PLANMECA

Planmeca ProOne®

ENGLISH

Learn more:
Planmeca Imaging

Available on the App Store

for iPad

Efficiency with elegance

Planmeca ProOne®, the fully digital all-round dental X-ray unit, was designed with simplicity in mind. Embracing the latest, state-of-the-art technology Planmeca ProOne combines extensive diagnostic capabilities and superior image quality in a compact, easy to use package. Planmeca ProOne truly inherits Planmeca's expert knowledge and long traditions in dental imaging.

Simple is beautiful

For every dentist

The fully digital **Planmeca ProOne®** X-ray unit provides absolute ease of use with cutting edge technology. The wide selection of exposure programs and easy-to-use graphical user interface ensures fast and effortless radiographic examinations in every situation. The small foot print Planmeca ProOne brings the benefits of digital imaging within the reach of every dentist the world over.

Patient positioning made easy

One of the most common reasons for failed radiographs is incorrect patient positioning. With side entry and open positioning system patient positioning is quick, precise, and easy. The user can freely observe the patient from the front and sideways to minimise patient positioning related errors.

Side entry allows easy access and examination of the standing or seated patient. Patient can even remain seated in a wheelchair or a hospital bed during exposure while maintaining direct eye contact with the radiologist and, in case of a child, with the accompanying adult during the whole exposure cycle.

Precise positioning with triple laser beam system

Patient positioning is assisted by a triple laser beam system which accurately indicates the correct anatomical positioning points and completely eliminates the need for mirrors. Patient positioning has never been easier and more accurate.
The midsagittal laser and the horizontal Frankfort laser ensure correct sideways alignment and forward tilt of the head while the focal layer beam helps to position the patient accurately inside the focal layer for a sharp and clear image.

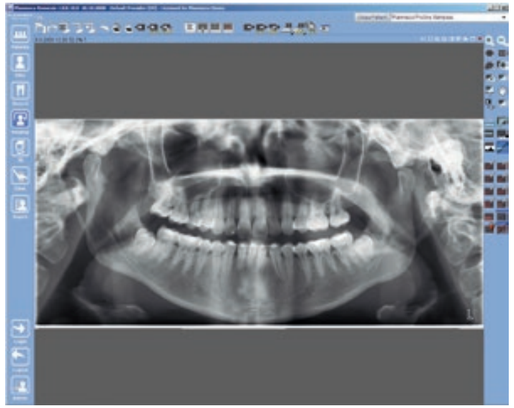
Intuitive user interface

The graphical user interface (GUI) guides the user with clear graphic symbols and textual messages. With the design based on cognitive ergonomics all keys and controls are logically grouped and easy to use to accelerate the imaging procedure and allowing focusing fully on the patient. The full colour TFT display is easy to wipe-clean to ensure impeccable hygiene.

Versatile imaging programs

Optimised imaging programs for precise diagnosis

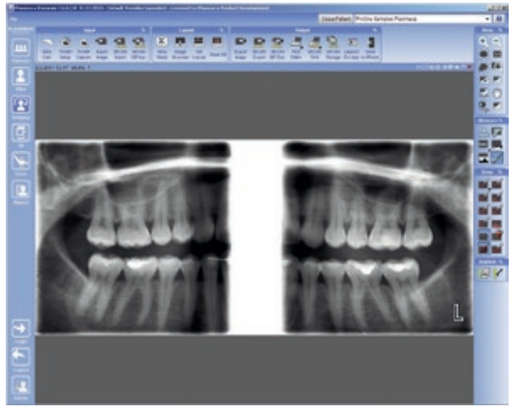
Planmeca ProOne® provides a variety of all-round imaging programs for different radiographic needs



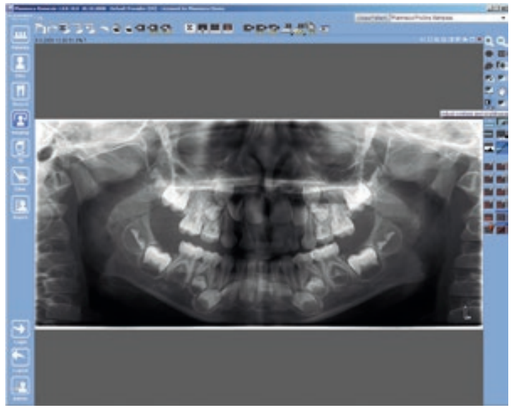
Besides the Standard Panoramic program, Planmeca ProOne offers Improved Interproximal, Orthogonal and Bitewing programs for more specific diagnostic needs.

