



terason *t3200*TM
ultrasound system



terason
*revolutionizing
ultrasound*

Getting Started on the

 **terason** *t3200*TM
ultrasound system



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Starting up the System



- ❖ The Power button for the System is located on the upper right hand corner of the System
- ❖ Make sure the System is charged or plugged in when trying to power it up
- ❖ The power cord attaches to the upper left hand side of the System

Plugging the in the Probe



- ❖ The Probe plugs into the right side of the system. The silver side with the round notch faces up
- ❖ The latch will lock the probe in place

Slide out Console



1- Soft Keys

2- Change pages of soft keys

3- CW Continuous Wave Doppler
(not active on MSK or Breast)

4- PW Pulsed Wave Doppler

5- TI Tissue Doppler (not active on
MSK or Breast)

6- M-Mode

7- C Color

8- 2D

9- Update

10- Trackball

11- Enter/ Pointer

12- ROI/Trackball
control

13- Ultrasound
Cursor

14- Freeze

15- Store Loop

16- Store image

17- Text

18- Gain/2DSteer/ Zoom

19- Depth

20- Focal Position

21- Frequency

22- TGC

Status Bar



❖ System

❖ Patient Name

❖ ID

❖ Patient Info (age, sex, date of birth)

❖ Preset

❖ Date

❖ Help Manual Icon

❖ Time

❖ Network connection status

❖ Hard disk space left

❖ D DICOM

❖ Battery or charge status

❖ Minimize

❖ Close

❖ System Model

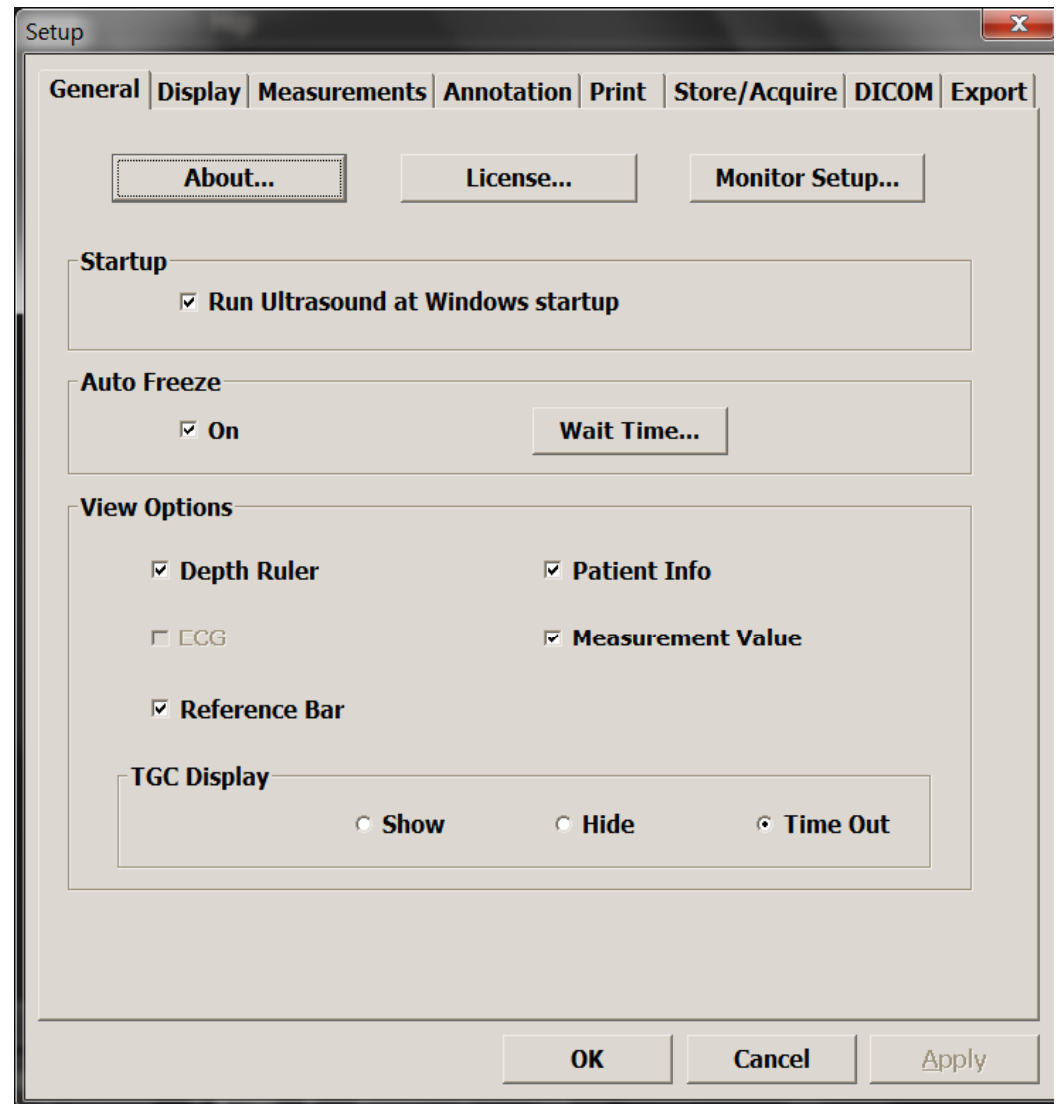
How to Setup the System



- ❖ Click on the Setup tab on the imaging screen
- ❖ This control allows the user to customize the System
- ❖ The following slides will walk you through all of the Setup tabs

Setup General

- ❖ **About:** Displays the System software level
- ❖ **License:** Displays the license level and controls some software upgrades
- ❖ **Monitor Setup:** Allows the user to choose monitor displays. We recommend Mac Book Custom
- ❖ **Startup:** When box is checked, the system will boot-up straight into the ultrasound program. When left unchecked, the System will boot-up to the desktop
- ❖ **Auto Freeze:** The Screen will Auto Freeze if no controls are touched after the set wait time
- ❖ **View Options:** Allows the user to see imaging parameters and information on the screen.
- ❖ **TGC:** Allows the user to choose if they want to see the TGC bar on the ride side of the image. Show-The TGCs will always display. Hide- They will not show at all. Time Out- They will show for only a short time after being adjusted.



Setup Display

❖ Return to live imaging on toggle active screen:

Center ROI at Spectral Gate:

Scale linear images for maximum width- allows the user to get the maximum Has the most impact at 2cm

❖ Patient info Units: Allows the user to choose between English Units and Metric System

❖ Update Mode(Current Preset): Allows the user to be in Simultaneous or Non-Simultaneous mode when entering PW mode

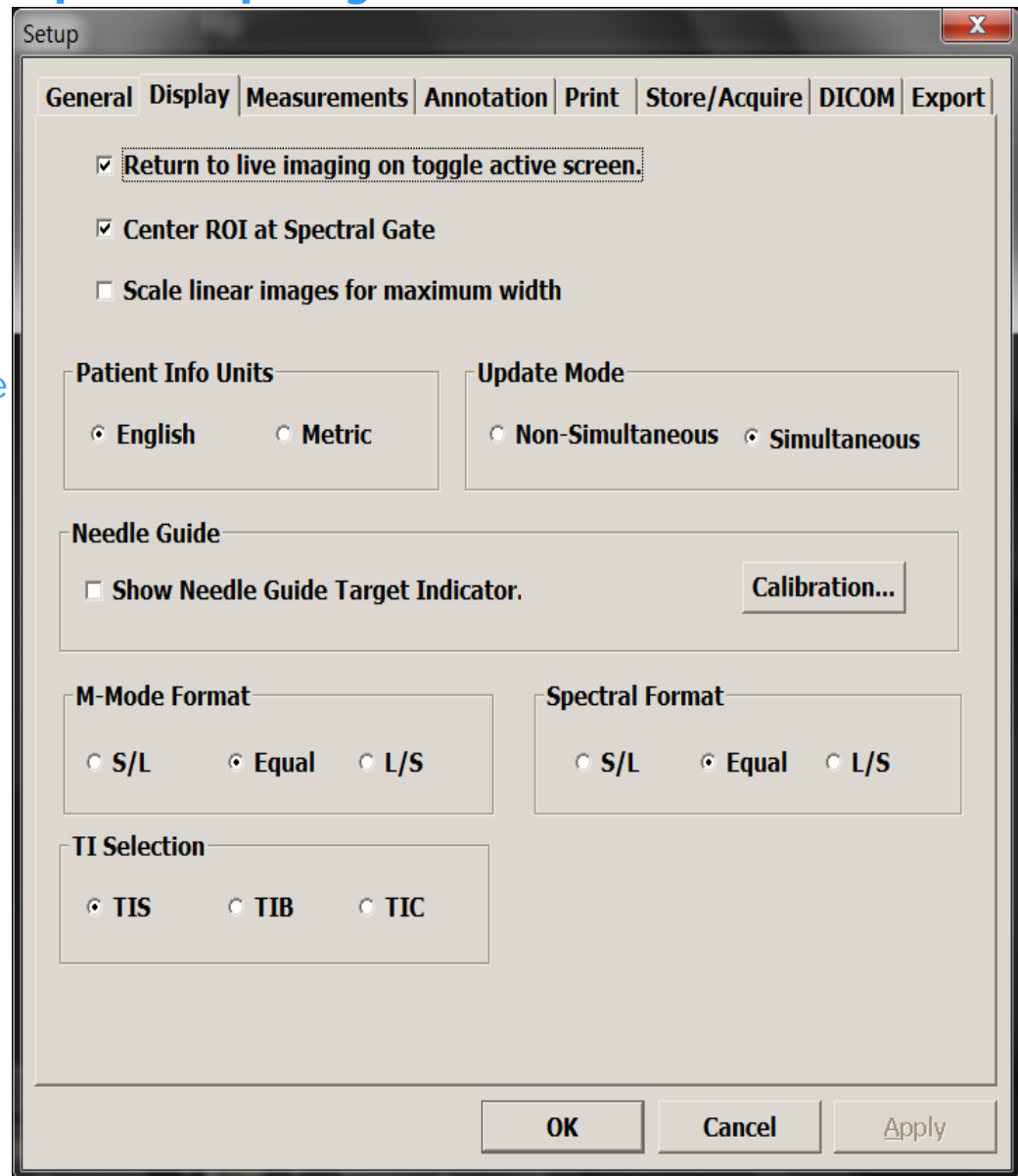
❖ Needle Guide: Allows user to choose a target guide indicator and perform the Calibration

❖ M-Mode Format

S/L-Small(2D) over large (M-mode)

Equal- Both equal

L/S-Large(2D) over small (M-mode)



Setup Display

❖ Spectral Format

S/L- Small(2D) over large (spectral)

Equal- Both equal

L/S- Large (2D) over small (spectral)

❖ TI Selection

This is the Temperature Index Selection.

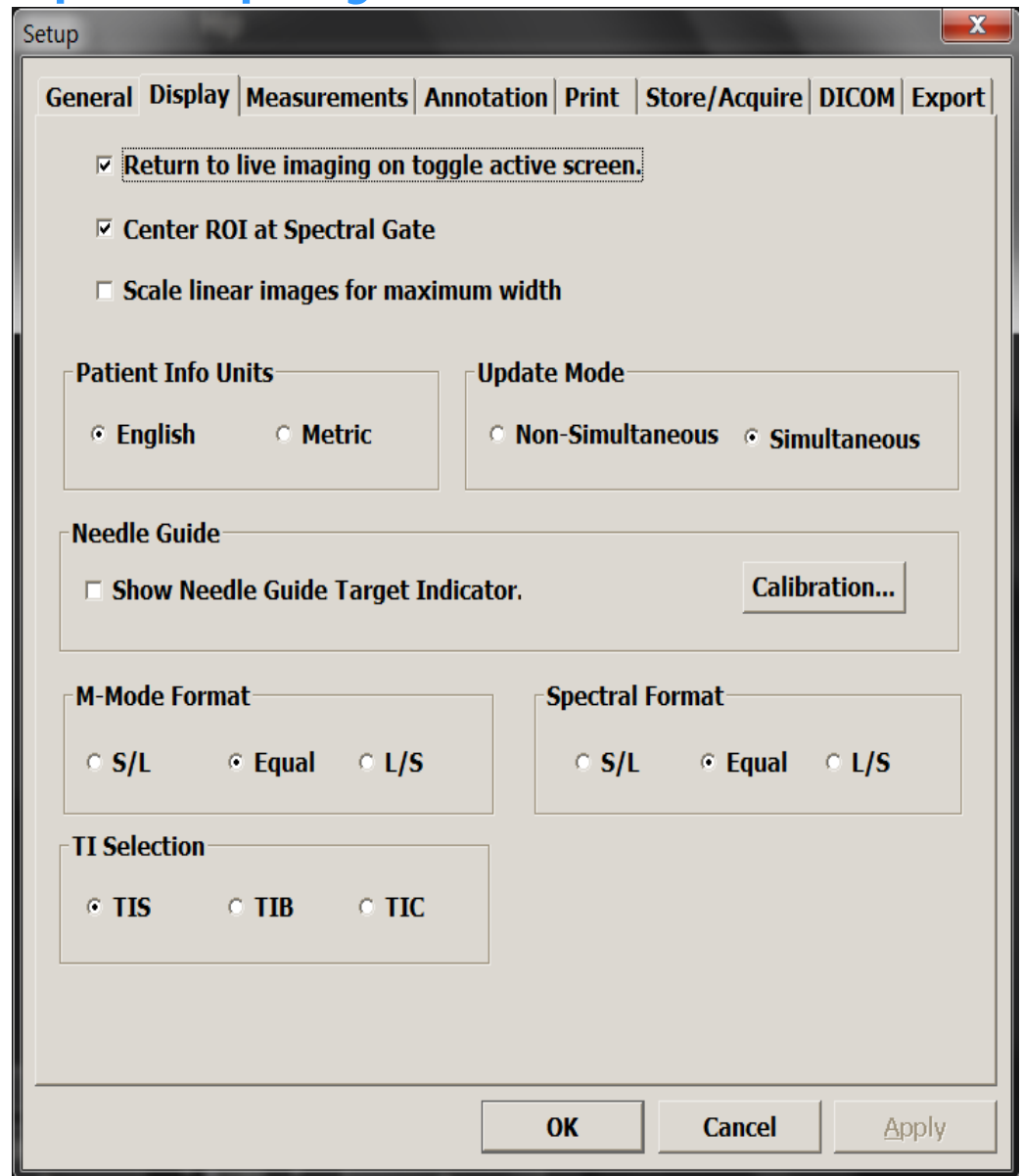
TIS: Soft Tissue

TIB: Bone

TIC: Cranial

The user can select which they would like to have displayed on the screen.

(See Scanning Screen slide for location TI is displayed)

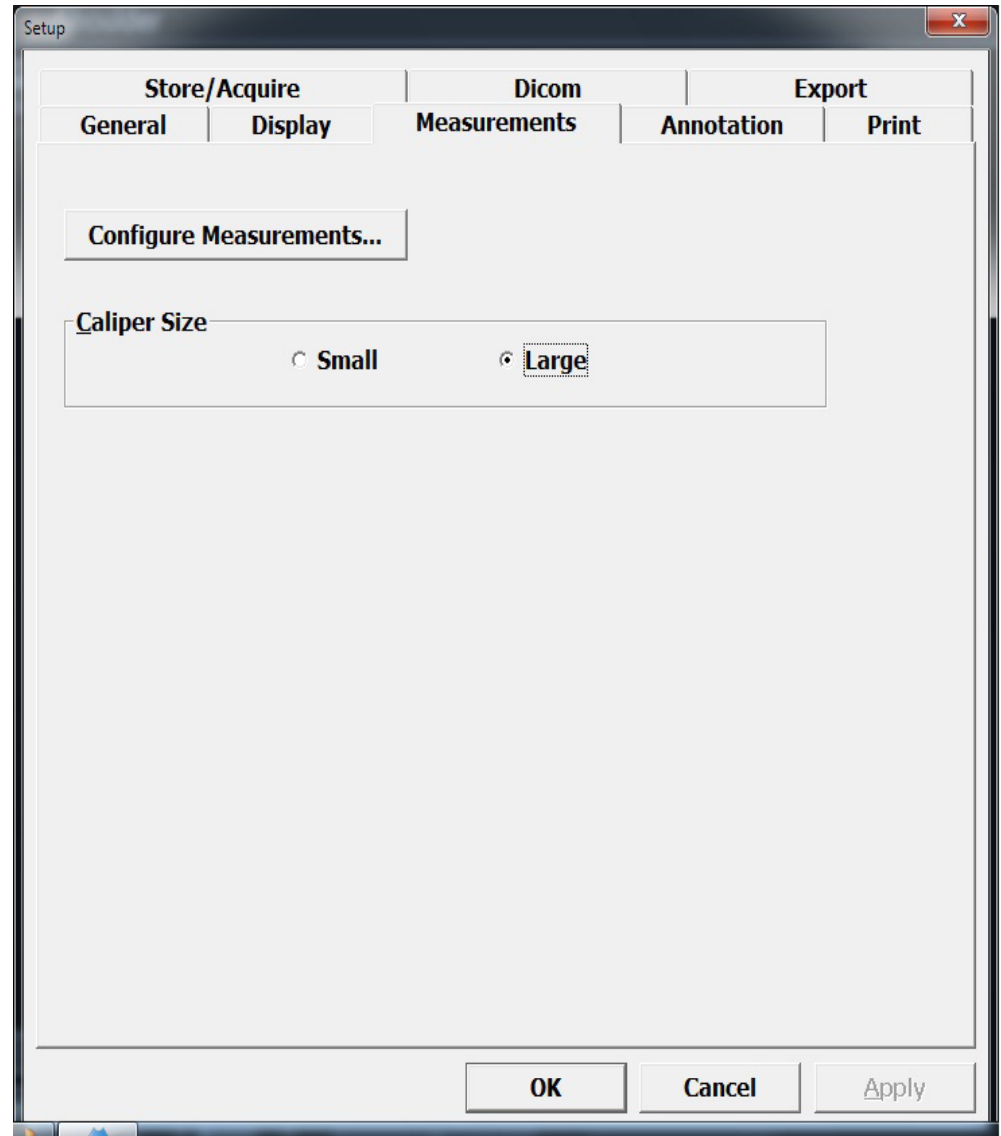


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Setup Measurements

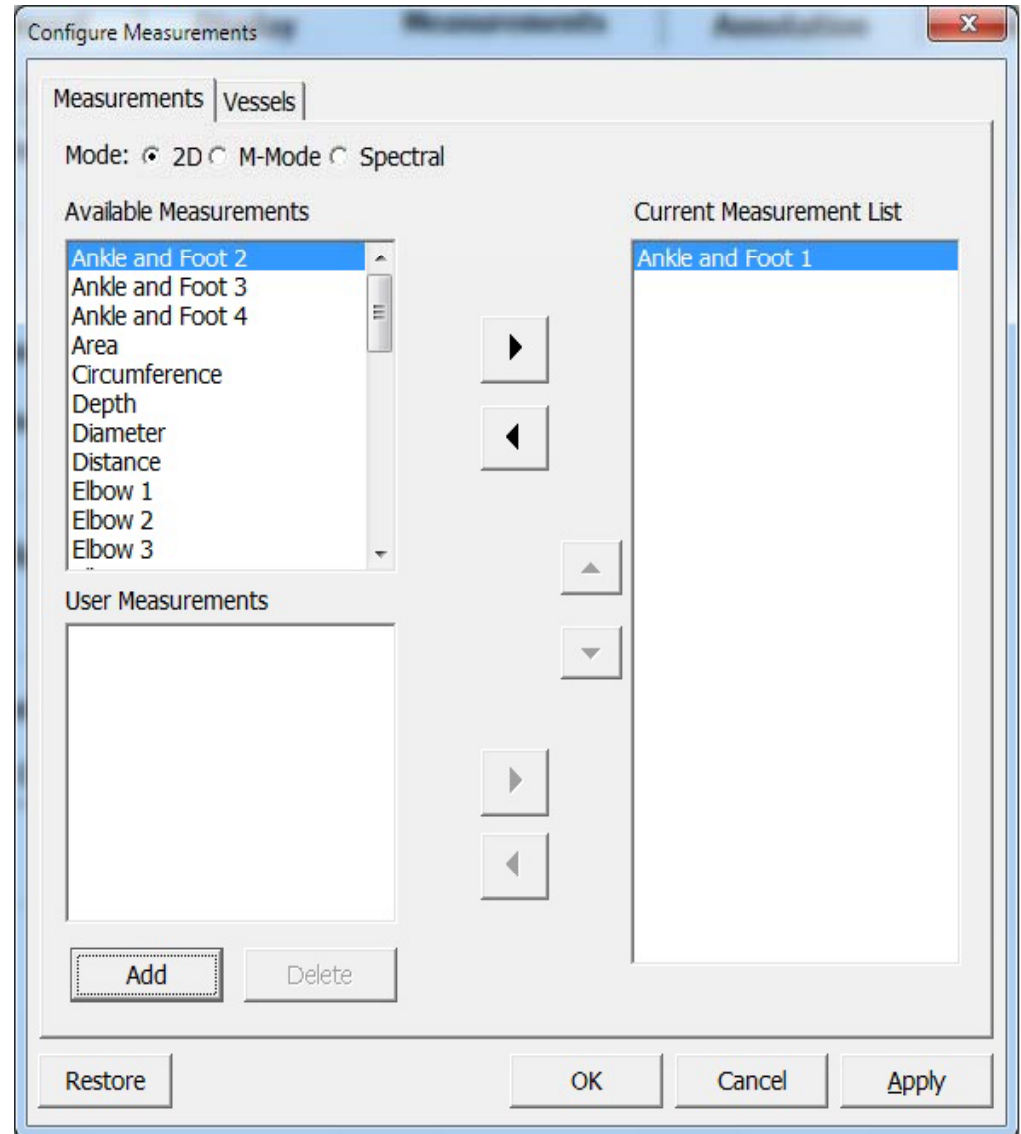
❖ **Configure Measurements:** Allows the user to configure measurements according to preset (Please see the next page for how to configure the measurements)

❖ **Caliper Size:** Allows the user adjust the caliper size between small and large



