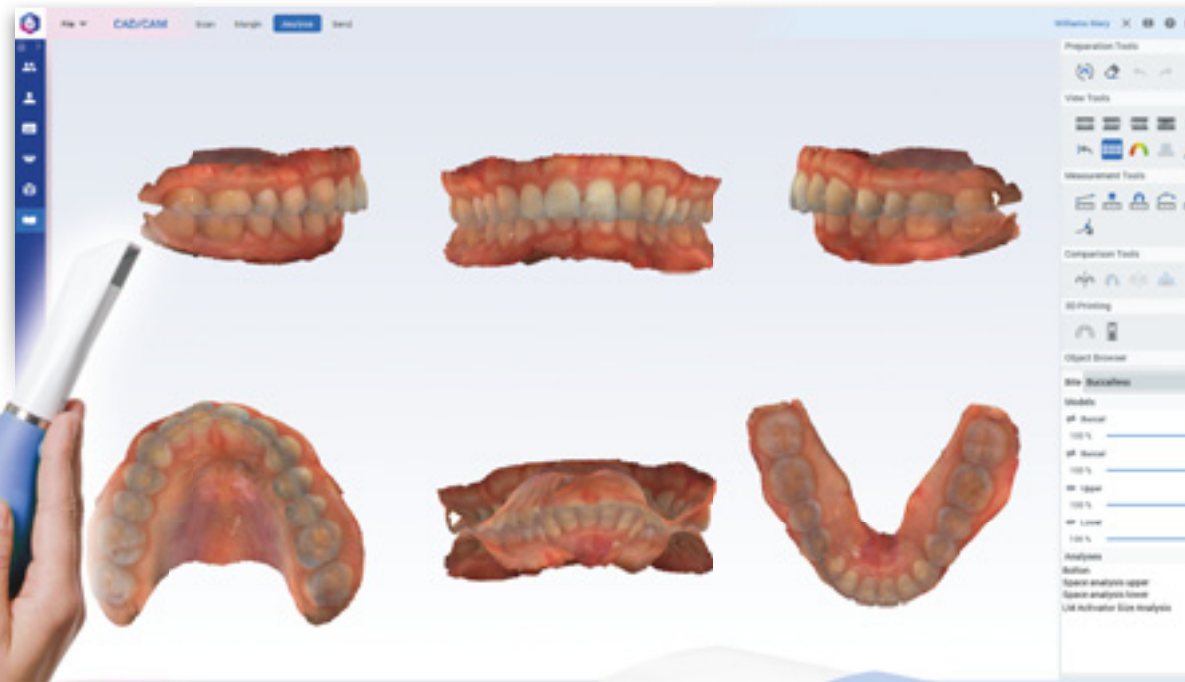


# CAD/CAM SOLUTIONS



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# Digital innovations for creative minds

An introduction from our President



“Welcome to the world of computer-aided design and manufacturing! It is my great pleasure to introduce you to our innovative CAD/CAM solutions, which allow dental practices and laboratories to work more efficiently and offer new services to their customers.

Dental diagnostics and treatment planning will be completely digital in the future. Our constant aim is to offer the best possible digital workflow for our customers. In the centre of this workflow stands the unique **Planmeca Romexis®** software platform, which ties together all Planmeca devices and software.

I’m extremely proud of our product innovations, and for already half a century we’ve worked closely with dental professionals to set new standards in our field. As a privately owned company, we are in control of our own destiny and able to make long-term R&D commitments that are the driving force behind our innovations.

The possibilities of CAD/CAM technology are almost limitless. Our dedicated R&D teams work relentlessly behind the scenes to ensure you can always work with the latest technological innovations and achieve predictable and precise results for all clinical needs. Therefore, I’m thrilled to invite you to explore our comprehensive selection of state-of-the-art CAD/CAM products.”

**Heikki Kyösti**  
*President and founder  
 Planmeca Group*

# Go digital and get inspired

*Digital dental workflows bring significant benefits to dental practices and laboratories, allowing you to tap into new treatment possibilities, achieve predictable and accurate results, work more efficiently, and improve the overall patient experience. With Planmeca's state-of-the-art CAD/CAM solutions, you have full control of the entire workflow from intraoral scanning and restoration design to fabricating final restorations and dental applications – or you can flexibly collaborate with your partners as you wish.*

## Elevate your treatment workflows

Take charge of your workflow from start to finish with Planmeca's CAD/CAM solutions – and get inspired by the endless possibilities of digital technologies. Our solutions allow you to treat more patients in less time, improve the customer experience, provide new services and attract new patients. Furthermore, chairside restorations allow you to improve the productivity and profitability of your dental practice as you can fit and place in-house fabricated restorations into the patient's mouth within the same day.

## Improve patient experience

Capturing impressions digitally is easier, faster and more comfortable for you and your patients than traditional impressions. Digital dental models and treatment plans also offer a perfect tool for patient communication and motivation. If you choose to fabricate restorations chairside, your patients will further enjoy the benefits of same-day dentistry since they do not have to squeeze multiple appointments in their busy schedules or wear temporaries that can break or fall off. Moreover, your patients will be reassured knowing their dental practice uses the latest technology for their care.

## Concentrate on the essential

Planmeca's cutting-edge CAD/CAM solutions are easy to use and fully integrated, allowing you to work efficiently without having to worry about incompatibility issues or additional user fees. Our CAD/CAM solutions can also be integrated with your existing equipment and workflows – and their open interfaces enable easy collaboration with partners. Since all patient data is stored digitally in one single software, **Planmeca Romexis®**, you can easily access the data you need on any workstation and use it for your treatment plans and follow-ups.



# Frontrunners in open CAD/CAM dentistry

Planmeca offers a comprehensive selection of high-end CAD/CAM solutions for the various needs of dental practices and laboratories. Different clinical workflows are conveniently carried out from start to finish with our open, top-quality CAD/CAM devices and software. The choice is yours!



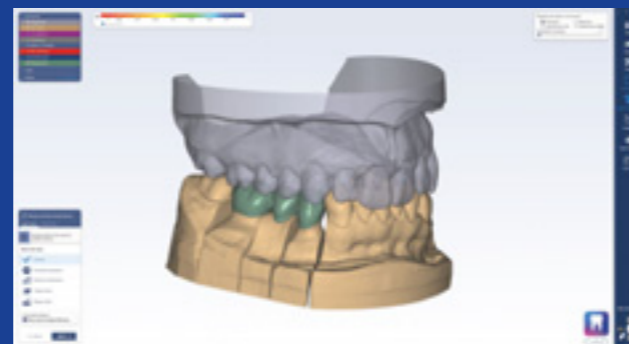
**Intraoral scanner**  
Planmeca Emerald® S



**Software for scanning, analysing and sending**  
Planmeca Romexis® CAD/CAM



**Software for the complete restorative workflow**  
Planmeca PlanCAD® Easy



**Advanced restoration design software**  
Planmeca PlanCAD® Premium



**Chairside milling unit**  
Planmeca PlanMill® 35



**Laboratory milling unit**  
Planmeca PlanMill® 60 S



**3D printer**  
Planmeca Creo® C5

# CAD/CAM for dental clinics

With Planmeca CAD/CAM solutions, you can easily choose your preferred workflow. You can only capture digital impressions by yourself and let your external partners take care of the rest. Alternatively, you can complete the entire restorative workflow in house with our **Planmeca FIT®** system, which includes all necessary tools for a completely integrated and digital workflow from intraoral scanning to sophisticated designing and high-precision in-house manufacturing.



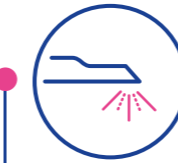
## Seamless chairside workflow

Regardless of whether you want to capture digital impressions, design dental prostheses or fabricate restorations and dental applications, all workflows are carried out smoothly and efficiently with Planmeca solutions. All data is automatically stored in **Planmeca Romexis®** software and immediately available for further use on all workstations sharing the same database. There is no need to toggle between different software as Romexis supports several types of data and all actions take place in the same platform.

