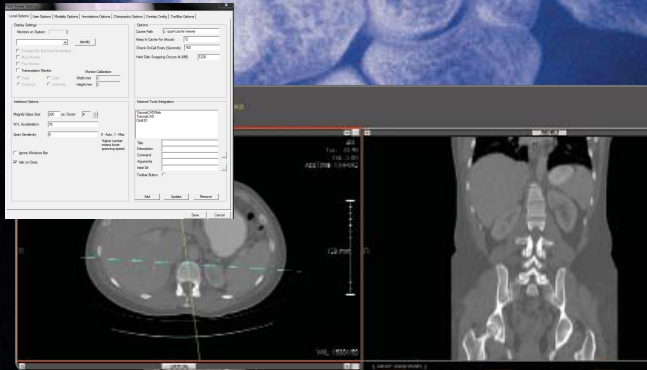# Opal-RAD

Your Practice. Your Preference.

Your Productivity Solution.

Administrative User Manual
for Opal VIEWER Settings Module

VIZTEK

This guide will offer an overview of the contents of each tab within the Settings Option of the Opal RAD Image Viewer, as well as provide a detailed explanation into every option offered to you, as the user, by definition and functionality, so that you may customize your viewer and maximize your workflow efficiency.

Guide Contents:

Opal Viewer User Settings Module
Administrative Options
April 2011

Tech Support: 800.366.5343

Enter the Opal Image Viewer Module by double clicking any study from the worklist. From here, you have the ability to change a variety of settings through the user **SETTINGS** option located at the top left of your viewer screen, available by hovering over the Viztek icon in the top left of your screen.

1. Hover over the Viztek icon, then left click the icon and select **SETTINGS >>EDIT** from the drop down menu.


2. Once clicked, the following **Opal Viewer Settings** window will pop up displaying 7 TABS:

Local Options

•Basic Systems or *Local* options set per workstation and user.

User Options

•Viewer Interface Options set per user account, Thumbnail Options, Record Control Options, Interface Font Sizes, and AutoSave Options

Modality Options

•Control of Screen Layouts, Display management, Mouse Button Programming, Streaming Quality, W/L Presets

•Other Options, by Modality and AutoSplit Rules

Annotation Options

•All Interface Options associated with Annotations, to include Color Settings

Chiropractic Options

•Upper Cervical calculation flips

Overlay Config

•List of Available DICOM tags; Ability to select right/left overlay display options

ToolBox Options

•All Options associated with ToolBox customization of icons by functionality; Manual customization of toolbox display, orientation and button size

1. First Tab: Local Options

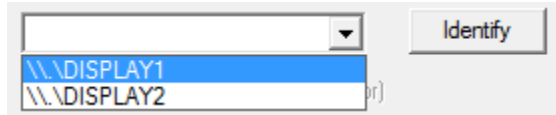These are Basic Systems or *Local* options set per workstation and user.
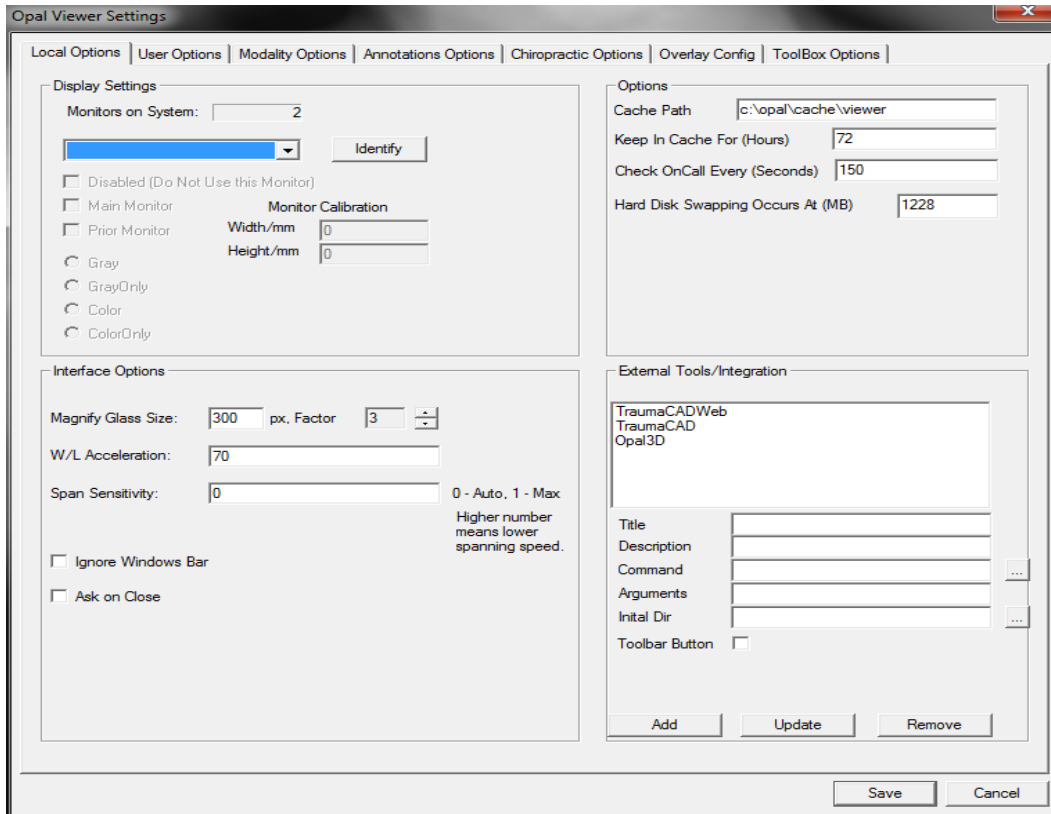
## 1.1   DISPLAY SETTINGS module: Allows you to calibrate each monitor. (See Figure 1.0)
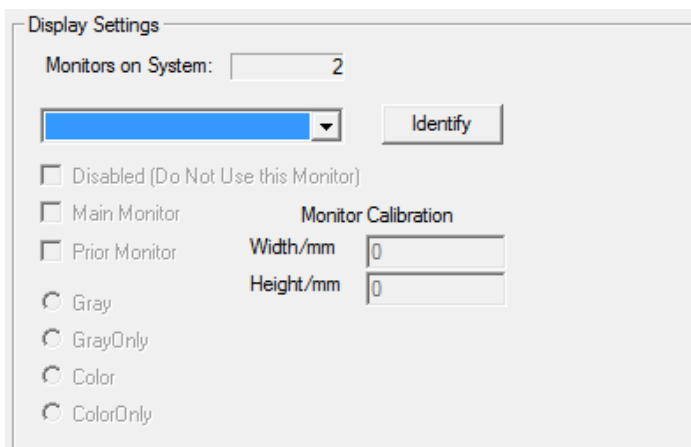
(Figure 1.0)

1.1.1 **Monitors on System** tells you how many monitors are associated with the current workstation in use.
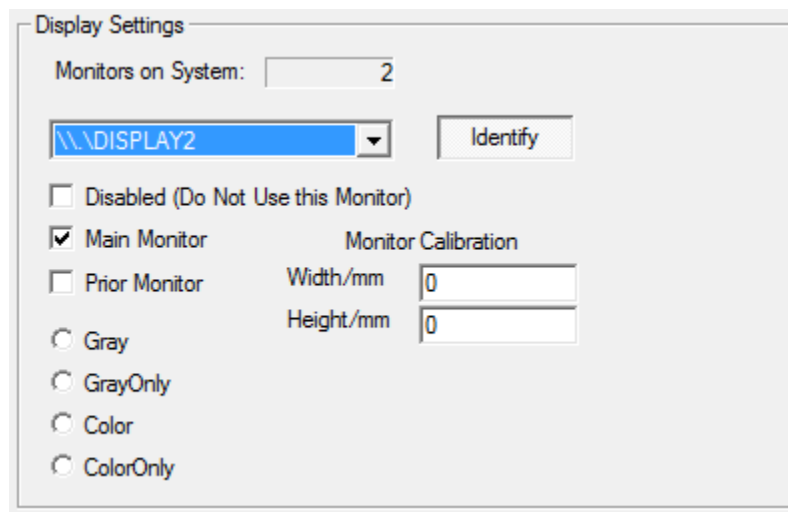
1.1.2 Select the dropdown menu to select which monitor you want to work with.

