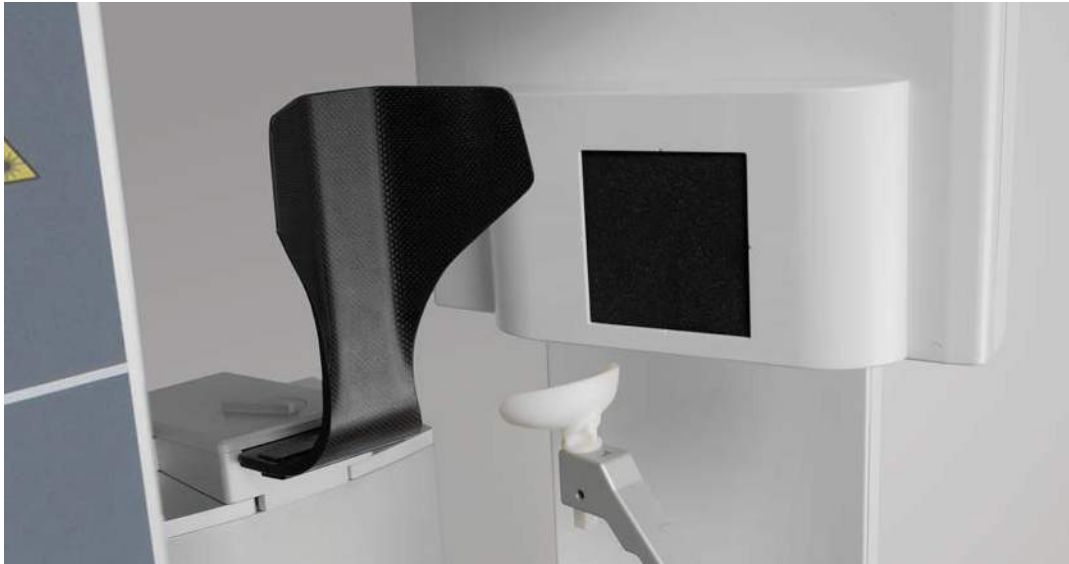# i-CAT™

AWARD-WINNING CONE BEAM 3D DENTAL IMAGING

Dedicated to Advancing Dental Treatment

A COMPLETE 3D TREATMENT SOLUTION

Your dental practice is unique — that's why you need a flexible solution that works with your practice and provides the control you need to deliver optimum care to your patients. Now, you can get more from your cone beam 3D unit and expand your practice with comprehensive treatment solutions from i-CAT.

Quickly diagnose complex problems and develop treatment plans more easily and accurately with i-CAT. Your practice will benefit from its flexible 3D planning and treatment tools for implants and restorations, oral and maxillofacial surgery, orthodontics, periodontics, endodontics, and TMJ and airway analysis.

WHY i-CAT?

Let us show you...

i-CAT™

THE MOST COMPREHENSIVE 3D TREATMENT SOLUTION, FROM THE MOST TRUSTED 3D IMAGING BRAND

i-CAT Solutions Have Been Installed in More than 5,000 Sites Around the World

i-CAT owners have access to highly specialized service and support, as well as continuing education. We are dedicated to helping dentists and specialists use the latest in cone beam technology.

The 3D Experts

Recognized as innovators in cone beam technology, i-CAT provides unparalleled, highly specialized service and support that can only come through a dedicated 3D focus.

As part of the i-CAT community, you have exclusive access to unprecedented educational programs, the vast knowledge of a global community of clinicians, and a world of support with our far-reaching, geographically convenient technical response team.

- Telephone Support
- Remote Assistance
- Responsive Field Service and Product Specialist Teams across the US and Canada
- Access to 3D Education and Training

AWARD-WINNING PERFORMANCE

Praised by Owners, Esteemed Educational Organizations, and the Dental Community-at-Large

dental townie choice awards.

ortho townie choice awards.2013

Voted **Best Cone Beam CT Scanner**

Pride INSTITUTE
Best of Class
TECHNOLOGY AWARD
2009

Pride INSTITUTE
Best of Class
TECHNOLOGY AWARD
2013

Pride INSTITUTE
Best of Class
TECHNOLOGY AWARD
2014

TOP 100
DENTAL PRODUCTS REPORT

The Dental Excellence Awards
THE BEST OF DENTISTRY

> " *i-CAT FLX was recognized as a winner in the very competitive imaging category this year, by addressing an issue of great importance to the panel...lowering radiation dosage to the patient.* " *The i-CAT FLX combines this with the other important aspect of 3D imaging — image quality. Practices dedicated to implants, restorations, oral and maxillofacial surgery, orthodontics, TMD, and airway disorders can all benefit from the flexible 3D planning and treatment tools that are integral to this comprehensive system.*
>
> **— Lou Shuman, DMD, CAGS**
> Best of Class Founder
> and President of Pride Institute

THE i-CAT PHILOSOPHY

i-CAT™

Combining highly precise, cone beam 3D technology with flexible planning and treatment tools, i-CAT offers a full suite of solutions to meet your practice's needs. You can care for your patients with greater confidence and control than ever before.

SCAN

Clinical control and optimized patient care

With i-CAT, there's no need to compromise between image quality and patient safety. High-resolution, volumetric images provide complete 3D views for more thorough analysis of bone structure and tooth orientation, while flexible scanning options allow you to control the dose and follow ALARA (As Low As Reasonably Achievable) radiation protocols.

PLAN

Powerful, comprehensive treatment tools

More than just a scanner, i-CAT includes powerful, yet easy-to-use, planning and treatment tools to help you take charge of your practice. Designed to streamline your workflow, i-CAT helps you move from scanning to consultation and treatment planning in less than one minute.

TREAT†

More advanced procedures with greater predictability

Start planning immediately and offer an effective course of treatment — from implants to surgical guides and restorations. i-CAT's open software architecture seamlessly integrates with orthodontic systems, CAD/CAM programs, imaging software, and practice management programs, expanding your practice's capabilities.

SCAN

*i-CAT FLX products offer the **most flexible imaging control** of any cone beam 3D unit, allowing you to focus on each patient's unique features while **minimizing the radiation dose.***

Flexibility and Ease

- Full dentition 3D imaging at a dose comparable to a 2D Panoramic X-ray with **QuickScan+***

- **Visual iQuity™** advanced image technology delivers i-CAT's clearest 3D and 2D images, demonstrating our commitment to offer the optimal balance between image quality and patient safety

- Easy-to-follow, guided workflow right at your fingertips with the **SmartScan STUDIO™** touchscreen interface for greater speed and efficiency

- Capture traditional 2D panoramic images with the **i-PAN™** feature when 3D diagnostic information is not required

- **Ergonomic Stability System (ESS)** allows for easy, seated patient positioning, designed to minimize patient movement and avoid unnecessary retakes and radiation

SmartScan STUDIO

i-CAT's SmartScan STUDIO provides an easy, customizable solution for a guided, controlled workflow in your practice. With its easy-to-use, touchscreen interface and integrated acquisition system, SmartScan STUDIO offers step-by-step guidance, allowing you to select the appropriate scan for your patient with an ALARA (As Low As Reasonably Achievable) radiation dose.

QuickScan+ cuts dose and scan time to just 4.8 seconds, producing a full 3D dentition at a radiation dose comparable to a panoramic image. And with rapid reconstruction rates, you are able to view in less than 30 seconds.*

PLAN

*Tx STUDIO™ is an integral part of the fast i-CAT workflow and provides the power of multiple software systems combined into **one simple-to-use solution.***

Optimized Treatment Planning Software

Designed exclusively for i-CAT with Anatomage, Tx STUDIO leverages the best in anatomy imaging software and cone beam 3D technology. It is the only software designed for a cone beam 3D unit that enhances the efficiency of your practice by providing immediate access to integrated treatment tools for implant planning, surgical guides, and other applications.

Tx STUDIO has specific system requirements that need to be met prior to a successful installation.

Open Software Architecture

i-CAT's open software architecture seamlessly integrates with orthodontic programs, CAD/CAM systems, imaging software, and practice management programs, expanding your practice's capabilities.

Surgical Guides

Expand implant-planning capabilities with a fast scan workflow and unique open software architecture, which make i-CAT universally compatible with all leading surgical guide providers. Perform treatments with more confidence and efficiency — and fewer complications — with surgical guides ordered directly through Tx STUDIO.
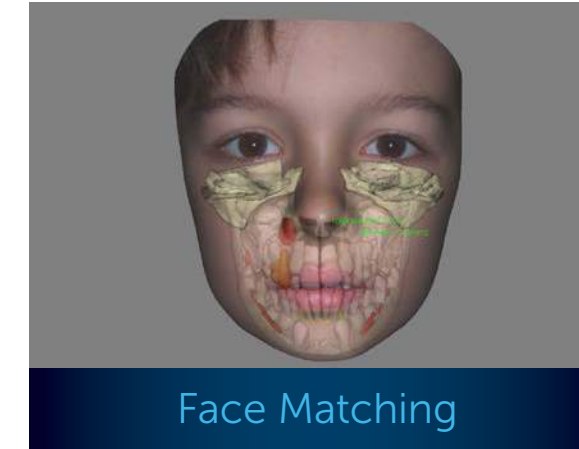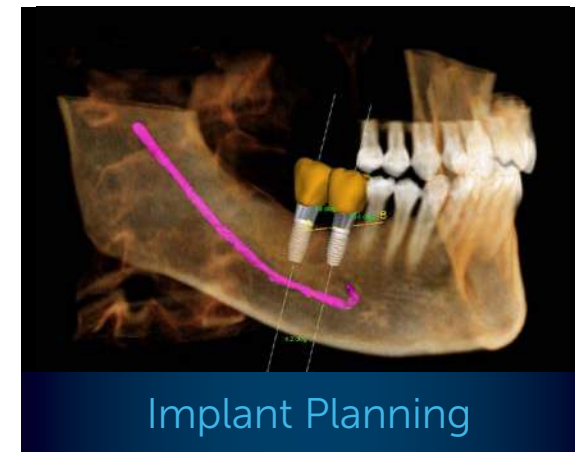
Face Matching

Bring your 3D scan data to life by superimposing a digital photograph of your patient on their scan data with face-MATCH™.
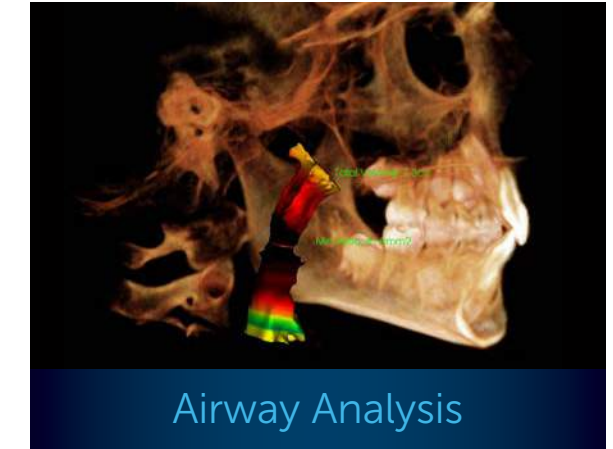
Airway Analysis

Automatically compute the total airway volume, and view segmented areas of constriction to aid in the treatment of sleep apnea and other airway disorders.

