

VXvue

User Manual

(For Human Use)



v i e w o r k s



Revision History

Version	Date	Description
1.0	2012-06-15	Initial Release

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Safety and Regulatory

Safety Notice

The following safety notices are used to emphasize certain safety instructions. Follow the safety instructions in this manual along with warnings and cautions symbols. Ignoring such warnings or cautions while handling the product may results in serious injury or accident. It is important for you to read and understand the contents of this manual before attempting to use the product.

Symbols	Descriptions
	Indicates a potentially hazardous situation which may cause minor personal injury or property damage if the instructions are ignored.
	Provides additional information that is helpful to you. It may emphasize certain information regarding special tools or items to check before operating the product.

1. Introduction

1.1 Getting Started

The following login dialog will be displayed when you run VXue.exe. To log in to VXvue, you need to enter registered ID and password.

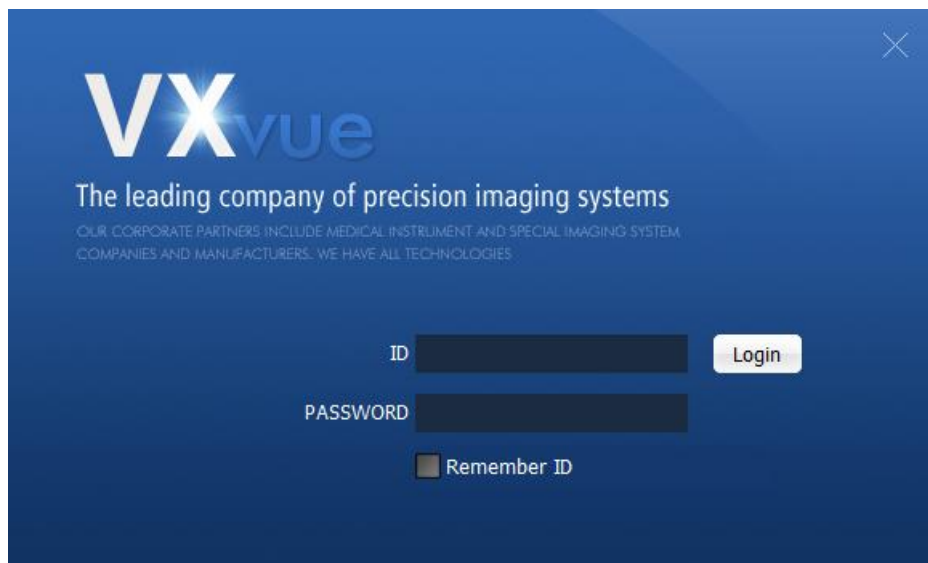


Figure 1.1 VXvue login dialog

When you sign in using your ID and password with the Remember ID checkbox checked, the login ID will be remembered so that you can sign in without entering the ID.



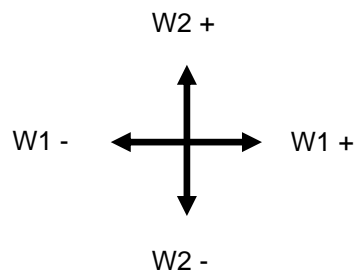
User permissions for software features vary depending on the group of user accounts. For more information about user rights for each user group, refer to chapter [8.1.2](#) "[Account Panel](#)".


1.2 How to use Mouse

Mouse is a device to move pointer to choose an object on the screen.

Followings are the instruction for using Mouse.

- Left button click: Choose an image, menu or icon to activate certain feature.
- Right button click: Display option menus for the selected menu.
- Ctrl key+ left button click: Choose multiple objects.
- Left button double click: Execute special functions on each menu.
- Scroll: Roll the mouse wheel (if applicable) up and down to switch between images when multiple images are selected.
- Drag: Adjust parameters or size, or move an object. Press and hold the rights mouse button while dragging the mouse to adjust Window Level on the image window.



Drag can be used with other features simultaneously.
While it is active, the mouse pointer will be changed to .

2. User Interface Layout

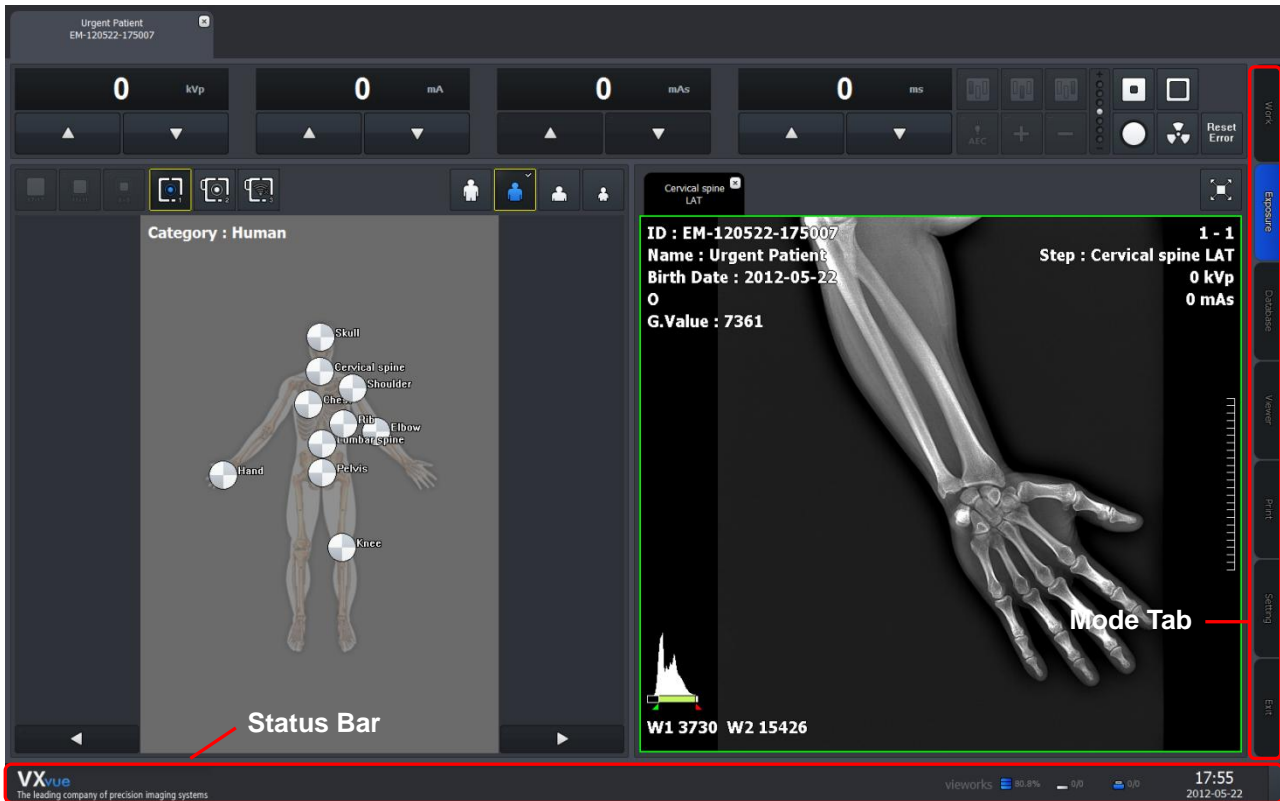


Figure 2.1 VXvue User Interface Layout

- Mode Tab: You can change the mode by clicking on each tab.
- Status Bar: Display currently logged in account, free space of hard drive, data transfer status to Storage server or DICOM printer, current time and date.

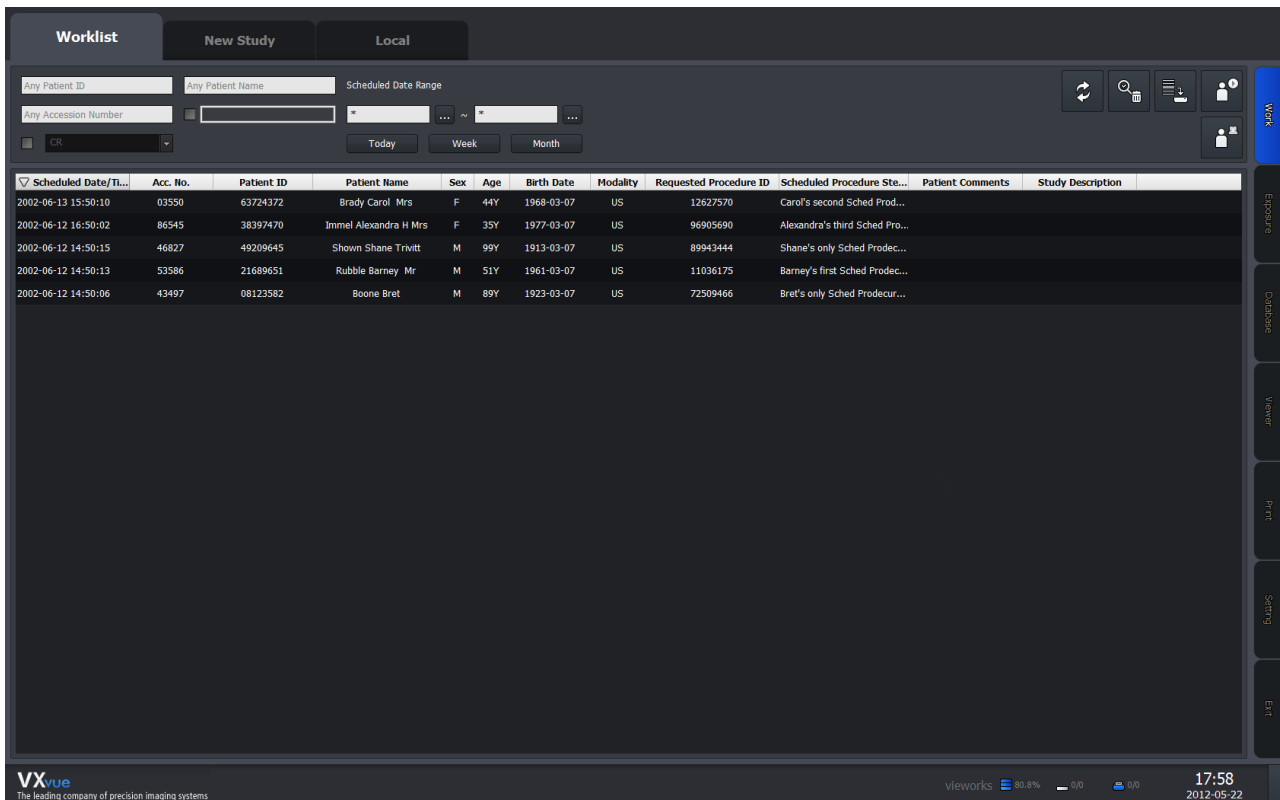


Click the status of Storage server or DICOM printer to move to Queue (also available Setting > DICOM > Queue) panel where you can check the queues in Storage Server and DICOM printer.

Please refer to descriptions of each mode for the rest of layout.

3. Work Mode

3.1 Worklist Panel



Scheduled Date/Ti...	Acc. No.	Patient ID	Patient Name	Sex	Age	Birth Date	Modality	Requested Procedure ID	Scheduled Procedure Ste...	Patient Comments	Study Description
2002-06-13 15:50:10	03550	63724372	Brady Carol Mrs	F	44Y	1968-03-07	US	12627570	Carol's second Sched Prod...		
2002-06-12 16:50:02	86545	38397470	Immel Alexandra H Mrs	F	35Y	1977-03-07	US	96905690	Alexandra's third Sched Pro...		
2002-06-12 14:50:15	46827	49209645	Shawn Shane Trivitt	M	99Y	1913-03-07	US	89943444	Shane's only Sched Prodec...		
2002-06-12 14:50:13	53586	21689651	Rubble Barney Mr	M	51Y	1961-03-07	US	11036175	Barney's first Sched Prodec...		
2002-06-12 14:50:06	43497	08123582	Boone Bret	M	89Y	1923-03-07	US	72509466	Bret's only Sched Prodecu...		

Figure 3.1 Worklist Panel



To use worklist server, you must register worklist server on "[MWL Panel](#)" described in chapter [8.8.2](#).



3.1.1 Search Conditions

You can search from the worklist using the following options.

- Patient ID: Input a patient ID to search.
- Patient Name: Input a patient name to search.
- Accession Number: Input a patient's accession number to search.
- Station Name: Input a station name to search.
- Modality: Select a modality to search.
- Scheduled Date Range: Select a specific period of time to search.



The default value for Station Name can be modified on "[System Panel](#)" described in chapter [8.1.1](#). Modifying in Worklist Panel will affect only the current field but not change the default value.

3.1.1.1 Today

Search scheduled orders on today.

3.1.1.2 Week

Search the latest scheduled orders within a week.

3.1.1.3 Month

Search the latest scheduled orders within a month.

3.1.2 Search



Execute a search for scheduled order with entered search conditions.



Search results are retrieved from the selected sever on the DICOM worklist settings. For more information about DICOM worklist settings, refer to chapter [8.8.2](#) "[MWL Panel](#)".



3.1.3 Clear Search Conditions



Clear the previously entered search conditions.



To search without search conditions, click the Search button after clicking this button.

3.1.4 Save to Local



Save the selected order to local database.

3.1.5 Start Study



Initiate study with the selected order.

3.1.6 Register Emergency Patient



Register study for emergency patient.



Emergency patient's ID will be saved based on the current date and time.



3.1.7 Search Results

Search results will be displayed as shown in the list below.

3.1.7.1 Sort

You can sort by clicking on the header of each column.

△ Scheduled Date/Ti...	Acc. No.	Patient ID	Patient Name
2002-06-12 14:50:06	43497	08123582	Boone Bret
2002-06-12 14:50:13	53586	21689651	Rubble Barney Mr
2002-06-12 14:50:15	46827	49209645	Shown Shane Trivitt
2002-06-12 16:50:02	86545	38397470	Immel Alexandra H Mrs
2002-06-13 15:50:10	03550	63724372	Brady Carol Mrs

Figure 3.2 Sort

3.1.7.2 Modifying Column

You can modify which fields to be displayed on the search results by clicking the right mouse button, then the **More...** button.

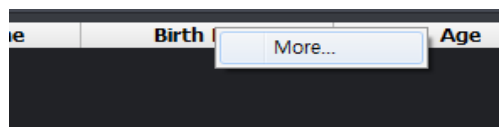


Figure 3.3 Modifying Search Result Field (continuous)

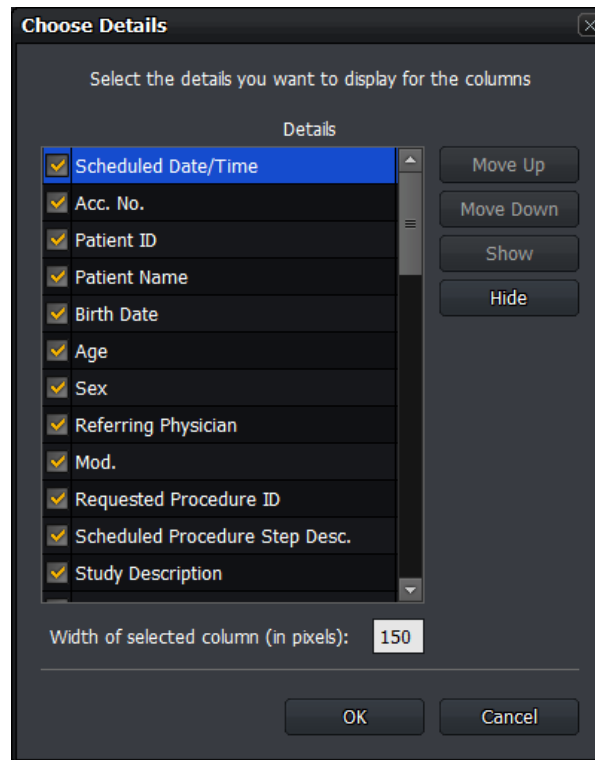


Figure 3.4 Modifying Search Result Field

- Check Box: Indicate whether to display the field on the search results.
- Move Up: Move the selected field upward in the list.
- Move Down: Move the selected field downward in the list.
- Show: Display the selected field on the search results.
- Hide: Do not display the selected field on the search results.
- Width: Adjust the size of selected column to be displayed on the search results.

