

# **User Training Manual**

## **Bioptics Pixarray100**

### **Specimen DR System**



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## I. INITIAL POWER-UP SEQUENCE

Power-Up (starting the system) is completed one-time at the start of system usage. It is recommended that once the Power-Up sequence has been performed; leave the system ON the rest of the day if planning to use it again.

**The system MUST have 30 minutes to warm-up prior to starting the *Bioptics Vision* software.**

1. Turn on the computer and monitor FIRST prior to turning on the Bioptics Pixarray100 Specimen System.

Turn on the **computer**.  
Turn on the **monitor**.

2. On Pixarray 100 system, turn the power key to its "**ON**" position.



**Let system warm up for 30 minutes prior to starting the system software.**

3. On the computer monitor double-click the *Bioptics Vision* icon to start the specimen radiography software.



**Note: Ensure that there are no objects or specimens inside the specimen system prior to activating the Bioptics Vision software.**

END OF INITIAL POWER UP SEQUENCE

## II. CALIBRATION

This step can take from 5-10 minutes to perform.

1. If the system has not been calibrated for more than six (6) hours, automatic calibration will begin once the *Vision* software has been started. If automatic calibration does not begin, click on the “**Calibrate System**”



button to calibrate the system.

**Recommendation 1:** A complete system calibration should occur daily prior to initial system use.

**Recommendation 2:** If system is moved from one room to another, repeating complete system calibration is highly recommended prior to system use. This will eliminate potential imaging difficulties associated with ambient temperature and humidity differences.

2. Once calibration is complete, the calibration dialog window will automatically close and the system is now for ready for use.

## END OF CALIBRATION

### III. ENTER PATIENT DATA

#### A. Manual Entry

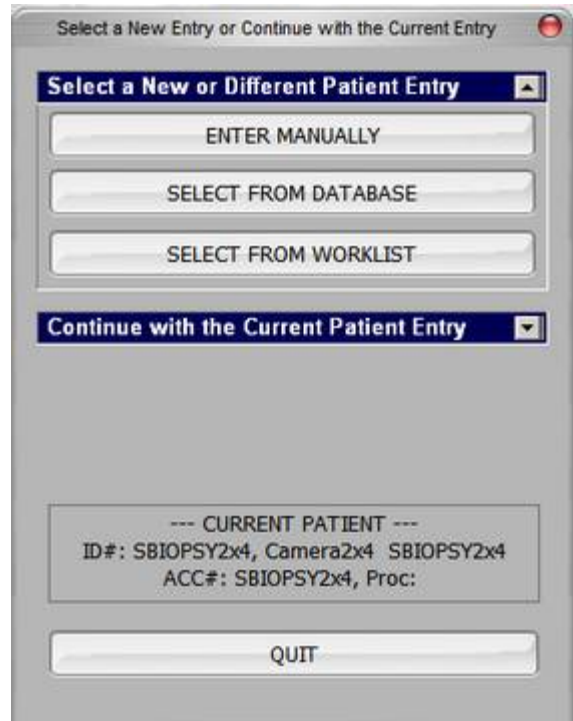
1. Click on the  button.

2. Click on the  button.

3. If you choose “ENTER MANUALLY” follow this section; Section A.

If “SELECT FROM DATABASE” go to Section B.

If “SELECT FROM WORKLIST” go to go to Section C.



Select a New Entry or Continue with the Current Entry

**Select a New or Different Patient Entry**

ENTER MANUALLY

SELECT FROM DATABASE

SELECT FROM WORKLIST

**Continue with the Current Patient Entry**

--- CURRENT PATIENT ---  
ID#: SBIOPSY2x4, Camera2x4 SBIOPSY2x4  
ACC#: SBIOPSY2x4, Proc:

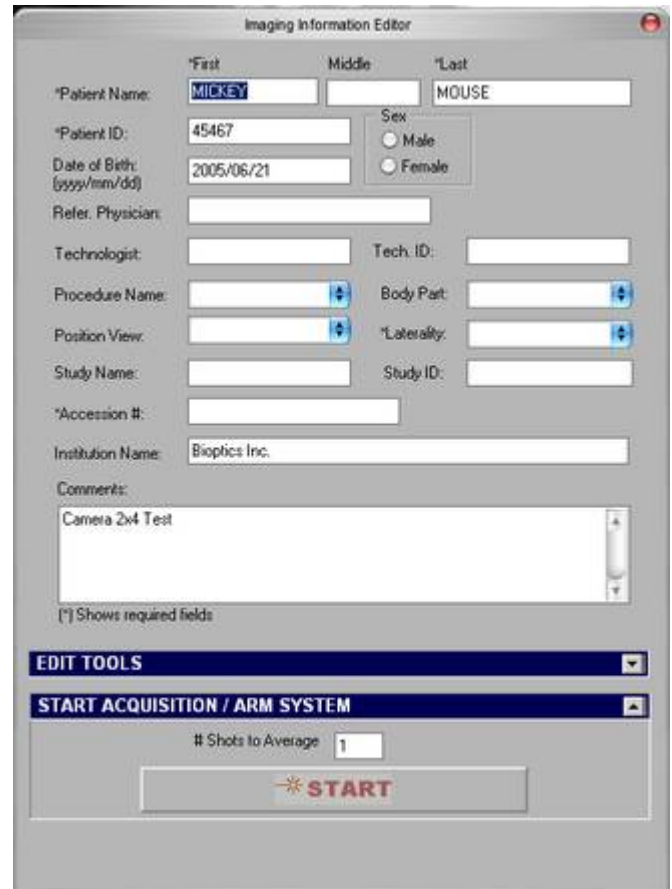
QUIT

4. Enter patient data in the Imaging Information Editor.

**All fields noted with an (\*) asterisk are required to be completed in the *Imaging Information Editor*.**

5. Click on “*START*.”

6. The system is ready for X-ray imaging when the ‘yellow’ box appears at the bottom of the window status bar, reading “Ready for Exposure and Collection ...” (see below) and a name tag of the patient on top-left corner of the screen.



The screenshot shows the 'Imaging Information Editor' window. It contains various input fields for patient and study information. Fields marked with an asterisk (\*) are required. The 'Patient Name' field is split into 'First' (MICKEY), 'Middle' (empty), and 'Last' (MOUSE). Other fields include Patient ID (45467), Date of Birth (2005/06/21), Sex (Male), Refr. Physician, Technologist, Tech. ID, Procedure Name, Body Part, Position View, Laterality, Study Name, Study ID, Accession #, and Institution Name (Bioptics Inc.). A 'Comments' section at the bottom contains the text 'Camera 2x4 Test'. At the very bottom, there is a status bar with a yellow background and the text 'READY FOR EXPOSURE AND COLLECTION 0/1'. Above this status bar, there is a patient name tag displaying 'ID#: 12345, Firstname Lastname' and 'ACC#: 12345, Proc: Specimen Img'. A large 'START' button is also visible.

READY FOR EXPOSURE AND COLLECTION 0/1

ID#: 12345, Firstname Lastname  
 ACC#: 12345, Proc: Specimen Img

Proceed to the ***X-Ray Imaging*** Section.

**END OF ENTER PATIENT DATA – MANUAL ENTRY**

## B. Select Entry From Program's Local Database

1. After selecting the "SELECT FROM DATABASE," the "Local Database of Entries & Entry Selection for Examination" dialog box will open (as shown below).

Local Database of Entries & Entry Selection For Examination

Table 1: ALL PREVIOUS ENTRIES IN PROGRAM'S LOCAL DATABASE

PATIENT-ID	LASTNAME	FIRST	MIDDLE	TIME MODIFIED	BIRTH
SBIOPSY2X4	SBIOPSY2X4	CAMERA2X4		2008/12/30 12:42:02	2006/07/
45467	MOUSE	MICKEY		2008/07/17 18:54:09	2005/06/
111651	CORESPECTION1	MARY		2008/05/09 18:30:04	2005/01/
B00255	B00255	DEMOCISI4X4		2008/01/09 13:18:59	2006/08/
1	A	A	A	2006/03/25 13:48:46	
000057949	SPOT1	MARY		2005/04/19 13:49:48	2005/01/
B00110	DIGITAL		CASSE...	2004/01/06 14:19:16	2003/11/