Implant Planning

Measure bone density and plan implants, abutments, and restorations simultaneously within a 3D volume or a panoramic view. Avoid potential surgical complications by checking for root entanglement prior to extractions with automatic nerve canal tracing.

STL File Export

Simply export STL files from Tx STUDIO software so your lab can create the final restoration based on your exact design. These files also work with a wide variety of CAD/CAM and 3D printing systems.

i-PAN

Utilize i-PAN traditional 2D panoramic imaging with i-CAT's two-in-one functionality, a convenient benefit for dental offices that use both 2D and 3D imaging.
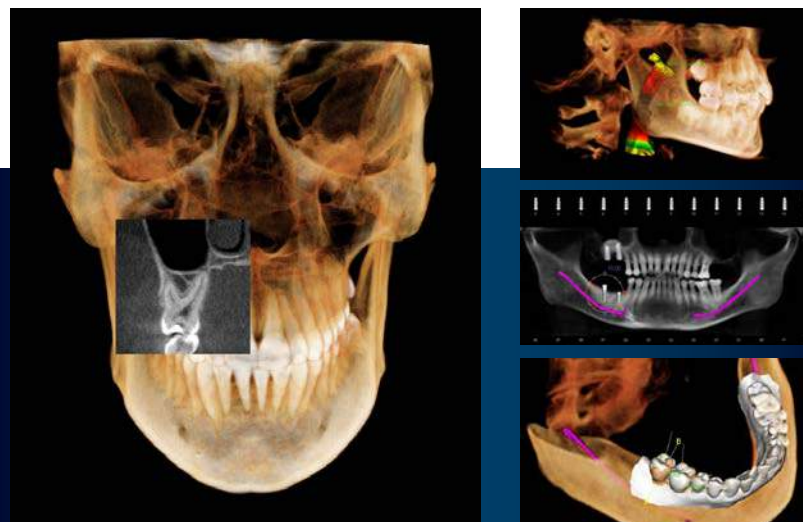
TREAT †

*With the assistance of i-CAT, a clinician can identify a plan for an **effective course of treatment** for a wide range of advanced procedures.*

Make Your Plan a Treatment Reality

Treatment plans are done chairside or in consultation rooms in minutes with i-CAT, increasing patient engagement and interest in their treatment. When developing treatment plans, you can take full advantage of CAD/CAM technology, which expands your opportunities to meet the increasing demand for high-tech treatment. With the information provided by powerful 3D scans, you can confidently perform procedures knowing that your plan is in the best interests of your patients. Prior planning helps eliminate unseen surprises, allowing you to complete complex procedures quickly and with greater accuracy.

i-CAT is particularly beneficial for cases involving:

Orthodontics
Implants
Oral & Maxillofacial Surgery
Periodontics
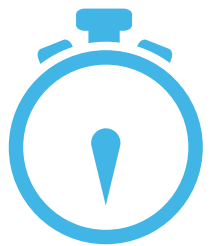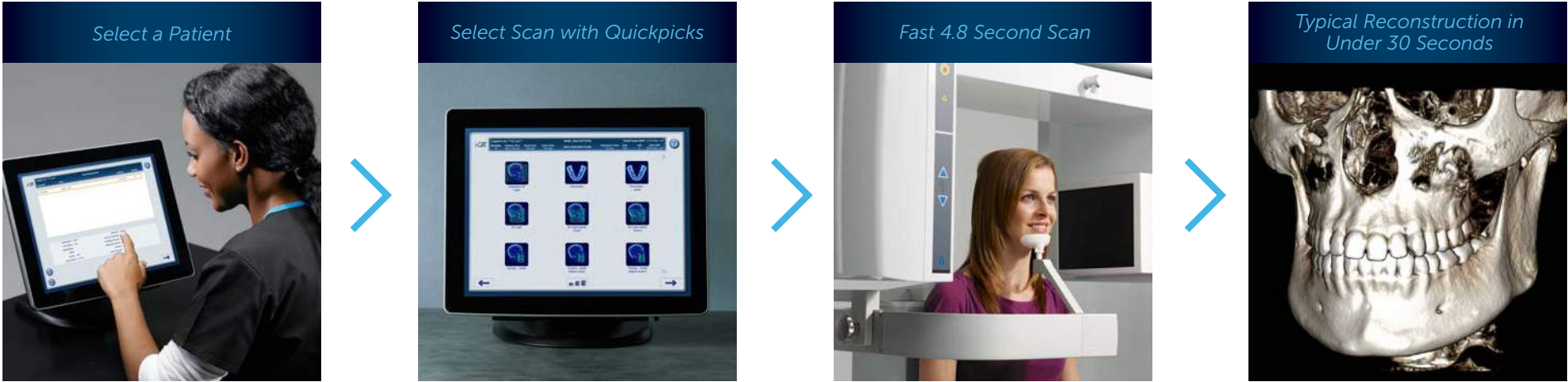Endodontics
TMJ
Airway Analysis

Patient Engagement & Communication

Designed by clinicians for clinicians, our fully integrated software allows you to develop — and communicate — your treatment plan with confidence. Full 3D visualization engages patients with compelling views and helps them understand their treatment options, leading to greater case acceptance.
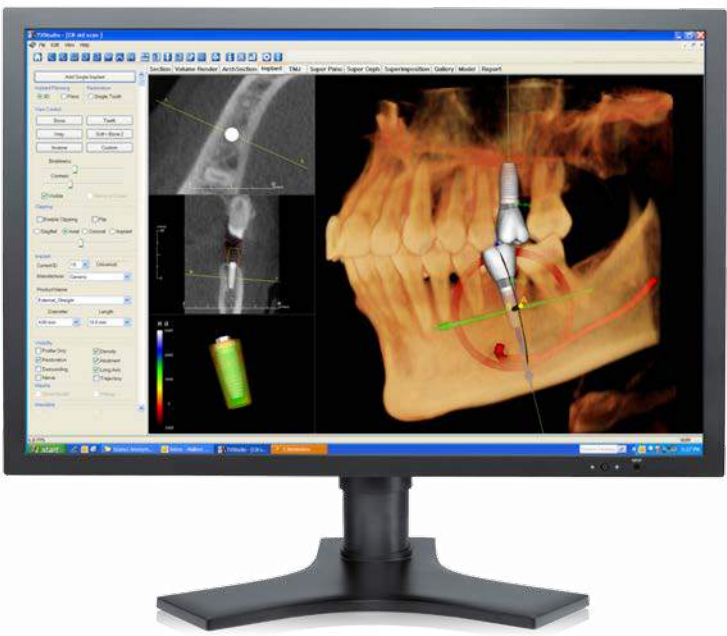
FASTEST 3D WORKFLOW

Deliver Treatment Plans in Minutes and Increase Office Efficiency

Select a Patient

Select Scan with Quickpicks

Fast 4.8 Second Scan

Typical Reconstruction in Under 30 Seconds

Less than 90 seconds from scan to plan

i-CAT understands that time is a valuable commodity in the dental office. Our comprehensive 3D imaging solution provides the fastest scan to plan workflow. A full, ceph-height 3D scan can be obtained in as little as 4.8 seconds, and even complex treatment plans can be completed in a few minutes with the Tx STUDIO software — keeping the office moving quickly while offering excellent care.

FLEXIBILITY AND CONTROL

Clinically Driven Image and Exposure Control

Offering the most flexible imaging control of any cone beam 3D unit, i-CAT allows you to target the desired field-of-view on each patient while minimizing the radiation dose.

i-CAT has unique, widely adjustable 3D fields-of-view through collimation. Customizable diameters and heights allow you to select views from single-arch, to both arches, the condyles, and up to a full cephalometric height, for the most flexibility in treating each patient according to their individual needs. Not only does i-CAT provide a myriad of 3D scan sizes, it also offers flexibility in modality with i-PAN, the traditional 2D panoramic option.

The new SmartScan STUDIO touchscreen workflow allows you to choose from preset scan options of the field-of-view, dose, and resolution. Customize your own presets — or Quickpicks™— for simple and fast scanning.
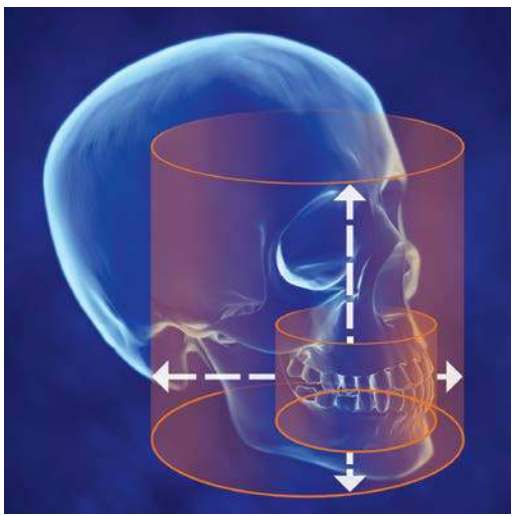
Workflow the Way You Want It

Adding to i-CAT's flexibility, you are free to choose from a wide variety of third party programs and technologies to help accomplish tasks such as CAD/CAM for digital models, restorations, robotic archwires, surgical guides, and more.