3.2 New Patient Panel

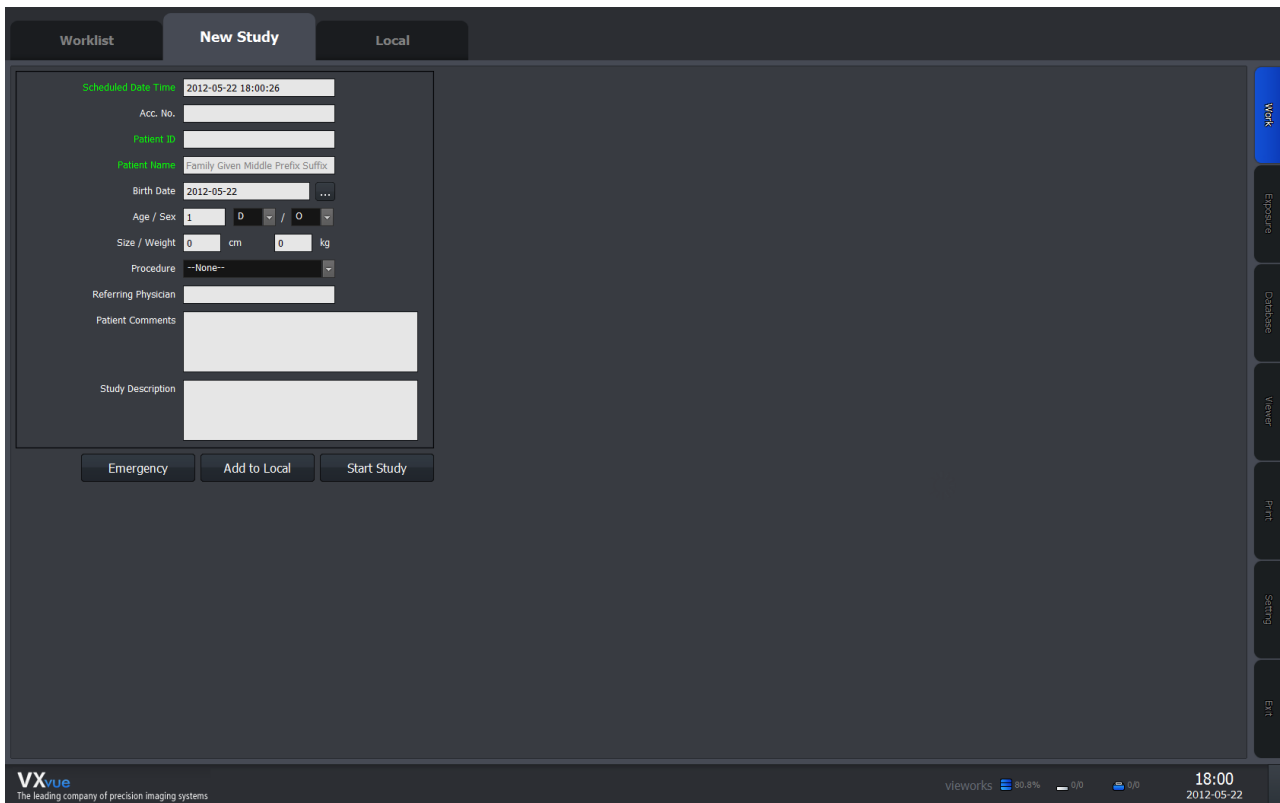


Figure 3.5 New Patient Panel

You can enter patient information manually and then start study.



For more information about how to configure mandatory and optional registration fields, refer to chapter [8.2 “Work Settings”](#).

3.2.1 Register Patient

Input the following information to register patients.

- Scheduled Date Time
- Acc.No
- Patient ID
- Patient Name
- Birth Date
- Age / Sex
- Size / Weight
- Procedure: Bundle of steps
- Referring Physician: Physician name who issued the study
- Patient Comments
- Study Description



For more information about how to configure Procedure, refer to chapter [8.6 “Procedure Settings”](#).

3.2.1.1 Emergency

Register emergency patients.



Emergency patient's ID will be saved based on the current date and time, whereas the currently inputted information will not be saved.

3.2.1.2 Save to Local

Save the entered patient information to local database.

3.2.1.3 Start Study

Initiate study with entered patient information.

3.3 Local Panel

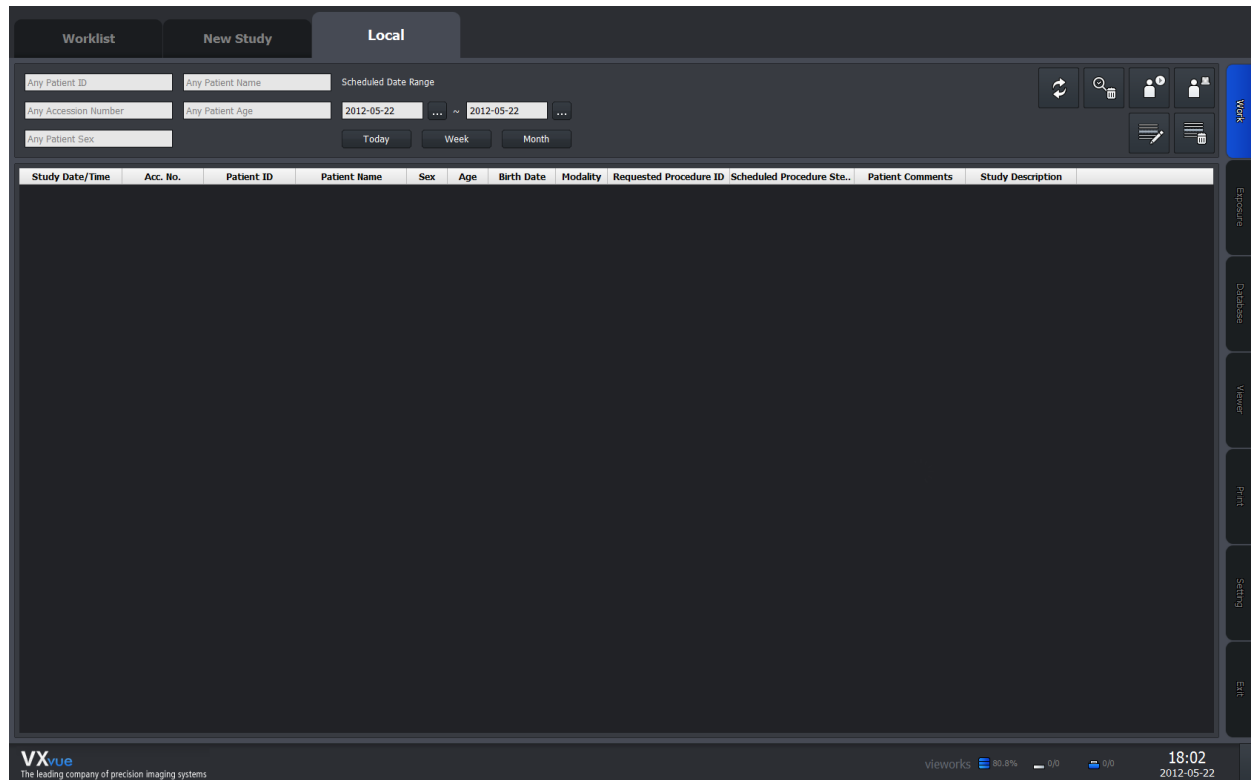


Figure 3.6 Local Panel

3.3.1 Search Conditions

You can search from the local using the following options.

- Patient ID: Input a patient ID to search.
- Patient Name: Input a patient name to search.
- Accession Number: Input a patient's accession number to search.
- Patient Age: Input a patient's age (Y: year, M: month, D: day).
- Patient Sex: Input a patient's gender (F: female, M: male, O: others).
- Scheduled Date Range: Input a specific period of time to search.

3.3.1.1 Today

Search the local study registered today.

3.3.1.2 Week

Search the latest local study registered within a week.



3.3.1.3 Month

Search the latest local study registered within a month.

3.3.2 Search



Execute a search on local database with entered search conditions.



Search results will be retrieved from local database.

3.3.3 Clear Search Conditions



Clear the previously entered search conditions.



To search without search conditions, click the Search button after clicking this button.



3.3.4 Start Study



Initiate study with the selected local study.

3.3.5 Register Emergency Patient



Register emergency patients.



Emergency patient's ID will be saved based on the current date and time.

3.3.6 Modify Study Information



Modify study information on local database.



Changing study information on local database will not change previously performed study information.



3.3.7 Deleting Study Information



Delete study information saved on local database.



Deleting study information on local database will not delete previously performed study information.

3.3.8 Search Results



For more information, refer to chapter [3.1.7 “Search Results”](#).



4. Exposure Mode

Exposure Mode allows you to acquire images for the registered patient as well as to perform image processing for the acquired images.

4.1 Exposure

You can acquire an image for registered patient. If VXvue is configured to interface with an X-ray generator, you can control the value for X-ray dose with VXvue. Additionally, you can choose which detector to use if two or more ViVIX-S detectors are connected.



You can quickly switch to Exposure Mode by double clicking the acquired image in the Image Processing Mode. Refer to chapter [4.2 "Image Processing"](#) for more information.

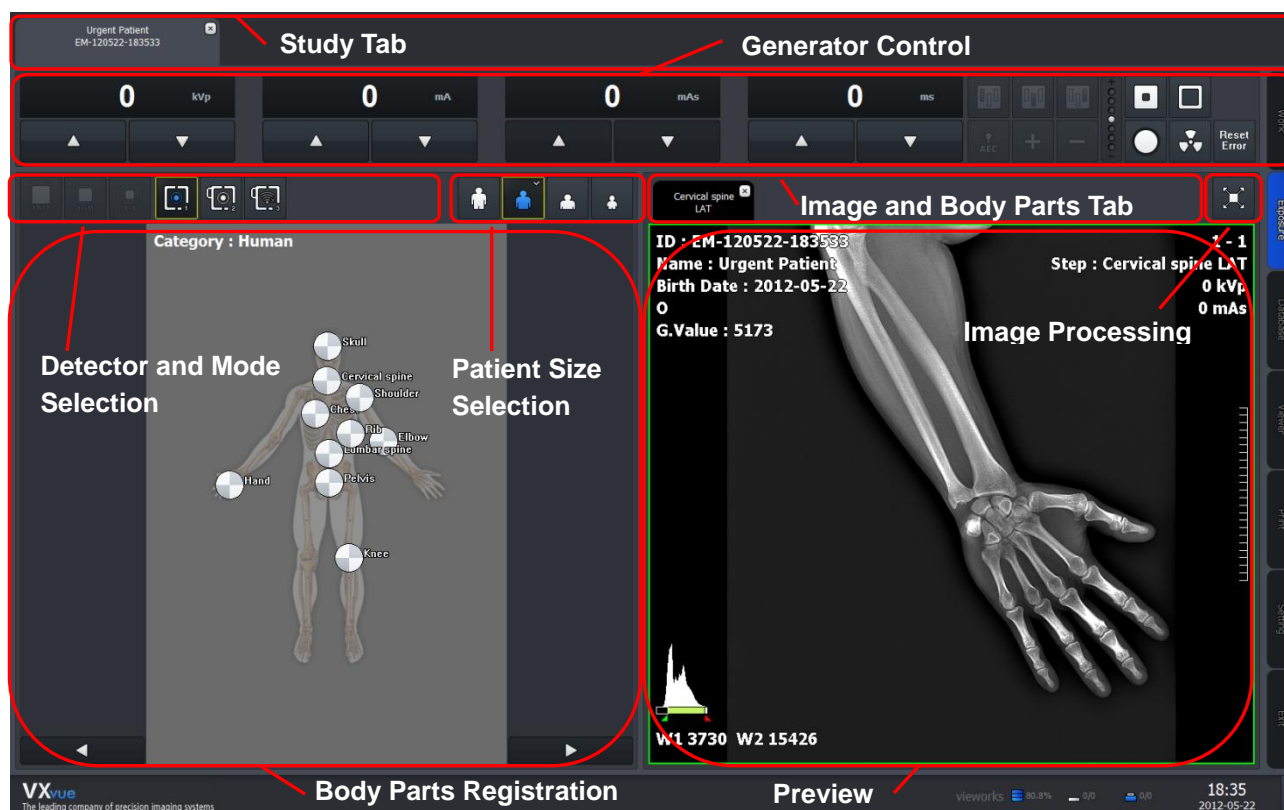


Figure 4.1 Exposure Mode

4.1.1 Study Tab

- Swap between studies.
- Close selected study.

4.1.2 Generator Control

Generator Control is supported only when VXvue is configured to interface with an X-ray generator.

- Set X-ray dose value; kVp, mA, mAs and ms.
- Set whether to use AEC and configure AEC settings.
- Verify the readiness of the X-ray generator and exposure status.



If a generator is not configured, Generator Control will not be displayed on the screen.

4.1.3 Detector and Mode Selection

- Choose the detector to use for exposure.
- Choose the detector mode.
 - The detector mode button can be activated or deactivated depending on the specification of detectors.
 - Right click the detector mode button or press and hold it for 1.5 seconds to display status information of the detector.

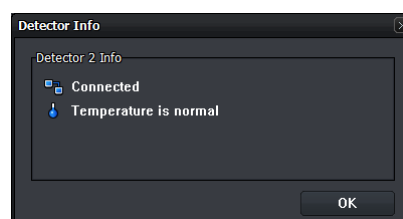


Figure 4.2 Detector Status Information



4.1.4 Body Part Registration

Register Body Parts to acquire images.



shape provides two types of shortcut.

- **Body Part Shortcut:** When you click the **Body Part** shortcut, the **Projection** buttons appear on each side of Body Part Registration window. To register the step as a scheduled study, click the **Projection** button again.
- **Step Shortcut:** When you click the **Step** shortcut, the step will be registered as a scheduled study immediately.



For more information about registering the shortcut, refer to chapter [8.3 “Exposure Settings”](#).

4.1.5 Patient Size Selection

- Select the size of patient. The setting value for image processing and X-ray generator dose vary depending on the patient size.

4.1.6 Image and Body Parts Tab

- View the images of current study.
- Select the Body Parts registered for the current study.

4.1.7 Image Processing Mode

- View the images of current study in the image processing mode.

4.1.8 Preview

- Verify the acquired images.
- Display information of images.
- Adjust Window Level by pressing and holding the right mouse button, then dragging the mouse.

4.2 Image Processing



You can quickly switch to Image Processing Mode by double clicking the acquired image in the Exposure mode. Refer to chapter [4.1 “Exposure”](#) for more information.

- Perform image processing for acquired images using various parameters.
- Add annotations to the acquired images.
- Manipulate the acquired images.
- Stitch the acquired images to make a composed image.
- Transfer the acquired images to Storage server or DICOM printer server.

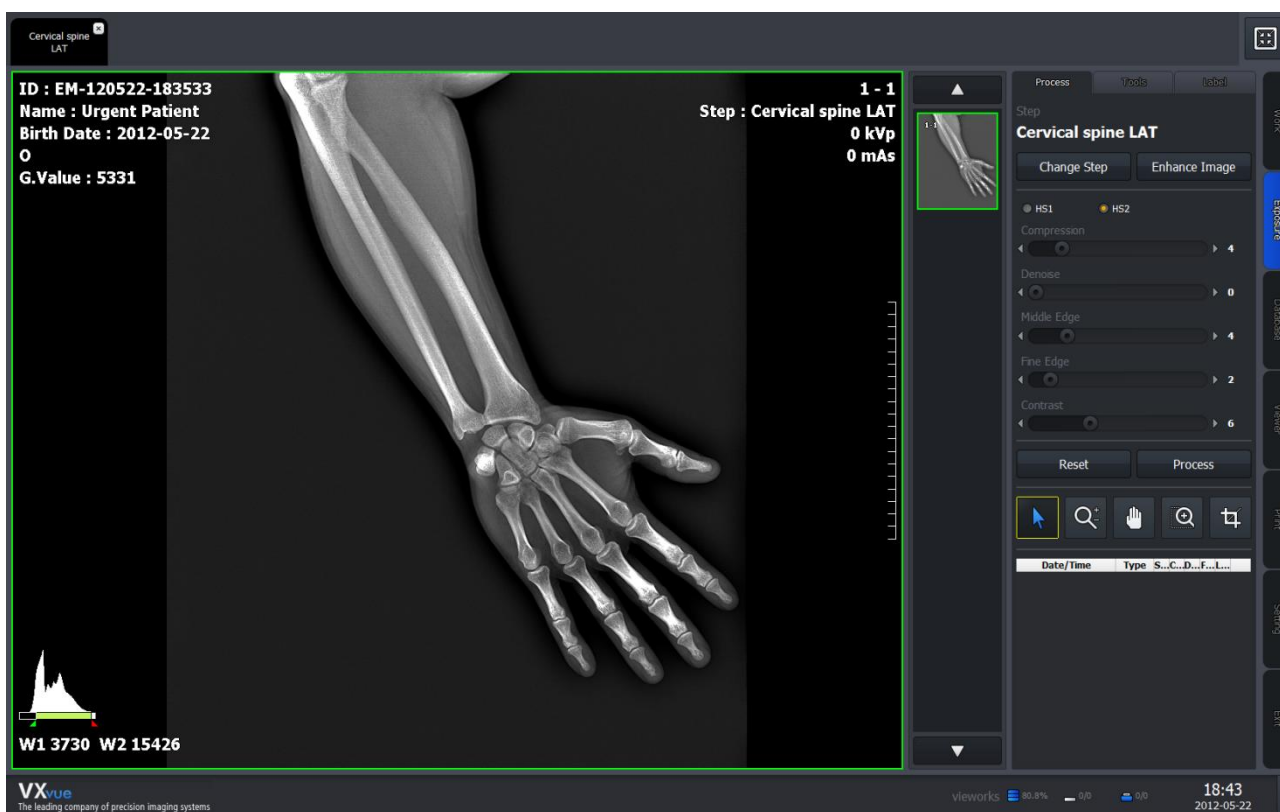


Figure 4.3 Image Processing

4.2.1 Switching to Exposure Mode

- Exit the image processing mode and switch back to the previous exposure mode.