Table 2: SELECTED ENTRY FOR EXAMINATION

PATIENT-ID	LASTNAME	FIRST	MIDDLE	TIME MODIFIED	BIRTH

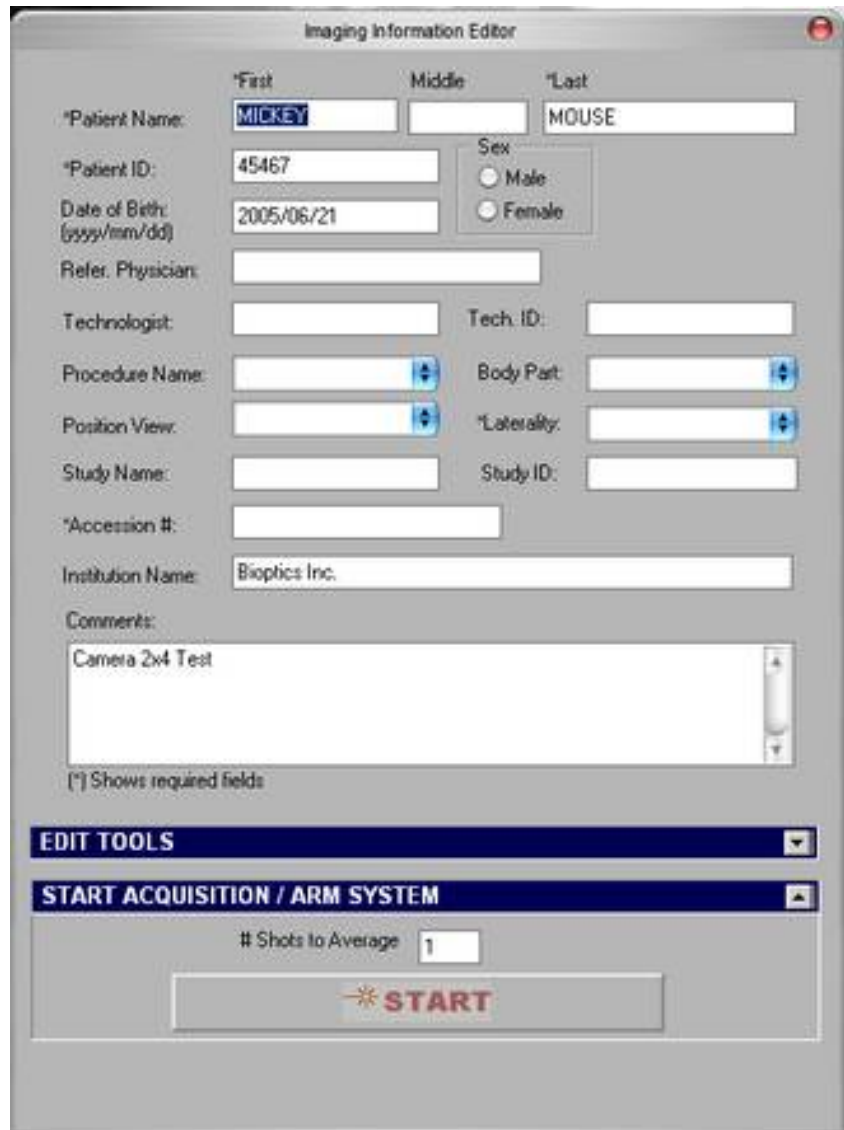
CLEAR THE ENTRY (Table 2) SELECTED FOR EXAMINATION

By double clicking on an entry listed in "**Table 1**" of the "*Local Database of Entries*", the same patient information will then be shown in "**Table 2.**" Select "OK" at the bottom of the dialog box, and the "*Imaging Information Editor*" fields will automatically be populated with that chosen patient information (shown below).



2. Upon returning to the “*Imaging Information Editor*”, click on “*START*” to continue.

3. The system is ready for X-ray imaging when the ‘yellow’ box appears at the bottom of the window status bar, reading “Ready for Exposure and Collection ...” and name tag of the patient on top-left corner of the screen.



The screenshot shows the 'Imaging Information Editor' window. It contains various input fields for patient and study information. The 'Patient Name' field is filled with 'MICKEY' in the 'First' column and 'MOUSE' in the 'Last' column. The 'Patient ID' is '45467', 'Date of Birth' is '2005/06/21', and 'Sex' is 'Male'. Other fields include 'Refer. Physician', 'Technologist', 'Tech. ID', 'Procedure Name', 'Body Part', 'Position View', 'Laterality', 'Study Name', 'Study ID', 'Accession #', and 'Institution Name' (Bioptics Inc.). A 'Comments' section contains 'Camera 2x4 Test'. At the bottom, there is an 'EDIT TOOLS' bar and a 'START ACQUISITION / ARM SYSTEM' bar with a '# Shots to Average' of 1 and a large 'START' button.

READY FOR EXPOSURE AND COLLECTION 0/1

ID#: 12345, Firstname Lastname  
 ACC#: 12345, Proc: Specimen Img

Proceed to the *X-Ray Imaging* Section.

