



LMM CONTROL SOFTWARE 4.0 EXTENDED

Instructions for use with the LMM0802 Version 4.0 Software

**Instructions for use with the
LMM0802 DVI MATRIX**





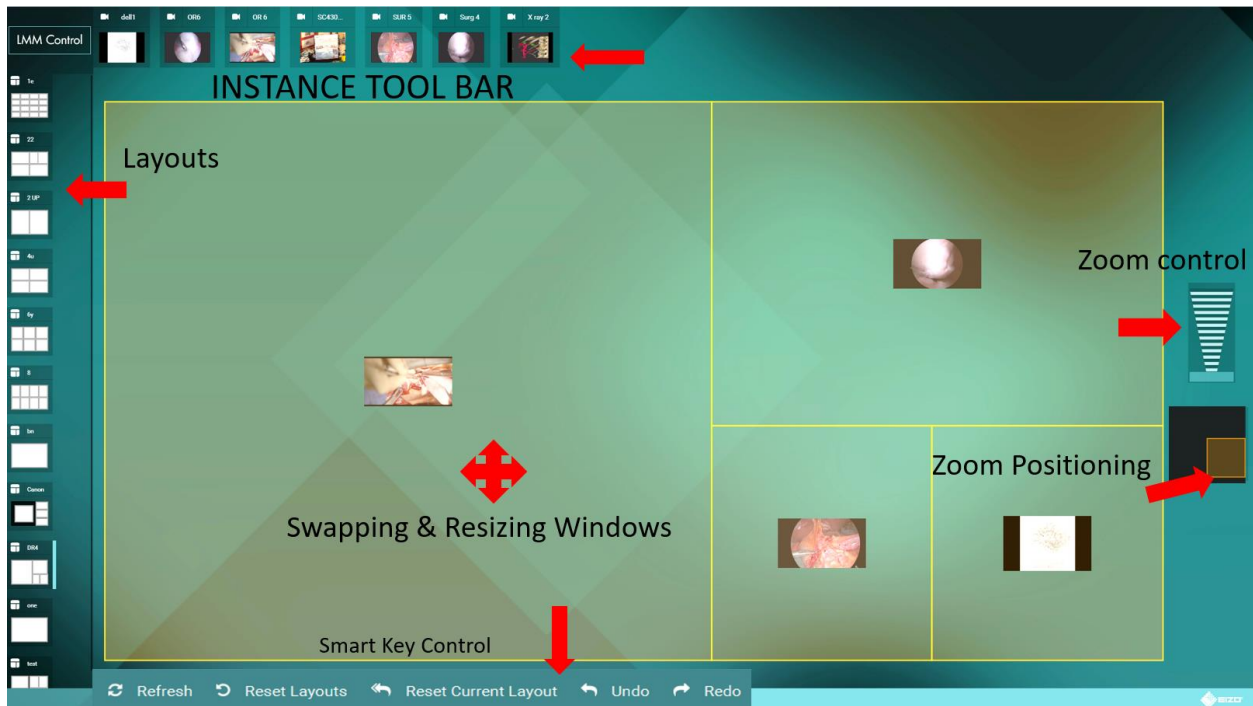
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The instructions detailed in this manual are designed to be used to control the LMM0802 with the new 4.0 Extended Firmware. The LMM Control Application 4.0 application software is to be used on a CID-touch screen system or a Windows 10 PC.

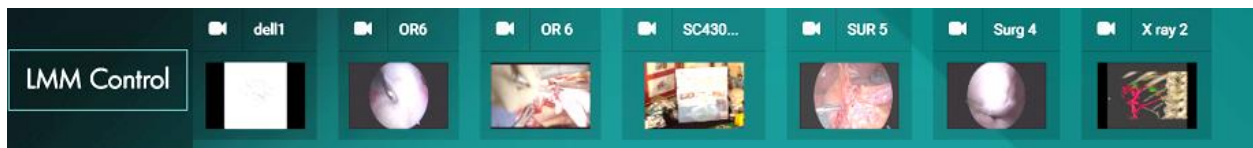
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LMM Key Controls Overview



The basic LMM Control features have been designed similarly to previous Linux version to make it easy to use. New features include: Dynamic resizing of the video tiles, zoom control and positioning. New smart keys also enable you to step forward and backward any changes made to the video instances. With just one click the layout can return to its original position making the LMM Control fast and easy to use.

