

CubeVue Quick Start Guide (as of CubeVue 3.0)

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

<http://www.curvebeam.com/products/cubevue-software/cubevue-tutorials/>

Finding and Opening Patient Images

Patient ID	Patient Name	DOB	Accession #	Study Date				
Left Hand Scan	Left Hand Scan		341	11/25/2015 5:03 AM	CT LE LEFT WITHOUT CONTRAS			
good	1 steph		130	11/20/2015 4:41 PM	steph single foot			
2	2 feet fem		1046	11/20/2015 4:13 PM	2 feet female clean			
FX metal 2	FX Tibia fibula metal 2 feet		RAD2457366	11/20/2015 4:09 PM	FX tbia fibula metal screws & p			
FX metal 2	FX Fibula metal 2ft		454	11/20/2015 4:07 PM	2 feet FX fibula metal screws &			
OAD flat Metal	Right Flat OAD Metal		349	11/19/2015 11:56 AM	Right OAD flatfoot titanium scr			
OAD flat	LeftFlat OAD		349	11/18/2015 10:54 AM	CT LE LEFT WITHOUT CONTRAS			
Type	Date	Matrix	# of images	Voxel	FOV	DAP	Filter	Protocol Description
Recon	11/20/2015 4:13 PM	950 x 950	533	0.37	350	15.45	SHARP	A
Reforma	9/14/2016 12:32 PM	533 x 950	561	0.37	350	15.45	SHARP	Sa
Screen	9/17/2016 4:21 PM	400 x 836	36			15.45	SHARP	Z
Screen	9/17/2016 4:21 PM	808 x 1680	1			15.45	SHARP	SC

Sort and Search Tools

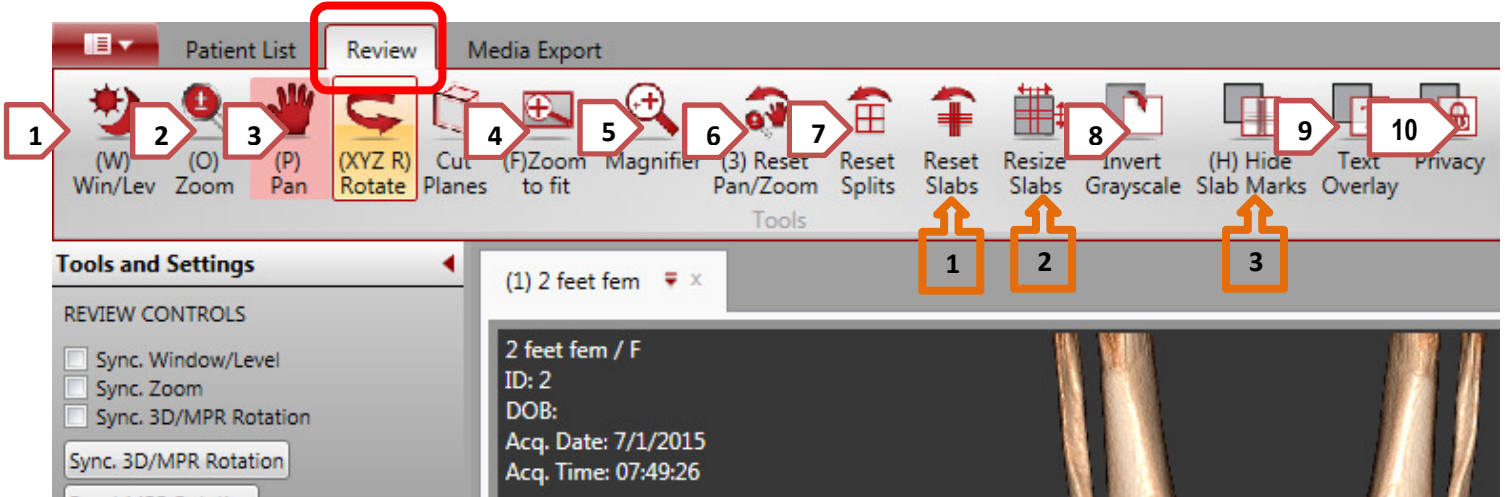
1. **Patient List tab** will always take you back to the Patient List, even if you have a scan open
2. **Patient names** appear in the upper section of the list. Click to select (highlighted)
3. **Scans and other images** associated with that patient appear in the lower section
 - a. **Recon** data is used to create all MPR and 3D views, usually 532 or 665 images
 - 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 usually 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. One or more images in a screen series is usually individual screen captures
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 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

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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.



