Invivo WORKSPACE

Web Viewer Manual 1.5 - English

osteoidinc.com

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About Osteoid and Invivo Workspace Web Viewer Software

This version of Invivo Workspace Web Viewer was released as an update to the Invivo Web Viewer 1.0 software from Osteoid, Inc. In this document, Invivo Workspace Web Viewer refers to the latest version of the Invivo Workspace Web Viewer software. To learn more about Osteoid, access the Osteoid website (www.Osteoidinc.com).

Intended User

Invivo Workspace Web Viewer is designed to be used by medical and dental professionals who have been appropriately trained to use 3D CT imaging devices and read the image data generated by the devices.

Reporting of Serious Events

If the use of this product resulted in, or may have contributed to, a death or a serious deterioration of health, this should be reported to the manufacturer at dental@osteoidinc.com.

Caution: Federal law restricts this device to sale by or on the order of medical and dental clinicians.

Indications for Use

Invivo Workspace Web Viewer is a software application used for the display and 3D visualization of medical image files from scanning devices, such as CT and MRI. It is intended for use by radiologists, clinicians, referring physicians, and other qualified individuals to retrieve, process, render, review, and assist in diagnosis, utilizing web user interface. Additionally, Invivo Workspace Web Viewer is a preoperative software application used for the planning and evaluation of dental implants placement and surgical treatments.

This device is not indicated for mammography use.

Clinical Benefits

- Allows non-invasive studies of internal structures rendered in volume.
- Allows comparison of pre and post treatment by superimposing before and after anatomy.
- Device allows planning of surgical procedures on models rendered from the patient's anatomy.
- Enables doctors to communicate effectively with patients.
- Allows volume image examination using images generated from low-energy CBCT scans.

Required Training

Prior to any clinical applications using Invivo Workspace Web Viewer, user is recommended to take training and practice for the following content:
View digital image in 2D and 3D; image operations such as pan, zoom, brightness/contrast adjustment; place implant at given location; move and rotate implant; and change implant parameters. The user is recommended to contact Osteoid technical support for a full software training at 408-333-3484 ext. 4.

General Precautions

⚠️ Warning: The software provides tools for dental implant planning but is dependent on the user to determine and use the appropriate parameters. Incorrect parameters may affect the quality of the final milled products or otherwise to surgical delays or complications.

⚠️ Warning: Incorrect image orientation may cause surgical delays or complications. The software orients the scan based on the inherent scan information and clearly labels the directionality. However, the software should only be used by licensed clinicians familiar with dental and medical imaging who can best identify any discrepancies with scan orientation in the software.

⚠️ Warning: Please ensure all hardware devices with the software are password-protected from unauthorized use and all patient information is secure.

⚠️ Warning: Implant planning must be performed by a trained healthcare professional for proper implant placement relative to the patient's anatomy. Implant angulation, divergence, location, and depth should abide by the implant manufacturer's instructions for use and placement parameters.

Table of Contents

Osteoid, Inc. is a medical imaging company composed of a cross-functional team consisting of the most elite researchers, mathematicians, engineers, software developers, business analysts, industry leaders, academic faculty, and dental specialists. Ultimately, our mission is dedicated to developing simple and refined software specially designed for dentists to utilize the most advanced cutting-edge software and technology to better serve their patients. With our software, doctors can create 3D volume renderings on their own computers, get cross sections, trace nerves, place implants, print images, save images, and many more functions. The software is designed to reconstruct these 3D volume renderings from DICOM files generated by CBCT, Medical CT, and MRI radiography machines. Invivo Workspace Web Viewer is intended for use for the planning and evaluation of dental implants placement and surgical treatments.

This manual is intended to provide supplementary information to your direct training with the Osteoid support team. For correct and safe use, training is available to all Invivo Workspace Web Viewer users and is highly recommended. In this document, Invivo Workspace Web Viewer refers to the latest version of the Invivo Workspace Web Viewer software. For more information, please contact the Osteoid customer support team at (408) 333-3484 or email support@osteoidinc.com

System Requirements

Below are the minimal and recommended system configurations.

The Invivo Workspace Web Viewer is a browser-based application and only requires Internet access.

Osteoid recommends the following configurations to fully utilize all the features within the Invivo Workspace Web Viewer. The following recommendations have been updated in November 2021:

Summary

	Recommended
Browser	Firefox 92.0, Google Chrome 94.0

Note: If the browser does not match the above, there may be some display differences or discrepancies.

Feature List

An overview of the various features provided by Invivo Workspace Web Viewer.

- **Scan Visualization**

- **Section View Operations**

- **Volume Rendering of Scan Data**

- **Linear and Angular Measurements***

- **Implant, Abutment, and Restoration Visualization**

- **Invivo Model and Simulation Display**

- **Gallery Image Display**

*****All measurements are performed with the metric system.

Software Layout

The following is a description of how Invivo Workspace Web Viewer is organized by Toolbar, View Control Panel, and Rendering Window.

View Tabs
The **View Tabs** perform specific tasks or look at specific subjects of interest by adjusting the **Toolbar** and **View Controls.**

Toolbar
Tools can be accessed to perform certain functions on patient images.
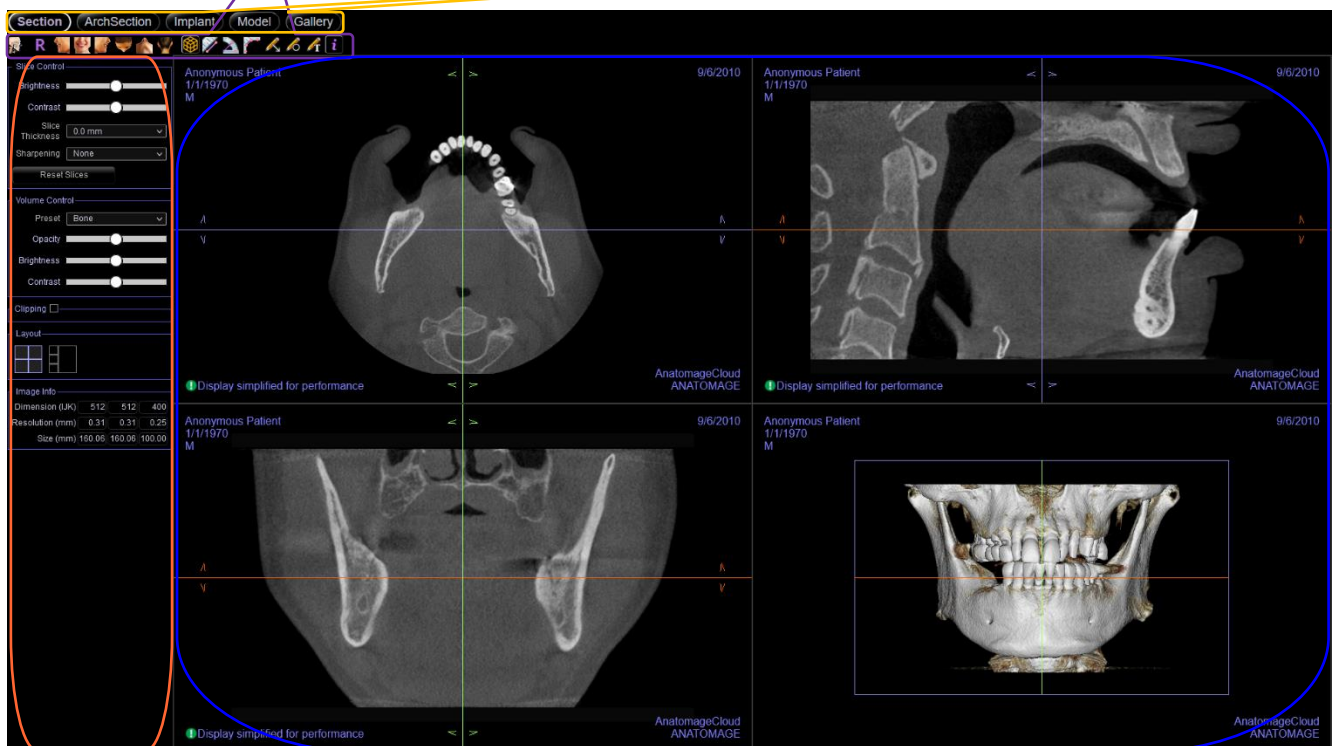
Control Panel
The **Control Panel** is the region where patient images can be manipulated and controlled. The **Control Panel** is associated with a specific **View Tab**.

Rendering Window
Rendering Window is the region where patient images are displayed. This window can be customized within many of the **View Tabs** by using the **Toolbar**.

Image Navigation

Below is an explanation showing how to manipulate images in the rendering window with the keyboard and mouse.

Slider Scroll

- Click and drag the slider (e.g. opacity, brightness, etc.) to adjust the image.
- Click the slider header text to reset the slider to the center position.