## Increased efficiency

With CAD/CAM dentistry, your workflow always starts from capturing digital impressions. Next, you can either send the scans to your partner laboratory with the **Planmeca Romexis® Cloud** image transfer service or design and fabricate the required restoration chairside with **Planmeca FIT®**. In both cases, you will save a significant amount of time and resources compared to conventional methods. By completing the entire restorative workflow in house, you can further optimise your work and maximise the uptime of your practice.

## DENTAL PRACTICE WORKING WITH DENTAL LABORATORY



- Quick and easy intraoral scanning



- Intuitive software for viewing and analysing the scans
- Simple creation of 3D printable models

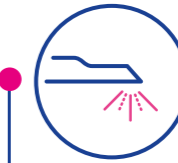


- Simple data transfers to laboratories and cloud portals with a single click

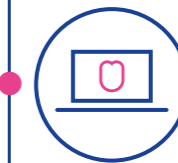
### Key benefits:

- Streamlined scan-and-send workflow
- Scan data directly available in Romexis database along with other clinical data for smile design, implant planning and surgical guide design
- Secure communications with a partner laboratory with **Planmeca Romexis® LabApp** and Planmeca Romexis Cloud

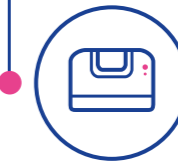
## DENTAL PRACTICE PROVIDING SAME-DAY DENTISTRY



- Quick and easy intraoral scanning



- Virtual design of single-visit restorations with easy-to-use tools



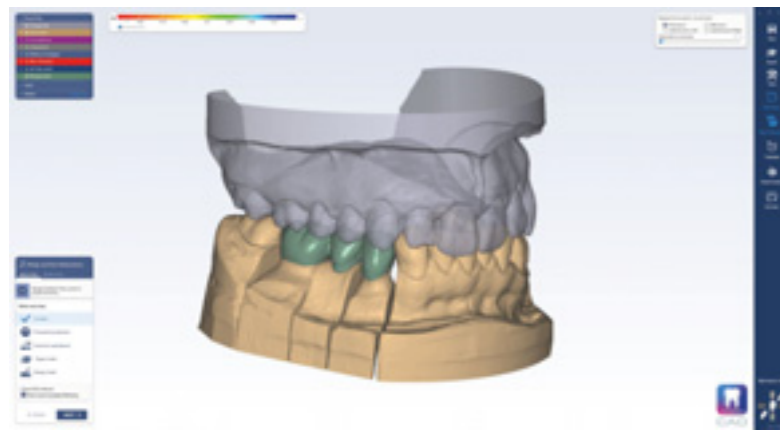
- Chairside manufacturing of dental restorations and applications with a Planmeca milling unit or 3D printer

### Key benefits:

- All-digital workflow allows treating patients as fast as one hour – no temporary crowns or physical dental models required
- All clinical data available in Romexis database for treatment planning
- Possibility to maximise uptime and treat more patients by performing different steps of the workflow simultaneously by different users

# CAD/CAM for dental labs

Planmeca offers cutting-edge tools for dental laboratories – from a secure image transfer application to sophisticated design software, powerful 3D printer and an accurate milling unit specifically designed for dental laboratories. With our open solutions, dental laboratories can choose the entire Planmeca workflow from data import to designing and manufacturing or only certain parts of it, according to their individual needs.



## Designed for dental laboratories

Our CAD/CAM product portfolio for dental laboratories and technicians includes a powerful **Planmeca PlanMill® 60 S** milling unit, an extensive design software **Planmeca PlanCAD® Premium** and a plug-and-play **Planmeca Creo® C5** 3D printer. Built on an open platform, they can be easily integrated into your existing workflows.

## Streamlined workflows with integrated software

With our open solution for dental laboratories, all steps of the digital workflow are combined smoothly and profitably. The comprehensive Planmeca PlanCAD Premium software guides the workflow and connects to **Planmeca Romexis®** software. The software integration minimises the need for importing and exporting files from one software to another manually, leading to notable time-savings and reducing the risk of data incompatibility.

## Easy communication with partners

Thanks to the open interfaces and file formats of Planmeca CAD/CAM products, it is easy to fit them into any dental laboratory. The open file formats not only enable exports in STL or PLY formats but also allows importing intraoral scan data from various open scanners. Furthermore, our free **Planmeca Romexis® LabApp** image transfer application offers you a great tool for easy and secure communications and data transfers with dental practices.

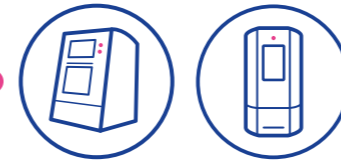
## INDEPENDENT DENTAL LABORATORY OR TECHNICIAN



- Secure data transfers from a dental practice with Planmeca Romexis LabApp
- Accurate gypsum model scans in the laboratory



- Sophisticated treatment planning and design with Romexis-integrated Planmeca PlanCAD Premium software

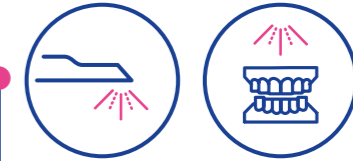


- Precise manufacturing of dental applications and restorations with a Planmeca milling unit or 3D printer

### Key benefits:

- The integration of Romexis and Planmeca PlanCAD Premium software guarantees smooth data transfers
- Even the most complex cases can be manufactured with a Planmeca laboratory milling unit or 3D printer
- Seamless integration of software and devices ensures uninterrupted workflows

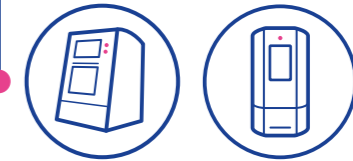
## IN-HOUSE DENTAL LABORATORY OR TECHNICIAN



- Intraoral scanning in a treatment room
- Accurate gypsum model scans in the laboratory



- Sophisticated treatment planning and design with Romexis-integrated Planmeca PlanCAD Premium software