4.2.2 Process Panel

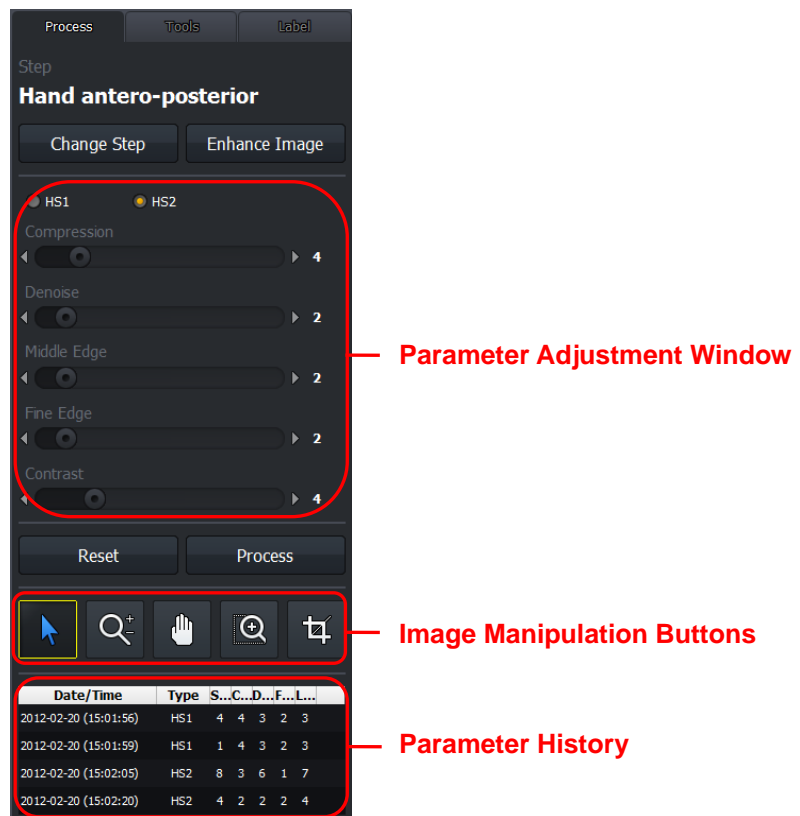


Figure 4.4 Process Panel

- Perform image processing for acquired images using various parameters.
- Click the **Change Step** button to change Body Part of the image. Then image will be reprocessed with predefined parameters which are associated with the changed Body Part.
- Click the **Enhance Image** button to reprocess the image with the image processing parameters which are associated with the selected Body Part.
- Click the **Reset** button to reprocess the image with the image processing parameters which are associated with the current image's Body Part.
- Modify the parameter values in the Parameter Adjustment Window and click the **Process** button to reprocess the image.
- Double click the parameter history to reprocess the image with previously applied parameters.
- Click the Image Manipulation buttons to manipulate the image. These buttons can be removed from the dock by clicking the right mouse button. Also, you can add additional buttons to the dock by clicking the right mouse button on Tools Panel. For more information about [Tools Panel](#), refer to chapter [4.2.2](#).

4.2.3 Tools Panel

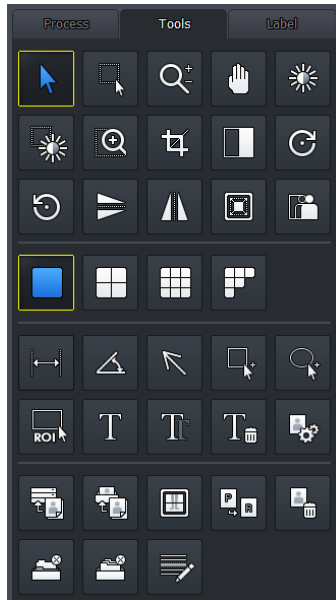


Figure 4.5 Tools Panel

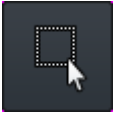
4.2.3.1 Select



This is the default mouse pointer state.

Clicking the **Select** icon on the Tools Panel will deactivate the currently activated functions.

4.2.3.2 Select All



Select all images in the current study.



You can apply the following image manipulation functions to all selected images at once.

- Invert, clockwise rotation, counterclockwise rotation, flip vertical, flip horizontal, fit to screen, actual size view, transfer to storage server, DICOM print, convert to raw image, delete image

4.2.3.3 Zoom



Enable interactive zooming by pressing and holding the mouse left button and dragging the mouse.

To zoom in and zoom out,

- Click the **Zoom** icon on the Tools Panel.
- Move the mouse pointer to the main image window then the mouse pointer will be changed to a magnifying glass.
- Press and hold the left mouse button and drag the mouse on the image to control zooming.
 - Zoom in – Drag the mouse upward on the image.
 - Zoom out – Drag the mouse downward on the image.
- Release the mouse button to finish zooming.

4.2.3.4 Panning



Perform panning the image.

To perform panning,

- Click the **Pan** icon on the Tools Panel.
- Move the mouse pointer to the main image window then the mouse pointer will be changed to hand shape.
- Press and hold the left mouse button while dragging the image to the desired position.

4.2.3.5 Window Level



Adjust the window level – brightness and contrast of an image.

The current window level values are shown in the left bottom of the image.

To adjust the window level of an image,

- Click the Window/Level icon on the Tools Panel.
- Move the mouse pointer into the image area then mouse pointer will be changed.
- Drag the mouse while pressing and holding the left mouse button.

4.2.3.6 Pick W/L (Window Level)



Adjust the window level - brightness and contrast of the image based on the selected region of interest.

The current window level values are shown in the left bottom of the image.

4.2.3.7 Magic Glass



Magnify a local region of interest.

To magnify a local region of interest,

- Click the **Magic Glass** icon on the Tools Panel.
 - Move the mouse pointer into the image area then mouse pointer will be changed.
 - Press and hold the left mouse button while dragging it to the detail in the image that you want to magnify.
- The image around the position of the mouse pointer appears enlarged by a factor of 2 to the current image scale.



Figure 4.6 Magic Glass

4.2.3.8 Crop



Crop an image.

To crop an image,

- Click the **Crop** icon, then the rectangle shutter will be displayed in green dotted line.



Figure 4.7 Crop

- Locate the mouse pointer on the dotted line.
- Drag the dotted line to adjust shutter.
- Locate the mouse pointer inside of the dotted line in green.
- Drag the rectangle to the cropping area.



To make shutter size to fit to the entire image size, locate the mouse pointer inside of the shutter and double-click the left mouse button.

4.2.3.9 Invert



Invert black and white of an image.

To invert an image,

- Click the **Invert** icon on the Tools Panel.

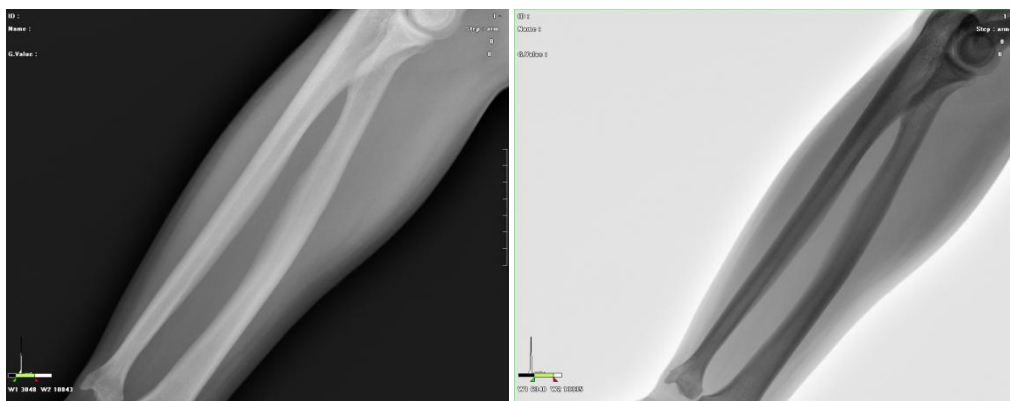


Figure 4.8 Invert

4.2.3.10 Clockwise Rotation



Rotate an image by 90° clockwise.

4.2.3.11 Counterclockwise Rotation



Rotate an image by 90° counterclockwise.

4.2.3.12 Flip Vertical



Flip an image vertically.



Figure 4.9 Flip Vertical

4.2.3.13 Flip Horizontal



Flip an image horizontally.

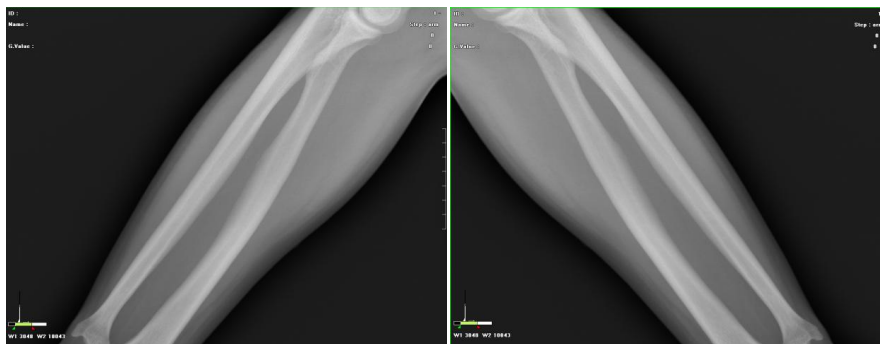


Figure 4.10 Flip Horizontal

4.2.3.14 Fit to Screen



Fit an image to the main image window size.

If the image is cropped, the cropped area of the image will be fit to the window.

4.2.3.15 1:1 (Actual Size View)



Display an image in its actual size.



You must configure the pixel size of the monitor as described in chapter [8.1.3](#) “[Miscellaneous Panel](#)”. This function may malfunction if the pixel size of the monitor is configured incorrectly or not configured.

4.2.3.16 1×1 Layout



Display one image on the main image window.



Figure 4.11 1×1 Layout

4.2.3.17 2×2 Layout



Display four images on the main image window.



Figure 4.12 2×2 Layout

4.2.3.18 3×3 Layout



Display nine images on the main image window.

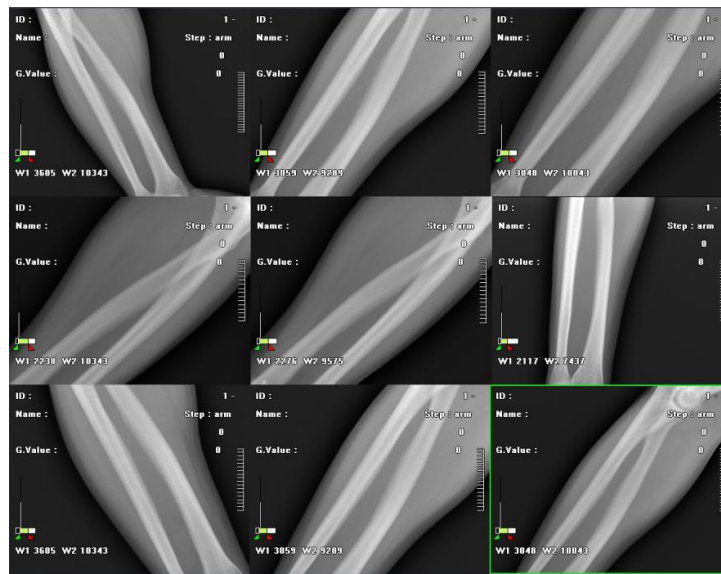


Figure 4.13 3×3 Layout



4.2.3.19 User Defined Layout



Allow to customize the image layout of main image window.

To customize image layout,

- Click the **User Defined Layout** icon on the Tools Panel, then the following dialog box will appear.

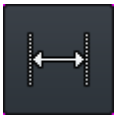


Figure 4.14 User Defined Layout

- Select the image layout by dragging the mouse over the grid until the right numbers of rows and columns are highlighted.
- Click the **OK** button. Then the layout will be changed.



4.2.3.20 Distance



Measure distances between two points on the image.



You must configure Pixel Spacing option for each detector exactly through VXSetup. Otherwise, discrepancies may occur between the measured distance and the actual distance.

To draw a line and measure distance,

- Click the **Distance** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to the ruler shape.
- Press and hold the left mouse button while dragging it from one point to another to draw a line.
- The distance between two points will be displayed automatically.

To modify measurements,

- Click the **Select** icon.
- Click the measured line, select the end of line, and then press and hold the mouse left button while dragging the mouse to the desired position.

To delete a line,

- Click the **Select** icon.
- Click the measured line and press the **Delete** key.

4.2.3.21 Angle



Measure the angle between three points over an image. When you complete drawing an angle, the value of the angle will be computed and displayed automatically.

To draw an angle,

- Click the **Angle** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed.
- Press and hold the left mouse button while dragging it to the desired position, then the measured angle will be displayed.
- Click the **Select** icon on the Tools Panel. Select the end point of the angle and then press and hold the left mouse button while dragging it to another location. The value of the angle will be displayed automatically.

To delete an angle,

- Click the **Select** icon.
- Click the angle indicator.
- Press the **Delete** key.

4.2.3.22 Arrow



Draw an arrow on the image.

To draw an arrow,

- Click the **Arrow** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to arrow shape.
- Press and hold the left mouse button while dragging it from one point to another to draw an arrow.

To move an arrow,

- Click the **Select** icon, select the arrow and then press and hold the left mouse button while dragging it.

To resize an arrow,

- Click the **Select** icon, select the arrow, locate the mouse pointer on the one end of the arrow and then press and hold the left mouse button while dragging it.

To delete an arrow,

- Click the **Select** icon, select the arrow and then press the **Delete** key.



4.2.3.23 Rectangle



Draw a rectangle over an image to indicate a region of interest.

To draw a rectangle,

- Click the **Rect** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to rectangle shape.
- Press and hold the left mouse button while dragging the mouse to the desired position.

To move the rectangle,

- Click the **Select** icon and locate mouse pointer on the line of the rectangle, then press and hold the left mouse button while dragging the mouse to the desired position.

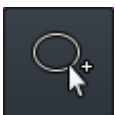
To resize the rectangle,

- Click the **Select** icon, select the rectangle, locate mouse pointer on the corner of the rectangle and then press and hold the left mouse button while dragging the mouse to desired position.

To delete the rectangle,

- Click the **Select** icon and select the rectangle, then press the **Delete** key.

4.2.3.24 Ellipse



Draw an ellipse (including circle) over an image for indicating a region of interest.

To draw an ellipse,

- Click the **Ellipse** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to ellipse.
- Press and hold the left mouse button while dragging the mouse to the desired position.

To move the ellipse,

- Click the **Select** icon, select the line of the ellipse and then press and hold the left mouse button while dragging the mouse to the desired position.

To resize the ellipse,

- Click the **Select** icon, select the ellipse, locate the mouse pointer on the corner of the ellipse and then press and hold the left mouse button while dragging the mouse to the desired position.

To delete the ellipse,

- Click the **Select** icon, select the ellipse and then press the **Delete** key.



4.2.3.25 Displaying ROI Information



Display information of rectangular region of interest.

To move a rectangle,

- Click the **Select** icon, select the rectangle and press and hold the left mouse button while dragging it to the desired position.

To resize the rectangle,

- Click the **Select** icon, select the rectangle, locate mouse pointer on the corner of the rectangle and then press and hold the left mouse button while dragging it to the desired position.

To delete the rectangle,

- Click the **Select** icon, select the rectangle and then press the **Delete** key.

4.2.3.26 Text Note



Attach notes to the image.

To add a text note,

- Click the **Text** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to T shape.
- Drag the mouse over a rectangle area where you want to add a text note.
- Type in the textbox. To finish typing, move the mouse pointer out of the text box.

To move the text note,

- Click the **Select** icon, select the text note and press and hold the left mouse button while dragging it to the desired position.

To resize the text box,

- Click the **Select** icon, select text note, locate mouse pointer on the corner of the text box and then press and hold the left mouse button while dragging it to the desired position.

**To delete the text note,**

- Click the **Select** icon, select text note and then press the **Delete** key.

To modify the text note,

- Click the **Select** icon and then select text note while pressing the **Ctrl** key.

4.2.3.27 Show/Hide Annotations

Show or hide annotations on the image.

To show/hide annotations,

- Click the **Hide Ann** icon on the Tools Panel.
- If the **Hide Ann** button is deactivated, the annotations will be displayed on the image.
- If the **Hide Ann** button is activated, the annotation will be hidden.



If you add an annotation when the Hide Ann button is activated, the Hide Ann button will be automatically deactivated.