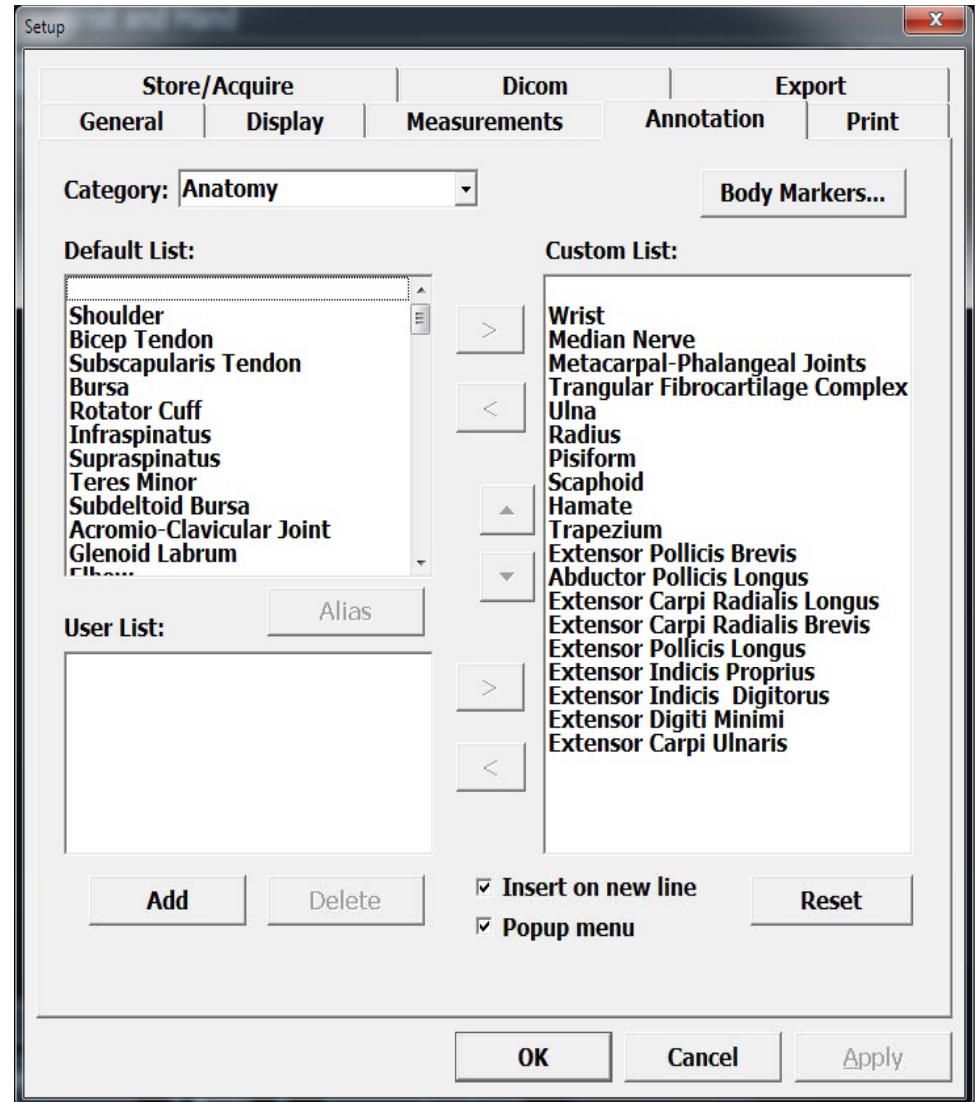
Setup Measurements

- ❖ The Configure Measurements page allows the user to define what measurements they would like for a specific Exam
- ❖ The measurements can be added or removed from the list
- ❖ Allows the user to change the order of the measurements
- ❖ The user can also define User- specific measurements. This is done by clicking on the Add button. The user can choose what kind of measurement (Distance) and Name the measurement



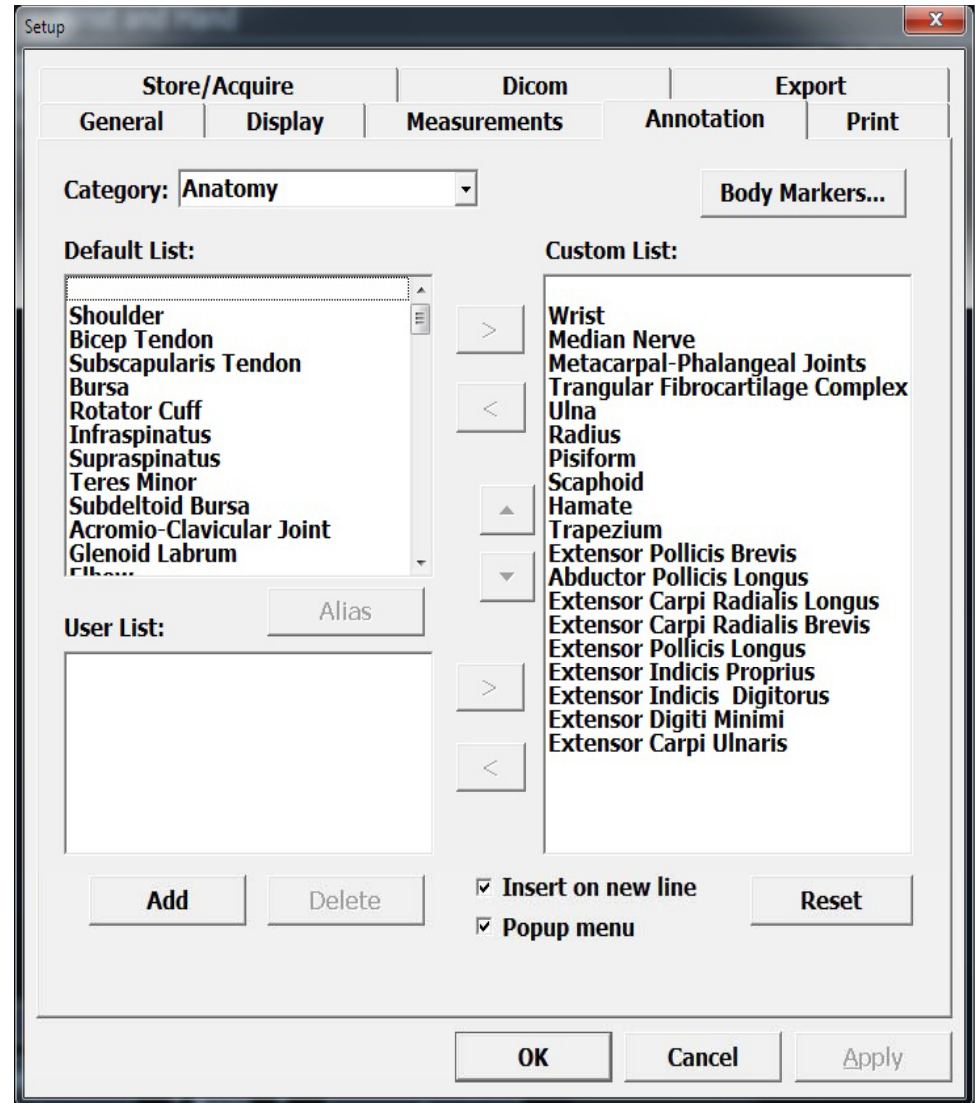
Setup Annotations

- ❖ To setup annotations, first choose a category. These categories will be soft key options when scanning. This allows the user to program different levels of annotation
- ❖ The User can choose from the predefined text list or add user-specific text.
- ❖ Text can be added or removed from the list at any time by accessing this page
- ❖ The User can also change the order the text will appear in by using the up and down arrows



Setup Annotations

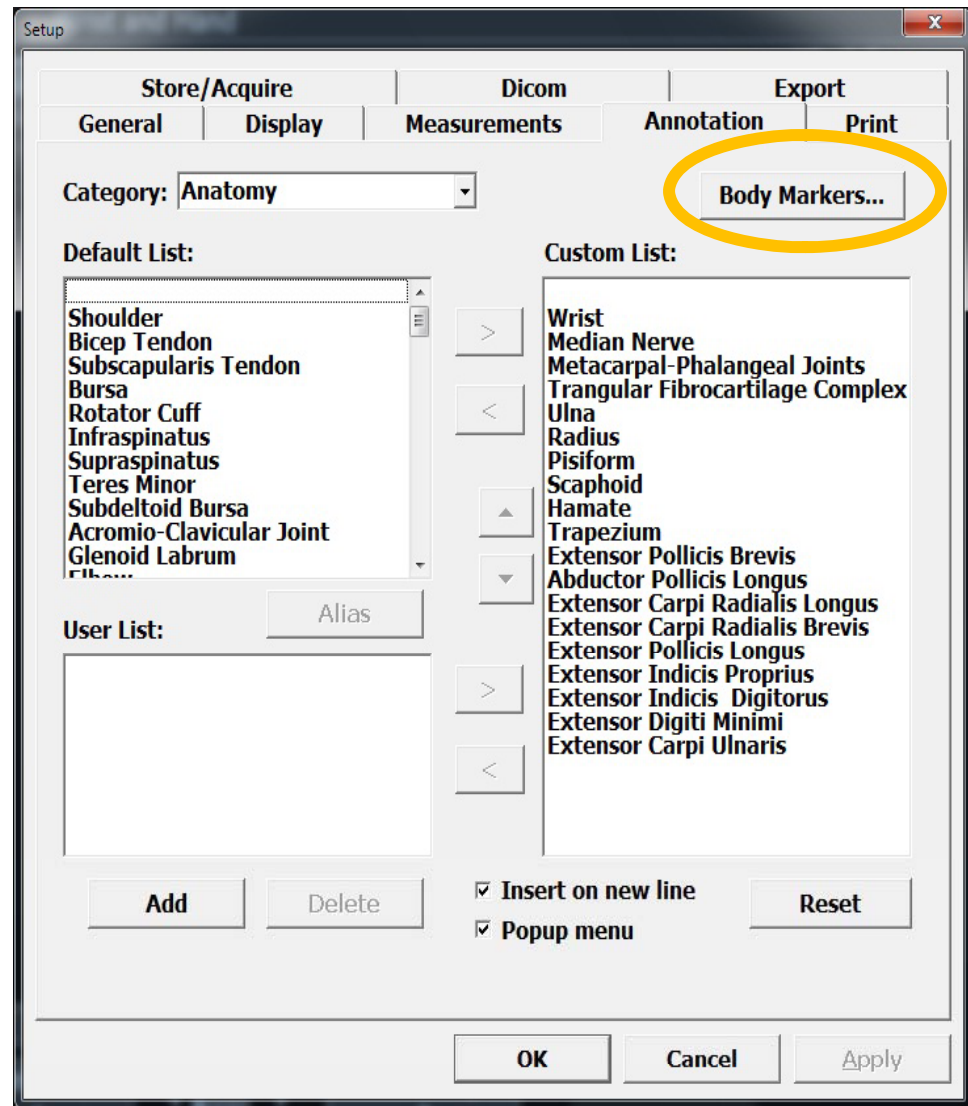
- ❖ The User can also change existing text by clicking on one from the Default list, and then clicking on Alias
 - ❖ The User can add their own text by clicking Add under the User list. Type in word or abbreviation and click OK. Add the word to the list by highlighting and clicking on the arrow
 - ❖ Popup menu: When checked, the entire list of annotations displays. If not checked, the User uses the soft keys to scroll through the list. They do not display as a list, just one at a time
 - ❖ Insert on New Line - Allows the User to start a new line of text every time they add a level. If this is left unchecked, the words will all line up on one line
- See the Text and Body Markers section of Scanning for examples of this



Setup Body markers

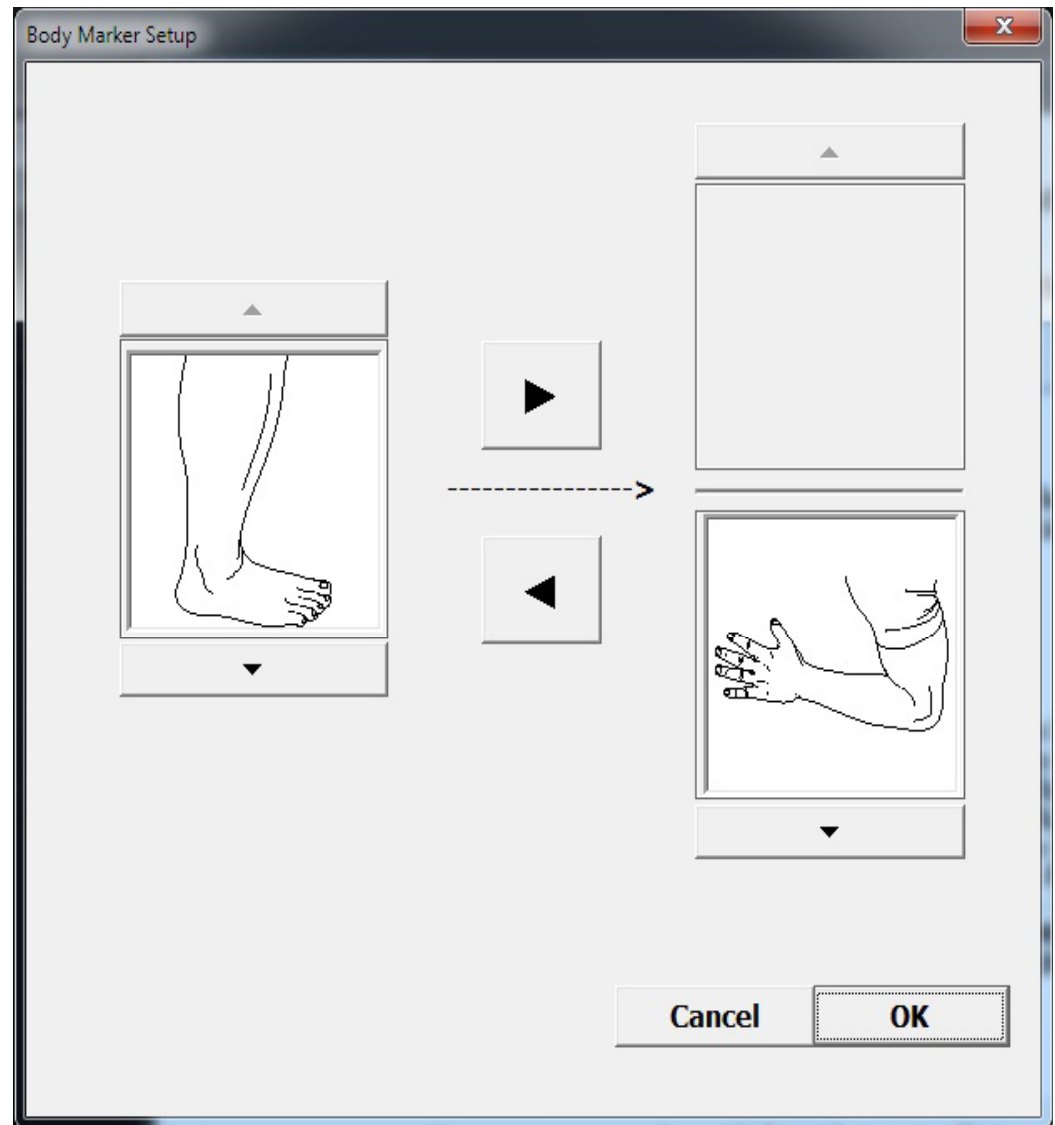
❖ The user can set up specific body markers by Exam Type

❖ To access this page, simply click on the Body Markers tab from the annotation setup page



Setup Body Markers

❖ Add or remove body markers for each specific Exam type. For example, if the user is in the Hand/Wrist Exam, they can choose only the body markers they would like for that Exam type.



Setup Export

❖ DICOM Server Export Options

File Format: Allows the user to define the image format and compression ratio when exporting to a DICOM Server.

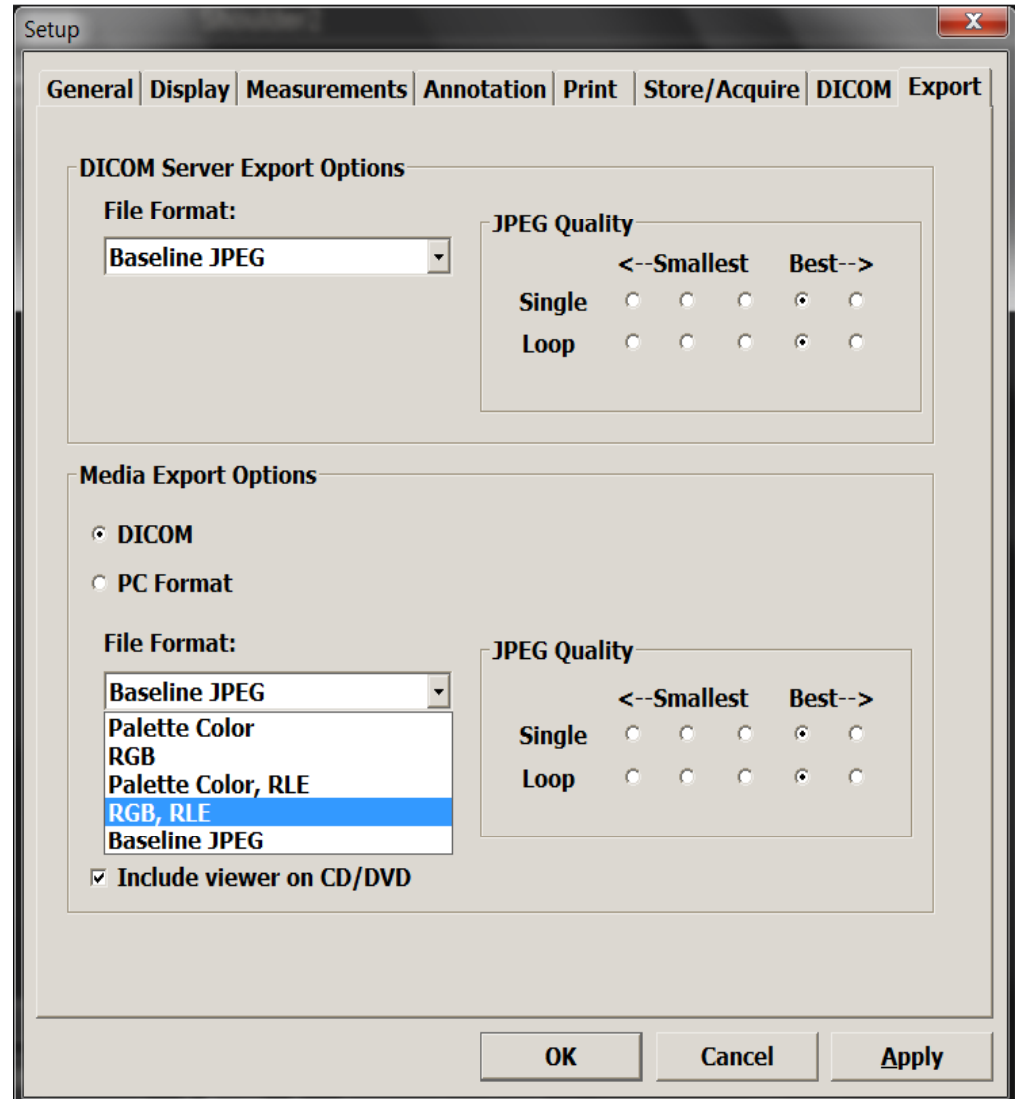
❖ Media Export Options

❖ DICOM: Allows the user to define the image format/ Compression when exporting to removable media such as CD/ DVD/ USB

PC Format: Allows the user to choose between AVI for loops and JPEG and BMP for still images

❖ JPEG Quality: If Baseline JPEG is selected, the user can control the amount of compression. Smallest will give the smallest image size but will not have the highest image quality. As you go to the right, the image quality will improve and the file size will get larger.

❖ The other options: Palette Color, RGB, Palette Color, RLE, REB,RLE are all loss-less (meaning there is no compression) These selections will result in larger file size, but will not compromise image quality.



Setup Store/Acquire

❖ Acquisition Length:

Time: How many seconds one wishes to acquire

Cine Length:

Time: How many seconds of cine one wishes to acquire

Miscellaneous Options:

Beep after completion of acquisition

Limit 30 frames per second

Disk Free Space: Amount of disk space left before it alerts the user. This is displayed in the upper right corner of the scanning screen

Export Palette Selection: This is the display choice for exported images. We recommend MacBook Custom, however some monitors that the user will read the images on may look better with another selection

Allow Storing of Images with no Patient Selected: Allows the user to store images without entering a patient name or information

Setup

General | Display | Measurements | Annotation | Print | Store/Acquire | DICOM | Export

Acquisition Length

Time 3 seconds

Beat 2 beats

R-Wave Delay: 0 ms

Cine Length

Time 5 seconds

Beat 2 beats

R-Wave Delay: 0 ms

Miscellaneous Options

Beep after completion of acquisition

Limit 30 frames per second

Disk Free Space

Highlight if disk free space is below

5 GB

Export Palette Selection

Default

Allow storing of images with no patient selected

OK Cancel Apply

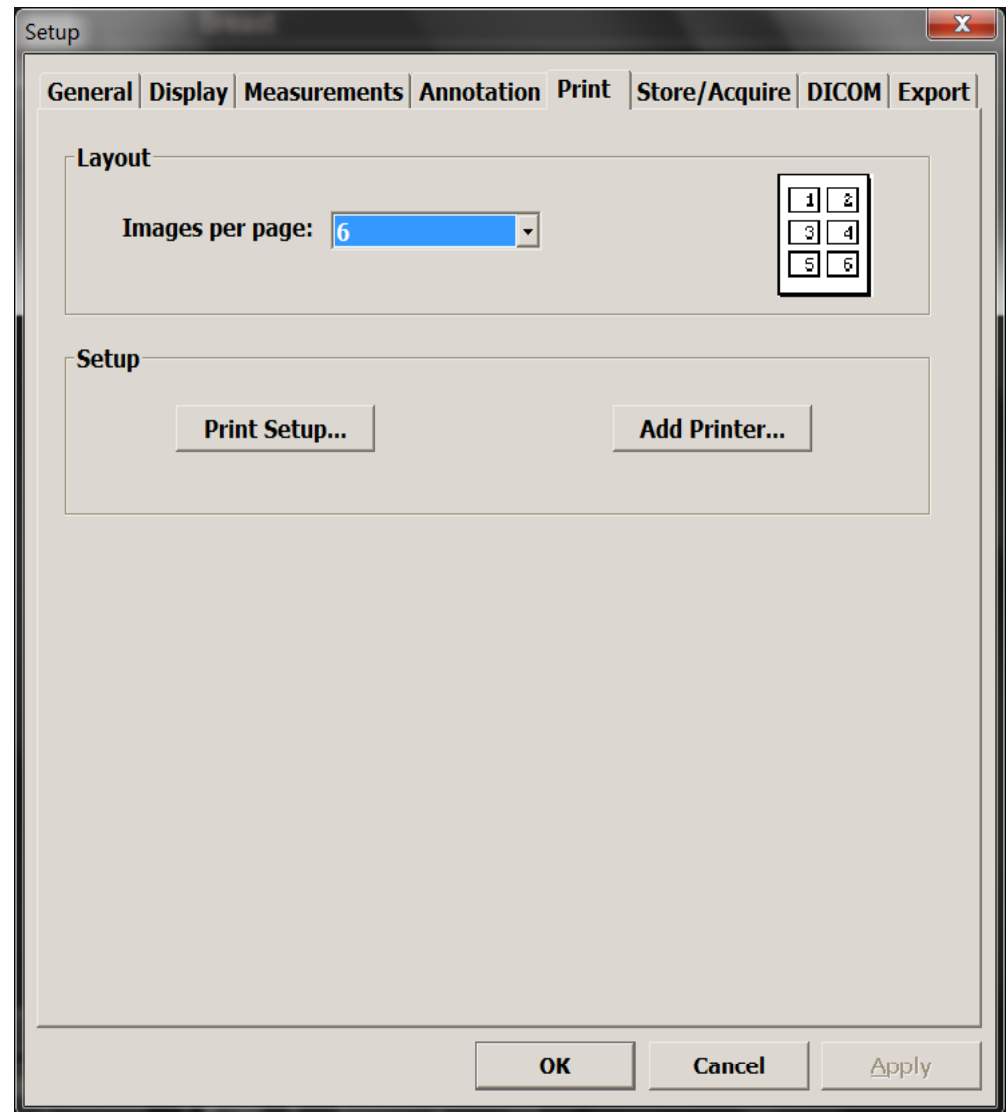
Setup Print

❖ **Layout:** Allows the user to select how many images they wish to have printed out to single sheet

