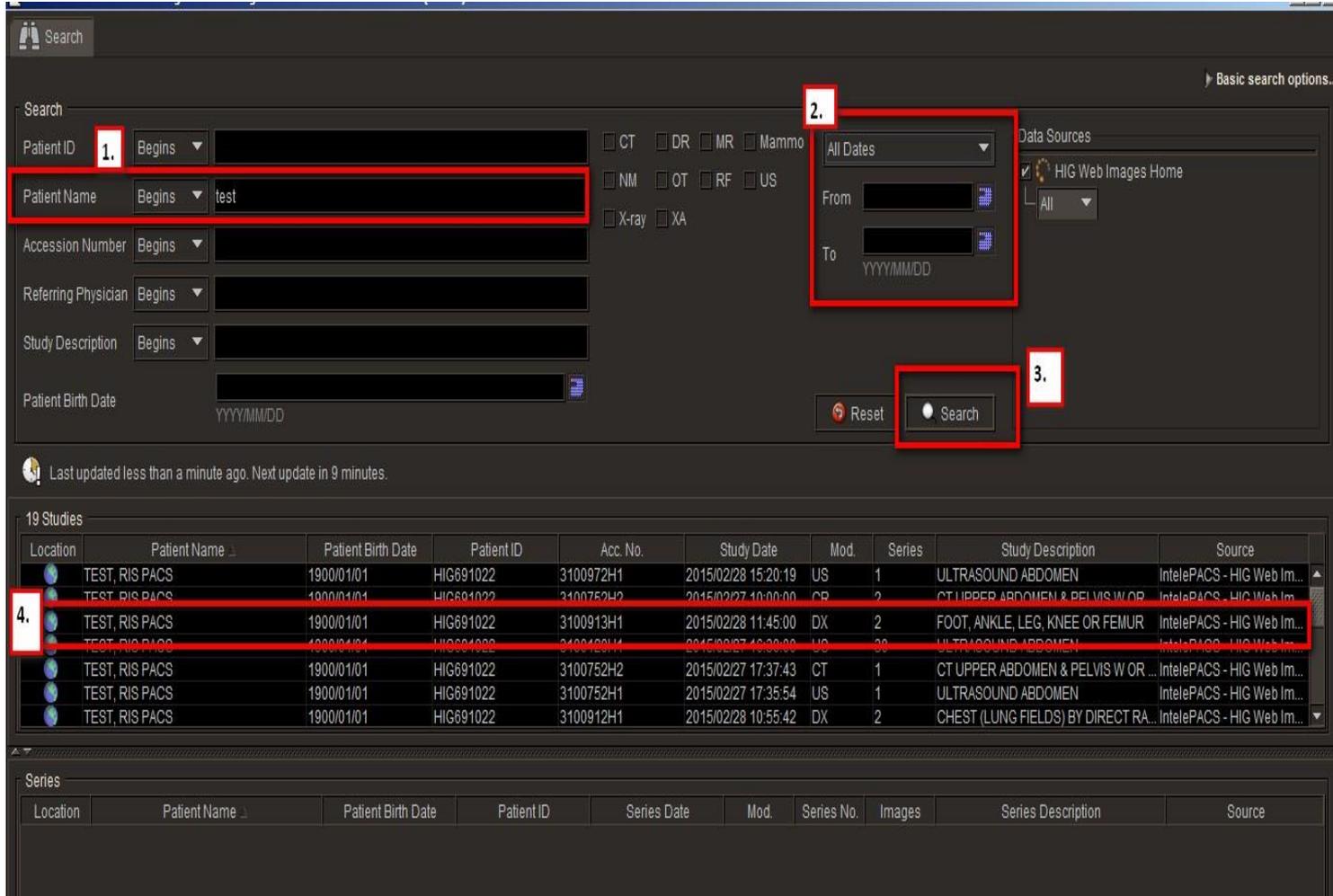


HIG RAYS ONLINE USER GUIDE

Patient Search

Enter the last name (,) first name, change the date field to help narrow the search and press Search. The patient will appear in the studies list. Double Left Mouse Click on the patient required and this will launch the patient into the Viewer



Manipulating Images

A Radial menu of tools is available for all modalities – just right click anywhere on the image and the radial tools will appear.