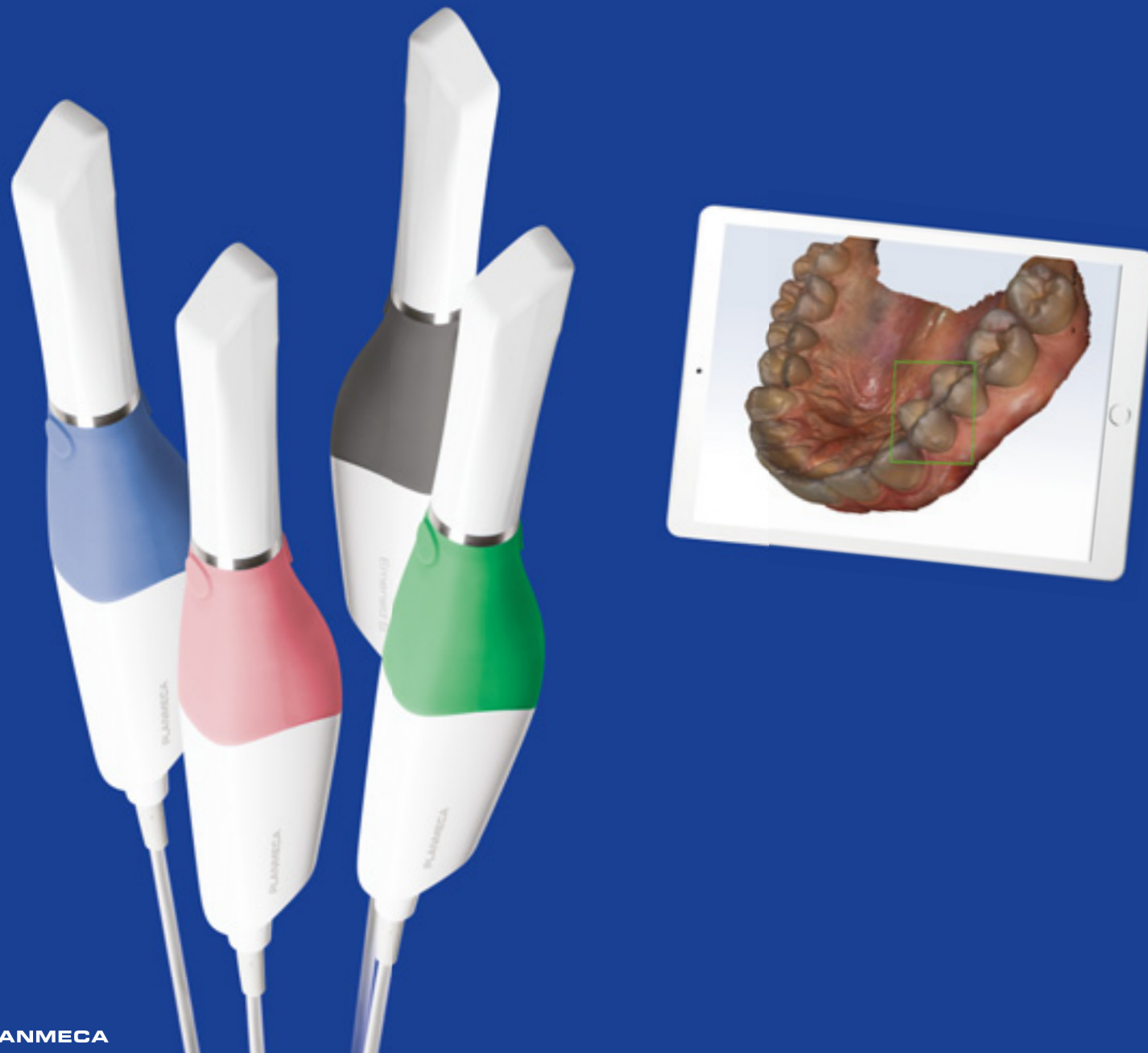
- Precise manufacturing of dental applications and restorations with a Planmeca milling unit or 3D printer

### Key benefits:

- Scan data directly available in Romexis database along with other patient data
- Even the most complex cases can be manufactured with a Planmeca laboratory milling unit or 3D printer
- Seamless integration of software and devices ensures uninterrupted workflows

# Outstanding intraoral scanning

*It makes plain sense to enter the world of intraoral scanning – digital impressions are more convenient for your team to capture and more comfortable for your patients. With integrated colour scanning and accuracy down to the micron level, our compact **Planmeca Emerald® S** intraoral scanner is ideal for capturing digital impressions – from a single tooth to a full arch. Fully integrated into other Planmeca devices and software, the scanner offers a truly pleasant scanning experience and exceptionally smooth workflows. At the same time, the open architecture allows you to share the scans as you like.*



## Planmeca Emerald® S

Planmeca Emerald® S scanner offers a truly pleasant scanning experience for users and patients alike. Packed with several intelligent features, the scanner allows full arches to be scanned precisely in a few minutes or even less. The compact and lightweight scanner has been designed to fit the user's hand and place minimal strain on the wrist. Intraoral scanning has never been as easy!

- Superior digital accuracy with natural colours
- Autoclavable tips for enhanced infection control
- Easy to share between operatories
- Fully integrated into the Planmeca Romexis® software
- Planmeca Cariosity® scanning tip for caries diagnostics
- Customisable appearance with sleeves in four colours



# Different tips for different needs

With three different scanning tip options, **Planmeca Emerald® S** meets all your scanning needs and ensures you always have the right tool in your hands. While two scanning tip sizes ensure the scanner always fits comfortably in the patient's mouth, the scanner can also be used for caries detection: just change the tip and you have two outstanding devices in one!

## Standard tip

Standard scanning tip with a large field of view is the perfect tool for performing general intraoral scanning conveniently and exceedingly fast.

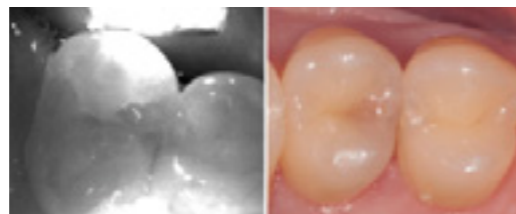


## SlimLine tip

SlimLine tip is thinner and smaller than the standard tip, and an ideal choice for scanning patients with smaller mouths. It makes reaching posterior teeth and capturing interproximal areas even easier.



See the teeth in a whole new light!



## Planmeca Cariosity® tip

**Planmeca Cariosity®** scanning tip is an excellent tool for caries diagnostics: it helps clinicians to detect approximal, occlusal and secondary caries as well as cracks in their early stages.

With the Planmeca Cariosity tip, you can see through the tooth. You can turn the light on from one side at a time or simultaneously from both sides to get the best possible view for diagnostics.

Caries detection is done with a radiation-free near-infrared light, which is safe for the patient.

Diagnostic procedures become even easier as you can examine HD colour and caries detection views side by side in **Planmeca Romexis®** software. The views can also be saved and documented effortlessly. Furthermore, the views can be integrated seamlessly with X-ray images in Romexis, ensuring all diagnostic tools are available at once.

## Packed with intelligent features

All scanning tips for **Planmeca Emerald® S** comprise several intelligent features. While their active anti-fog feature allows continuous scanning without interruptions, the user can also change the scanning tip any time – even during scanning. The scanning tips are also autoclavable, which ensures impeccable infection control and a safe treatment environment for the dental team and patients. Furthermore, each scanning tip is equipped with a memory chip that tracks how many times the tip has been autoclaved and used for scanning.



Just change the tip and continue scanning!



# Vast range of indications

*Planmeca Emerald® S intraoral scanner supports various different workflows, allowing you to expand your clinical capabilities flexibly. With a wide range of treatment options, the scanner offers benefits across several specialities.*

## Full arch scanning

You can scan a full dental arch in under a minute and send scans to the lab of your choice or use them in your own digital workflows. Document your patients' teeth for future use and comparisons.



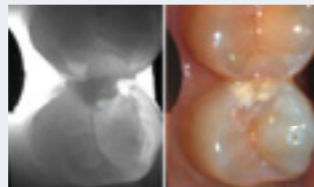
## 2D snapshot

Use the scanner as an intraoral camera and capture 2D snapshots with natural colours. Engage patients, document existing conditions or consult with colleagues.



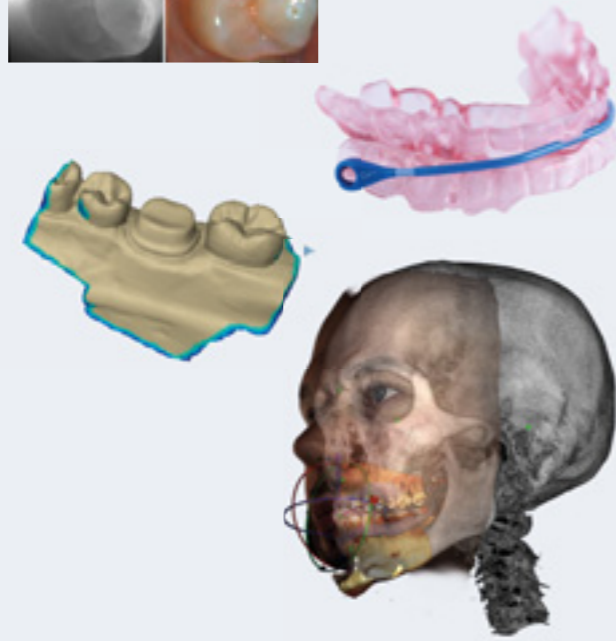
## Cariology

Detect caries and cracks in their early stages with the Planmeca Cariosity® tip.



