

**Document Number:****D02945****Revision:****E****Title:****DICOM Installation Guide****CHANGE HISTORY:**

<b>Revision</b>	<b>Description of Change</b>
E	Add information for M-Turbo.
D	Add MicroMaxx system information. Revise document for ease of customer use.
C	Add Worklist
B	General document clarification and clean up. Insert second column on data pages.
A	Initial release.

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**1 PURPOSE AND SCOPE:**

- 1.1 The purpose of this document is to provide documents and a process to prepare for a DICOM site installation.
- 1.2 The scope is all SonoSite systems that are to be installed on a customers PACS/DICOM network.

**2 PROCESS OWNER:**

- 2.1 Supervisor, Customer Service/Technical Support.

**3 RESPONSIBILITY:**

- 3.1 All employees involved in the preparation and installation of DICOM. Primarily Clinical Applications and Technical Support.

**4 DEFINITIONS:**

DICOM – Digital Imaging and Communications in Medicine  
PACS - Picture Archiving & Communications Systems

**5 PROCEDURE OR SPECIFICATIONS:**

- 5.1 The following forms are provided as attachments to assist in the preparation and installation of SonoSite DICOM. Completion of these forms assists in successful installations of DICOM and documents the installation for future troubleshooting of DICOM issues. Copies of

completed forms are forwarded via email to the Clinical Support Specialist (email address configuration is first.last@sonosite .com. Example: [john.smith@sonosite.com](mailto:john.smith@sonosite.com)) and Technical Support at service@sonosite.com. Feel free to call Technical Support at (877) 657-8118 for any questions concerning the required information.

- **Site pre-evaluation form** – this form is used to gather basic information about the customer account at the time of quoting and prior to processing the sales order for DICOM. This form is completed by:
  - The sales representative providing the form to the customer for completion. The completed form is provided to Technical Support and the Clinical Applications representative that will be installing the system.
- **Site preparation form** –This form is used to obtain specific information about the customer site and is completed by either of two methods:
  - The form is provided to the customer for completion.
  - The customer is interviewed on the telephone by the Clinical Applications installer.

The completed form is provided to Technical support and the Clinical Applications representative installing the system.

- **Site configuration - final** – If the Site preparation form was provided to Technical Support then this form will be completed by Technical Support for the DICOM installer. If no previous forms were provided to Technical Support this form should be completed and sent to Technical Support in the event the customer calls needing assistance after the installation.

Notes:

1. The DICOM Site Preparation **must** be completed by the customer prior to a demo or an install. A successful installation or demo cannot be completed without this information. Copies will need to be made for every LOCATION, ARCHIVER, WORKLIST SERVER, or PRINTER.
2. When the DICOM Installation is successful export the final configuration to a CF card or USB stick and store it in a safe place for **backup** purposes.

## 6 REFERENCES/ATTACHMENTS:

- Site Pre-Evaluation Form
- Site Preparation Form
- Site Configuration - final

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# DICOM – Site Pre-Evaluation

Customer Name: \_\_\_\_\_

Installation Address: \_\_\_\_\_  
\_\_\_\_\_

Customer Contacts:

PACS Manager \_\_\_\_\_ Telephone \_\_\_\_\_  
Email \_\_\_\_\_ Mobile \_\_\_\_\_

IT Manager \_\_\_\_\_ Telephone \_\_\_\_\_  
Email \_\_\_\_\_ Mobile \_\_\_\_\_

PACS Product

Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_

PACS Workstation/Server/Archiver

1. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_
2. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_
3. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_

DICOM Printer/Image Manager (Print Servers)

1. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_
2. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_
3. Model Name/Manufacturer \_\_\_\_\_ Software Rev \_\_\_\_\_  
Mfg contact: \_\_\_\_\_ Telephone \_\_\_\_\_

# DICOM – Site Preparation

Customer Name: \_\_\_\_\_

**The Customer IT/PACS Manager must provide the following information.**

**Fax this form to SonoSite Technical Support (425) 951-6700 or email [service@sonosite.com](mailto:service@sonosite.com)**

**LOCATION:**

Network information for SonoSite system

*This information is required for every system installation. Please make copies of this form as needed.*

Network Information	Host Name	
	IP Address	
	Subnet Mask	
	Default Gateway	

DICOM Information	AE Title	
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Network Speed (please check one)

- Auto Negotiate
- 100 Mb/sec, Full Duplex
- 100 Mb/sec, Half Duplex
- 10 Mb/sec, Full Duplex
- 10 Mb/sec, Half Duplex

**ARCHIVER:**

Network and DICOM information for the PACS Archiver or Workstation.