Instance Tool Bar Operation

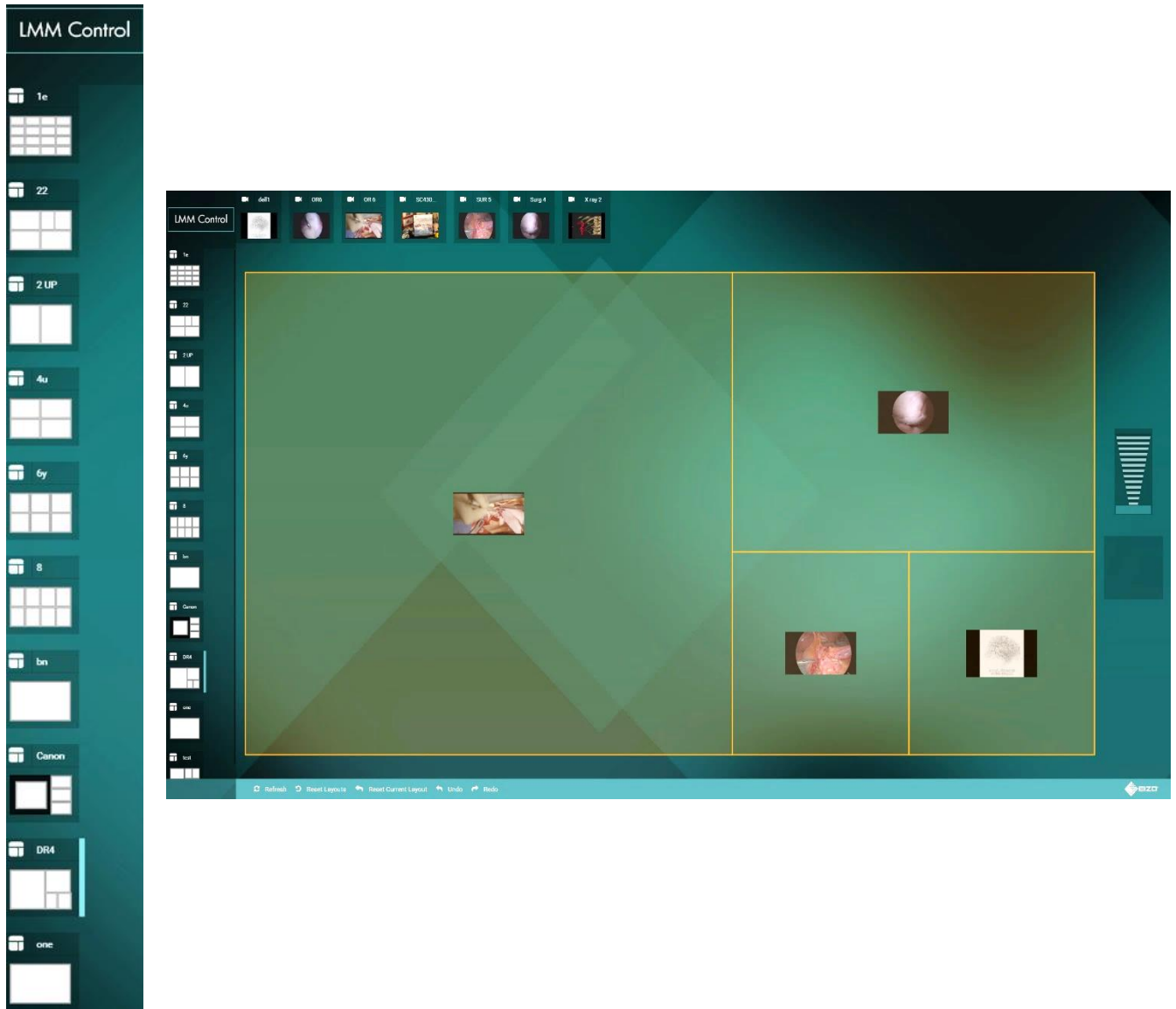


The tool bar contains the video sources that have been pre-configured in the LMM0802. To place a video into a layout, simply place a finger or mouse on any of the squares and drag it to the desired window layout. The video will change immediately as soon as its placed in the desired location.