## Prosthetics

Get instant feedback by checking your preparations from the computer screen. Scan preparations and abutments to create crowns, inlays and onlays, veneers and bridges. Scan temporary restorations and wax-ups to create final designs. Scan full arches to create dental splints, removable prostheses and other prosthetic indications.



## Implantology

Scan implant positions with the help of scan bodies for abutment design. Scan abutments to create crowns and bridges on top of them. Combine scan data with a CBCT image for digital implant planning and surgical guide design.

## Orthodontics

Scan full arches for digital orthodontic treatment planning. Combine intraoral scan data with a CBCT image to see the root movements. Send clinical data to partners for orthodontic appliance manufacturing. Follow treatment progress and results.

## Dental sleep medicine

Capture digital impressions and scan bite records for sleep apnoea treatments. Send the scans to providers of sleep apnoea devices.

## Maxillofacial surgery

Combine intraoral scans with CBCT data for treatment planning and manufacturing prostheses.

Take advantage of the scanner's compatibility with various orthodontic systems and sleep apnoea devices: See the constantly growing list of all the orthodontic solution providers at [planmeca.com/orthocompliance](http://planmeca.com/orthocompliance).

# Lifetime user licence

*With Planmeca Emerald® S, you can concentrate on improving the level of dental care, attracting new patients and generating more revenue with a lifetime user licence. The scanner is easy to upgrade with software updates that regularly introduce new features and further enhance the usability and performance of the scanner.*

## No hidden fees

The lifetime licence of Planmeca Emerald® S intraoral scanner ensures dental professionals can fully concentrate on digital dental workflows and generating new revenue without any annual or monthly subscription fees.

## Ensuring optimal results

According to academic research, software updates can have a significant effect on the trueness and accuracy of intraoral scanners\*. The users of Planmeca intraoral scanners can always benefit from top-rated trueness and accuracy as well as unlock new features and applications with regular software updates.

A scientific study on full arch trueness and accuracy of intraoral scanners found no statistical differences between the top three performers, which included Planmeca Emerald S\*.



\* Vág, J., Renne, W., Revell, G., Ludlow M., Mennito, A., Teich S. T., Gutmacher, Z. (2021). The effect of software updates on the trueness and precision of intraoral scanners. *Quintessence International*, 52(7), 626–644. doi: 10.3290/j.qi.b1098315. PMID: 33749223.

# Versatile configuration possibilities

It is extremely easy to share **Planmeca Emerald® S** scanners between different users and treatment rooms. Thanks to the convenient USB connection, the scanner can be connected to a laptop, a Planmeca dental unit or a **Planmeca Imprex™** mobile scanning station – whichever you prefer. Just plug and scan!

## Plug-and-scan connectivity

The fast USB 3.0 connection of **Planmeca Emerald® S** supports the fastest possible data transfer and allows the scanner to be shared effortlessly between treatment rooms. The scanner can just be plugged out of a USB port in one room and back to another port in the next. When the scanner is not in use, it can be simply plugged out and placed on a table holder.

## Hygienic operation

Regardless of whether you have connected the Planmeca Emerald S scanner to a laptop, a Planmeca dental unit or a **Planmeca Imprex™** mobile scanning station, you can operate the scanning software with the scanner's two buttons – without touching a mouse or keyboard. Additionally, the dental unit integrated scanner can be controlled from a foot pedal just like any other dental instrument.

## Dental unit integration

The unique integration of the Planmeca Emerald S intraoral scanner with a Planmeca dental unit enables chairside scanning in a way you have never experienced before. The dental unit integration guarantees a smooth workflow, ideally ergonomic working positions and an improved infection control.

## Key features

- Smooth and effortless workflow allows full concentration on your patient
- Hands-free operation with a foot control
  - Hands are kept free for scanning
  - Impeccable infection control
- For excellent ergonomics, the scanning results can be viewed on the tablet screen placed on the suction arm and on the dental unit monitor
  - Quick and easy positioning of the screens
  - Seeing scans right in front of the user helps prevent neck issues and scan the teeth faster
- The main monitor can be used in patient communication to visualise and explain the treatment to the patient
- As the scanner is always at hand and ready to use, it can be easily integrated to the daily workflow



## Mobile scanning station

Move your Planmeca Emerald S intraoral scanner close to any dental unit with the Planmeca Imprex mobile scanning station. The portable scanning station offers a convenient way to capture and view digital impressions and use them in patient communication even if your dental unit does not include a monitor.

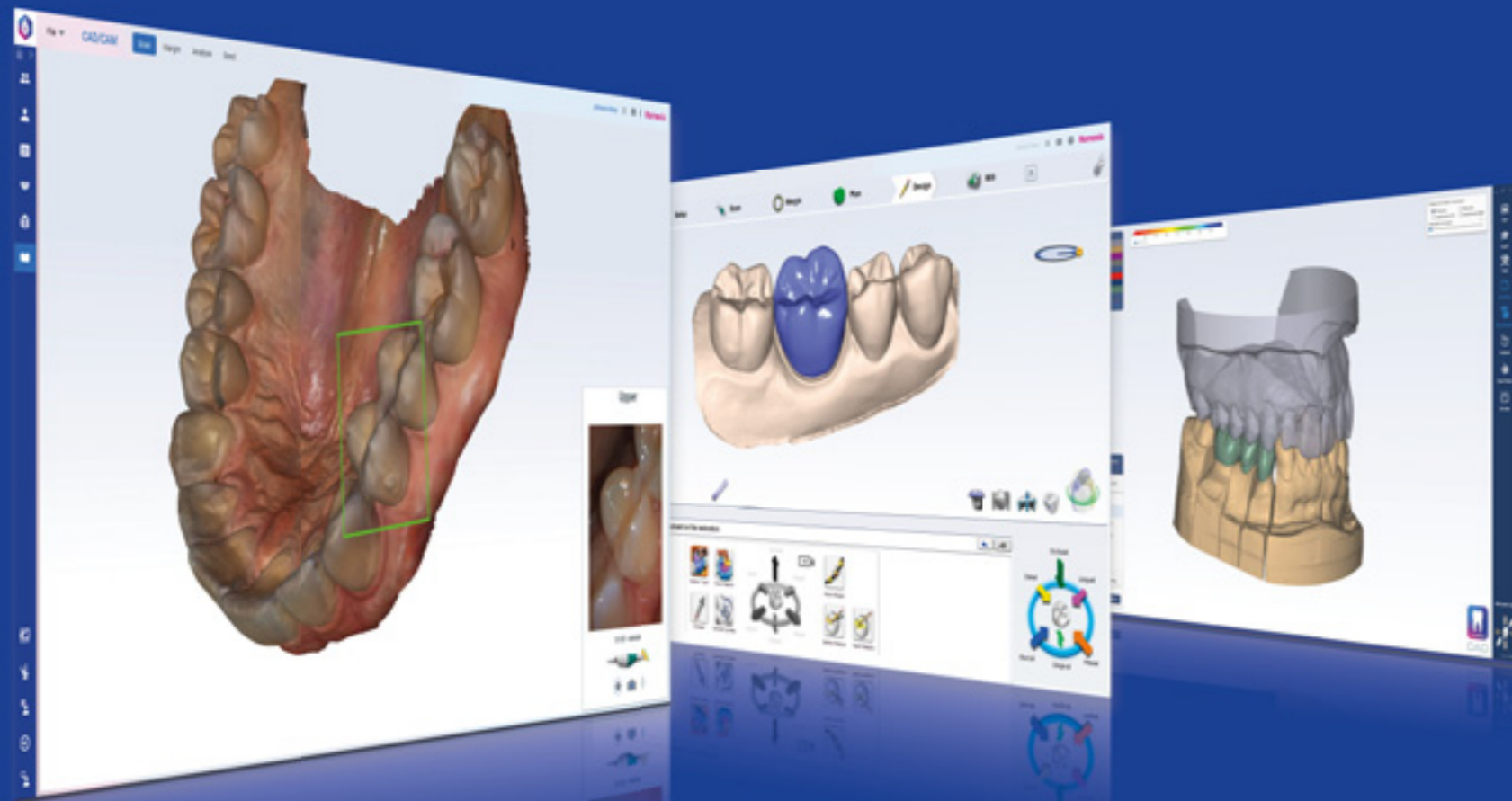
## Key features

- Unique tripod construction allows moving the scanning station close to any dental unit and rotating the station
  - Guarantees smooth movements
  - Clinician's foot fits comfortably beneath the tripod leg
- High-definition touch screen supports in patient communication and enables ergonomic working positions
- Seamless integration with Planmeca Emerald S and intraoral cameras, such as **Planmeca Somia™**