1.1.3 Use **Identify** button to display which monitor corresponds to the selected DISPLAY1/DISPLAY2. See example below.
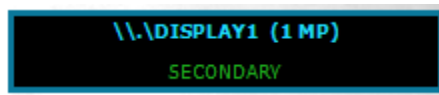
1.1.4 The following screen shot (Figure 1.1) indicates DISPLAY2 settings.
NOTE: DISPLAY2 is identified as the Main Monitor

(Figure 1.1)

- **Disabled (Do Not Use this Monitor)**, when checked, tells the software to NOT use this monitor for displaying images when Opal Viewer is launched.
- **Main Monitor,** when checked, identifies this monitor as the main functioning monitor.
- **Prior Monitor**, when checked , designates this as the Priors monitor where the Prior images/studies will display, *only when Priors exist*
- **Gray-** indicates images will display on this monitor if grayscale, but also color.
- **GrayOnly**- indicates images will *only* display on this monitor if grayscale. If color exists, the monitor will not be active.
- **Color-** indicates images will display on this monitor if color exists, but also grayscale

- **ColorOnly-** indicates images will *only* display on this monitor if color. If grayscale exists, the monitor will not be active.

1.1.5 **Monitor Calibration** allows you to calibrate each monitor, which in turn, activates the **True to Size** function. To calibrate your monitor, measure the inside width and height of your display. *You must use a positive integer when entering Width/Height in mm.

1.2 **INTERFACE OPTIONS** module: Allows you to adjust default mouse settings and magnification settings of viewer magnification tool.
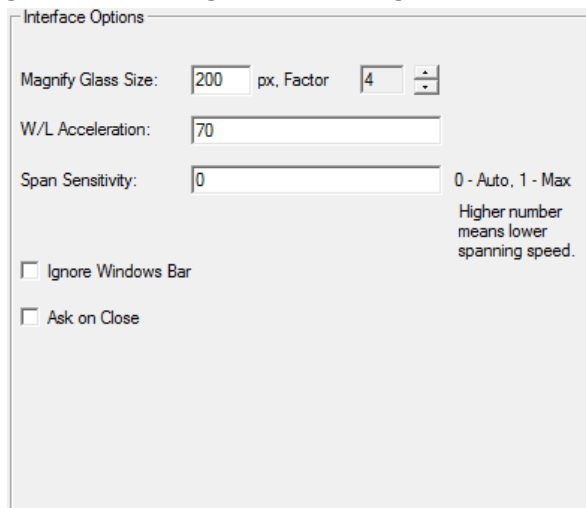
(Figure 1.2)

1.2.1 **Magnify Glass Size** (default is Left Mouse button on CR/DR modality)
- For smaller monitors (<19") = 325
- For larger monitors (>20") = 375+

1.2.2 **Zoom Factor** 3x recommended

1.2.3 **W/L Acceleration** (default is Right Mouse button on ALL modalities)
- If user wants mouse to be more responsive/faster = increase to 90+
- If user wants mouse to be less responsive/slower = 45-50

1.2.4. **Span Sensitivity** refers to how fast you want your mouse to span through images
- Specific to CT/MR/US modalities.
- 0 = Auto
- 1 = Max speed

1.2.4 **Ignore Windows Bar**
- When CHECKED, maximizes the viewing space displayed by hiding the windows tool bar
- When UNCHECKED, the windows tool bar is displayed.

1.2.5 Ask on Close: A pop up box that presents the user with optional settings before closing the Viewer, specifically related to AutoSave settings from Tab 2: User Options

- When CHECKED, the following pop up box displays upon closing the viewer and the user can manually select save options, as listed in Figure 1.3
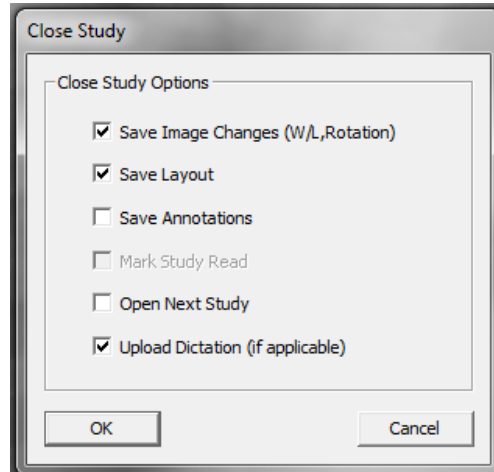
(Figure 1.3)

- When UNCHECKED, pop up box does *not* display

1.3 Options
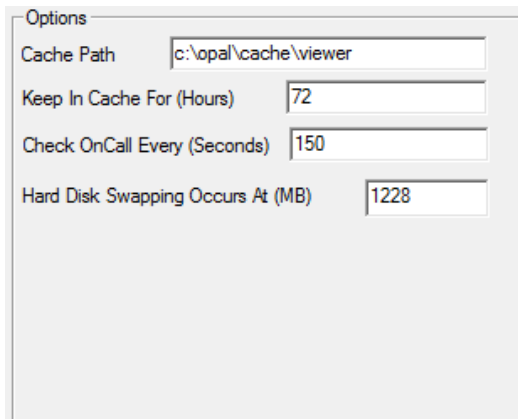
(Figure 1.4)

1.3.1 Cache Path
- Identifies path/ folder where OnCall/Prefetched studies are downloaded to.

1.3.2 Keep in Cache (Hours)
- Number of hours you want to keep the OnCall/Prefetched studies in the Cache folder. **Default = 72 hours**

1.3.3 Check OnCall Every (Seconds)

- Number of seconds OnCall studies are checked for and downloaded. **Please note:** OnCall will stop prefetching when user logs off. You will need to restart OnCall process upon logging back in.

1.3.4 Hard Disk Swapping Occurs At (MB)

- Refers to how large of a memory you hold in MB in your temporary cache folder on the hard drive.

1.4 External Tools/Integration

- Lists all external software that has been integrated into the Opal Viewer.
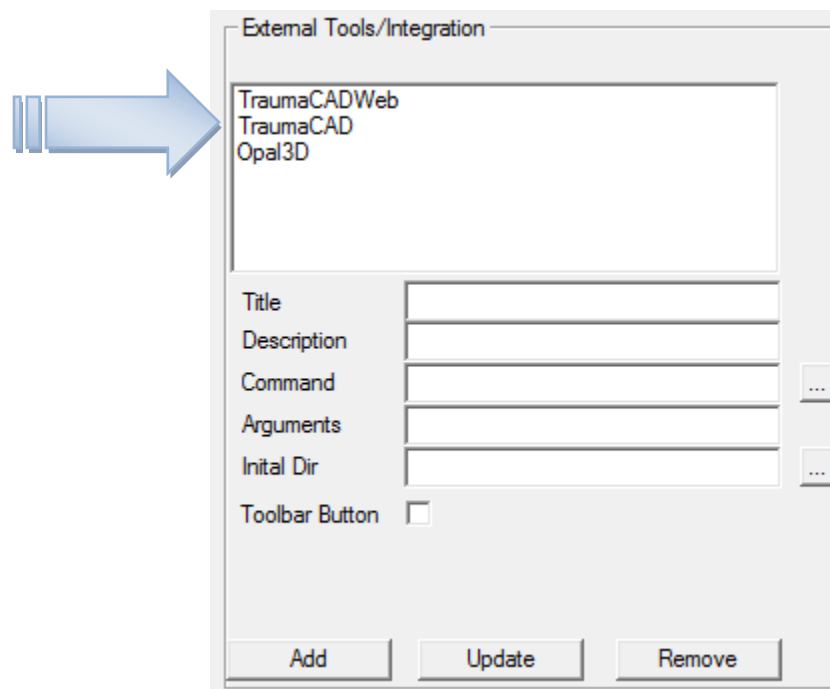
(Figure 1.5)