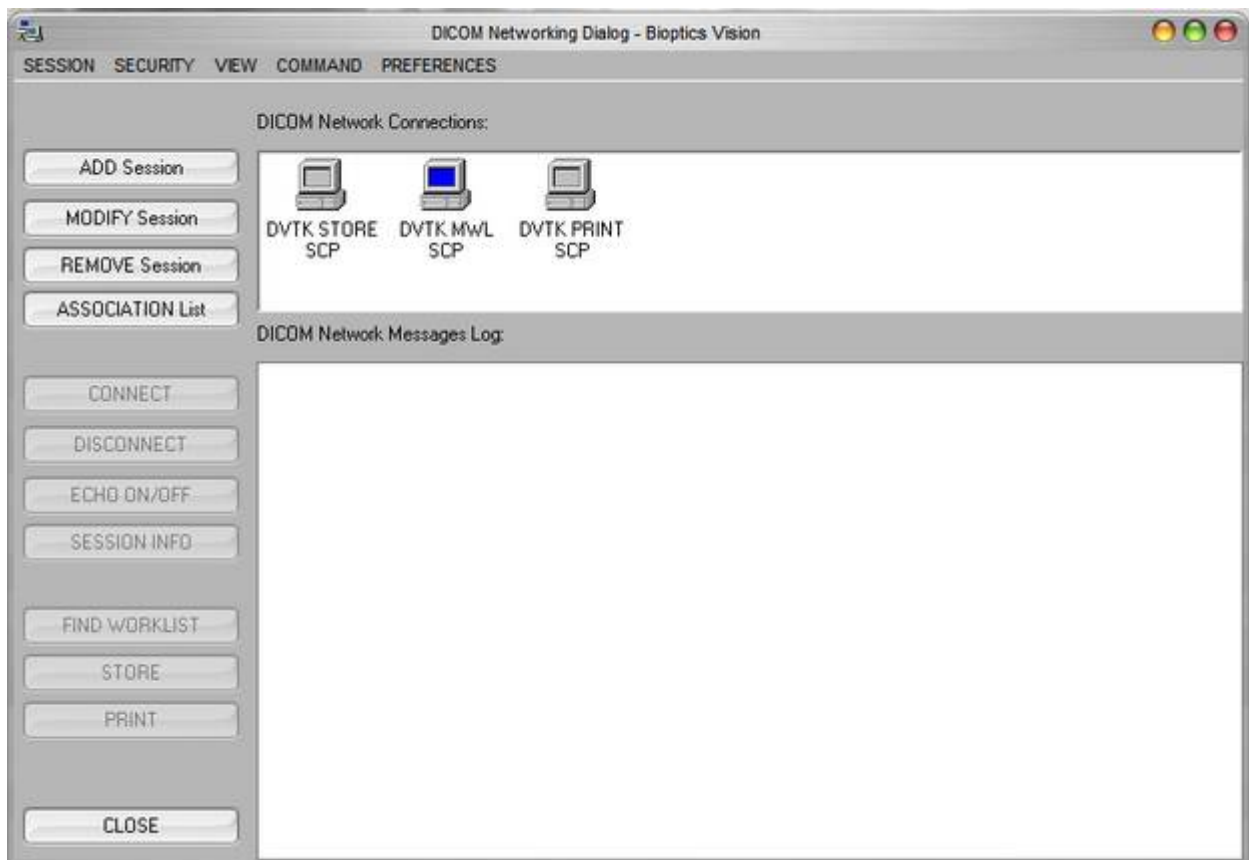
**END OF ENTER PATIENT DATA – SELECT ENTRY FROM  
 PROGRAM’S LOCAL DATABASE**



## C. Select Entry from PACS Worklist

If a PACS Server has not been setup, refer to the *Advanced User Manual, Document No.1043..*

1. After selecting the “**SELECT FROM WORKLIST**,” the “*DICOM Networking Dialog*” box will open. To connect to the PACS server, click on the PACS server icon and select “**CONNECT**.” Once a successful connection has been established, the button “**FIND WORKLIST**” will become available, click on it and the “*Modality Worklist Search Dialog*” will open allowing for patient queries.



Modality Worklist Search Dialog

Patient Name	<input type="text"/>	(LAST^FIRST^MIDDLE, * as wild card match)
Patient ID	<input type="text"/>	(Empty field is not a match key)
Birth Date	<input type="text"/>	(YYYY/MM/DD, empty field is not a match key)
Scheduled procedure step start date	<input type="text" value="2009/01/14"/>	(YYYY/MM/DD, empty field is not a match key)
Accession number	<input type="text"/>	(Empty field is not a match key)
Modality	<input type="text"/>	(DX, MG, etc. empty field is not a match key)
Sch. Perf. Physician	<input type="text"/>	(Empty field is not a match key)
Sch. Station AE Title	<input type="text" value="BIOPTICS_DR"/>	(Empty field is not a match key)
Sch. Station Name	<input type="text"/>	(Empty field is not a match key)

MANIPULATE SEARCH FORM ENTRIES

2. Enter Patient Name and/or Patient ID and Sch. Station AE Title and click on “**OK-SEARCH MWL.**” Or if the station AE Title is defined, then any single field or any combination of fields may be used as a filter to search for scheduled procedures for this AE.

