
Sending and Receiving DICOM Data on SonoSite Systems

User Guide

Manufacturer

FUJIFILM SonoSite, Inc.
21919 30th Drive SE
Bothell, WA 98021 USA
T: 1-888-482-9449 or 1-425-951-1200
F: 1-425-951-1201

EC Authorized Representative

FUJIFILM SonoSite B.V.
Joop Geesinkweg 140
1114 AB Amsterdam,
The Netherlands

Australia Sponsor

FUJIFILM SonoSite Australasia Pty Ltd
114 Old Pittwater Road
BROOKVALE, NSW, 2100
Australia

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Introduction

Sending and Receiving DICOM Data on SonoSite Systems provides instructions for configuring and using the SonoSite Edge, SonoSite Edge II, SonoSite S Series, SonoSite SII, M-Turbo, or NanoMaxx ultrasound system to send and receive DICOM data. For more information on the ultrasound system, see the appropriate system user guide.

Note

For detailed information about connecting the SonoSite X-Porte ultrasound system to a network and configuring it to a DICOM server, refer to the *SonoSite X-Porte User Guide*.

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 “Configuring the system for DICOM transfer” on page 4. or
2b To configure the system to work with PDAS (through DICOM), follow the installation and configuration steps in...	2b The <i>Patient Data Archival Software (PDAS) User Guide</i> or
2c To configure the system to work with SiteLink, follow the installation and configuration steps in...	2c The <i>SiteLink Image Manager User Guide</i>

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 necessary to prevent injury or loss of life.
- ▶ A **Caution** describes precautions necessary to protect 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.
- ▶ Single-step procedures begin with ❖.

Symbols and terms are defined in the ultrasound system user guide.

Getting help

For technical support, contact FUJIFILM SonoSite as follows:

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

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Working with DICOM data

Using data in the Digital Imaging and Communications in Medicine (DICOM) standard, the ultrasound system can do the following:

- Import patient data
- Transfer patient exam data out
- Export patient exam data to a USB storage device

The system connects over a local area network (LAN) to the following:

- Picture Archive and Communication Systems (PACS) archivers
- Worklist servers
- Modality Performed Procedure Step (MPPS) servers
- DICOM printers (SonoSite Edge II, SonoSite SII, Edge, M-Turbo, and S Series only)

- ▶ Storage commitment servers (SonoSite Edge II, SonoSite SII, Edge, M-Turbo, and S Series only)

The system can transfer to one or more devices and connect to different networks, depending on how you configure it.

Configuring the system for DICOM transfer

To configure the system for DICOM transfer, you complete the configuration pages for locations and devices and then associate them. See “[Associating devices with locations](#)” on page 12. Typically, these tasks are completed by the network administrator or PACS manager.

Preparation

Before you work with configuring DICOM, you should be familiar with your network and general networking terms, such as IP address.

Before configuring the system for DICOM transfer, set up the hardware for connecting to the network, and select the DICOM transfer mode. You can connect wirelessly or by Ethernet. Also, create a backup of the default DICOM configuration settings on a USB storage device kept in a secure location. See “[To export configuration data](#)” on page 14. You can revert to the default settings if necessary.

If connecting wirelessly, you can import wireless certificates. Refer to *Setting Up a Wireless Network* for hardware setup instructions.

To connect to the network by Ethernet

❖ Connect the Ethernet cable to the Ethernet port located as follows:

- ▶ (S Series and SonoSite SII) Back of system
- ▶ (SonoSite Edge II, Edge, or M-Turbo) Mini-dock or docking system (See the applicable SonoSite accessory user guide.)
- ▶ (NanoMaxx) NanoMaxx dock

With the system on, the LAN link light (green LED) next to the Ethernet connector indicates physical connection to the network.

To select the DICOM transfer mode

- 1 On the **Connectivity** setup page, select **DICOM** in the **Transfer Mode** list.
- 2 Select **Yes** to restart the system.