2. Second Tab: User Options
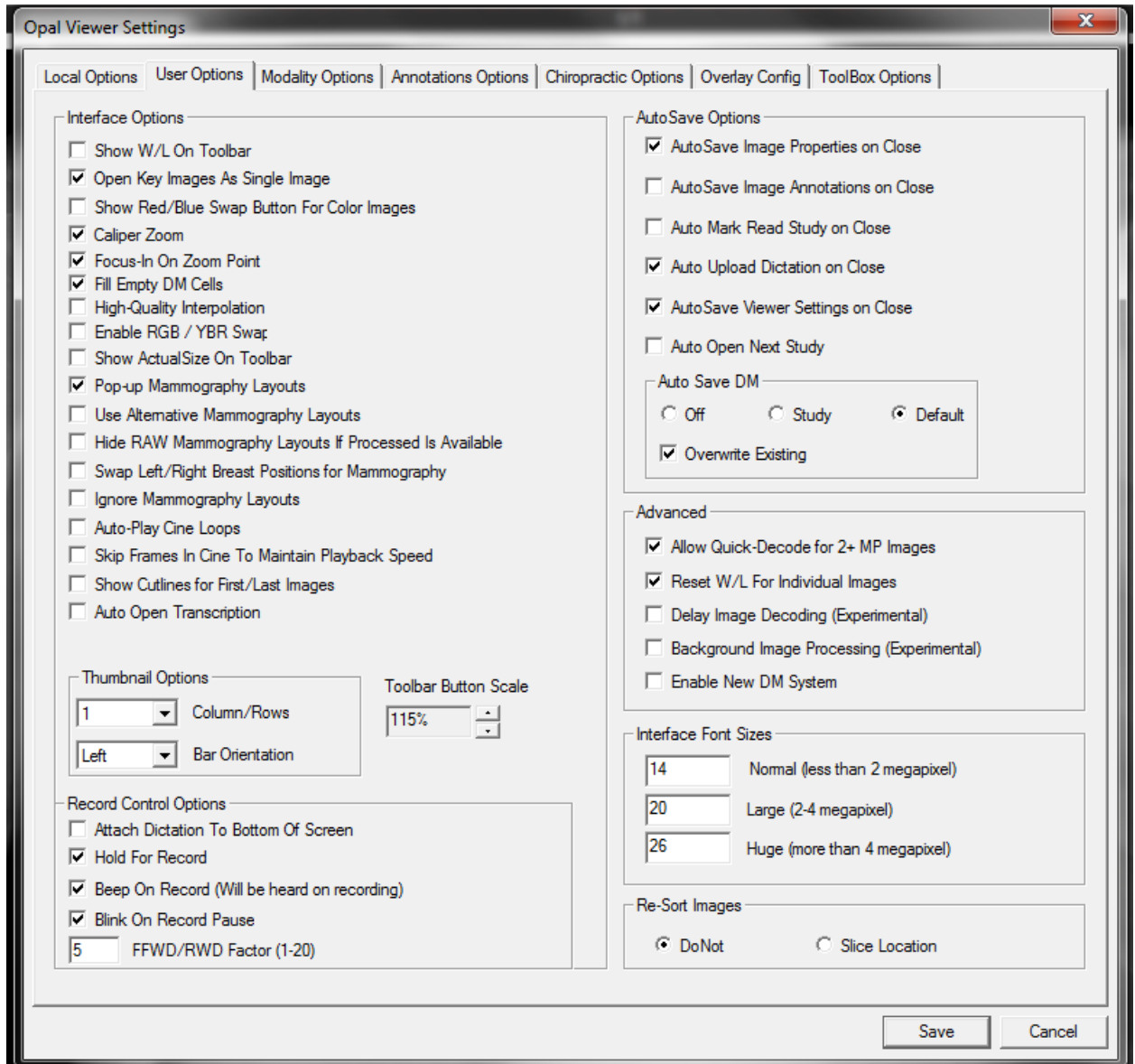
(Figure 2.1)

2.1 Interface Options

2.1.1 Show W/L on Toolbar

- W/L is commonly assigned to a default mouse button under Modality Options
- Recommended setting: **OFF**

2.1.2 Open Key Images As Single Image

- Allows user to display the highlighted key images as a separate set from the series list
- Recommended setting: **ON**

2.1.3   Show Red/Blue Swap Button for Color Images

- Relates to PET/CT scans
- Recommended setting: **OFF** *user preference

2.1.4   Caliper Zoom

- When selected, adds a ruler to the right side of the viewer screen to enable zoom of entire image.
- Recommended setting: **ON**

2.1.5   Focus-In on Zoom Point

- Draws screen to cursor when zooming
- Recommended setting: **ON**

2.1.6   Fill Empty DM Cells

- When selected, attempts to autofill empty windows (cells) with images
- Recommended setting: **ON**

2.1.7   High-Quality Interpolation*

- Recommended setting: **OFF**

2.1.8   Enable RGB/YBR Swap

- Off unless user video settings support it
- Recommended setting: **OFF**

2.1.9   Show Actual-Size On Toolbar

- Off unless Dr. performs transparency templating on screen and monitors have been calibrated.
- Recommended setting: **OFF**

2.1.10   Pop-Up Mammography Layouts

- When selected, turns on the Pop-Up prompt that displays the pre-determined mammography hanging protocols upon launching a mammogram study.
- Recommended setting: **ON** *user preference

2.1.11   Use Alternative Mammography Layouts

- When selected, offers an "alternative" set of mammography layout options that pull DICOM tags to include implants, specifically (Imp) = Implants and (ID) = Implant Displacement;
- Recommended setting: **ON** * user preference

2.1.12   Hide RAW Mammography Layouts If Processed Is Available

2.1.13   Swap Left/Right Breast Positions for Mammography

- Flip-flops the positions of the Left/Right breast images to display Right/Left
- Recommended setting: **OFF*** user preference

2.1.14   Ignore Mammography Layouts

- Turns off Mammo Preset Hanging Protocols Display
- Recommended Setting: user preference

2.1.15   Auto-Play Cine Loops

- When selected, will automatically begin cycling image slices

- Recommended setting: OFF

2.1.16 Skip Frames in Cine To Maintain Playback Speed

- When selected, attempts to maintain FPR by skipping image slices
- Recommended setting: **OFF**

2.1.17 Show Cutlines for First/Last Images

- Shows cutlines in BLUE for series by first and last image capture

2.1.18 Auto-Open Transcription

- When selected, will automatically open Transcription/Dictation Module anytime a study is selected from the worklist by double-clicking on that study
- Recommended setting: **OFF** *Unless the user is using a pre-built template or the Dragon 10/10.1 Speech Recognition software external tool is in use and running.

2.2   Thumbnail Options
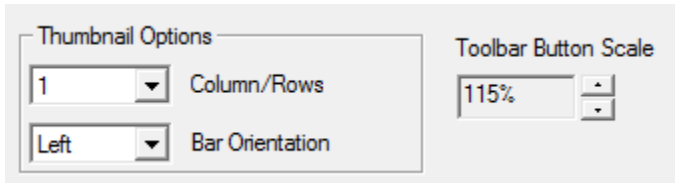
(Figure 2.2)

- **2.2.1 Column/Rows -** Select from the dropdown menu the number of columns or rows you would like to display your thumbnails. (*Choose from : 1, 2, 3, or 4*)
- **2.2.2 Bar Orientation** – Select from the dropdown where you want your thumbnails to display. (*Choose from: Left, Top, Right, Bottom*)
- **2.2.3 Toolbar Button Scale** – Customize the size of the icons within your viewer by indicating a size percentage.

## 2.3   Record Control Options
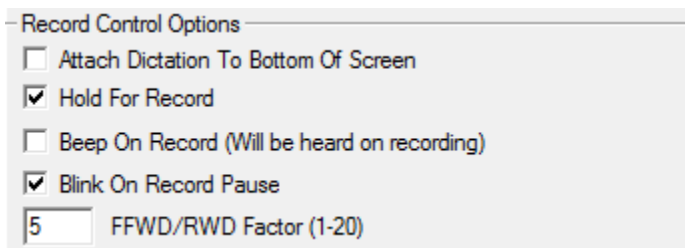
(Figure 2.3)

*This module of User Options refers to the dictation VIZMMC player and the associated supported speechmikes .

2.3.1 **Attach Dictation To Bottom of Screen** – By default the dictation player (also known as *VIZMMC player*) will display at the top of your viewer screen. You may select to display this *VIZMMC player* at the bottom of your screen by selecting this option.

2.3.2 **Hold for record** – When selected, the user must press the **Record** button on their speechmike <u>and hold the button down continuously</u> while dictating.

2.3.3 **Beep On Record** – When selected, the speechmike will make a **Beep** sound when the Record button is pressed to begin dictating.

2.3.4 **Blink On Record Pause** – When selected, the speechmike will **Blink** a red light when the user presses pause on the speechmike during their dictation.

2.3.5 **FFWD/RWD Factor (1-20)** – Indicate a factor (1-20) to increase or decrease the fast-forward and/rewind speed of the speechmike.

