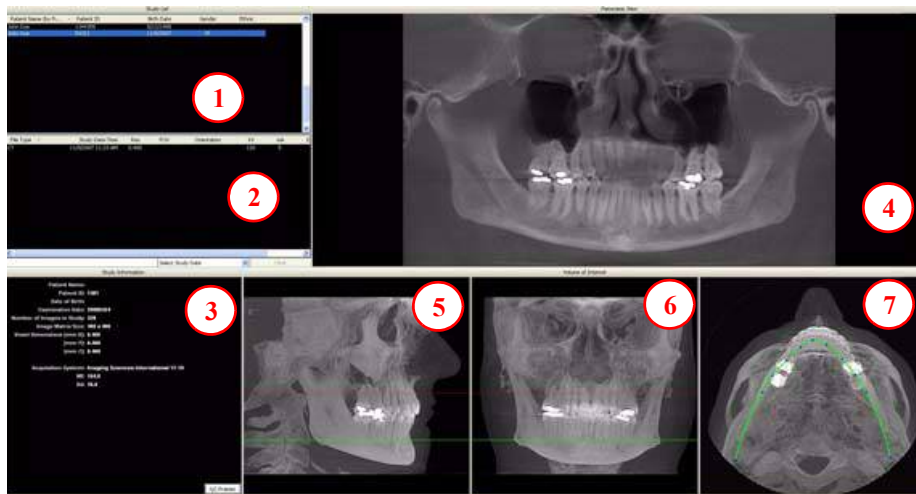


# Quick Reference

## Navigating the Interface

This guide shows how to:

- View reconstructed images
- Use main features and tools to optimize an image.



**NOTE:** Images shown in this document were acquired on an i-CAT 17-19 or 3D eXam system. Images acquired on other systems will have a smaller field of view (examples are shown at the end of this document).

## Tools for Viewing this Image

### HIDING THE STUDY LIST

Study List can be hidden by selecting **Tools > Hide Study List**. To show, select **Tools > Show Study List**.

### CURSOR TOOLS

**ROTATION TOOL** - Hover cursor over the lower right corner of the desired view. Cursor changes to the rotation tool. This feature is disabled on studies using Tru-Pan.

**BRIGHTNESS/ CONTRAST TOOL** - Drag cursor up, down, left, and right to adjust brightness and contrast. Use Reset Window/Level options on Pop Up menu to reset brightness and contrast settings.

**MIP/RADIOGRAPH** - The system software enables displaying images as MIP or Radiograph. Move cursor to the top right of any image. The cursor becomes an **M**, toggle a selection.

**MAXILLA and MANDIBLE CONTOUR LINES** - can be repositioned with a click and drag to the desired location.

### REMINDER

Images are displayed as if you are looking at the patient from the front.

### TO DISPLAY PATIENT IMAGE

1. Click Patient Name.
2. Click Patient Scans

### DISPLAYED VIEWS

3. Patient Study Info
4. **PANORAMIC View**  
Opens to **IMPLANT Screen**  
Right-click to select Panoramic Method for displaying images.
5. **SAGITTAL View**  
Opens to **CEPH Screen**
6. **CORONAL View**  
Opens to **MPR Screen**
7. **AXIAL View**  
Opens to **TMJ Screen**

### MEASUREMENTS

#### HU Statistics

(Bone Density) Right click a view and select **HU Statistics**. Drag and click to define an area. Statistics appear in upper right corner. A maximum of 4 HU stats can be taken at a time in a normal view and 2 in a cross section view.

#### Distance

(Linear Measurement) right click a view and select **Distance**. Point, click, drag, and release to draw a line. A measurement in mm appears in upper left corner. A maximum of 9 distance measurements can be taken at a time in a normal view and 4 in a cross section view.

Right click and select **HU Stats** or **Distance** again to turn the tool off

Right click the actual measurement statistic to remove, inactivate, or activate them.

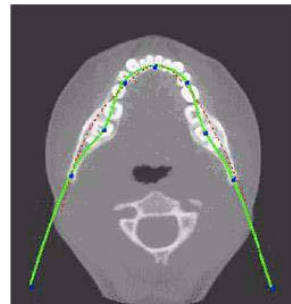


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## *Suggestions for Adjusting Panoramic Map*

Start adjusting the Panoramic map from the Preview Screen. It is recommended to center the anterior point at midline and then move the next two points up closer to the anterior point on each side. Place them a few teeth away from anterior center. Then move the next two points closer to the molars.