# CAD/CAM software for all needs

*Planmeca offers a versatile selection of software options to fit all user needs and skill levels. Depending on whether you want to use your digital impressions for collaboration with external partners, carry out the entire restorative workflow in house or design prostheses for more complex cases, our software tools for CAD/CAM dentistry will support you every step of the way.*



## **Planmeca Romexis® CAD/CAM**

The Planmeca Romexis® CAD/CAM module is a great tool for capturing, analysing and exporting digital impressions. The easy-to-use software offers a streamlined scan-and-send workflow for dental practices collaborating with dental laboratories and other external partners.

## **Planmeca PlanCAD® Easy**

Our open Planmeca PlanCAD® Easy software is an ideal tool for scanning and designing dental restorations directly at a dental practice. The intuitive software allows planning, designing and manufacturing a wide range of prosthetic cases chairside from crowns and veneers to inlays, onlays and up to 6-unit bridges.

## **Planmeca PlanCAD® Premium**

Our advanced CAD software supports a full range of indications from crowns and bridges to dentures, removable partials and wax-ups. It provides a perfect tool for dental technicians and laboratories as well as advanced dental practices for more complex prosthetic cases.

# Software for scanning, analysing and sending

*Planmeca Romexis® CAD/CAM software module has been designed to make working with intraoral scans as simple as possible. The module provides convenient tools for capturing, visualising and analysing digital impressions and streamlines the direct scan-and-send workflow for Planmeca intraoral scanners.*

## Fast and enjoyable scanning experience

Scanning with Romexis® CAD/CAM module is straightforward. You can simply start scanning and the embedded workflow wizards with helpful videos guide you through the process – no prior scanning experience or training needed. For more complex cases, you can easily scan different implications and multiple bites.

## User-friendly tools for working with digital impressions

Romexis CAD/CAM module is a perfect tool for patient communication and education. With the module, it is easy to measure tooth widths and arch length, make free measurements, and compare scans captured at different times for tooth wear or treatment follow-ups. You can also create model bases for 3D printing from the intraoral scans with a few clicks.

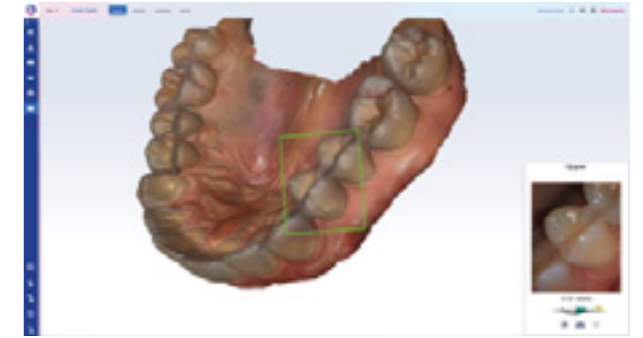
## Easy one-click exports

With the Romexis CAD/CAM module, it is extremely easy to send scans to partners with Planmeca Romexis® Cloud transfer service with just a single click. The module also supports exports in STL and PLY file formats as well as to external CAD software. The module also integrates to various external cloud portals, including HeySmile clear aligner service.

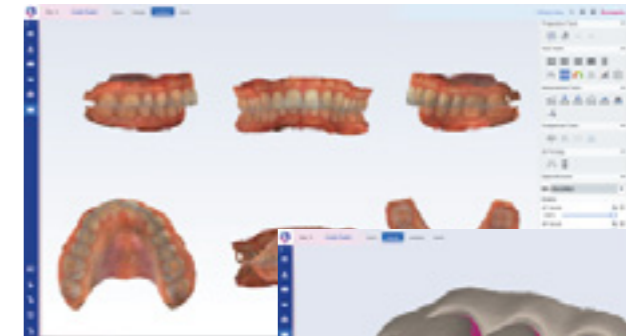


## Simple scan-and-send workflow

- Capture digital impressions with a Planmeca Emerald® S intraoral scanner



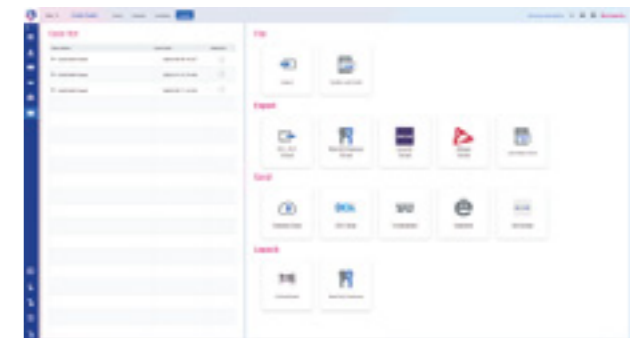
- View and examine digital impressions using predefined views



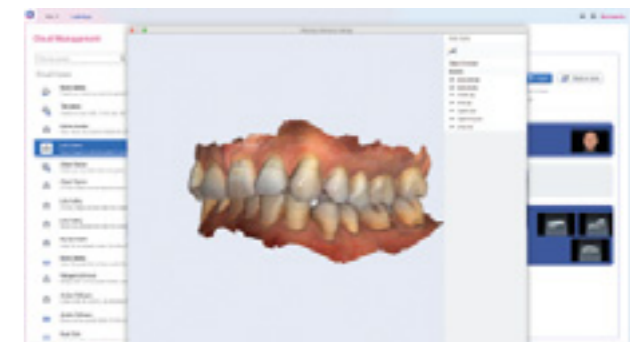
- Mark the margin line for restoration design, if needed



- Send digital impressions to external partners and software with just a single click



- Once sent, your partner laboratory can receive the case with our free Planmeca Romexis® LabApp image transfer application and start working on the case



or

- HeySmile technicians receive the case directly in the HeySmile online platform and deliver the treatment plan as soon as in 48 hours

HeySmile

# Software for the complete restorative workflow

*Planmeca PlanCAD® Easy is our open CAD software suite designed especially for dentists. It is the perfect tool for the sophisticated 3D design of dental restorations at a dental clinic. The easy and efficient software is ideal for designing a wide range of prosthetic works – from a single crown to bridges.*

## User-friendly and care-free CAD software

Planmeca PlanCAD® Easy is an efficient software for intraoral scanning and the design of prosthetic works, including crowns, inlays, onlays, veneers and bridges. The software comes with numerous smart features, such as an automated design of restorations with optimal contact strengths, anatomical shapes and minimum material thicknesses, which can also be manually adjusted. Providing single-visit restoration to your patients has never been as simple.

## Integrated part of Planmeca Romexis

Planmeca PlanCAD Easy is an integrated part of our Planmeca Romexis® software platform. There is no need to toggle between different software, as all actions take place in the same platform. The integration guarantees that implant planning, surgical guide design and other workflows are always carried out smoothly and efficiently.