DICOM configuration pages

The DICOM configuration pages are as follows:

Locations Configuration for network settings, such as IPv4 and IPv6. Also specifies which devices you want to associate with that network. For example, configure a location called “Office,” and then associate a printer and archiver with it. See [“Associating devices with locations”](#) on page 12.

Archivers Configuration for PACS archivers, devices for storing patient exams (images and clips). (Only one archiver per location can receive in-progress image transfers.)

Printers Configuration for DICOM printers for printing images.

Storage Commit Configuration for storage commitment servers, devices that take responsibility for and provide receipt of content sent by the ultrasound system.

Worklist Servers Configuration for worklist servers, devices that contain scheduled patient procedure data. You can import the data into the patient information form.

MPPS Configuration for MPPS servers, devices that coordinate detailed information about the exam performed.

Note

Changing the configuration can require a system restart.

To configure a new location or device

You can configure up to 16 locations and 16 devices of each type.

- 1 Ensure that the DICOM transfer mode is selected. See [“To select the DICOM transfer mode”](#) on page 4.
- 2 On the Connectivity setup page, select **DICOM Setup**.
- 3 Select **Config**.
- 4 From the **Configure** list, select a configuration page.
- 5 Select **New**.

- 6 To enable the Federal Information Processing Standards (FIPS), select one of the wireless network types (other than LAN) from the **Network** drop down menu, then select **FIPS** check box.

Notes

- ▶ 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.



- 7 Fill in the fields. Select **Next** if present, and fill in the fields on page 2.

See one of the following:

- ▶ “**Location configuration (page 1)**” on page 7
- ▶ “**Archiver configuration (page 1)**” on page 9
- ▶ “**Printer configuration (page 1)**” on page 10
- ▶ “**Storage Commit configuration**” on page 11
- ▶ “**Worklist configuration (page 1)**” on page 11
- ▶ “**MPPS configuration (page 1)**” on page 12

To enter special characters:

- ▶ (SonoSite Edge II, Edge, or M-Turbo) Select **Symbols**.
- ▶ (SonoSite SII, S Series, and NanoMaxx) Tap or click **Symbols** on the on-screen keyboard.

For more information, see the ultrasound system user guide.

To enter an underscore, use the **SPACEBAR**. Underscores are disallowed in the Host Name field.

To undo the last change, select **Cancel**.

- 8 (Printer or Wireless Location Only) Select **Next**, and fill in the fields on Page 3.
- 9 (Wireless Location Only) If you selected **RADIUS** for **Security Policy** or selected **RADIUS** or **ENTERPRISE** for **WPA Authentication**, select **Next** and fill in the fields on page 4.
- 10 Select **Save** and then select **Done**.
- 11 Complete any additional configuration tasks, and then select **Done**.
- A dialog box prompts you to restart the system.

To delete a location or device

- 1 On the proper configuration page, select the name from the list of locations or devices.

- 2 Select **Delete**.
- 3 Select **Yes** to confirm deletion.
- 4 Complete any additional configuration tasks, and then select **Done**.

A dialog box prompts you to restart the system.

Configuration setup fields

Location configuration (page 1)

Host Name Unique network name for the ultrasound system. Default is SonoSite.

Alias Name that identifies the network location of the ultrasound system.

AE Title DICOM Application Entity Title.

Port Device port number. IP port 104 is typically assigned for DICOM.

Network Select a network type.

FIPS Select to activate.

DHCP If desired, select to enable Dynamic Host Configuration Protocol. The IP Address, Subnet Mask, and Default Gateway fields become unavailable.

IPv4 Complete the fields on this tab if you are using the IPv4 protocol. See your network administrator for valid network settings.

- ▶ **IP Address** Unique IPv4 identifier of the ultrasound system to send data to the network.
- ▶ **Subnet Mask** Identifies a network subdivision. The default value is 255.255.0.0.
- ▶ **Default Gateway** IP address where network connects to another network.