4.2.3.28 Delete Annotations

Delete the selected annotations.

To delete annotations,

- Click the **Select** icon, select an annotation and then click the **Delete Ann.** button.
- To delete multiple annotations, click the **Select** icon, select annotations while pressing the **Ctrl** key, and then click the **Delete Ann.** button.

4.2.3.29 Image Process



Change image process parameters and apply them to the currently selected image.

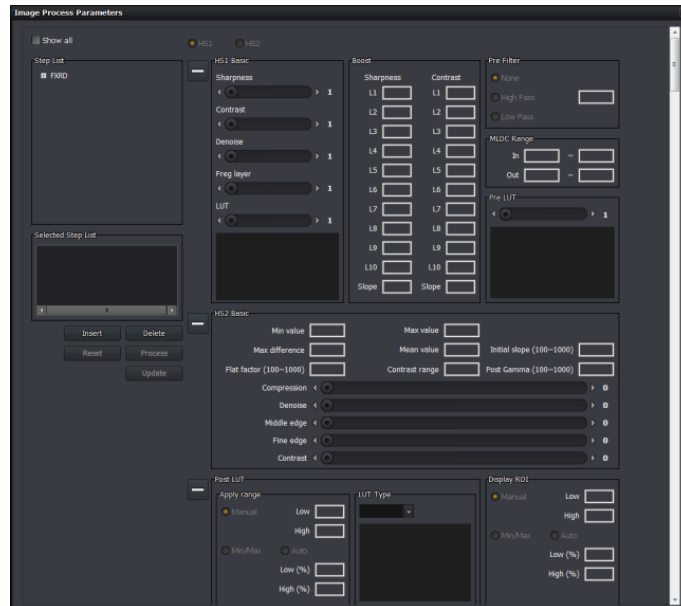
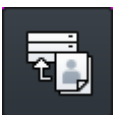


Figure 4.15 Image Process Parameters



For more information, refer to chapter [8.6.2 “Step Panel”](#).

4.2.3.30 Transfer



Transfer images to DICOM server.



The image will be transferred to all servers which are registered on DICOM storage configuration.

4.2.3.31 Print



Print images.

Select the image to print and click the **Print** button to switch to “[Print Mode](#)” described in chapter [7](#).

4.2.3.32 Stitch

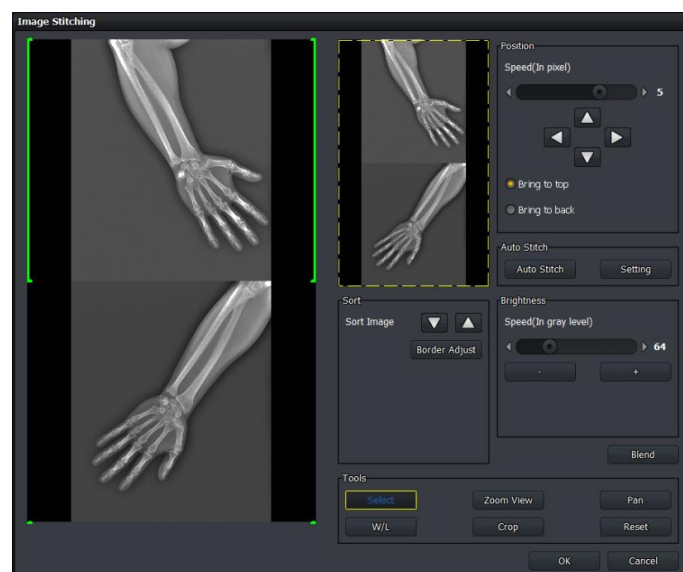


Figure 4.16 Stitch

To stitch images,

- Select images.
- Click the **Stitch** button, then the **Image Stitching** dialog will appear.
- Adjust the border.
- Align images by moving images.
- Adjust brightness of image and click the **Blend** button to blend if needed.
- Click the **OK** button.
- Assign step, then new study will be created with stitched image in database.

Border Adjust Menu

- Crop unnecessary area from the image.
- After adjusting, click the **Border Confirm** button to apply adjusted border.

**To adjust border,**

- Click the **Border Adjust** button.
- Click the image and drag the green dotted line to crop.
- Click the **Border Confirm** button.

Sort Image Menu

- Set the position of the images.

To sort images,

- Click the image.
- Click ^ to move image upward or click v to move image downward.

Auto Stitch Menu

- Align images automatically.

Position Menu

- Align images by moving images manually.

To align images,

- Click the image.
- Set speed of moving the image.
- Put image to front or back.
- Click ^ to move image upward.
- Click v to move image downward.
- Click > to move image right.
- Click < to move image left.

Brightness Menu

- Adjust offset of brightness for the image to match brightness of images.
- Click the image.
- Set speed of brightness adjustment.
- Click + or - button to adjust.
 - +: Increase brightness offset
 - -: Decrease brightness offset

Blend

- Blend the brightness of each border to eliminate the difference in brightness.

Reset

- Reset all adjustments and modifications to initial state.



The stitched image will be added to the study which original images belong to.
Image information such as patient, study and series information will be inherited from the original images

4.2.3.33 Convert to Raw Image



Restore images to raw images.

4.2.3.34 Delete Image



Delete selected images.

4.2.3.35 Close Study



Close the current study.

4.2.3.36 Close All Study



Close all open studies.

4.2.3.37 Modifying Patient Information



Modify patient information registered on the current study.

To modify patient information,

- Click the **Edit Patient** button, then the **Edit Patient** dialog will appear.

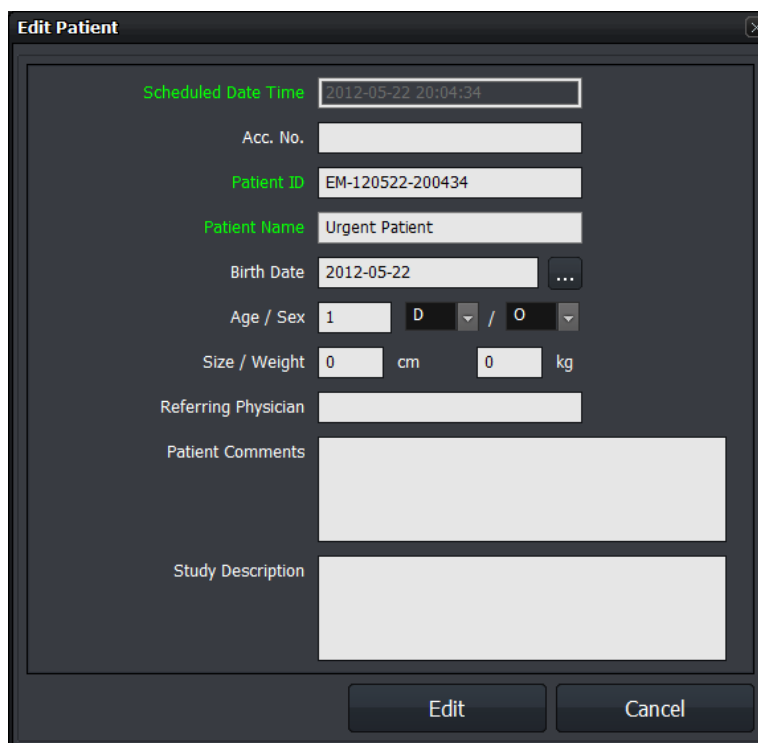


Figure 4.17 Modifying Patient Information

- Modify patient information and click the **Edit** button.



For more information about how to configure mandatory and optional registration fields, refer to chapter [8.2 “Work Settings”](#).

4.2.4 Label Panel

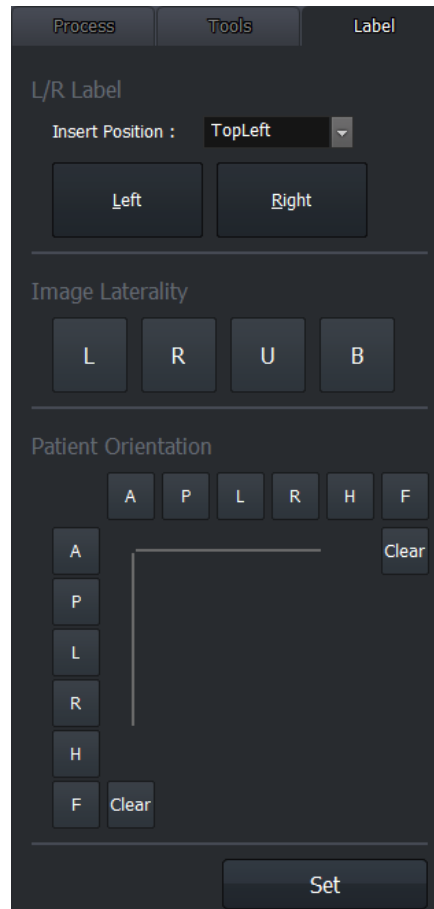


Figure 4.18 Label Panel

4.2.4.1 L/R Label

Put L/R Label on the image.

To put L/R label,

- Choose the position to put L/R label from the **Insert Position** dropdown list.
- Click the **Left** or **Right** button.

To remove the label,

- Select the label and press the **Delete** key.



4.2.4.2 Image Laterality

Set laterality of the image.

To input image laterality,

- Click the **L**, **R**, **U** or **B** button to select image laterality (defined by DICOM).
- Click the **Set** button to apply.

4.2.4.3 Patient Orientation

Set the patient orientation.

To input patient orientation,

- Click the orientation button to input patient orientation (defined by DICOM).
- Click the **Set** button to apply.

5. Database Mode

Database Mode allows you to retrieve past studies.

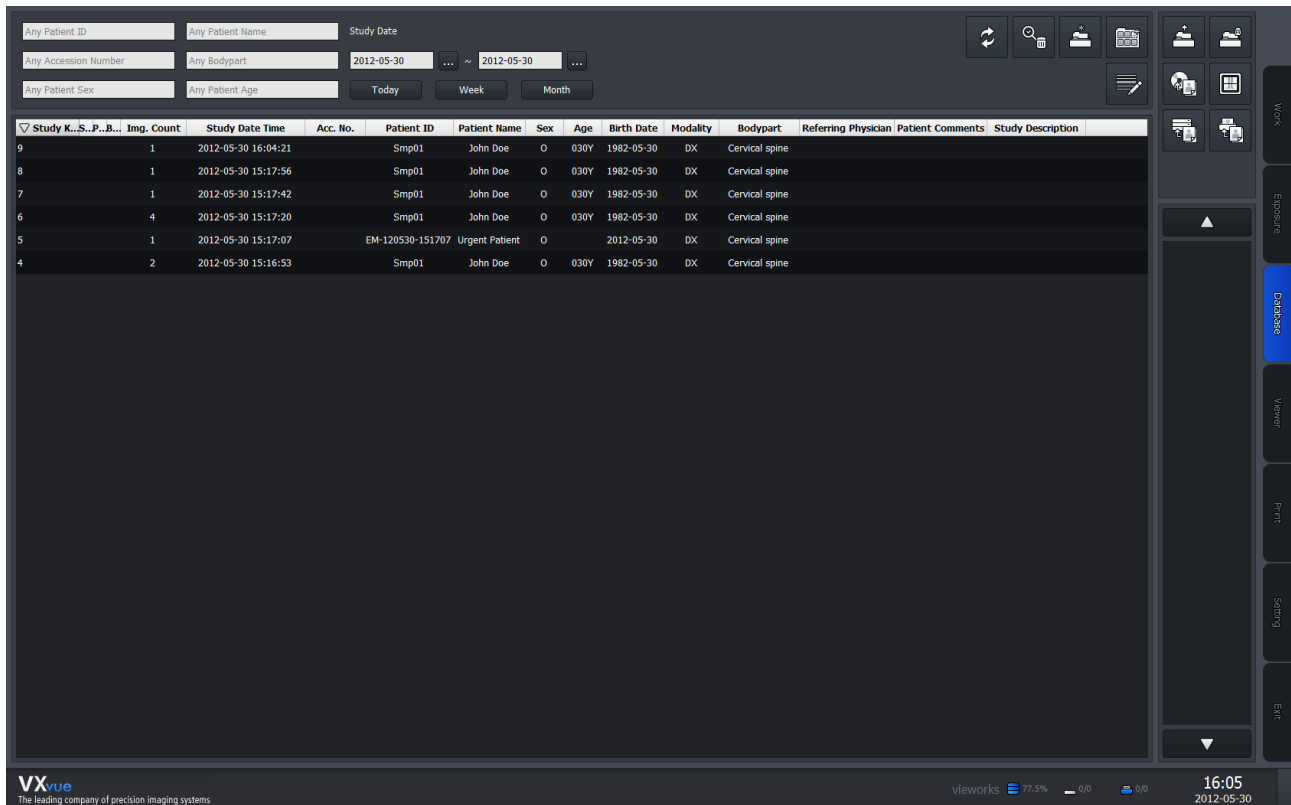


Figure 5.1 Database Mode

5.1 Database Search

You can search for studies on database.

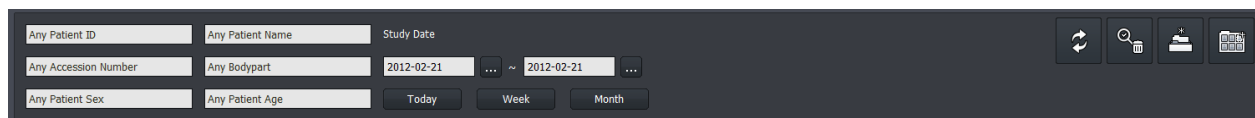


Figure 5.2 Database Search



5.1.1 Search

Search studies with selected conditions.

To search with search conditions,

- Enter the search conditions such as patient ID, name, accession number, Body Part, sex, age, etc, then click the **Search** button.

To search with date range,

- Input a specific period of time to search and click the **Search** button.

To search with search buttons,

- Today: Search the study examined today.
- Week: Search the study examined within a week.
- Month: Search the study examined within a month.

5.1.2 Insert



Insert new image(s) into the study.

To insert images into the study,

- Select a study and click the **Insert** button to switch to "[Exposure Mode](#)" described in chapter [4](#).
- Acquire images on Exposure Mode.
- Close the **Patient** tab.

5.1.3 New Patient



Create a study for new patient.

To create a study,

- Click the **New Patient** button to switch to "[Exposure Mode](#)" described in chapter [4](#).
- Acquire images on Exposure Mode.
- Close the **Patient** tab.

5.2 Database Menu

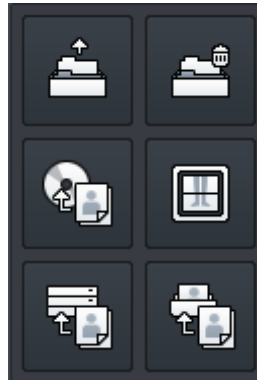


Figure 5.3 Database Menu

5.2.1 Open



Open the selected study.

To open a study,

- Select a study from the search results.
- Click the **Open** button.

5.2.2 Delete

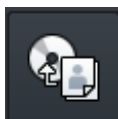


Delete the selected study.

To delete a study,

- Select a study from the search results.
- Click the **Delete** button.

5.2.3 Export



Export or convert the selected images from the study.

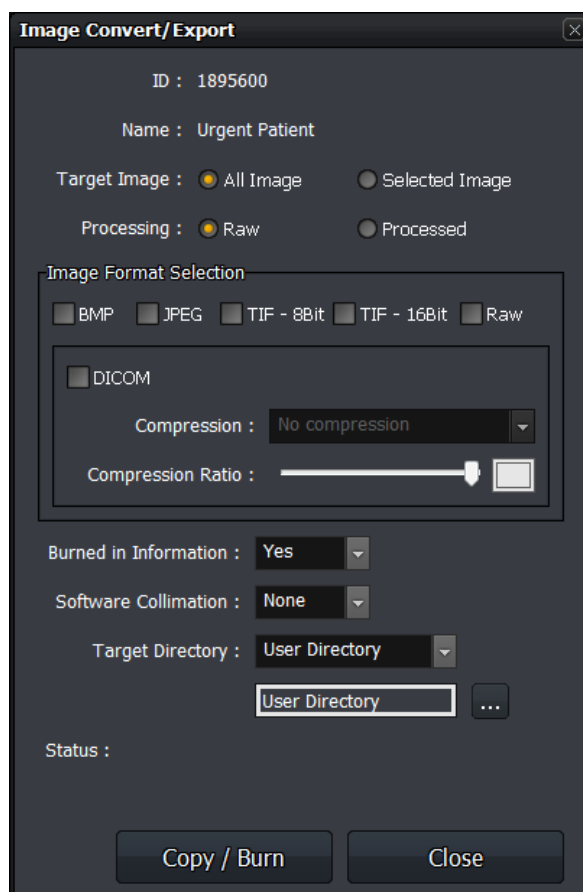


Figure 5.4 Converting/Exporting Image

5.2.4 Stitch



Stitch the images from the study.