## Seamless implant workflow

Planmeca PlanCAD Easy allows designing screw-retained hybrid abutment crowns on titanium bases and manufacturing the crowns chairside with a few simple steps. The software automatically aligns scan body scans with the corresponding implant library information and allows creating an optimal emergence profile for the prosthesis.

## Straightforward workflow for single-visit restorations

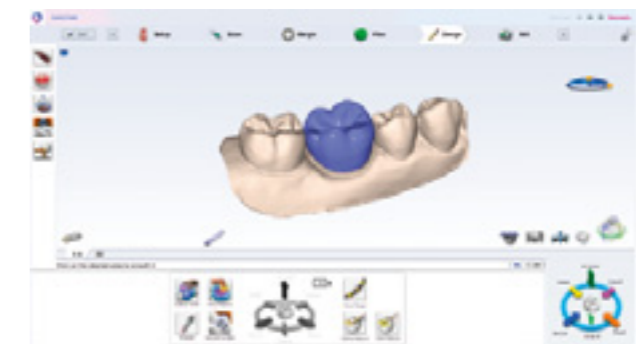
- Provide the work description and capture an intraoral scan with the **Planmeca Emerald® S** intraoral scanner



- Mark the margin line of the tooth or teeth you will design the prosthesis for



- Design the restoration with the help of our automated design process



- Send the design to **Planmeca PlanMill®** chairside milling unit for manufacturing and continue to fitting and placing the milled restoration into your patient's mouth



# Advanced restoration design software

*Planmeca PlanCAD® Premium design software is an ideal tool for dental laboratories and advanced dental practices for the design of high-quality prosthetic restorations for a full range of indications. The software connects all workflow steps in one software and allows using data from different sources efficiently.*

## Advanced design software for all needs

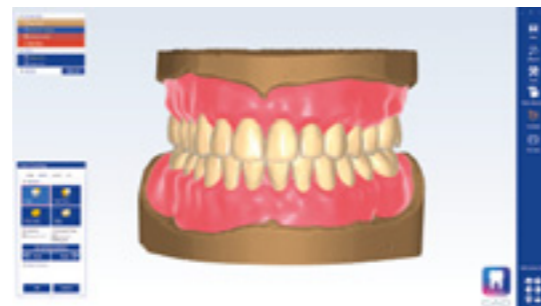
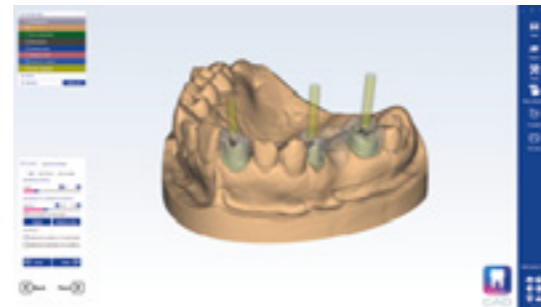
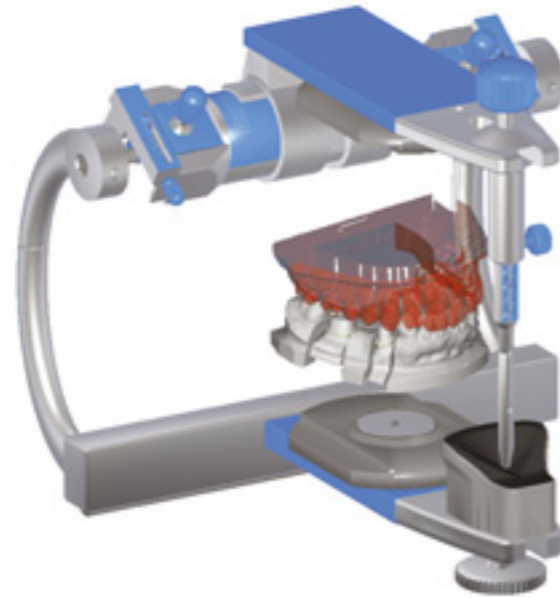
Planmeca PlanCAD® Premium is an ideal software solution for dental laboratories and advanced dental practices, offering a straightforward workflow for the design and manufacturing of high-end CAD/CAM restorations. The software lets you design a wide range of applications, including crowns and bridges, copings, monolithic restorations, frameworks, provisionals, inlays, onlays, veneers, wax-ups, telescopic crowns, screw-retained and cemented custom abutments, implant bars and bridges, bite splints, removable partials, full dentures as well as smile designs and 3D printable models.

## Smooth workflows and customisable tools

Thanks to built-in workflow wizards, all workflows are simple and easy to follow even for first-time users, while more experienced users benefit from the endless options to customise the design process in expert mode. Furthermore, the flexible licence options and an extensive selection of add-on software modules allow you to choose the right tools for your individual needs.

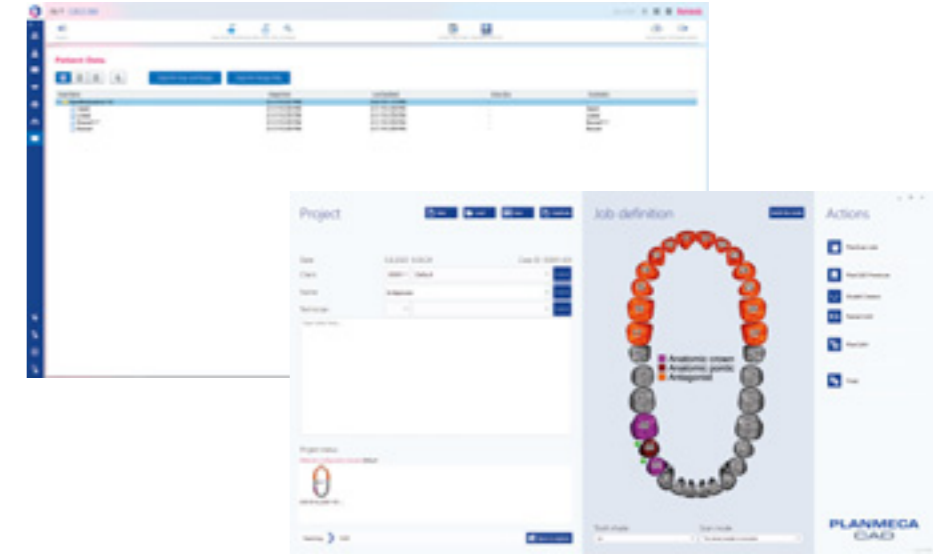
## Seamless integration with existing equipment

The seamless integration of Planmeca PlanCAD Premium with Planmeca Romexis® software guarantees an efficient workflow with Planmeca equipment. A quick launch option allows integrating Planmeca intraoral scanners and milling units to the design software for a streamlined workflow with smooth data imports and exports. The open software platform also supports integration with third-party scanners and milling units as well as importing digital impression data in STL and PLY formats.