IPv6 Complete the fields on this tab if you are using the IPv6 protocol. See your network administrator for valid network settings. If the system cannot make the IPv6 connection, it reverts to IPv4.

- ▶ **Obtain IPv6 address automatically** Select this option to acquire an IPv6 address from an IPv6 router.
- ▶ **IPv6 address** Unique IPv6 identifier of the ultrasound system location to send data to computers on the network.
- ▶ **Subnet Pre Len** Identifies a network subdivision. The default value is 64.
- ▶ **Default Gateway** IPv6 address where the network connects to another network.

Location configuration (page 2)

Transfer Images Specify when to transfer images: during or at end of exam. You may also have the option of selecting **Manual** to enable manual transfer on some systems. If using SonoSite Workflow Solutions, specify end of exam.

Network Speed Select **Auto** or **100BT Full**. If you use a 10BaseT network, select **100BT Full** and use a 100BaseT hub between the ultrasound system and the network.

Unavailable with wireless setup.

Note

Do not select 10BT Full or 10BT Half. These settings cause system instability.

JPEG Compression Select **High**, **Medium**, or **Low**. A high compression has a smaller file size but less detail. For best image quality, select Low. See the ultrasound system user guide for information about the limitations of JPEG format. (If using SonoSite Workflow Solutions, select Low.)

Device Read Timeout (sec) How long the system keeps the network line open when attempting to receive information.

Device Write Timeout (sec) How long the system keeps the network line open when attempting to send information.

Location configuration (page 3)

This page only displays if the Wireless checkbox is selected. The information entered in the following fields must match the information entered in the router setup. See *Setting Up a Wireless Network*.

Profile Name Name of profile set for this location. For each wireless location, you can have up to 10 profiles.

Network Name SSID Network Name Service Set Identifier for the router.

Security Policy Security type that authenticates the network:

- ▶ **Open** No security
- ▶ **WEP** or **SHARED WEP** The following fields appear:
 - ▶ **Encryption** Encryption key type (64 bit or 128 bit)
 - ▶ **Key Index** WEP key index 1-4. Network location where a specific key is stored.
 - ▶ **Key** WEP key value used to encrypt data.
- ▶ **RADIUS** Remote Access Dial-Up User Service - 802.1x Key Exchange.
- ▶ **WPA** or **WPA2** Wi-Fi Protected Access. The following fields appear:
 - ▶ **WPA Authentication** If you select **PERSONAL**, the **Passphrase** field appears; enter the WPA Shared Key entry used in configuring the router.
 - ▶ **Encryption** Encryption protocol for the router.

Location configuration (page 4)

Authentication Type Select one of the following:

- ▶ **EAP-TLS** Extensible Authentication Protocol-Transport Layer Security. The following fields appear:
 - ▶ **Client Certificate** Select from the list of client certificates installed on the system. The client certificate may have an embedded private key, or the private key may be in a separate file. The client certificate may be a *.cer or *.pfx file format.
 - ▶ **Private Key** One of a pair of keys (public and private) that is provided only to the requestor and never shared. If the private key is in another *.pwk file, select that file here.
 - ▶ **Private Key Password** A unique combination of letters and/or symbols that allows user access. It's used to encrypt the private key either in the Client Certificate file or the separate Private Key file.
- ▶ **EAP-PEAPv0** Extensible Authentication Protocol-Protected Extensible Authentication Protocol. The following fields appear:
 - ▶ **Authentication** Process verifying identity of wireless device or end user to allow access to the network. This field is automatically set to **EAP-MSCHAPV2**.
 - ▶ **Password** A unique combination of letters and/or symbols that allows user access.

Username Name of designated user.

Certification Authority Validates the authentication server or certificate authority. The list is populated by wireless certificates that you have imported. See [“To import or delete wireless certificates”](#) on page 4. Select the desired certificate from the list.