To stitch images,

- Select two or more images from the selected study.
- Click the **Stitch** button.
- For more information, refer to chapter [4.2.2.28 “Stitch”](#).



5.2.5 Send



Send the selected images from the study to DICOM server.

5.2.6 Print



Print the selected images from the study.

6. Viewer Mode

Viewer Mode allows you to open the study searched on Database Mode.

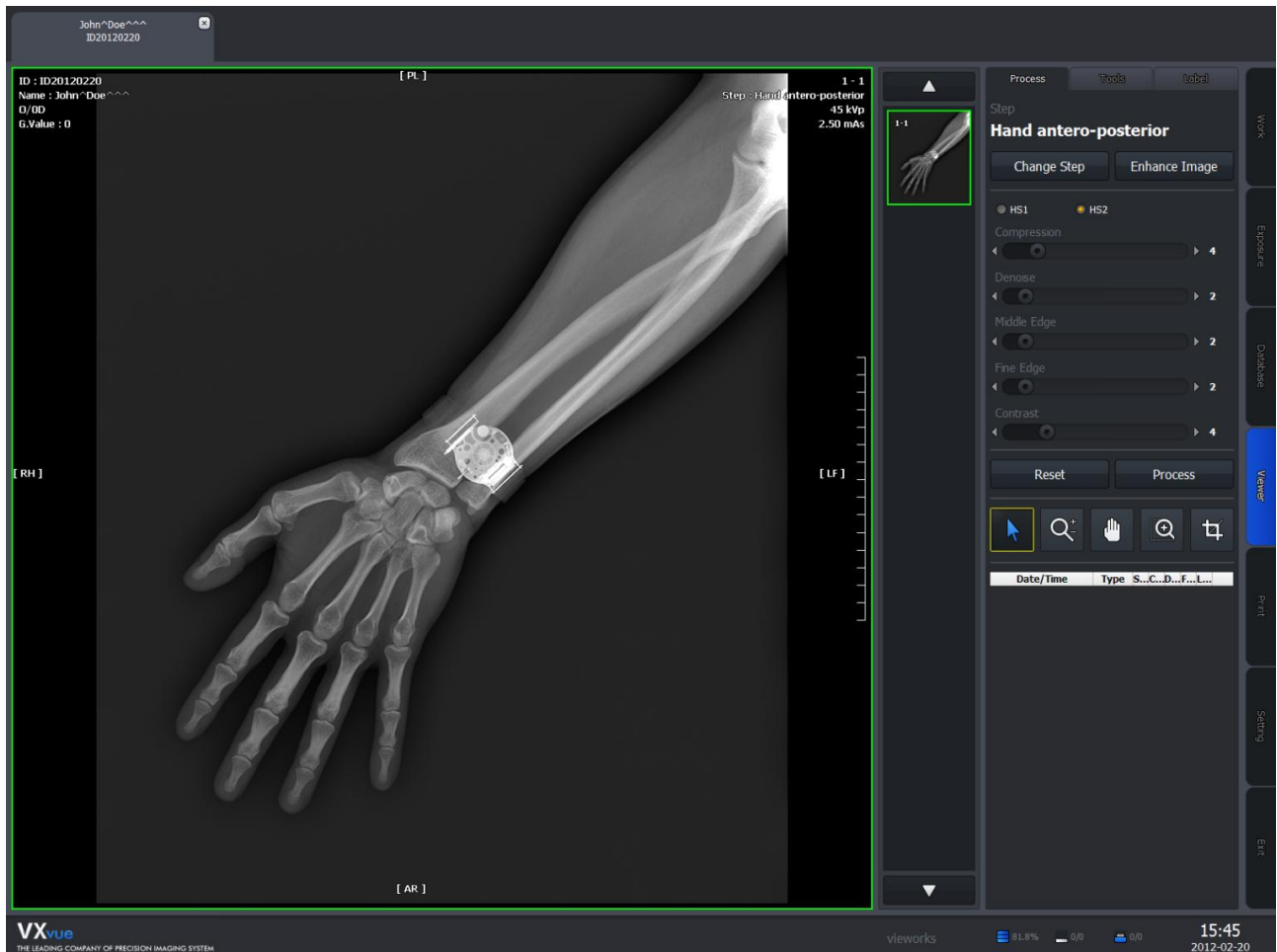


Figure 6.1 Viewer Mode



For more information about Viewer Mode, refer to chapter [4.2](#) “[Image Processing](#)”.

7. Print Mode

Print Mode allows you to print images using DICOM printer.

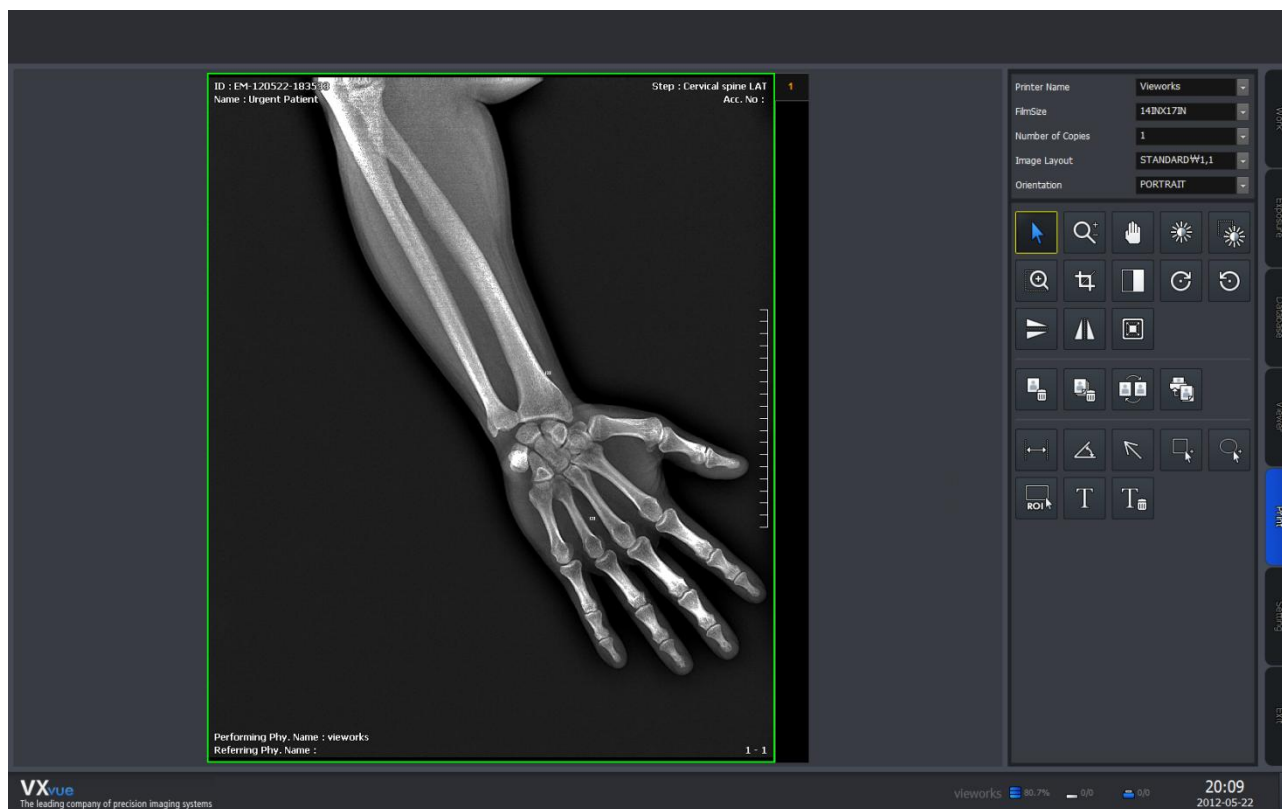


Figure 7.1 Print Mode

7.1 Printer and Page Setup

Printer Name	Viewworks
FilmSize	14INX17IN
Number of Copies	1
Image Layout	STANDARD W1,1
Orientation	PORTRAIT

Figure 7.2 Printer and Page Setup

- **Printer Name:** Name of DICOM printer to be used for printing
- **FilmSize:** Size of printed materials
- **Number of Copies:** Number of copies to print
- **Image Layout:** Type of image layout
- **Orientation:** Type of image orientation



- Values displayed in red color are different from the values configured on "[Print Panel](#)" described in chapter [8.8.4](#). These modifications are not saved.
- For more information about configuring DICOM print server, refer to chapter [8.8.4](#) "[Print Panel](#)".

7.2 Image Manipulation Buttons

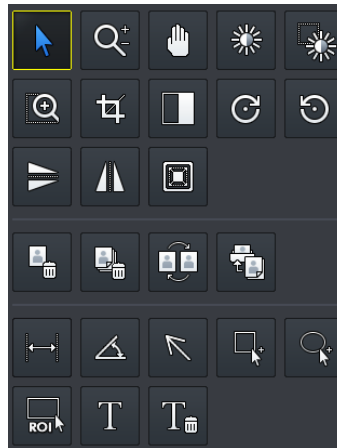


Figure 7.3 Image Manipulation Buttons

7.2.1 Select



This is the default mouse pointer state.

Clicking the **Select** icon on the Tools Panel will deactivate the currently activated functions.

7.2.2 Zoom



Enable interactive zooming by pressing and holding the mouse left button and dragging the mouse.

To zoom in and zoom out,

- Click the **Zoom** icon on the Tools Panel.
- Move the mouse pointer to the main image window then the mouse pointer will be changed to a magnifying glass.
- Press and hold the left mouse button and drag the mouse on the image to control zooming.
 - Zoom in – Drag the mouse upward on the image.
 - Zoom out – Drag the mouse downward on the image.
- Release the mouse button to finish zooming.

7.2.3 Panning



Perform panning the image.

To perform panning,

- Click the **Pan** icon on the Tools Panel.
- Move the mouse pointer to the main image window then the mouse pointer will be changed to hand shape.
- Press and hold the left mouse button while dragging the image to the desired position.

7.2.4 Window Level



Adjust the window level – brightness and contrast of an image.

To adjust the window level of an image,

- Click the Window/Level icon on the Tools Panel.
- Move the mouse pointer into the image area then mouse pointer will be changed.
- Drag the mouse while pressing and holding the left mouse button.

7.2.5 Pick W/L (Window Level)



Adjust the window level - brightness and contrast of the image based on the selected region of interest.

The current window level values are shown in the left bottom of the image.

7.2.6 Magic Glass



Magnify a local region of interest.

To magnify a local region of interest,

- Click the **Magic Glass** icon on the Tools Panel.
- Move the mouse pointer into the image area then mouse pointer will be changed.
- Press and hold the left mouse button while dragging it to the detail in the image that you want to magnify.
The image around the position of the mouse pointer appears enlarged by a factor of 2 to the current image scale.

7.2.7 Crop



Crop an image.

To crop an image,

- Click the **Crop** icon, then the rectangle shutter will be displayed in green dotted line.
- Locate the mouse pointer on the dotted line.
- Drag the dotted line to adjust shutter.
- Locate the mouse pointer inside of the dotted line in green.
- Drag the rectangle to the cropping area.



To make shutter size to fit to the entire image size, locate the mouse pointer inside of the shutter and double-click the left mouse button.

7.2.8 Invert



Invert black and white of an image.

7.2.9 Clockwise Rotation



Rotate an image by 90° clockwise.

7.2.10 Counterclockwise Rotation



Rotate an image by 90° counterclockwise.

7.2.11 Flip Vertical



Flip an image vertically.

7.2.12 Flip Horizontal



Flip an image horizontally.

7.2.13 Fit to Screen



Fit an image to the main image window size.

If the image is cropped, the cropped area of the image will be fit to the window.



7.2.14 Delete Image



Delete selected images from the printing list.

7.2.15 Delete All



Delete all images from the printing list.

7.2.16 Image Swap



Swap the position of selected two images.

7.2.17 Print



Print images according to configured options.



7.2.18 Distance



Measure distances between two points on the image.



You must configure Pixel Spacing option for each detector exactly through VXSetup. Otherwise, discrepancies may occur between the measured distance and the actual distance.

To draw a line and measure distance,

- Click the **Distance** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to the ruler shape.
- Press and hold the left mouse button while dragging it from one point to another to draw a line.
- The distance between two points will be displayed automatically.

To modify measurements,

- Click the **Select** icon.
- Click the measured line, select the end of line, and then press and hold the mouse left button while dragging the mouse to the desired position.

To delete a line,

- Click the **Select** icon.
- Click the measured line and press the **Delete** key.



7.2.19 Angle



Measure the angle between three points over an image. When you complete drawing an angle, the value of the angle will be computed and displayed automatically.

To draw an angle,

- Click the **Angle** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed.
- Press and hold the left mouse button while dragging it to the desired position, then the measured angle will be displayed.
- Click the **Select** icon on the Tools Panel. Select the end point of the angle and then press and hold the left mouse button while dragging it to another location. The value of the angle will be displayed automatically.

To delete an angle,

- Click the **Select** icon.
- Click the angle indicator.
- Press the **Delete** key.

7.2.20 Arrow



Draw an arrow on the image.

To draw an arrow,

- Click the **Arrow** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to arrow shape.
- Press and hold the left mouse button while dragging it from one point to another to draw an arrow.

To move an arrow,

- Click the **Select** icon, select the arrow and then press and hold the left mouse button while dragging it.

To resize an arrow,

- Click the **Select** icon, select the arrow, locate the mouse pointer on the one end of the arrow and then press and hold the left mouse button while dragging it.

To delete an arrow,

Click the **Select** icon, select the arrow and then press the **Delete** key.

7.2.21 Rectangle



Draw a rectangle over an image to indicate a region of interest.

To draw a rectangle,

- Click the **Rect** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to rectangle shape.
- Press and hold the left mouse button while dragging the mouse to the desired position.

To move the rectangle,

- Click the **Select** icon and locate mouse pointer on the line of the rectangle, then press and hold the left mouse button while dragging the mouse to the desired position.

To resize the rectangle,

- Click the **Select** icon, select the rectangle, locate mouse pointer on the corner of the rectangle and then press and hold the left mouse button while dragging the mouse to desired position.

To delete the rectangle,

- Click the **Select** icon and select the rectangle, then press the **Delete** key.

7.2.22 Ellipse



Draw an ellipse (including circle) over an image for indicating a region of interest.

To draw an ellipse,

- Click the **Ellipse** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to ellipse.
- Press and hold the left mouse button while dragging the mouse to the desired position.

To move the ellipse,

- Click the **Select** icon, select the line of the ellipse and then press and hold the left mouse button while dragging the mouse to the desired position.

To resize the ellipse,

- Click the **Select** icon, select the ellipse, locate the mouse pointer on the corner of the ellipse and then press and hold the left mouse button while dragging the mouse to the desired position.

To delete the ellipse,

Click the **Select** icon, select the ellipse and then press the **Delete** key.

7.2.23 Displaying ROI Information



Display information of rectangular region of interest.

To move a rectangle,

- Click the **Select** icon, select the rectangle and press and hold the left mouse button while dragging it to the desired position.

To resize the rectangle,

- Click the **Select** icon, select the rectangle, locate mouse pointer on the corner of the rectangle and then press and hold the left mouse button while dragging it to the desired position.

To delete the rectangle,

- Click the **Select** icon, select the rectangle and then press the **Delete** key.

7.2.24 Text Note



Attach notes to the image.

To add a text note,

- Click the **Text** icon on the Tools Panel.
- Move the mouse pointer to the main image window, then the mouse pointer will be changed to T shape.
- Drag the mouse over a rectangle area where you want to add a text note.
- Type in the textbox. To end typing, press the **Enter** key or click the **Select** icon on the Tools Panel. Then the background changes from white color to transparent.

**To move the text note,**

- Click the **Select** icon, select the text note and press and hold the left mouse button while dragging it to the desired position.

To resize the textbox,

- Click the **Select** icon, select text note, locate mouse pointer on the corner of the textbox and then press and hold the left mouse button while dragging it to the desired position.

To delete the text note,

- Click the **Select** icon, select text note and then press the **Delete** key.

To modify text note,

- Click the **Select** icon and then select text note while pressing the **Ctrl** key.

7.2.25 Delete Annotations



Delete the selected annotations.

To delete annotations,

- Click the **Select** icon, select an annotation and then click the **Delete Ann.** button.
- To delete multiple annotations, click the **Select** icon, select annotations while pressing the **Ctrl** key, and then click the **Delete Ann.** button.

8. Setting Mode

Setting Mode allows you to configure options for the device and software.



To access Setting Mode, you must be logged on as a member of the Admin or Service groups.