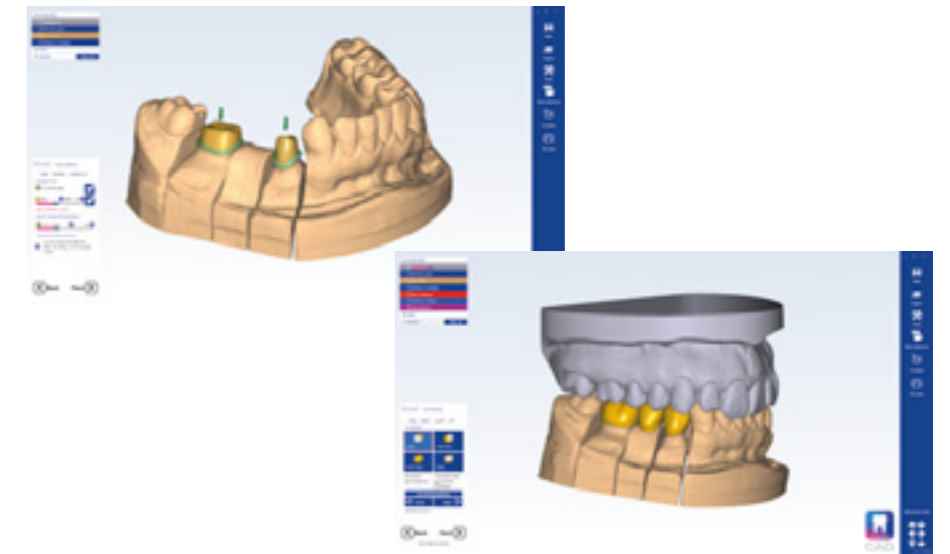
## Streamlined workflow for flexible design and manufacturing

- Receive a case from a dental practice using Planmeca Romexis® LabApp application
- or
- Import digital impression data to Planmeca PlanCAD Premium design software



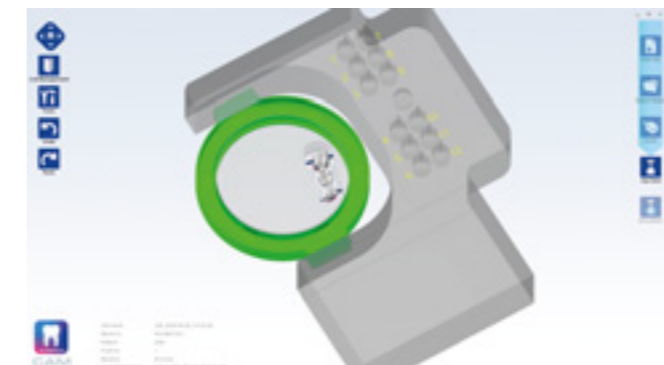
- Launch the case in Planmeca PlanCAD Premium

- Design



- Nest the restoration for milling

- Send to a Planmeca PlanMill® 60 S milling unit for manufacturing



# Powerful solutions for dental manufacturing

Create the dental applications you need with Planmeca milling units and 3D printer. Select the optimal solution for producing dental restorations from our comprehensive selection of powerful milling units or start fabricating dental applications in a fraction of the usual time with our high-performance 3D printer. Specifically designed for dentistry, our state-of-the-art CAM systems provide predictable, high-quality results – every time.



## Milling units

### Planmeca PlanMill® 35

Planmeca PlanMill® 35 is the number one choice for dental practices milling zirconia. Equipped with a suction system, the efficient single-spindle mill can be used for dry milling zirconium dioxide and for wet milling a vast range of other materials – offering a true multifunctional solution for dental clinics of all sizes. The dry milling vacuum is offered as an option and can also be added to the unit as a retrofit.

### Planmeca PlanMill® 60 S

Specifically designed for dental laboratories, Planmeca PlanMill® 60 S is a high-performance milling unit for fabricating a wide range of applications. Suitable for both wet and dry milling of discs and blocks, the flexible unit achieves predictable results for all clinical findings.



## 3D printer

### Planmeca Creo® C5

Add 3D printing to your dental manufacturing capabilities with Planmeca Creo® C5, a blisteringly fast 3D printer targeted specifically for dentistry. The printer enables fabricating dental applications, such as surgical guides, dental models and aligner bases, easily and in a fraction of the usual time.



# Cutting-edge milling units

Our **Planmeca PlanMill®** milling units are the leading choice for fast and accurate milling directly at a dental practice or in a dental laboratory. With their enhanced performance and numerous smart features, the units offer the smoothest milling experience on the market.

## Same-day convenience with chairside milling

Chairside milling is the key to offering single-visit restorative treatments to patients. With our **Planmeca PlanMill®** chairside milling units, dental practices can produce a wide range of restorations efficiently in house, including crowns, inlays, onlays, veneers, up to 6-unit bridges and hybrid abutment crowns. Ultimate efficiency can be achieved with our pioneering **Planmeca Romexis® Clinic Management** software module, which offers real-time monitoring of task status, milling statistics, diagnostic log views and quick guides.

## Powerful companion for dental laboratories

Specifically designed for the needs of dental laboratories, the **Planmeca PlanMill® 60 S** laboratory milling unit can be used to mill discs, blocks and pre-fabricated titanium or cobalt chrome abutments. The unit is capable of both wet and dry milling and allows fabricating various dental restorations, bite splints and dental models. The necessary tool path calculation is performed on an easy-to-use software which guarantees a fast and easy workflow in the busy laboratory environment.

## Key features

- Linear motors and smart tool paths guarantee highest precision
- Different milling strategies and speed to suit material characteristics
- Automated tool changer, which detects worn or broken burs
- Integrated computer allows anyone of the dental staff to operate the milling unit independently and choose the milling priorities
- Simple integration with your current equipment thanks to open platform and *Send to Mill* application for chairside milling units, which ensures accurate milling of restorations designed in 3<sup>rd</sup> party CAD software
- Guided maintenance – from daily cleanings and water changes to annual preventive maintenance notifications



	PlanMill 35	PlanMill 60 S
Processing	Wet and dry	Wet and dry
Designed for	Dental practice	Dental laboratory
Number of high-speed spindles	1	1
Axes	4	5
Average milling time for molar crown (IPS e.max)	11 min	20 min
Automated tool changer	for 5 tools	for 10 tools
Integrated control PC and touch screen	✓	✓
Planmeca Romexis® Clinic Management	✓	✓
Guided maintenance	✓	✓
Tool wear indicator	✓	✓
Suction system	✓	✓

## Available materials

### Blocks for all Planmeca PlanMill units

GLASS CERAMICS	
	IPS Empress CAD
	IPS Empress CAD Multi
	VITABLOCS Mark II
	VITABLOCS TriLuxe forte

REINFORCED GLASS CERAMICS	
	IPS e.max CAD
	Straumann nIce
	VITA SUPRINITY PC

REINFORCED COMPOSITES	
	COLTENE BRILLIANT Crios
	GC CERASMART
	Tetric CAD
	VITA ENAMIC
	VITA ENAMIC multiColor
	VOCO Grandio blocs 1

PMMA FOR TEMPORARIES	
	Telio CAD

ZIRCONIUM DIOXIDE	
	IPS e.max ZirCAD
	IPS e.max ZirCAD MT Multi

OTHER	
	Hybrid abutment blocks with pre-fabricated interface suitable for Viteo® Base Ti bonding base

### Discs for Planmeca PlanMill 60 S

STANDARD 98MM WITH SHOULDER	
	Zirconium dioxide
	PEEK
	PMMA
	Wax
	Cobalt-chrome

### Other materials for Planmeca PlanMill 60 S

PREFABRICATED ABUTMENTS	
	Titanium
	CoCr

# 3D printer for quick and easy manufacturing

*Planmeca Creo® C5 is the combination of speed and precision you have been waiting for. Designed specifically for dental professionals, the durable and compact 3D printer enables fabricating the dental applications you need in a fraction of the usual time.*



## The ultimate dental 3D printer

Planmeca Creo® C5 is a fast, calibration-free solution that has been developed in cooperation with some of the best clinical experts in dental technology. The distortion-free monochrome LCD technology and robust aluminium body of the printer ensure outstanding mechanical precision, which results in highly accurate and predictable prints. Print multiple objects at once without extended printing times and save your time for the next customer.

## Key benefits

- Industry quality at an accessible price
- Monochrome LCD printing technology and aluminium construction allow fast and accurate printing
- Easy to take into operation – just plug and print
- Open import for STL and PLY file formats
- Pre-programmed optimised material settings
- No calibration or fixed service intervals necessary

## Optimised printing materials with sophisticated resin handling system

To ensure safe and high-quality results, the printing materials for Planmeca Creo C5 are medically approved (when applicable) and optimised for the printer. The printing resins come in convenient and cost-effective 1 kg bottles, ensuring that you can always make the best use of the materials. Our selection of resins for different applications allows you to offer new services to your customers.