Archiver configuration (page 1)

Name Network host name for an archiver.

Alias Personalized name for an archiver.

IP Address Unique identifier for the archiver.

Port Device port number. IP port 104 is typically assigned for DICOM.

AE Title Archiver DICOM Application Entity Title. May contain special characters.

Ping Select to determine whether the IP address is accessible. The system displays **OK** or **Failed**.

Archiver configuration (page 2)

Images Defines how images are sent to the archiver: RGB (uncompressed), Mono (uncompressed), or JPEG. (If using SonoSite Workflow Solutions, select JPEG.)

Image Type List of archiver image types, based on capture mode.

Clips Defines how clips are sent to the archiver. Selections include RGB (uncompressed), Mono (uncompressed), and JPEG. (If using SonoSite Workflow Solutions, select JPEG.)

Attempts Number of times the system tries to resend a failed transfer.

Interval (sec) Length of time between attempts (If using SonoSite Workflow Solutions, select 180 seconds.)

Send Images Only If the check box is selected, only images (no clips) are transferred.

Available only if Image Type is set to Ultrasound.

Include private tags If the archiver is a SonoSite software product (for example, SonoSite Workflow Solutions), select this check box to include private tags on images.

Note

Because the tags may be incompatible with some earlier archivers, keep this check box unselected unless you use SonoSite software products. For more information, see the conformance statement for your ultrasound system.

Printer configuration (page 1)

Name Network host name for a printer. Cannot contain special characters.

Alias Personalized name for a printer. May contain special characters.

Model List of Agfa, Codonics, and Kodak printer models. If your model is not listed, choose a generic model at the end of the list.

IP Address Unique identifier for the printer.

Port Device port number. IP port 104 is typically assigned for DICOM.

AE Title Printer DICOM Application Entity Title. May contain special characters.

Ping Select to determine whether the IP address is accessible. The system displays **OK** or **Failed**.

Printer configuration (page 2)

Film Size Film sizes supported by the printer.

Film Type Film medium supported by the printer.

Destination Location film is placed after it is printed.

Format Number of columns and rows in the image printout.

Orientation Film layout.

Attempts Number of times the system tries to resend a failed image transfer.

Interval (sec) Length of time between attempts.

Copies Number of copies to print for each image.

Priority Importance of the print job.

Printer configuration (page 3)

Max. Density Maximum density of the black value.*

Min. Density Minimum density of the white value.*

Border Density Density of the areas surrounding and between film images.*

Empty Density Empty image density.*

Settings Defines how images are sent to the printer, either as Color (RGB) or Monochrome images.

Magnification Type of interpolation used during printing.

Configure Printer-specific configuration value. If using generic printer settings, no configuration strings are available.

* In hundredths of optical density (OD)

Storage Commit configuration

Name Unique network name for the ultrasound system. Default is SonoSite.

Alias Name that identifies the network location of the ultrasound system.

IP Address Unique identifier of the storage commitment server.

Port Device port number. IP port 104 is typically assigned for DICOM.

AE Title DICOM Application Entity Title.

Worklist configuration (page 1)

Name Network host name for a worklist server. Cannot contain special characters.

Alias Personalized name for a worklist server. May contain special characters.

AE Title Application Entity Title. May contain special characters.

IP Address Unique identifier for the worklist server.

Port Device port number. IP port 104 is typically assigned for DICOM.

Worklist configuration (page 2)

Date Range Defines the date range for manual or automatic queries.

This Device Only Restricts the query to patient procedures that are scheduled for the system based on its AE Title.

Automatic Query Turns automatic query on/off.

Occurs Every In an automatic query, length of time between automatic updates.

Start Time In an automatic query, start time for the automatic update (displayed in 24 hour time).

MPPS configuration (page 1)

Name Unique network name for the ultrasound system. Default is SonoSite.