**NOTE:** If the Tru-Pan feature is set as the default on your system, you do not need to adjust the panoramic map.



## *Filtering Defaults*

There are already filters applied to all images. The filters are defaulted as seen below.

1. Preview Screen: **Hard** on Panoramic and **Sharpen Mild** for all others.
2. Implant Screen: **Sharpen Mild** on Axial Slice and Cross Sections - **Hard** on Panoramic Map.
3. TMJ Screen: **Hard** for top row images and **Sharpen Mild** for Condyle Ceph Images.
4. MPR Screen: **Sharpen Mild** all images.
5. Ceph Screen: **Sharp** for Upper Left Right Lateral and **Hard** for all others.

These defaults can always be changed by clicking **Tools > Filter Settings > Set Filters**. They can also be changed on the flyby right clicking an individual image, selecting **Filter Setting > Set Filter** and clicking the desired option (Smooth, Normal, Hard, Sharp, Very Sharp). They can be changed back to the default by clicking **Tools > Filter Settings > Reset to Default**.

## *Removing Circumference Artifact*

Circumference Artifact are seen visually in the Preview Screens as horizontal lines in the Coronal and Sagittal images and a white partial circle around the axial image. This can be removed from the dataset by right clicking the screen and selecting **Remove Data Outside of Center Scanfield**. The data re-calculates and the image is displayed without that artifact.

## *Saving and Loading Workups*

Created plans can be saved for retrieval. When a plan is changed and an attempt to exit or switch patients is made, the program prompts to save the workup. To save the workup, click **Yes**. A window is displayed to **Create New Workup**. Click this button and enter a new title for the workup or choose an existing workup name (if one) from the list to overwrite. Once the workup is named, click **OK** to save.

Or, before exiting or switching patients, from the Preview Screen, right click to access the pop up menu and select **Save this Workup**. Then proceed as instructed above.

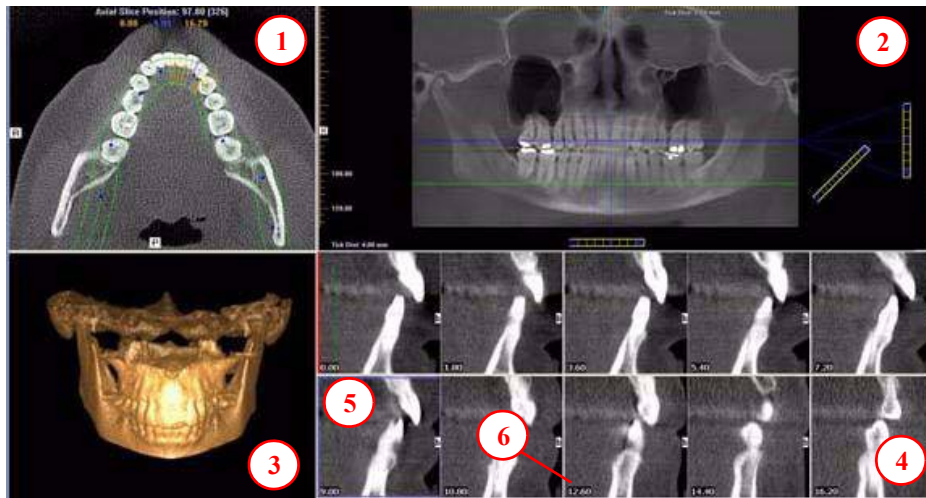
To load a workup, click a Patient Name, and Patient Image, and then a workup. To select another workup (if there are multiple workups), right click the screen to access the pop up menu and select **Load Different Workup**. Then select the workup from the list.

## *Keyboard Shortcuts*

**Alt + S** - Opens Setup dialog  
**Alt + F** - Opens File menu  
**Alt + T** - Opens Tools menu

**Alt + R** - Opens Screen menu  
**Alt + H** - Opens Help menu

## Implant Planning Screen



- Double click an individual Cross Section to zoom in. Double click again to reduce to original size.

