

CAD/CAM SOLUTIONS



ENGLISH

PLANMECA
PULSE

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Digital freedom for smooth workflows

An introduction from our President

“Welcome to the world of digital dentistry! It is my great pleasure to introduce our innovative CAD/CAM solutions, designed to help dental practices and laboratories optimise workflows and offer new services to their customers.

At the heart of this approach is **Planmeca PULSE™** – our vision for digital dentistry. It brings together the key strengths of our CAD/CAM portfolio: precision, usability, freedom, speed, and a seamlessly connected ecosystem. Every product is developed with these principles in mind, enabling you to focus on patient care while our technology takes care of the rest.

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 Kyöstiä
President and founder
Planmeca Group

DIGITAL FREEDOM STARTS WITH PULSE

Take your digital workflows to the next level with **Planmeca PULSE™** – the heart of digital dentistry. PULSE stands for Precision, Usability, Liberty, Speed, and Ecosystem – the five core strengths of Planmeca's CAD/CAM solutions. These elements help you achieve smooth digital workflows, deliver exceptional patient outcomes, and boost productivity and profitability in any clinical setup.

PRECISION

All Planmeca CAD/CAM products are designed to ensure accurate and reliable results at every step of the workflow. From intraoral and desktop scanners to software, milling units, and 3D printers, each product is carefully engineered to maintain consistent quality without deviations.

USABILITY

Efficient workflows require intuitive tools. All Planmeca CAD/CAM solutions from hardware to software are built for ease of use, enabling fast and smooth operation with minimal effort. Even new users can get started effectively from day one, without the need for extensive training.

LIBERTY

Every dental professional works differently. Planmeca gives you the freedom to shape your workflows your way – ensuring you stay in full control. Our solutions always support your preferred clinical approach, regardless of whether you want to collaborate with external partners or manage everything in house.

SPEED

Planmeca CAD/CAM solutions are designed to make every step of the workflow fast and efficient – without compromising quality. From scanning to manufacturing, faster processes mean more comfortable patient experiences, the possibility of offering same-day treatments, and greater productivity for your clinic.

ECOSYSTEM

Planmeca offers a complete platform for CAD/CAM dentistry, where all tools work together seamlessly. Clinical data flows smoothly across the workflow, enabling different team members to complete different steps without interruptions. A complete ecosystem from one manufacturer ensures reliable connectivity, simplifies support and reduces compatibility issues.

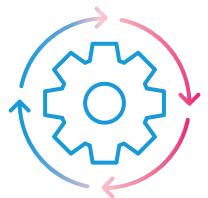
Why choose
Planmeca PULSE™?



Achieve outstanding
patient outcomes



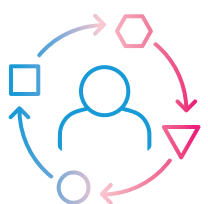
Create all restorations and
appliances you need



Work without
interruptions



Increase productivity
and profitability



Enjoy seamless integration
across your digital workflow

Complete solution for CAD/CAM dentistry

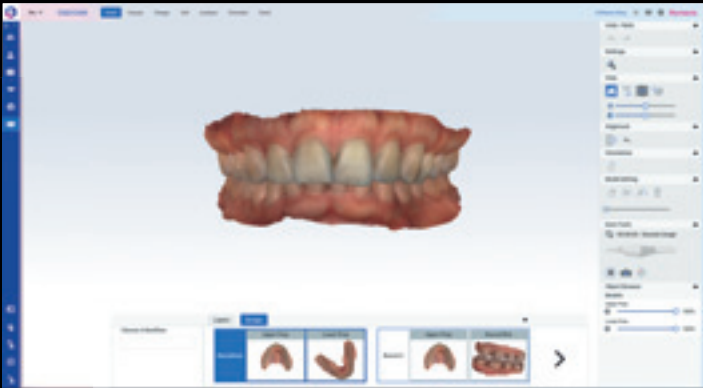
Planmeca offers a comprehensive selection of high-end CAD/CAM solutions for the various needs of dental practices and laboratories. Different clinical workflows are conveniently carried out from start to finish with our top-quality CAD/CAM devices and software. The choice is yours!



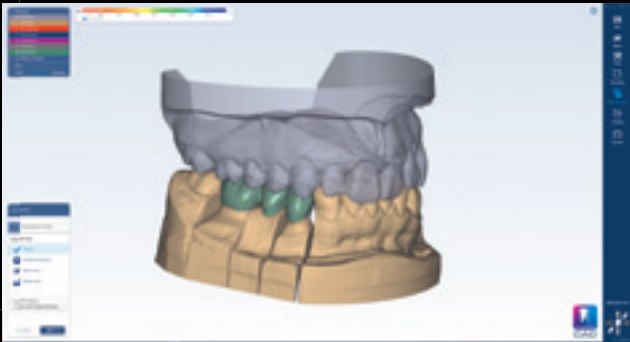
Intraoral scanner
Planmeca Onyx™



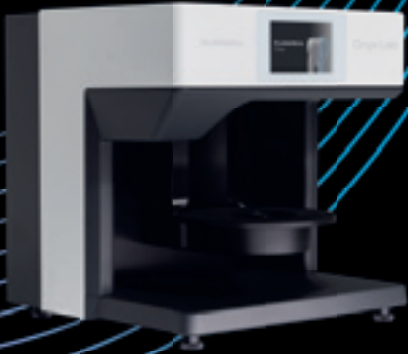
Mobile scanning station
Planmeca Imprex™



**Software for the complete
chairside workflow**
Planmeca Romexis® CAD/CAM



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



Desktop scanner
Planmeca Onyx™ Lab



Chairside milling unit
Planmeca PlanMill® 35



3D printer
Planmeca Creo® X



Laboratory milling unit
Planmeca PlanMill® 60 S

SCAN

Easy-to-use dental scanning solutions

We offer a complete range of dental scanning solutions for capturing digital impressions – intuitive intraoral scanners for chairside use and reliable desktop 3D model scanner for dental laboratories and technicians. Whatever your workflow, we offer the right tools to support efficient digital dentistry, streamline your workflows, and enhance accuracy.