8.1 System Settings

8.1.1 System Panel

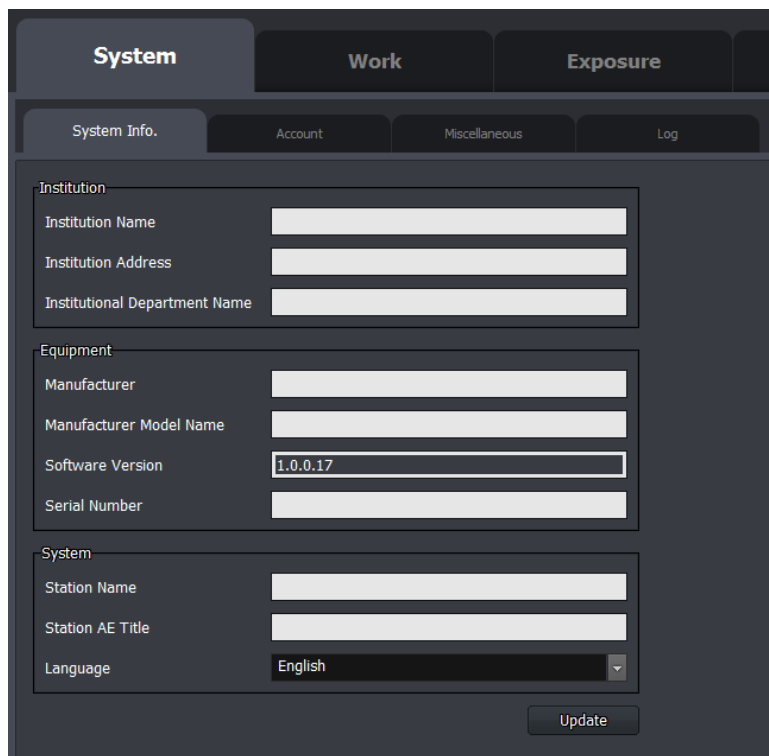


Figure 8.1 System Panel

You can configure the system properties on System Panel.



- Station Name inputted on System Panel will be used for searching studies described in chapter [3.1 “Worklist Panel”](#).
- Station AE Title inputted on System Panel will be used for searching Worklist, transferring or printing images.



8.1.2 Account Panel

ID	Name	Group
viewworks	viewworks	Service

Properties

User ID: viewworks

User Name: viewworks

Password: *****

Check password:

Group: Service

Update

Figure 8.2 Account Panel

You can manage login accounts on Account Panel.

More permissions are granted User, Admin and Service group in order.



- You cannot create an account which has more permissions than the currently logged in account.
- Currently logged in account cannot be removed.

8.1.3 Miscellaneous Panel

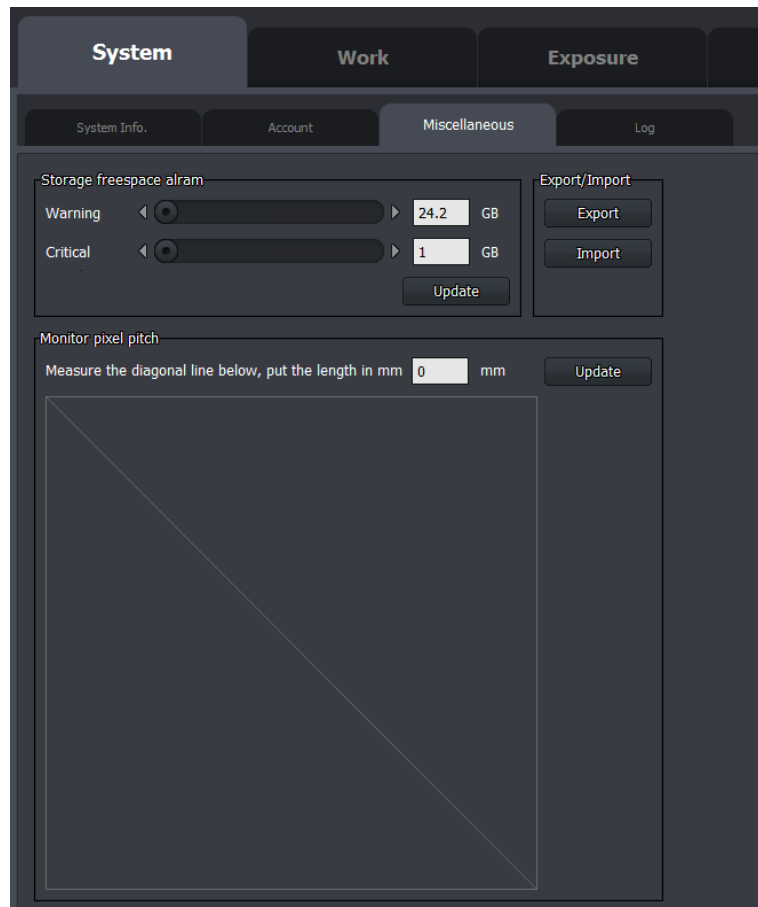


Figure 8.3 Miscellaneous Panel

- Set alarm threshold for free space on hard disk.



If free space on hard disk falls less than Critical level, you cannot acquire images.

- Set the pixel size of the monitor. Measure the diagonal line on the screen and enter the value in millimeters.



If the pixel size of the monitor is configured incorrectly or not configured, the Actual Size View may malfunction described in chapter [4.2.2.18 “1:1 \(Actual Size View\)”](#).
And also, you must configure the pixel size again when you change the monitor.



- Click the **Export** button to save settings as XML file format.
- Click the **Import** button to load settings from XML file.

The exportable or importable settings are as follows.

- Modifiable values on "[System Panel](#)"
- All settings on "[Miscellaneous Panel](#)"
- All settings on "[Work Settings](#)"
- "[Exposure Settings](#)"
- "[Viewer Settings](#)"
- "[LUT Settings](#)"
- All settings on "[Procedure Panel](#)"
- All settings on "[Step Panel](#)"
- All settings on "[Body Part/Projection Panel](#)"
- All settings on "[MWL Panel](#)"
- "[Storage Panel](#)"
- "[Print Panel](#)"
- Header settings on "[Worklist Panel](#)"
- Header settings on "[Local Panel](#)"
- Header settings on "[Database Mode](#)"

8.1.4 Log Panel

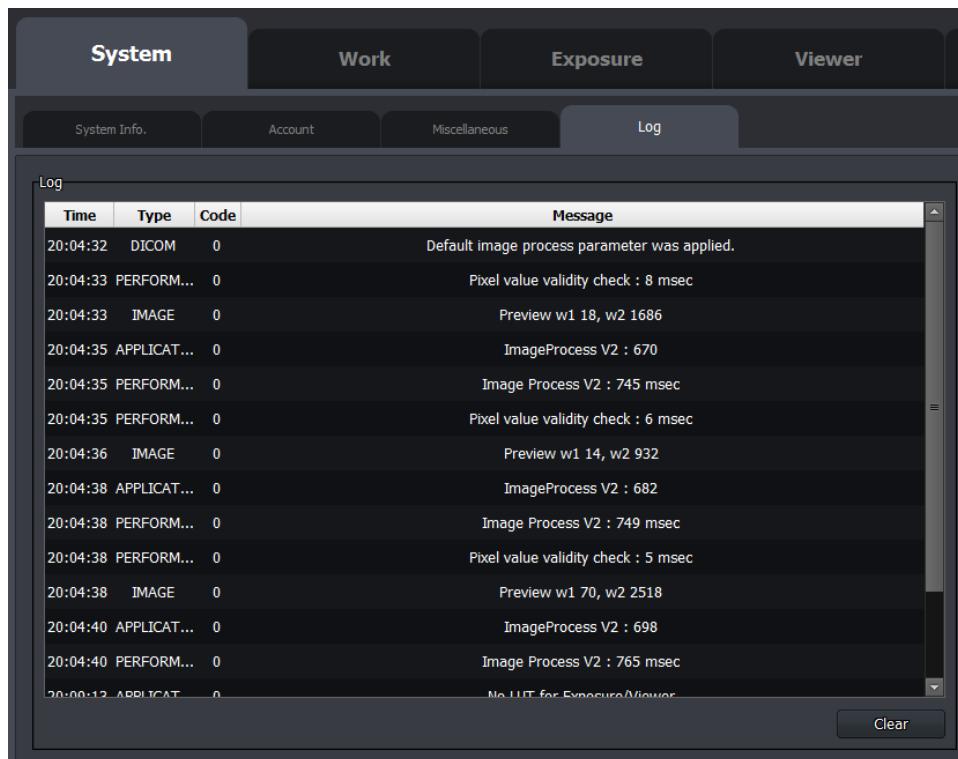


Figure 8.4 Log Panel

You can check the status of the system on Log Panel. VXvue can display up to 300 logs on Log Panel. To delete the currently registered logs, click the **Clear** button.

8.2 Work Settings

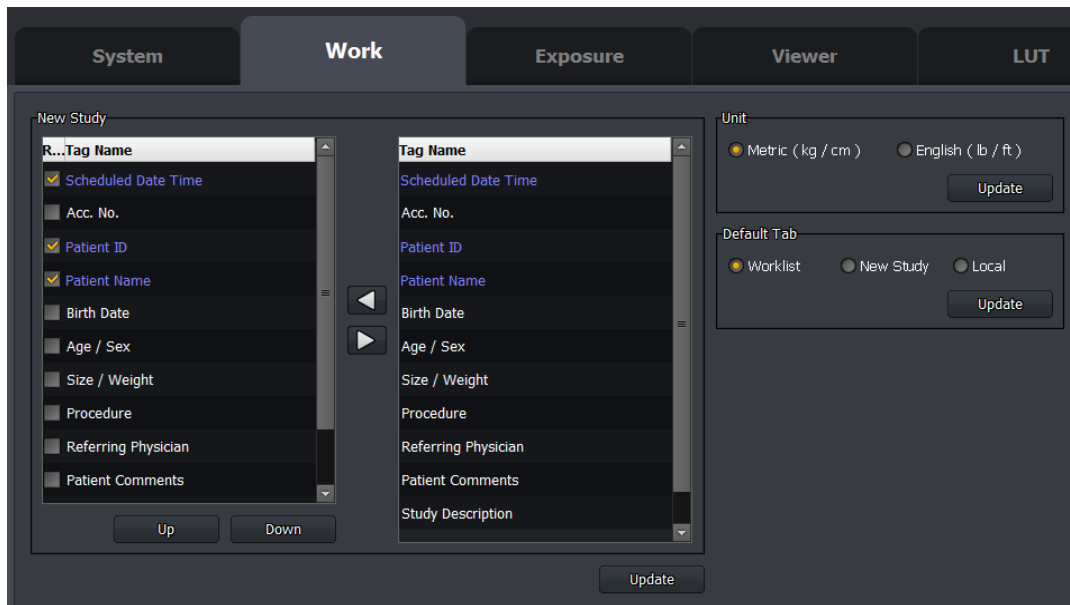


Figure 8.5 Work Settings

Work Settings Panel allows you to configure registration fields used for registering patients manually.

- Fields added / listed on the left hand side will be displayed on "[New Patient Panel](#)" described in chapter [3.2](#).
- Checked fields on the list indicate the mandatory fields for registering patient manually.
- Blue fields cannot be removed.
- Click the **Up** or **Down** button to sort the displayed fields.
- Under the **Unit** field, you can specify the unit of height or weight to be used when registering study manually.
- Under the **Default Tab** field, you can select a tab to be displayed on the Work Mode when VXvue is launched.

8.3 Exposure Settings

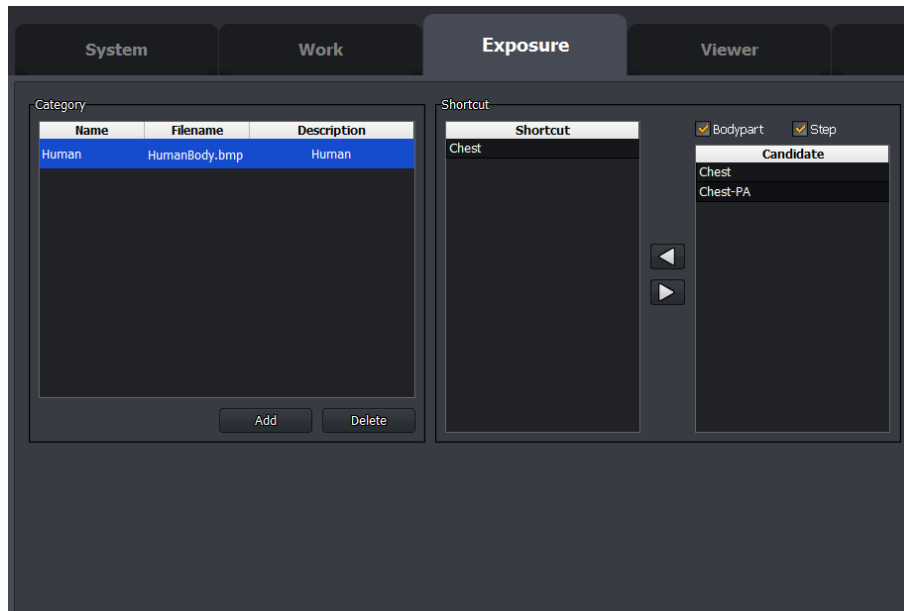


Figure 8.6 Exposure Settings

Exposure Settings Panel allows you to register shortcuts described in chapter [4.1.4 “Body Part Registration”](#). Shortcut has the following two types.

- Body Part
- Step

For more information about each shortcut, refer to [4.1.4 “Body Part Registration”](#).

8.4 Viewer Settings

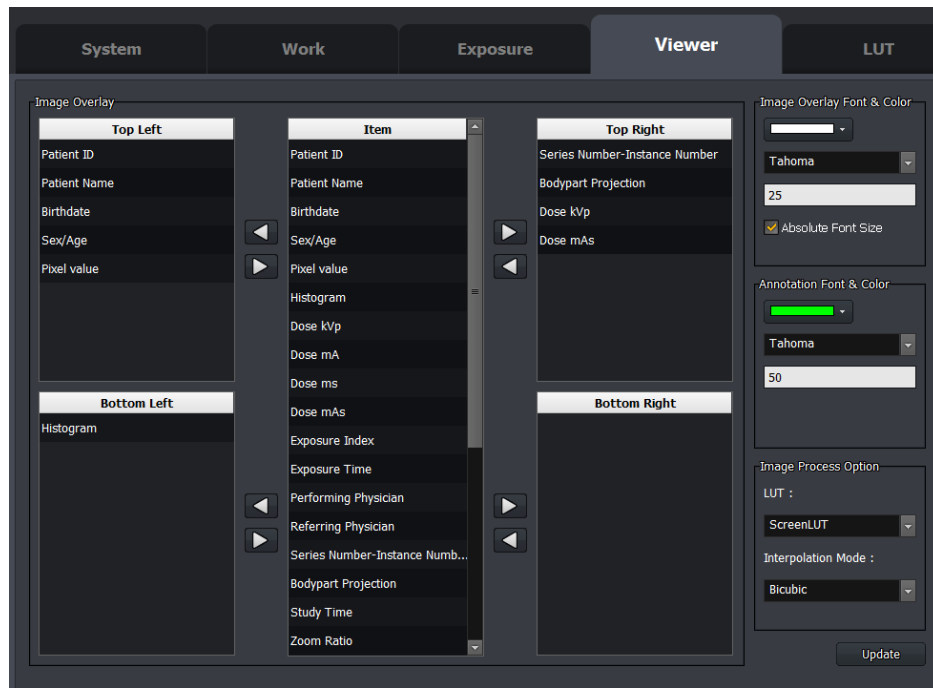


Figure 8.7 Viewer Settings

- Configure the list of overlay to be displayed on the image viewer.
- Configure color, size and font of the overlay information to be displayed on the image viewer.
- Configure color, size and font of the text note.
- When you select the **Absolute Font Size** checkbox, all fonts appear to be the same size.
- When you deselect the **Absolute Font Size** checkbox, the font size will be automatically adjusted according to the size of image viewer window. Also, the font size will be adjusted by referring the inputted font size.
- Configure LUT to be displayed on the screen.
- Configure the type of interpolation to be displayed on the screen.