### LABELS:

The following labels on the images help clarify the orientation of the anatomy:

- R: Right Side (Axial, Pan)
- P: Posterior (Axial)
- B: Buccal (Cross Sections)

### POP UP MENUS

Right click views to display a Pop Up menu containing a subset of these options:

- HU Statistics
- Distance
- Display Formats: The default is 5 x 2. The other options are 7 x 3 and 3 x 1.
- Set Filters
- Save as JPEG
- Open Output Folder
- Estimate Nerve Canal

### CURSOR TOOLS

- All views, except the 3D Model, have Brightness/Contrast, Rotate, Drag, Zoom and Pan. 3D Model only has Rotate.
- The mouse scroll wheel is active on the Axial Slice Position, 3D Model and Cross Sections to scroll through slices.
- Back Tool:** to exit out of a planning screen back to the Main Display, move cursor to the very top left corner of screen until X is displayed and click. Or click the **Screen** option on the Main Menu bar.

### REMINDER

Implant Screen is acquired by double clicking Panoramic View from Preview window or selecting it from the Screen menu.

### DISPLAYED VIEWS

1. AXIAL SLICE POSITION
2. PANORAMIC MAP
3. 3D MODEL
4. CROSS SECTIONS
5. Center Slice is outlined in Blue.
6. Slice Location Number

Slice Location numbers start at 0 for center of anatomy or midline. (The 0 slice is outlined in Red). All slices to the patient's right are negative #'s. All slices to the patient's left are positive #'s.

Midline is determined by axial map.

## PAN TOOLS

### 1. Horizontal Tool Bar

Drag the center control button of tool left to right to move the slice location of the Cross Sections. The center slice is outlined in Blue on the Cross Sections.

Drag the right control button of tool to the right to adjust the slice thickness of the Cross Sections.

### 2. Diagonal Tool Bar

Drag the top control button of the tool to adjust slice thickness of Panoramic View.

Drag the center control button of the tool to adjust Pan Focal Trough. Not functional with the Tru-Pan feature.

### 3. Vertical Tool Bar

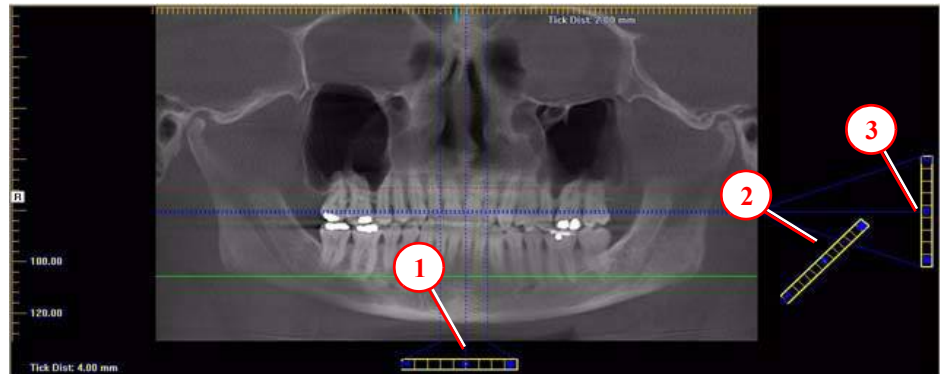
Drag the control button of the center tool up or down to adjust height of anatomy viewed in the Cross Sections and Axial.

