

→ The Perfection In Dental Imaging Evolution



## World Wide Network



● Head Office  
 ■ Factory  
 + CS Center  
 ■ Branch Office

In 11 nations around the world, VATECH & E-WOO is now receiving praise from customers as a world's No.1 digital radiography & CT. We will continue to provide differentiated value to our customers, thereby spreading VATECH & E-WOO's love across the globe

- **Head Office** | Republic of Korea
- Factory** | Republic of Korea(Hwaseong)
- CS Center** | Europe\_Germany / Asia\_Singapore, Taiwan, Shanghai / North America\_New Jersey
- Branch Office** | Europe\_UK, France, Spain, Czech, Italy / Asia\_China Beijing, China Shanghai, China Guangzhou, Hong Kong, Taiwan, Singapore / North America\_L.A., New Jersey, Houston
- Dealers** | Europe\_Belgium, Bulgaria, Croatia, Cyprus, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Portugal, Romania, Russia, Slovenia, Spain, Switzerland, Sweden, Ukraine / Asia\_Bangladesh, Hong Kong, India, Japan, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Turkey, Vietnam / South America\_Argentina, Bolivia, Brazil, Chile, Colombia, Nicaragua, Paraguay, Peru, Venezuela / North America\_Canada, Mexico / Oceania\_Australia, New Zealand / Africa\_Egypt, Morocco, Libya, South Africa / Middle East\_Iran, Iraq, Jordan, Kuwait, Lebanon, Saudi Arabia, Syria, Qatar, U.A.E, Yemen, Israel

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# PaX-Zenith3D

The Perfection In Dental Imaging Evolution

We care for our customers

We care for the patients

We care for our partners

With insight, *Caring Insight*



## World's Best Dental Imaging Company

VATECH & E-WOO, the digital imaging world leader announces all new CI. Based on cutting-edge technologies and comprehensive quality control, love and devotion from the fundamentals of medical and dental are added in to express sincere caring and empirical insight.

The VATECH & E-WOO's philosophy is embedded in the TRI-circle of light; the three circles represent passion, specialty and, innovation respectively. They are the three pillars of how we conduct our business.

CARING INSIGHT VATECH

# : PaX-Zenith3D

PaX-Zenith3D, the signature radiographic imaging system from VATECH, delivers the unprecedented dental imaging experience and an exceptional patient care tool never seen before. By incorporating the latest and innovative radiographic imaging technologies, PaX-Zenith3D is designed for the imaging centers, university hospitals, and dental offices to provide high performance and superb imaging quality for radiographic diagnosis of craniofacial, maxillofacial treatment cases.

## → The Final Evolution of Digital Radiography

The PaX-Zenith3D is designed for the imaging centers, hospitals, universities and dental offices all over the world.

### 1. The Largest Field-of-View: 24x19cm

### 2. Free FOV Selection ranging from 5X5cm to 24X19cm

### 3. Multi Imaging System: Dental CT, Real Panoramic, Reconstructed cephalometric

### 4. Cutting-edge Image Processing System

- ▶ Panoramic(Auto focusing function)
- ▶ CT (High Resolution & MAR mode)

### 5. Most Secured Imaging System:

- ▶ Extremely low X-ray dose with pulsed scan type
- ▶ Limited X-ray exposure to a targeted ROI and corresponding size of FOV

### 6. User-convenient System

- ▶ Foldable chair construction & flexible height adjustment
- ▶ Wheelchair accessible
- ▶ Convenient multi language
- ▶ Ergonomic design to maximize the patient comfort and user convenience