Pair your digital impression system with CBCT scan data

Mill chairside or have your lab create your restorations

ORTHODONTICS

Optimize Treatment Plans with Greater Accuracy and Better Clinical Tools

Understand exact tooth position and the relationship of anatomy so you can map the most effective — and least invasive — treatment plan for the best possible alignment. Correct root angulations and find supernumerary teeth and their exact locations to enhance communication with oral surgeons — and prevent exploratory surgery. Additional treatment modules, including 3D cephalometric analysis, virtual studies, and impressionless models, make planning even more powerful.

Capture all initial records in a single, low-dose scan in just 4.8 seconds. Use Tx STUDIO 3D views to analyze teeth, roots, TMJ, airway, and sinuses without magnification or distortion. Enhance practice efficiency by capturing a complete workup in less than 10 seconds.

" *The i-CAT FLX is an invaluable tool to diagnose, educate, and treat patients. The i-CAT FLX has consistently helped me to achieve over a 90% acceptance rate. It's just amazing!* "
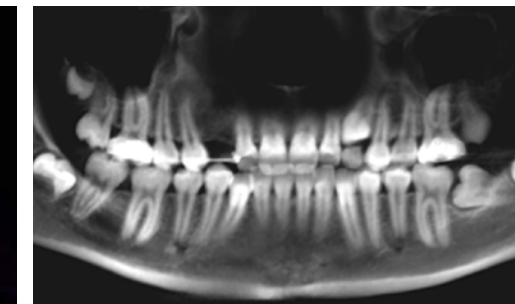
— Martin F. Van Vliet, DMD

Diplomate, American Board of Orthodontics

Van Vliet Orthodontics
Highland, NY and Ramsey, NJ

Extended field-of-view

Reveal hidden impactions not seen on a pan

Supernumerary with a full crown

> *A 3D scan allows orthodontists to view the greater craniofacial complex, with airways, bone, sinus and TMJ health as a cohesive part of an integrated system. During treatment planning, I look at airways and sinuses first, then TMJs, then skeletal relationships, then alveolar housing, and lastly, the teeth. Although this has always been considered vital anatomy, 3D diagnosis and treatment planning give me a more precise view to catch the clues to unusual dental conditions.*

— Juan-Carlos Quintero, DDS, MS
Quintero Orthodontics
South Miami, FL

> *There are a few pivotal decisions you will make during your orthodontic career, and buying an i-CAT will be one of them. Your confidence in treatment planning and case presentation will make you the expert in your area on anything 3D. There are a few new areas that I find I am starting to use my i-CAT for in treating the patient as a whole. Airway, sleep apnea, and TMJ are just a few of the areas. The amount of information at my fingertips is remarkable. The cool part of being a memeber of the i-CAT family is innovation, education, and support. i-CAT is continually trying to push the envelope at lower radiation doses and better quality images. They host 3D forumsto help educate and support their customers.*
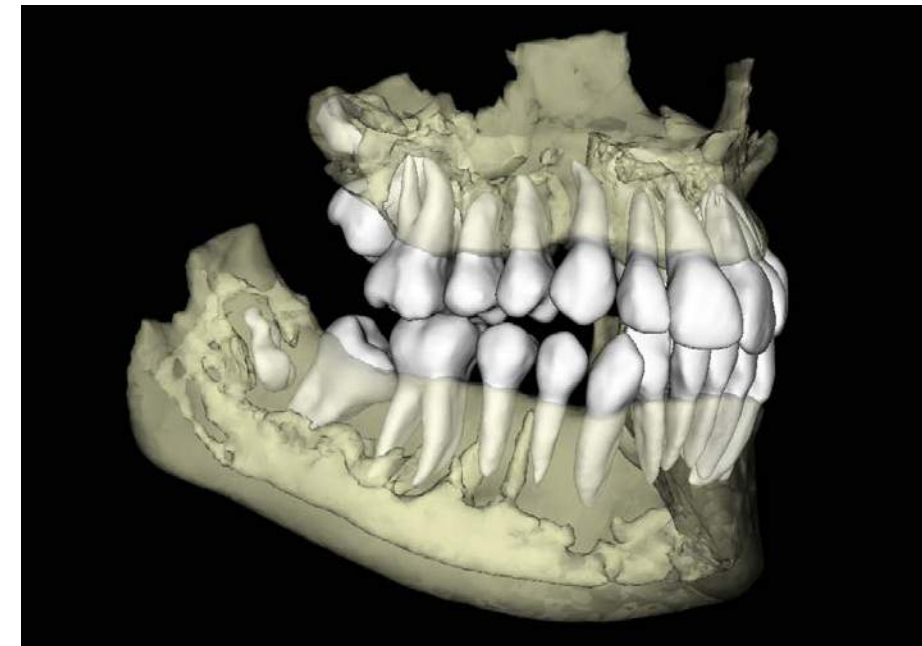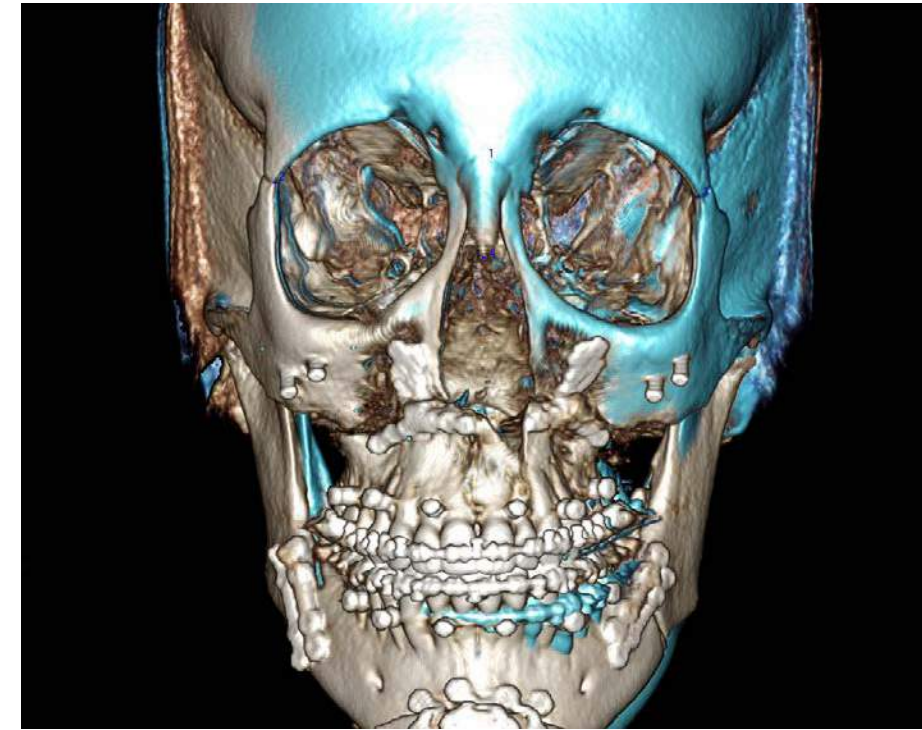
— Stuart Frost, DDS, MS
Frost Orthodontics
Mesa, AZ

View bone, teeth, and facial profile with face-MATCH
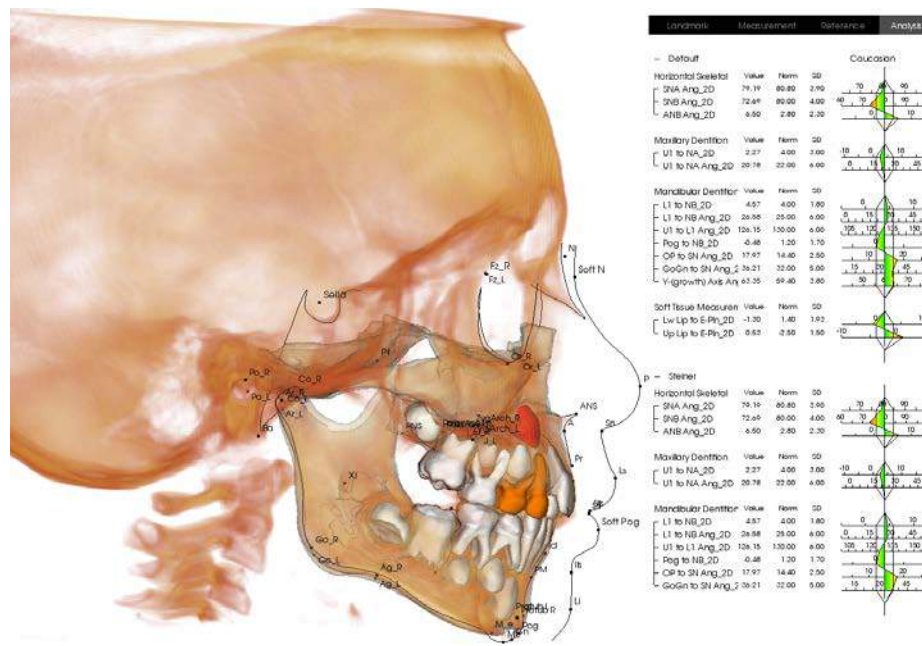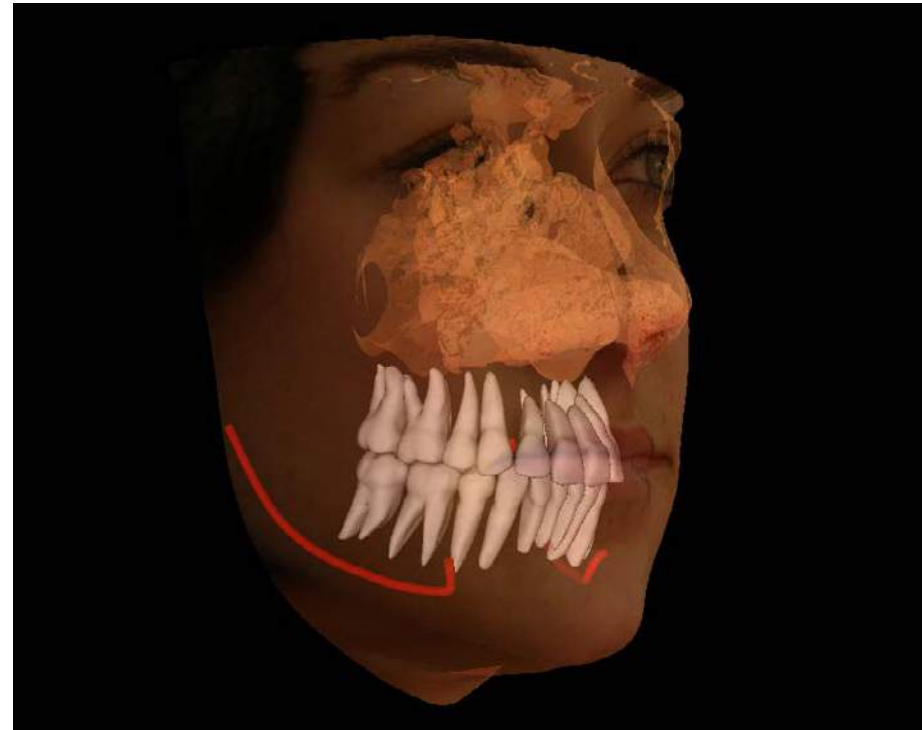
Fully featured tools for ceph analysis