Zoom In/Out

- Place the mouse cursor in the center of the image you want to zoom.
- Hold down the "Control" key + left-button on the mouse.
- While holding down the buttons indicated above, move the mouse up and down on the screen.
- This shrinks/enlarges the image: Down vertically zooms out. Up vertically zooms in.
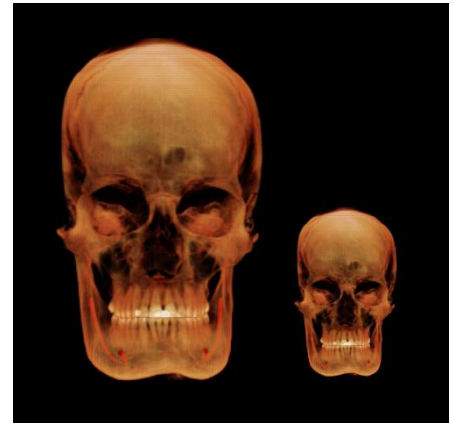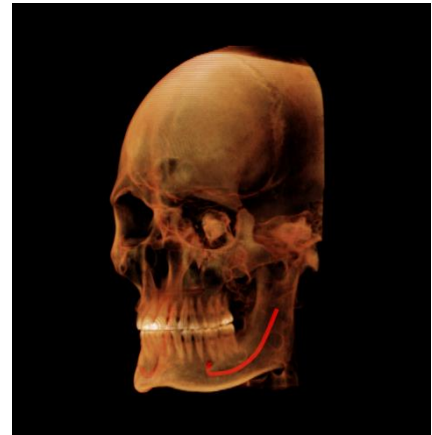

Pan (Shift)

- Place the mouse cursor in the center of the image you want to shift.
- Hold down the "Shift" key + left-button on the mouse.
- While holding down the buttons indicated above, move the mouse any direction to achieve the desired image displacement.

Free Rotate

Applicable only for 3D images.

- Place the mouse cursor in the center of the image you want to shift. Hold down the left-button on the mouse.
- While holding down the left-button, move the mouse in any direction to achieve the desired rotational position.

Free Rolling

Applicable only for 3D images.

- Hold down the "Space" key + left-button on the mouse.
- While holding down the buttons indicated above, move the mouse up and down to rotate the image about a central axis.


Clipping

Applicable only for 3D images.

- Place the mouse cursor over the center of the image, then scroll the mouse wheel forward or backward to clip the anatomic plane as you like (after enabling clipping in the Control Panel).

Scroll Slice

Use when you would like to move through the series of sections when in the 2D slice views.

- Place the mouse cursor in the center of the image then scroll the mouse wheel forward or backward to move one section at a time as you advance through the data slices.
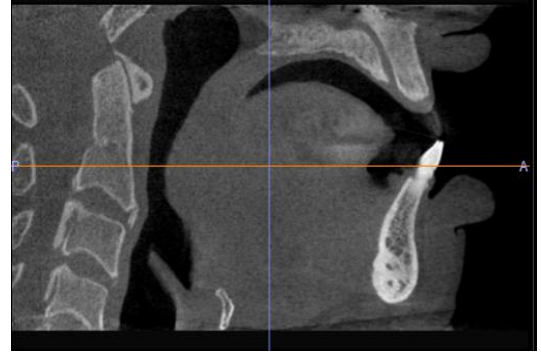
Section View Features

*The **Section View Tab** gives the ability to view the X, Y, and Z sections (axial, coronal, sagittal) simultaneously for 2D visualization, measurements, and the utilization of several image enhancement features. Invivo Workspace Web Viewer also integrates 3D functions in the Section View Tab.*
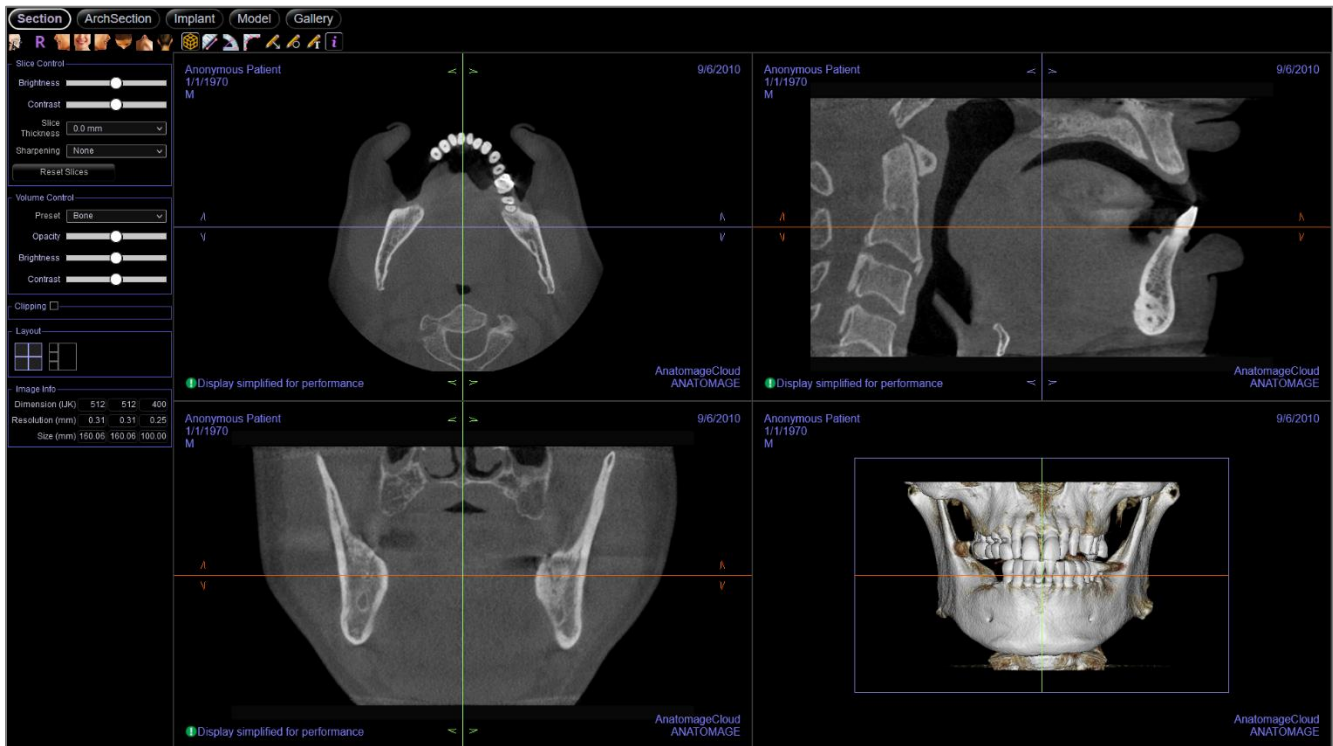
Section: Toolbar

The following is a detailed explanation of the various features provided by Invivo Workspace Web Viewer.

About: Displays the software version information.

Reset Zoom: Resets the rendering window to the original view size.

Left: Automatically orients the volume in a left sagittal view.

Front: Automatically orients the volume in a front view.

Right: Automatically orients the volume so the patient is facing right sagittal.

Top: Automatically orients the volume in a top-down view.

Bottom: Automatically orients the volume in a bottom-up view.

Back: Automatically orients the volume to the posterior view.

Toggle Cursor Visibility: Conceals or displays cursors.

Distance Measurement: After selecting this tool, click two points to mark the desired distance. A number in millimeters will automatically display. Click on the measurement and press the "delete" key to delete it. Measurements can only be created on the 2D slice views.

Angle Measurement: After selecting this tool, click the first point, then click the vertex, then click the last point to create an angle. A number in degrees automatically displays. Click on the measurement and press the "delete" key to delete it.

Polyline Measurement: Select this option and mark any number of points in the slice view. Right-click to end the measurement, and the total distance appears. Clicking on the nodes and moving the cursor can modify points. Click on the measurement and press the "delete" key to delete it.

Arrow Notation: Allows an arrow to be drawn on the image.

Circle Notation: Allows a circle to be drawn on the image.

**Text Notation:** Allows text to be written and edited on the image.

Information Display: Displays or hides case information embedded in the data.