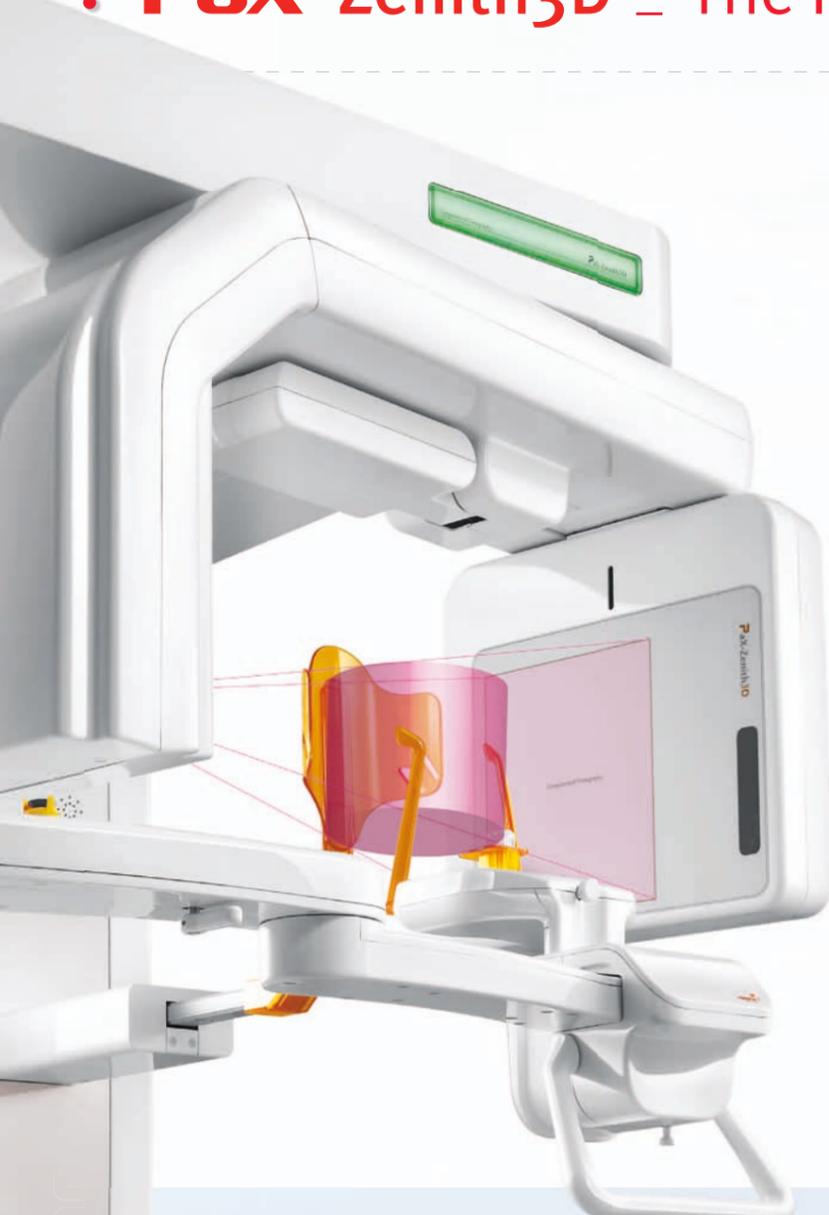
### 7. Maximum Voltage: 120kVp

### 8. Dynamic Software

- ▶ Ez3D2009, an efficient & smart 3D image viewer
- ▶ EasyDent, a practical 2D image viewer and patient management software
- ▶ AnyGateway, a DICOM file interface program with PACS
- ▶ Direct DICOM print module (1:1 print scale)
- ▶ DICOM format, easy data integration with most third party software platforms



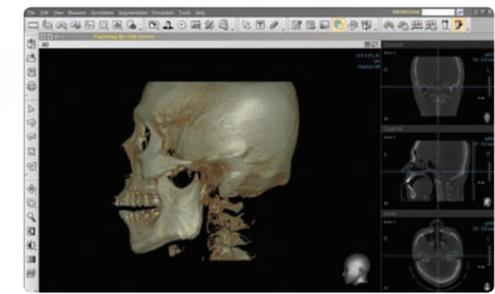
# PaX-Zenith3D \_ The Final Evolution - Function



## The Largest Field-of-View

PaX-Zenith3D offers the most comprehensive radiographic information on dental and skeletal anatomy. With the biggest FOV size (24X19cm) in the market, it satisfies the clinical diagnostic requirement of all dental radiologists and practitioners including oral maxillofacial surgeons, apnea specialists.