Alias Name that identifies the network location of the ultrasound system.

IP Address Unique identifier of the MPPS server.

Port Device port number. IP port 104 is typically assigned for DICOM.

AE Title DICOM Application Entity Title.

Associating devices with locations

For each location, select which devices (archivers and printers) you want to receive the data that you transfer, which archivers you want to designate as an MPPS or storage commitment server, and which worklist server you want to receive data from. Once these selections are complete, simply select the location you want to use.

To associate devices with a location

Note

The devices must be configured before you can associate them. See [“To configure a new location or device”](#) on page 5.

1 On the Connectivity setup page, select **DICOM Setup**.

2 In the **Location** list, select the location of the system.

3 In the list of devices, select one or more archivers, printers, or worklist servers.

You can select a maximum of two printers, four archivers, and one worklist server for each location. Only one archiver can be selected to receive in-progress transfers. Selected devices have a check mark in the left-hand column.

4 If you want to use the MPPS service, associate the MPPS server with the archiver:

a Select the MPPS server that you want. (MPPS servers appear near the end of the list.)

A check mark appears in server's left-hand column.

b Select the archiver.

A check mark appears in the archiver's left-hand column.

c Select the **MPPS** button.

A check mark appears in the archiver's **MPPS** column.

5 If you want to use the storage commitment service, associate the storage commitment server with the archiver:

a Select the check box for the storage commitment server that you want. (Storage commitment servers appear at the end of the list.)

A check mark appears in server's left-hand column.

b Select the archiver.

A check mark appears in archiver's left-hand column.

c Select the **Set SC** button.

A check mark appears in the archiver's **SC** column.

6 Complete any additional configuration tasks, and then select **Done** on-screen.

A dialog box prompts you to restart the system.

To disassociate devices with a location

1 On the Connectivity setup page, select **DICOM Setup**.

2 In the **Location** list, select the location.

3 Do any of the following:

- ▶ To disassociate a printer, archiver, or worklist server, select it.
- ▶ To disassociate an MPPS server from an archiver, select the MPPS server.
- ▶ To disassociate a storage commitment server from an archiver, select the storage commitment server.
- ▶ To disassociate an archiver from all servers, deselect and then reselect it.

- 4 Select **Done** on-screen.

A dialog box prompts you to restart the system.

To verify the connection status of devices

- 1 On the Connectivity setup page, select **DICOM Setup**.
- 2 Select **Verify** to confirm that the associated devices are connected. (If the **Verify** button is unavailable, check cable and wireless connections. Restart the system if you changed configuration. If the problem continues, see your system administrator.)

The connection status of the devices appears in the **Status** column:

- ▶ **Failed** DICOM cannot communicate with the device.
- ▶ **Success** DICOM can communicate with the device.
- ▶ **Unknown** The device does not support the C-ECHO (for example, Verify query command).

To select a location

- 1 On the Connectivity setup page, select **DICOM Setup**.
- 2 In the **Location** list, select the location.

The list is populated by entries in the **Archive** box in the Location configuration.

Importing configuration data from another system

You can share configuration data between ultrasound systems by importing and exporting. All configuration data for the locations (except IP addresses and AE titles), archivers, printers, storage commitment servers, worklist servers, and MPPS servers can be imported and exported.

Caution

To avoid damaging the USB storage device, do not remove it or turn off the ultrasound system while the system is exporting. In addition, do not bump or otherwise apply pressure to the USB storage device while it is in a USB port on the ultrasound system. The connector could break.

To export configuration data

- 1 Insert a USB storage device.
- 2 On the Connectivity setup page, select **DICOM Setup**.
- 3 Select **Config**.
- 4 Select **Export**. A list of USB devices appears.

- 5 Select the USB storage device, and select **Export**.

All configuration data for the locations, archivers, printers, storage commitment servers, worklist servers, and MPPS servers are copied to the USB storage device.