The *Interproximal Panoramic program* is ideal in caries detection producing a panoramic image with open interproximal contacts.

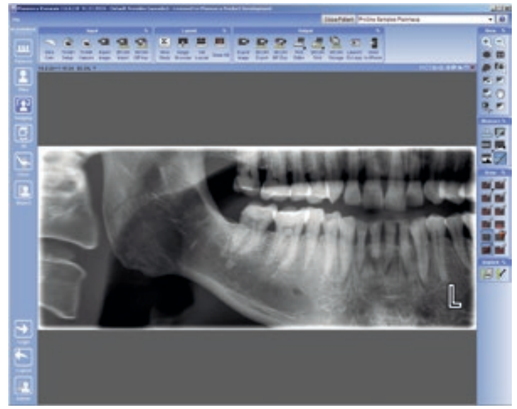
The *Orthogonal Panoramic program* produces an image where the alveolar crest is clearly visible enhancing the diagnostics of periodontal condition and traumas.



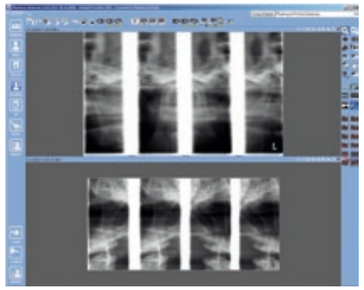
An image taken with the *Bitewing Panoramic program*, which utilises the improved interproximal projection geometry, is similar to an intraoral bitewing image pair. The advantage is that the image is obtained with one simple extraoral exposure and very low radiation dose.



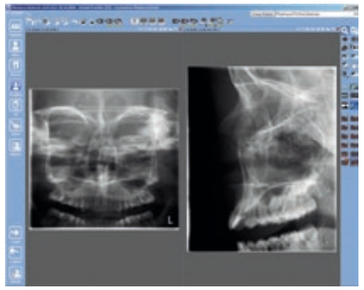
In the *Pediatric exposure mode* the exposed area is automatically reduced from top and sides, resulting in 20% lower patient dose while providing full diagnostic information.



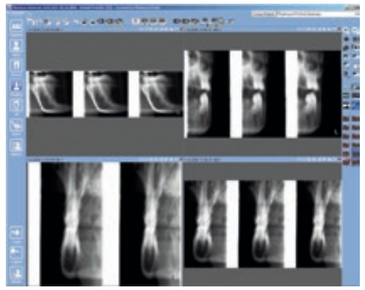
The *Segmenting program* limites the exposed area strictly to the diagnostic region of interest. Compared to full panoramic exposure patient dosage is reduced by up to 93%.*



The automatic *Double TMJ program* produces a lateral or posteroanterior view of open and closed temporomandibular joints in single radiograph allowing easy diagnosis of the TMJ condition.



The *Sinus program* has a specially designed image layer providing a radiograph with a clear view of the maxillary sinuses.



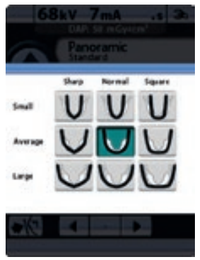
The *Cross-section program* is intended for simple cross-sectional imaging of TMJs and jaws in molar and premolar region. These images convey valuable information on cross-sectional dimensions and the structure of the jaw.