The free FOV function of PaX-Zenith 3D is the world's first implementation of such technology. With this function, the X-ray beam collimator is adjusted to produce an image of a specific ROI from the size of 5X5 cm to 24X19 cm based on a particular treatment need. This revolutionary feature considerably reduces the patient radiation exposure and minimizes the potential liability of identifying pathologies on radiographic information of unrelated regions.

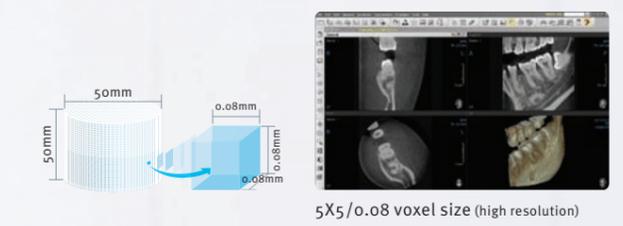
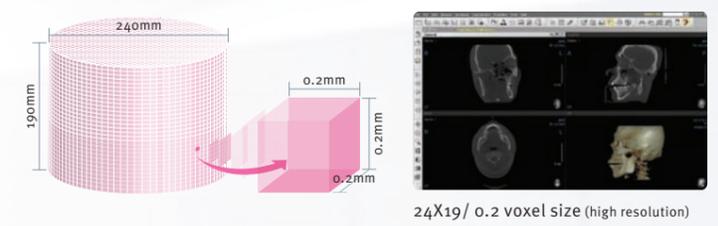


The revolutionary free FOV setting and new 14 bit flat panel imaging sensor of PaX-Zenith3D enable a practitioner to gather the most comprehensive radiographic information of a focused area of interest or the entire craniofacial and maxillofacial region based on the treatment needs.

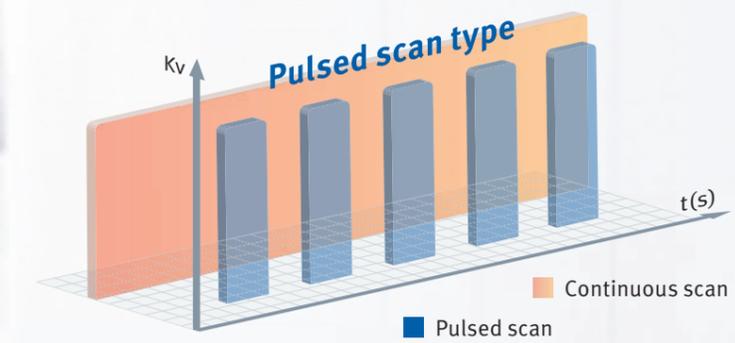


## The Most Advanced Image Quality

PaX-Zenith3D offers different voxel selections based on different FOV sizes. It is possible to select a voxel size for a high or normal resolution. An optimal combination of voxel and FOV size can be selected based on the diagnostic purpose, desired recon time or concern for the radiation dose, etc... For example, the voxel size of 0.08mm can be set for the FOV of 5X5 resulting the highest image resolution for a focused region. For the larger FOV sizes, a bigger voxel size (0.2 or 0.3mm) is optimal to provide a clear optical view of a diagnostic image with a reasonable file size and reconstruction time. This flexibility of voxel setting for different FOV sizes increases the efficiency and effectiveness of diagnosis.