1 = Slowest and 20 = Fastest

2.4 AutoSave Options

*These options, when selected as identified by a checked box, turn the functionality **ON**.
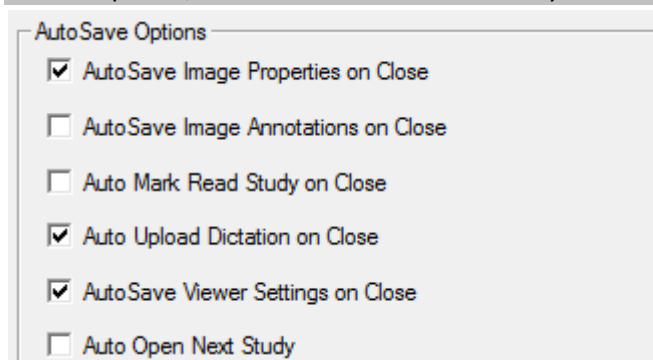
(Figure 2.4)

2.4.1 **AutoSave Image Properties on Close**
- The adjustments/changes made to the image will save upon close
- Recommended setting: **ON**

2.4.2 **AutoSave Image Annotations on Close**
- Any annotations made to the images will save upon close
- Recommended setting: **ON**

2.4.3 **Auto Mark Read Study on Close**
- Automatically changes the status of the study to "READ", upon close.
- Recommended Setting: **ON**, unless the physician prefers to change the status manually.
- PLEASE NOTE: If the dictation module is in use and the facility workflow includes DICTATION/TRANSCRIPTION/APPROVE options, then this autosave "Mark READ" option is nullified and overridden.

2.4.4   **Auto Upload Dictation on Close**

- Automatically saves the recorded dictation (.wav file) upon close.
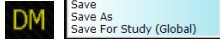- Recommended setting: **ON**

**2.4.5**   **AutoSave Viewer Settings on Close**

- Remembers the layout of the images and saves that layout upon close, to include all changes made to Viewer User Settings.
- Recommended setting: **ON**

2.4.6   **Auto Open Next Study**

- Automatically opens the next study on the worklist upon close**.**
- Recommended setting: **OFF**

2.5   AutoSave DM

This module is used as an AutoSave option in conjunction with **Section 3.4 Display Management** for automating the saving of hanging protocols, as opposed to a manual save process done by using the [DM | Save / Save As / Save For Study (Global)] icon from within the viewer.
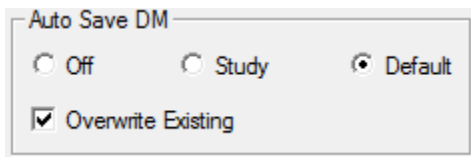
(Figure 2.5)

2.5.1   If **OFF** is selected, AutoSave DM is turned off and no AutoSave options are enabled for hanging protocols.

2.5.2   If **STUDY** is selected, then AutoSave DM will save the hanging protocol created during the most recent open viewing session for THAT particular study. ***Please note: This option is NOT RECOMMENDED unless an identified workflow process has been established with a Viztek representative that warrants this setting.**

2.5.3   If **DEFAULT** is selected, then AutoSave DM will save the hanging protocol created during the most recent open viewing session for all studies with that specific MODALITY and additional criteria built as indicated in **Section 3.4 Display Management**

2.5.4   If **Overwrite Existing** is checked (usually in conjunction with **DEFAULT AutoSave DM** turned ON), the logic would apply given the following circumstance:
 If a hanging protocol has already been built and saved and the account user changes any hanging protocol logic (ie: drags and drops another image into a quadrant to replace the existing displayed image in that quadrant) then upon closing the viewer, that most recent change made to the hanging protocol will *replace* the previously saved DEFAULT hanging protocol.

2.6   Advanced
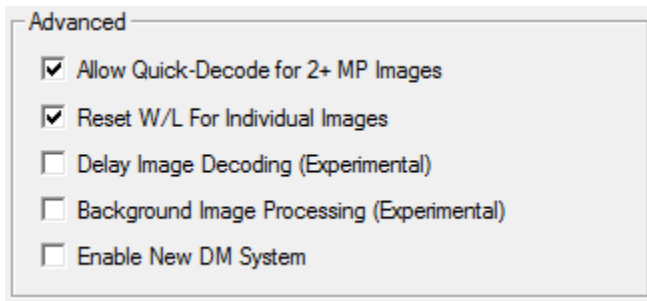
(Figure 2.6)

2.6.1   Allow Quick-Decode for 2+MP Images When checked, this option allows the user to display thumbnails very quickly and eliminates the "long" download process of multiple images
- Mostly in reference to **MG** modality

2.6.2   Reset W/L For Individual Images Usually every image that is sent to the PACS has its own W/L setting. By default, Opal PACS displays the *first* W/L setting sent by the modality. When this option is selected, Opal PACS will reset the W/L to its original preset
- Mostly in reference to each image for **NM/MRI** modality

2.6.3   Delay Image Decoding (*Experimental*)

2.6.4   Background Image Processing (*Experimental*)

2.6.5   Enable New DM System – When selected, enables Display Management manager module, which is launchable from the viewer under the DM icon (**See Figure 2.7**)
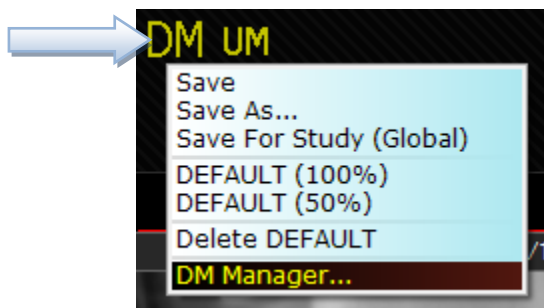
(Figure 2.7)

