- ▶ Edge II
- ▶ SII
- ▶ X-Porte
- ▶ Edge
- ▶ M-Turbo
- ▶ S-Series
- ▶ NanoMaxx

Verify the **Include Private Tags** check box is selected for the SonoSite PDAS configuration on the following SonoSite ultrasound systems:

- ▶ Edge II
- ▶ SII
- ▶ Edge
- ▶ S-Series
- ▶ M-Turbo
- ▶ NanoMaxx

Verify the **Include CDA** check box is selected for the SonoSite PDAS configuration on the following SonoSite ultrasound systems:

- ▶ X-Porte

Possible DICOM issues and solutions

To verify SonoSite PDAS data access

- 1 On SonoSite PDAS, confirm there is a DICOM application entity for the workstation.
- 2 Verify the following information:
 - ▶ AE title
 - ▶ IP address
 - ▶ Port number.
- 3 On the DICOM workstation, verify the following SonoSite PDAS information in the appropriate query/retrieve form:
 - ▶ AE title
 - ▶ IP address
 - ▶ Port number

Chapter 5: System configuration information

Use this supplement to help document the configuration parameters for SonoSite PDAS, your PC and your ultrasound system. This will also aid FFSS Support in case you need to call them for assistance.

PC hardware

Hardware Information

Manufacturer

Model

Operating system

RAM (GB)

Hard drive size

Other

PC/Network Data

IP Address

Network security requirements (SW)

Network security requirements (Other)

DICOM Information

AE Title

Port number

Name

Alias

DICOM configuration form

Site info

Hospital name

Department name

Hospital location

Local contact name

Local contact title

Local contact phone

Local contact email

Local contact name

Local contact title

Local contact phone

Local contact email

Ultrasound system info

Host name

Alias

AE Title

DHCP Yes/No

IP address

Subnet mask

Default gateway

Alternate gateway

Port number

FUJIFILM
Value from Innovation

SonoSite

P20859-04