⚠️ Warning: Any measurement that is incorrect can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based on the incorrect measurements. It is critical for the end user to learn how to perform measurements correctly and employ proper usage of all measurement tools. Measurement accuracy depends on the image data and the hardware scanner that generated the image data. The measurement cannot be more precise than the resolution of the image. Software reports the value based on user-picked points. Due to the nature of medical imaging, the boundary is not always well defined. The apparent boundary depends on the current brightness and contrast setting. The boundary may shift as the user makes adjustments to brightness and contrast. The user must understand the limitation of the measurement value before applying to the patient. If you notice any inconsistencies or software problems with measurements, or have further questions or concerns about using measurement tools correctly, please contact us at (408) 333-3484 or email us at dental@osteoidinc.com

Section: Control Panel
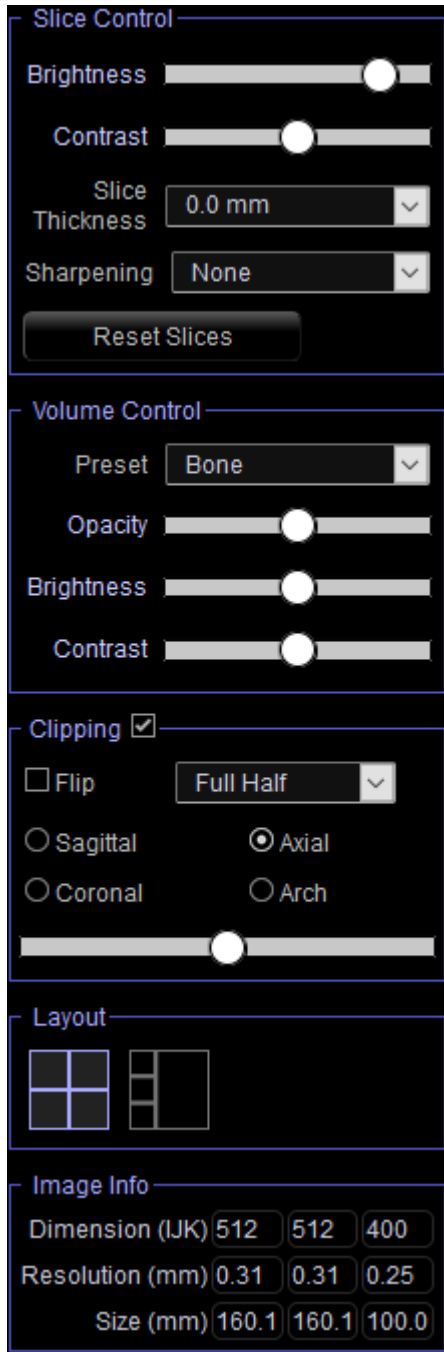
Slices Control
- Brightness & Contrast: Can be adjusted for each of the presets to enhance the image.
- Slice Thickness: Uses ray sum when reconstructing the 3D image along each orthogonal plane.
- Sharpening: Applies the selected sharpening filter from the drop-down menu to the 2D slice renderers.
- Reset Slices: Resets the orientation of the 2D slices altered with the rotation widgets to the scan orientation.

Volume Control
- Preset: Sets the rendering type of the 3D volume.
    - Bone: Shows a realistic view of patient anatomy
    - Teeth: Shows a translucent skeletal view highlighting the teeth, roots, and bone
    - Soft Tissue: Shows translucent soft tissue
    - Soft Tissue+Teeth: Combines the Teeth and Soft Tissue renderings
- Opacity: Adjusts the translucency of the volume
- Brightness & Contrast: Can be adjusted for each of the presets to enhance the image.

Clipping
- Check the "Clipping" box to slice the image along the predefined anatomical planes (sagittal, axial, coronal, and arch) and to reveal the clipping options.
- To switch the clip to the opposite side, click "Flip."
- Select the amount of volume to clip in the drop-down menu.
- Scrolling the mouse wheel or slider moves the clipping plane.

Layout
- Toggle between the available layout options.

Image Info
- Dimension, resolution, and field of view size are summarized.
- Warning: Images may be resampled for browser display optimization. Resampled images may not be the same size and resolution or contain the same details as the original scan and are indicated in the rendering window.

Section: Rendering Window

This window allows viewing of the X, Y, and Z sections (axial, coronal, sagittal) and custom sections or a 3D view simultaneously. This allows the clinician to have very accurate 2D visualization and 2D measurements.

Scroll wheel: Move mouse pointer to the desired cross section. Use the scroll wheel to move the slice up and down.

Cursor: Grab one of the cursors (axial, sagittal or coronal). Move the cursor in the desired direction. The corresponding image is updated.

Zoom: Click and hold the left-click mouse button on the image and the "Ctrl" key on the keyboard. Drag the mouse cursor up and down to zoom in and out.

Pan: Click and hold the left-click mouse button on the image and the "Shift" key on the keyboard. Drag the mouse cursor to move the image.

Reorientation: Click and drag the arrow widgets to reorient the scan. Changes in orientation only apply in the Section tab

ArchSection View Features

ArchSection View Tab is a sectional image exploration view. Instead of conventional X-Y-Z sections, this view allows the user to review the image in dentally meaningful perspectives using multiple cross sections, traversing the lengths of the dental arches.
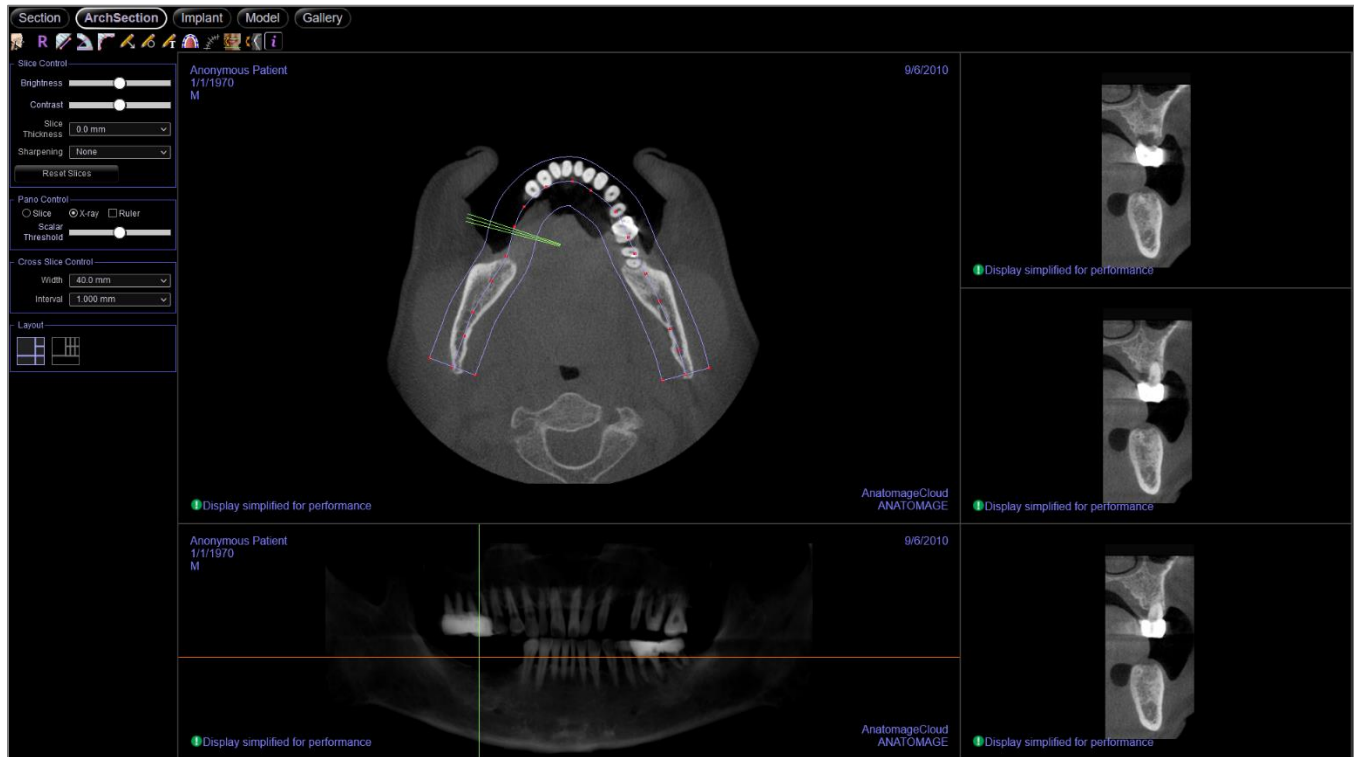
ArchSection: Toolbar

Shown below are the Toolbar and tools that are loaded with the ArchSection Tab:

About: Displays the software version information.

Reset: Resets the window to the original view.

Distance Measurement: After selecting this tool, click two points to mark the desired distance. A number in millimeters automatically displays.

Angle Measurement: Select this option and mark three points on the volume, and the angle between them appears. Clicking on their control points and moving the cursor can modify measurements. Click on the measurement and press the "delete" key to delete it.

Polyline Measurement: Select this option and mark any number of points in the slice view. Right-click to end the measurement, and the total distance appears. Clicking on the nodes and moving the cursor can modify points. Click on the measurement and press the "delete" key to delete it.

Arrow Notation: Allows an arrow to be drawn on the image.

Circle Notation: Allows a circle to be drawn on the image.

Text Notation: Allows text to be written and edited on the image.

Create Arch Spline: After selecting this tool, create a new arch spline or edit an existing arch spline. Left-click to place nodes along the arch. Right-click or double-click to finish the arch spline. To modify an existing arch spline, drag the nodes to the desired positions. To move the arch while maintaining its shape, click and drag the central spline.