Extended view available when more anatomical information is needed

Segment out bone and/or teeth with AnatoModel

> *The i-CAT FLX helps me provide the best for my patients through its "game-changing" technology which allows me to take one 4.8-second low-dose scan with the QuickScan+ setting and obtain the 3D image for less radiation than with either a digital pan or ceph. There was once a time where 3D X-rays were considered by many in the profession to be too much radiation for the amount of information generated. But that time is no longer, thanks to i-CAT's R&D team who are driven to continue to make a difference on this front.*

— Jeffrey T. Kozlowski, DDS
Kozlowski Orthodontics
New London and East Lyme, CT

> *There aren't many things in orthodontics that actually make you a better orthodontist. My i-CAT FLX is one of the few exceptions. The i-CAT FLX allows me to visualize with stunning clarity my patient's current anatomic reality at radiation doses lower than what I was delivering with my 2D pan/ceph records. I'm now making clinical decisions that allow me to navigate anatomy in three dimensions. I used to make decisions based upon a two dimensional representation of complex bone and root relationships. I now shudder at the very thought of that. Am I a better orthodontist now? Without a doubt.*

— John Graham, DDS, MS
Sugarhouse Orthodontics
Salt Lake City, UT

IMPLANTS
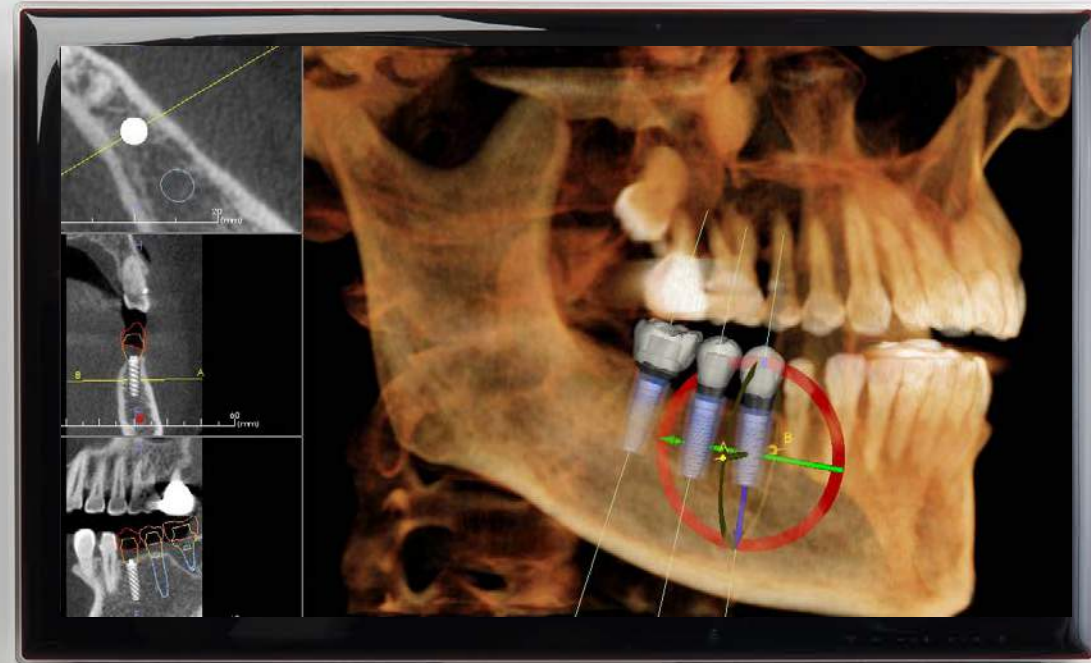
Place and Restore with Accuracy and Confidence

Treat patients with greater surgical predictability and confident outcomes using i-CAT's 3D treatment planning tools.

Use i-CAT's high resolution, volumetric images, and complete 3D views for a more thorough analysis of bone structure and tooth orientation.

Collect precise data, and map an entire course of treatment for surgical placement of the implant and abutment, all the way to final restoration.

Order surgical guides from a full implant library and have it delivered to you in **under a week.**

" *I've been involved with CT scans in implant dentistry for over 25 years, and I've found that the new i-CAT FLX cone beam unit has now changed the way I practice implant dentistry. The i-CAT scanners produce unparalleled images which are so crucial in the treatment planning of dental implants. Additionally, the flexibility of these units allows the clinician to collimate and select various fields-of-view, thus drastically reducing the radiation exposure to the patient.* "
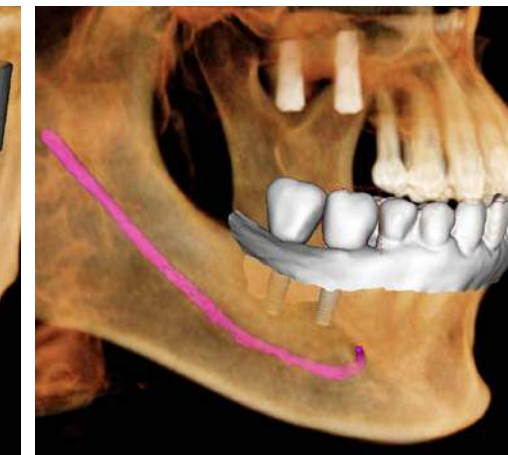
— Randolph Resnik, DMD, MDS

Director, Misch International
Implant Institute

Resnik Dental Implants
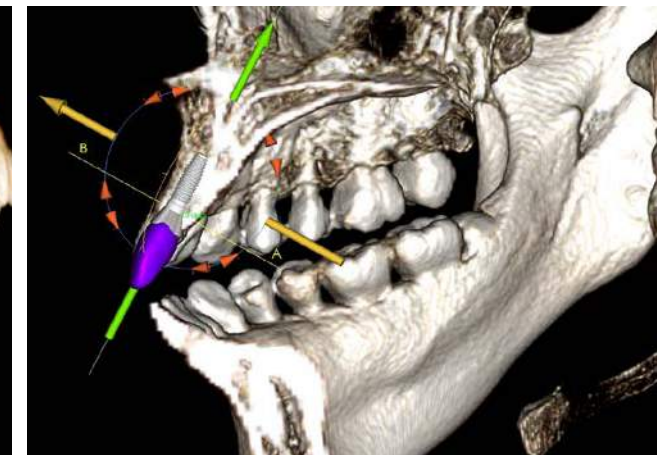Pittsburgh, PA

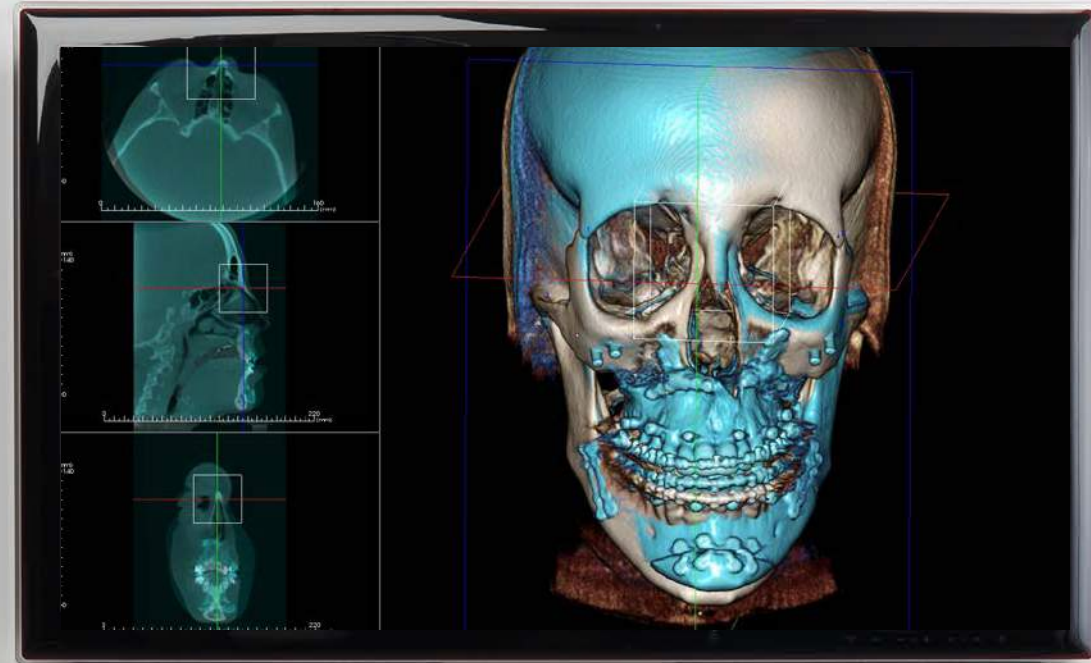Plan implant, abutment, and final restoration in one software   Restoration-based implant planning   Visualize implants within the bone
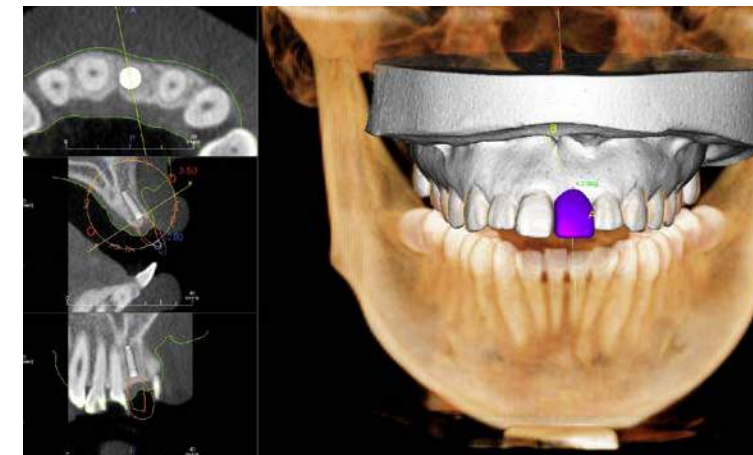
ORAL & MAXILLOFACIAL SURGERY