**NOTE:** Click the **M** tool to change the Pan view from Radiographic to MIP.

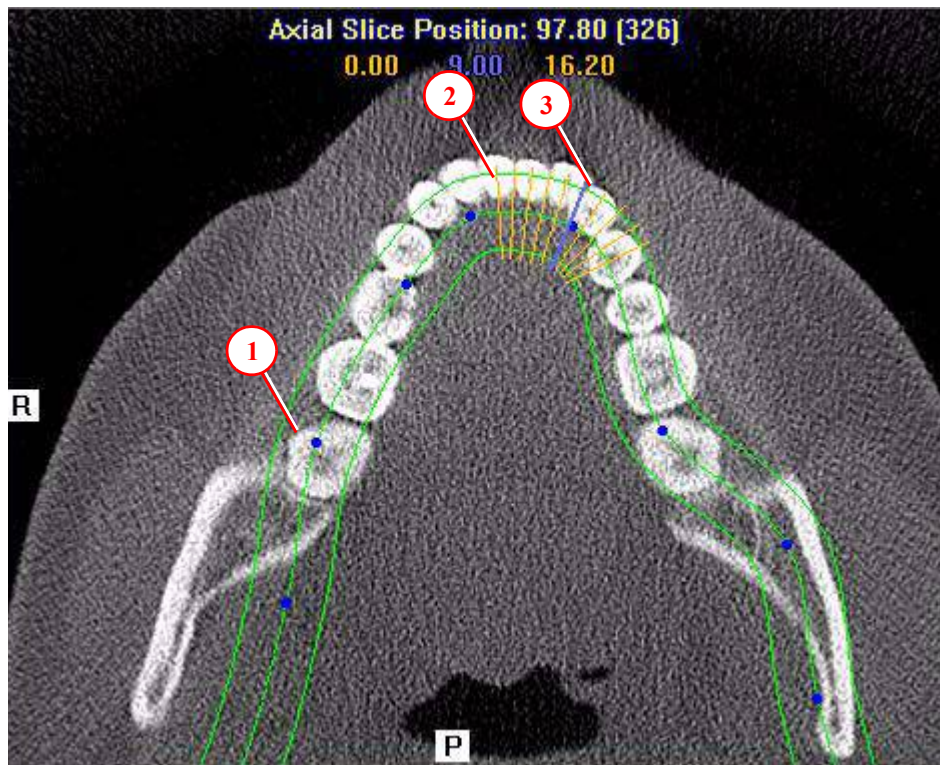
## AXIAL TOOLS

1. Drag blue dots to adjust Pan Map.
2. Orange hash marks are Slice Location Indicators.
3. Blue hash mark represents the centerline of the axial slices displayed on the Cross Section views.