Arch Spline Ruler: Places ruler along the arch spline for easy reference.

Reorientation: Adjusts the patient orientation and the visible range of the scan.

**Rotate Cross Section:** Adjusts the patient orientation in the cross sections.

Information Display: Displays or hides case information embedded in the data.

Warning: Any measurement that is incorrect can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based on the incorrect measurements. It is critical for the end user to learn how to perform measurements correctly and employ proper usage of all measurement tools. Measurement accuracy depends on the image data and the hardware scanner that generated the image data. The measurement cannot be more precise than the resolution of the image. Software reports the value based on user-picked points. Due to the nature of medical imaging, the boundary is not always well defined. The apparent boundary depends on the current brightness and contrast setting. The boundary may shift as the user makes adjustments to brightness and contrast. The user must understand the limitation of the measurement value before applying to the patient. If you notice any inconsistencies or software problems with measurements, or have further questions or concerns about using measurement tools correctly, please contact us at (408) 333-3484 or email us at dental@osteoidinc.com

ArchSection: Control Panel
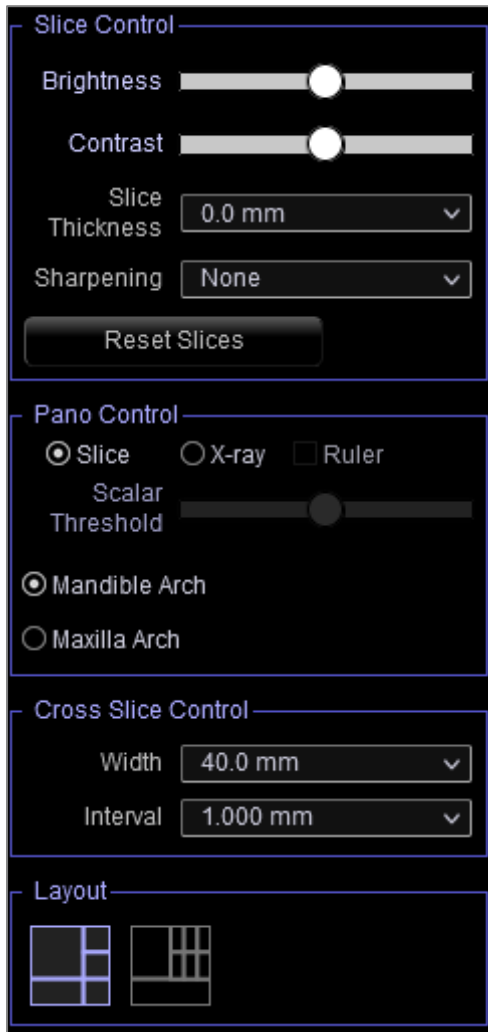
Slice Control

- Brightness and Contrast can be used to adjust the image.
- Slice Thickness: Allows for the cumulative thickness of the slices to be viewed in the cross sections.
- Sharpening applies the selected sharpening filter from the drop-down menu to the 2D slice renderers.
- Reset Slices: Resets slice rotation if applied.

Pano Control

- Slice mode displays a single cross section along the panoramic curve (blue).
- X-ray shows the ray sum (reconstructed x-ray) in the focal trough.
- Ruler: Displays a ruler on the bottom of the panoramic image.
- Maxillary Arch and Mandibular Arch options allow two different arch splines to be viewed. Switching between the two options changes which spline is manipulated and used in creating the panoramic and cross sections. These options are only available if the uploaded case has different arch splines created.
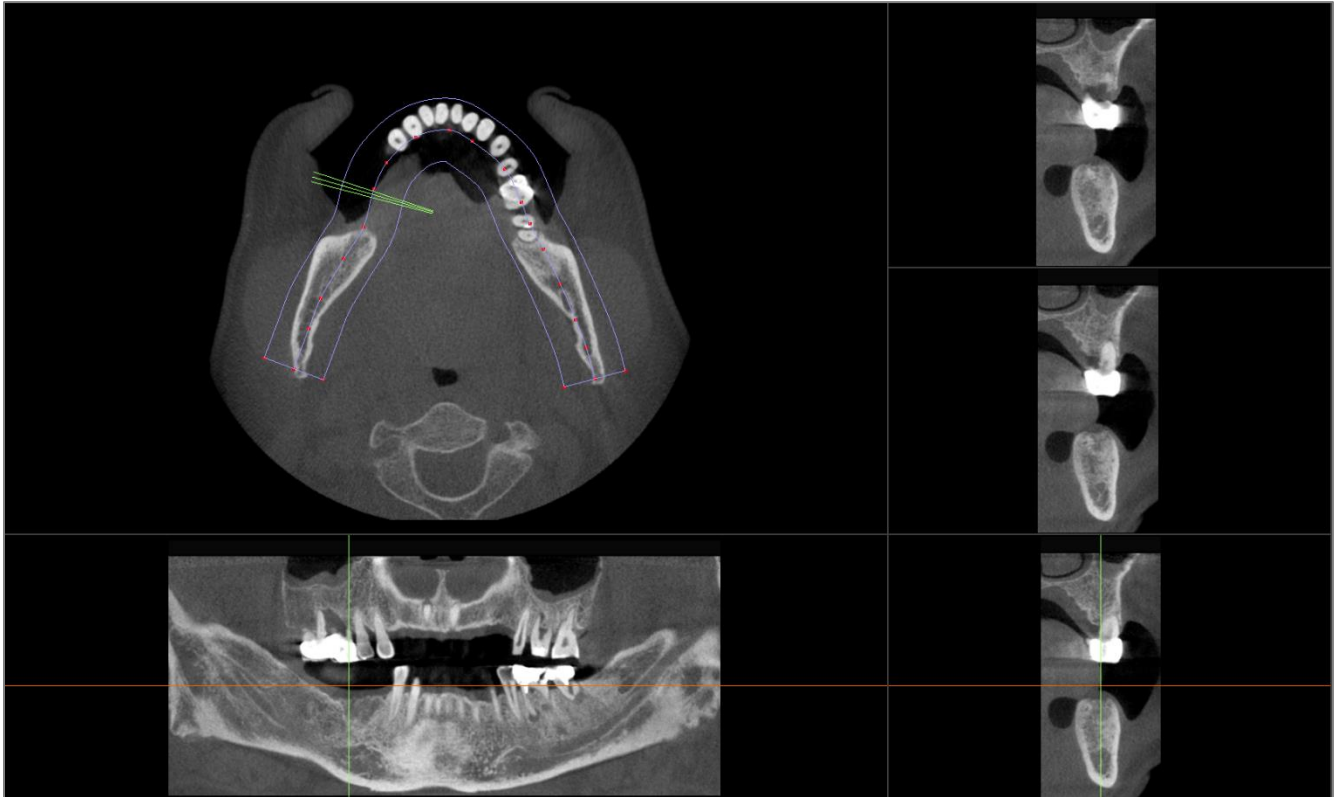
Cross Slice Control

- Width: Cross-section width.
- Interval: Distance between the subsequent cross sections.

Layout

- Toggle between the available layout options.
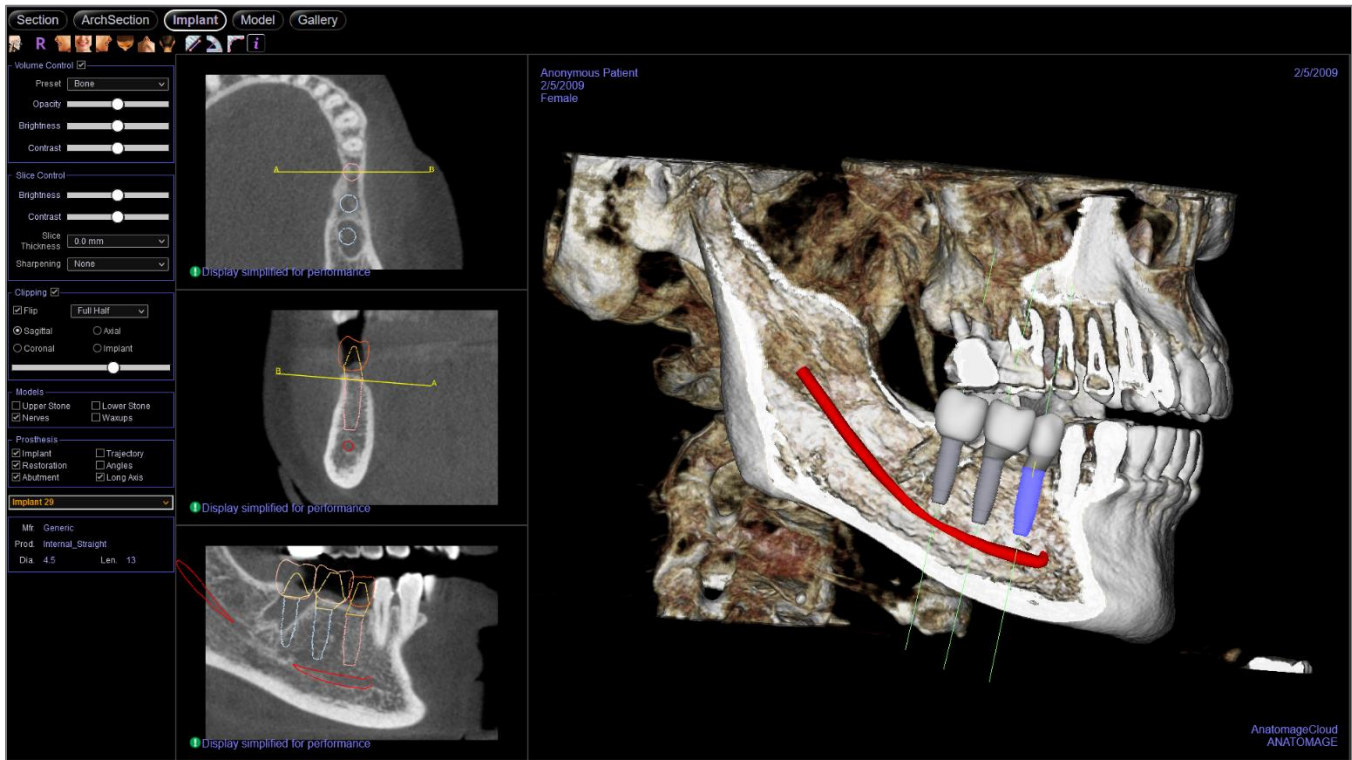
ArchSection: Rendering Window