8.5 LUT Settings

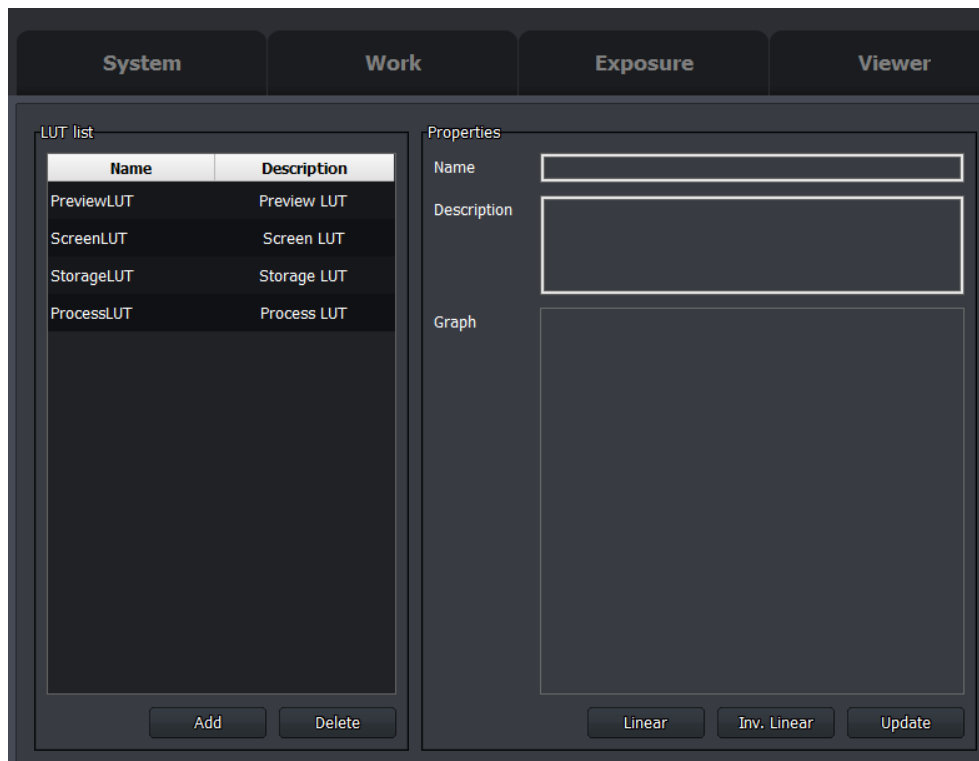


Figure 8.8 LUT Settings

Look Up Table (LUT) is used to apply gamma values to images while displaying, processing or transferring the images.

You can register LUT to be used with the settings described in following chapters.

- [8.4 “Viewer Settings”](#)
- [8.6.2 “Step Panel”](#)
- [8.8.3 “Storage Panel”](#)
- [8.8.4 “Print Panel”](#)

8.6 Procedure Settings

8.6.1 Procedure Panel

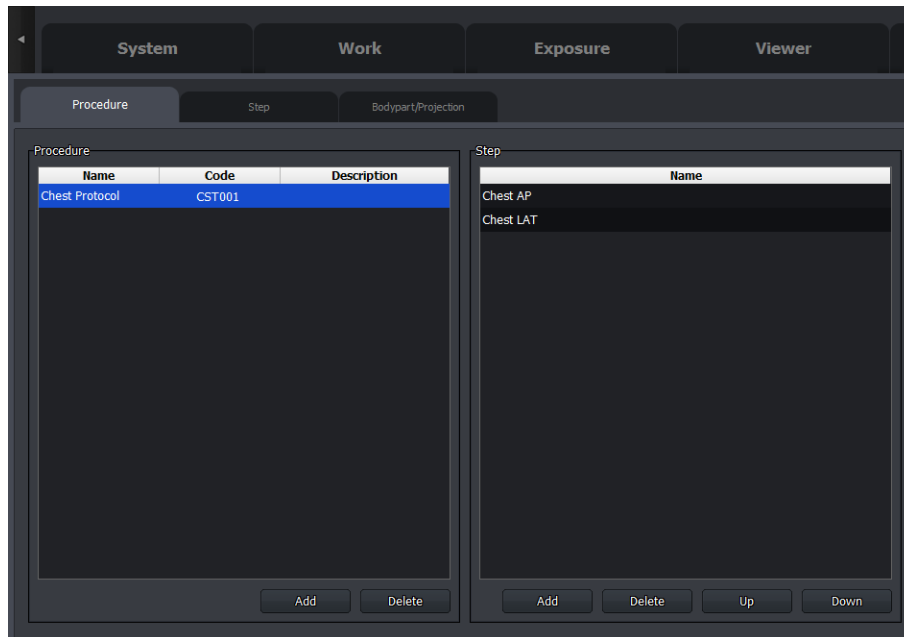


Figure 8.9 Procedure Panel

- Manage procedures to be used for study.
- Multiple steps can be assigned to a procedure. If you register a patient with the procedure which has multiple steps, these steps will be automatically registered for the patient's study.
- Click the **Up** or **Down** button to sort the order of steps in the procedure.

All the procedures registered on Procedure Panel will be displayed in the Procedure dropdown list of “[New Patient Panel](#)” described in chapter [3.2](#).

8.6.2 Step Panel

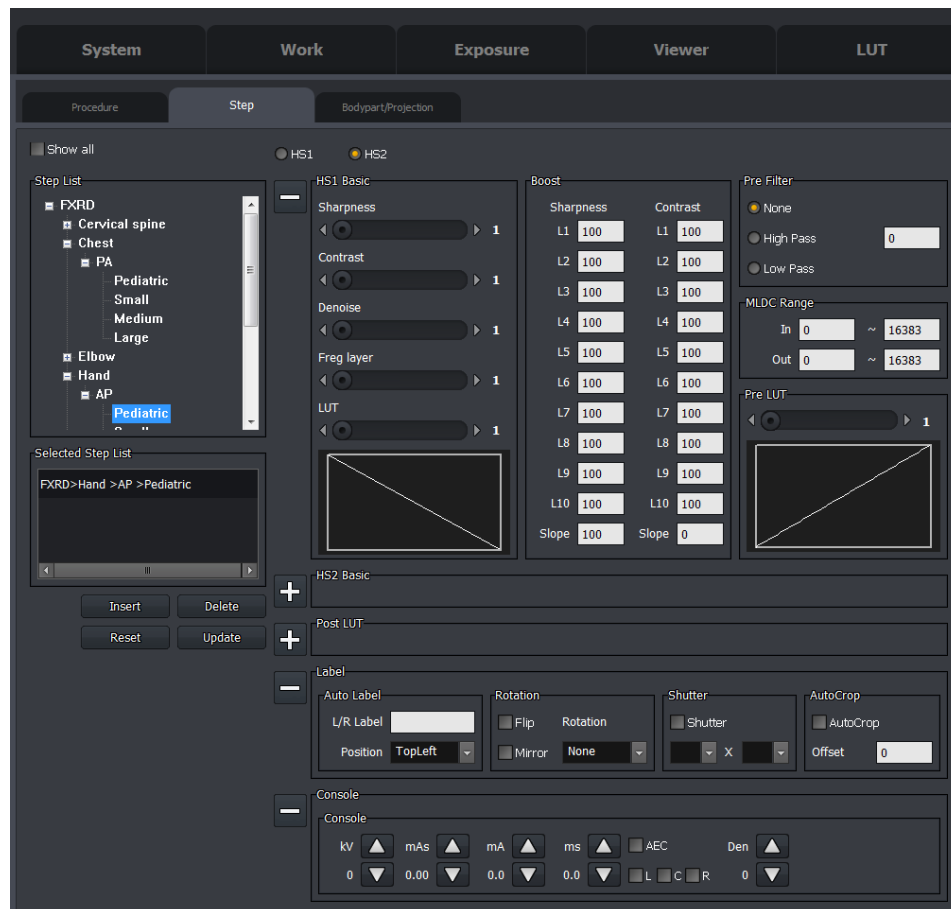


Figure 8.10 Step Panel

Function

- Register steps.
- Adjust image processing parameters.
- Configure label, rotation, shutter and auto crop to be applied for exposure.
- Configure X-ray dose to be applied for auto exposure.



Operation

- HS1 Basic

Set basic parameters for image processing.

- Sharpness

Enhance the edge of the image. The bigger the value is, the more enhanced the edge is.

- Contrast

Enhance the contrast of the image. The bigger the value is, the more enhanced the contrast is.

- Denoise

Reduce noise of the image. The bigger the value is, the stronger the noise reduction is. The image will become soft if this value is set to high.

- Freq Layer

Divide the image into multi-layers by frequency levels for image processing. This parameter is used to determine the number of frequency layers to be used for image processing. The bigger the value is, the wider the image processing is performed, even to the extent of low frequency level.

- LUT

Select lookup table that is used to invert black and white or to expand histogram of the image.

- Boost

- Sharpness

The sharpness value set in basic parameter will be applied to all frequency layers equally. These parameters are to adjust sharpness of each frequency layer additionally. L1 ~ L10 stands for each frequency layer of the image. The number followed by 'L' is frequency layer index. High frequency layer index means low frequency layer of the image. Default value is 100. The range of value is 0 to 1000. 100 mean no additional sharpness adjustment. At the value lower than 100, sharpness enhancement is stronger. At the value higher than 100, sharpness enhancement is weaker.

- Slope

Adjust the sharpness enhancement strength of all frequency layers to the sharpness value set in basic parameter. Default value is 100. The range of value is 0 to 1000. 100 mean no additional sharpness adjustment. At the value lower than 100, sharpness enhancement on high frequency layer of the image is stronger than that on low frequency layer of the image. At the value higher than 100, sharpness enhancement on low frequency layer of the image is stronger than that on high frequency layer of the image.

- Contrast

The contrast value set in basic parameter will be applied to all frequency layers equally. These parameters are to adjust contrast of each frequency layer additionally. L1 ~ L10 stands for each frequency layer of the image. The number followed by 'L' is frequency layer index. High frequency layer index means low frequency layer of the image. 100 mean no additional contrast adjustment. At the value lower than 100, contrast enhancement is weaker. At the value higher than 100, contrast enhancement is stronger.



- Contrast Slope

This parameter is used to adjust contrast of all frequency layers to the contrast value set in basic parameter. Default value is 0. The range of value is 0 to 1000. 0 means no additional contrast adjustment. At the value higher than 0, contrast enhancement on low frequency layer of the image is stronger than that on high frequency layer of the image.

- Pre Filter

Apply following filters before doing Multi-Layer Dynamic Range Compression (MLDC).

- None

No filter applied.

- High Pass

Apply high pass filter to improve clarity of the image.

The range of value is 0 to 1000. Higher value makes image sharper.

- Low Pass

Apply low pass filter to make image smoother.

The range of value is 0 to 1000.

- 0: No filter applied.
 - 1 – 9: value × value Average Filter applied.
 - 10 – 1000: Higher value makes image smoother.

- Pre LUT

Apply Pre Lookup table before doing MLDC.

- MLDC Range

Convert data range of the image to MLDC.

- In

Input range of the image data. The range of image data is 0 to 4095.

- Out

Output range of the image data. The range of image data is 0 to 4095.



- **HS2 Basic**
 - **Min Value**

Input the minimum gray value of acquired image. Default value is 0. No need to change.
 - **Max Value**

Input the maximum gray value of the acquired image. This value indicates saturation level of gray value. Default value is 14500. The range of value is 0 to 16383.
 - **Max Difference**

Set the point to change slope of transform curve.
 - **Mean Value**

Set the mean value of gray value. Default value is 7000.
 - **Initial Slope**

Determine the initial slope of transform curve from the mean value.
Default value is 150. The range of value is 100 to 1000.
 - **Flat Factor**

Set the brightness of the image. The bigger the value is, the stronger the brightness is.
Default value is 300. The range of value is 100 to 1000.
 - **Contrast Range**

Set the bandwidth of the contrast transform curve based on the mean value. Default value is 10000.
 - **Post Gamma**

Modify post lookup table and then apply it to the image. The bigger the value is, the stronger the brightness is. Default value is 300. The range of value is 100 to 1000.
 - **Compression**

Adjust dynamic range of the image. The bigger the value is, the more enhanced the Edge is. And the smaller the value is, the more enhanced the contrast is. Default value is 3. The range of value is 0 to 24.
 - **Denoise**

Reduce noise of the image. The bigger the value is, the stronger the noise reduction is. Image will become soft if this value is set to high. Default value is 0. The range of value is 0 to 20.
 - **Middle Edge**

Enhance the middle edge contrast of the image. The bigger the value is, the more enhanced the middle edge contrast is. Default value is 0. The range of value is 0 to 20.
 - **Fine Edge**

Enhance the fine edge contrast of the image. The bigger the value is, the more enhanced the fine edge contrast is. Default value is 0. The range of value is 0 to 20.
 - **Contrast**

Enhance the contrast of the image. The bigger the value is, the more enhanced the contrast is.
Default value is 4. The range of value is 0 to 18.



- Post LUT

Apply Post Lookup table after doing MLDC.

- Apply Range

The data range set in this field will be used for post-lookup conversion.

- Manual

Set range manually.

- Min/Max

Set range automatically using default algorithm. The offset adjustment will be applied.

- Auto

Set range automatically using auto algorithm. The offset adjustment will be applied.

- Low Offset

Adjust the lowest value of the range.

- High Offset

Adjust the highest value of the range.

- LUT Type

Select LUT to be applied to Post LUT.



For more information about how to register LUT available from LUT Type, refer to chapter [8.5 “LUT Settings”](#).

- Display ROI

Set data range of image that is to be displayed on the monitor by default.

- Manual

Set range manually.

- Min/Max

Set range automatically using default algorithm. The offset adjustment will be applied.

- Auto

Set range automatically using auto algorithm. The offset adjustment will be applied.

- Low Offset

Adjust the lowest value of the range.

- High Offset

Adjust the highest value of the range.



- Auto Label

Set Label that is to be displayed on the acquired image by default.

- L/R Label

Set text of L/R label.

- Position

Set position of L/R label. Available positions are TopLeft, TopRight, BottomLeft, and BottomRight.

- Rotation

Set direction of image.

- Flip

Set image to turn upside down.

- Mirror

Set image to reflect as if in a mirror.

- Rotation

Rotate the image in the following options.

None, CCW90, CCW 180, CCW270, CW90, CW 180 and CW270

- Shutter & Auto Crop

Configure shutter size or crop the image by setting Auto Crop.

- Shutter

Set width and height of shutter size. Set the length by selecting the value from eight to seventeen inch.

- Offset

Set the offset of Auto Crop. It will crop by adding the offset value to the calculated region.

Unit of offset value is pixel.



- Console

Set the X-rays dose for the generator.

- kV

Set kVp value.

- mAs

Set mAs value.

- mA

Set mA value.

- ms

Set ms value.

- AEC

Set whether to use AEC and select the region of AEC.

- Den

Adjust the density of AEC.

8.6.3 Body Part/Projection Panel

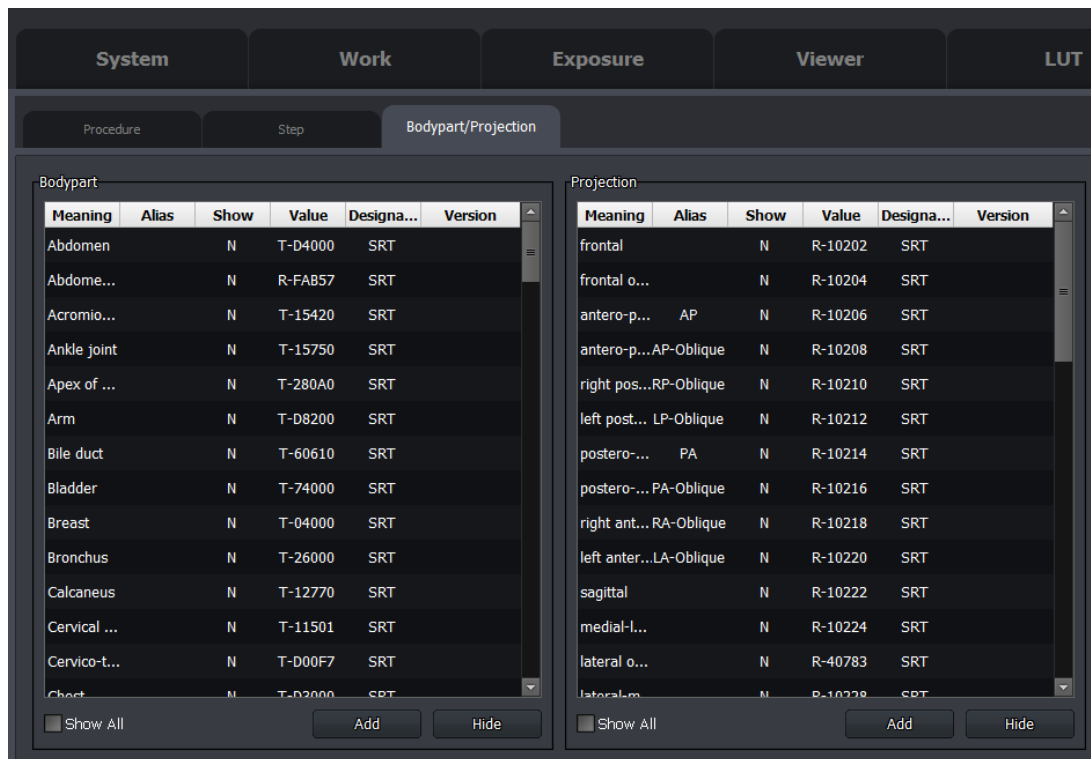


Figure 8.11 Body Part/Projection Panel

- Register Body Part.
Body Part is anatomic region to exposure.
- Register Projection.
Projection is exposure orientation.

You can register steps by combining registered Body Part and Projection on "[Step Panel](#)" described in chapter [8.6.2](#).