2.7   Interface Font Sizes
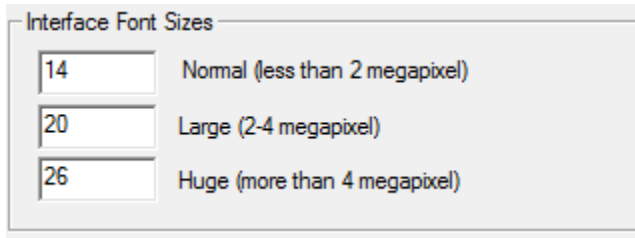
(Figure 2.8)

    2.7.1   Normal (less than 2 megapixel)
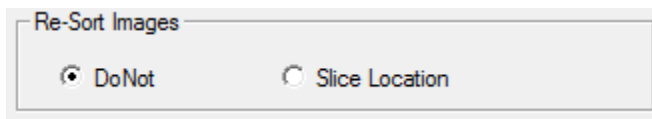- Recommended default font size = **14**

    2.7.2   Large (2-4 megapixel)
- Recommended default font size = **20**

    2.7.3   Huge (more than 4 megapixel)
- Recommended default font size = **26**

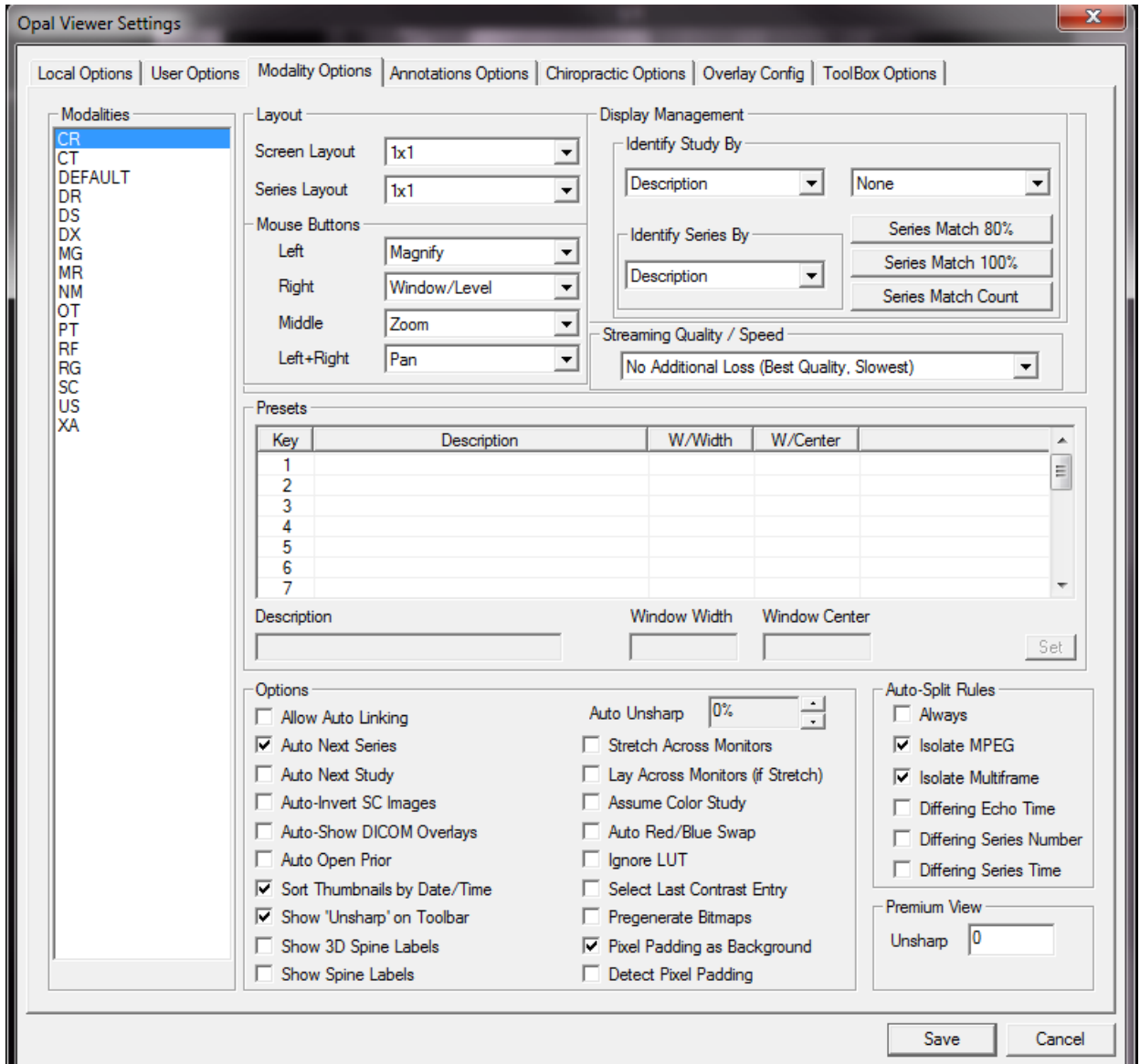### 2.8   Re-Sort Images

(Figure 2.9)

    2.8.1   Re-Sort Images
- **DoNot** - Will reset and re-sort images upon opening. RECOMMENDED: **ON**
- **Slice Location** – Will attempt to sort the images based on slice location. RECOMMENDED: **OFF**

3. Third Tab: Modality Options

(Figure 3.0)

3.1 **Modalities** – This is a list of all the available modalities supported by Opal RAD.

CR Computed Radiography

CT Computed Tomography

DEFAULT

DR Digital Radiography

DS Digital Subtraction Angiography (Retired)

DX Diagnostic Exam

MG Mammography

MR Magnetic Resonance

NM Nuclear Medicine

OT Other

PT Positron Emission Tomography (PET)

RF Radio Fluoroscopy

RG Radiographic Imaging (conventional film)

SC Secondary Capture

US Ultrasound

XA Xray Angiography

3.2 **Layout**

    3.2.1 **Screen Layout** Select from the dropdown menu the desired *screen layout* display.

    3.2.2 **Series Layout** Select from the dropdown menu the desired *series layout* display.

3.3 **Mouse Buttons** Allows the user to program his mouse buttons to a variety of basic viewer functionality, as listed in the dropdown menu for Left/Right/Middle/Left + Right buttons. *Please note: **THIS IS PER MODALITY and PER USER**

If you select:

    3.3.1 **None**   No functionality assigned this button

    3.3.2 **Magnify**   Magnification tool assigned to this button when pressed and held down. Gives the user a magnification lens to maneuver.

3.3.3 **Pan** Pan tool assigned to this button when pressed and held down. Gives the user the ability to "grab" the image and pan it around within the viewer window.

3.3.4 **Zoom** Zoom tool assigned to this button when pressed and held down. Gives user ability to zoom into and out of the image within the viewer window.

3.3.5 **Window/Level** Gives user Windows/Level functionality when button is assigned.

3.3.6 **Span** When this button is pressed and held down, gives user the ability to span through the images within a series.

3.3.7 **Context** Allows user to apply a context reference for linked images on MR/CT modalities.

3.3.8 **Hounsfield** Allows user to identify the Hounsfield unit for any given point on an image – **Commonly used for CT modality** *See **Table1.0** below for a reference guide to the Hu of common substances.

Substance	HU
Air	−1000
Fat	−120
Water	0
Blood	+30 to +45
Muscle	+40
Contrast	+130
Bone	+400 or more

(Table 1.0)

3.4   Display Management

It is here, within the Display Management Module, that a user can build their hanging protocols *by modality*.

♦**Please note: Before you begin building the hanging protocol logic, you must select your AutoSave DM options, as indicated in Section 2.4 AutoSave Options**

To begin,
1. Select the modality you wish to build the hanging protocol for.
2. Under **Identify Study By,** indicate what field you would like to build the second step of logic for. Select N**one, Body Part or Description** from the drop down menu. Where:

   None = Select **None** if no hanging protocol logic is to be applied
   Body Part = Select **Body Part** if you would like to apply the *Body Part* field to the hanging protocol logic. *****Recommended for CR/DR/DX modalities**
   Description = Select **Description** if you would like to apply the *Study Description* field to the hanging protocol logic. *****Recommended for CT/MR modalities**
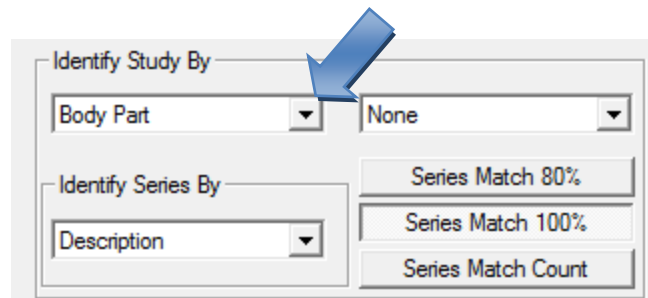

3. Under **Identify Series By**, indicate what field you would like to build the third step of logic for. Select **Description, Protocol Name, View Position, or Laterality** from the dropdown menu. Where:

   Description = Select **Description** if you would like to apply the *Study Description* field to the hanging protocol logic.
   Protocol Name = Select **Protocol Name** if you would like to apply *a Procedure Code Mapping* to the hanging protocol logic. *****Used for CR/MR modalities but not recommended.**
   View Position/Laterality= Select **View Position** or **Laterality** if you would like to apply a Position label (left/right) Direction tag to your hanging protocol logic. *****Not recommended**
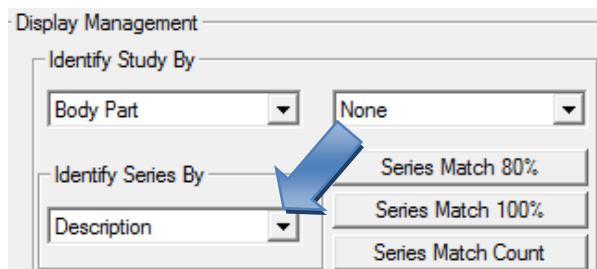
⬥ **IMPORTANT INFORMATION REGARDING MAMMOGRAPHY HANGING PROTOCOLS**:
The above hanging protocol logic **does not** apply to the Mammography modality. For MG
modality there are a preset series of offered mammography layouts that display dependent
upon the Study Description and/or if Priors exists for the study. Therefore, there is no option
for customizing layouts for this modality.

⬥ If you would like additional instruction on building your hanging protocols, please contact a
Viztek Tech Support Representative at 1-800-366-5343, option 1.

3.5 Streaming Quality/Speed

3.5.1 From dropdown, user can choose their customized streaming quality and speed. By
default = **No Additional Loss 9Best Quality/Slowest** is usually selected.
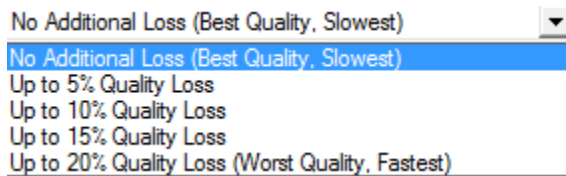
3.6 Presets

**Refers to the creation of "hotkeys" (numbers) associated with a predetermined window and
level (contrast and brightness) setting, by modality.**

*Please note: CT modality already has pre-built Presets. (See Figure 3.1 - CT Presets below)

Key	Description	W/Width	W/Center	
1	ABD - SOFT TISSUE 1	350	20	
2	ABD - SOFT TISSUE 2	400	40	
3	ABD - LIVER	160	70	
4	BODY - BONE	1500	150	
5	CHEST - MEDIASTINUM	643	95	
6	CHEST - LUNG	1600	-600	
7	HEAD - SOFT TISSUE	150	40	

Description   Window Width   Window Center

(Figure 3.1 – CT Presets)

3.7 Options

 PLEASE NOTE: All the listed functionality below is BY MODALITY, meaning each of these features will need to be addressed as either active/inactive for each modality selected.