Zoom

Zoom a specific area of an image to increase its magnification. Use the mouse to zoom manually, or choose a preset zoom percentage.

To zoom an image:

1. Select the required images.
2. From the main menu, choose Tools | Zoom (Z) or click the Zoom tool .

The cursor changes to indicate you are zooming, and the Zoom icon in the toolbar appears with a yellow outline indicating that it is the currently-selected tool.

- Position your cursor over the area you would like to zoom. Click and drag in the required viewport.

The Zoom tool icon in the viewport disappears to allow you optimal viewing of the image. The zoom is applied in the selected monitor only.

Drag:

To:

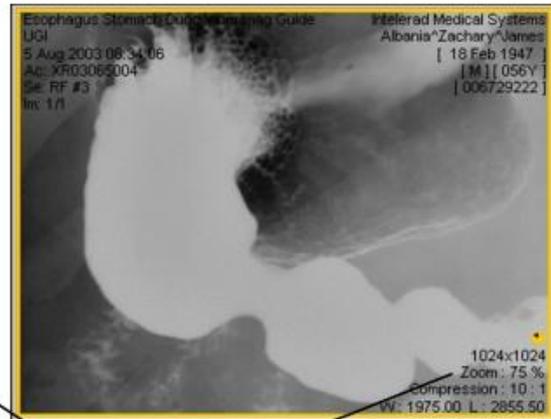
Up Increase the area's magnification (zoom in).

Down Decrease the area's magnification (zoom out).

If you display the text overlay information, the zoom percentage increases and decreases as you drag.

Original Image

Image Zoomed In



Zoom percentage

- To revert the image to its original magnification setting, choose Tools | Reset (Ctrl+Backspace).

To select a preset zoom percentage:

- Select the required image.

Note: Zoom settings are applied to all images in the series.

- Choose a preset from the Zoom menu.



The zoom percentage increases or decreases to correspond to the selected option.

Note: You can choose Tools | Reset (Ctrl+Backspace) to revert the image to its original magnification setting.

Stack

You can use the Stack tool to stack through a series that contains multiple images, viewing each image in sequence. You can stack through images by using the mouse, the mouse wheel or by using shortcut keys (S). Depending on your mouse speed, you can skip past images.

If you are displaying the text overlay information, the image number increases and decreases as you stack to indicate the current image.

- Mouse: Highlight the series, Select the stack tool, use the left mouse button, hold and drag the mouse up and down

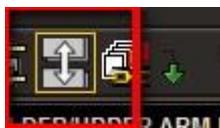


- Mouse Wheel: highlight the series and then Scroll the mouse wheel up and down
- Short cut key: Highlight the series and Select "S" use the left mouse button, hold and drag the mouse up and down

Super Series Stacking: "Shift + S"

For uninterrupted stacking of all images in a study, use the Super Series Stacking tool. The Super Series Stacking tool stacks all series images—including key images — in chronological order based on acquisition date and time. For example, if a study contains 5 series, each with 6 images, you can use the Super Series Stacking feature to view all 30 images in sequence.

- Highlight the series and select the tool, left mouse click and hold, drag the mouse up and down. Alternatively select the tool and scroll the mouse wheel.



Drag and Drop

You can drag a series from the Thumbnail strip and drop it into a viewport. You can also drag a study from the Thumbnail strip and drop it into multiple viewports.

Left mouse click and hold on the thumbnail you wish to drag, drag the image down to the viewpoint you wish to have the image display and then Release the left click to drop the image.

Drag and Swap



By selecting the drag and swap tool  or “D” on the keyboard, you are able to select an image in a viewport and swap it with the position of another. This may be used when needing particular image series to be located next to each other.