*(The system may send to several different archivers or workstations. Please make copies of this form as needed.)*

Network Information

Host Name	
IP Address	

DICOM Information

AE Title	
Port	

Image Storage Class supported by PACS equipment. (Please check all that apply)

- Ultrasound                      SOP Class UID 1.2.840.10008.5.1.4.1.1.6.1
- Ultrasound Retired              SOP Class UID 1.2.840.10008.5.1.4.1.1.6
- Secondary Capture              SOP Class UID 1.2.840.10008.5.1.4.1.1.7
- Ultrasound Multi-frame      SOP Class UID 1.2.840.10008.5.1.4.1.1.3.1 (supported by MicroMaxx & M-Turbo only)

How to send images? (Please select one)

- RGB (Uncompressed)               Monochrome               JPEG (MicroMaxx & M- Turbo)

MicroMaxx & M-Turbo Only – How to send Clips? (Please select one)

- RGB (Uncompressed)               Monochrome               JPEG

**PRINTER:****Information for DICOM Printer or Print Server***(The system may send to several different Printers. Please Make copies of this form as needed.)*

Network Information	Host Name		
	IP Address		

DICOM Information	AE Title		
	Port		

Printer Information	Film Size		Example 8" x 10", 14" x 17"
	Film Type		Blue, Clear or Paper Film
	Destination*		Processor or Magazine
	Format		Please provide in Column x Row format. Ex. 3x5 = 15 images on one film
	Orientation*		Landscape or Portrait
	Copies		Number of copies to print
	Priority		Low, Medium, High
	Maximum Density *		Darkest part of image.
	Minimum Density*		Lightest part of image
	Border Density**		To set Border space around images to Black or White
	Empty Density**		To set Empty image spaces to Black or White
	Image Type		Color or Monochrome
Magnification*		See DICOM Conformance statement for printer.	

\* See DICOM Conformance Statement for printer to determine Maximum and Minimum Density as well as Magnification types possible for DICOM printer.

\*\* For Border and Empty Density – For a black area set this to the value shown for Maximum Density, for a white area set this to the value shown for Minimum Density.

**WORKLIST:**

Information for DICOM Modality Worklist Server

Network Information	Host Name	
	IP Address	

DICOM Information	AE Title	
	Port	

How much information should be shown in the Worklist results

- Today only       Yesterday, today, tomorrow       All

Should the system Automatically perform a Query     Yes       No

(If no then the user must manually query for Worklist information to update.)

Automatic Query frequency (Please select one)

- 30 min     1 hr     2 hr     4 hr     8 hr     12 hr     24 hr

What time of day should the Automatic Query begin? \_\_\_\_\_ AM or PM

# DICOM – Site Configuration - final

This form will be completed by SonoSite Technical Support for the installation.  
 Please inform Technical Support of any changes necessary to this information.

Customer Name: \_\_\_\_\_

IT Installer: \_\_\_\_\_

Location of DICOM backup Compact Flash card: \_\_\_\_\_

**Use this form to document the final configuration of each LOCATION, PRINTER, WORKLIST SERVER, and ARCHIVER. Make copies as needed and check the appropriate box.**

Location     
  Printer     
  Archiver     
  Worklist Server

Parameter	Installed Value
IP Address	
Hostname (Name)	
Alias	
Model	
Port	
AE Title	
Subnet Mask	
Default Gateway	
Network Speed	
Settings	
Capture Type	
Attempts	
Interval	
Film Size	
Film Type	
Destination	
Format	
Orientation	
Attempts	
Interval	
Copies	
Priority	
Density Max	
Density Min	
Border Density	
Empty Density	
Settings	
Magnification	
Configure	