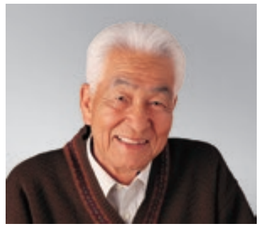
* *Absorbed dose reduced by sliced exposure using sector selector system with rotational panoramic radiography*, Y. Hayakawa, N. Kobayashi, Y. Kousuge, H. Fujimori and K. Kuroyanagi, Bulletin of Tokyo Dental College, Vol. 35, No. 3, pp. 127–131, August, 1994

Functional technology

Scientifically accurate adjustments

As the jaw size and shape varies from one individual to another depending on size, gender, race, and age, one fixed panoramic focal layer form cannot be optimal for every patient. On the graphical user interface, the operator may adjust the shape of the focal layer according to the jaw shape and size characteristic to the patient.





Digital workflow

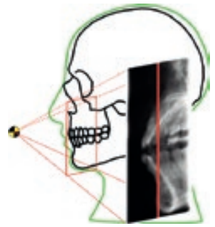
Direct digital radiography offers many advantages both for the patient and for the imaging workflow:

- Time is saved. The image appears on the computer screen within seconds after the exposure, being immediately available for diagnosis.
- With film processing, and darkrooms left behind, the most common reasons for failed radiographs are eliminated.
- Digital images can be enhanced in the imaging software for more accurate diagnosis.
- Digital archives and networks enable efficient image communications.

Diagnostic clarity

To produce accurate and undistorted radiographs with clearly superior clinical quality, the focal layer was designed to follow the scientifically defined shape of human dental arch and jaw. The imaging geometry eliminates shadows and ghost images caused by objects outside the image layer, significantly increasing the diagnostic value of the radiograph.*

* *Standard Forms of Dentition and Mandible for Applications in Rotational Panoramic Radiography*, U. Welander, P. Nummikoski, G. Tronje, W.D. McDavid, P.E. Legrell and R.P. Langlais, Dentomaxillofacial Radiology, 1989, Vol. 18, May



Automatic layer positioning

The unique Autofocus feature makes patient positioning practically error-free. Autofocus automatically positions focal layer using a brief scout exposure, reducing retakes remarkably.

Exposure control

The unique digital Dynamic Exposure Control (DEC) automatically adjusts the exposure values individually for each patient based on the anatomic structure and bone density. By producing images of more consistent brightness and contrast, DEC clearly improves the image quality.

Self-diagnostic system for assisted use and servicing

A self-diagnostic control system continuously monitors the unit. The system displays help messages assisting the operator and enabling the correct use of the unit. In case of abnormal operation the system displays messages which are stored in a log to help both the operator and the technical service.

Technical specifications

Planmeca Romexis® imaging software

Planmeca Romexis® is a comprehensive software for acquiring, viewing and processing 2D and 3D images. Full support for both Windows and Mac OS operating systems provides additional freedom in operating your clinic.

Supported 2D X-ray modalities	Intraoral Panoramic Cephalometric 2D linear tomography
Supported 3D modalities	3D CBCT 3D photo 3D surface scan
Supported photo sources	Intraoral camera Digital camera or scanner (import or TWAIN capture)
Operating systems	Windows XP Windows Vista Windows 7 Windows 2003 Server Windows 2008 Server Mac OS X* For detailed information please see system requirements of Planmeca Romexis www.planmeca.com *Planmeca Romexis Cephalometric Analysis module is not supported on Mac OS.
Image formats	JPEG or TIFF (2D image) DICOM (2D and 3D image) STL (3D image import/export) TIFF, JPEG, PNG, BMP (import/export)
Image size	2D X-ray image: 1–9 MB 3D X-ray image: typically 50 MB–1 GB
DICOM 3.0 support	DICOM Import/Export DICOM DIR Media Storage DICOM Print SCU DICOM Storage SCU DICOM Worklist SCU DICOM Query/Retrieve DICOM Storage Commitment DICOM MPPS
Interfaces	TWAIN Client PMBridge (patient information and images) VDDS (patient information and images) InfoCarrier (patient information) Datagate (patient and user information)
Installation options	Client–Server Java Web Start deployment