## Panoramic Map

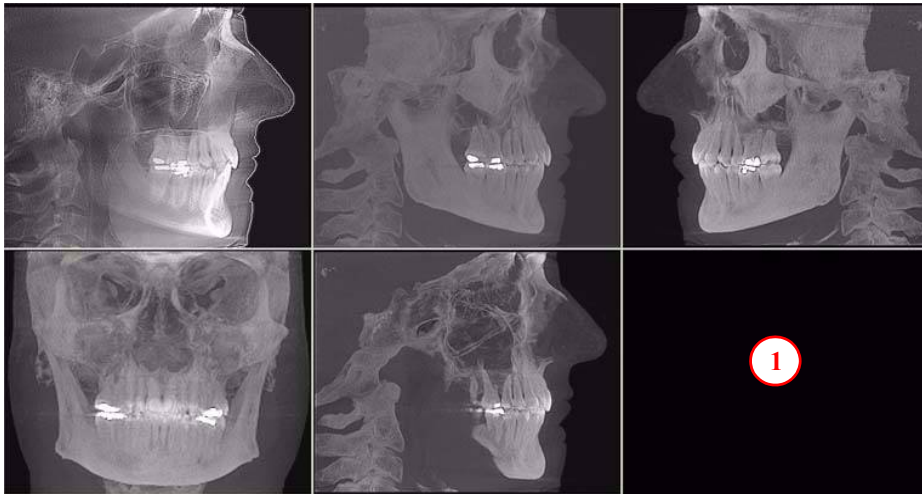


## Axial Slice Position



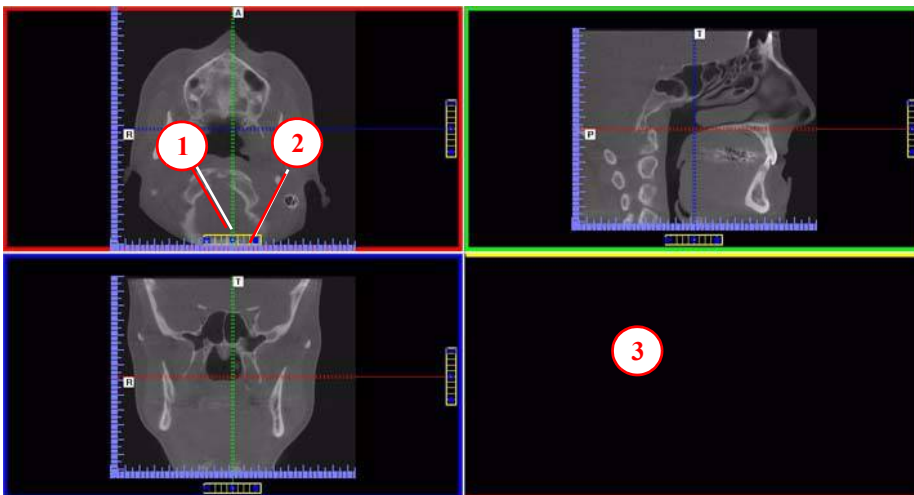


## Ceph Screen



1. Right click blank screen and select **Tag Airways**. This generates a 3D view of the airways for the patient in the blank view. In addition, the tagged airway data is displayed in the view at the bottom center of the Ceph screen.

## MPR Screen



1. Drag center tools from any view to move slice location. The views are colored coded to correlate which view will adjust.
2. Drag tool to the right for horizontal and bottom for vertical bars to adjust slice thickness of the corresponding color coded view.
3. Right click any of the 3 views and select Irregular, Line, or Explore for additional cut planes to be displayed in the blank area.

### REMINDER

Ceph Screen is acquired by double clicking Sagittal View from Preview window or selecting it from the Screen menu.

### DISPLAYED VIEWS

The Ceph Screen displays the Lateral Cephs in Radiographic and MIP mode as well as a Coronal View and a Mid Sagittal Slice (15mm thick).

### CURSOR TOOLS

All views have Brightness/Contrast, Zoom and Pan.

### POP UP MENU

Right click to display the Pop Up menu to select:

- Set Filters
- Save as JPEG
- Open Output Folder

### REMINDER

MPR Screen is acquired by double clicking Coronal View from Preview window or selecting it from the Screen menu.

### DISPLAYED VIEWS

The MPR Screen allows scrolling through the Axial, Sagittal, and Coronal Slices. Mouse scroll wheel is active to scroll through slices.

### CURSOR TOOLS

All views have Brightness/Contrast, Zoom and Pan.

### POP UP MENU

Right click to display the Pop Up menu to select:

- Irregular
- Line
- HU Statistics
- Distance
- Explore
- Explore Speed
- Set Filters
- Save as JPEG
- Open Output Folder
- Reset Volume Rotation

## REMINDER

TMJ Planning Screen is acquired by double clicking Axial View from Preview window or selecting it from the Screen menu.

## DISPLAYED VIEWS

TMJ Screen enables condyle mapping and creating corresponding coronal slice views.

## CURSOR TOOLS


All views have Brightness/Contrast, Zoom and Pan.

## POP UP MENUS

Right click to display the Pop Up menu to select:

- Set Filters
- Save as JPEG
- Open Output Folder

## HINT

It may be necessary to first drag the Axial (SMV) view down in the window to see the condyles. Move the cursor to the lower left of the SMV (axial) view until displayed is the  for pan tool to drag the image downward.

## NOTE:

Make sure to Save Workups before attempting to burn to a CD,

## Install Case Studies from CDs

The program will auto-run when the CD is inserted into the computer drive. The User can choose to install the program and the case(s) Permanently or Temporarily. Once installed, the program opens and the new case is highlighted in the study list and ready to be loaded. Just click the patient name.