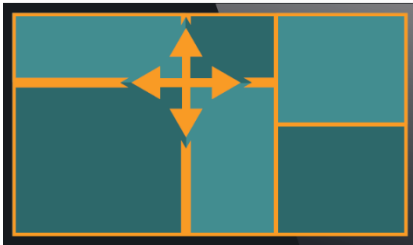
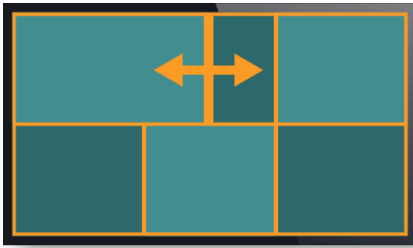
Changing Preset Layouts

To change a layout, select the desired layout from the saved choices on the left. When selected, the layout will change immediately with the new selection and have a light blue line on the side confirming the choice.



Dynamic Layouts

Dynamic Layouts allow the user to resize the video tiles by simply touching or pointing the mouse on the border lines of the video tile and dragging it to the desired size. When moving the border lines, in an upwards motion or downwards, the adjacent tiles will resize dynamically at the same time. (See diagram below)



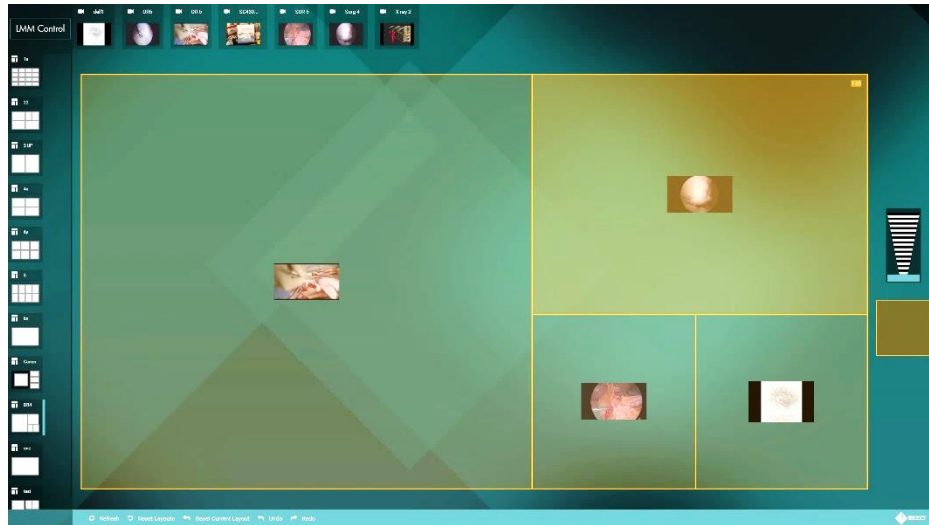
Swapping Image Positions

When an image is dragged from one tile location, the image is swapped.



Zoom & Positioning

To zoom into an image first select the video tile which will be highlighted in yellow. A number indicator appears on the right corner of the image showing the zoom amount, the range is 1-4 x.



To increase the zoom ratio, click on the zoom slider (Figure A, B) and drag the solid green bar in an upwards motion to zoom in. To zoom out, drag the arrow downwards. To change the area of the zoom, click on the small box outlined in yellow to position to the desired area (figure C).



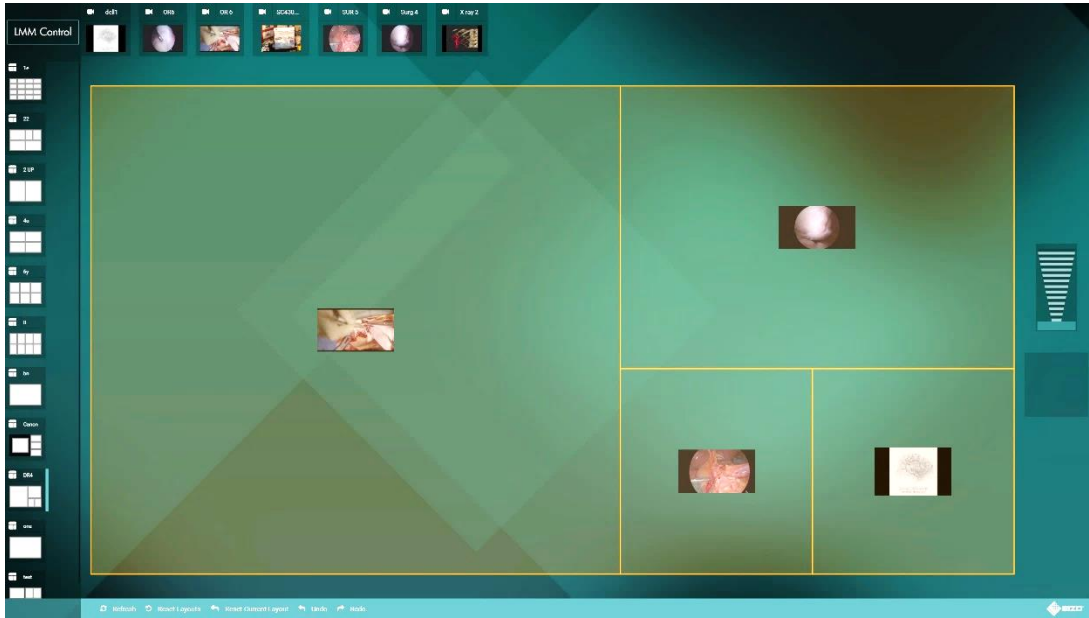
(Figure A, B)