Layout Options

When you open images, the initial viewport layout is determined by your user preference settings or layout protocols. However, you can change the layout as you work, the easiest method to do this is by the shortcut keys.

To change the series layout by using keyboard shortcuts, press the corresponding key.

The layout of rows and columns will be set automatically to suit the aspect ratio of the application window.

Key # of Series		Possible Layouts
1	1	1 x 1
2	2	1 x 2, 2 x 1
3	3	1 x 3, 3 x 1
4	4	1 x 4, 2 x 2, 4 x 1
5	6	1 x 6, 2 x 3, 3 x 2, 6 x 1
6	9	1 x 9, 3 x 3, 9 x 1
7	12	1 x 12, 2 x 6, 3 x 4, 4 x 3, 6 x 2, 12 x 1
8	16	1 x 16, 2 x 8, 4 x 4, 8 x 2, 16 x 1
9	18	1 x 18, 2 x 9, 3 x 6, 6 x 3, 9 x 2, 18 x 1

Alternatively select the desired layout from the available series / Image layout tool on the top tool bar



Report Viewing

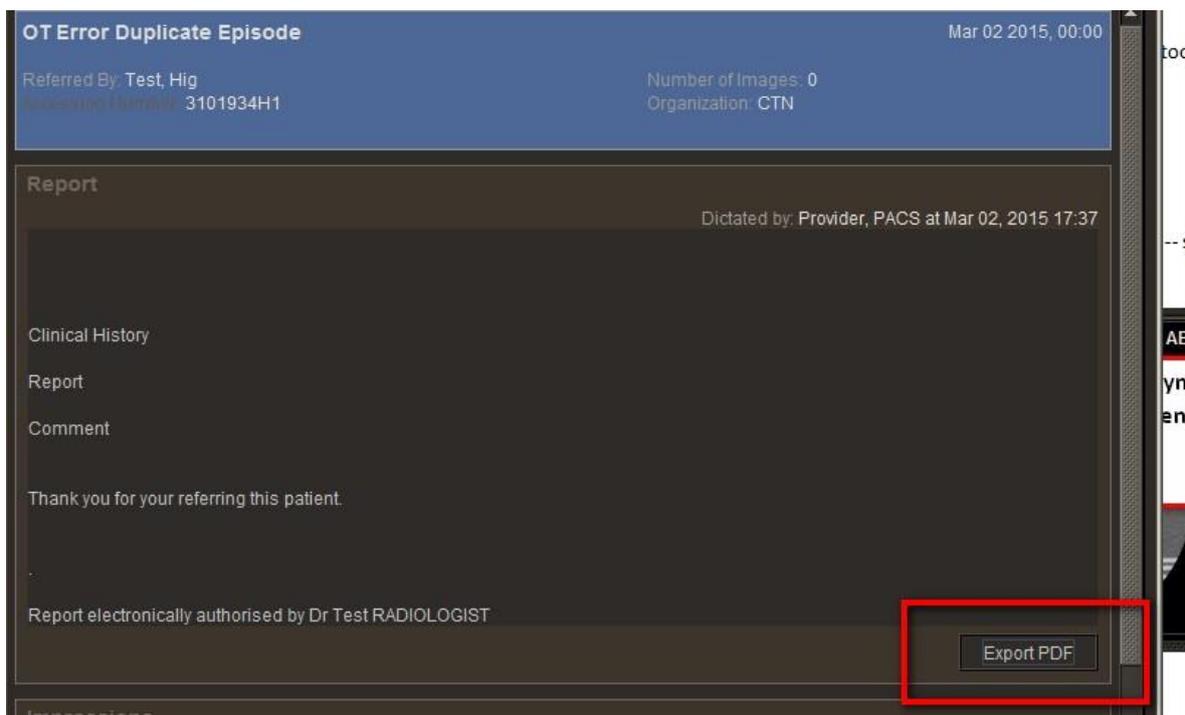
Search for the required patient --- Double Click ---- allow the images to load ----- select the report symbol on the Viewer, bringing the patient record to the forefront.