3. By double clicking on an entry listed in “Table 1” of the “Modality Worklist Report & Entry Selection, the same patient information will then be shown in “Table 2.” Select “OK” at the bottom of the dialog box, and the “Imaging Information Editor” fields will automatically be populated with that chosen patient information.

Modality Worklist Report & Entry Selection

Table 1: LIST OF RECEIVED ENTRIES (17 TOTAL)

PatientID	Accession#	Patient Name(L^F^M)	BirthDate	Sex	Mod
pidP645	00000187	One^Secondary Capture I...	1980/07/16	M	MA
SC-11		One^Secondary Capture I...		0	OT
SC-11		One^Secondary Capture I...		0	OT
SC-11		One^Secondary Capture I...		0	OT
SC-11		One^Secondary Capture I...		0	OT
SC-11		One^Secondary Capture I...		0	OT
SC-12		Two^Secondary Capture I...		0	CT
SC-12		Two^Secondary Capture I...		0	CT
SC-12		Two^Secondary Capture I...		0	CT

Table 2: SELECTED ENTRY FOR EXAMINATION

PatientID	Accession#	Patient Name(L^F^M)	BirthDate	Sex	Modality

CLEAR THE ENTRY (Table 2) SELECTED FOR EXAMINATION

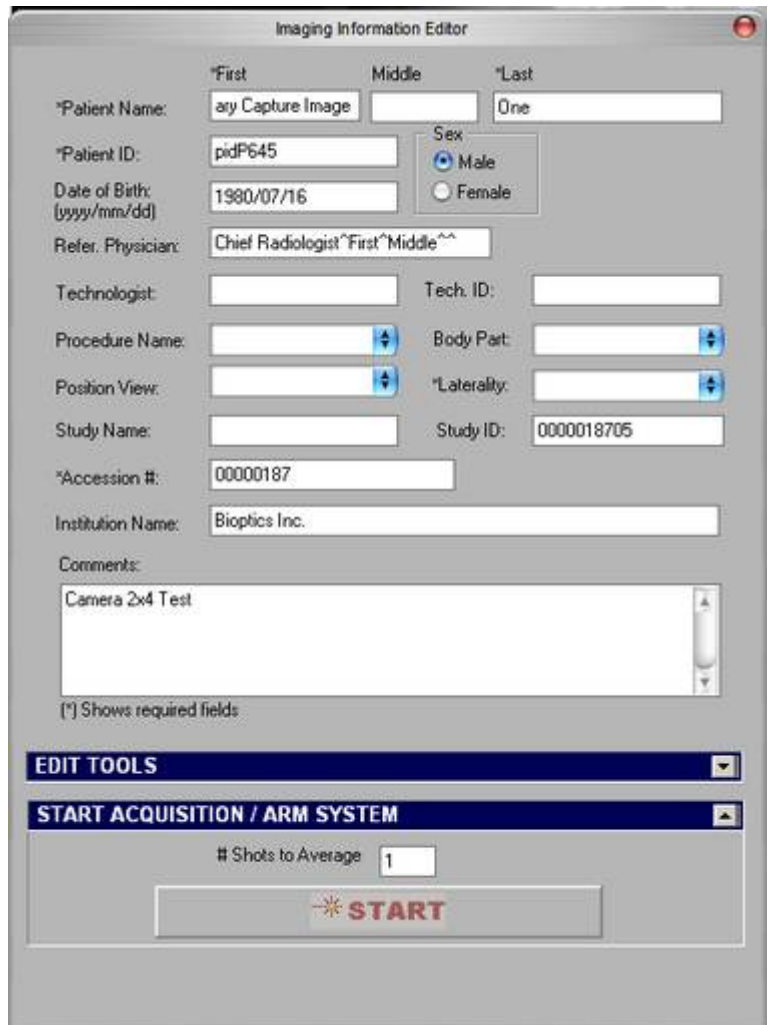
Table 3: REPORT OF THE HILIGHTED ENTRY ON "Table 1"