(Figure-C)

Smart Key Controls

Located at the bottom of the tool bar are smart keys which offer additional flexibility that make it easier and faster to change layouts. The chart below defines the available opportunities.



Smart Key	Action
Refresh	Refreshes the network communication between the LMM0802 and the Windows 10 device connected. (Including EIZO CID touch screen sytesm)
Reset Layouts	Resets all changes back to the original saved layouts and the original instance positions in the video tiles.
Reset Current Layout	Resets current layout to original state saved in memory.
Undo	With each press of the undo key it goes back to the previous layout.
Redo	With each press of the redo key it restore the changes that were undone.



Adding Annotations to the On-screen Image

To add an annotation to the image, a USB keyboard and wireless mouse shall be connected directly to the LMM0802. Position the mouse up to the very right corner of the screen and the annotation box will appear. Click the blue pin on the bottom left to keep the box open while using.

There are a variety of shapes and text that can be chosen. Text and images can be erased by choosing the eraser or right clicking the images which will delete the image. The Annotation sidebar is available for local operation only. Remote access is not possible.

- To use the Annotation sidebar, "Annotation enabled" must be set in the system settings.
- When rebooting the LMM, annotations made previously are deleted.
- In Dual User mode, each user works with the Annotation sidebar independently of the other user



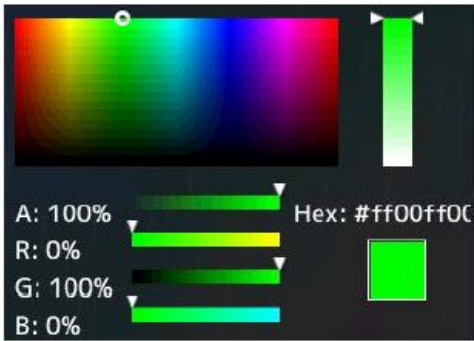
The table below explains the available buttons.

Symbol	Description
	Button for displaying all objects.
	Button for hiding all objects.
	Button for permanently deleting individual objects.
	Button for deleting all objects. Note: The objects are permanently deleted without the need for confirmation after clicking the button.
	Button for drawing ovals.
	Button for drawing rectangles.
	Button for entering text.
	Button for drawing a freehand line.
	Button for drawing polygons.
	Button for drawing lines.
	Button for drawing arrows.
	Button for drawing double arrows.
	Button for "thin" line width.
	Button for "medium" line width.
	Button for "thick" line width.
	Button for "solid" line type.
	Button for "dashed" line type.
	Button for "dotted" line type.



The color pallet is available for establishing the object colors.

Graphical objects can be created using the Annotation sidebar; for example, oval, rectangle, polygon, freehand line, arrow, double arrow, and text.



The following functions are available:

- Set and change object properties such as line width, line type using buttons.
- Select the line color using a color palette.
- Display or hide the graphical objects that are drawn.
- Permanently delete individual objects or all objects with one click.

Every object has "handles". A flashing handle marks the active object. Handles are used to set the size and orientation of the object.



Displaying or hiding objects

- To display the objects that have been created, click the button with the mouse.
- To hide the objects that have been displayed, click the button with the mouse.

Enter the required text.