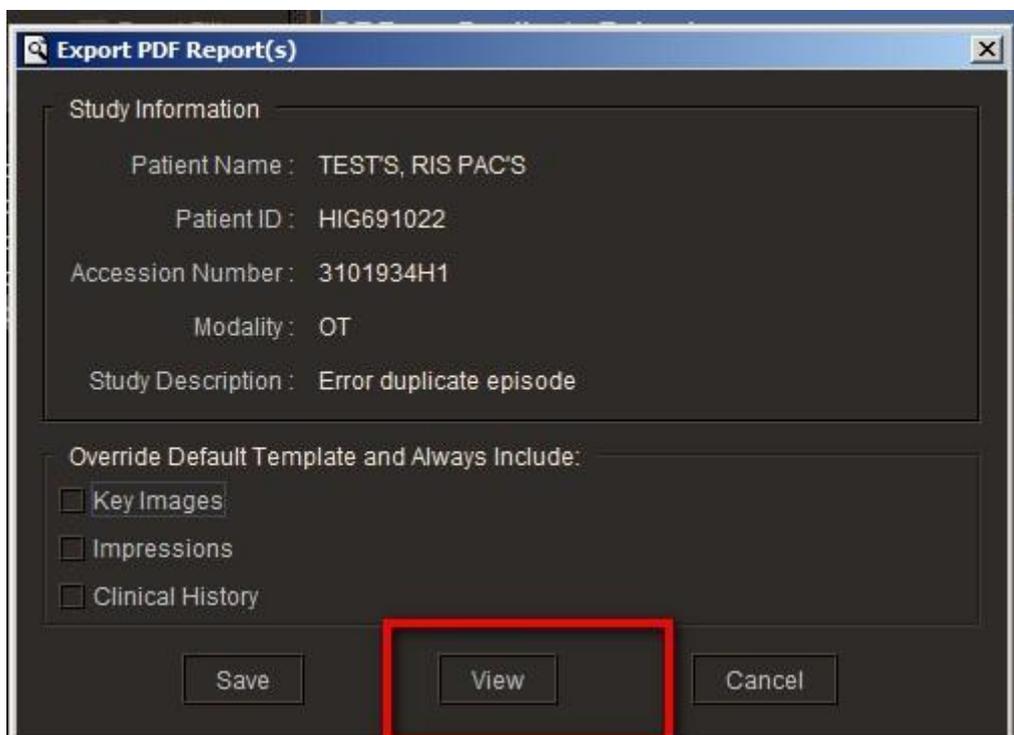
It is possible to export the report to into a PDF:

Locate the report---- Scroll to the bottom of the report ----- select “Export Report”

1.



2. A new dialogue box will appear, select View ---- this will open the report as a pdf and you may print from Adobe.



Windowing

Window levelling alters the contrast (*width*) and brightness (*level*) of the selected image. You can adjust the window levelling interactively or by choosing one of the predefined settings, referred to as *window level presets*.

To interactively adjust the window levelling:

1. Select the required images.

Note:

If linked mode is set in your modality preferences, you can window level several images simultaneously.



2. Click the Window Level tool

The cursor changes to indicate you are adjusting the window level, and the Window Level icon in the toolbar appears with a yellow outline indicating that it is the currently-selected tool.

3. Click and drag in the required viewport.

The Window Level tool icon in the viewport disappears to allow you optimal viewing of the image.

Drag:

Up Decrease the level setting (brightness).

Down Increase the level setting (brightness).

Left Decrease the width setting (contrast).

Right Increase the width setting (contrast).

To:

If you display the text overlay information, the width and level indicators increase and decrease as you drag.