Arch Cursor: Notice the green, orange, and yellow coordinate indicators. These ArchSection coordinate indicators show the spatial location within the ArchSection rendering window.

- **Cross Section Indicator:** The green lines give the location of the cross sections along the arch spline.
- **Axial Slice Indicator:** The orange line shows the axial coordinate position within the section.
- **Arch Spline:** The yellow spline in the center of the arch spline represents the current position where the arch section has moved.
- **Cross Section:** Mouse scrolling within any one of the three sagittal frames advances the slices to the patient's right or left and causes the green coordinate indicator to move mesial or distally in the axial and pano sections simultaneously.
- **Axial Section:** Mouse scrolling within the axial section advances the sections superiorly or inferiorly and causes the orange coordinate indicator to move superiorly or inferiorly in the cross or pano sections simultaneously.
- **Pano Section:** Mouse scrolling within the coronal frame advances the slices buccally or lingually and causes the yellow coordinate indicator to move buccally or lingually in the axial and cross sections simultaneously.

Implant View Features

*The **Implant View Tab** contains implant information and views for reviewing existing implant plans.*

Implant: Toolbar

Shown below are the Toolbar and tools that are loaded with the Implant View Tab:

About: Displays the software version information.

Reset Zoom: Resets the rendering window to the original view size.

Left: Automatically orients the volume in a left sagittal view.

Front: Automatically orients the volume in a front view.

Right: Automatically orients the volume so the patient is facing right sagittal.

Top: Automatically orients the volume in a top-down view.

Bottom: Automatically orients the volume in a bottom-up view.

Back: Automatically orients the volume to the posterior view.

Distance Measurement: After selecting this tool, click two points to mark the desired distance. A number in millimeters will automatically display. Click on the measurement and press the "delete" key to delete it. Measurements can only be created on the 2D slice views.

Angle Measurement: After selecting this tool, click the first point, then click the vertex, then click the last point to create an angle. A number in degrees automatically displays. Click on the measurement and press the "delete" key to delete it.

Polyline Measurement: Select this option and mark any number of points in the slice view. Right-click to end the measurement, and the total distance appears. Clicking on the nodes and moving the cursor can modify points. Click on the measurement and press the "delete" key to delete it.

Information Display: Displays or hides case information embedded in the data.

Warning: Any measurement that is incorrect can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based on the incorrect measurements. It is critical for the end user to learn how to perform measurements correctly and employ proper usage of all measurement tools. Measurement accuracy depends on the image data and the hardware scanner that generated the image data. The measurement cannot be more precise than the resolution of the image. Software reports the value based on user-picked points. Due to the nature of medical imaging, the boundary is not always well defined. The apparent boundary depends on the current brightness and contrast setting. The boundary may shift as the user makes adjustments to brightness and contrast. The user must understand the limitation of the measurement value before applying to the patient. If you notice any inconsistencies or software problems with measurements, or have further questions or concerns about using measurement tools correctly, please contact us at (408) 333-3484 or email us at dental@osteoidinc.com

Warning: Any implant planning that is performed incorrectly in any aspect including but not limited to implant location, orientation, angle, diameter, length, and/or manufacture can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based off of the implant planning error(s) in question. It is critical for the end user to learn how to use the implant treatment planning tools correctly. If you

notice any inconsistencies or software problems with implant planning or have further questions or concerns about correct utilization of implant planning, please contact Osteoid support at (408) 333-3484 or email us at dental@osteoidinc.com

⚠️ Warning: Implant planning must be performed by a trained healthcare professional for proper implant placement relative to the patient's anatomy. Implant angulation, divergence, location, and depth should abide by the implant manufacturer's instructions for use and placement parameters.

⚠️ Warning: Any nerve that is traced in a way that does not conform to the actual pathway of the nerve can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based off of the incorrect tracing. It is critical for the end user to learn how to properly perform nerve tracings correctly. If you notice any inconsistencies or software problems with nerve tracing or have further questions or concerns about nerve tracing, please contact Osteoid support at (408) 333-3484 or email us at dental@osteoidinc.com

Implant: Control Panel
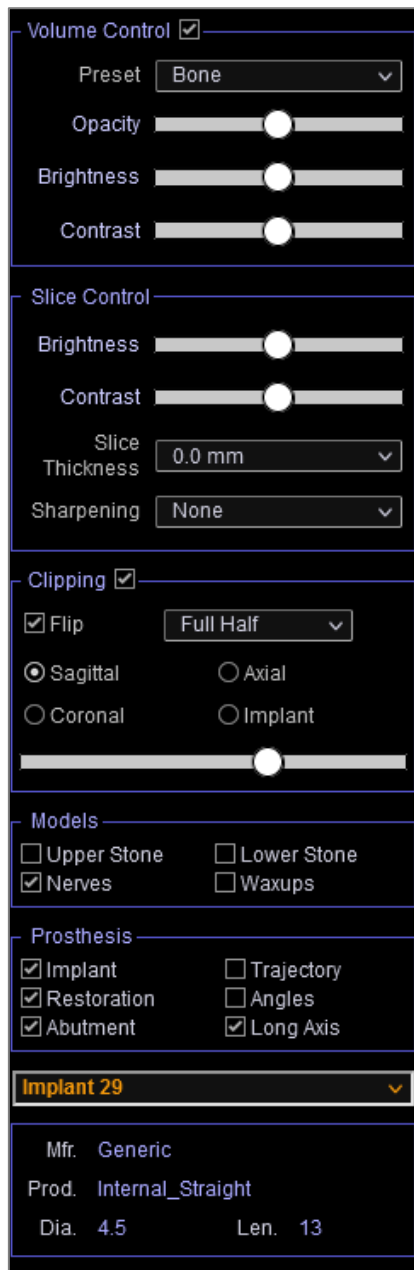
Volume Control:

- Rendering Preset: Different settings allow for better visualization of certain anatomic structures, soft tissue profiles, hard tissue, etc. This is achieved by displaying specific densities with specific colors.
- Opacity: Allows for the translucency/opacity to be adjusted.
- Brightness & Contrast: Can be adjusted for each of the presets to enhance the image.
- Visible: Allows the 3D Volume Rendering to be turned on or off from view.

Slice Control

- Brightness and Contrast can be used to adjust the image.
- Slice Thickness: Allows for the cumulative thickness of the slices to be viewed in the cross sections.
- Sharpening: Applies the selected sharpening filter from the drop-down menu to the 2D slice renderers.

Clipping

- Check the "Clipping" box to slice the image along the predefined anatomical planes (sagittal, axial, coronal, and arch) and to reveal the clipping options.
- To switch the clip to the opposite side, click "Flip."
- Select the amount of volume to clip in the drop-down menu.
- Scrolling the mouse wheel or slider moves the clipping plane.

Models and Prostheses

- Toggle on and off visibility of available model and prostheses.