Five seconds after the exporting completes, you can safely remove the USB storage device and use it to import the data onto another system. See [“To import configuration data.”](#)

To import configuration data

- 1 Insert the USB storage device that contains the data.
- 2 On the Connectivity setup page, select **DICOM Setup**.
- 3 Select **Config**.
- 4 Select **Import**.
- 5 Select the USB storage device, and select **Import**.

- 6 Select **Restart** in the dialog box that appears.

The system restarts. All configurations on the system are replaced with imported data.

- 7 Complete any additional configuration tasks (for example, enter IP addresses and AE titles for locations), and then select **Done**.

A dialog box prompts you to restart the system.

Configuring the system for DICOM export

You can export patient exam data to a USB storage device. Data export as a DICOMDIR file.

To configure the system for export

- 1 On the ultrasound system's **USB Devices** setup page, select **Export**.
- 2 For **Export Type**, select **DICOM**.
- 3 Under **DICOM**, select an image format. For optimal image quality, select JPEG image format and Low compression.
- 4 (NanoMaxx) In the **AE Title** box, type a name for the ultrasound system.
- 5 This name appears in the archiver's interface, allowing you to identify where the patient exam originated.
- 6 Select **Include private tags** if present.

Note

Because the tags may be incompatible with some earlier archivers, keep this check box unselected unless you use a SonoSite software product (for example, SonoSite Workflow Solutions). For more information, see the conformance statement for your ultrasound system.

7 Select **Done**.

8 (Edge, SonoSite Edge II, M-Turbo, SonoSite SII, or S Series) Ensure that a location is selected and was configured with the **AE Title** specified. See [“To select a location”](#) on page 14 and [“To configure a new location or device”](#) on page 5.

DICOM network log

The DICOM network log collects network errors and events, typically to support diagnostics, and can be exported to a USB storage device and read on a PC. The log is a text file (log.txt) that you can open in a text-editing application (for example, Microsoft Word or Notepad).

The log contents are saved when the system is turned off. The log has limited space and overwrites existing information when full. You can access the log from any DICOM configuration page.

Caution To avoid damaging the USB storage device, do not remove it or turn off the ultrasound system while the system is exporting. In addition, do not bump or otherwise apply pressure to the USB storage device while it is in a USB port on the ultrasound system. The connector could break.

To display the DICOM network log

1 On the Connectivity setup page, select **DICOM Setup**.

2 Select **Log**.

To export the DICOM network log

Note The system’s Event log and the DICOM network log have the same filename (log.txt). Exporting either one to the same USB storage device overwrites the existing log.txt file. For information on the Event log, see the ultrasound system user guide.

1 Insert the USB storage device.

2 Display the DICOM network log.

3 Select **Export**. A list of USB devices appears.

4 Select the USB storage device, and select **Export**.

Five seconds after the exporting completes, you can safely remove the USB storage device.

To clear the DICOM network log

1 Display the DICOM network log.

- 2 Select **Clear** to delete all text.
- 3 Select **Yes** to confirm deletion.

Patient data and the worklist


The patient information form is where patient data are entered into the system. Using the worklist, you can import patient data from the Hospital Information System or Radiology Information System. (You can also enter the data manually. See the system user guide for instructions.)

The worklist is available after you do the following:

- ▶ Connect the system to the network. See **“Preparation”** on page 4.
- ▶ Configure the system. See **“Configuring the system for DICOM transfer”** on page 4.
- ▶ Select a worklist server for the active location. See **“To associate devices with a location”** on page 12.

For more information about the patient information form, see the ultrasound system user guide.

To display the patient information form

- ❖ Do one of the following:
 - ▶ (SonoSite Edge II, Edge, or M-Turbo) Press the **PATIENT** key
 - ▶ (S Series) Press the  **Patient** control key
 - ▶ (SonoSite SII and NanoMaxx) Tap **Patient**

To import patient data into the patient information form

- 1 On the patient information form, select **Worklist**.
The worklist appears.
- 2 If you want to sort the worklist, select a column heading to sort by.
The worklist sorts in ascending order.
- 3 Using the touchpad and **SELECT** key, select one or more procedures for the patient.
You can select multiple procedures only for the same patient.
- 4 Select **Select** on-screen.