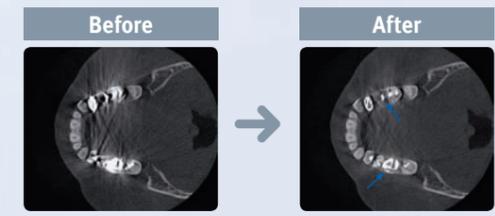
## Advanced Patient Safety



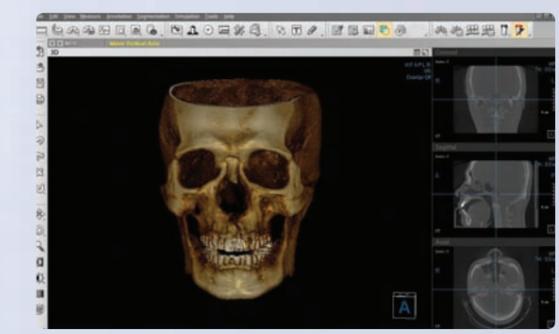
PaX-Zenith3D generates pulsed type X-ray instead of continuous X-ray reducing the level of the actual radiographic exposure to a patient during a radiographic exam. For the scanning time of 15 seconds, the exposure amount of pulsed X-ray is 40~60% less than the one of continuous X-ray. This technology benefits both clinicians and patients with the smallest radiation dose. Combined with the smart generator system and the free selection of FOV sizes, PaX-Zenith3D minimizes the radiation dose and limits the radiographic information only to a specific region of interest.

## Advanced Imaging Process System

Vatech's proprietary 3D reconstruction imaging engine adopts the most advanced MAR (Metal Artifact Reduction) algorithm for a clear & superior quality image. It effectively eliminates any X-ray scattering from metal artifacts such as crown, filling or braces allowing the acquisition of a high resolution diagnostic image without scattering degradation.

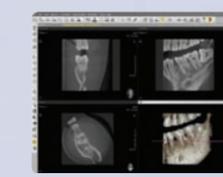


## The Optimum Solution for the Multi Imaging System



Dental CT, FOV 24X19

PaX-Zenith3D is truly the best radiographic solution available in the market today with the biggest FOV size, cephalometric Image reconstruction & real panoramic image capture. PaX-Zenith3D offers the most extended diagnostic range suitable for Endodontics, Periodontics, Orthodontics as well as Oral & Maxillofacial surgery field.



Dental CT, FOV 5X5



Panoramic



Reconstruction cephalometric



# PaX-Zenith3D \_ The Final Evolution - Human Engineering Design

PaX-Zenith3D's ergonomic design is the result of human engineering with the user's work flow in mind. Also, it is designed to maximize the space utilization. With effective and smart structure, there is no need for preparing a large space extension in your facility.

## THE PERFECTION IN DENTAL IMAGING EVOLUTION- EXCEPTIONAL DESIGN & SPECIAL FEATURES

### Convenient LCD Touch Panel



PaX-Zenith3D offers the full-color LCD touch panel. It is possible to operate the various parameters via LCD panel for more optimized capturing setting.

### Camera & Voice Communication



With the integrated camera and voice system, PaX-Zenith3D enables visual monitoring and voice communication between patient and staff. In particular, you can check the position of the patient again before scanning via the integrated camera so that more accurate scanning can be performed.

### Automatic Chair system/ Wheelchair Accessibility



PaX-Zenith3D is a seated type as well as wheel chair accessible. It's possible to adjust a chair height during a patient positioning. The chair is foldable for a wheelchair access.

### Smart Base Structure



The base frame of PaX-Zenith3D is designed to minimize the space requirement while maximizing the utilization effectiveness and efficiency. Thanks to the smart base design, the entire system can be easily installed without the extensive space requirement.



## PaX-Zenith3D\_ Smart 2 in 1 System: Panoramic & CBCT

PaX-Zenith3D is equipped with two separate sensors: panoramic and CT sensor. You can conveniently change the X-ray modality from 2D to 3D mode or vice versa based on different diagnostic needs.