Implant Control:

- ID Drop-down menu: Select available implants from the drop-down. The selected implant is highlighted in the 3D rendering view, and the 2D slices are updated to show the axial and two cross-sectional views of the selected implant. Implant details and parameters appear below once an implant is selected.
- Mfr.: Implant manufacturer
- Prod.: Implant product type
- Implant dimensions: Diameter and length

Implant: Rendering Window
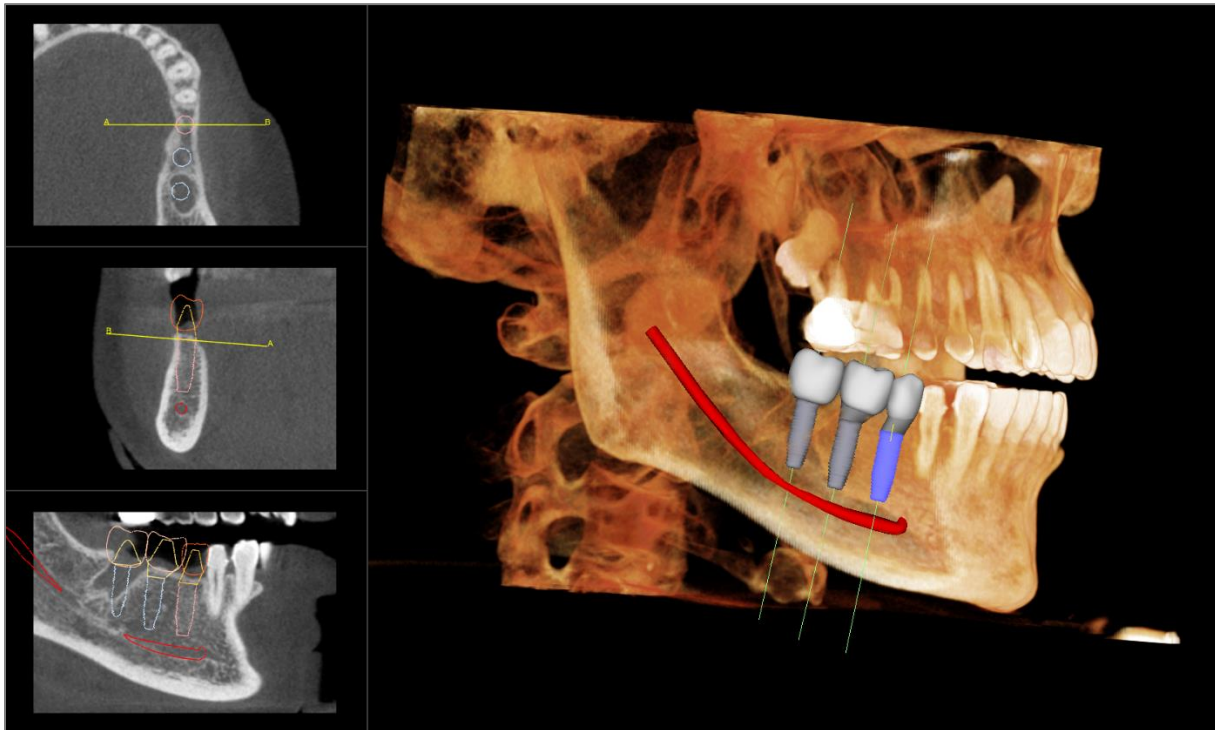
Axial Section: Top left window. This section is the view from the top of the implant. The yellow A-B line passing through the axis creates the view seen in the middle window. Scrolling the mouse wheel after clicking inside the axial window, or clicking and dragging the line changes the cross section seen in the middle and bottom views as the line rotates about the axis of the implant.

2D Section: Middle and bottom left windows. The A-B line passing through the implant in the axial view creates the cross-section view that appears in the axial view and is set by default to be positioned at the level of the implant emergence point. Scroll the mouse wheel after clicking inside the middle and lower windows, or click and drag the A-B line in the axial slice to change the cross section views.

Volume Rendering: Right window. This view displays the 3D volume in the selected rendering preset. If available, implants, models, and prosthesis can be visualized in 3D.


Warning: Any implant planning that is performed incorrectly in any aspect including but not limited to implant location, orientation, angle, diameter, length, and/or manufacture can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based off of the implant planning error(s) in question. It is critical for the end user to learn how to use the implant treatment planning tools correctly. If you notice any inconsistencies or software problems with implant planning or have further questions or concerns about correct utilization of implant planning, please contact Osteoid support at (408) 333-3484 or email us at dental@osteoidinc.com

Model View Features

*The **Model View Tab** allows the user to see the patient's Invivo Model or 3D photograph and create surgical or orthodontic simulations, as well as 3D soft tissue predictions. An Invivo Model is a 3D digital study model that is made by Osteoid on a case-by-case service. The DICOM data of the patient is sent to Osteoid where it is modeled to create the most advanced digital study model available. Invivo Models contain anatomy such as roots, developing teeth, impactions, alveolar bone, and more, while other models merely show the crowns of teeth. The 3D photograph service that Osteoid offers is also viewed here. Osteoid developed the technology to combine a frontal photo of the patient and the CT scan to create a 3D model that overlays the scan data.*

Any nerve tracing, implant planning, or superimposition that has been done is also visible in the Model Tab. Each item can be independently turned on/off to see how all these systems come together with the scan data.
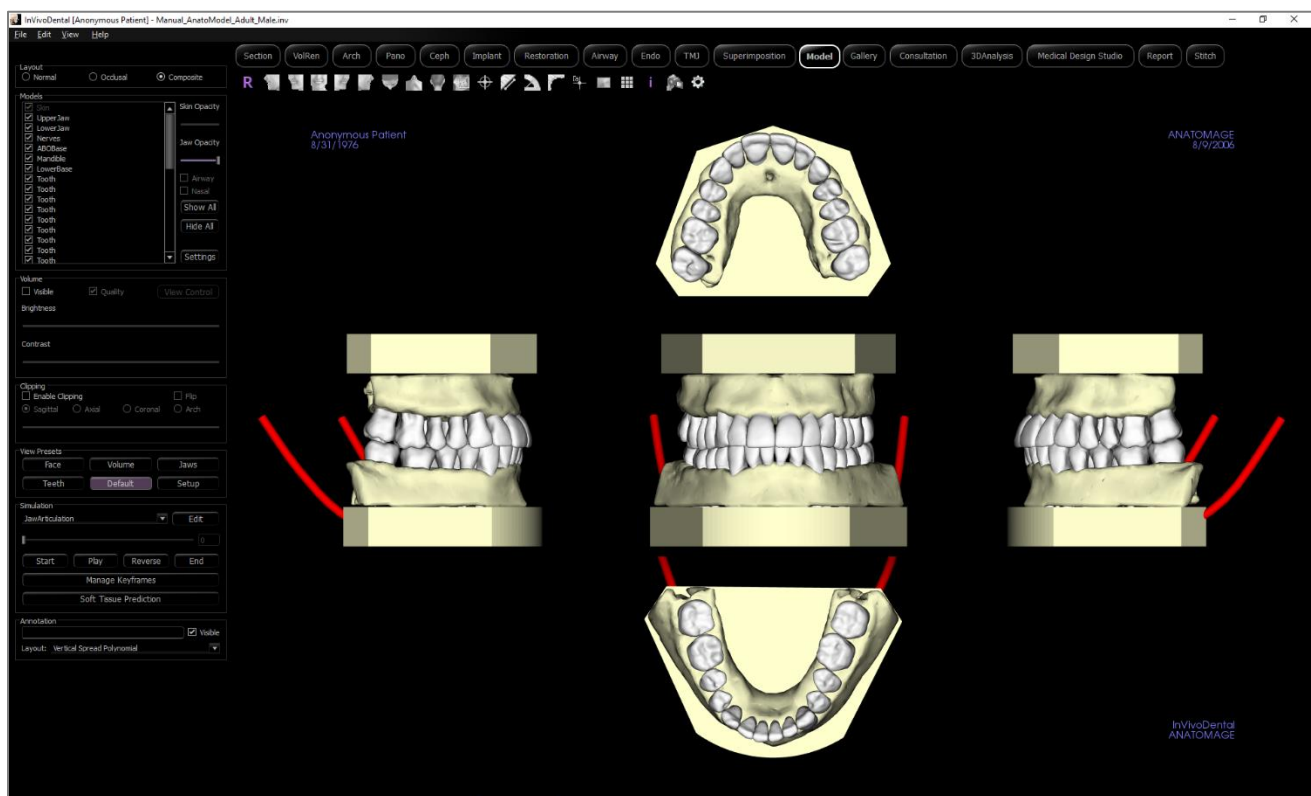
For additional information about the Invivo Model service, please contact Osteoid at (408) 333-3484 or email us at dental@osteoidinc.com.

Model: Toolbar

Shown below are the Toolbar and tools that are loaded with the Model View Tab:

About: Displays the software version information.

Reset Zoom: Resets the rendering window to the original view size.

Left: Automatically orients the volume in a left sagittal view.

Front: Automatically orients the volume in a front view.

Right: Automatically orients the volume so the patient is facing right sagittal.

Top: Automatically orients the volume in a top-down view.

Bottom: Automatically orients the volume in a bottom-up view.

