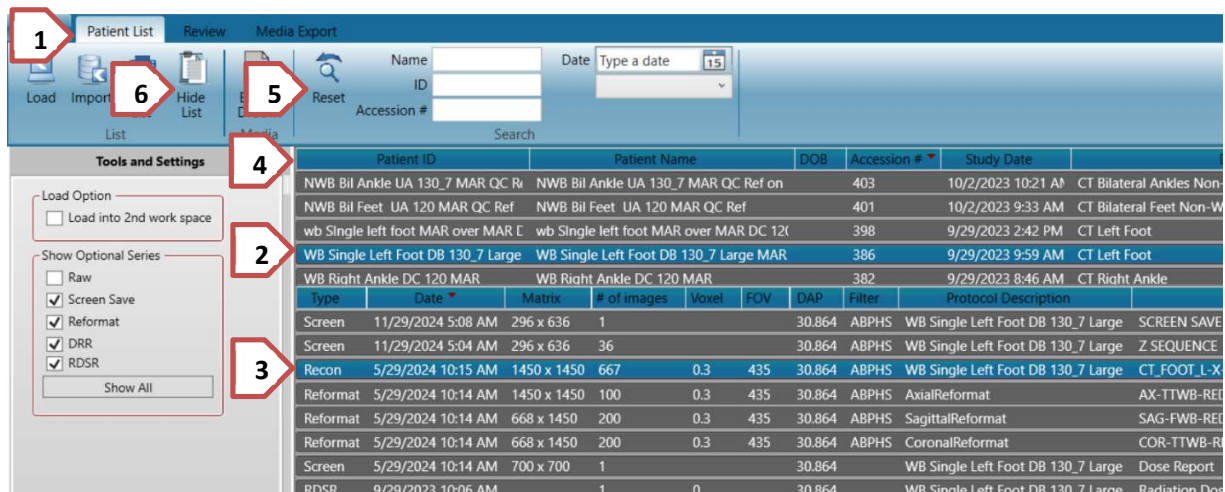**A full description of all CubeVue features can be found in the CubeVue Operator's Manual, and video tutorials can be found at the CurveBeam AI website:**

http://www.curvebeamai.com/products/cubevue-software/cubevue-tutorials/

## Finding and Opening Patient Images

Sort and Search Tools

1. **Patient List tab** will always take you back to the Patient List, even if you have a scan open
2. **Patient names** appear in the upper section of the list. Click to select (highlighted)
3. **Scans** and **other images** associated with that patient appear in the lower section
   a. **Recon** data is used to create all MPR and 3D views. Double click to see 3D and MPR.
   b. **Raw** data is Not diagnostically useful, is used to create Recon and other data
   c. **Reformat** data is usually thicker slices, meant to go to a PACS.
   d. **Screen** data usally falls into one of the following categories:
      i. A **single screen** image created at scan time is the patient's dose report
      ii. A **series** of **screen** images (i.e. 36 images) is usually a 3D Frame sequence
      iii. Individual screen captures from 3D or MPR tabs.
4. You can **Sort** (A-Z, or Z-A with numbers coming before letters):
   a. Click on the header of each column to sort (Patient ID, Patient Name, etc.)
   b. To keep the newest scans on top, sort by Study Date with newest date on top
5. You can also **Search** by a number of different parameters:
   a. Start typing in part of a **Patient Name** or **Patient ID** to quickly narrow down your search
   b. To search by **Accession #**, you must type in the full Accession number and then hit Enter
   c. Searching by **Date** goes by the date the patient was first entered into the system
   d. Click **Reset** to clear the Search fields
6. Remember: 10 minutes of inactivity will hide the patient list; click **Hide List** to restore the list

CurveBeam AI

Viewing Patient images – Review tab (top) – Combined 3D/MPR tab (bottom)