Map Surgical Treatment Plans

Tx STUDIO treatment planning software can assist in identifying deformities, such as cysts, tumors, lesions, and changes of the jaw, to avoid potential surgical complications.

Determine precise position of impacted teeth within the alveolar bone, as well as their proximity to adjacent teeth and vital structures, such as the nerve canal, sinus walls, and cortical borders.

> " With the i-CAT FLX in particular, I can capture quick, lower-dose exposures as needed. The system also has a QuickScan+ setting that allows for a full-dentition 3D scan at a comparable dose to a 2D panoramic image*. I can now take a follow-up scan for cases where reevaluation is critical and gain much more information than a pan offers. This allows for better monitoring — with significantly less radiation — during the healing process, and for early intervention, when indicated, for optimal long-term prognosis. "
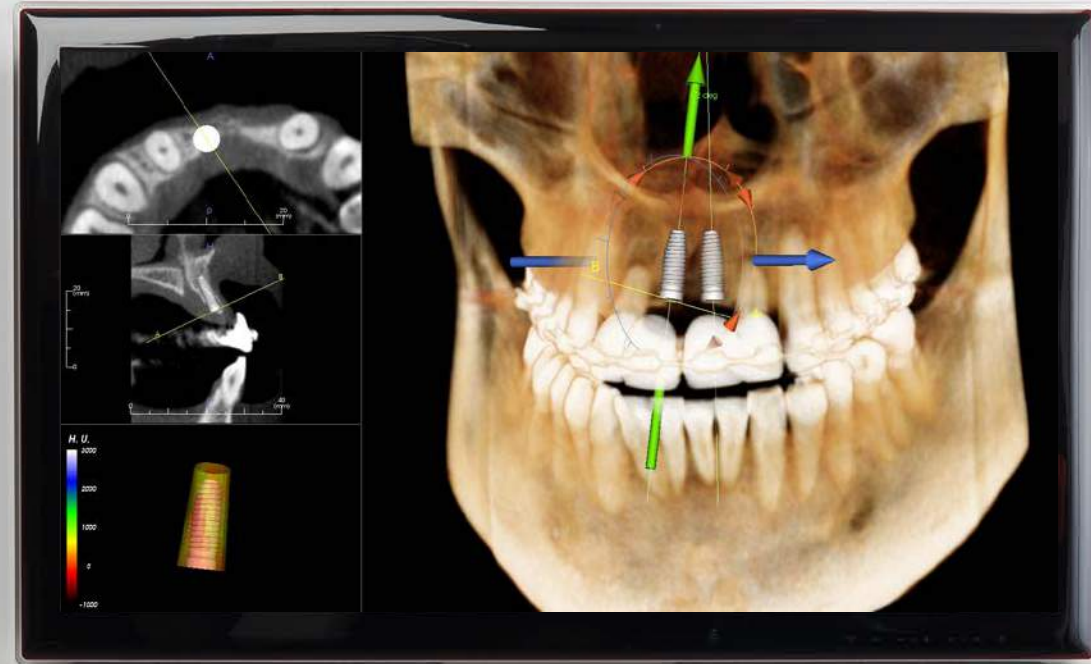>
> **— Daniel C. Cullum, DDS**
>
> Diplomate, American Board of Oral and Maxillofacial Surgery
>
> Implants Northwest
> Coeur d'Alene, ID

Cross-sectional views help identify impacted tooth position, relation to other teeth and roots, as well as pathology prior to 3rd molar extractions
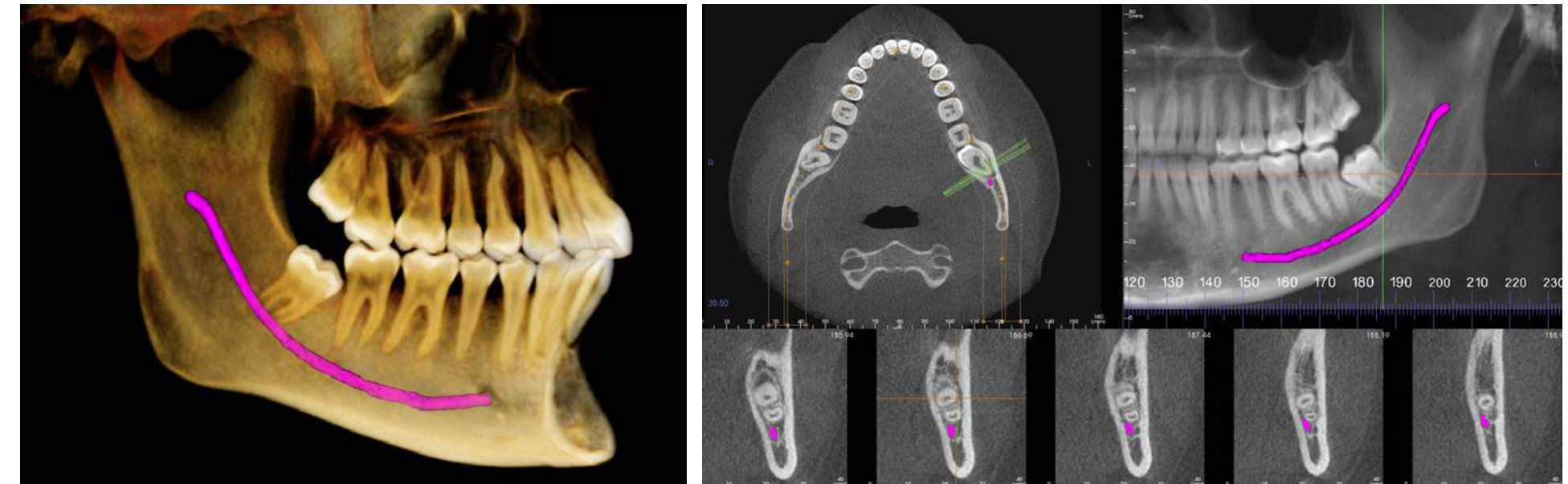
PERIODONTICS

Analyze Bone Structure

From implant placement to surgical options for the management of bone loss, i-CAT provides periodontists with the wide range of services expected from the specialty. Capture 3D volumetric images for a more thorough analysis of bone structure as well as sinus and nerve location.

i-CAT imaging systems provide scan options and a full complement of tools for implant placement. Use scan data to help plan the course of treatment of bony defects prior to the actual osseous surgery appointment. With Tx STUDIO software's highly visual 3D presentation, share your diagnosis and plan with the patient for greater understanding leading to better post-treatment compliance.