To display scheduled procedures

The patient data that you import from the worklist include scheduled procedures.

- ❖ On the patient information form, select **Procedure**.

The following lists appear under **Scheduled Procedures**:

- ▶ **Procedure** Scheduled procedures
- ▶ **Protocol** Protocol for the selected procedure
- ▶ **Meaning** Definition of the selected procedure

To change the procedure

You can select a procedure different from the scheduled procedure.

- 1 On the patient information form, select **Procedure**.
- 2 Under **Performed Procedure**, select the desired procedure from the **Code** list.
The definition of the procedure appears in the **Meaning** field.
- 3 If you want to modify the **Code** list, select **Edit**, and do one of the following:
 - ▶ Add an item: Fill in the **Code**, **Scheme**, and **Meaning** fields, and then select **Save**.
 - ▶ Delete an item: Select the item, and then select **Delete**.

To enable bar code lookup of patient data (X-Porte, Edge, and SonoSite Edge II)

You can query the worklist for patient data by scanning the patient ID bar code with the bar code scanner. The patient data are then automatically entered into the patient information form.

- ▶ (X-Porte) Make sure that **Bar Code Auto Query** is selected on the User Profile setup page and that a worklist server is configured and connected. For more information, see the ultrasound system Help.
- ▶ (SonoSite Edge II and Edge) Make sure that **Bar Code Auto Lookup** is selected on the Connectivity setup page and that a worklist server is configured and connected.

For more information about the bar code scanner, see *Bar Code Scanner User Guide*.

Updating and querying the worklist

The worklist automatically updates if set up for an automatic worklist query. See [“To configure a new location or device”](#) on page 5 and [“Worklist configuration \(page 1\)”](#) on page 11. You can also manually update the worklist, and you can query the worklist server for a matching patient procedure.

The following table shows the parameters used for worklist queries. You set these parameters on the worklist configuration page. See [“Worklist configuration \(page 1\)”](#) on page 11.

The time of the last query appears below the worklist.

Table 1: Query Parameters

	Manual Patient Query	Manual Update from Worklist	Automatic Query Update
Patient data	✓		
Date Range	✓	✓	✓
This Device Only		✓	✓
Automatic Query On/Off			✓
Occurs Every			✓
Start Time			✓

To manually update the worklist

- 1 On the patient information form, select **Worklist**.
- 2 Select **Update**.

To perform a manual query

- 1 On a new patient information form, do any of the following:
 - ▶ Fill in any of the following fields for the query: Last, First, Middle, Accession Number, or Patient ID. The query is on the characters you enter. For example, *Smith* returns *Smith*, *Smithson*, *Smithy*.
 - ▶ Select **Procedure**. Under **Additional Worklist Query Parameters**, specify any of the following:
 - ▶ **Modality** Select a procedure type from the list. **US** (Ultrasound) is the default.

Requested Procedure ID Type a procedure ID.


- 2 Select **Query**.

The worklist appears with the query results. The number of results is in the lower right screen.
- 3 Highlight the patient procedure you want, and then select **Select**.

The information imports into the patient information form.

Archiving and printing

Images and clips saved on the ultrasound system are in internal storage. When the system detects the network connection, the saved images and clips (exams) automatically transfer to devices as specified in the Transfer Images setting. See “[Location configuration \(page 1\)](#)” on page 7. You can also manually transfer them.

The network connection icon  is animated when patient exams are archiving. Pending exams are archived or printed starting at the top of the patient list.

Note

For information about exporting to a USB storage device, see the ultrasound system user guide.