❖ **Setup:** Allows the user to connect the printer of their choice to the System

The user can also change the printer properties

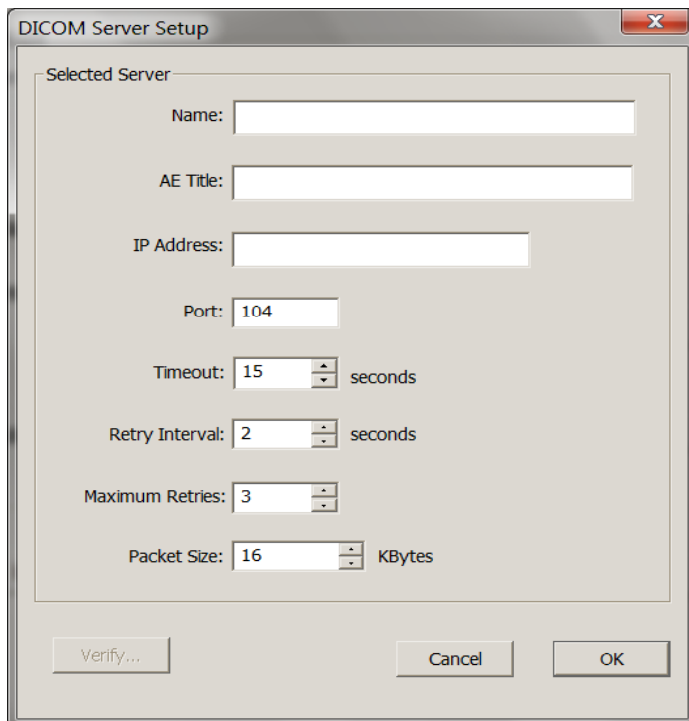
❖ **Add Printer:** Allows user to add a printer



Setup Dicom

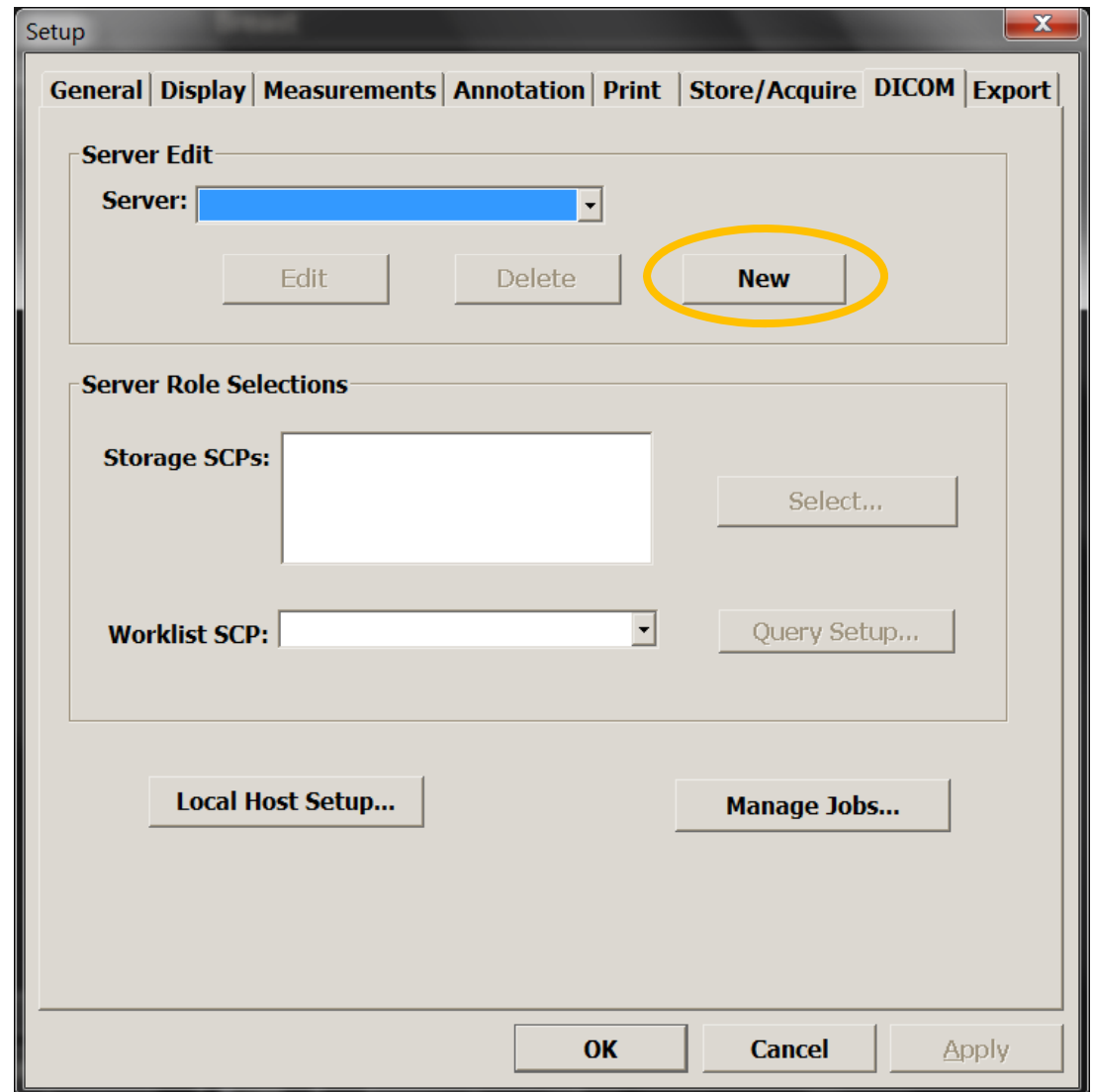
❖ **Server Edit:** Allows the user to choose and edit what DICOM server the images will be sent to

By clicking on the New button, a setup menu will appear where the user can enter the information needed to connect to a server.



The DICOM Server Setup dialog box contains the following fields and controls:

- Selected Server:**
 - Name:
 - AE Title:
 - IP Address:
 - Port:
 - Timeout: seconds
 - Retry Interval: seconds
 - Maximum Retries:
 - Packet Size: KBytes
- Buttons: Verify..., Cancel, OK



The Setup dialog box features a tabbed interface with the following sections and controls:

- General | Display | Measurements | Annotation | Print | Store/Acquire | DICOM | Export** (Tabs)
- Server Edit:**
 - Server:
 - Buttons: Edit, Delete, **New** (circled in yellow)
- Server Role Selections:**
 - Storage SCPs:
 - Worklist SCP:
- Buttons: Local Host Setup..., Manage Jobs...
- Bottom Buttons: OK, Cancel, Apply

Setup Dicom

❖ Server Role Section:

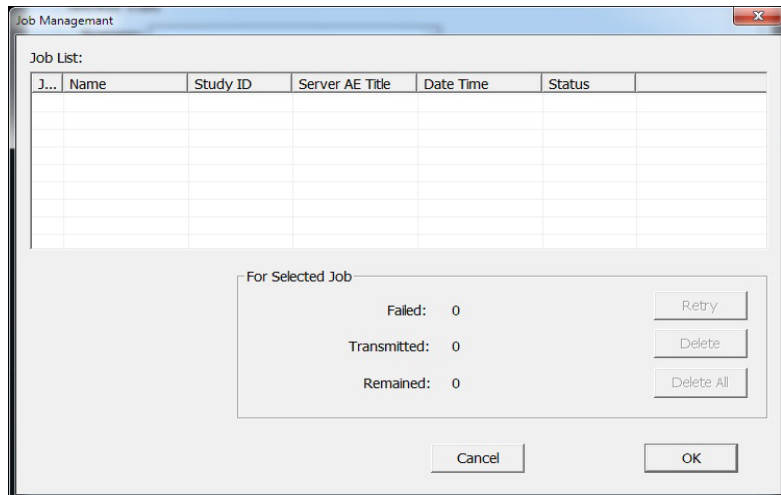
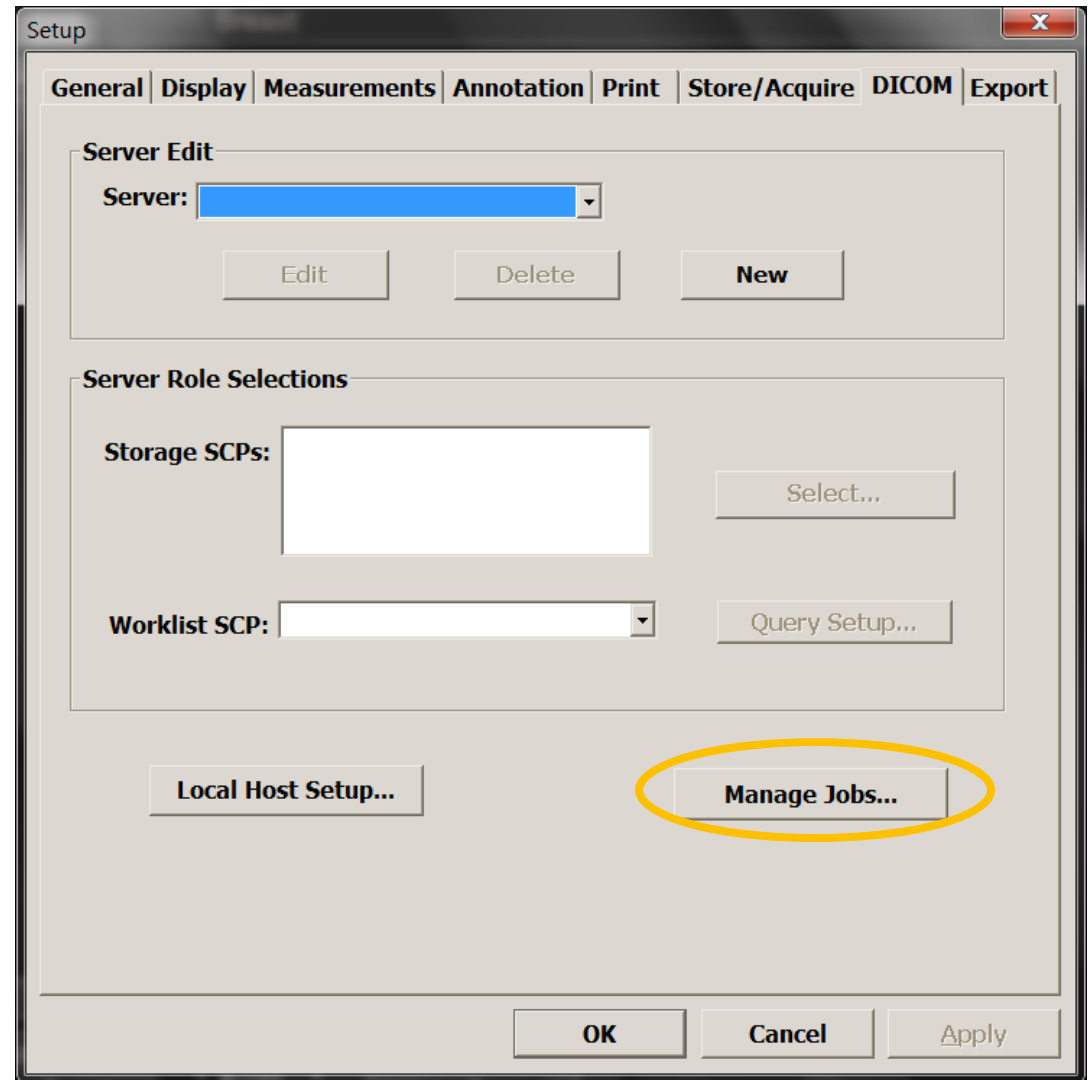
Storage SCPs: This is where the images are going to be sent

Worklist SCP: This is the server you will receive the worklist from

Click on Query Setup to set it up

❖ Local Host Setup: By clicking on this, the user will get the Terason Computer information. This includes Name, AE Title, IP Address and Port #

❖ Job Manage: Allows the users to see the job list. (What studies are in the queue)



Starting an Exam



❖ Click on the Patient Tab

Entering Patient Data

New Patient **New Study** **Study Search** **Worklist**

Last: **First:** **Middle:** **Gender:** M
 F

Patient ID: **Accession:** **DOB:** / /

Patient ID	Patient Name	DOB	Gender	Accession #	Studies
					1

Study Info

Exam Type: **Date Time:** **Study ID:**

Location: **Height:** ft in **Comment:**

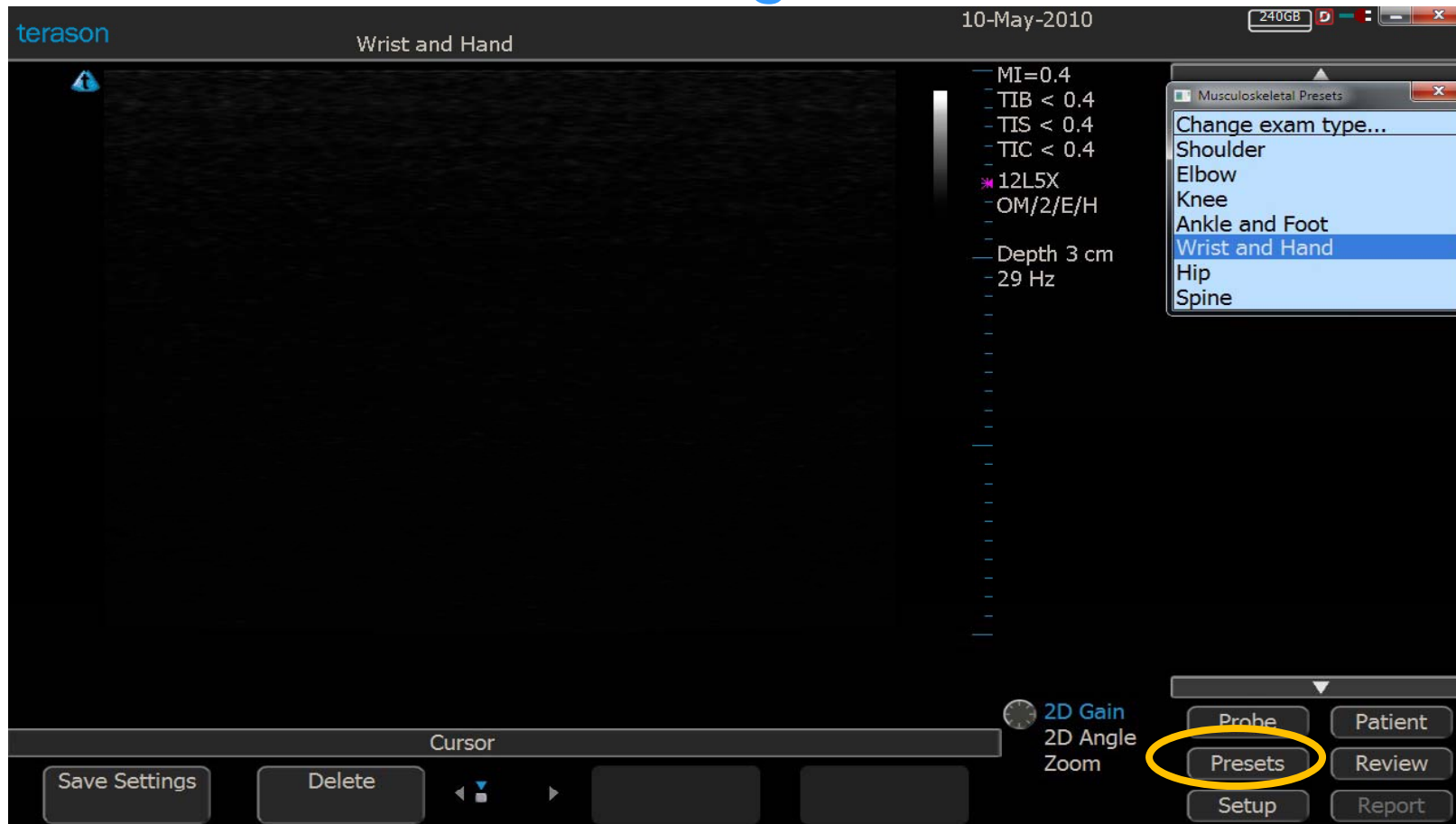
Clinician: **Weight:** lbs

Ref Physician:

Accept **Close Study** **Print** **Cancel** **Probe** **Patient** **Presets** **Review** **Setup** **Report**

- ❖ Click on New Patient Tab
- ❖ Enter Patient data into fields and click on Accept Tab

Selecting a Preset



- ❖ Click on the Preset tab
- ❖ Using the trackball and enter key, select the preset you wish to scan with from the list

Scanning Screen

The screenshot displays the Terason ultrasound scanning interface. At the top, patient information includes the name 'Doe, John' and ID '12345', the date '20 M 01/01/1990', and the location 'Shoulder'. The date '15-Oct-2010' and time '9:19 AM' are also shown. The main display area shows a B-mode scan with a 'Mechanical index' of 0.6 and a 'Thermal Index' of 0.6. The probe is identified as '15L4' with settings 'OM/D/3/H/TV2', 'Gn 50', and 'DR 64'. The depth is set to '4 cm' and the frame rate is '18 Hz'. The 'Trackball control Bar' at the bottom contains buttons for 'Dynamic Range' (64), 'Focal Zones' (2), 'Focal Range' (3), and 'Split'. A 'Cursor' is visible in the center of the scan. On the right side, there are buttons for 'Probe', 'Patient', 'Presets', 'Review', 'Setup', and 'Report'. The '2D Gain', 'Zoom', and '2D Angle' controls are also present.

terason Doe, John 12345 20 M 01/01/1990 Shoulder 15-Oct-2010 9:19 AM 228GB t3200

Mechanical index MI 0.6
Thermal Index TIS 0.6
Probe - 15L4
Omni, B-Map, Persistence, frequency, Teravision level
Gain, Dynamic Range
Depth - Depth 4 cm
Frame Rate - 18 Hz
Knob Controls
2D Gain
Zoom
2D Angle