Tags	Value
Patient Name	One^Secondary Capture Image
Patient ID	pidP645
Patient Birth Date	1980/07/16
Patient Sex	M
Patient Weight	80.000000
Patient Confidentiality	
Patient State	
Pregnancy Status	unknown
Medical Alerts	MT
Contrast Allergies	
Special Needs	
Accession Number	00000187
Modality	MA
Study Description	
Series Description	
Scheduled Station AE Title	BIOPTICS_DR
Scheduled Procedure Step Start Date	2009/01/14
Scheduled Procedure Step Start Time	2009/01/14
Scheduled Procedure Step End Date	
Scheduled Procedure Step End Time	
Scheduled Performing Physician	
Scheduled Procedure Step Description	CSPINE
Scheduled Procedure Step ID	00000187000

PRINT Report on Table 3

OK Cancel

4. Upon returning to the “*Imaging Information Editor*”, click on “*START*” to continue.



The screenshot shows the 'Imaging Information Editor' window. It contains various input fields for patient and study information. At the bottom, there is a section titled 'EDIT TOOLS' and 'START ACQUISITION / ARM SYSTEM'. The 'START ACQUISITION / ARM SYSTEM' section includes a '# Shots to Average' field set to '1' and a large 'START' button with a sunburst icon.

The system is ready for X-ray imaging when the ‘yellow’ box appears at the bottom of the window status bar, reading “Ready for Exposure and Collection ...” and name tag of the patient on top-left corner of the screen.

READY FOR EXPOSURE AND COLLECTION 0/1

ID#: 12345, Firstname Lastname  
 ACC#: 12345, Proc: Specimen Img

Proceed to the ***X-Ray Imaging*** Section.

**END OF ENTER PATIENT DATA – SELECT ENTRY FROM PACS  
 WORKLIST**

## IV. X-RAY IMAGING

1. Open specimen door and place specimen\* inside the Pixarray 100 Specimen DR System for imaging. Close specimen door ensuring that the “**System Ready**” indicator light is on.



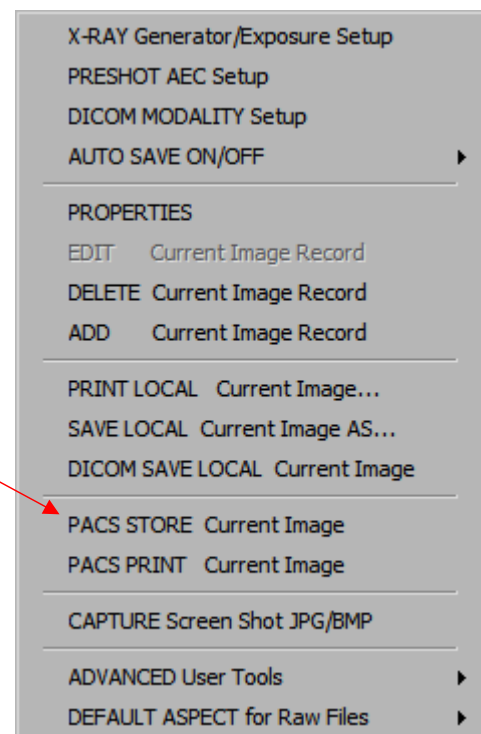
2. Press the “**START**” button on the Pixarray100 Specimen DR System.