### Smart Sensor Switching

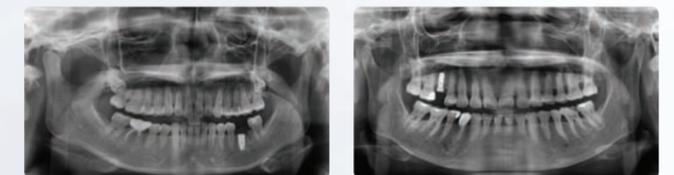


When the panoramic mode is selected, the panoramic sensor of PaX-Zenith3D automatically comes down from the rotating unit. This automatic folding mechanism minimizes the possibility of accidental sensor damages between different capture modes.

### The Smart Imaging 'Auto-Focusing'



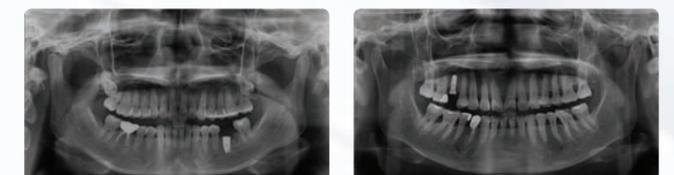
PaX-Zenith3D is equipped with a unique panoramic imaging process - Auto Focusing Technology. The 'Auto-Focusing' function optimizes a radiographic image by compensating an incorrect patient positioning and untypical patient arches without the need for multi radiographic scans.



Before  
↓  
After



Before  
↓  
After



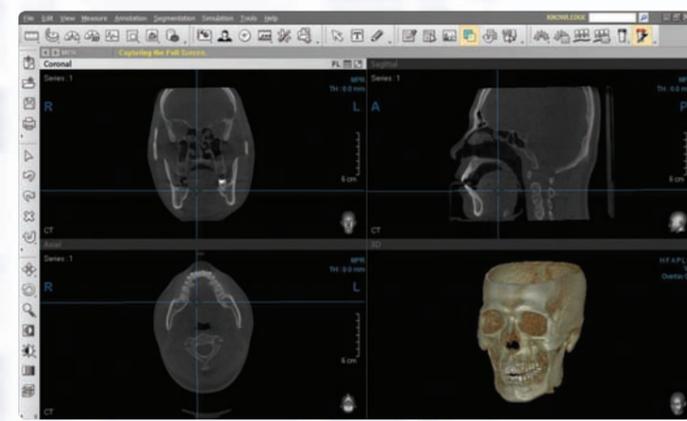
# PaX-Zenith3D \_ The Final Evolution - Multi Purpose Imaging

The extended FOV view of PaX-Zenith3D satisfies the diagnostic needs of most dentists including endodontists, implantologists and maxillofacial surgeons. The superior image quality and multi imaging technology make PaX-Zenith3D the premium choice for the dental radiography.

## EVOLUTION OF THE DIGITAL RADIOGRAPHY- BEYOND THE CHANGE

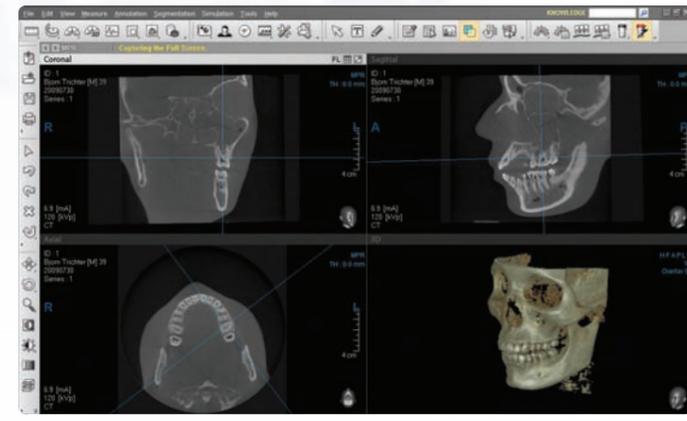
### Free FOV

PaX-Zenith3D comes with the unique FREE FOV function, giving you the option to select your own FOV size from 5x5 up to 24x19. These functions reflect the flexibility never seen before in a CBCT, a totally unique revolution in technology from the world's best CT company.