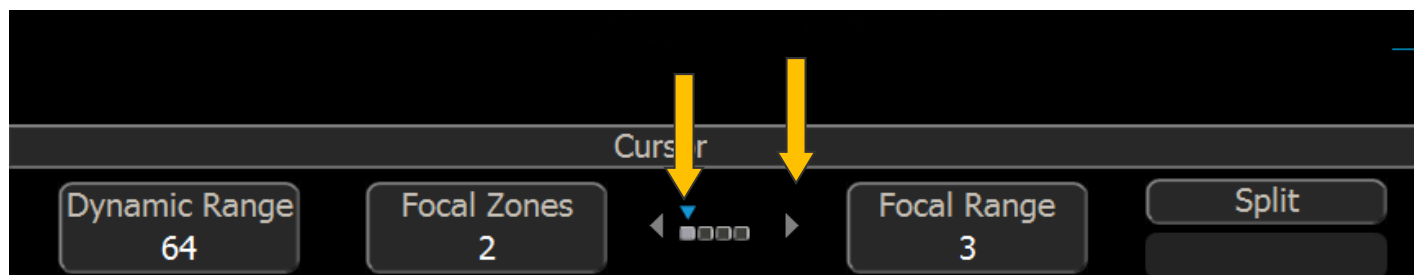
Trackball control Bar Cursor

Dynamic Range 64 Focal Zones 2 Focal Range 3 Split

Probe Patient
Presets Review
Setup Report

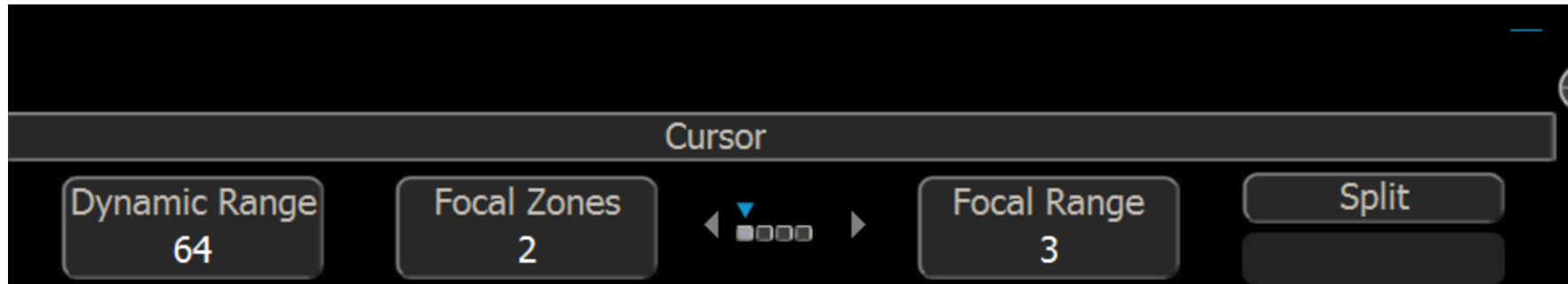
Soft key Controls

Scanning Soft Keys



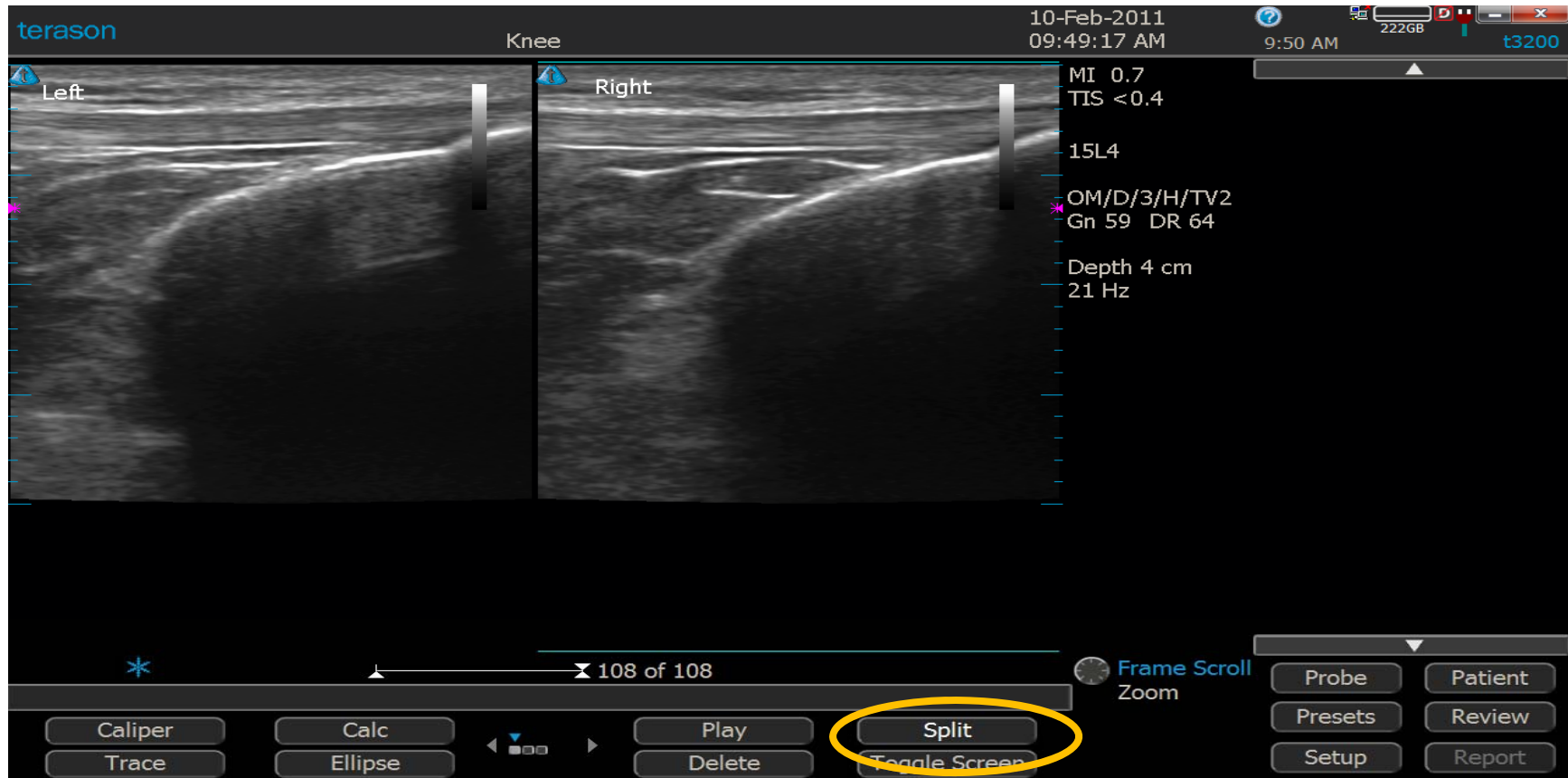
- ❖ Soft keys correspond to the keys on the keyboard. They can have a single function use or can be a split key with dual functions.
- ❖ One can control them using the console keys or by using the trackball pointer and enter key
- ❖ There are multiple pages of soft keys. The center indicator displays what page you are on. The page can be changed by using the right and left keys on the console or by using a mouse click on the arrows.

2D Scanning Soft Keys Page 1



- ❖ Dynamic Range: Range of intensity levels mapped into the image from lowest to highest
- ❖ Focus Zone: Controls the number of focal points the user would like from 1 to 4. Note: The greater the number of focal points, the more it will slow the frame rate.
- ❖ Focus Range: Controls how the focal points are positioned when multiple focal zones are used. The settings are 1-4, 1 meaning the focal zones are close together and 4 meaning the furthest apart
- ❖ Split: Controls the Split Screen

Split Screen



- ❖ Once the Split Screen soft key is pressed or it is clicked using the mouse, the screen splits.
- ❖ A Toggle Screen tab appears that allows the user to toggle back and forth between images.
- ❖ Text and measurements can be done on either image and saved

2D Scanning Soft Keys Page 2



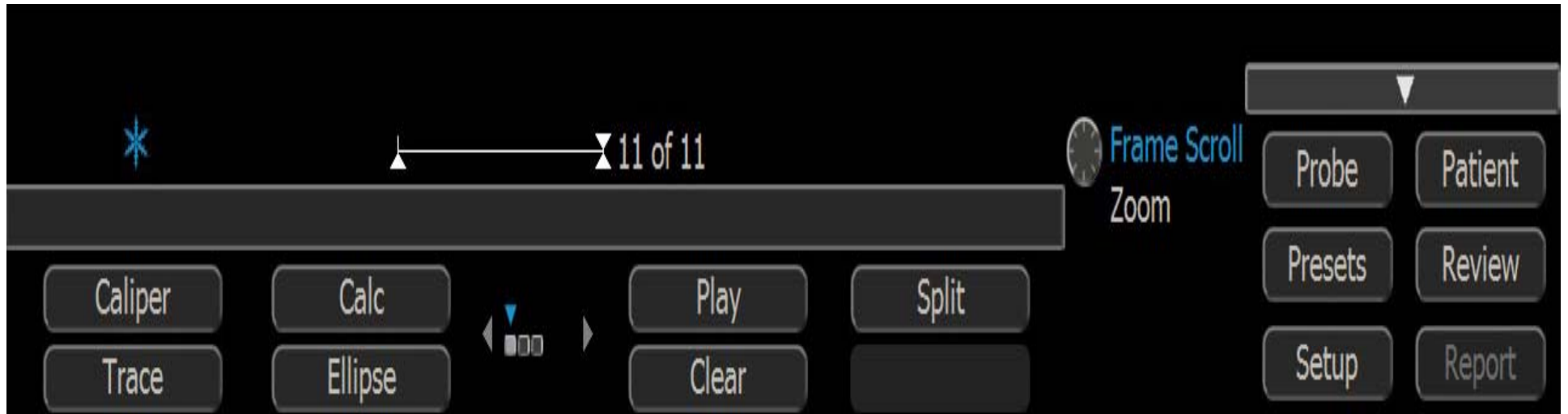
- ❖ Map: Controls your gray scale map
- ❖ Persist: Is your Persistence
- ❖ Zoom: Allows User to Zoom the Image
- ❖ Omni Beam: Controls the cross beam function sends the focus out in multiple directions

2D Scanning Soft keys Page 3



- ❖ Image Format: Changes the images from a Rectangle to a Trapezoid
- ❖ TV Level: Controls the Teravision level (speckle reduction) 1 is the lightest processing level 3 is the strongest. This can be adjusted on any image or preset to fit the users preferences
- ❖ Left/ Right: Changes the image orientation from left to right. The t logo will switch sides
- ❖ Up/Down: Changes the image orientation from up to down. The t logo will move from the top to the bottom

Scanning 2D Freeze Soft Keys



- ❖ Once the image is frozen, the Soft Key menu changes
- ❖ Caliper: Allows user to do a generic caliper measurement
- ❖ Trace: Allows the User to do a trace function
- ❖ Calc: Brings up the measurement menu
- ❖ Ellipse: Allows User to do a generic Ellipse trace
- ❖ Play: Allows the User to play and pause the image
- ❖ Clear: Clears any measurement done
- ❖ Split: Will split the screen when frozen first

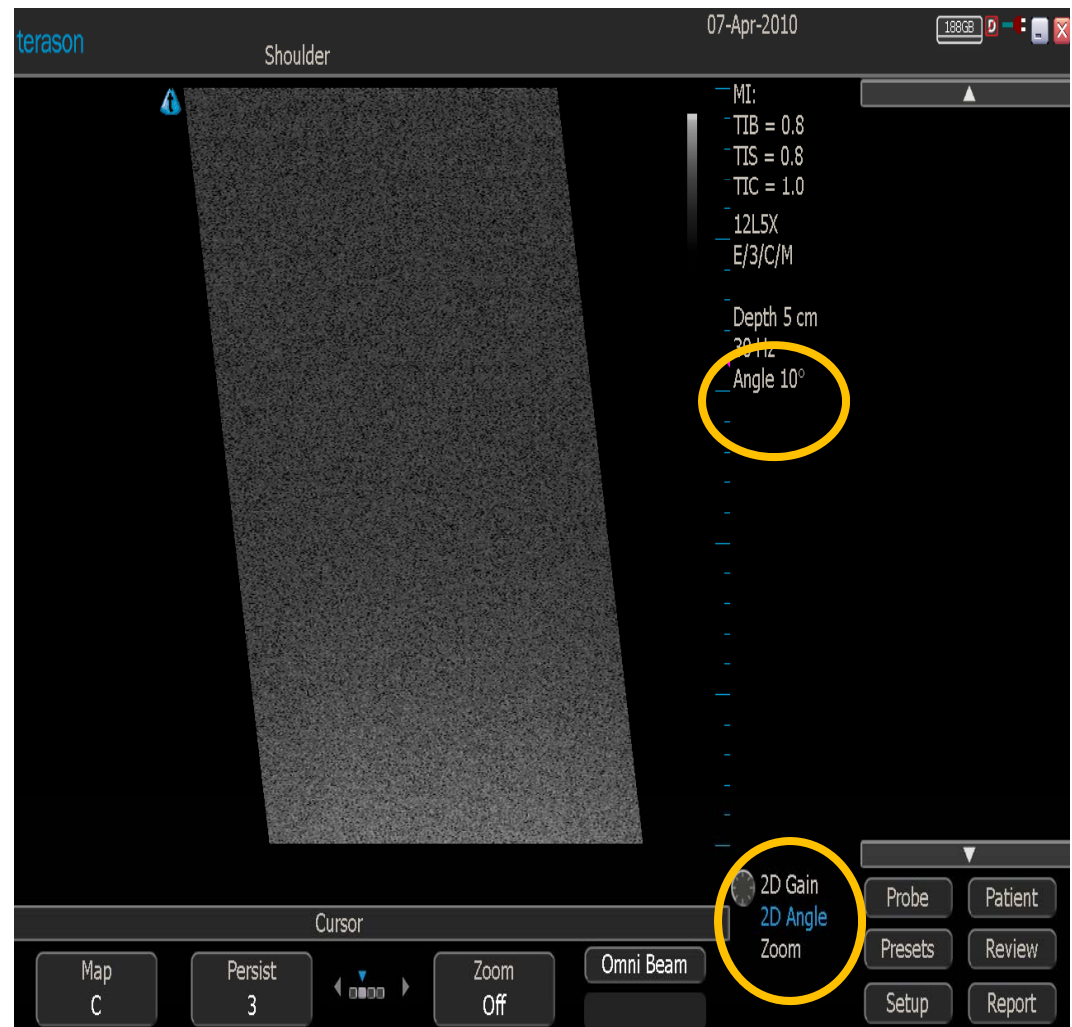
Scanning 2D Gain



- ❖ The Knob will act as 2D gain when it is highlighted blue on the screen
- ❖ Turn the knob to the right to increase the 2D overall gain, and to the left to decrease the overall 2D gain

Scanning 2D Beam Steering

- ❖ Activate 2D Beam Steering by pressing down on the gain knob
- ❖ 2D angle will highlight in blue
- ❖ Turn the knob left or right to steer angle
- ❖ Your angle degree will display on the screen



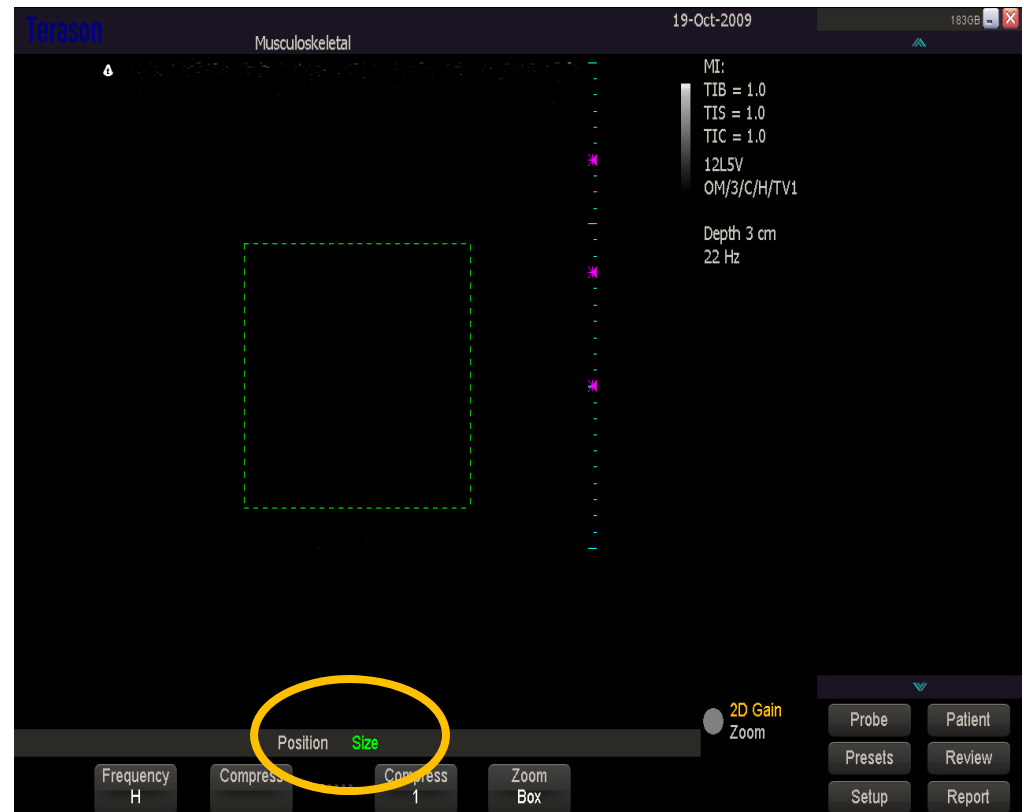
To Operate the Zoom with the Turn Knob

- ❖ Press down on the turn knob activating the Zoom function
- ❖ The image will Zoom in as you turn the knob
- ❖ The more you turn the knob the more the image will Zoom
- ❖ To Pan the zoomed image, use the trackball. Panning will display in blue at the bottom of the image
- ❖ To turn Zoom off you can turn the knob back all the way and press down on it or press the Zoom Soft Key



To Operate Zoom with the Soft Key

- ❖ Press the soft Key to turn Zoom on
- ❖ A green box will appear in the image sector
- ❖ The Zoom ROI will default to position and is controlled by the trackball
- ❖ To change the size of the Zoom ROI press the button above the trackball. The ROI size can be adjusted using the trackball
- ❖ The mode you are active in will display in green



Scanning Color Controls

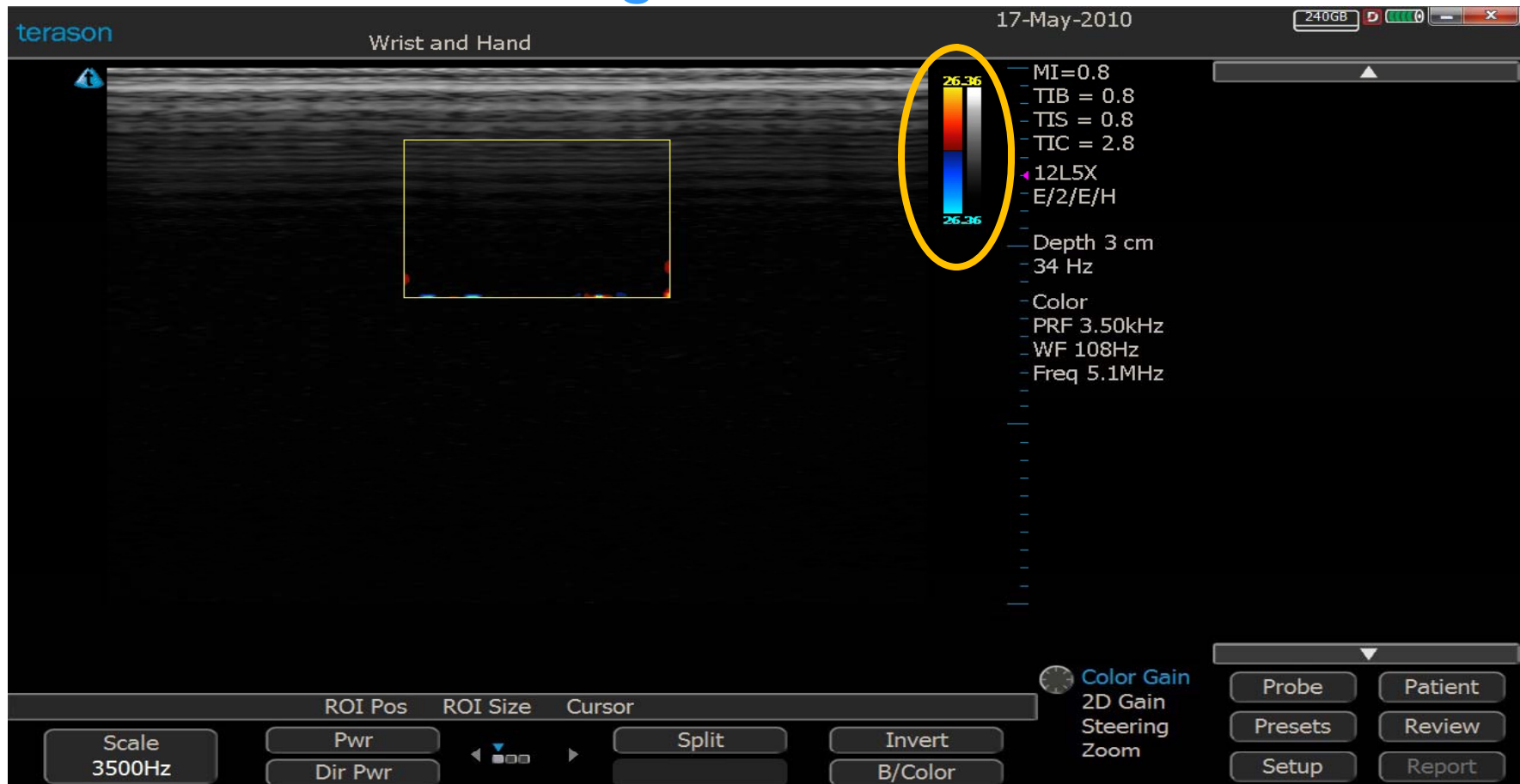


❖ Once the Color Button is pushed on the console, the soft keys will change to color controls

❖ The Knob will now control the Color Gain

❖ The ROI Pos, ROI size, and Cursor are controlled with the ROI key on the console above the trackball