3.7.1 Allow Auto Linking

- When selected, will automatically NUMERICALLY link the alternate angles (Sagittal, Coronal, Axial) with one another in the study

3.7.2 Auto Next Series

- When selected, will automatically allow the user to scroll through the different images within a series using the scroll mouse button

3.7.3 Auto Next Study

- When selected, will automatically open the next study (as listed in the studylist) within the viewer as opposed to closing out the study and returning to the studylist.

3.7.4 Auto-Invert SC Images

- When selected, this functionality will invert the contrast of a scanned document, often a prior patient report. Used primarily to eliminate the glare and brightness of a document on the reading physician's eyes
- *SC = Secondary capture*

3.7.5 Auto-Show DICOM Overlays

- When selected, will automatically display the white DICOM overlays on the right/left side of the images upon opening them within the viewer.
- You can also toggle this feature ON/OFF by pressing the "O" key on your keyboard. *Please see also *"Hot Keys Chart"* found under **ABOUT>>Hot Keys Chart**

3.7.6 Auto Open Prior

- When selected, this feature will automatically open the patient prior studies based on the hierarchy of Modality>>Body Part>>Series Description

3.7.7 Sort Thumbnails by Date/Time

- When selected, this feature will organize the thumbnail images based on the time stamp generated by the modality at the moment their images scan into PACS.

3.7.8 Show "Unsharp" on Toolbar

- When selected, the **UM** = *Unsharp Masking* icon tool will display in the toolbar for selection.
- Specific to **CR** modality

3.7.9 Show 3D Spine Labels

- When selected, the **SPINE 3D** = *3D Spine Labels* icon tool will display in the toolbar for selection.

3.7.10 Show Spine Labels

- When selected, the = *Spine Labels* icon tool will display in the toolbar for selection.
- Specific to **CR, DR, CT, MR** modalities

3.7.11 Stretch Across Monitors

- When selected and if multiple monitors exist in the viewer display setup, Opal will stretch the images across all the active display screens

3.7.12 Lay Across Monitors (if Stretch)

- When selected (and if **Stretch Across Monitors** is selected), this will break each image slice into its own image and display them across the multi-monitor display.

3.7.13 Assume Color Study

- When selected, can be used to force a chosen modality (ie: PET or US with contrast) to the default color monitor based on your viewer display settings

3.7.14 Auto Red/Blue Swap

- When selected, gives the user an alternate contrast in Color Studies, by default.

3.7.15 Ignore LUT

- Recommended setting: **OFF**
- By default, Opal PACS processes images based on the LUT values. If, for some reason, these LUT values are corrupted. When this option is selected, Opal PACS will ignore the LUT values to attempt to produce a better image, if necessary for troubleshooting.
- Specific to MG modality in most cases, but can troubleshoot for all modalities
- **LUT =** *Look Up Tables*

3.7.16 Select Last Contrast Entry

- Modalities usually send multiple W/L settings for an image. Opal PACS, by default will pick up the first W/L setting sent.
- When selected and the specific modality sends multiple W/L setting, OPAL PACS will pick up the *LAST* W/L setting. *This setting is usually facility specific based on how their individual modality send over the W/L setting

3.7.17 Pregenerate BitMaps

- When selected, if the occurrence of .bit image are imported into PACS, then Opal will autogenerate them.

3.7.18 Pixel Padding as Background

- Recommended setting: **ON**

3.7.19 Detect Pixel Padding

- Recommended setting: **ON**

3.7.20   **Auto Unsharp** Indicate 0% - 100% for automatic application of Unsharp Masking to that specific modality for every image opened at the percentage assigned in the dropdown menu. *Please note this UM setting will be applied to the image upon opening.

3.8 Auto-Split Rules

3.8.1   Always

- When selected, will ALWAYS split a multi-slice image up into separate series

3.8.2   Isolate MPEG

- If selected, will divide MPEG images/videos around the screen if MPEG images are indeed detected

3.8.3   Isolate Multiframe

- If selected, will extract Cine Loops into multiple image thumbnails

3.8.4   Differing Echo Time

- Refers to the echo time of the different frames within an echo grouping that determines *when* to split the images

3.8.5   Differing Series Number

- Refers to the series number that determines *where* to split the series images

3.8.6   Differing Series Time

- Refers to the time stamp associated with the series that determines *when* to split the images

3.9 Premium View

3.9.1   Unsharp

- Enter an Unsharp Masking value (**0-100%**) in the field provided. (See **Figure 3.2**)
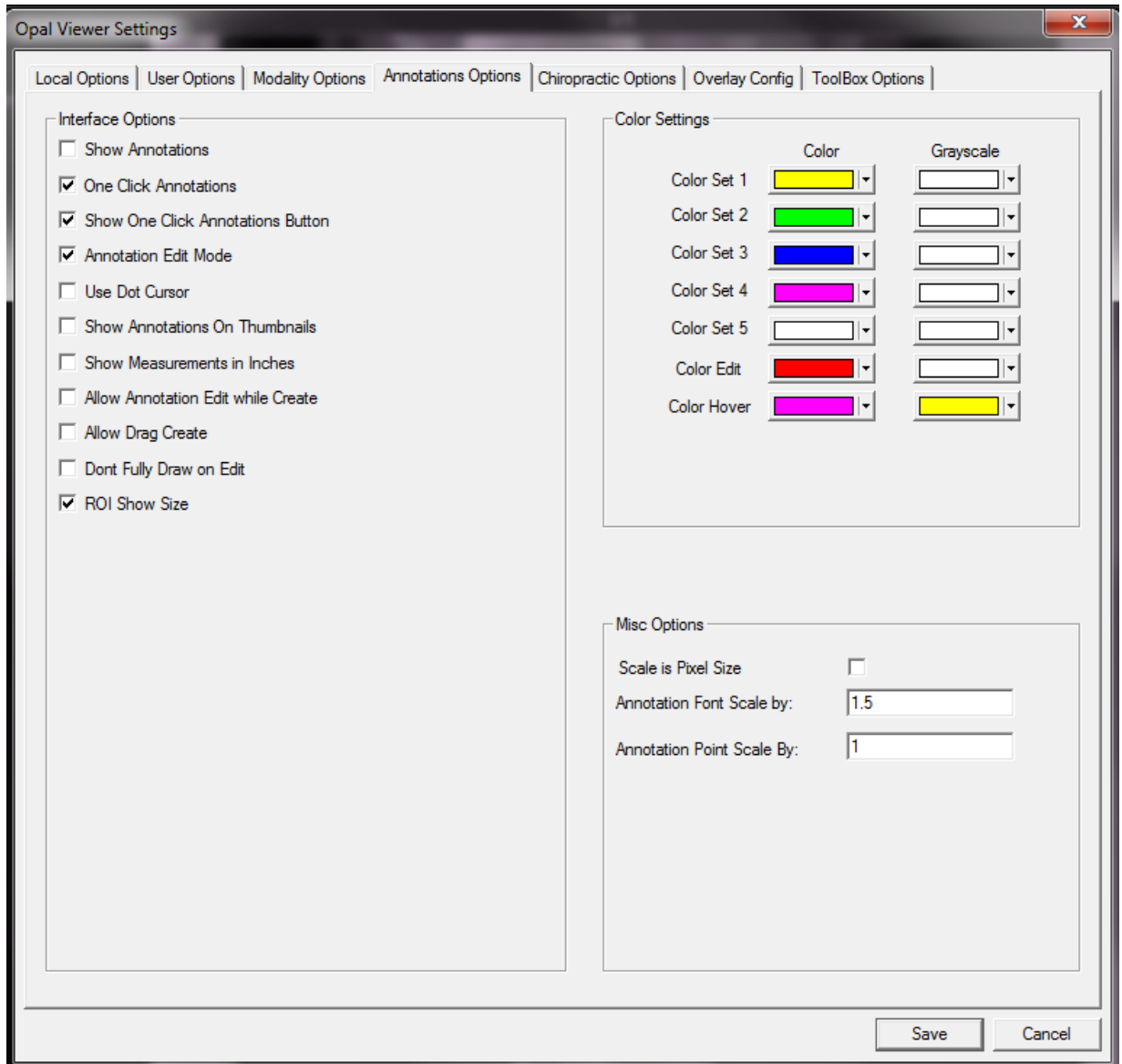

Figure 3.2

This will now allow the user to toggle the indicated UnSharp Masking setting ON/OFF on all images for that modality when using the **HotKey = F11**.