NOTE: When you click on a tool to activate it, the mouse changes shape and the tool is highlighted.
NOTE: Most Tools STAY ON until you turn them off. Look at the mouse or highlighted icon to verify.
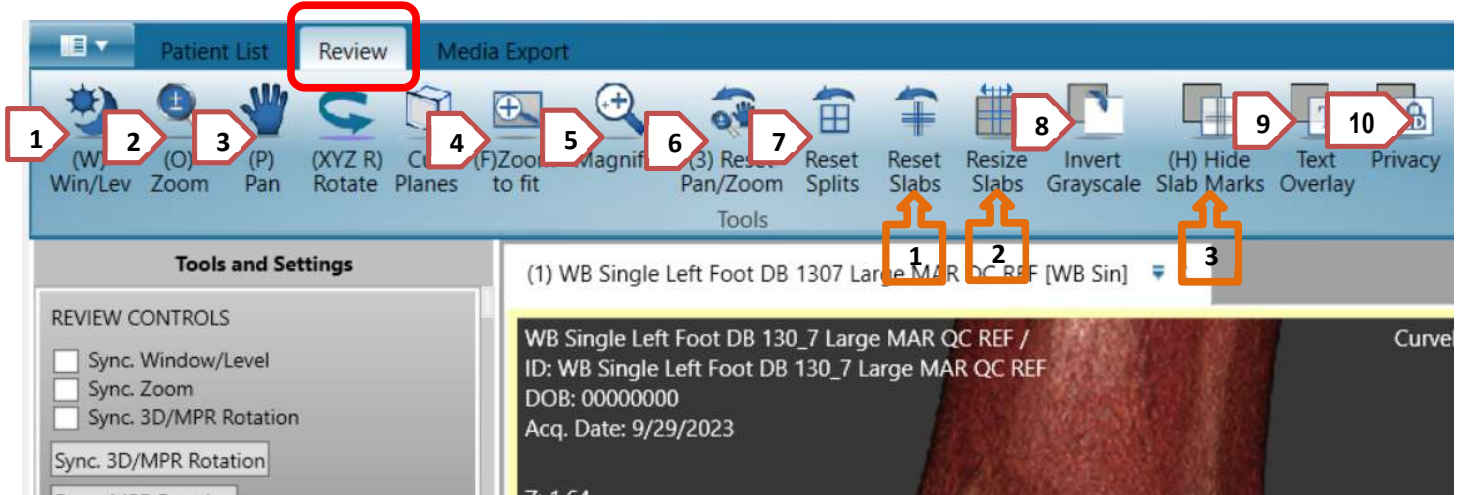

Basic Image Enhancement tools:

NOTE: Tools are highlighted when active. Click on them again to de-activate when done using them

1. **Window/Level:** Click on tool, then place mouse on MPR image, left-click and move L/R for Window (contrast), up/down for level (brightness). NOTE change of mouse shape!
2. **Zoom:** click on tool, then place mouse on MPR or 3D image. Left-click and move up/down
3. **Pan:** click on tool, then place mouse on MPR or 3D image. Left-click to move image around
4. **Zoom to Fit:** resets Zoom so images are the size of the viewing pane
5. **Magnifier:** click on tool, then place mouse on image and click for a floating magnifying viewer.
6. **Reset Pan/Zoom:** click to reset zoom to slight enlargement, reset Pan so image is re-centered
7. **Reset Splits:** you can grab the 4 white lines ("splits") that separate the viewing panes and move them to enlarge/shrink the size of the viewing panes. Reset splits will return splits to original size
8. **Invert Grayscale:** click this to change the MPR images; white becomes black and black becomes white. Click again to revert.
9. **Text Overlay:** click this to hide some of the text information that appears in the image corners.
10. **Privacy:** Click this to hide all text information except the Patient ID number.

Slab Tools

1. **Reset Slabs:** If the slab lines have been moved or changed in thickness/size, this returns them to their default location and thickness/size.
2. **Resize Slabs:** Click on this to turn on the tool, then left-click on a slab line and drag it up or right to increase the thickness of the slab lines, down/left to decrease. Any data within the thickened slab will appear in the corresponding image (**red** for Axial, **blue** for Coronal, **green** for Sagittal)
3. **Hide Slab Marks:** Click on this to hide the slab lines (not visible). Click again to restore.

Combined 3D/MPR | 3D | MPR | SimX
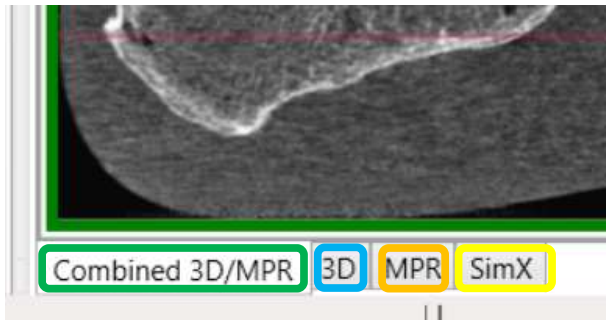
- The **Combined 3D/MPR** tab shows MPR views and 3D rendering (Default tab)
- The **3D** tab shows the 3D rendering only, it adjusts independently of the combined tab
- The **MPR** tab shows only the MPR views, with two specialty tools found just on this tab
- The **SimX** tab shows simulated 2D x-ray views.