- ⇨ The text is displayed in the default size. Use the handles to enlarge, rotate, or move the text.
- Enlarge / reduce
- Rotate
- Move
- Fig.: Text object handles

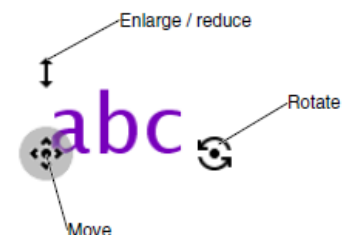


Fig.: Text object handles



Creating graphical objects

The Annotation sidebar is fixed.

1. In the sidebar, click the button for the required graphical object with the mouse.

Note: *The following graphical objects are available: oval, rectangle, polygon, freehand line, arrow, and double arrow. At the same time the object is selected, the most recently set line type, line width, and line color are selected. If you do not wish to change these, skip the following step.*

2. Select the required line width, line type, and line color in the sidebar with the mouse.

Note: *Line widths thin, medium, and thick, and line types solid, dashed, and dotted are available. Use the color palette to set the line color.*

3. In the image area, click and hold the left mouse button at the initial position desired.

Exception: To draw a polygon, click the initial position required, then click additional points in sequence. If a point is on a previous point, the polygon is closed, and a new polygon can be drawn. You can also use this to draw a line by selecting the start and end points and then clicking the end point again.

4. Drag the mouse pointer to the required end position and release the left mouse button. The object has been created. You can create additional objects of the same type by repeating the last two steps. To create an object of a different type, begin with step 1.

Note
Steps 2 and 3 can be in any order. You can also set the object properties after drawing the object.

Note

Deleting the active object with the right mouse button

You can delete the active object by clicking a handle with the right mouse button.

Editing objects

- The Annotation sidebar is fixed.
- The handles of the object to be edited are visible.

Note: If the object's handles are not visible, in the sidebar click the symbol of the corresponding object type with the mouse.

1. To change the size or position of an object, click the corresponding handle and drag it to the required position. The size and position of the object is changed.
2. If you want to change the line type, line width, or color of an object, first click one of the object's handles so that it flashes gray. The use the mouse to select the settings required.

Exception:

- The line type and width cannot be set for a text object.
- The settings for the object are changed.


Deleting objects

Deleting the active object with the right mouse button

- You can delete the active object by clicking a handle with the right mouse button.


Deleting individual objects

- The Annotation sidebar is fixed.

1. To delete individual objects, click the  button with the mouse in the sidebar. The handles of all objects are displayed.
2. Click the handle of the object to be deleted with the mouse. The object is deleted. To delete an additional object, repeat the last step.