> " Having an i-CAT increases safety for my patients and confidence for me. The information provided by the CBCT scan allows the practitioner to recognize anatomical conditions that would be otherwise undetectable on 2D radiographs. I can now do virtual implant placement, and I don't have to guess on nerve location. All of the details that 3D offers ensure long-lasting positive treatment outcomes. "
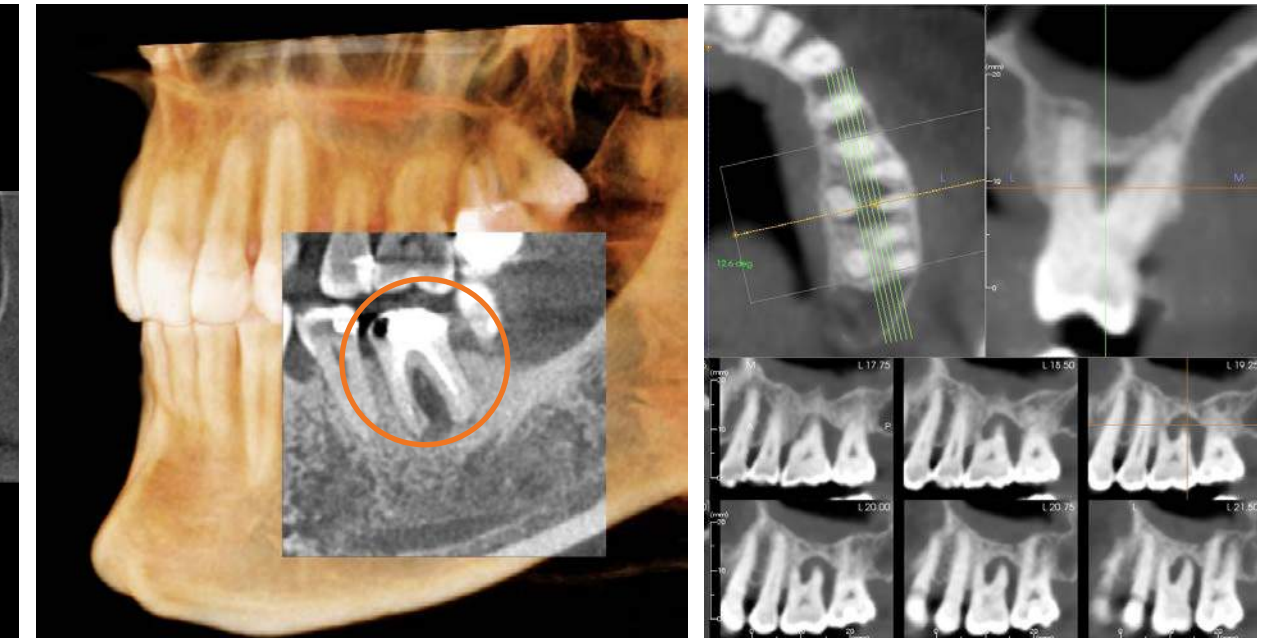>
> **– John Russo, DMD, MHS**
> Diplomate of the International
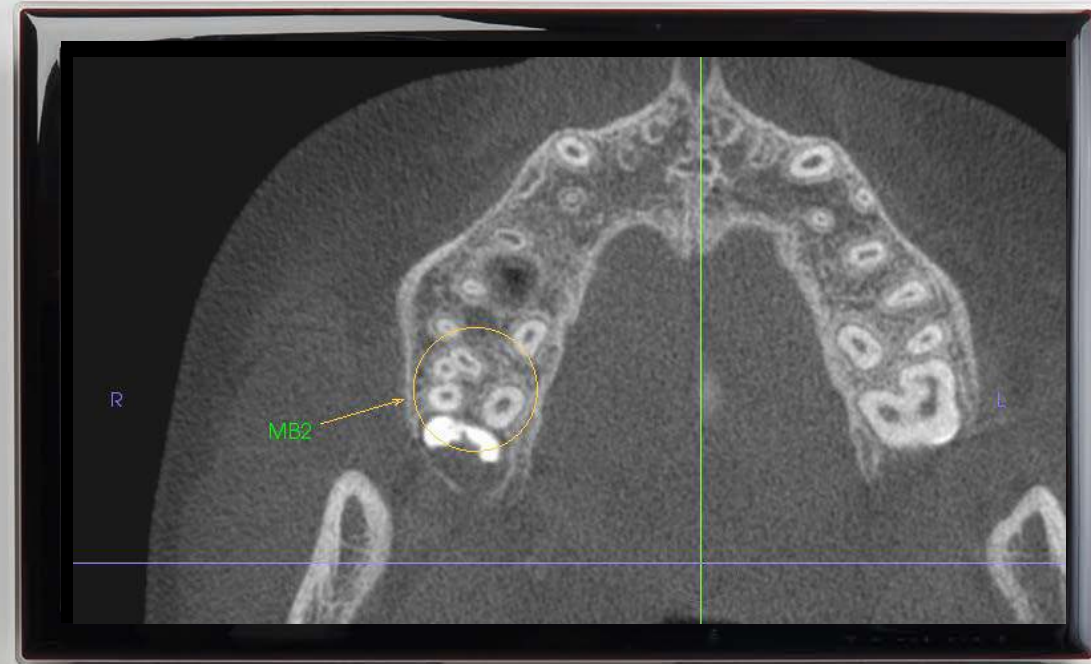> Congress of Oral Implantologists
> Sarasota, FL

Comprehensive scan data and software tools for implant planning

The complete picture of bony defects

ENDODONTICS

Survey Roots in Three Dimensions

When more concentrated studies are necessary, high resolution scans — up to .125 voxels — lend more detail for the identification of lesions. Scans can also be collimated to cover the area of interest.

Within Tx STUDIO software, scans can be explored axially and buccolingually for a complete survey of fractures, accessory canals, and endo-perio involvement.
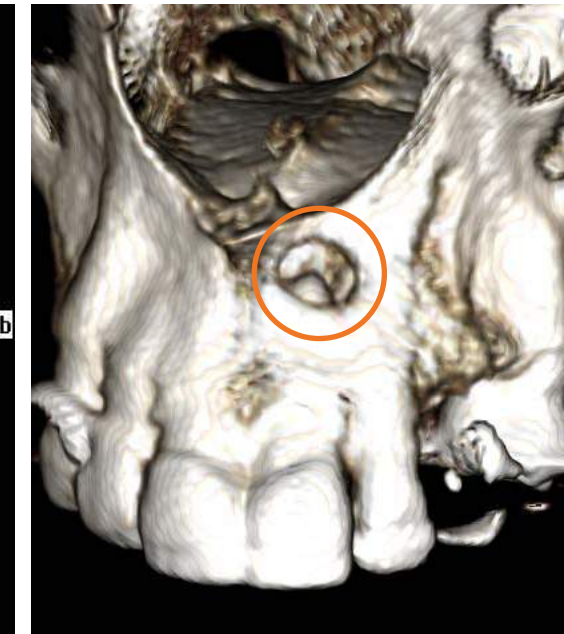

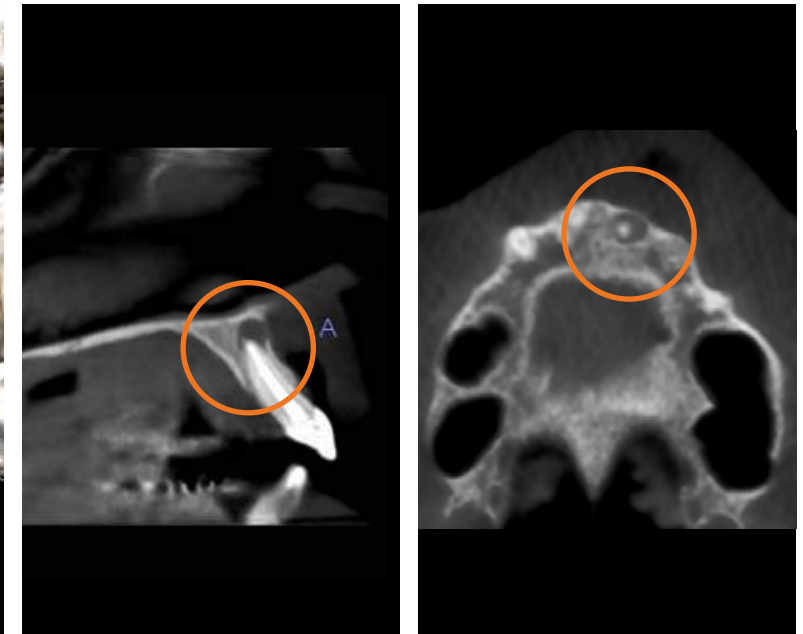*Review hard to visualize accessory canals with high resolution axial views*

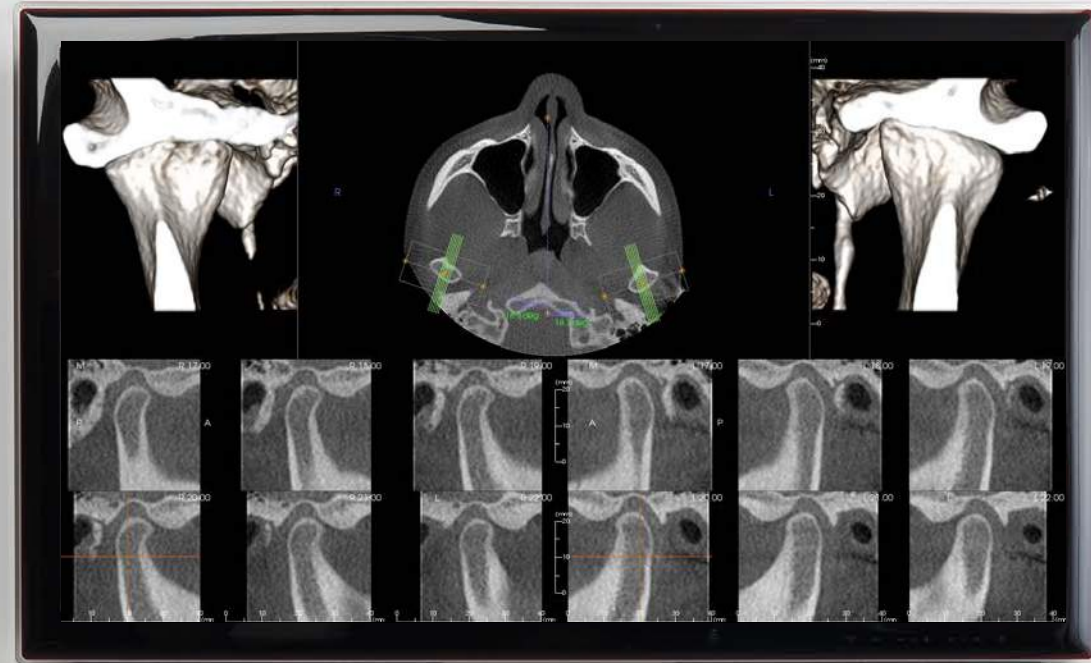*Discover root fractures using cross-sectional views*

3D view of destruction from endodontic lesions

Use multiple viewing capabilities to discover lesions and pathology

TMJ

Detect TMD and Assess Fractures

Detect TMJ anomalies for the ability to design effective patient treatment. Using the TMJ visualization tools, zero in on the temporomandibular joints to identify wear, defects, and fractures. These tools also act as virtual study models to streamline and expedite treatment, and allow you to design splints with the optional Medical Design Studio module.