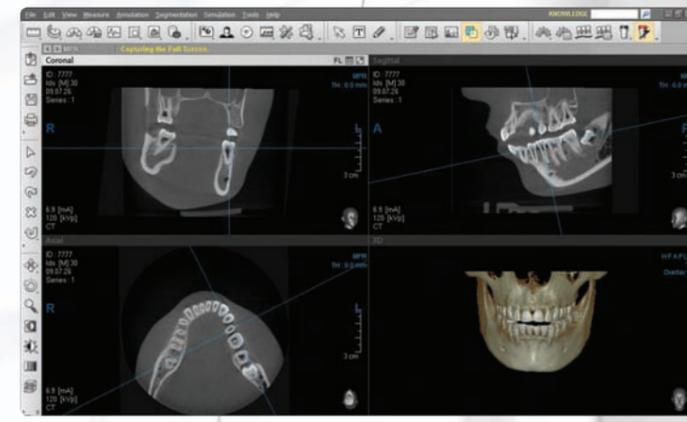
### FOV 24X19

Exclusively available with PaX-Zenith3D, the FOV of 24x19 cm, offers the information of the entire facial and skeletal anatomy including neck and throat structure. It can be very useful for orthodontic, Maxillofacial diagnosis as well as the most dental treatments.



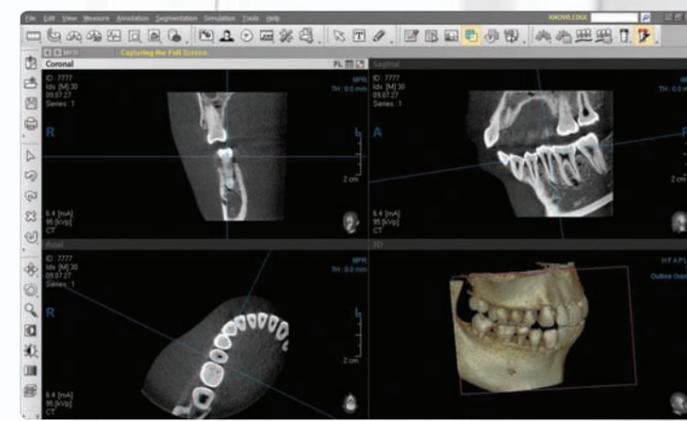
### FOV 16X14

The FOV size of 16x14 provide the cross-sectional, panoramic view and cross sectional view of the sinus, TMJ, full jaw and occlusion structure in a single radiographic scan for an accurate and informed treatment assessment.



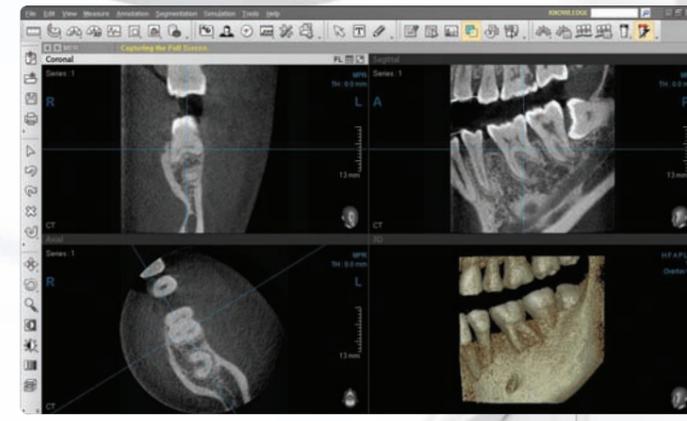
### FOV 12X9

With FOV size of 12x9, the status of the entire dental arch is diagnosed with a single X-ray scan. For example, more accurate and safer implant surgery can be performed on maxillary region by obtaining anatomical details of the sinus floor.



### FOV 8X6

With FOV of 8x6, an effective TMJ diagnosis is possible as well as the maxillary and mandibular implant cases.