3. WAIT for the new image to appear in the Bioptics Vision software.

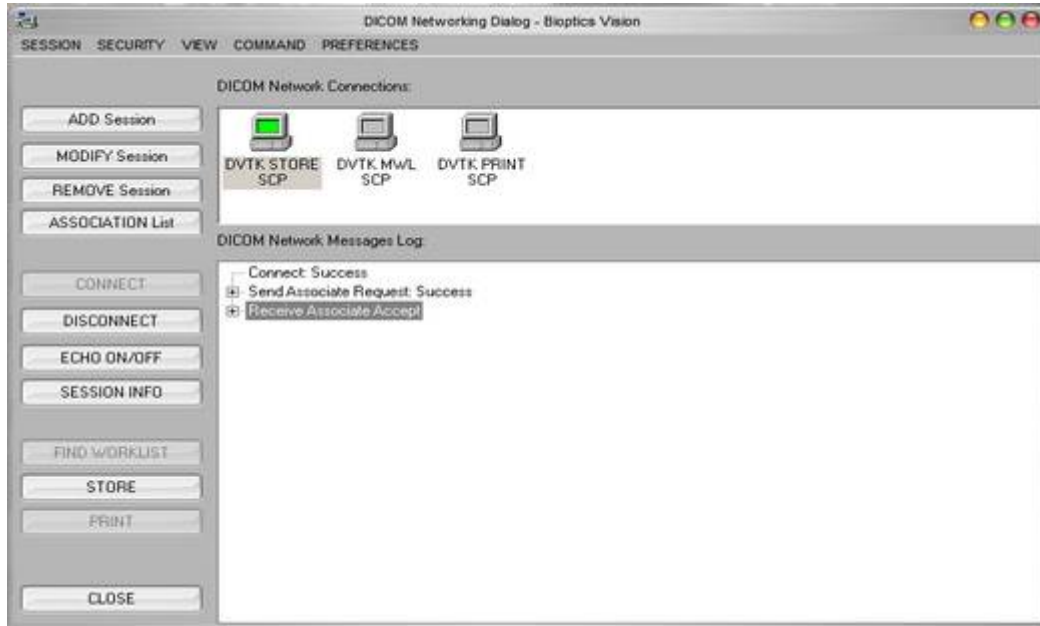
4. To adjust the image appearance, (e.g. light/dark, contrast levels) refer to the *Advanced User Manual, Document No.1043*.

5. To STORE the image to the PACs server, click once over the displayed image with the right mouse button and a dropdown menu will be displayed. Select “*PACS STORE Current Image*” from the menu.

A new dialog box will open (“*DICOM Networking Dialog*”) (shown below); select the PACS server icon and click on “*Connect*.”



**\*Specimen holder should not be made of metallic, glass or ceramic elements which can highly attenuate X-rays.**



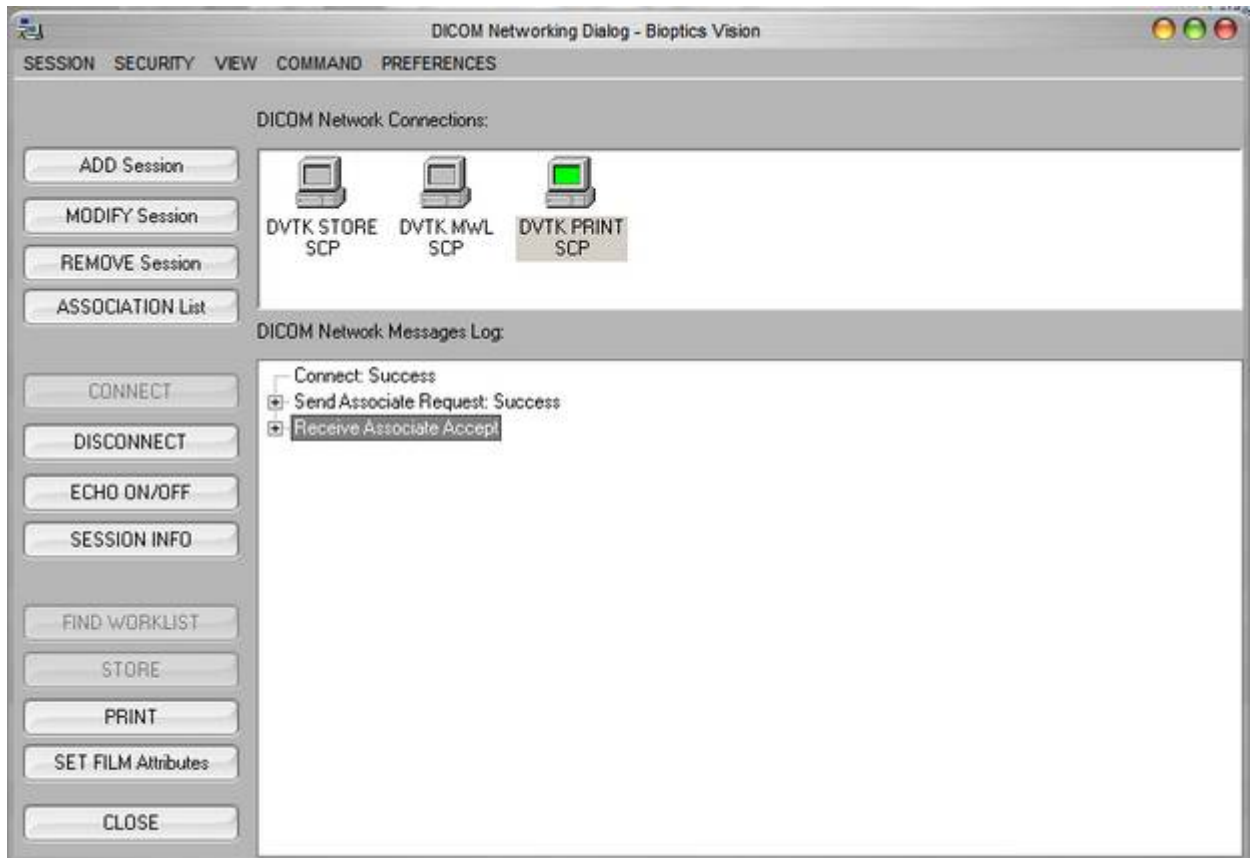
Once a successful connection has been established, “**STORE**” will become available, select it and the image is then transferred to the PACS server successfully once the message log reads “*Receive C-Store Response: Success.*”