Scanning Color Controls



❖ Scale: Controls the color scale it is displayed above

❖ PWR: Power Doppler

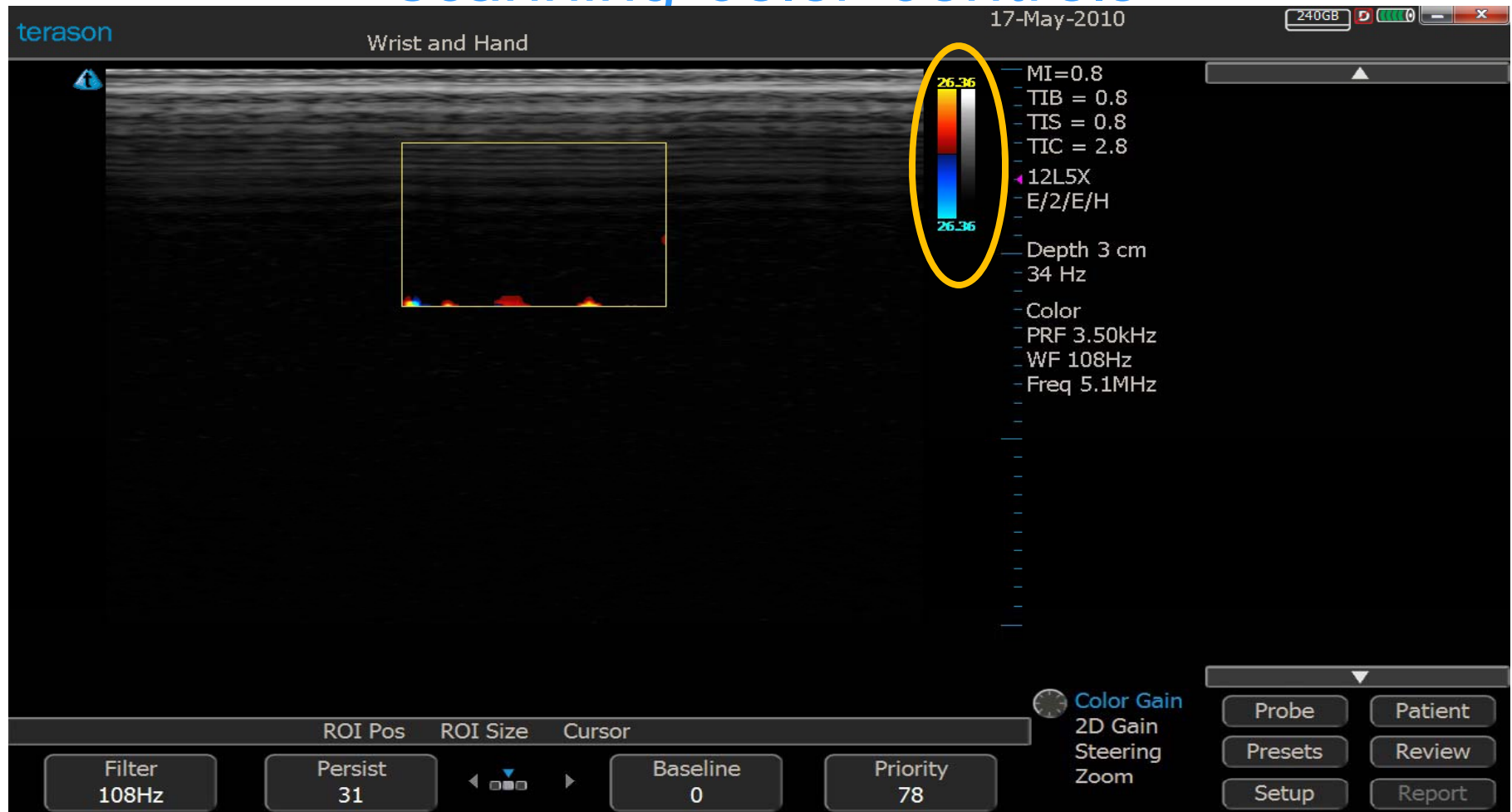
❖ Dir Pwr: Directional Power Doppler

❖ Split: Split Screen

❖ Invert: Inverts the color

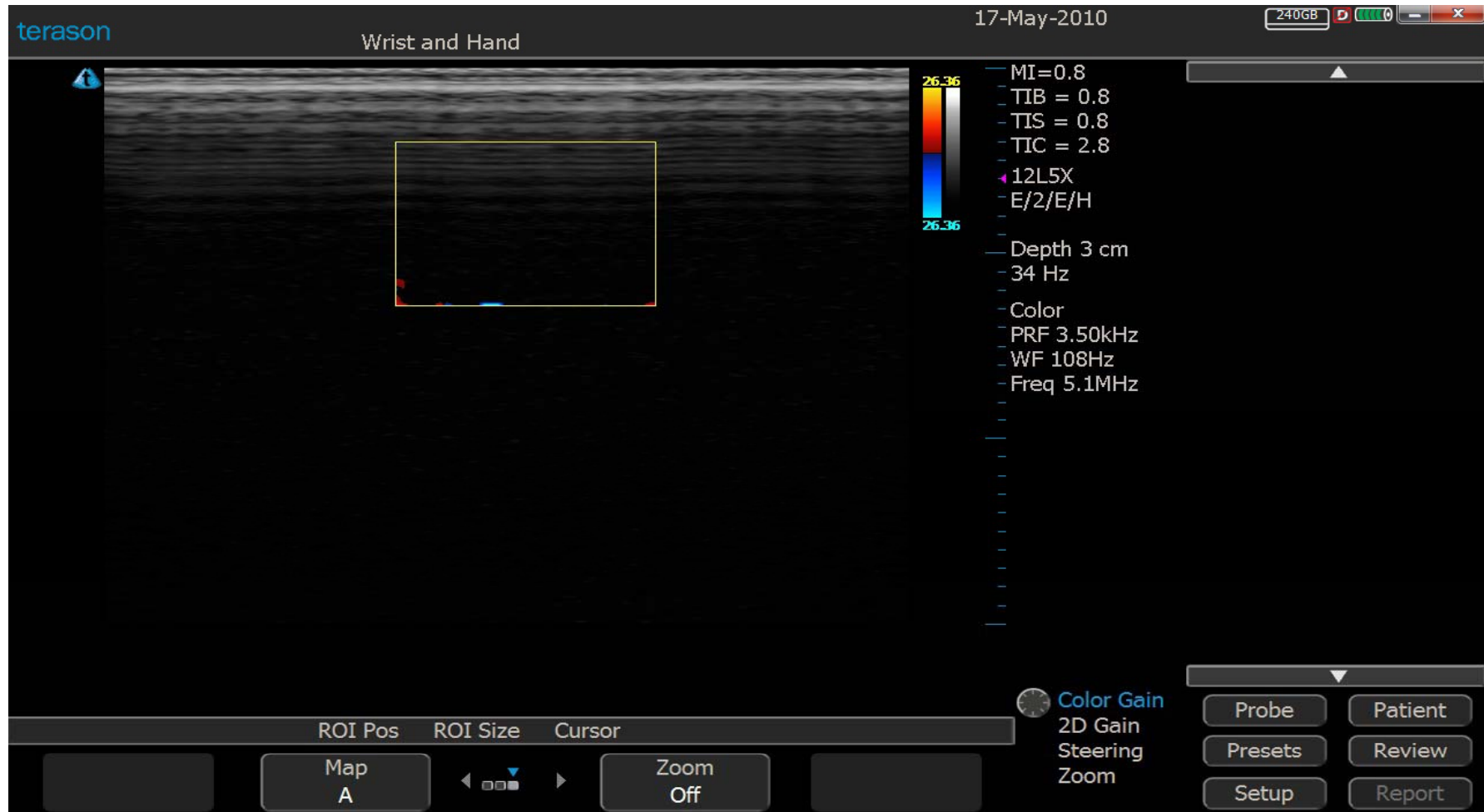
❖ B/Color: Displays B-mode and color image side by side

Scanning Color Controls



- ❖ Filter: Controls the color filter
- ❖ Persist: Controls the color persistence
- ❖ Baseline: Controls the color baseline, the shift will be displayed on the color scale
- ❖ Priority: Gives priority to the color or to the 2D image

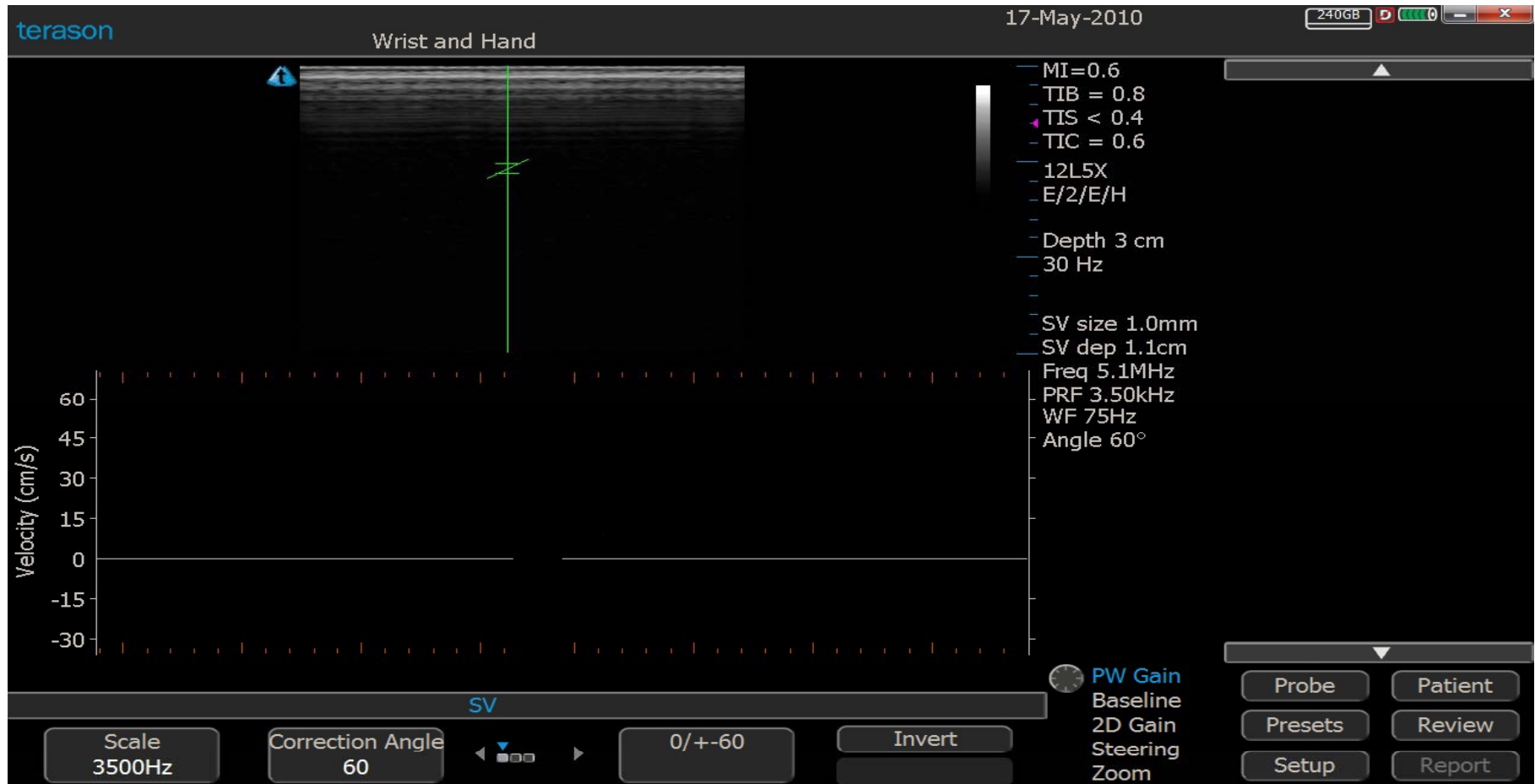
Scanning Color Controls



❖ Map: Controls the choice of color maps

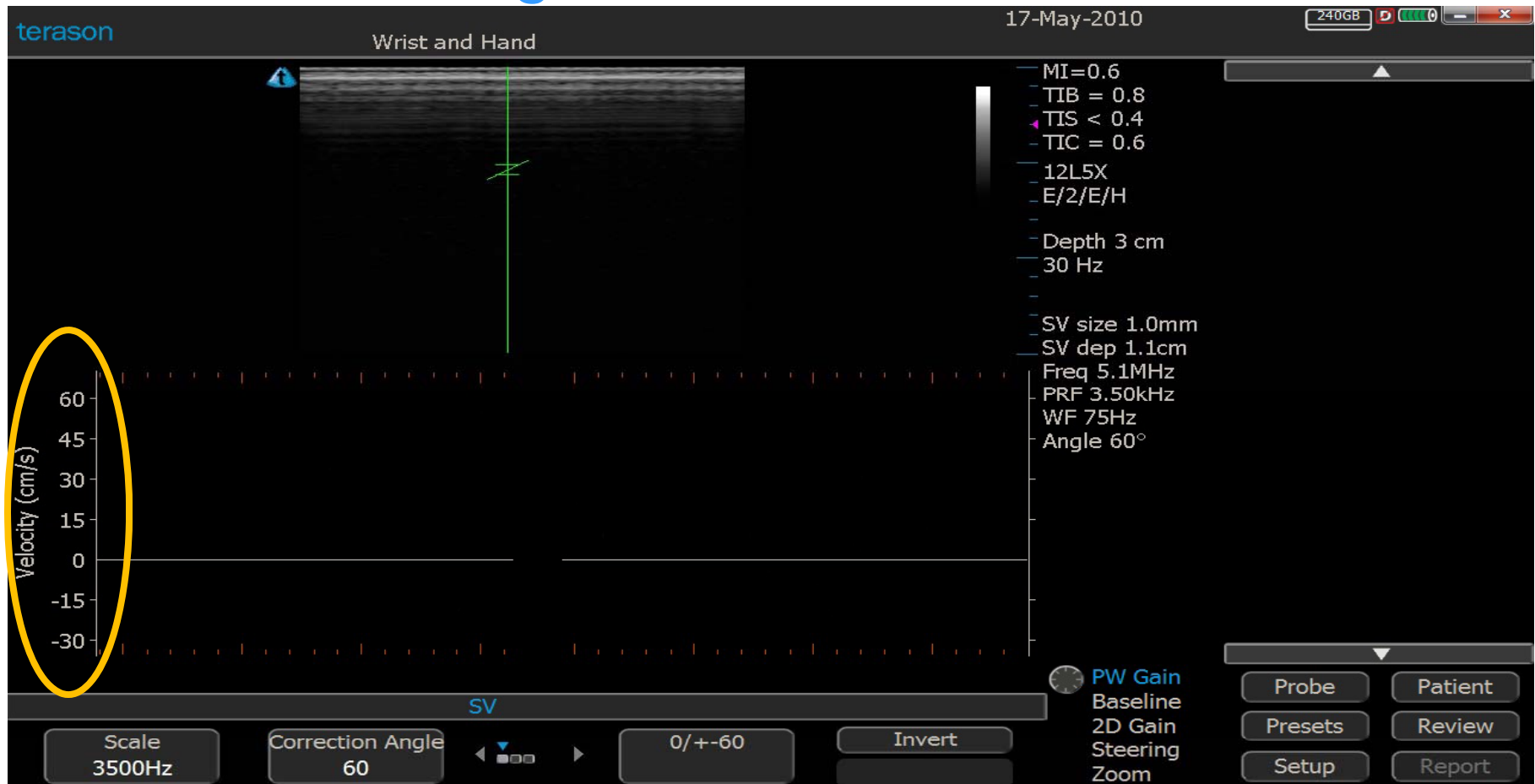
❖ Zoom: Zooms the image

Scanning Pulsed Wave Controls



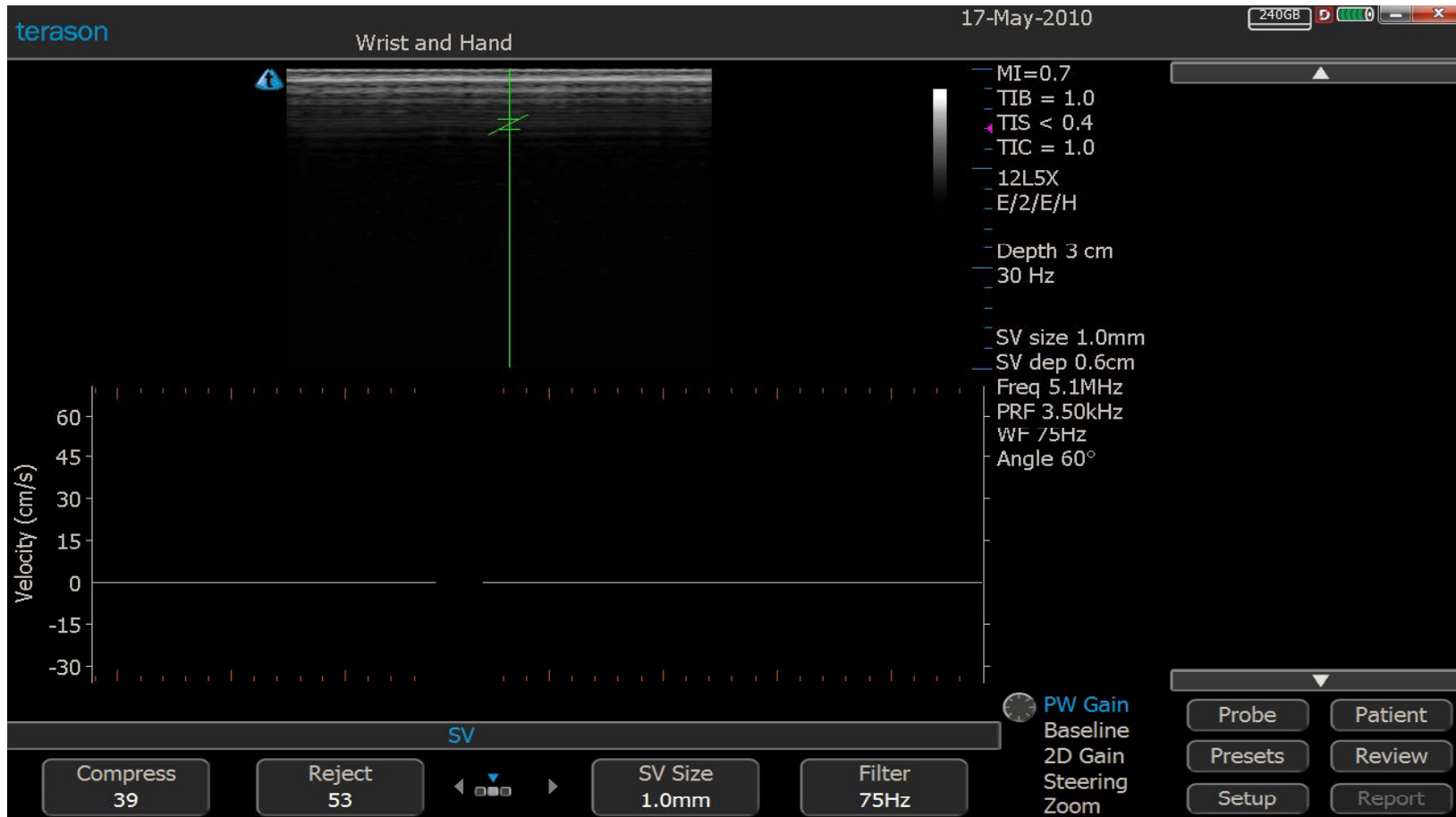
- ❖ Once the PW Button is pushed on the console, the soft keys will change to PW controls
- ❖ The Knob will now control the PW Gain
- ❖ The knob will also control the Velocity Baseline by pushing down on the Knob

Scanning Pulsed Wave Controls



- ❖ Scale: Controls the Velocity Scale, displayed on the left side of screen
- ❖ Correction Angle: Controls the PW Sample Angle
- ❖ 0/+60: Controls the PW sample angle between 0/60
- ❖ Invert: Inverts the PW display

Scanning Pulsed Wave Controls



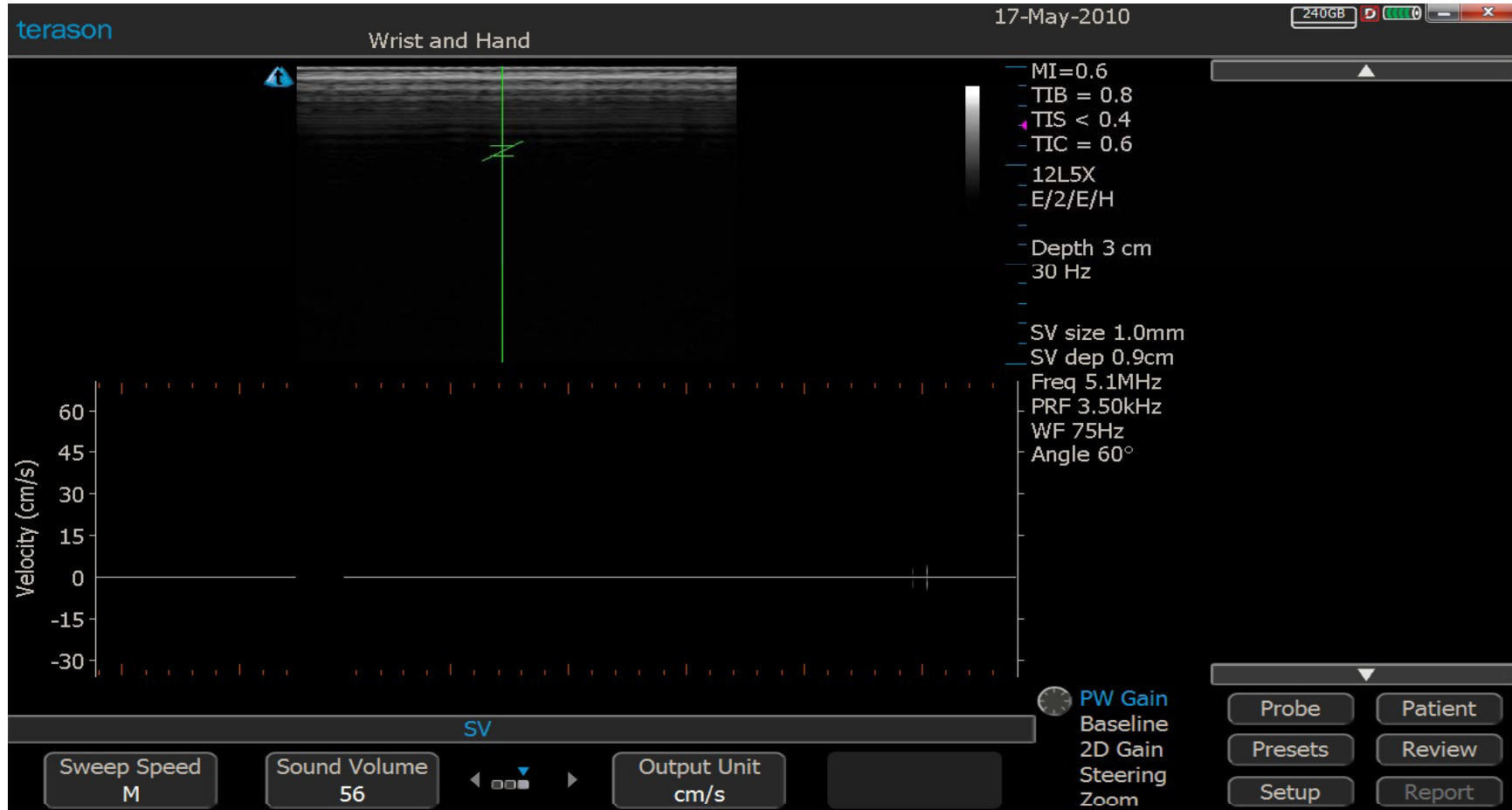
Compress: Controls the intensity in the PW display

Reject: Rejects out low level noise

SV: Sample Volume size

Filter: Filters out low velocity signals

Scanning Pulsed Wave Controls



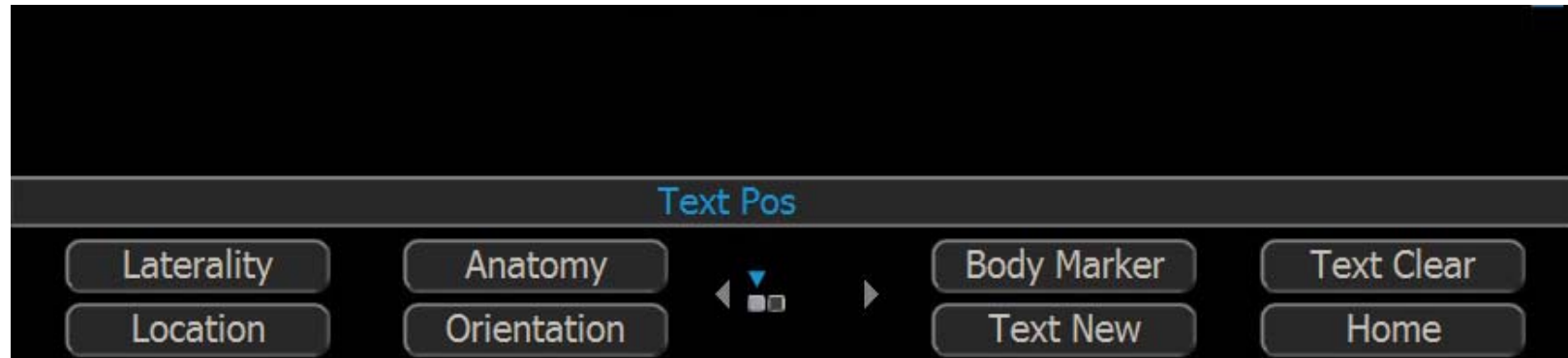
- ❖ Sweep Speed: Controls the speed of the PW display. Options are Slow, Medium, and Fast
- ❖ Sound Volume: Controls the sound volume
- ❖ Output Unit: Controls the scale display from cm/s to KHz

Text and Body Markers



❖ Once the user hits the Text button on the console, the soft key functions will change to represent text functions. The trackball will default into text position as shown above.

Text and Body Markers



❖ Laterality, Location, Anatomy, and Orientation are all text levels/Words the user defines in the Setup.

For example, When the user presses the soft key Laterality, the word Left will appear on the screen. If the user presses the soft key again the word changes to Right.

These words were defined by the user in set up and can be changed.