### FOV 5X5

With FOV size of 5x5, a single implant site can be reviewed without unnecessary radiographic interpretation of pathology in unrelated regions. A small FOV size means a low exposure time and dose.



# :Ez3D 2009 \_ Easy to Professional



## Customized Software

Users can customize various features such as the composition and position of the toolbar. You can use it intuitively by deleting the unnecessary features and creating your own menu. From now on, enjoy uniquely customized software.

## Intuitive, User-friendly

### Menu bar

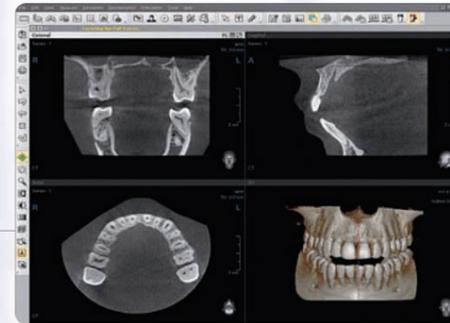
You can find the function you want conveniently by using the menu bar or toolbar at the same time.

### Guidance

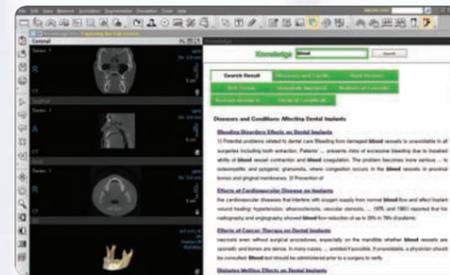
Guidance is given through anatomical icons displaying the direction of image in a user-friendly interface.

### Knowledge Info

Similar to a dictionary, it enables doctors to refer the required clinical information conveniently when they perform an implant surgery. From now on, it will help make our 3D SW the clinical and analysis tool for CBCT images.

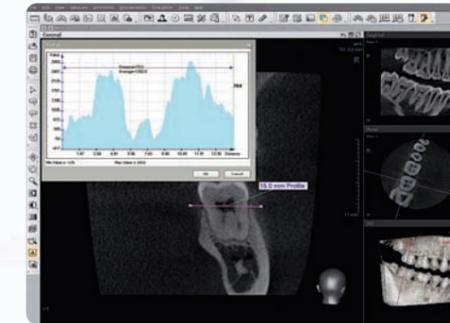


MPR Mode

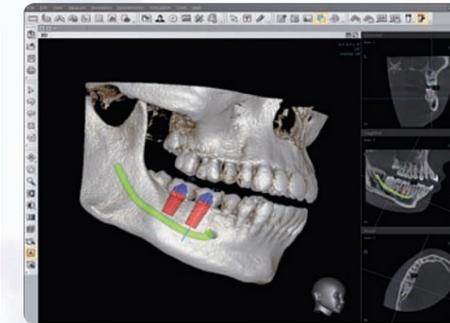


Knowledge information

## Precise Diagnosis



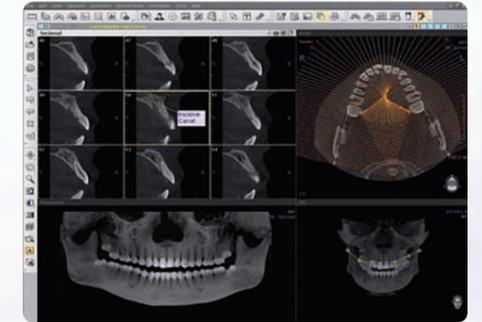
Profile



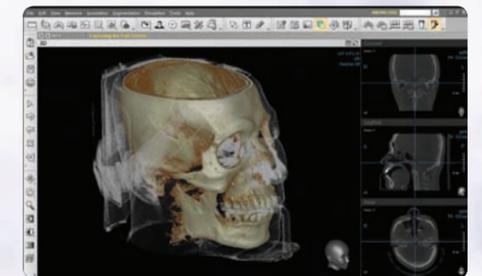
Canal Draw and Implant Simulation



3D Zoom



Cross-sectional view



Opacity Transfer Function(max.10 Graphy)

### Profile

Displays the bone density profile ensuring optimal implant placement.