Double-clicking on any image will make it "full screen". Double click again to return to normal size.
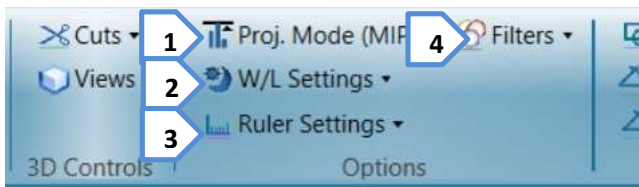
1. **Projection Mode:** Switch between MIP and Radiographic mode (recommended for thick slices)
2. **W/L Settings: Reset** to **default** window settings, or create a **New Setting** based on W/L tool use
3. **Ruler Settings:** Place a ruler at the bottom of all MPR images or just the last one you clicked on
4. **Filters:** You have a choice of **Smooth**, **Normal**, or **Sharp**. Sharp helps define bone edges.

Navigation - Basic Features
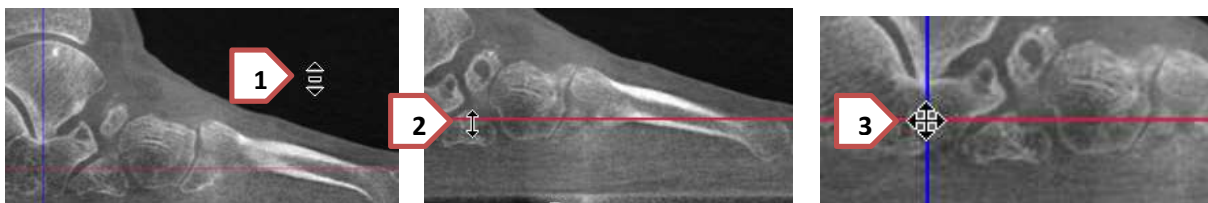
To **Scroll / Page** through the MPR slices, you have several options:

1. **Left-click** anywhere on an MPR view (except on a slab line) and **drag** the mouse up/down.
2. **Left-click** and **grab** a **slab line**, and **drag** it up/down or left/right. The images corresponding to the line you moved will update. (**Red** = Axial, **Blue** = Coronal, **Green** = Sagittal)
3. **Left click** on any **two slab lines** and position them on your Region Of Interest. The other images will be updated.
4. Place your mouse on the MPR view you want to scroll through, and **scroll with the mouse wheel.**
5. Place your mouse on the MPR view and press **SHIFT** while scrolling, to **scroll 10 slices** at a time.

Volume reorientation / rotation: Two methods
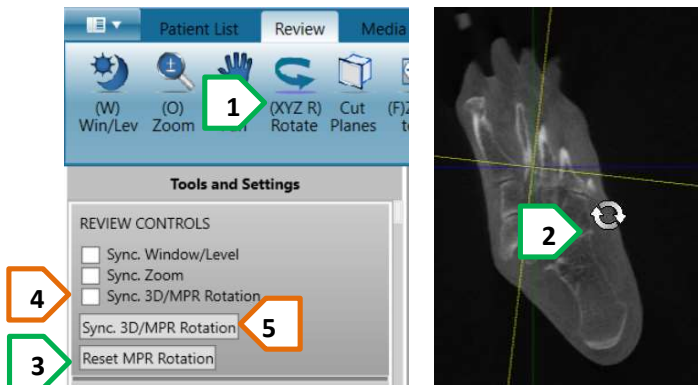
You can Rotate the MPR views to view anatomy from different angles by using the **Rotate (XYZ R)** tool

1. Click on the **Rotate (XYZ R)** tool. Notice the mouse changes shape to indicate rotation
2. Place your mouse on the image, left-click, hold, and **rotate the yellow lines** to the desired angle. When you release the left mouse button, the images will update. If you also hold the **SHIFT** key one image rotates in real time; the other two views will update when you release the left mouse button.
3. You can **Reset MPR Rotation** to the original post-scan orientation with one click
4. You can **Sync 3D/MPR Rotation** by checking the box, then rotating the 3D rendering. The MPR images will rotate in real-time sync with the 3D rendering.
5. You can do an immediate sync of the MPR with the 3D by clicking the **Sync 3D/MPR Rotation** button

3D rendering - Basic Features

1. Adjust the density **Offset [HU]** by sliding the Offset slider to the Right to remove soft tissue, to the Left to add soft tissue.
2. You can also click on the buttons next to the slider: "**++**" to remove a lot of soft tissue, "**+**" to remove a little soft tissue; "**- -**" to add a lot of soft tissue, "**-**" to add a little soft tissue
3. If the 3D rendering appears to be blank, click the **Auto** button to adjust for metal artifact
4. To rotate the 3D volume: Left-click on the mouse button and drag any direction
5. **View Direction** will automatically rotate the volume to the pre-defined orientation: **A/P** is Anterior/Posterior, **L/L** is Left Lateral, **Up** is from the bottom, **Down** is from the top