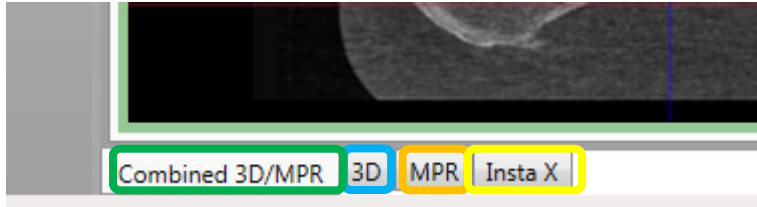
Basic Image Enhancement tools:

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 in viewing pane
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

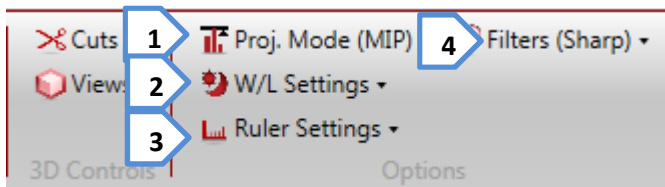
1. **Reset Slabs:** If the slab lines have been moved or changed in thickness/size, this returns them to their default location and thickness/size.
2. **Resize Slabs:** Click on this to turn on the tool, then left-click on a slab line and drag it up or right to increase the thickness of the slab lines, 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.

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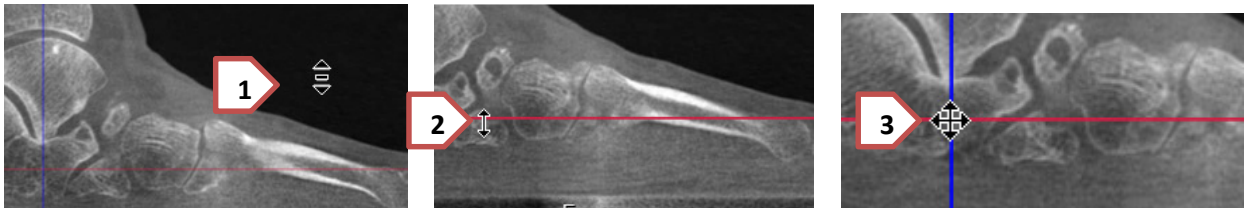
- The **Combined 3D/MPR** tab shows MPR views and 3D rendering (Default tab)
- The **3D** tab shows the 3D rendering only, it adjusts independently of the combined tab
- The **MPR** tab shows only the MPR views, with two specialty tools found just on this tab
- The **Insta-X** tab shows simulated 2D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

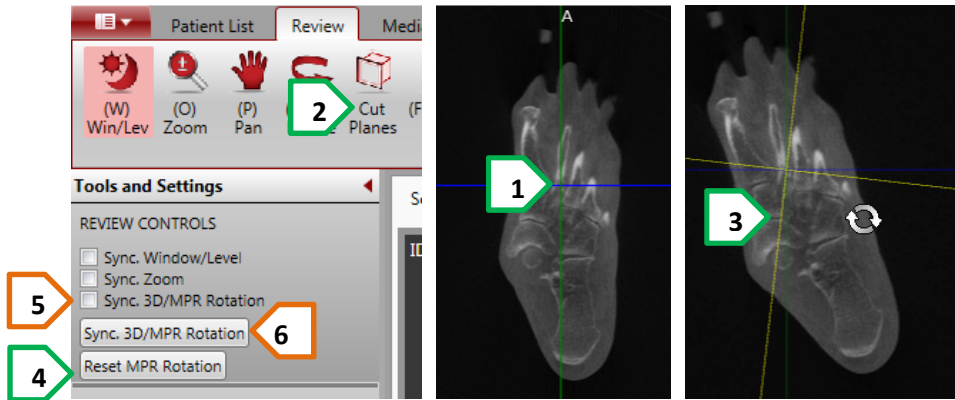
Navigation - Basic Features



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.
3. **Left click** on any **two slab lines** and position them on your Region Of Interest. The other images will update.
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. First **center your slab lines** on the ROI around which you wish to rotate
2. Click on the **Rotate (XYZ R)** tool. Notice the mouse changes shape to indicate rotation
3. Place your mouse on the image, left-click, and **rotate the yellow lines** to the desired angle. When you let go of the left mouse button, the images will update.
4. You can **Reset MPR Rotation** to the original post-scan orientation with one click
5. 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.
6. You can do a one-time 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 (default), **L/L** is Left Lateral, **Up** is from the bottom, **Down** is from the top