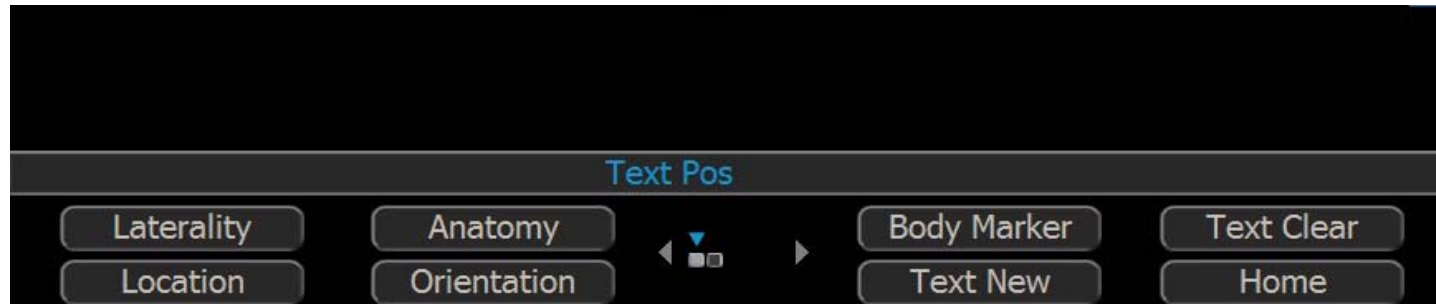
Text and Body Markers



- ❖ Laterality was pressed to display the word Right
- ❖ Anatomy was pressed to display pull down menu of annotations. Anatomy is set up so Popup menu is displayed.
- ❖ User can scroll through words and select the desired annotation

Note: These can all be configured in the Setup

Text and Body Markers



- ❖ Text New: Puts the text on a new line
- ❖ Text Clear: Will clear your text
- ❖ Home: Sets the home position of the text cursor. This is the location where the text appears on the screen

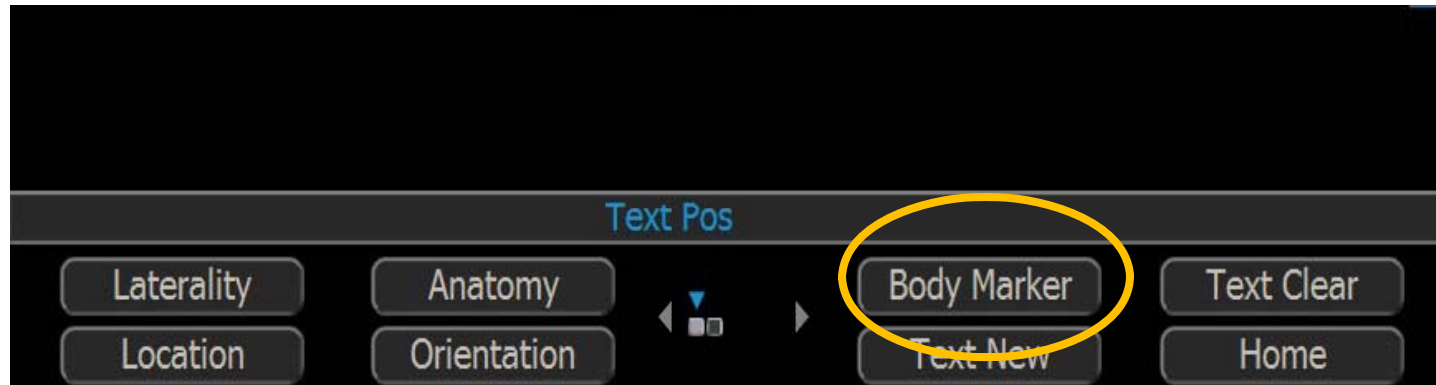
Text and Body Markers



❖ Don't forget - the user also has the option to just type words using the keyboard

❖ The user can also place the word anywhere on the screen using the trackball to move it

Text and Body Markers



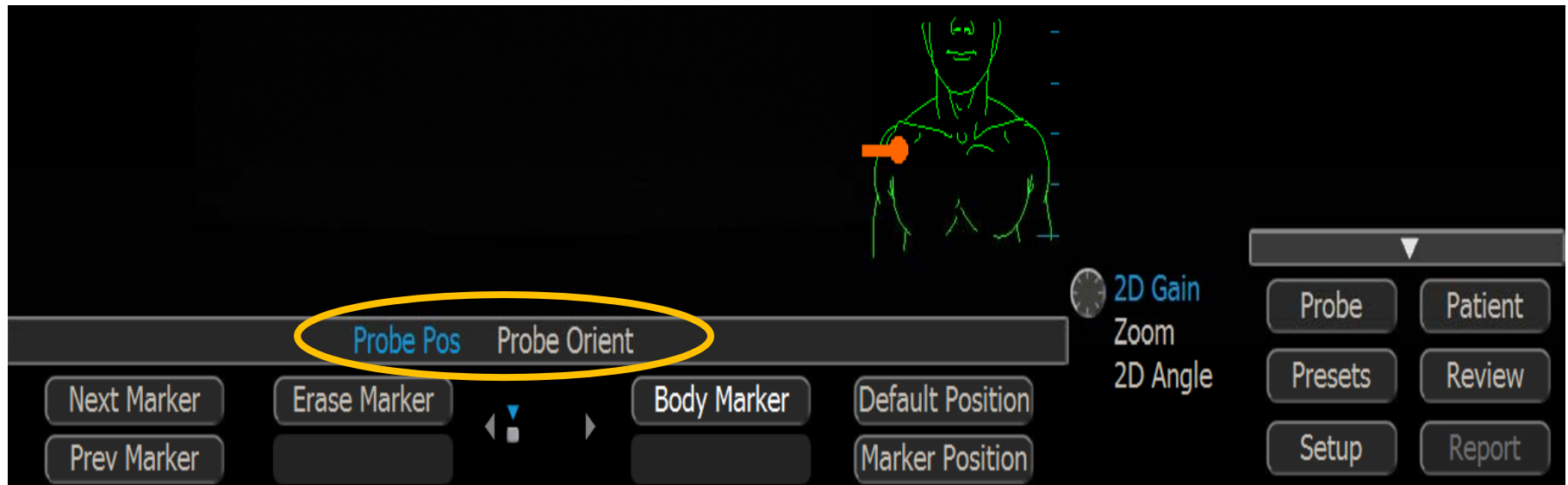
- ❖ **Body Marker:** By Clicking on Body Marker, the soft menu and trackball menu and allow the user to place a body marker on the screen


Text and Body Markers



- ❖ Next Marker: will display other body markers programmed to this preset in the Setup
- ❖ Erase Maker: will remove the body marker

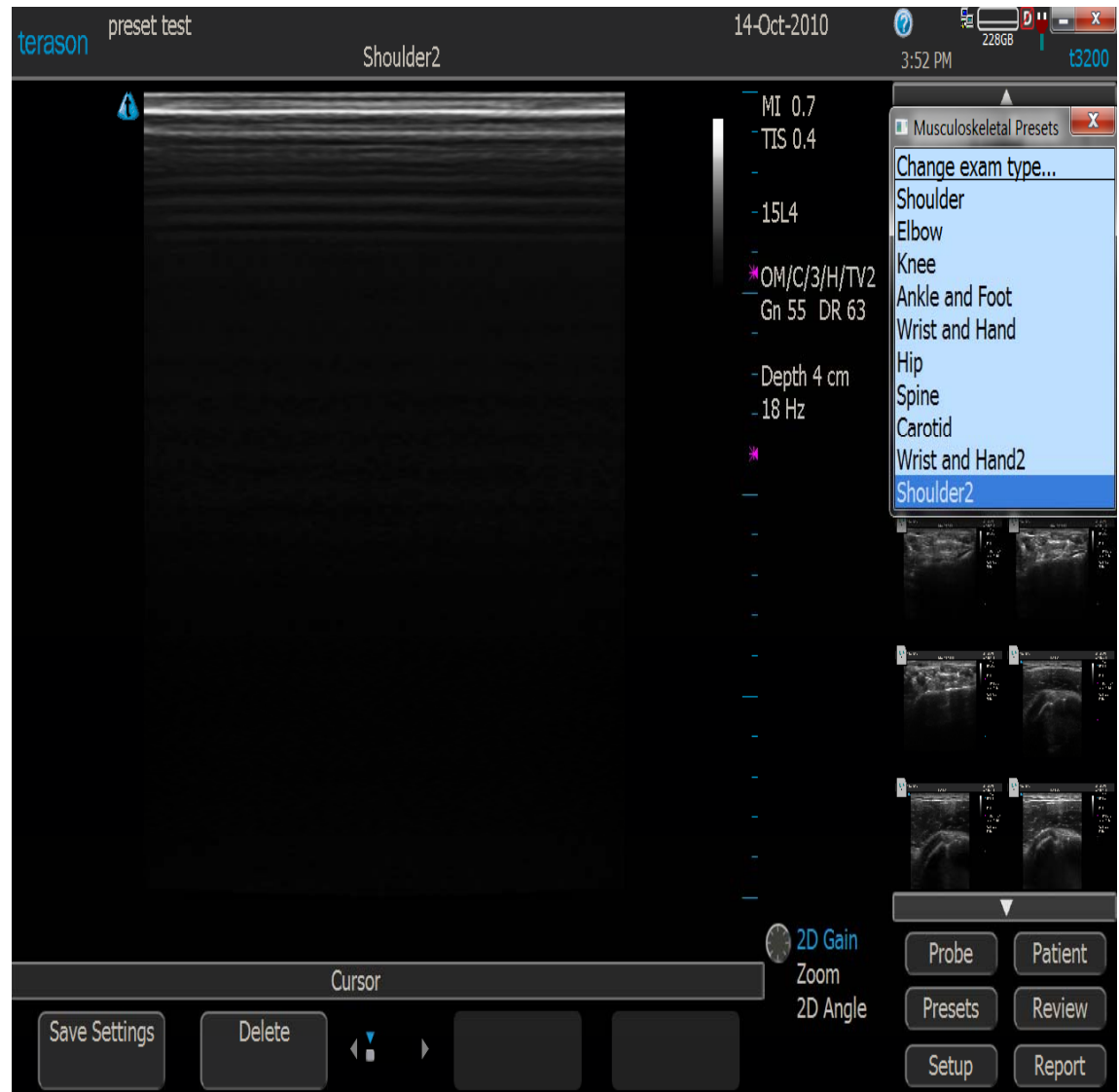
Text and Body Markers



- ❖ Probe Position, Probe Orientation are all controlled by the trackball
- ❖ To change between them, press the button above the trackball with this symbol 
- ❖ Probe Pos: Move the pink Probe around on the Body Marker
- ❖ Probe Orient: Rotates the probe so you know how the user was holding it when acquiring images
- ❖ Press enter to keep these movements in place

How to Save a Custom Preset

- ❖ Make any changes you would like to the settings
- ❖ Click on Presets tab
- ❖ Select Save Settings from the tool Bar
- ❖ Rename and Save
- ❖ The Custom preset will now display in the list
- ❖ The user can also delete a custom preset using the same steps and just clicking on the Delete tab



How to Perform a Measurement

❖ To perform a generic measurement select an option from the soft keys

-Caliper

-Trace

-Ellipse

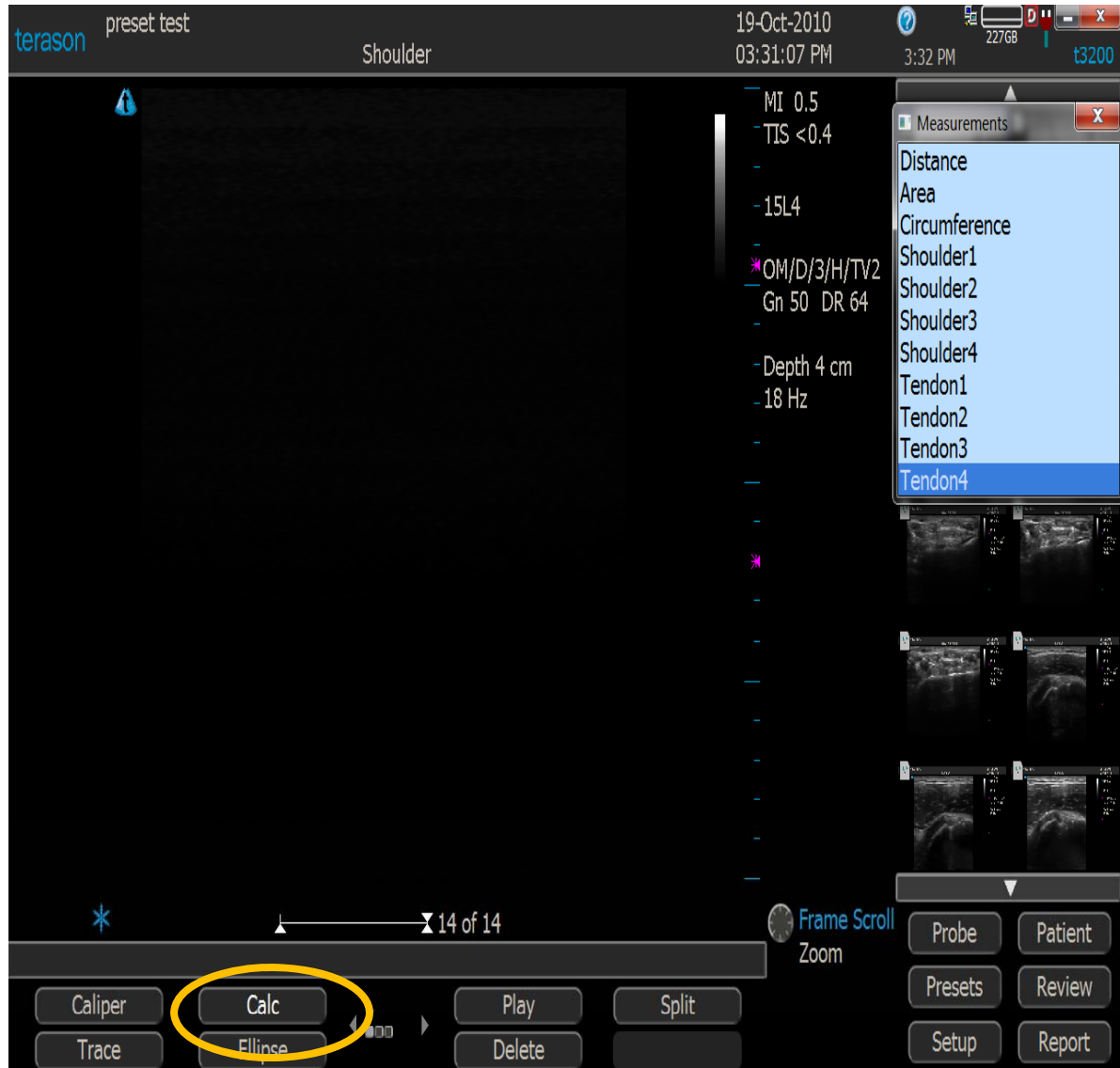
❖ The measurement will display on the screen



How to Perform a Measurement

- ❖ To Perform a defined measurement, click on the Calc tab
- ❖ Select the desired measurement from the drop down menu
- ❖ This measurement will be transferred to the Report

Note: The user can customize measurements in the Setup under Configure Measurements