Back: Automatically orients the volume to the posterior view.

Distance Measurement: After selecting this tool, click two points to mark the desired distance. A number in millimeters will automatically display. Click on the measurement and press the "delete" key to delete it. Measurements can only be created on the 2D slice views.

Angle Measurement: After selecting this tool, click the first point, then click the vertex, then click the last point to create an angle. A number in degrees automatically displays. Click on the measurement and press the "delete" key to delete it.

Polyline Measurement: Select this option and mark any number of points in the slice view. Right-click to end the measurement, and the total distance appears. Clicking on the nodes and moving the cursor can modify points. Click on the measurement and press the "delete" key to delete it.

Information Display: Displays or hides case information embedded in the data.

Warning: Any measurement that is incorrect can lead to surgical complications if diagnosis, treatment plans and/or actual treatment is based on the incorrect measurements. It is critical for the end user to learn how to perform measurements correctly and employ proper usage of all measurement tools. Measurement accuracy depends on the image data and the hardware scanner that generated the image data. The measurement cannot be more precise than the resolution of the image. Software reports the value based on user-picked points. Due to the nature of medical imaging, the boundary is not always well defined. The apparent boundary depends on the current brightness and contrast setting. The boundary may shift as the user makes adjustments to brightness and contrast. The user must understand the limitation of the measurement value before applying to the patient. If you notice any inconsistencies or software problems with measurements, or have further questions or concerns about using measurement tools correctly, please contact us at (408) 333-3484 or email us at dental@osteoidinc.com

Model: Control Panel
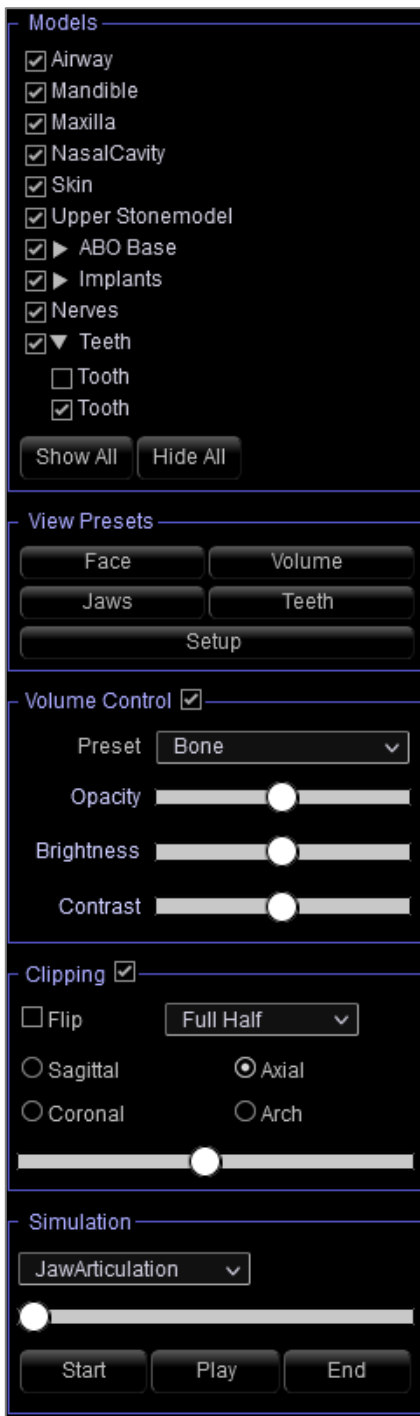
Models:
- Models: The individual, digital models (implants, abutments, restorations, nerves, teeth, superimposition) can be turned on or off in the rendering window.
- Additional settings for model visibility and display are available once a model is selected.
- **Show All** and **Hide All** toggle the visibility of all the listed models.

View Presets:
- Preset toggles that display predetermined views. A custom view can also be set.

Volume Control:
- Rendering Preset: Different settings allow for better visualization of certain anatomic structures, soft tissue profiles, hard tissue, etc. This is achieved by displaying specific densities with specific colors.
- Opacity: Allows for the translucency/opacity to be adjusted.
- Brightness & Contrast: Can be adjusted for each of the presets to enhance the image.
- Visible: Allows the 3D Volume Rendering to be turned on or off from view.

Clipping
- Check the "Clipping" box to slice the image along the predefined anatomical planes (sagittal, axial, coronal, and arch) and to reveal the clipping options.
- To switch the clip to the opposite side, click "Flip."
- Select the amount of volume to clip in the drop-down menu.
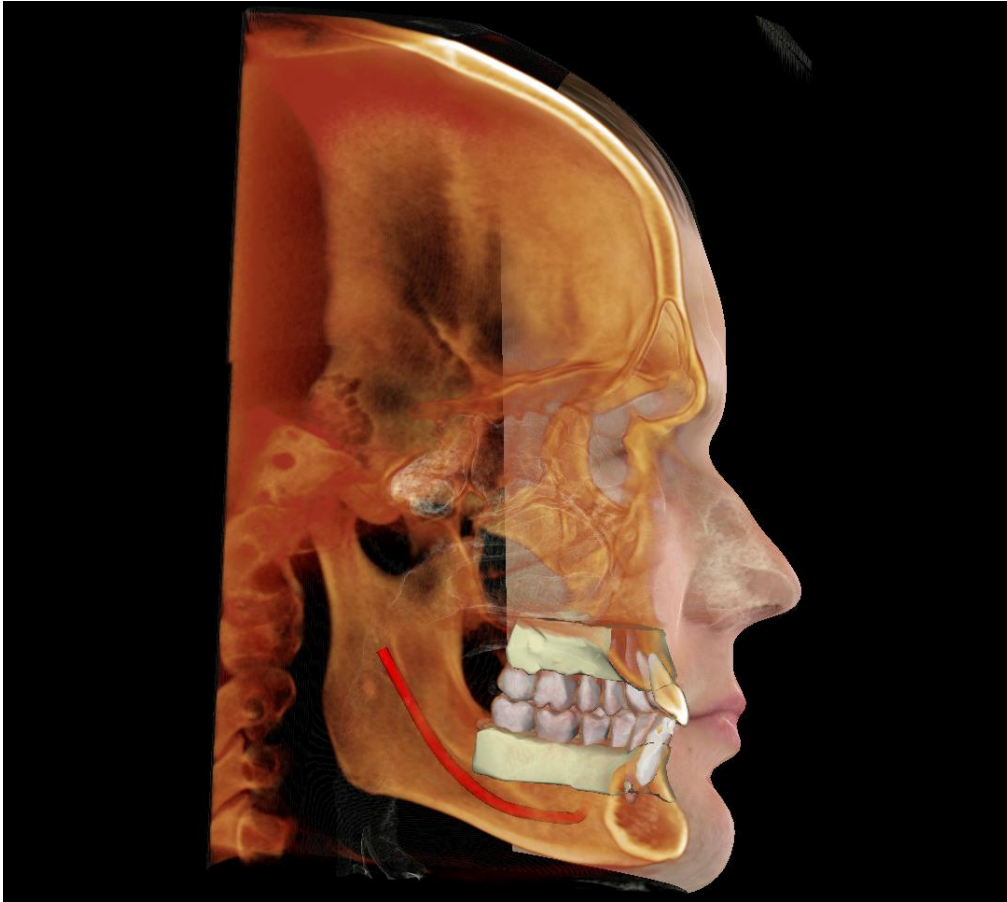- Scrolling the mouse wheel or slider moves the clipping plane.

Simulation
- Select a simulation from the drop-down menu
- Press **Play** to view the simulated movement.
- Use **Start** and **End** or the slider bar to jump to different frames of the simulation.

Warning: Soft tissue prediction is an approximation and may not reflect actual results.

Model: Rendering Window

This window allows the viewing of Invivo Models, 3D photographs, and simulation, all of which are services that must be ordered per case for this feature to work. These services provide excellent diagnostic data and case presentation material.

Model: Model Settings
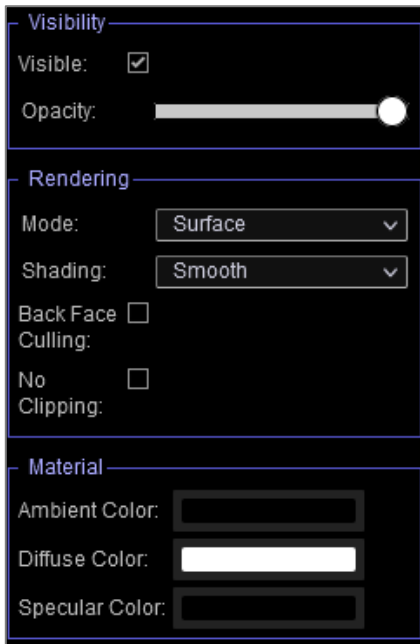
When a model is selected, additional options become available for adjusting the model's appearance and properties.

Visibility:
- Visible: Allows the model to be turned on or off from view.
- Opacity: Allows for the translucency/opacity to be adjusted.