### Canal Manager

Canal size and colour can be adjusted allowing accurate diagnosis and implant planning.

### Implant Simulation

The Implant Simulation function reduces the risk during surgery and Ez3D2009 allows simple and accurate planning without complicated processes seen in other software.

### Automatic Mode

More convenient, fast, and accurate surgery can be performed with the automatic Cross-Sectional and Canal Drawing.

### Various View Modes

You can diagnose using various view modes such as Cross-sectional View, Oblique View, 3D Zoom.

### Maxillary/Mandible Segment

Automatically segment the arch into Maxillary & Mandible

## ← Cephalometric Image Reconstruction

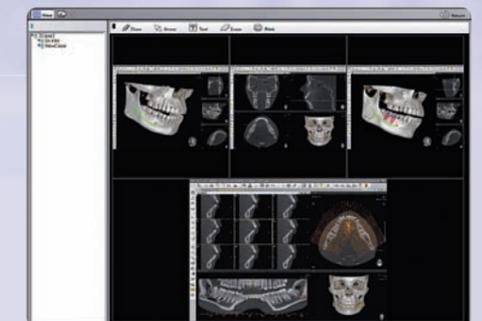
Delight with more powerful function for orthodontic treatment

## Data Export

The Report and CD Publishing functions of Ez3D 2009 can be a useful tool for seminar and sharing of patients' information.

CD publishing includes viewing software along with the patient image, ideal for referral centres.

- ▶ STL Export
- ▶ Powerful CD Publishing
- ▶ Free Simple Viewer
- ▶ EzReport



Counsel function



# PaX-Zenith3D \_ Dimensions

## Specification

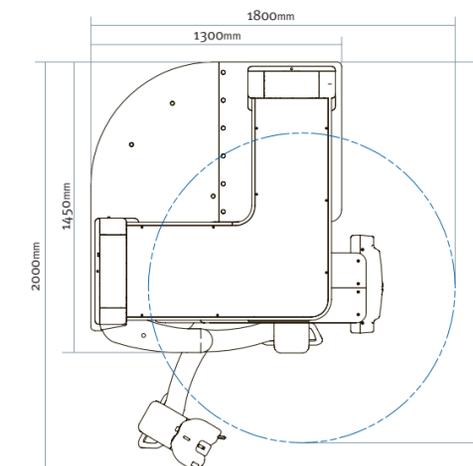
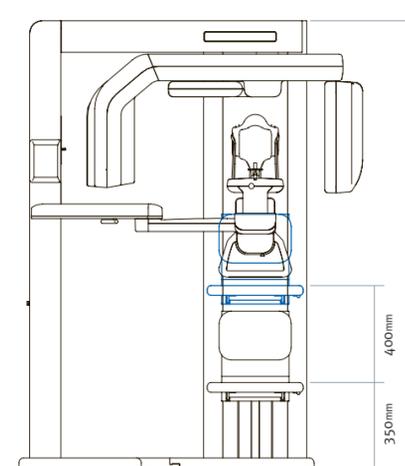
### PaX-Zenith3D\_ Dental CT / Panoramic

#### View



Front View

Top View



PaX-Zenith3D		
	Dental CT	Panoramic
Function	CBCT+Panoramic	
FOV(cm)	Free FOV(5X5~24X19)	
Scan Time	15sec/24sec	9.7sec/13.5sec
Recon Time	10sec~221sec (Standard)	
Voxel Size	Selectable / 0.08mm~0.3mm	
Dimension	1800X2000X1850mm	
Patient Position	Seated / WheelChair Accessible	
Generator Voltage/Current	50~120kVp/4~10mA	
Focal Spot	0.5X0.5mm	
Image acquisition	360°	220°
Weight	493kg	

\* The specifications are subject to change without prior notice.



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# PaX-Zenith3D