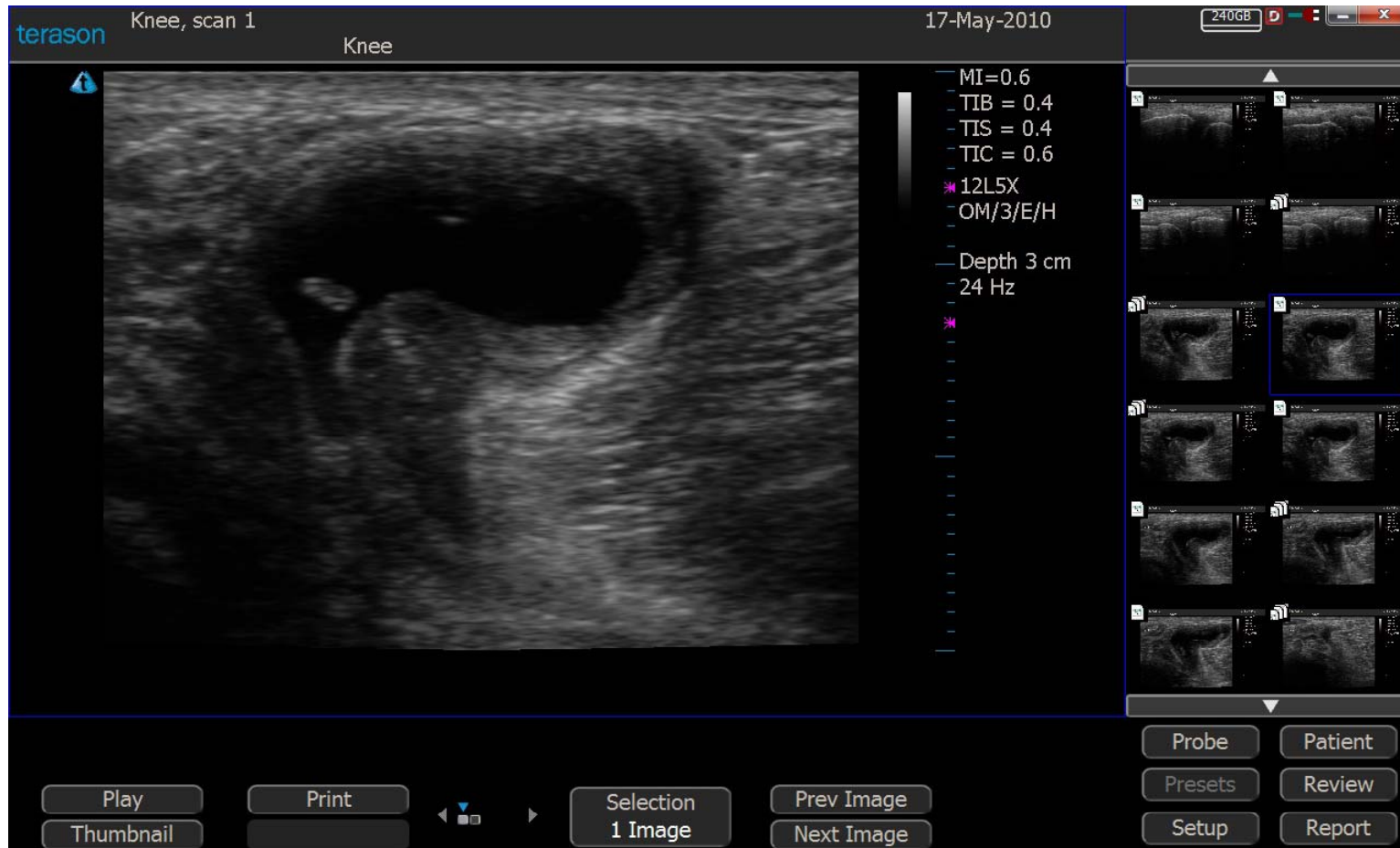


Reviewing Images



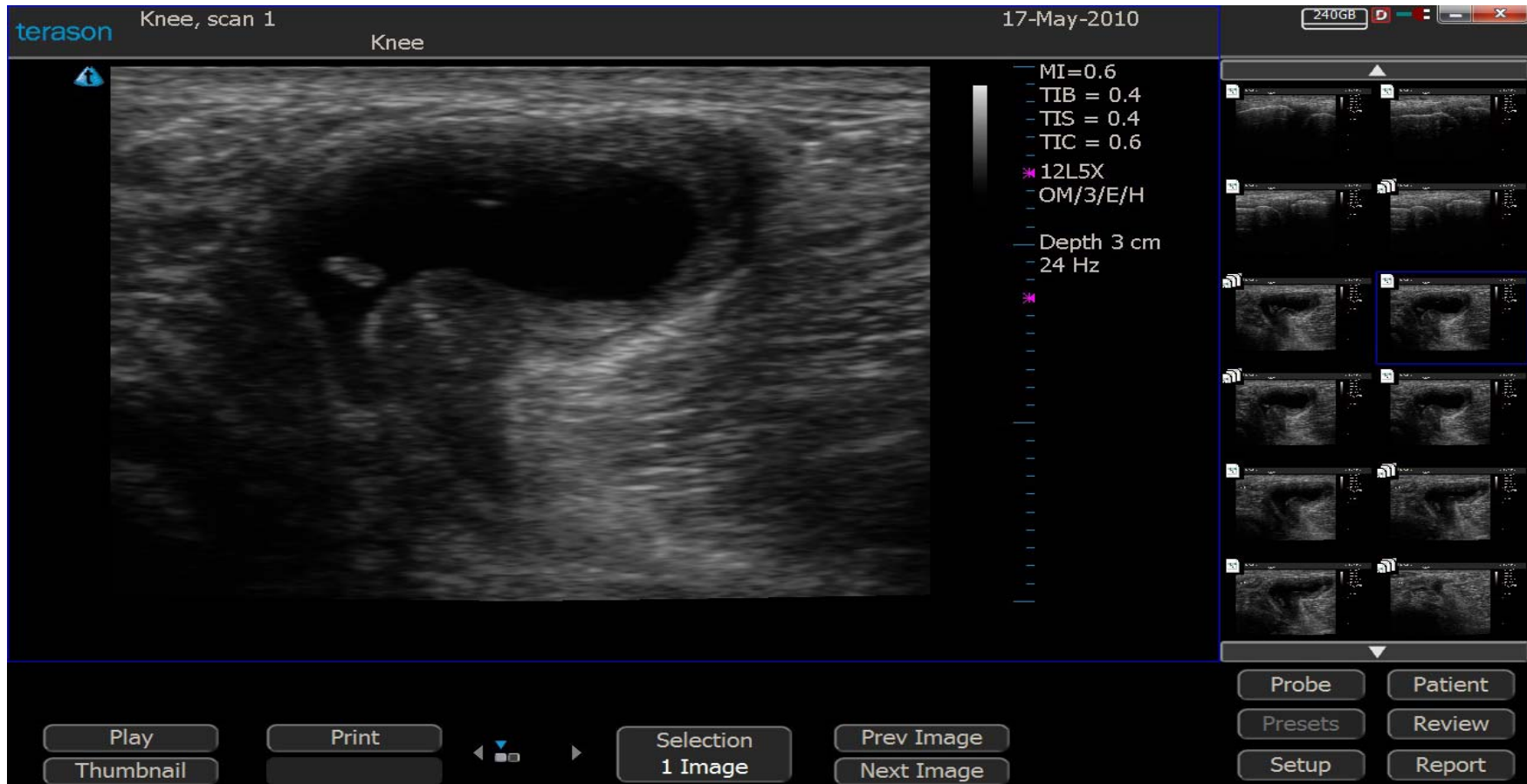
❖ Click the Review Tab

Reviewing Images



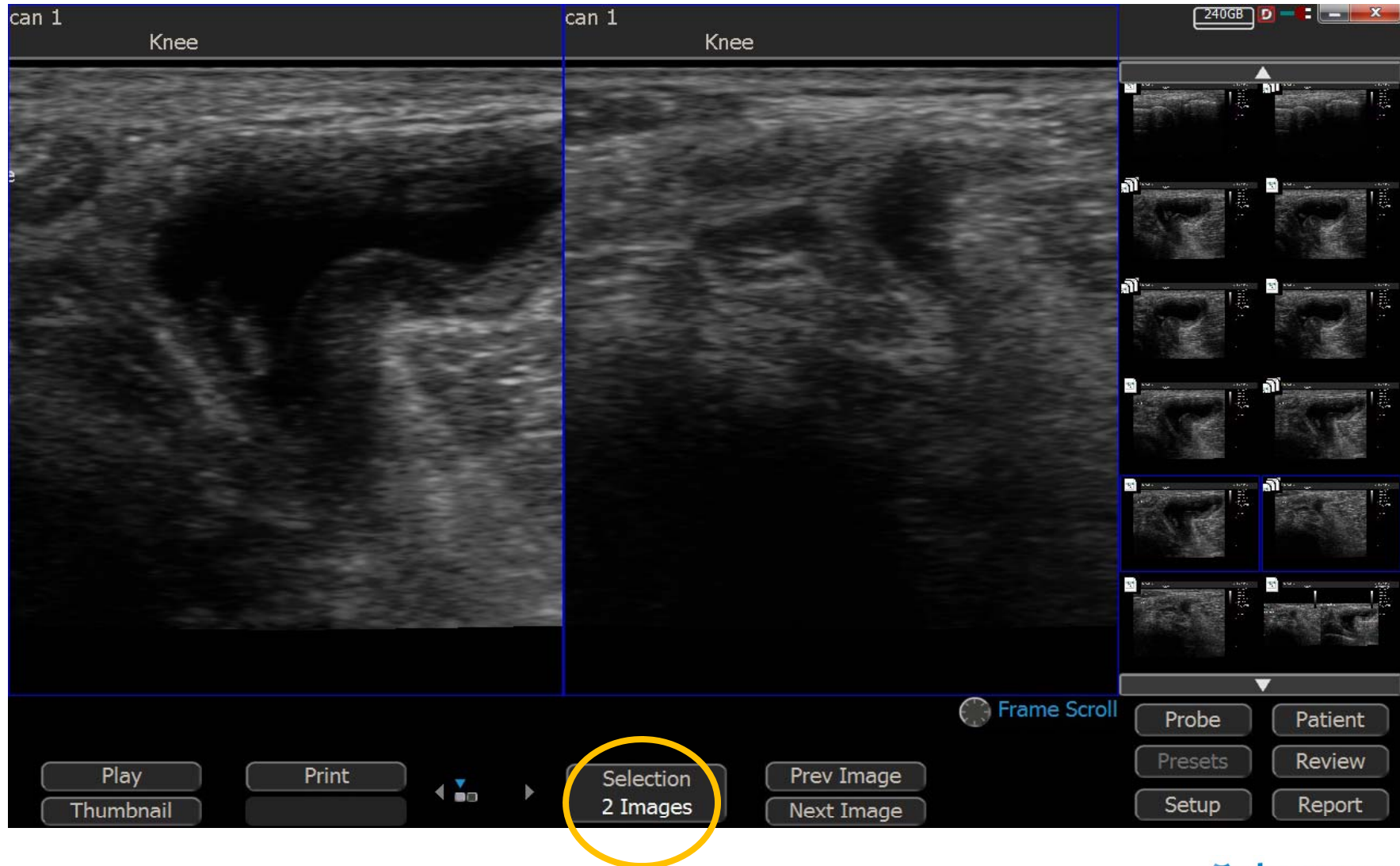
- ❖ Play/Pause: Allows the user to Play or Pause images being reviewed
- ❖ Thumbnail: Displays all of the images from the clipboard to the right
- ❖ Print: Allows the user to print the image

Reviewing Images



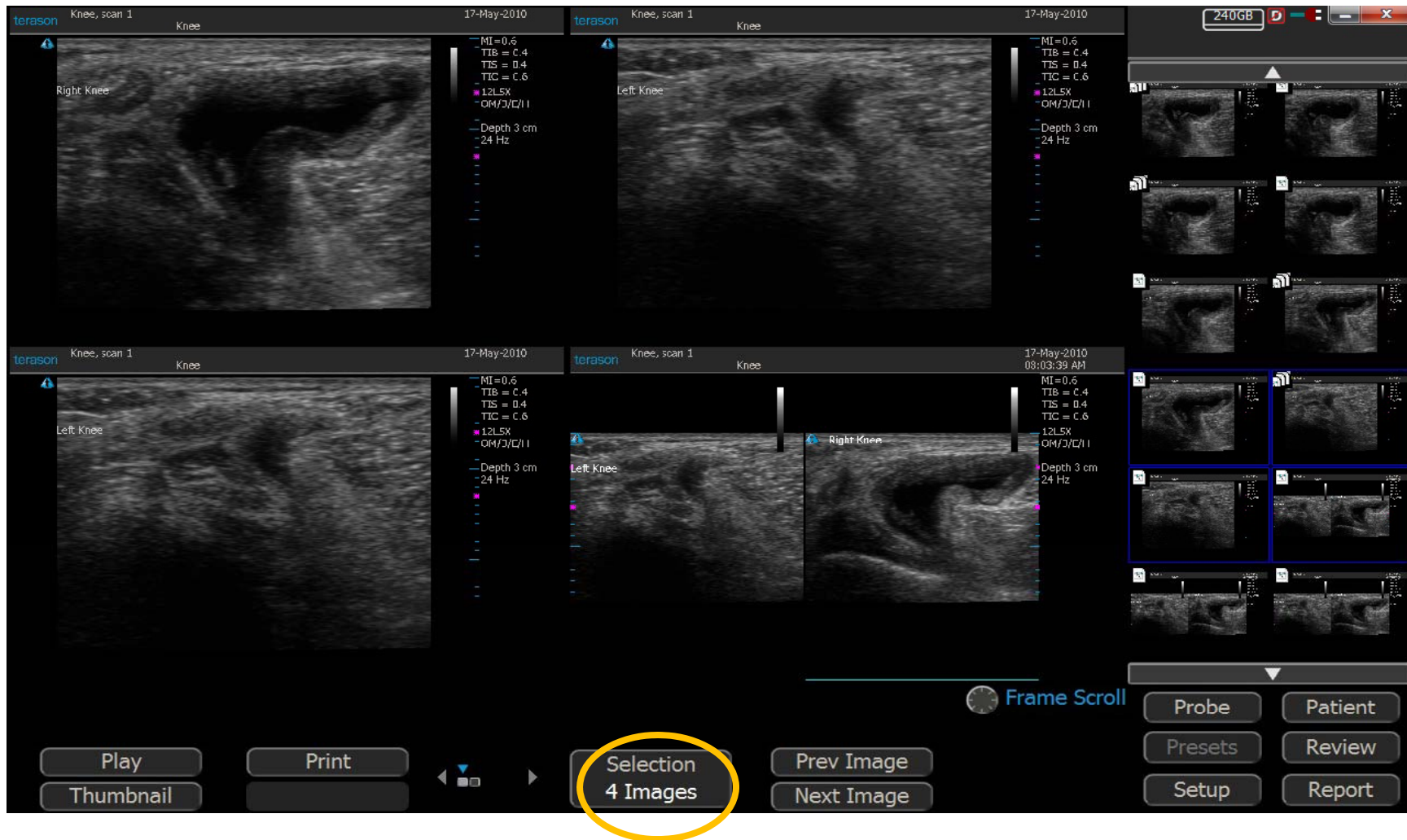
- ❖ Selection: Allows the user to choose between 1-image review, 2-image review, 4-image review and Random
- ❖ Random: Allows the user to select images from that are not sequential from the clip board on the right
- ❖ Prev Image/ Next Image allows the user to scroll through the images using the soft keys or by clicking on the tabs

Reviewing Images



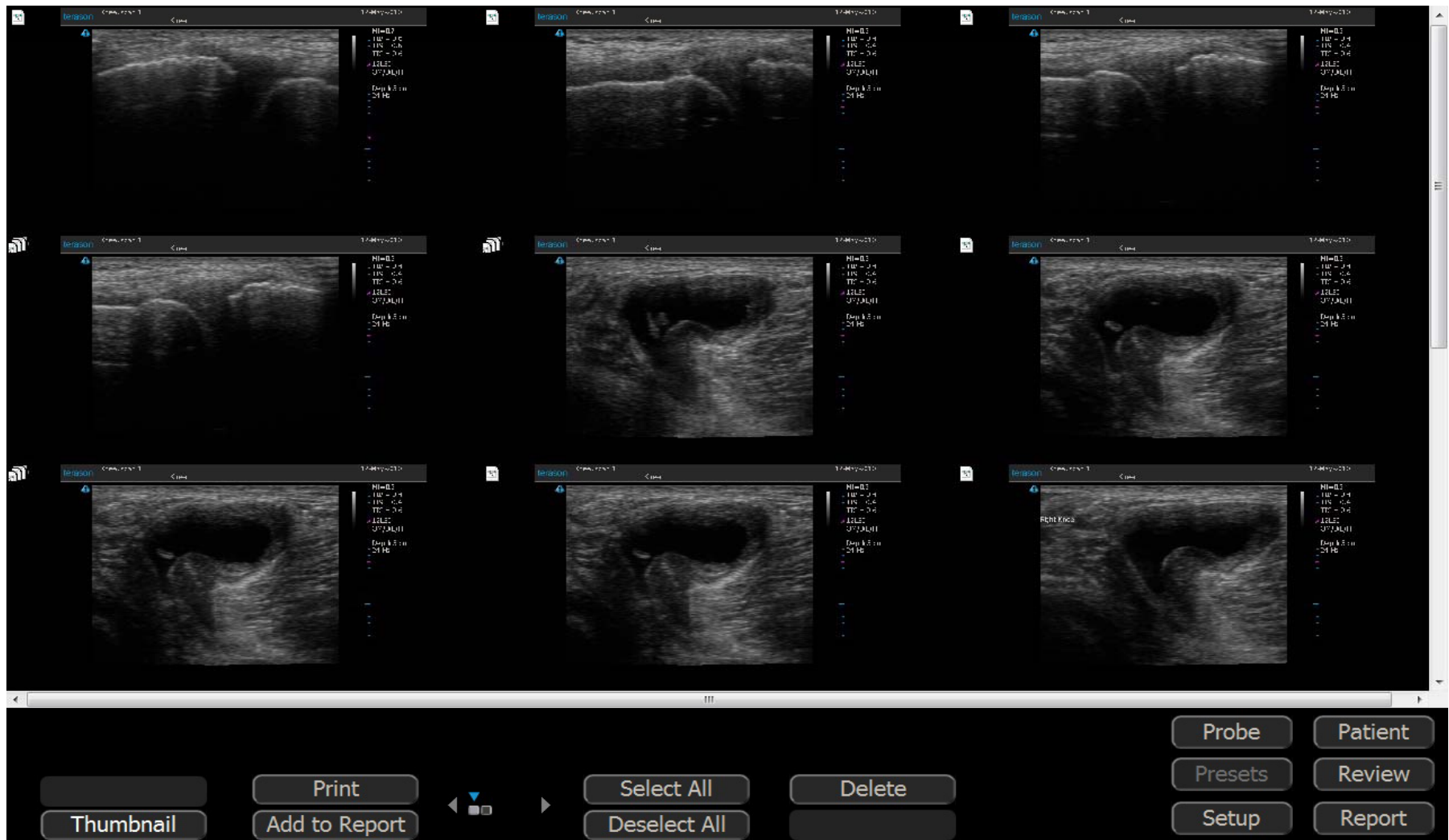
❖ Reviewing Images with 2 Images as the Selection

Reviewing Images



❖ Reviewing Images with 4 Images as the Selection

Reviewing Images



- ❖ Reviewing images Thumbnail Selection
- ❖ Give the user a quick overview of all the images

How to View a Previously Done Study

Study List

Patient ID: Clinician: Ref Physician:
Last Name: First: Middle:
Accession: Exam Type: Study Date:

Patient ID	Patient Name	Type	Clinician	Ref Physician	Date Time	Images
<input type="checkbox"/>		Musculoske...			2010/05/10 09:33:36	0
<input checked="" type="checkbox"/>	tester, t	Musculoske...			2010/05/06 15:30:12	0
<input type="checkbox"/>	tester, t	Breast			2010/05/06 15:29:34	0
<input checked="" type="checkbox"/>	232323	Doe, John	Musculoske...		2010/05/06 13:56:49	11
<input type="checkbox"/>	46789	Doe, Jane	Abdominal		2010/05/06 13:55:39	0
<input type="checkbox"/>	46789	Doe, Jane	Abdominal		2010/05/06 13:52:05	0
<input type="checkbox"/>	46789	Doe, Jane	Musculoske...		2010/05/06 13:49:09	0
<input checked="" type="checkbox"/>	Showcase, Test1	Musculoske...			2010/05/05 16:40:02	10
<input checked="" type="checkbox"/>	Showcase, Test1	Breast			2010/05/05 16:39:37	4
<input checked="" type="checkbox"/>	Breast, 3	Breast			2010/05/05 14:17:38	1
<input type="checkbox"/>	Test2	Abdominal			2010/05/05 12:54:15	0
<input type="checkbox"/>	Test2	Arterial			2010/05/05 12:53:29	0
<input checked="" type="checkbox"/>	Test2	Breast			2010/05/05 12:51:46	1
<input checked="" type="checkbox"/>	Breast, Test	Breast			2010/05/05 09:46:06	12
<input type="checkbox"/>		Arterial			2010/05/05 09:42:15	0
<input type="checkbox"/>	Breast, Test	Abdominal			2010/05/05 09:40:50	0
<input type="checkbox"/>	Breast, Test	Abdominal			2010/05/05 09:35:44	0
<input type="checkbox"/>		Breast			2010/05/05 09:30:46	0
<input type="checkbox"/>	Breast, Test				2010/05/05 09:30:38	0

Delete Export Review Close

- ❖ Click on the Patient tab
- ❖ Click on the Study List tab
- ❖ Select time line from Study Date tab
- ❖ Narrow the field by typing patient information into the in the data fields
- ❖ Click on Review tab

Report

Worksheet **Ultrasound Report**

Exam Type: Musculoskeletal
Report Date: 2010-5-17

Patient Information

Patient: John , Doe m
Patient ID: 587890
Sex: Male Height: 6 ft 2 in
Birth Date: 1967-05-17 Weight: 220 lbs

Study Information

Study Date: 2010-05-17

240GB

Save Print

Probe Patient
Presets Review
Setup Report

❖ Report Page displays all of the Patient Information and any Calculations made

Report

Worksheet **Ultrasound Report**

Exam Type: Musculoskeletal
Report Date: 2010-5-17

Patient Information

Patient: John , Doe m
Patient ID: 587890
Sex: Male Height: 6 ft 2 in
Birth Date: 1967-05-17 Weight: 220 lbs

Study Information

Study Date: 2010-05-17

240GB

Save Print

Probe Patient
Presets Review
Setup Report

- ❖ Report Page displays all of the Patient Information and any Calculations made
- ❖ By Clicking on Worksheet the user can Customize the Report

Report

Report **Worksheet**

Institution: **Edit**

Select Exam Type:

Patient Name: John, Doe m

Patient ID: 567890

Date: 2010-05-17

Accession Number:

Referring Physician: **Edit**

Interpreting Physician: **Edit**

Blood Pressure: / mm Hg

Indications:

Comments:

Image Display

Number of Columns:

Save **Print** **Probe** **Patient** **Presets** **Review** **Setup** **Report**

❖ The User can free text in the Indications and Comments boxes. This will be displayed on the Report

Report

Worksheet

Ultrasound Report

240GB

Exam Type: Musculoskeletal
Report Date: 2010-5-17

Patient Information

Patient: John, Doe m
Patient ID: 567890
Sex: Male
Birth Date: 1967-05-17
Height: 6 ft 2 in
Weight: 220 lbs

Study Information

Study Date: 2010-05-17

Indications:

Shoulder Pain

Comments:

Full Shoulder Ultrasound Exam was performed. Left Shoulder displayed tear to the rotator cuff.

Save

Print



Probe

Patient

Presets

Review

Setup

Report

How to Save Images to the Report

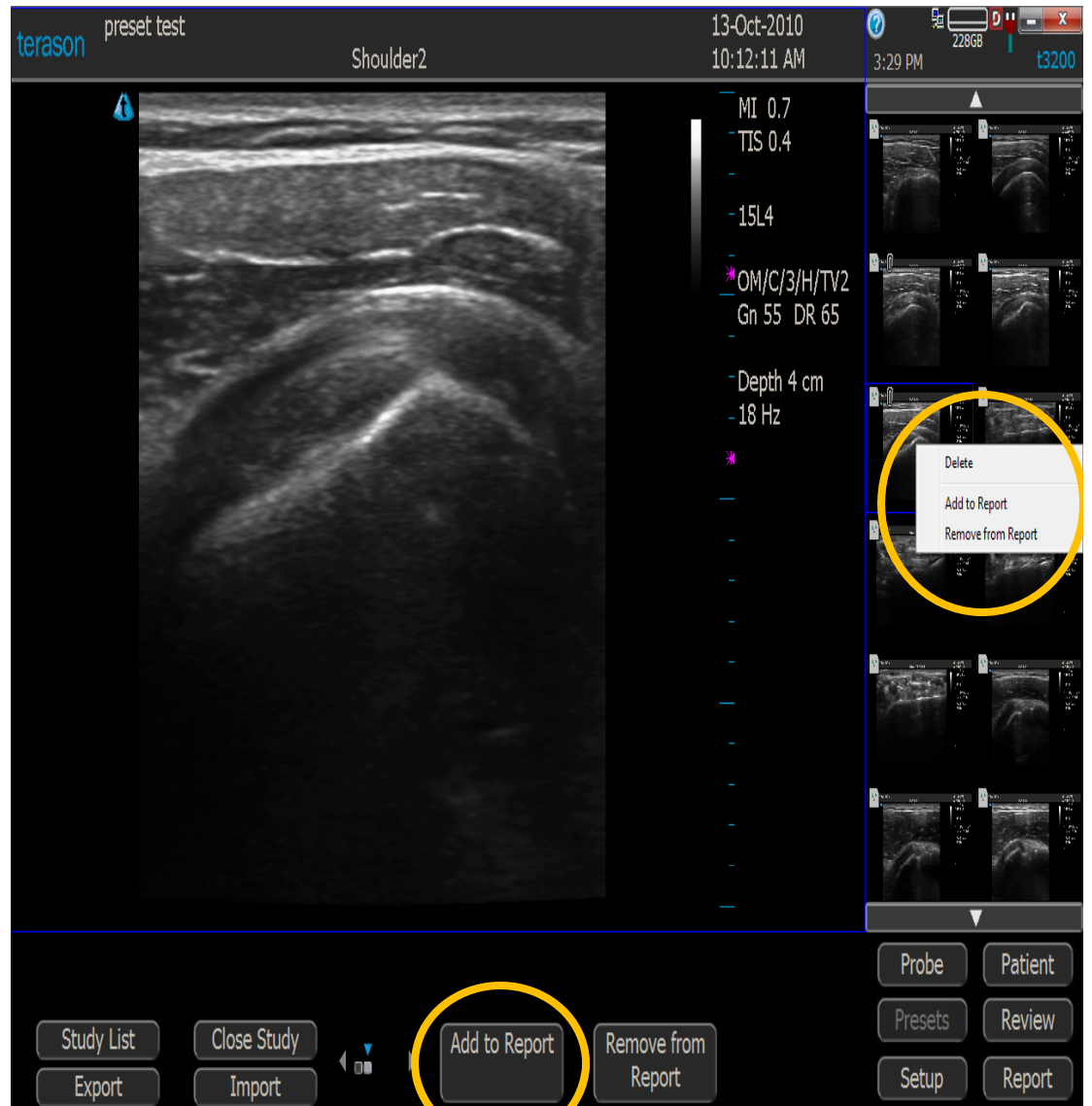
❖ From the Review Page the user can Right click on the thumbnails to the right and select "Add to Report"

From this location the user can also remove images from the report or delete them from the thumbnails

Another way to save images to the report is....

❖ The user can also add images to the report by using the soft keys (page 2) and clicking on the "Add to Report" The image highlighted in blue will be added

Note: Once an image has been selected to appear on the Report it will have a Paper clip icon on the thumbnail



How to Save Images to the Report

Ultrasound Report
Exam Type: Musculoskeletal
Report Date: 2010-10-20

Patient Information
Patient: clinical testing, 2
Patient ID:

Study Information
Study Date: 2010-09-20
Indications: Knee pain
Comments: Complete exam of left knee

Images

©20101019-133614 TeraSon Ultrasound System Page 1 of 1

How to Export a Study

The screenshot shows the Terason software interface. At the top, there are four buttons: 'New Patient', 'New Study', 'Study List...', and 'Worklist...'. The 'Study List...' button is circled in yellow. Below these buttons are input fields for patient information: Last, First, Middle, Gender (M/F), Patient ID, Accession, and DOB. A table with columns Patient ID, Patient Name, DOB, Gender, and Studies is shown below. The 'Studies' column has a value of '1'. Below the table is the 'Study Info' section with fields for Exam Type (Musculoskeletal), Date Time (2011/01/24 15:48:03), Study ID, Institution, Clinician, Ref Physician, Height (ft/in), and Weight (lbs). At the bottom, there is a row of buttons: Accept, Close Study, Print, Print Preview, Cancel, Probe, Presets, Patient, Review, Setup, and Report.