Original Image



Image with Window Levelling Adjusted

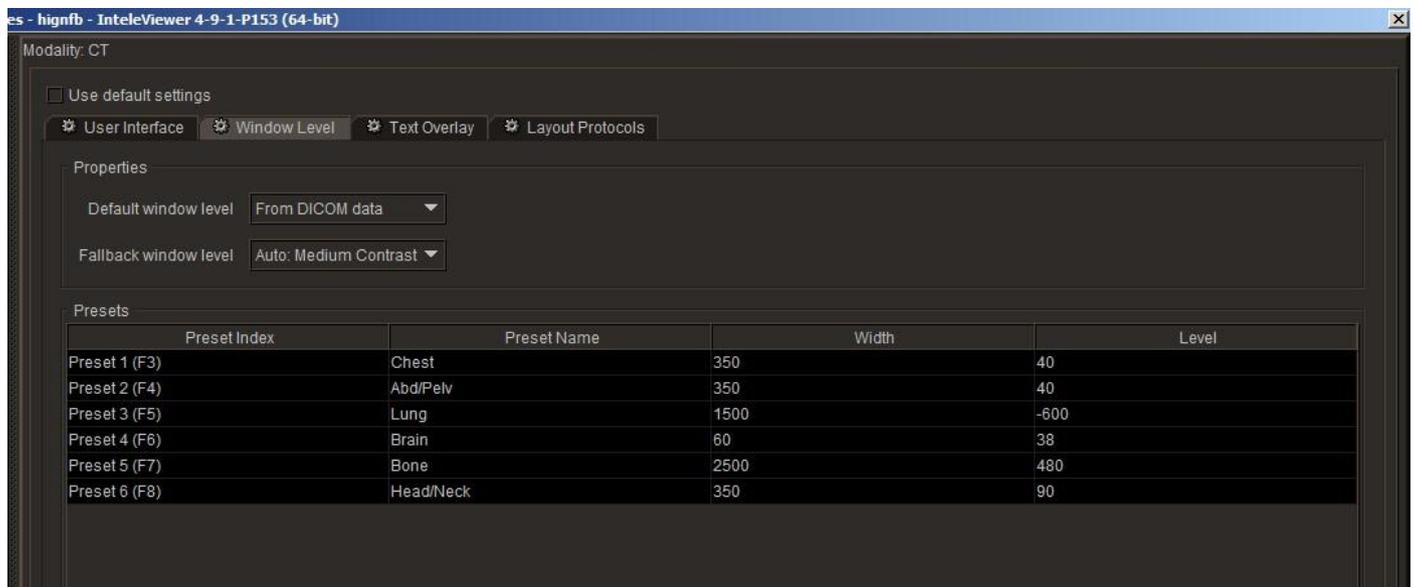


Width and Level indicators

To use a window level preset:

1. Select the required series.
2. Do one of the following:
 - Press the key that corresponds to the window level preset that you want to use.

N.B presets are usually used for CT viewing; please see the preset shortcut keys below



- Choose a setting from the Window Level menu.

Choose:

DICOM

Auto: Low Contrast

Auto: Medium Contrast

Auto: High Contrast

Full Range

To:

Set the window level to correspond to the DICOM data contained in the image.

Apply a low-contrast window level setting.

Apply a medium-contrast window level setting.

Apply a high-contrast window level setting.

Use the full range of intensity values contained in the image.

Note:

You can also press Ctrl+F2 to cycle through the Auto settings or press Shift+F2 to cycle through DICOM values.

The preset window level settings are applied to all images in the selected series.

Measurements

You can measure straight lines, elliptical regions of interest, simple angles, Cobb angles, and volumes. Create multiple measurements of the same type or different types on a selected image, up to a maximum of ten measurement result lines per image.

Measurements are either in an active or inactive state. When you create a measurement it remains active until you click outside the measurement. It then becomes inactive. You can activate an inactive measurement with a single mouse click.

When you move your mouse over a measurement, it appears lighter to indicate that the measurement can be changed or moved when selected.

The accuracy and reproducibility of measurements in IntelViewer is dependent on the precision of the user's operation of the mouse. Keep in mind that working with magnified images when drawing measurements helps reduce the margins of error, and working with reduced-magnification images can lead to a greater margin of error.

To select a measurement tool:

1. In the toolbar, click the Measurement Tools menu alternatively right on the image and select the tool from the radial menu.