## Available materials

DENTAL AND ORTHODONTIC MODELS	FotoDent model2 FotoDent setup KeyModel Ultra Ivory
SURGICAL GUIDES	FotoDent guide
GINGIVA SEGMENTS IN DENTAL MODELS	FotoDent gingiva
DENTURE BASES	FotoDent denture
IMPRESSION TRAYS	FotoDent tray
INDIRECT BONDING TRAYS	FotoDent IBT
SPLINTS AND NIGHT GUARDS	KeySplint Soft KeySplint Hard
BLEACHING TRAYS	KeySplint Soft

# Technical specifications

## Intraoral scanner

	Planmeca Emerald S
Indications	Capturing digital impressions: Single tooth Full arch Bite records Scan bodies Dental models and impressions  Taking 2D snapshots Caries detection
Integrations	Planmeca dental unit integration PC connection
Autoclavable scanning tips	Standard SlimLine Planmeca Curiosity for caries detection
Anti-fogging technology	Actively heated tip: Guaranteed non-fogging operation when used intraorally
Cable interface	USB A type connection on the laptop end  USB C type connection on the scanner end  All cables are designed to transmit data via USB 3
Light source	Red, green, and blue lasers
Scanning technology	Projected pattern triangulation
Dimensions (scanner with tip)	41 x 45 x 249 mm (1.6 x 1.8 x 9.9 in.)
Weight (scanner with tip)	229 g (8.1 oz)
Recommended PC system requirements	See planmeca.com 

CE [MD] Planmeca Emerald S

## Scanning station

	Planmeca Imprex
Power requirements	100/240 VAC
Mains frequency	50/60 Hz
Power input	250 W
Cable interface	USB 3.0 and USB-C
Weight	21 kg (46 lbs)
Dimensions when closed	660 x 660 x 1140 mm (26 x 26 x 45 in.)
Dimensions fully opened	660 x 660 x 1480 mm (26 x 26 x 58 in.)
Storage temperature	10–50 °C (50–122°F)
Operating conditions	18–25°C (64–77°F) 60% maximum humidity maximum altitude 2000 meters (6,592 feet)
Data connection	Ethernet RJ-45/ Wi-Fi
Screen	15 in. touch screen

## 3D printer

	Planmeca Creo C5
Open import	STL, PLY
Printing technology	Monochrome LCD
Indications	Dental and orthodontic models  Surgical guides  Gingiva segments in dental models  Denture bases  Impression trays  Indirect bonding trays  Splints and night guards  Bleaching trays
Build area	128 x 78 x 100 mm (5.0 x 3.1 x 4.0 in.)
Dimensions	Ø 300 mm (11.8 in.), h 500 mm (19.7 in.)
X,Y resolution	50 µm
Z resolution	25–100 µm
Weight	32 kg (70.5 lbs)

CE Planmeca Creo C5




## Milling units

	Planmeca PlanMill 35	Planmeca PlanMill 60 S
Wet/dry milling	Wet and dry	Wet and dry
Indications	Inlays/onlays Veneers Crowns Up to 6-unit bridges Hybrid abutment crowns (Viteo)	Inlays/onlays Veneers Crowns Bridges up to full arch Hybrid and pre-milled abutments Bite splints Full and partial dentures
Power requirements	100/240 VAC	100/240 VAC
Mains frequency	50/60 Hz	50/60 Hz
Power input	1000 W	480 W
Weight	61 kg (135 lbs)	75 kg (165 lbs)
Weight with vacuum	74 kg (163 lbs)	
Dimensions when closed (W x H x D)	662 x 441 x 544 mm (26 x 17.4 x 21.4 in.)	422 x 644 x 556 mm (16.6 x 25.4 x 21.9 in.)
Minimum required clearances	Sides 102 mm (4 in.) Top 305 mm (12 in.) Rear 25 mm (1 in.)	Sides 300 mm (11.8 in.) Rear 100 mm (3.9 in.) Front 1000 mm (39.4 in.)
Dimensions, vacuum (W x H x D)	279 x 330 x 381 mm (11 x 13 x 15 in.)	440 x 750 x 460 mm (17.3 x 29.5 x 18.1 in.)
Storage temperature	-40–70°C (-40–158°F)	10–50°C (50–122°F)
Operating conditions	5–40°C (41–104°F) 0–80% relative humidity maximum altitude 2000 meters (6,592 feet)	18–25°C (64–77°F) 60% maximum humidity maximum altitude 2000 meters (6,592 feet)
Air supply requirements	Pressure and flow: Constant 3.5–9.0 bar (50–130 psi) Minimum 30 l/min (1 cfm)  Air purity: Solid contaminants (class 3); filtration level better than 5 µm for solids Water content (class 4); maximum pressure dew point +3 °C Total oil content (class 3); maximum oil content 1 mg/m <sup>3</sup>	Pressure: 3–4 bar (44–58 psi)  Flow rate: 50 l/min (1.7 cfm)  Air purity: Solid contaminants (class 3); filter grade better than 5 µm for solids Water content (class 4); maximum pressure dew point +3 °C Total oil content (class 3); maximum oil content 1 mg/m <sup>3</sup>
Automated tool changer	for 5 tools	for 10 tools
Spindle	100 000 rpm	100 000 rpm
Data connection	Cat5 or Cat6 Ethernet cabling	Ethernet RJ-45

CE Planmeca PlanMill 35

CE Planmeca PlanMill 60 S

## CAD/CAM software

	Planmeca Romexis CAD/CAM	Planmeca PlanCAD Easy	Planmeca PlanCAD Premium
<b>COMPARISON</b>			
Scanning	✓	✓	
Comparison of scans	✓		
Base creation for 3D-printable models	✓	✓	✓
Creating lab order forms (PDF)	✓	✓	
Restoration design		✓	✓
Bolton and space orthodontic analyses	✓		
Tooth width, arch length and free measurements	✓		
<b>COMPATIBILITY</b>			
Import file formats	STL, PLY	STL, PLY	STL, PLY, OBJ, OFF
Export file formats	STL, PLY	STL, PLY	STL
Interfaces	CAD Software Planmeca PlanCAD Premium 3Shape exocad  Cloud portals Romexis Cloud HeySmile DDX Dental TruAbutment  3D printing software Planmeca Creo C5 Studio SprintRay		
<b>INDICATIONS FOR RESTORATION DESIGN</b>			
Inlays/onlays		✓	✓
Veneers		✓	✓
Crowns		✓	✓
Copings, anatomical copings, monolithic restorations and frameworks			✓
Bridges		✓	✓
Implant-supported crowns		✓	✓
Telescopic crowns			✓
Screw-retained and cemented custom abutments			✓
Implant bars & bridges			✓
Full & removable partial dentures			✓
Provisional crowns and bridges			✓
Bite splints			✓
<b>LICENCES</b>			
Licence options	Scan, analyse & send Ortho simulator	Design & mill Complete (scan, design & mill) Mill only	Standard Basic crown and bridge design, virtual articulator and true smile, abutments, implant bars, model creator and smile creator  Optional add-on modules Bite Splint Full Denture Partial CAD Provisional ZRS Tooth Library
Floating licence		✓	
Software updates	Included in licence Optional major version upgrades	Included in licence Optional major version upgrades	Optional yearly upgrades
<b>COMPUTER REQUIREMENTS</b>			
Recommended computer system requirements	See planmeca.com 	See planmeca.com 	See planmeca.com 

CE 0598 [MD] Planmeca Romexis

CE Planmeca PlanCAD Easy

CE Planmeca PlanCAD Premium



Planmeca Oy designs and manufactures a full line of industry-leading dental equipment, including 3D and 2D imaging devices, CAD/CAM solutions, dental care units and software. Planmeca Oy, the parent company of the Finnish Planmeca Group, is strongly committed to better care through innovation, and it is the largest privately held company in the field.

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# PLANMECA

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