" *The i-CAT CBCT allows me to acquire and interpret remarkable views of the TMJs quickly, efficiently, and with low radiation dosages for the patient. The patient does not have to leave the office, and we can provide the patient with nearly instant feedback.* "

— Steven A. Guttenberg, DMD, MD

Diplomate, American Board of
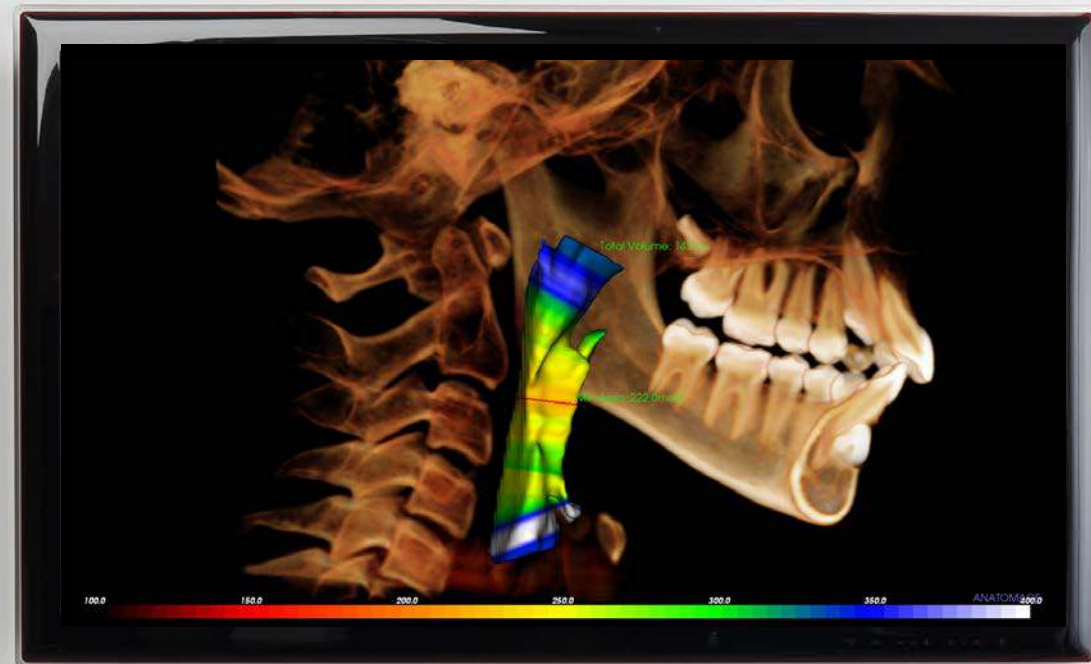Oral and Maxillofacial Surgery
Washington, DC

Multiple views of TMJ offer greater visualization
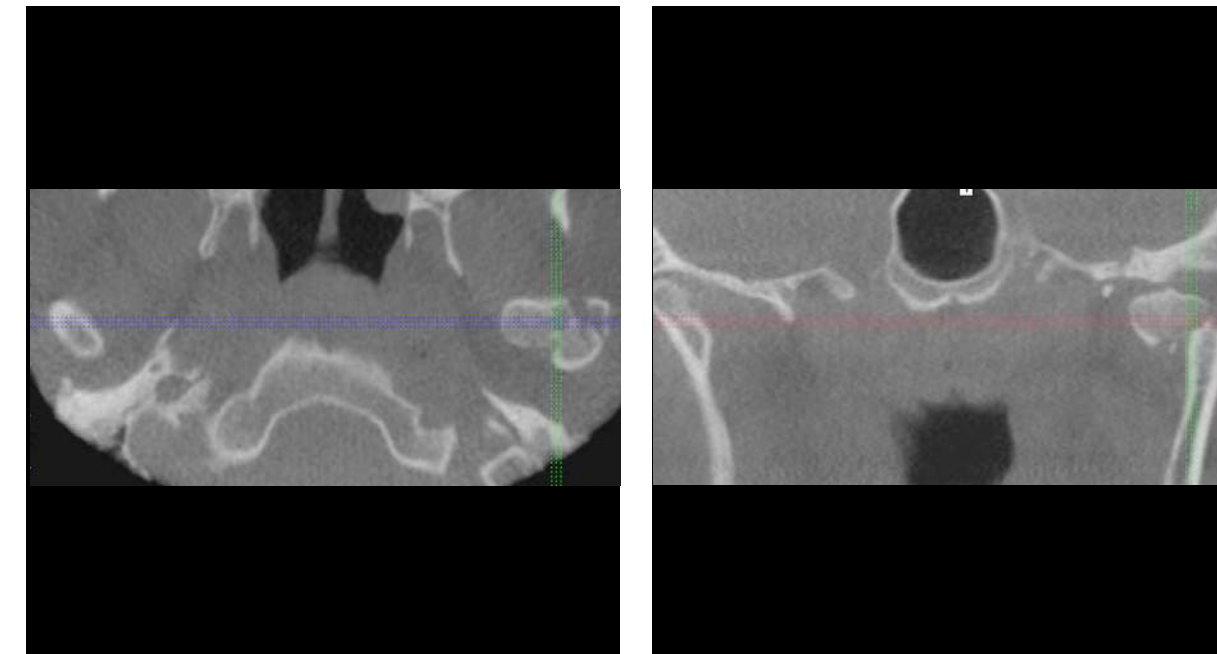
3D rendering of scan yield details of trauma

AIRWAY ANALYSIS

Evaluate Airway Obstructions to Help Identify Sleep Apnea
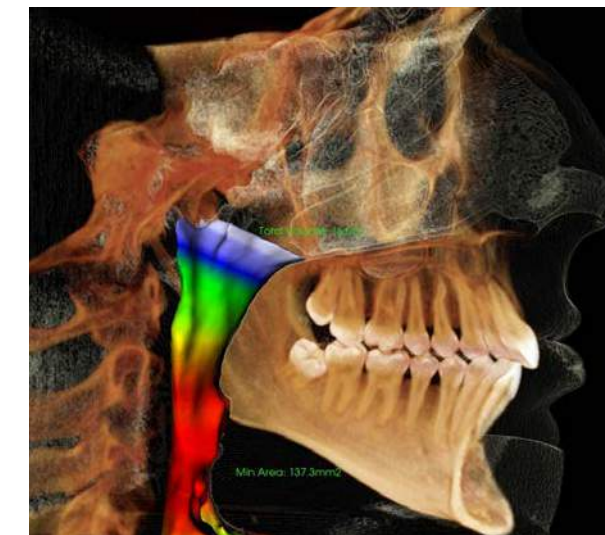
For patients with suspect airway or sinus tissues, you can use Tx STUDIO software to review the 3D data and to reveal restricted airways and determine appropriate treatments with precise anatomical views and measurements. Assess airway volume at-a-glance using color-coded constriction values. Quickly trace airways on-screen to perform automatic calculations and measurements of paranasal sinuses to evaluate treatment options.

> " *In my business, I have to figure out why people hurt and don't breathe. Since orthopedic disorders of the TMJs and facial pain are often the result of breathing disorders, volumetric evaluation of the nasal, nasopharyngeal, velopharynx and hypo pharynx are absolute. My i-CAT reliably gives me this vital information with the lowest radiation dose possible. In fact, the i-CAT FLX does it so much easier with a fraction of the radiation.* "
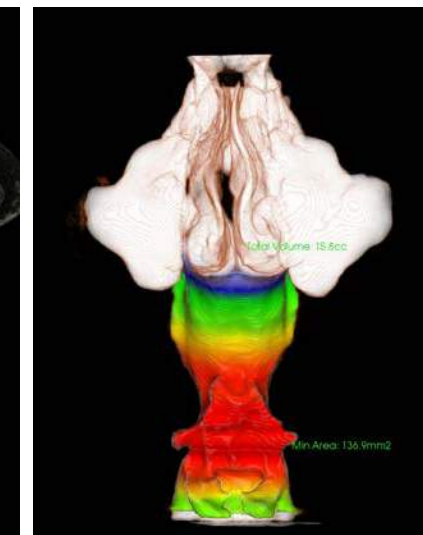>
> **— Steven R. Olmos, DDS**
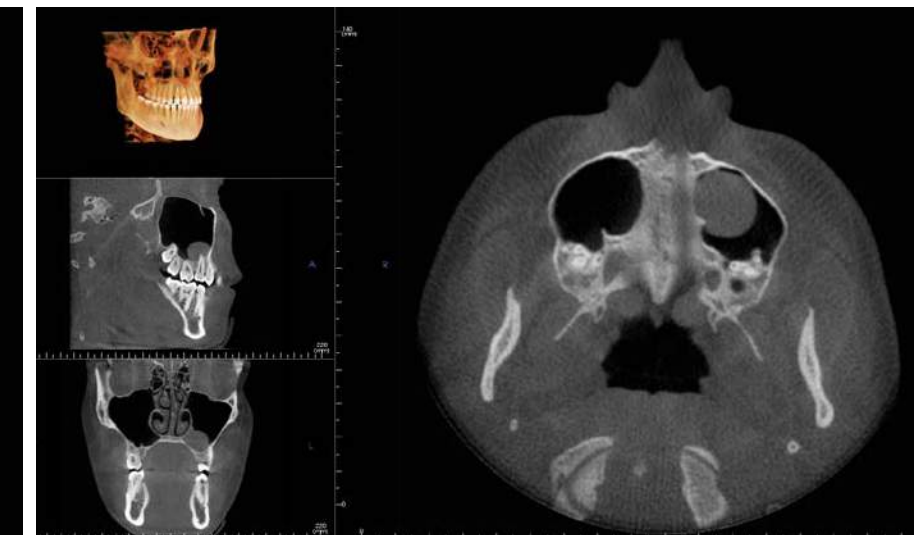> Founder, TMJ & Sleep Therapy
> Centre International, LLC
> La Mesa, CA

Soft and hard tissue shown in 3D rendering   *Isolated visual of airway*   *Efficiently survey full anatomy*

i-CAT™ FLX

i-CAT Provides Balance Between Image Quality and Dose

i-CAT imaging solutions put the power of precision in your hands, simply and conveniently. Dental clinicians now have direct access to advanced 3D treatment tools for implants and restorations, oral and maxillofacial surgery, TMJ and sinuses, and orthodontics. Consistently impressive image quality is delivered through proprietary tools that create high definition, low dose scans quickly and easily every time.