Please note this UM feature will not automatically be applied upon opening but offers a preset "toggle" of a desired Unsharp Masking percentage.

4. Fourth Tab: Annotations Options

(Figure 4.0)

4.1 Interface Options

4.1.1 Show Annotations

- When selected, this function displays all annotations made on the image upon opening the study within the viewer.
- You can also toggle this feature ON/OFF by pressing the "A" key on your keyboard. *Please see also *"Hot Keys Chart"* found under **ABOUT>>Hot Keys Chart**
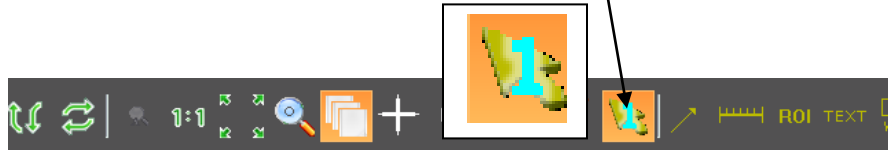
4.1.2   One Click Annotations

- When selected, allows the user to create annotations with a "one-click placement" functionality.

4.1.3   Show One Click Annotation Button
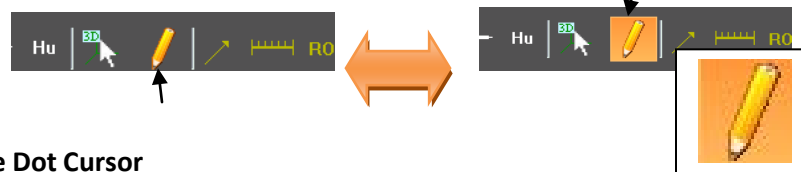
☑ Show One Click Annotations Button

- When selected, will display the *One Click Annotation Button* in the Image Viewer Tool Bar, as shown below:

- If not selected, the button will not display in the Image Viewer Tool bar.

4.1.4   Annotation Edit Mode

- When selected, will highlight/activate the *Edit Annotations Tool* icon

4.1.5   Use Dot Cursor

- When selected, will display your cursor as a dot as opposed to an arrow.

4.1.6   Show Annotations On Thumbnails

- When selected, will display all annotations placed on that particular image in the thumbnail view.

4.1.7   Show Measurements in Inches

- When selected, will display all measurement annotations in "inches" units.

4.1.8   Allow Annotation Edit while Create

- When selected, allows user to *edit* a previously created annotation even though the software is set to create annotation. This is an override feature.
- Only functional if **One Click Edit (4.1.2)** is turned OFF!

4.1.9   Allow Drag Create

- When selected, will allow user to click – drag – click to apply an annotation versus a click – click – click to apply
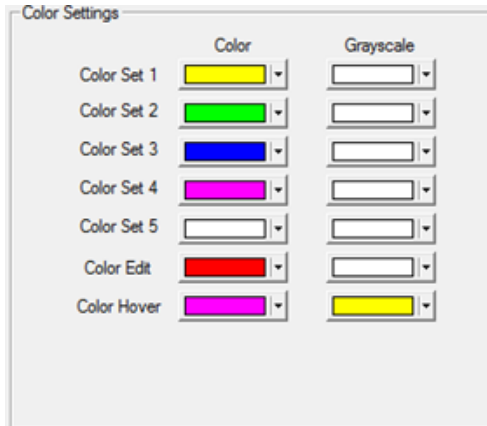
4.1.10   Don't Fully Draw on Edit

- When selected, this will only apply a dot to the first point when drawing an annotation, then pauses and waits for the other dot to be plotted before a line is drawn between the two.

4.1.11   ROI Show Size

- When selected, displays additional *length measurement* to ROI display.

4.2 Color Settings

(Figure 4.1)

4.2.1 Color Set (1-5)
- Allows you to customize the color that displays when an annotation is applied to an image **(SET).**

4.2.2 Color Edit
- Allows you to customize the color that displays when an annotation is highlighted for editing **(EDIT).**

4.2.3 Color Hover
- Allows you to customize the color that displays when a user hovers over the annotation **(HOVER).**

4.3 Misc Options

4.3.1 Scale is Pixel Size
- Check this box if font size should be determined by Pixel Size

4.3.2 Annotation Font Scale by: _____
- Allows you to customize the font size of an applied annotation
- Default is approximately 1 or 1.5 when **Scale is Pixel Size** *IS NOT* checked
- Default is approximately 10 is when **Scale Pixel Size** *IS* checked.

4.3.3 Annotation Point Scale by: _____
- Allows you to customize the point scale (size) of the annotation "end points"
- Enter a number between 0.1 – 5

5. Fifth Tab: Chiropractic Options
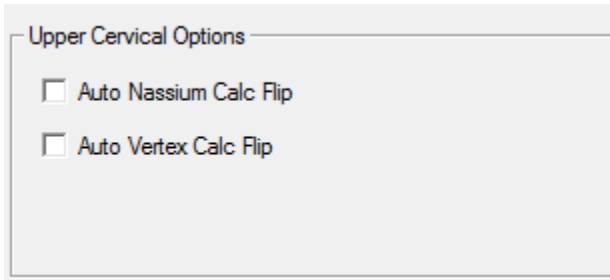
(Figure 5.0)

5.1 **Upper Cervical Options** These options switch the assumptions of right/left sides of the image (patient) for either Nasium or Vertex calculations. The application of either of these functions eliminates the need for the user to flip the calculations. The software will automatically create that flip.

    5.1.1 **Auto Nasium Calc Flip**

    5.1.2 **Auto Vertex Calc Flip**

6. Sixth Tab: Overlay Config
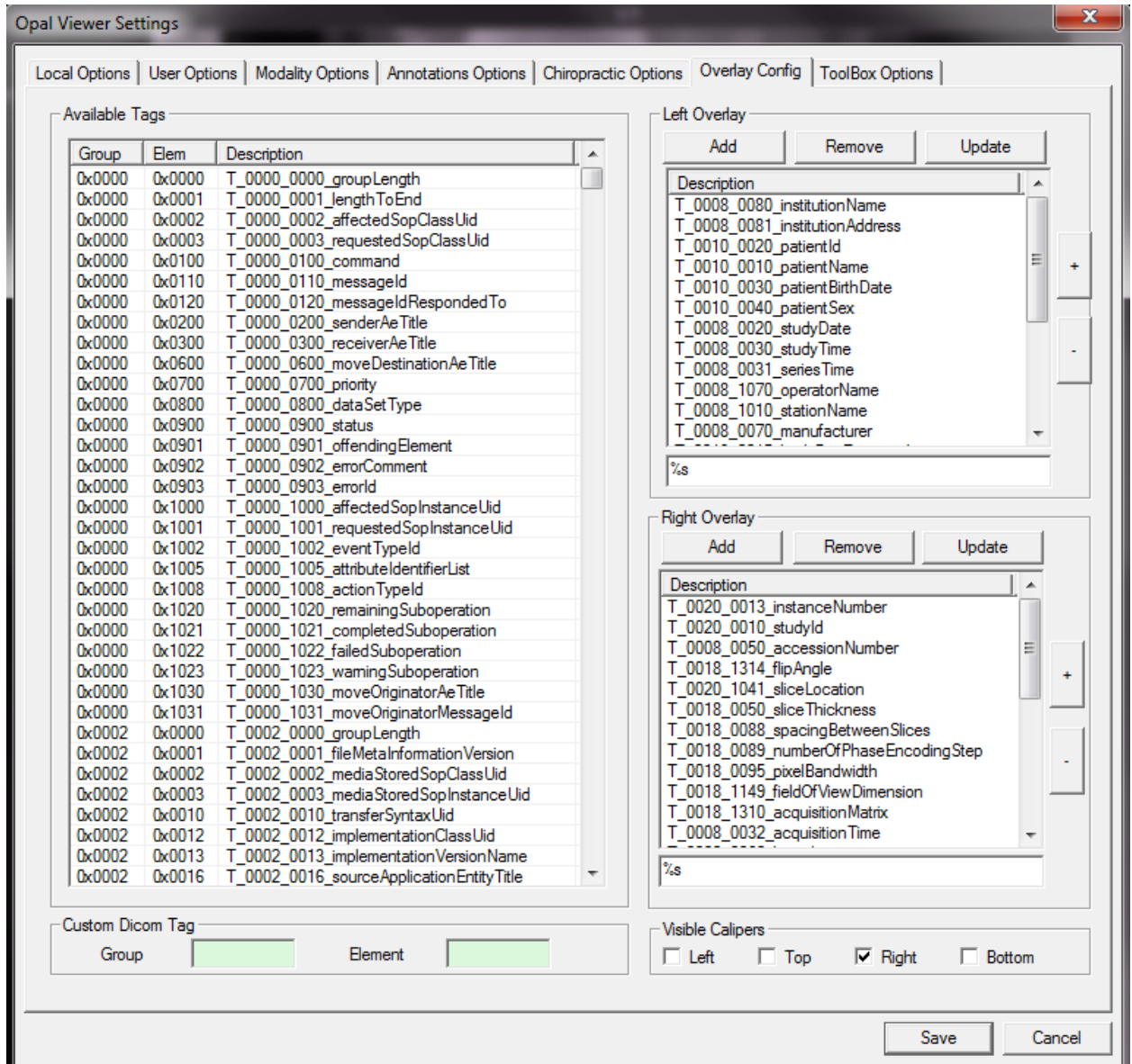
(Figure 6.0)

6.1 **Available Tags** List of all possible DICOM tags available to display as overlays on individual images or series of images .