❖ Click on Study List

How to Export a Study

Study List

Patient ID: Clinician: Ref Physician:
Last Name: First: Middle:
Accession: Exam Type: Study Date:

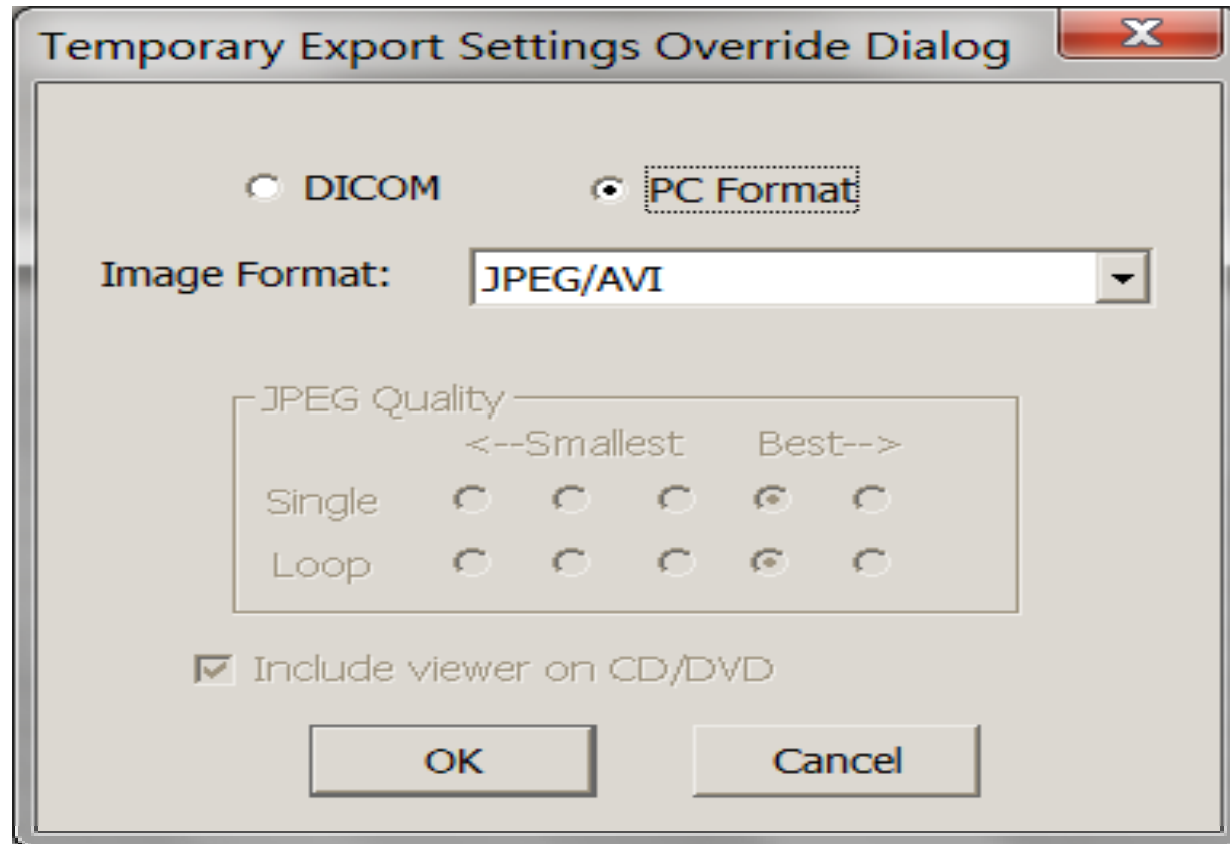
Patient ID	Patient Name	Type	Clinician	Ref Physician	Date Time	Images
<input checked="" type="checkbox"/> 232323	Doe, John	Musculoske...			2010/05/06 13:56:49	11
<input type="checkbox"/> 46789	Doe, Jane	Abdominal			2010/05/06 13:55:39	0
<input type="checkbox"/> 46789	Doe, Jane	Abdominal			2010/05/06 13:52:05	0
<input type="checkbox"/> 46789	Doe, Jane	Musculoske...			2010/05/06 13:49:09	0

Delete Export Review Close

❖ Click on Patient

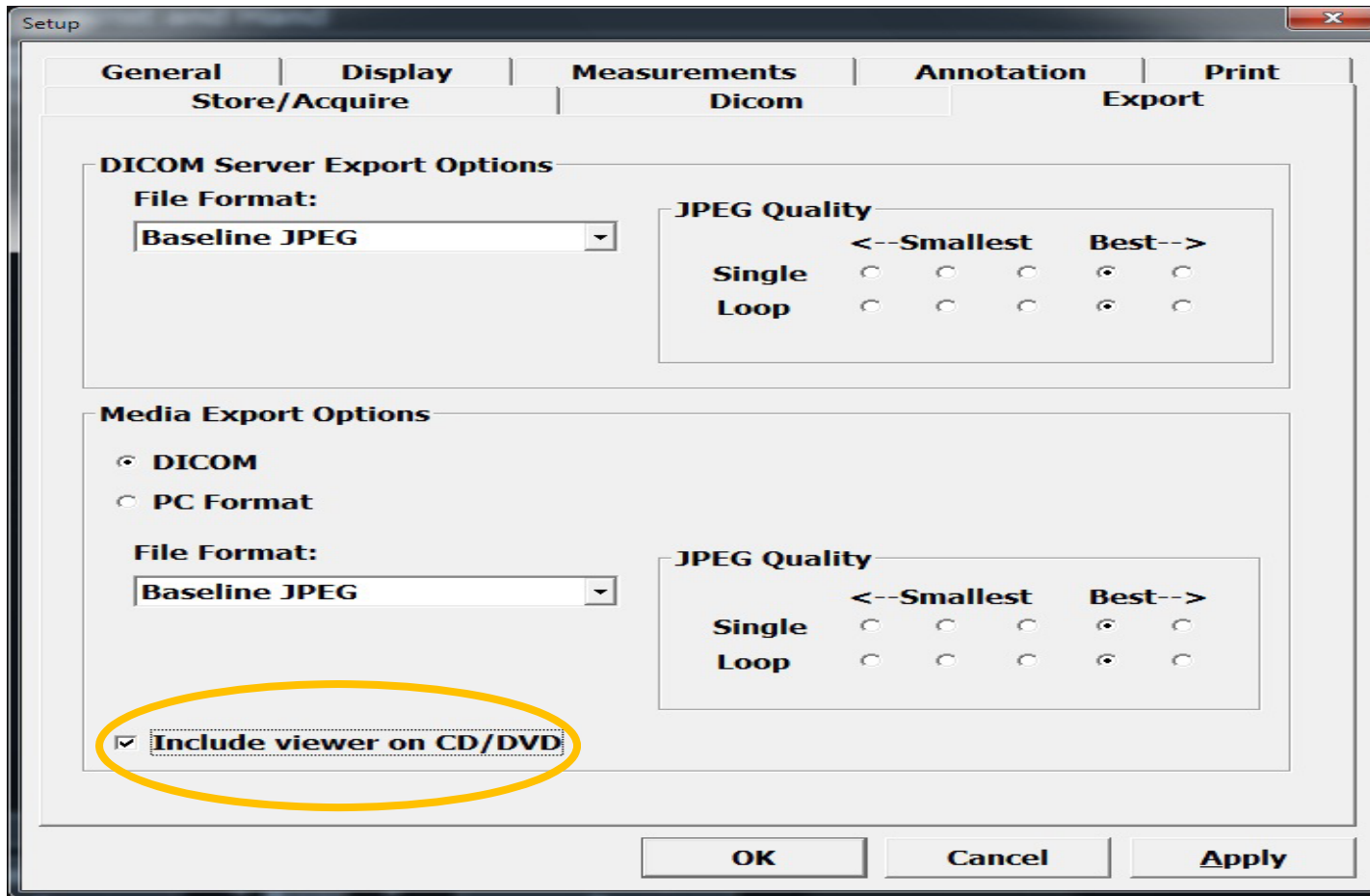
❖ Click on Export

Export Options



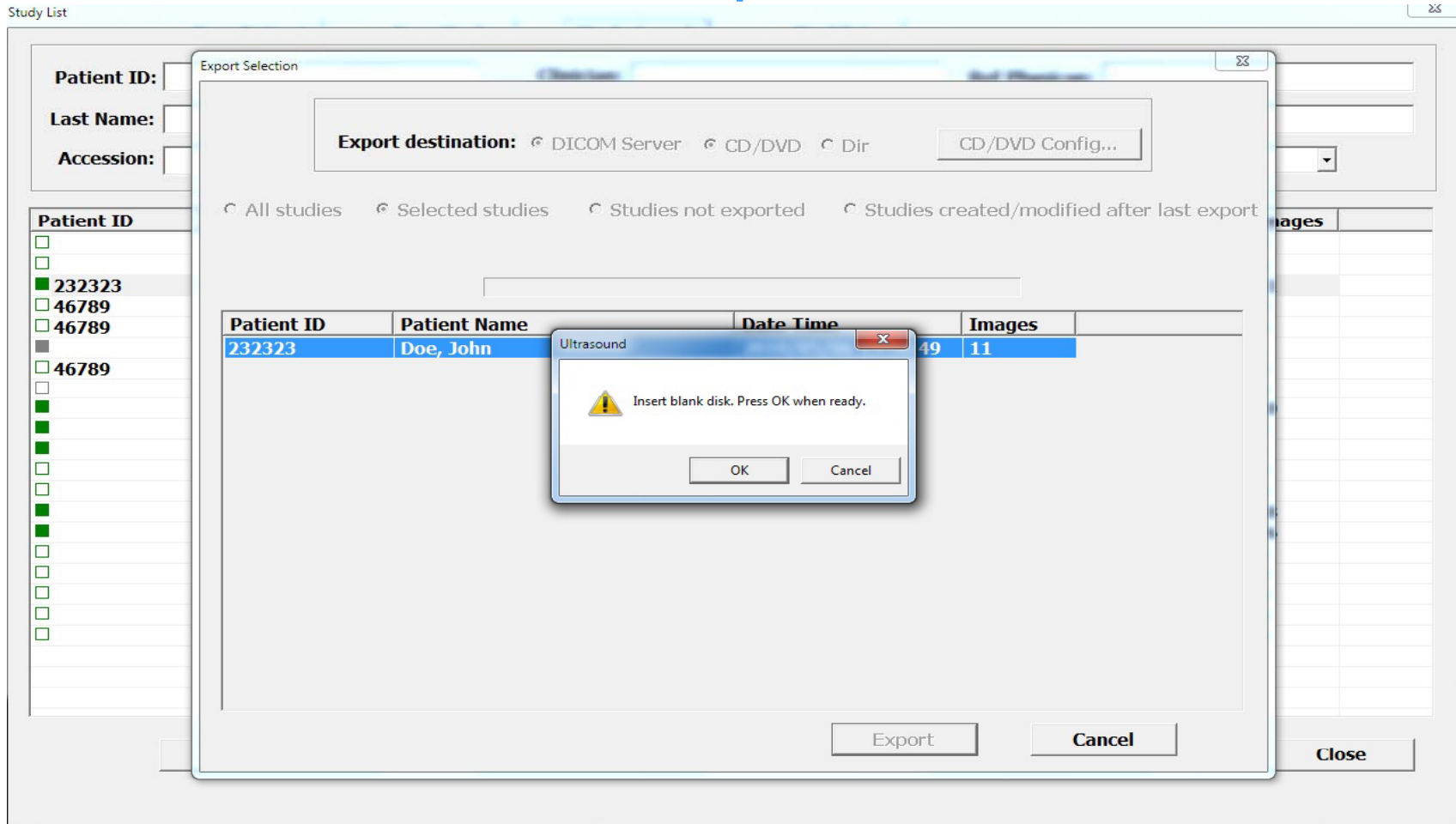
- ❖ To Export a study as JPEG, BMP or AVI Click on the options tab
- ❖ AVI will always be the choice for moving images, but the user can chose BMP or JPEG for the still images

How to Export a Study with an Attached Media Player



- ❖ Make sure in the Setup under the Export page, "Include viewer on CD/DVD" is checked off

EZ Viewer Export Function



- ❖ Insert a blank CD or DVD
- ❖ Press OK
- ❖ Click on Export

EZ Viewer Export Function



❖ The Study or Studies will be burned onto the disk with an attached Media player. This will allow the study to be opened and played on most PCs

Note: Please see attached directions "Viewer Help" for how to use the Viewer functions once the disk is in your PC.

Import Function

- ❖ Click on the Patient Tab
- ❖ Click Study List Tab

The screenshot displays the Terason software interface. At the top, there are four buttons: 'New Patient', 'New Study', 'Study List...', and 'Worklist...'. The 'Study List...' button is circled in yellow. Below these buttons are input fields for patient information: 'Last:', 'First:', 'Middle:', 'Gender: M F', 'Patient ID:', 'Accession:', and 'DOB:'. A table with the following columns is visible: 'Patient ID', 'Patient Name', 'DOB', 'Gender', and 'Studies'. The table contains one row with the value '1' in the 'Studies' column. Below the table is the 'Study Info' section, which includes fields for 'Exam Type: Musculoskeletal', 'Date Time: 2010/10/19 08:36:44', 'Study ID:', 'Location:', 'Clinician:', 'Ref Physician:', 'Height: [] ft [] in', and 'Weight: [] lbs'. A 'Comment:' field is also present. At the bottom of the interface, there are several buttons: 'Accept', 'Close Study', 'Print', 'Print Preview', 'Cancel', 'Probe', 'Patient', 'Presets', 'Review', 'Setup', and 'Report'. The 'Patient' button is circled in yellow.

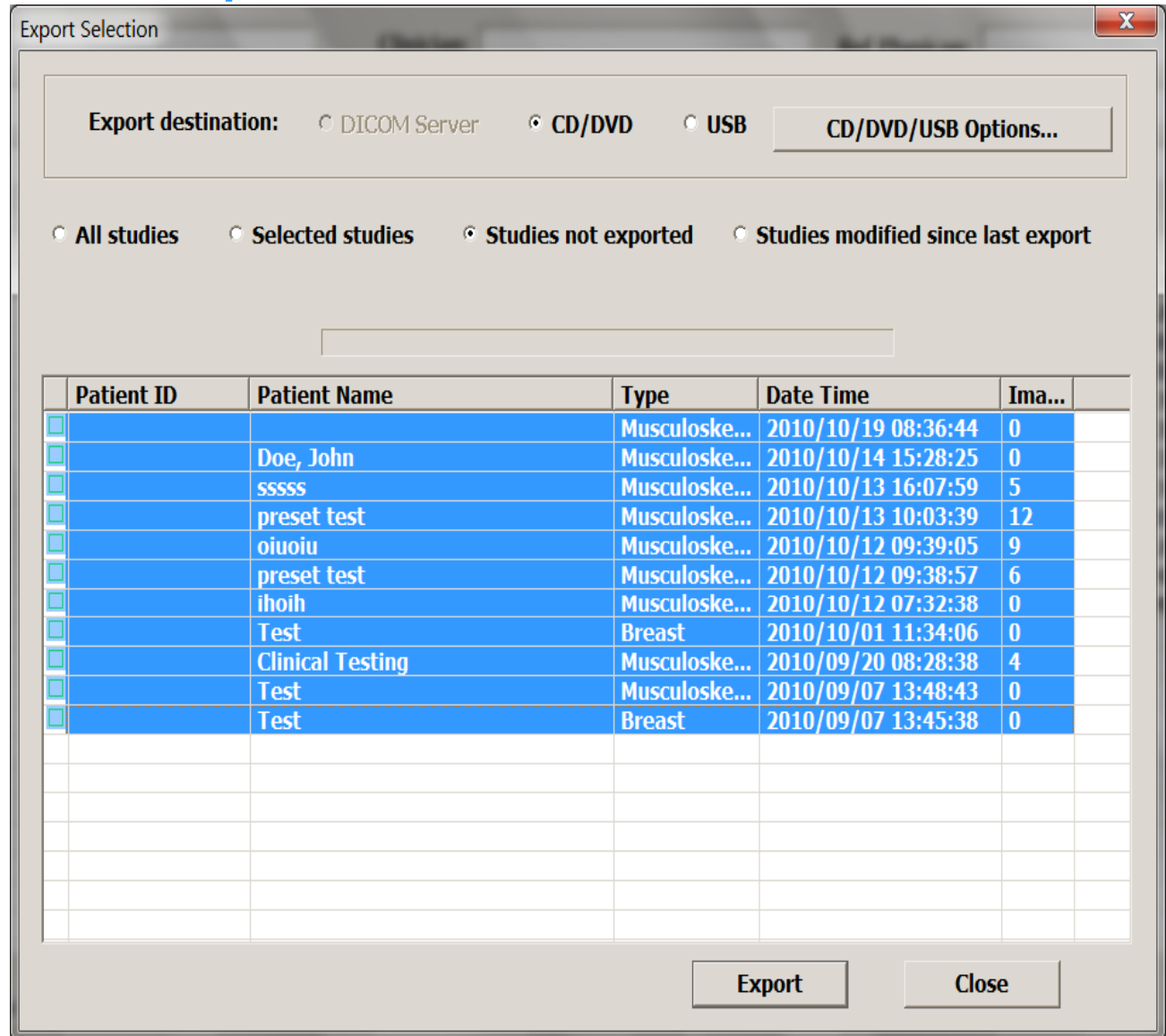
How to Backup the Patient Archive

- ❖ We recommend that the Patient Archive is backed up at least once a week. This will prevent permanent loss of Patient Data.
- ❖ Recommended storage to External Hard Drives, USB, DVD and CDs
- ❖ Insert Media or External Hard Drive

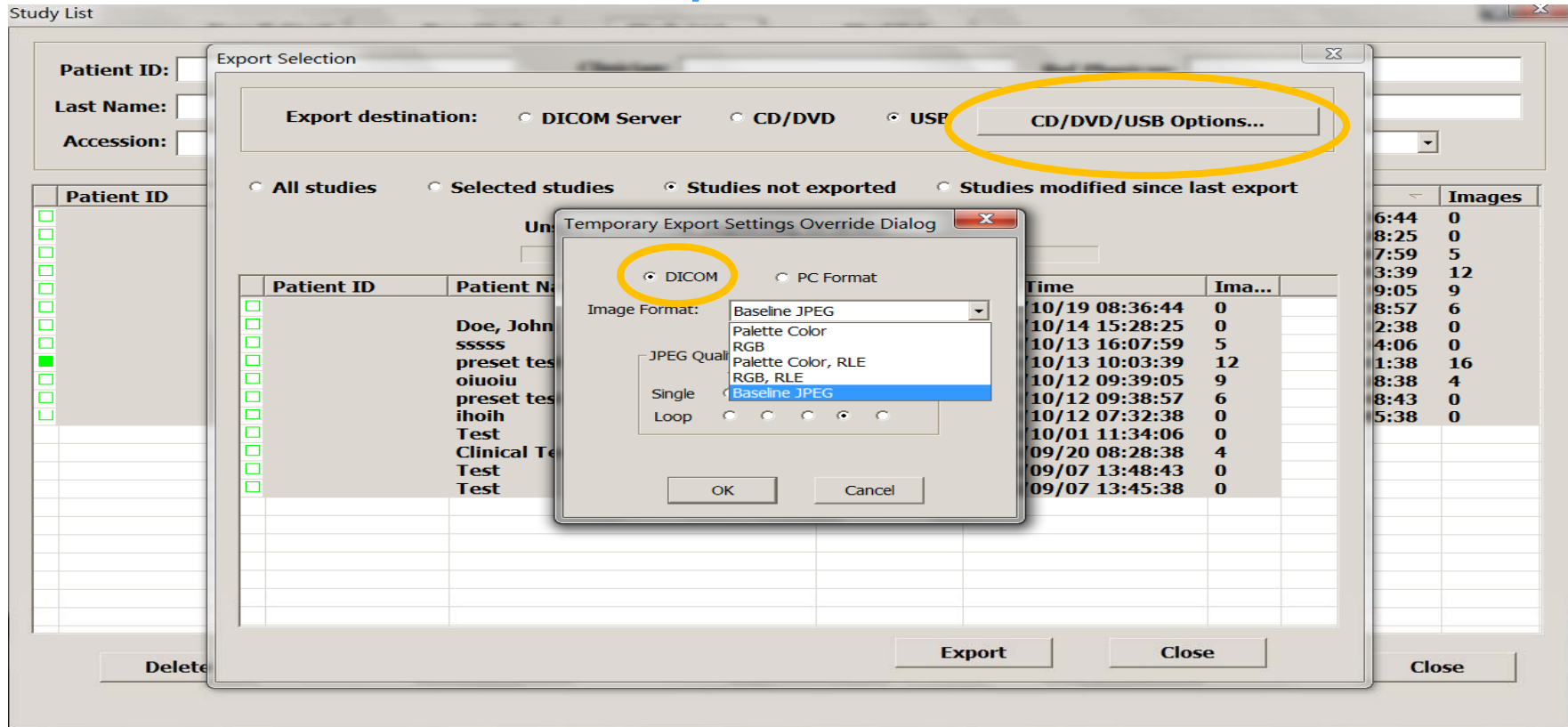


How to Backup the Patient Archive

- ❖ Click Patient Tab
- ❖ Click Study List
- ❖ Click Export
- ❖ Highlight Studies from the list (multiple Studies can be highlighted using Alt+Shift)
- ❖ The User has the option to Select:
 - All Studies
 - Selected Studies
 - Studies not Exported
 - Studies Modified since last Export
- ❖ Click Export



How to Backup the Patient Archive



❖ When Backing up the Archive, please make sure under Export destination: CD/DVD/USB Options the selection is DICOM. PC format does not allow images to be imported back into the Archive.

The image format is up to the user. Baseline JPEG allows compression for smaller file size

The other options are not compressed and the file size will be larger

Deleting Studies from the Archive

- ❖ This should only be done after studies have been backed up to a storage device.
- ❖ Click on the Patient Tab
- ❖ Click on Study List
- ❖ Highlight study you wish to delete (to select multiple studies hold the Alt+Shift key and click)
- ❖ Click the Delete Tab
- ❖ A pop-up window will appear asking if you are sure you would like to delete. Click Yes to delete the study or studies from the Archive

Note: This is a permanent Delete. Please make sure Studies are backed-up

The screenshot shows the 'Study List' application window. At the top, there are search filters for Patient ID, Clinician, Ref Physician, Last Name, First, Middle, Accession, Exam Type, and Study Date. Below the filters is a table with columns: Patient ID, Accessio..., Patient Name, Type, Clinician, Ref Physician, Date Time, and Images. A row is selected, and a confirmation dialog box titled 'Ultrasound' is overlaid on the table. The dialog box contains a warning icon and the text: 'The selected study and its aquired images will be deleted. Are you sure you want to delete it?'. There are 'Yes' and 'No' buttons at the bottom of the dialog box. The 'Delete' button in the application's footer is also circled in yellow.

Patient ID	Accessio...	Patient Name	Type	Clinician	Ref Physician	Date Time	Images
			Musculoske...			2010/10/19 08:36:44	0
		Doe, John	Musculoske...			2010/10/14 15:28:25	0
		sssss	Musculoske...			2010/10/13 16:07:59	5
		preset test	Musculoske...			2010/10/13 10:03:39	12
		oiuoiu	Musculoske...			2010/10/12 09:39:05	9
		preset test	Musculoske...			2010/10/12 09:38:57	6
		ihoih	Musculoske...			2010/10/12 07:32:38	0
		Test	Musculoske...			2010/10/01 11:34:06	0
		clinical test	Musculoske...			2010/09/20 16:01:38	16
		Clinical Tes	Musculoske...			2010/09/20 08:28:38	4
		Test	Musculoske...			2010/09/07 13:48:43	0
		Test	Musculoske...			2010/09/07 13:45:38	0