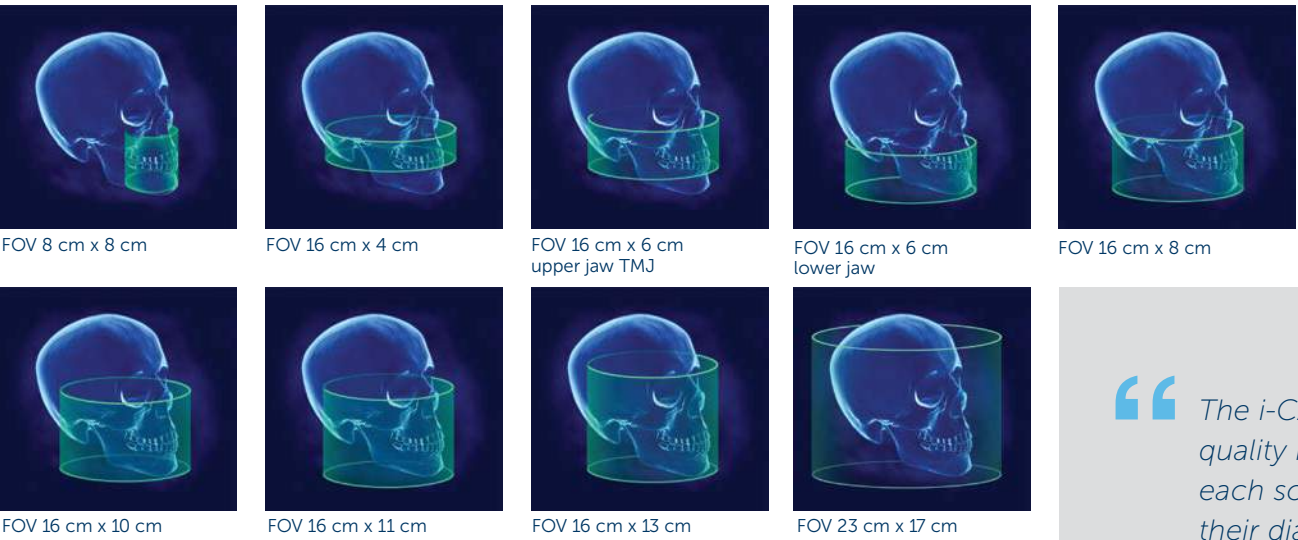*i-CAT quality in a model that fits your practice*

i-CAT FLX
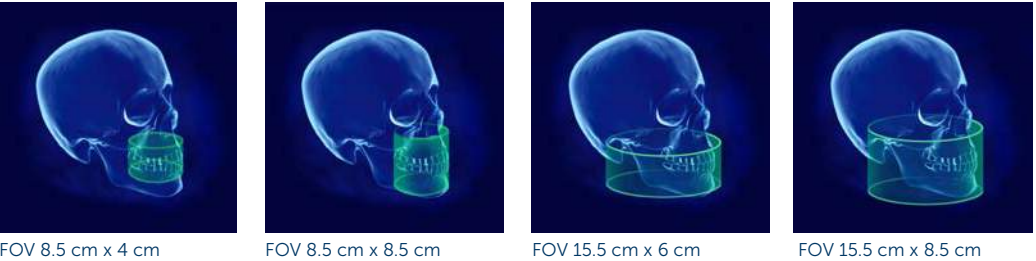3D imaging at a dose comparable to a 2D Panoramic X-ray with QuickScan+®

i-CAT FLX MV
Medium field-of-view captures up to both arches and the temporomandibular joints in 3D

Field-of-Views

i-CAT FLX

FOV 8 cm x 8 cm

FOV 16 cm x 4 cm

FOV 16 cm x 6 cm upper jaw TMJ

FOV 16 cm x 6 cm lower jaw

FOV 16 cm x 8 cm

FOV 16 cm x 10 cm

FOV 16 cm x 11 cm

FOV 16 cm x 13 cm

FOV 23 cm x 17 cm

i-CAT FLX MV

FOV 8.5 cm x 4 cm

FOV 8.5 cm x 8.5 cm
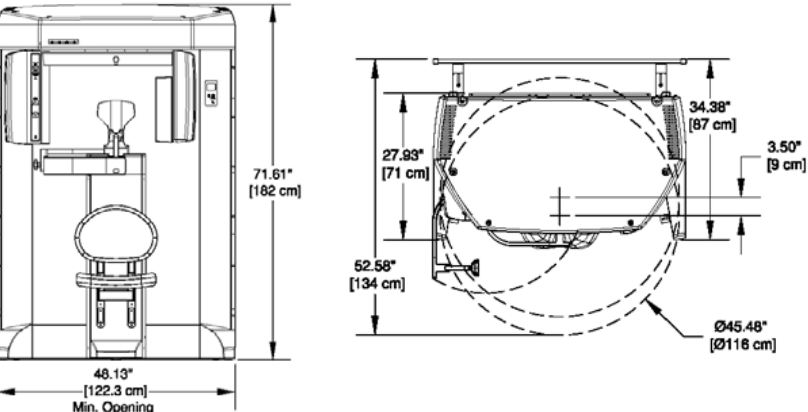
FOV 15.5 cm x 6 cm

FOV 15.5 cm x 8.5 cm

> " *The i-CAT FLX gives me an excellent quality image and allows me to tailor each scan to the individual patients and their diagnostic needs. This ultimately allows me to provide the highest quality of care to my patients.* "
>
> **— Lauren Brownfield, DDS, MS**
> Texas Dental Specialists
> Houston, TX

Image and dose control help put patient health first. i-CAT offers multiple low dose scan settings, so you have the flexibility to easily capture a range of image sizes to fit your needs.

i-CAT FLX SPECIFICATIONS

Sensor Type	Amorphous Silicon Flat Panel Sensor with CsI Scintillator
Grayscale Resolution	16-bit
Voxel Size	.4 mm, .3 mm, .25 mm, .2 mm, .125 mm
Collimation	Electronically controlled fully adjustable collimation
Scan Time	4.8, 8.9, 14.7, 17.8 or 26.9 seconds
Exposure Type	Pulsed
Field-of-View	Standard Scan: 4, 6, 8, 10, 11, 13 cm (h) x 16 cm (d) 8 cm (h) x 8 cm (d) Extended Field-of-View (Cephalometric): 17 cm (h) x 23 cm (d)
Reconstruction Shape	Cyclinder
Typical Reconstruction Time	Less than 30 seconds
Viewing and Treatment Software	Included
DICOM Compatible	Yes
Unit Size	48" (w) x 69.5" (h) x 36.37" (d)
Patient Position	Seated
Wheelchair Accessible	Yes

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i-CAT FLX MV SPECIFICATIONS

Sensor Type	Amorphous Silicon Flat Panel Sensor with CsI Scintillator
Grayscale Resolution	16-bit
Voxel Size	.4 mm, .3 mm, .25 mm, .2 mm, .125 mm
Collimation	Electronically controlled fully adjustable collimation
Scan Time	4.8, 8.9, 12.6 or 23 seconds
Exposure Type	Pulsed
Field-of-View	Standard Scan: 4, 6, 8.5 cm (h) x 8.5 cm (d) Extended Field-of-View: 4, 6, 8.5 cm (h) x 15.5 cm (d)
Reconstruction Shape	Cyclinder
Typical Reconstruction Time	Less than 30 seconds
Viewing and Treatment Software	Included
DICOM Compatible	Yes
Unit Size	48" (w) x 69.5" (h) x 36.37" (d)
Patient Position	Seated
Wheelchair Accessible	Yes
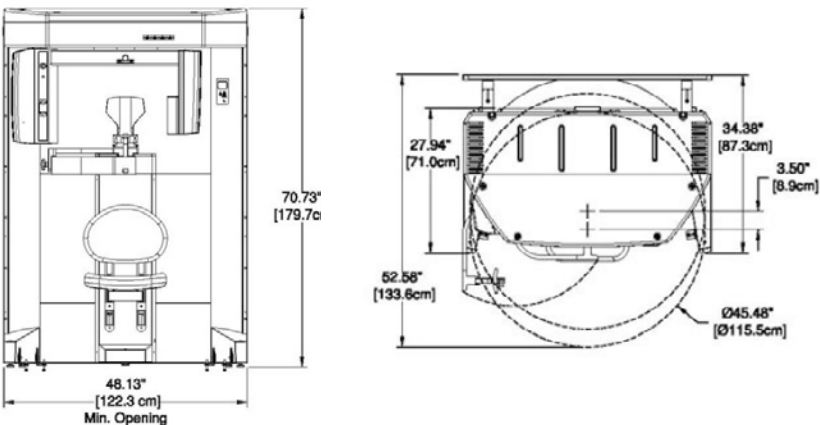
i-CAT UNIVERSITY

The i-CAT University is a unique entity of its kind dedicated to the ongoing education of dentists and specialists to enhance planning and treatment through the latest in cone beam technology. Our network of educators includes highly regarded leaders in specialty fields who have extensive i-CAT experience. This industry-leading educational program is the first to collaborate with Board-Certified Oral and Maxillofacial Radiologists to design and deliver a curriculum on cone beam imaging by dentists for dentists.

Commitment to continuing education for customers is reflected in the extensive programs offered pre- and post-installation, including online tutorials, webinars, regional classes, custom on-site training, Users' Meetings, and the International Congress on 3D Dental Imaging.

*Learn more about our live and virtual education opportunities at **i-CAT.com/events***

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WEBINARS

Attend our free webinars featuring your colleagues who are already using 3D technology! Watch as they share experiences of integrating 3D imaging into their practices and show specific clinical applications and effective treatment planning for today's dental offices.

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SOFTWARE TRAINING

Access our Tx STUDIO training videos to help guide you and your staff through this powerful 3D imaging software. Discover the basic and advanced capabilities of the software to accurately diagnose and treatment plan in 3D.

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