Rendering:
- Mode: Surface and wireframe options are available for the texture of the model. Wireframe converts the model to a wire mesh form when selected.
- Shading: Smooth and Flat options are available for adjusting the shading.
- Back Face Culling: Determines the visibility of the surface textures from certain viewing angles
- No Clipping: When toggled, the model is exempt from the global clipping setting.

Material
- Ambient, Diffuse, and Specular Color: Determine the color of the model.

Model: Custom View Preset Setup

Visibility presets allow for easy switching between set views. Each option can be adjusted by the user. To configure these settings, click on **Setup**.
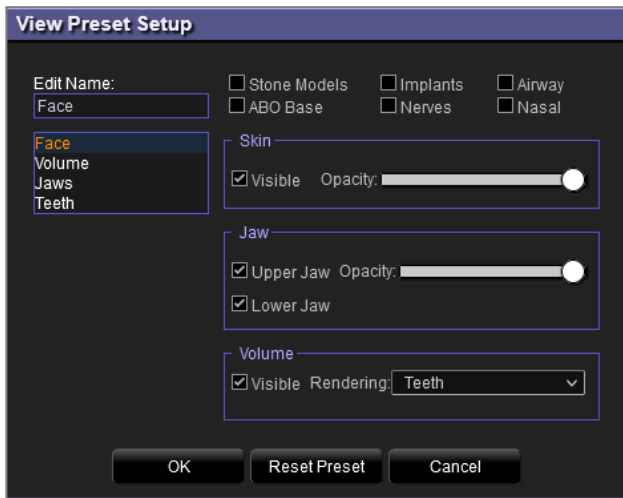

- Visibility checkboxes hide or show features in the rendering window.
- Skin Opacity: Controls the visibility of the face photo wrap from the Invivo Model workup file or 3DAnalysis. Varying degrees of transparency can be obtained with the slider.
- Jaw Opacity: Controls the visibility of the jaw models. Varying degrees of transparency can be obtained with the slider.
- **Reset Preset:** Returns the preset to the default settings.

Gallery View Features

The **Gallery View Tab** *archives images that have been captured or imported in Invivo.*
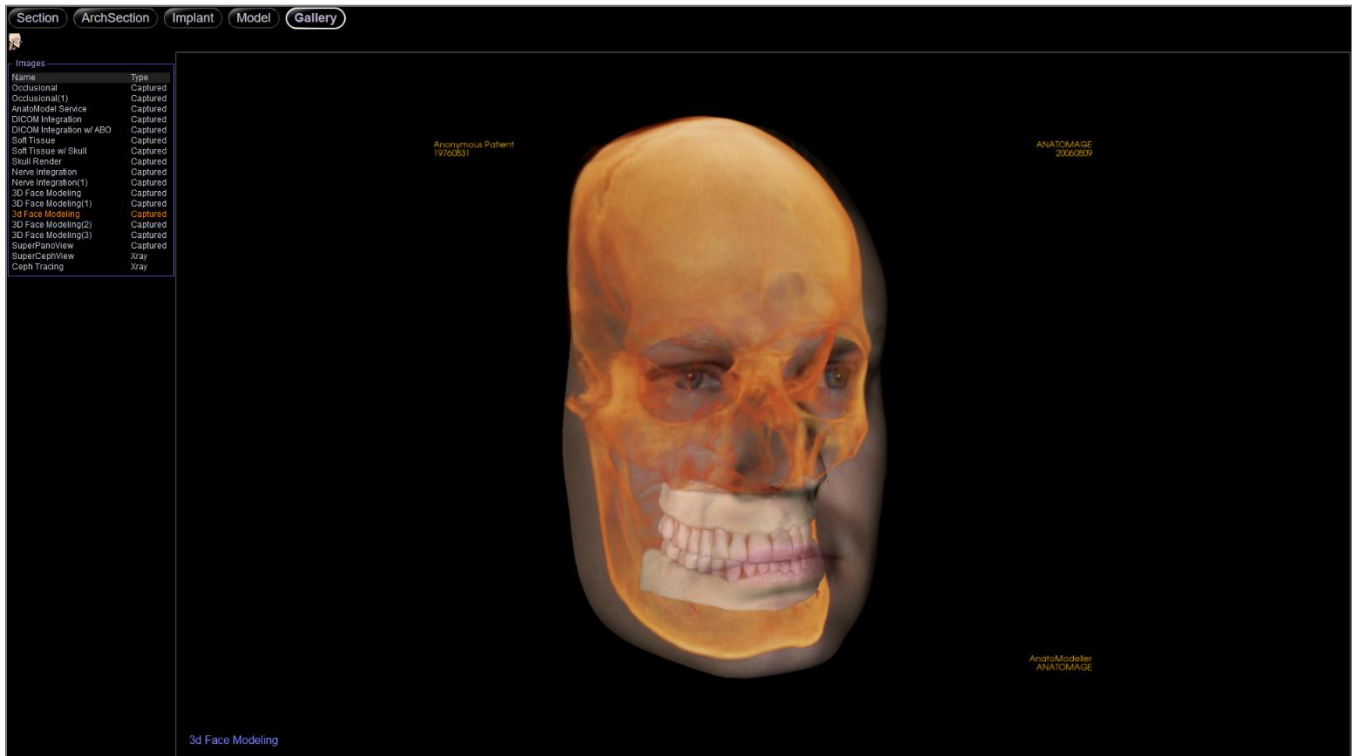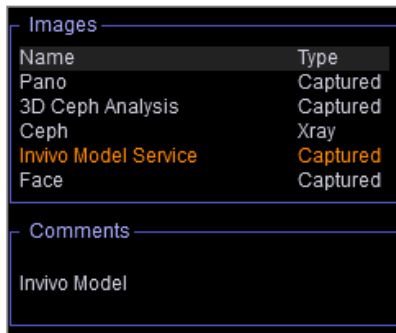
Gallery: Toolbar

Shown below are the Toolbar and tools that are loaded with the Gallery View Tab:

 About: Displays the software version information.

Gallery: Control Panel

Images: Gives a list of all captured images.

- Each of these images has a "Name" and "Type" as captured from Invivo

Comments:

- Text box displays comments about the image displayed in the rendering window.
- Add or change comments by editing the text in the Comments Box.

X-ray Image Controls:

- Controls settings for 2D images.
- For grayscale images in the Gallery, the user has the option to adjust several settings such as Gray Scale Threshold, Brightness, Contrast, and Sharpening.

Invivo Workspace Web Viewer Troubleshooting

Category	Issue	Solution
General	Measurement cannot be created.	Please make sure that the measurement creation stays in the same view. Measurements cannot be created across different views. Measurements cannot be created in the 3D rendering for certain tabs.
	Annotations or measurements cannot be deleted.	Click on the annotation or measurement to select it. Then press the "delete" key on the keyboard. If this is a Mac device, use "fn" + "del".
	Cannot zoom in or out.	Hold the "Ctrl" key and left click and drag up or down. If this is a Mac device, use "Cmd"and left click and drag up or down.
	Case cannot be saved.	Case saving is not available in this version of the Invivo Workspace Web Viewer. Cases on Invivo Workspace can be downloaded locally for further treatment planning. All changes to the case must be performed in the Invivo software.
	Viewer does not load.	Use Chrome versions 94.0 or higher, or Firefox version 92.0 or higher. If viewer was previously working, refresh the page or clear the browser cache.
	Laggy response when manipulating the 3D volume or 2D slices or other general performance issues.	For Windows 10 and higher, go to the Windows Graphics Settings. Select the browser in use. Click Options and set the Graphics Preference to High performance.
Implant	No implants are present.	Implants must be added to the case in the Invivo software prior to uploading the file on Invivo Workspace.
	Implants cannot be moved or deleted.	Implant manipulation is not available in this version of the Invivo Workspace Web Viewer. All changes to the implant plan must be performed in the Invivo software.
Model	No models are present.	Models must be added to the case though the Invivo Model service or through certain procedures within the Invivo software prior to uploading the file on Invivo Workspace.
Gallery	No Gallery images are present.	Gallery images must be captured in the Invivo software prior to uploading the file on Invivo Workspace

For all other issues, please contact Osteoid Inc. Customer Support at (408) 333-3484.

Index

This comprehensive list provides a quick and easy way to find the relevant information that you would like to examine.

Invivo Workspace Web Viewer 1.5.0

Invivo Workspace Web Viewer is a volumetric imaging software designed specifically for clinicians, doctors, physicians, and other qualified medical professionals

17-Nov-21

UDI
(01)00852060007105(10)1.5.0

⚠ Intended for use by medical and dental professionals.
Please ensure all hardware devices with the software are password-protected from unauthorized use and all patient information is secure. Please refer to the instructions for use for a complete list of warnings/precautions.
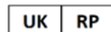
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https://learn.osteoidinc.com/invivo-user-manuals

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