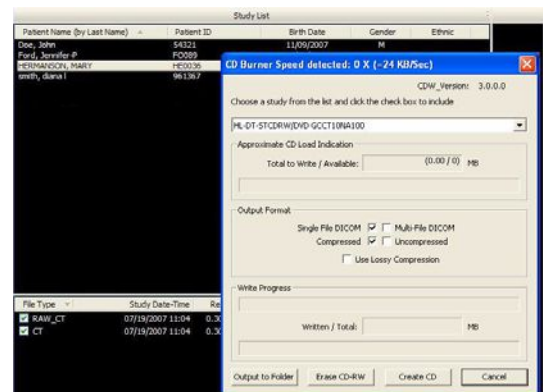
## TMJ Planning Screen



1. Drag center tool to scroll up and down Sagittal view to locate condyles in the Axial view to display condyles properly for mapping.
2. **Create Lateral Slices:**  
Drag **center blue circles** to move condyle map (do this for each condyle)  
Drag **yellow and blue end circles** to adjust the angle of each condylar map.  
**Green** markings indicate anterior to condyle.  
**Red** marking indicate posterior of condyle.  
**Create Coronal Slices:** Click red circle on either end map to create Coronal views.
3. **Horizontal Tool Bar:** Drag center tool left to right to move slice location of Cross Section views. Drag tool right to change slice thickness of Cross Section views

## Create Export CDs

1. From the top Main menu, select **Tools > Create Export CD**.
2. If you have multiple CD drives, select the hardware from the drop down list. If using a CD-RW and need to erase data, choose Erase CD-RW.
3. Click the patient for burning to CD. If selecting multiple patients, hold down the CTRL key and click on additional patients. All highlighted patients are copied to the CD.
4. Click **Create CD** in CD burner window. A message is displayed when the burn is complete and the CD ejects.



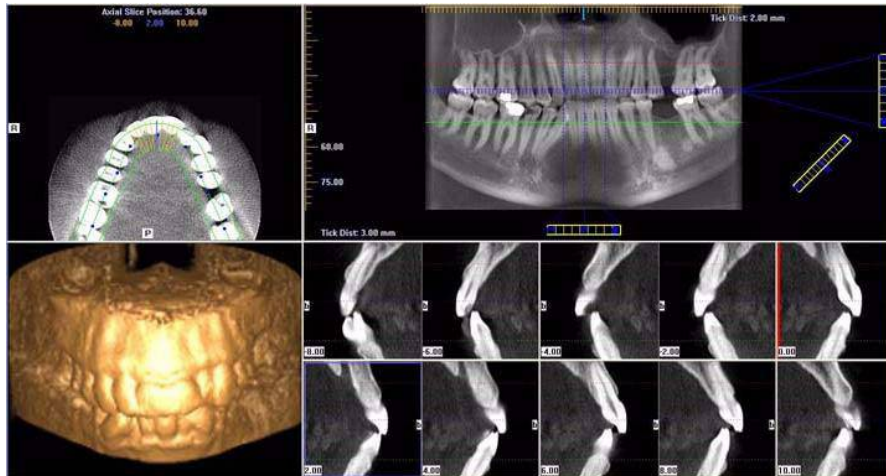
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## Image Examples:

### Preview Screen



### Implant Planning Screen

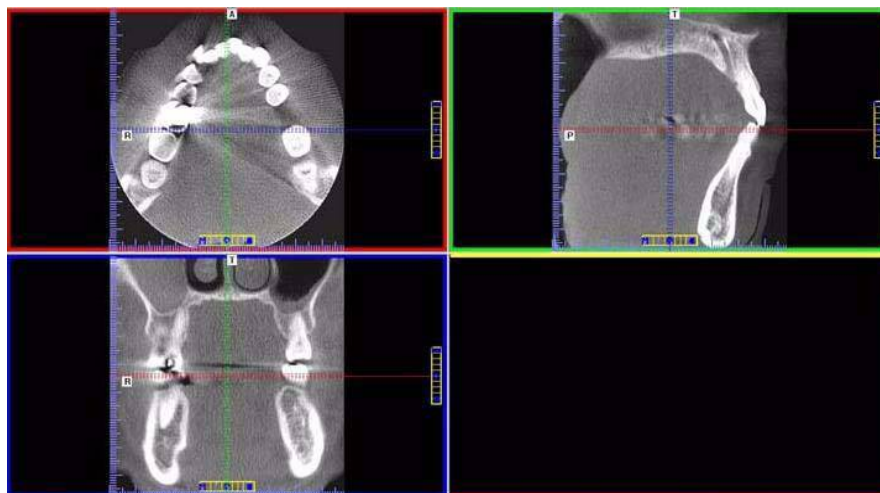




## Ceph Screen



## MPR Screen



## TMJ Planning Screen