Multiple images, multiple procedures or multiple patient images can be also sent in one “PACS STORE” session using similar right-click mouse action on listed patients/procedures/images in “Database/Review” mode. Please refer to the *Advanced User Manual, Document No.1043.*”

6. To PRINT an image using the DICOM compliant printer, click once over the displayed image with the right mouse button and a dropdown menu will be displayed. Select “*PACS PRINT – Current Image*” from the menu.

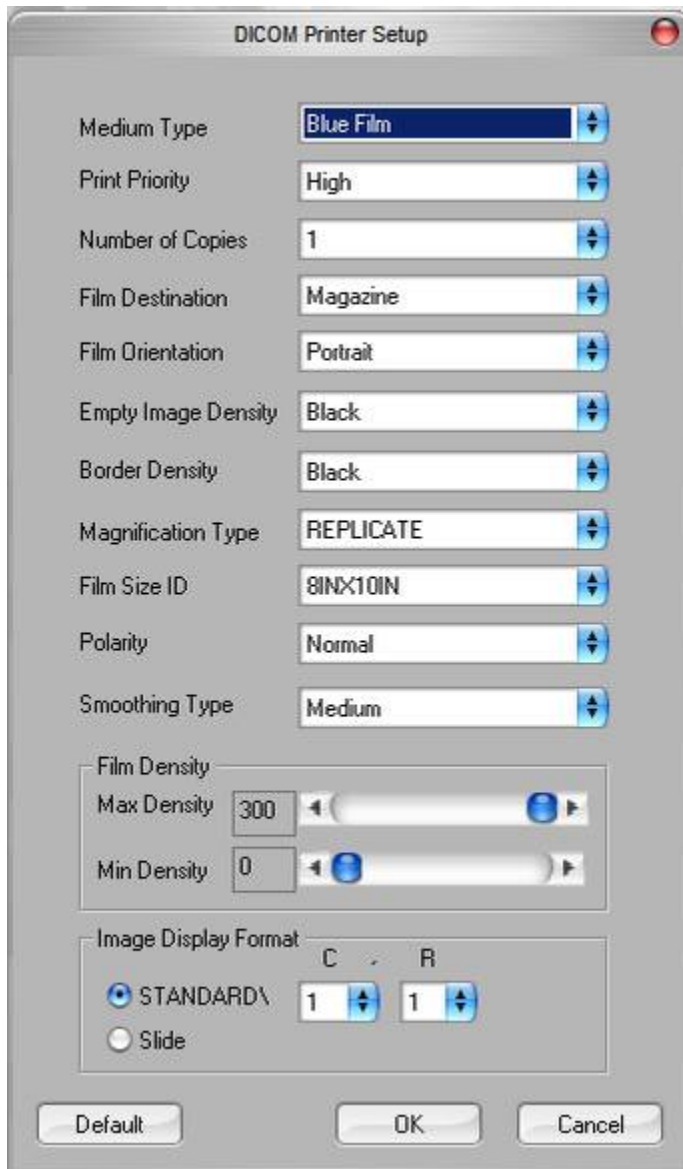
7. Once a successful connection has been established, “**PRINT**” will become available, select it and the image is then sent to the printer. See below.





To change the Printer Setup, Select “*Set FILM Attributes*” and change preferences as needed in the “*DICOM Printer Setup*” (shown below).





**END OF X-RAY IMAGING**


## **V. FINAL SHUT-DOWN OF SYSTEM**

**Leave the system on, if there are any other procedures scheduled for the day, proceed otherwise.**



1. Click on  to get back to the Vision Software start-up screen.



2. Click on , then "OK." This will turn off the computer.
3. Turn off the *monitor*.
4. On Bioptics Pixarray100 unit, turn *power key* to its "OFF" position.

**END OF FINAL SHUT-DOWN OF SYSTEM**