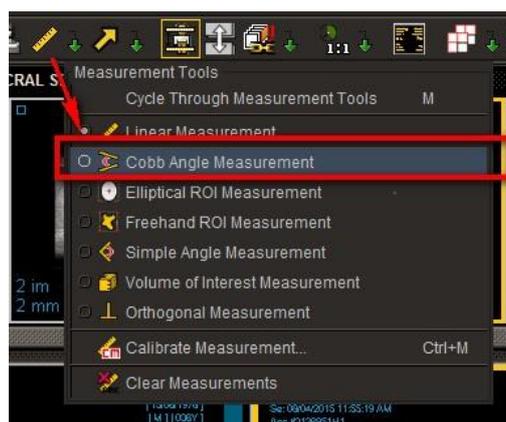
Left mouse click and hold on the required image, drag to make the measurement. Release the hold and then click on another area of the image to hold the measurement in place. To delete the measurement click on the measurement to activate and press delete on the keyboard, the measurement is active when it appears yellow.

Cobb Angle

Use cobb angles to measure the angle between two lines, which can be separate or intersecting. Typically, cobb angles are used to evaluate curvature of the spine.

To measure cobb angles:

1. Click the Cobb Angle Measurement tool



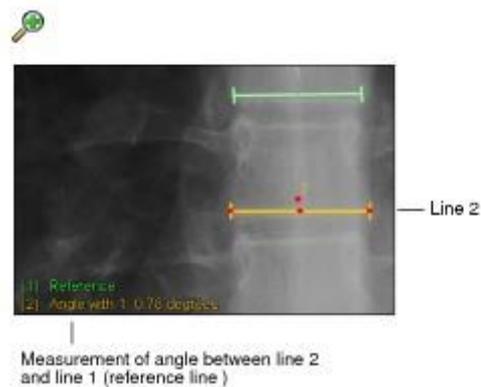
The Cobb Angle Measurement icon in the toolbar appears with a yellow outline indicating that it is the currently-selected tool.

2. On the required image, click and hold the left mouse button while dragging. Release the mouse button to complete the reference line.



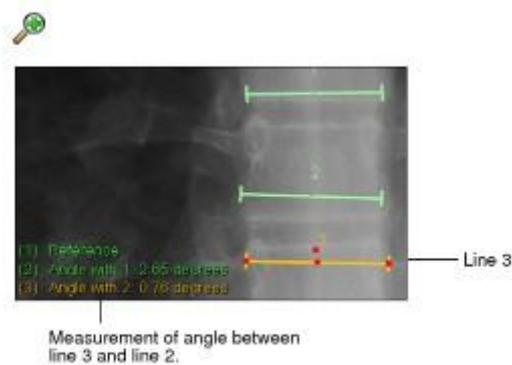
3. Click and hold the left mouse button while dragging to draw a second line.

Line number two appears and the angle measurement between it and the reference line appears in the bottom left corner of the viewport.



4. Click and hold the left mouse button while dragging to draw a third line.

Line number three appears and the angle measurement between it and line two appears in the bottom left corner of the viewport.



5. To change the size of the active measurement, move the mouse cursor to one of the end points.

The Resize cursor appears.

6. Click and hold the left mouse button while moving the end point. Release the mouse button when you are finished.

7. To relocate the active measurement, move the mouse cursor over the measurement.

The Move cursor appears.

8. Click and hold the left mouse button and relocate the measurement. Release the mouse button when you are finished.

The angle measurement updates to reflect your changes.

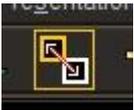
Jpeg Image Creation

It is possible to easily create Jpeg images for presentations. It is important that all image data is removed from the image prior to creating a jpeg.

1. Launch the patient's images you wish to view.
2. Remove the image overlay information from the image, press "o" on the keyboard or select the tool on the toolbar



3. Select the Drag and swap tool from the toolbar



4. From the Viewport Left mouse click + hold on the required image and drag it to the desktop