6.2 **Custom DICOM Tag** Allows you to create a customized DICOM tag by entering the Group # and Bement value in the fields provided.

6.3 **Left Overlay** Indicates all DICOM tags to be displayed on the left side of the image.
   Right Overlay Indicates all DICOM tags to be displayed on the right side of the image.

To Display Left & Right Overlays:

Highlight the DICOM tag you wish to display on the image overlay.

Hit the **ADD** button on either Left/Right Overlay column, depending on the desired location of the displayed overlay.

Then click **SAVE**.

To remove a Left or Right Overlay:

Highlight the DICOM tag you wish to remove from the overlay display.

Hit the **REMOVE** button.

Then click **SAVE**.

6.4   Visible Calipers

- Select WHERE you would like the Visible Calipers to display on the image. You may choose Left-Top-Right-and/or Bottom, as shown in the examples in **Figure 6.1** and **Figure 6.2** below:
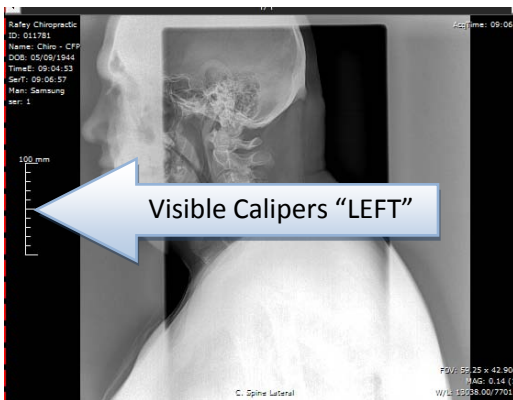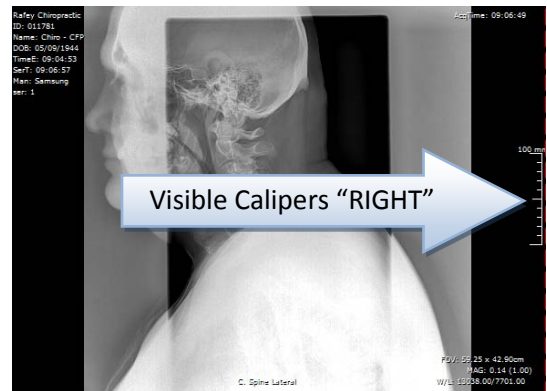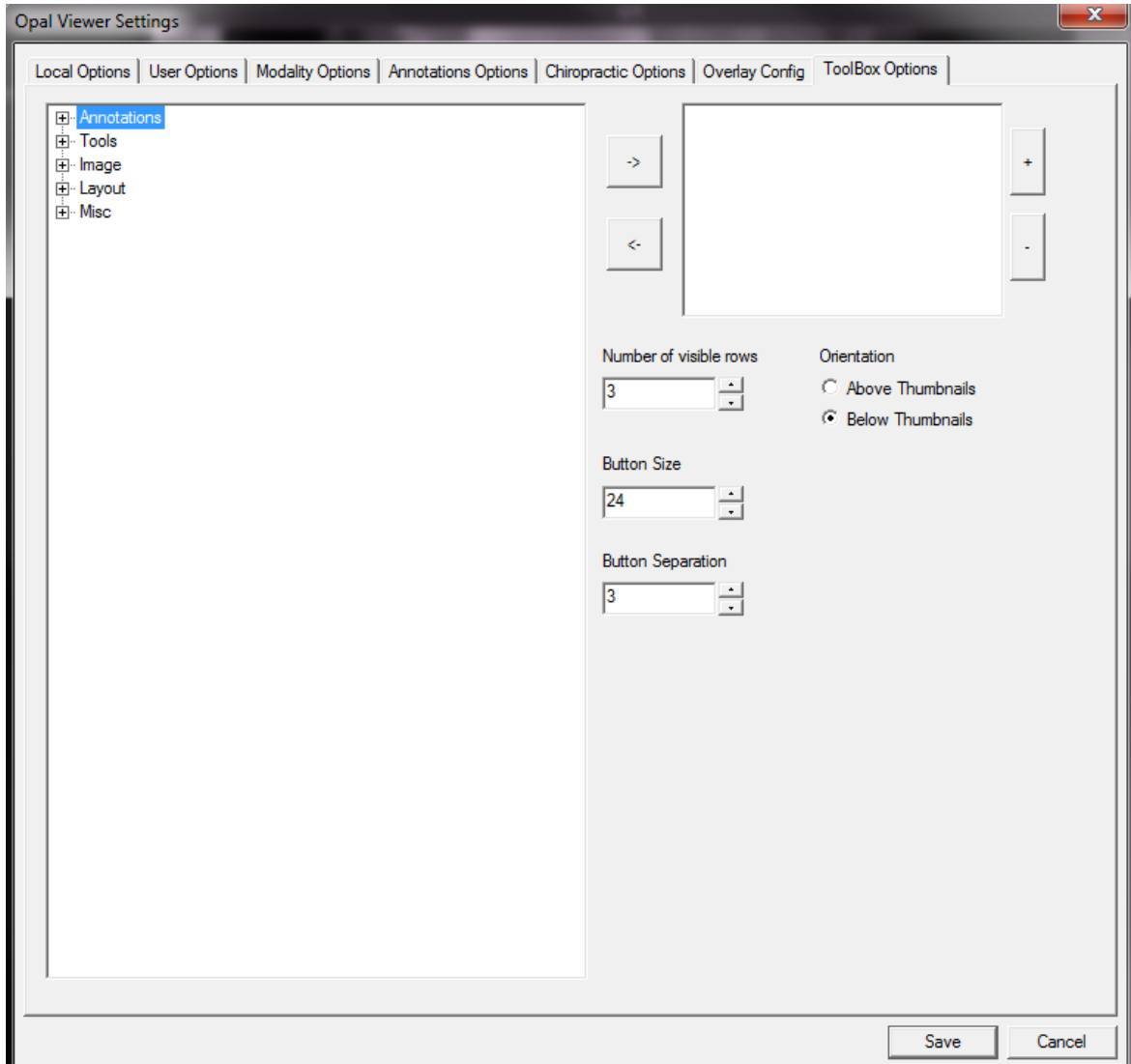

Figure 6.1

Figure 6.2

7. Seventh Tab: ToolBox Options

(Figure 7.0)

This is where you can create your own personal "TOOLBOX" of icons for the Annotation, Tools, Image and Layout functionality. Click on the expansion icons to "open" the list of available tools/icons that can be selected and displayed in your customized toolbox. Highlight with a single left click which icon you would like to display in your toolbox and the select the -> arrow icon to move that functionality over to the selected list. Then you may customize the display of your toolbox as indicated below:

7.1   Number of visible rows

- Select the number of rows you would like to have in your toolbox.

7.2   Button Size

- Select the desired size of the toolbox buttons you would like to display in your toolbox.

7.3   Button Separation

- Select the desired size of separation between the various icons in your toolbox.

7.4   Orientation

- Select whether you would like your personalized toolbox to be displayed **Above Thumbnails** or **Below Thumbnails.**

An example of a personalized toolbox is shown below in **Figure 7.1** where the **Actual Size**, **Zoom, Pan** and **Magnify** tools have been selected to display, as instructed above.

(Figure 7.1)