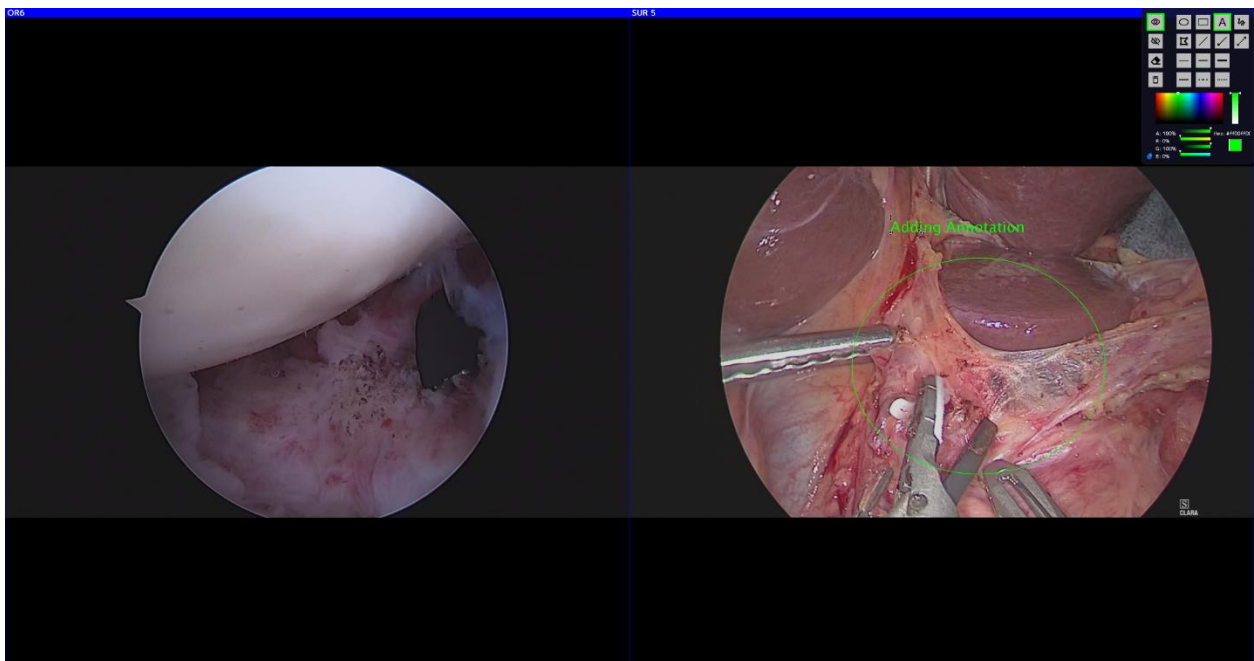


Deleting all objects

You delete all objects with the  button. Deletion is immediate and permanent when you click the button with the mouse. The sidebar does not have to be fixed.

- Only use this button if you are certain that all objects should be deleted. Deleting cannot be undone.

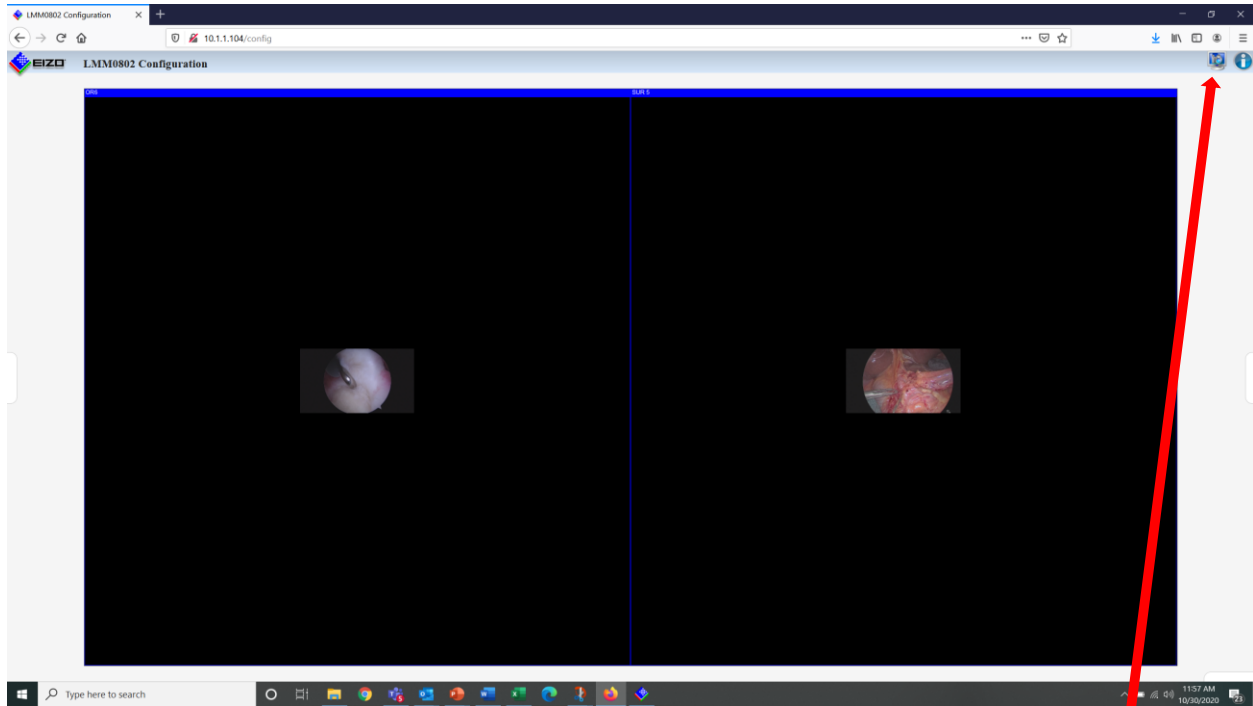
Example of annotations on screen





Saving Annotations

In order to save an annotation on the screen, please to open the Firefox web browser on the PC. The PC will need to be connected the LMM0802.



First type in the web address of the LMM0802. The images that are currently on the screen will appear without annotation. Next select the print screen button on the top right of the browser.



The dialog box below will appear, please check the Download box. Then another box will appear, select "Open with" and the desired image will open with the default windows photo viewer.