To display the patient list

1 Do one of the following:

- ▶ (Edge, SonoSite Edge II, or M-Turbo) Press the **REVIEW** key.
- ▶ (S Series) Press the **Patient** control key and then press the **Review** knob. Or press **Options** and select **Review**.
- ▶ (SonoSite SII and NanoMaxx) Tap **Patient** and then tap **Review**. Or tap **Options** and select **Review**.

2 If there is an active exam, press **List**.

To verify that exams transferred

❖ Display the patient list.

The right most column shows the status of exam transfer.

- ▶ ✓ Patient exam is archived.
- ▶ * Patient exam is suspended. The system tried the number of times specified on the configuration page. This exam needs to be manually archived.
- ▶ S Storage commitment for this exam is suspended.
- ▶ C Storage commitment was successful.

Patient exams with no status markers are pending archiving.



To display information about an exam

You can display information about an exam, including transfer details.

1 In the patient list, select the exam.

2 Select **Info**.

To manually transfer exams

- 1 Verify the following:
 - ▶ The ultrasound system is on, and the correct location is selected.
 - ▶ The ultrasound-connected icon  appears in the system status area on the screen.
 - ▶ If an Ethernet connection, the LAN link light (green LED) next to the Ethernet connector is on.
 - ▶ For a wireless connection, the wireless icon  appears in the system status area on the screen.
- 2 Display the patient list.
- 3 Select one or more patient exams.
- 4 Select **Archive**. (Any status markers are removed.)

Once the exam is archived, a check mark reappears by the selected patient's name.

To manually request storage commitment

- 1 Display the patient list.
- 2 Select one or more patient exams.
- 3 Select **SCommit** on-screen.

To discontinue MPPS for an exam

You can discontinue MPPS for an exam before completing the exam.


- ❖ On the patient information form, select **Discontinue**.

Troubleshooting

If you have trouble connecting to the network, try viewing the system's network information. If the trouble continues, contact FUJIFILM SonoSite.

Network information

To obtain network information:

- ❖ Do any of the following:
 - ▶ On the ultrasound system, see the Network Status setup page.
 - ▶ Make sure that the following icons appear in the system status area on the ultrasound system screen:
 - ▶ Ultrasound-connected 

Symptoms and solutions

(Wireless) No wireless icon on-screen. WLAN Status on Network Status setup page is Failed Authentication. Do any of the following:

- ▶ Make sure that the system is communicating with your access point: Make sure that the network name on the system is the same as the network name (SSID) of the access point. The default network name is SONOSITE. The network name is case sensitive.
- ▶ If using WEP or WPA-PSK, make sure that the WEP keys or WPA Pre-Shared key on the access point match the keys on the ultrasound system. These keys are case sensitive.
- ▶ The WLAN Status on the Network Status setup page may be Successful Association, but the ultrasound system cannot get a DHCP address if the WEP key is incorrect.
- ▶ If using RADIUS for security policy, make sure that the access point is turned on and properly configured with 802.1x enabled and that the Shared Secret key on the access point matches the key on the authentication server.

Use the server's PING utility to make sure that the server is active and can communicate with the access point.

(Wireless) No wireless icon on-screen after you select a valid location. Remove the wireless USB dongle. Verify the following, and then reinsert the dongle and restart the system:

- ▶ All wireless settings for the selected location are valid.
- ▶ The selected wireless certificate is in Base64 format.
- ▶ The system date and time are correct.

(Wireless) Wireless icon is on-screen but the system does not communicate. Make sure that the DICOM setup is correct.

(Wireless) Cannot import wireless certificates. Make sure that the USB storage device contains wireless certificates by viewing its contents on a PC.

System displays the alert "Exporting these DICOM files will overwrite any existing DICOM files."

Make sure that the USB storage device does not contain DICOM files that you wish to keep. If you continue the export, the exported files overwrite any DICOM files on the USB storage device.





SonoSite

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