Planmeca ProOne®

Generator	Constant potential, resonance mode high frequency 60–80 kHz
X-ray tube	D-058SBR
Focal spot size	0.5 x 0.5 mm (IEC 336)
SID	480 mm (19 in.)
Total filtration	min. 2.5 mm Al eq.
Anode voltage	60–70 kV
Anode current	2–7 mA DC
Exposure time	2–10 s
Magnification	1.22–1.29
Line voltage	100–132 V~ 50/60 Hz, 180–240 V~ 50 Hz
Regulation	±10 % (automatic)
Line current	8–16 A
Power uptake	max: 850 W
Chin rest level	95–178 cm (37.4–70 in.)
Colour	White (RAL 9016)
Weight	67 kg (148 lbs)

Software features

1. Basic programs
- Standard Panoramic
- Pediatric Panoramic
- Lateral Double TMJ
- PA Double TMJ
- PA Sinus

2. Horizontal and vertical segmenting

3. Advanced programs
- Improved Interproximal
- Improved Orthogonal
- Bitewing
- Lateral-PA Double TMJ
- Lateral 3-angle TMJ (left or right)
- Lateral Sinus (left or right)
- Lateral Midsagittal Sinus (left or right)
- Cross-sections, manual or automatic

4. DEC (Dynamic Exposure Control)

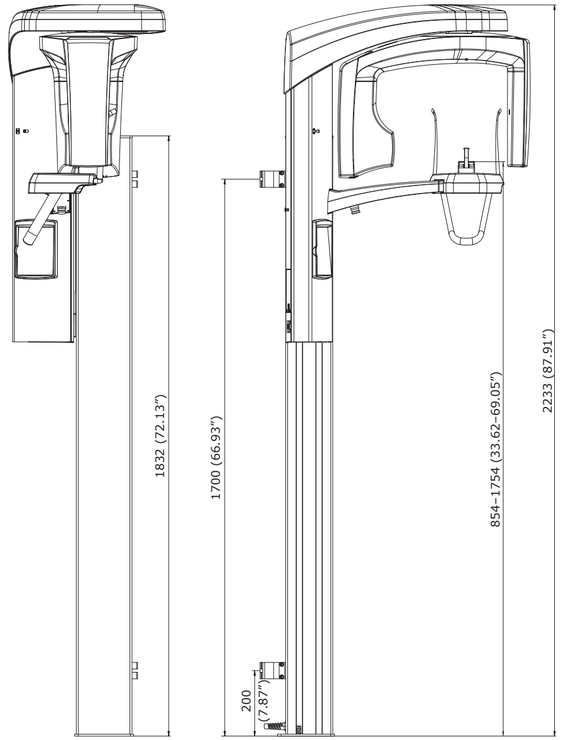
True 2D and 3D imaging:
Planmeca iRomexis™

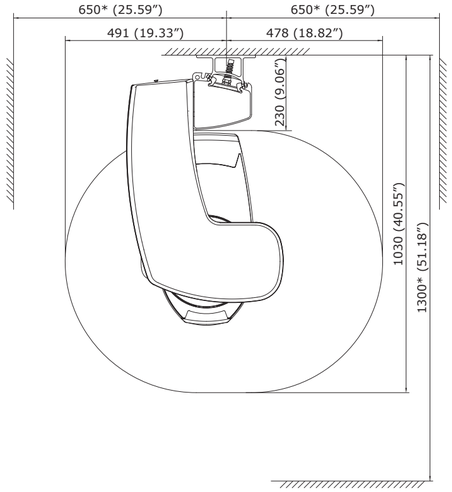
Available on the App Store

for iPhone and iPad

Planmeca iRomexis™

Planmeca iRomexis™ is a mobile companion application for Planmeca Romexis imaging software designed for iPhone and iPad devices. The application can be downloaded from the App Store free of charge.





*Minimum operational space requirements

Width	Depth	Height
130 cm	130 cm	223 cm
51 in.	51 in.	88 in.

Planmeca Oy designs and manufactures a full line of high technology dental equipment, including dental care units, panoramic and intraoral X-ray units, and digital imaging products. Planmeca Oy, the parent company of the Finnish Planmeca Group, is strongly committed to R&D, and is the largest privately held company in the field.

PLANMECA

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