8.7 Backup Settings

8.7.1 Backup Panel

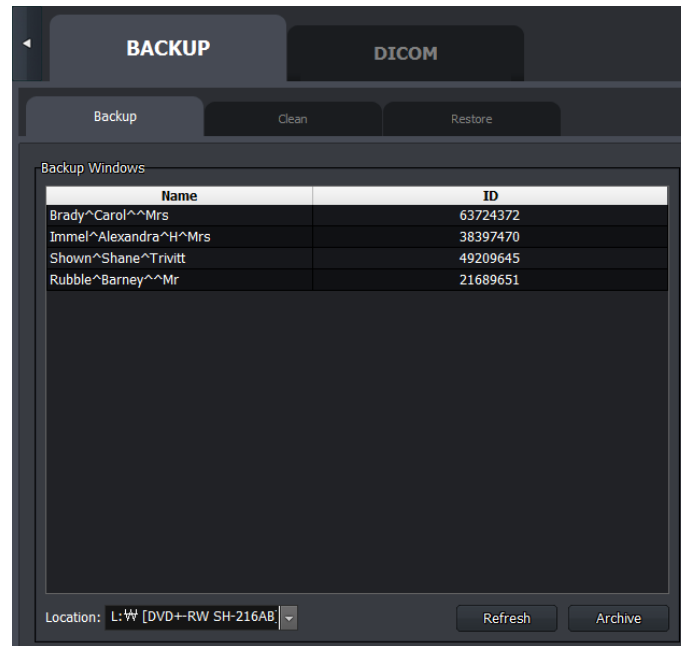
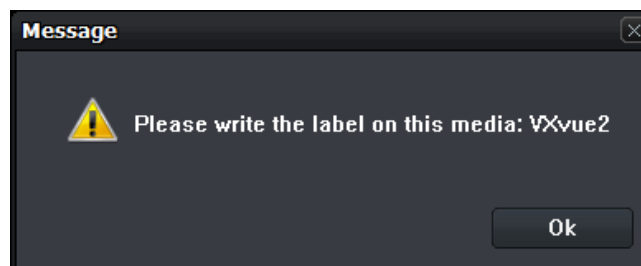


Figure 8.12 Backup Panel

- Insert optical disk and select the corresponding drive from the **Location** dropdown list.
- Click the **Refresh** button.
- System will automatically select studies depending on the selected media capacity and display in the list.
- Click the **Archive** button. Backup will be preceded and the progress window will appear.
- When the backup is complete, a notification window asking you to write the media name will be displayed as shown below.



- As instructed, label the backup media. When VXvue prompts you to insert a backup media, you must insert the corresponding media into the drive.



VXvue recognizes backup CD/DVD or hard disk with its label and serial number. If you copy these media manually, VXvue cannot recognize them because they have same label but different serial numbers.



As for CD/VD, you cannot use the same media for backup again even if it has free space.

8.7.2 Clean Panel

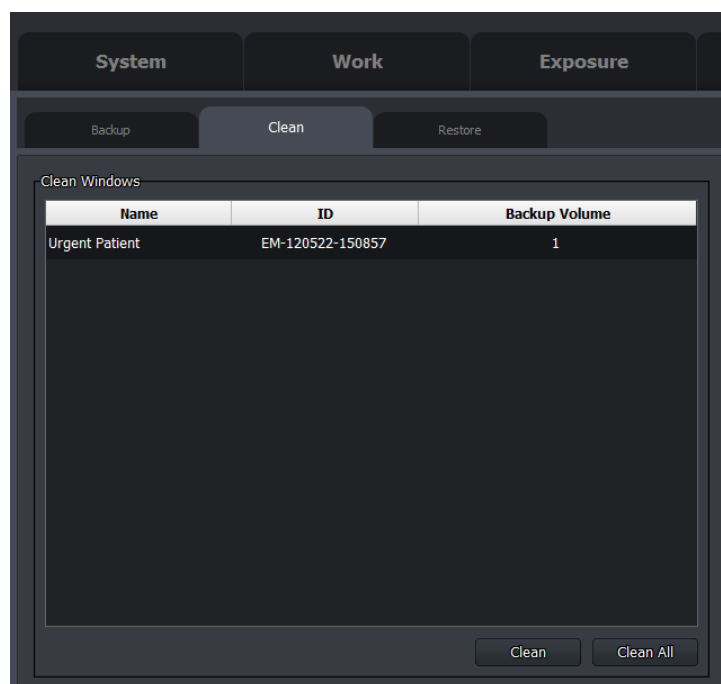


Figure 8.13 Clean Panel

- Select studies and click the **Clean** button to remove from the local.
- Click the **Clean All** button to remove all studies in the list.



8.7.3 Restore Panel

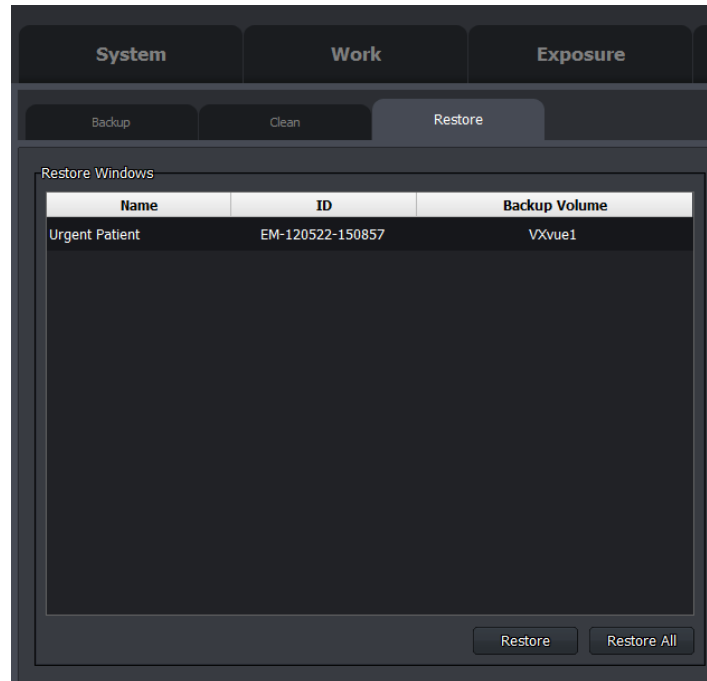


Figure 8.14 Restore Panel

- Select studies and click the **Restore** button to revert to previous state by copying the studies from the backup media.
- Click the **Restore All** button to restore all studies in the list.



- Restore function can restore studies from one media at a time.
- Restore All function is only available when the listed studies are backed up on the same media.



8.8 DICOM Settings

8.8.1 Queue Panel

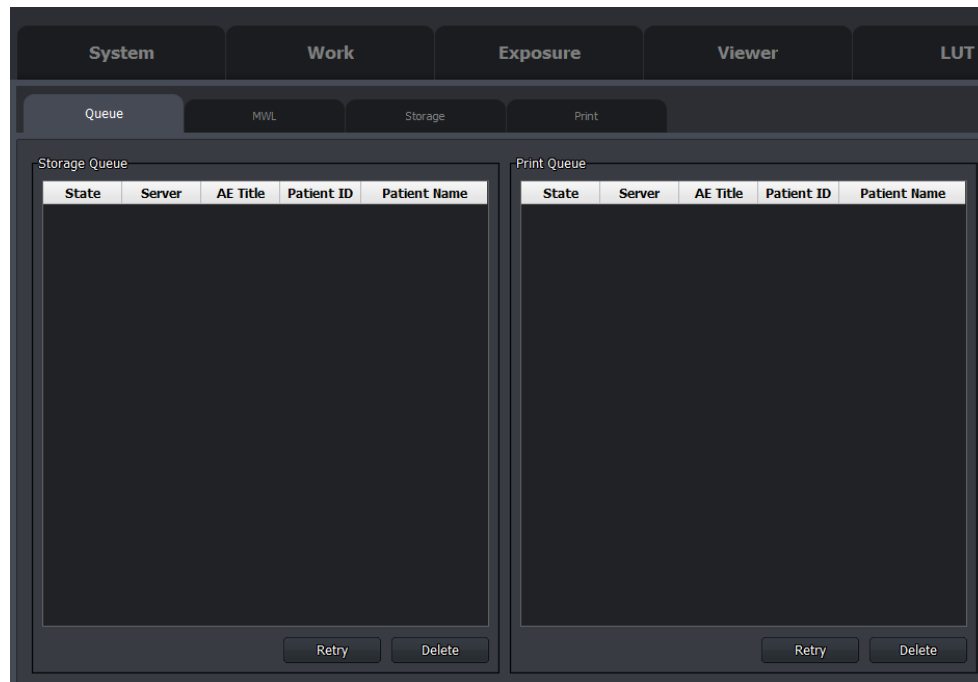


Figure 8.15 Queue Panel

- Check the transfer status when transferring images to Storage or Print server.
- Click the **Retry** button to retry failed transfer again.
- Click the **Delete** button to remove successful or failed transfer items.

8.8.2 MWL Panel

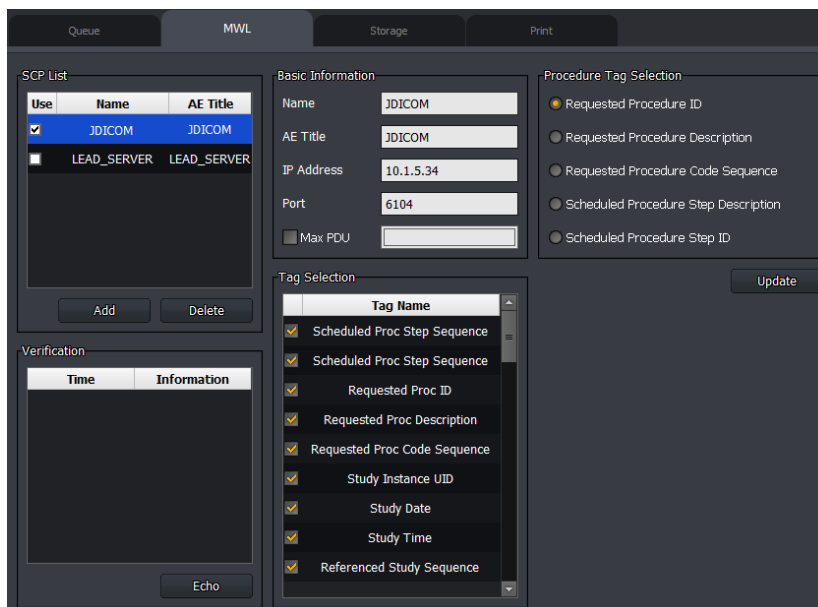


Figure 8.16 MWL Panel

Function

- Configure Worklist server.
- Click the **Echo** button to check the communication status with selected server.
- Specify the fields to be retrieved from Worklist.

Operation

- SCP List: Display the registered SCP list and select a server to use.
 - Add Add new SCP.
 - Delete Delete selected SCP.
- Verification: Display the results of verifying communication status with server.
 - Echo: Check the communication status with selected server.
- Basic Information: Enter properties of SCP.
- Tag Selection: Specify the fields to be retrieved from Worklist server.
- Procedure Tag Selection: Select a Procedure tag to use.
- Update: Save changes on Basic Information, Tag Selection and Procedure Tag Selection.



If you encounter a problem searching on Worklist due to unsupported tags from the Worklist, deselect them to solve the problem. Refer to DICOM Conformance Statement.

8.8.3 Storage Panel

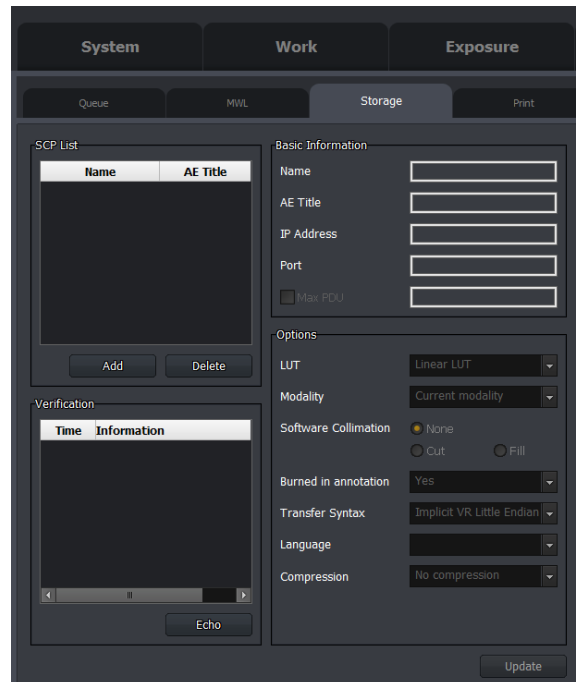


Figure 8.17 Storage Panel

Function

- Configure Storage server.
- Click the **Echo** button to check the communication status with selected server.
- Configure image compression protocol and ratio to be used for transferring the images.

Operation

- SCP List: Display the registered SCP.
 - Add: Add new SCP.
 - Delete: Delete selected SCP.
- Verification: Display the results of verifying communication status with server.
 - Echo: Check the communication status with selected server.
- Basic Information: Enter properties of SCP.
- Options: Configure LUT, Modality and image compression to be used for transferring the images.
- Update: Save changes on Basic Information.



If you select **JPEG2000 lossless** or **JPEG2000 lossy** as a compression protocol, image transfer may fail due to unsupported protocol from the server. Select **No compression** to transfer images.

8.8.4 Print Panel

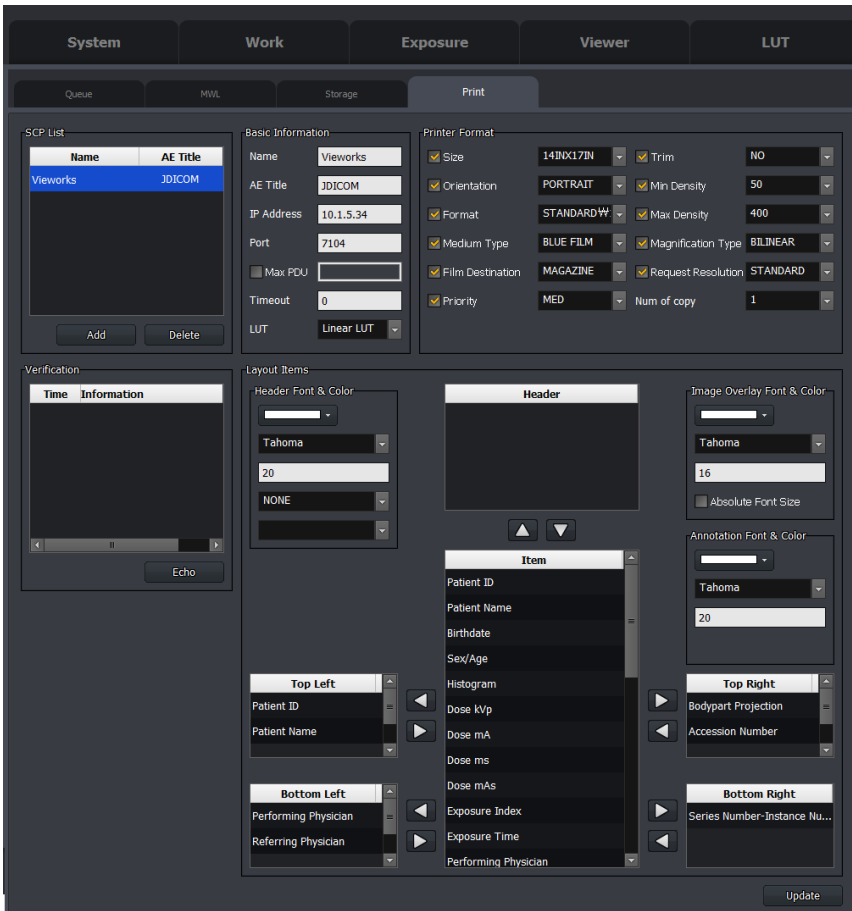


Figure 8.18 Print Panel

Function

- Configure DICOM print server.
- Click the **Echo** button to check the communication status with selected server.
- Specify information to be printed on the film.



If you encounter a problem printing DICOM due to unsupported tags from the DICOM print server, deselect them to solve the problem. Refer to DICOM Conformance Statement.



Operation

- SCP List: Display the registered SCP.
 - Add: Add new SCP.
 - Delete: Delete selected SCP.
- Verification: Display the results of verifying communication status with server.
 - Echo: Check the communication status with selected server.
- Basic Information: Enter properties of SCP.
- Printer Format: Configure properties of DICOM printer.
- Layout Items
 - Header: Configure font and its size for texts to be displayed on the header.
 - Image: Configure font and its size for texts to be displayed on the image.
 - Annotation: Configure font and its size for texts to be displayed on the annotation.
 - Header List: Specify the items to be displayed on the header. Additionally, set the position of header and layout of items displayed on the header.
 - Top Left, Bottom Left, Top Right, Bottom Right:
Specify the items to be displayed on each position of the image.
 - Item: Display the list of information that can be displayed on the header or the image.



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