Planmeca Onyx™

Planmeca Onyx™ is a reliable intraoral scanner for capturing digital impressions with exceptional precision and minimal effort. Its advanced optical design and LED light source deliver fast, accurate results across all dental indications. The scanner offers wireless or wired operation, ensuring uninterrupted workflows in any clinical environment from single-chair practices to multi-room clinics, dental schools, and clinic chains.

Connect Planmeca Onyx with Planmeca Imprex™ mobile scanning station for optimal ergonomics!



Planmeca Onyx™ Lab

Planmeca Onyx™ Lab desktop scanner transforms gypsum models and impressions into digital form quickly and effortlessly. Designed to meet the demanding needs of dental laboratories and technicians, the scanner captures digital impressions with precision, ensuring an optimal passive fit for even the most complex restorative cases.



Intuitive intraoral scanner for effortless digital impressions

Planmeca Onyx™ is the intuitive and future-ready intraoral scanner that every dental practice deserves. Featuring advanced optical technology and seamless data capture, the scanner ensures precise geometry and exceptional detail for all clinical indications. Planmeca Onyx supports both wired and wireless operation, offering true flexibility and convenience for dental practices of any size – bringing efficiency and comfort to every workflow.

Full scanning freedom with AutoMerge™

With **Planmeca Onyx™**, you can capture intraoral scans in any order you like – and in as many segments as needed. Our smart **AutoMerge™** scanning algorithms automatically merge all different parts of the scan into a complete 3D model, ensuring accurate geometry and exceptional scanning quality every time. Thanks to continuous tracking, you can simply start scanning as you prefer and let the software handle the rest – while you focus fully on your patient.

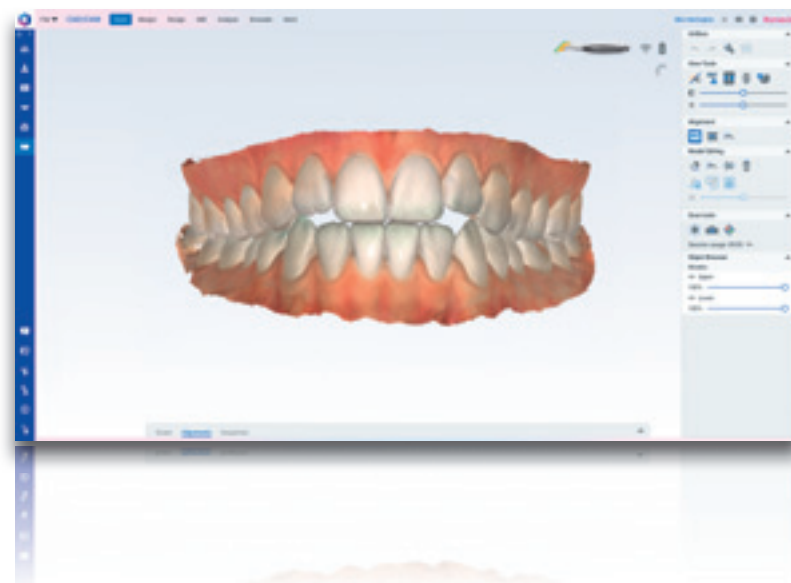
Remarkable scanning accuracy

Planmeca Onyx features state-of-the-art optics with powerful LED lighting and remarkable scanning depth. This means you can easily scan complex areas, such as interproximal areas and subgingival margins, without repeatedly going over the same areas. Outstanding accuracy is further supported by our **Romexis®** software, which is continuously updated to meet evolving technologies and clinical requirements.

One scanner for all indications

Planmeca Onyx is designed to support the workflows of dental specialists across all disciplines, whether you are a general practitioner, prosthodontist, orthodontist, or even a maxillofacial surgeon. The scanner accommodates every clinical indication, including full-arch scans, partial scans, scan bodies, and closed and open bites. Whatever your treatment needs, Planmeca Onyx delivers accurate, detailed digital impressions for predictable results.

- Dental check-ups
- Prosthodontics
- Implantology
- Orthodontics
- Dental sleep medicine
- Orthognathic surgery



Smooth scanning workflows in every setup

Planmeca Onyx™ intraoral scanner seamlessly adapts to any digital workflow. With both wireless and wired operation, the scanner can be easily shared between multiple treatment rooms and users, ensuring maximum efficiency. Reusable, autoclavable scanning tips guarantee impeccable infection control and support sustainability, while pairing the scanner with the Planmeca Imprex™ scanning station delivers optimal ergonomics for every scan.

Wireless when you want, corded when you need

Planmeca Onyx™ offers true flexibility by operating both wirelessly and with a cord – so you can freely choose the mode that best fits your workflow. While wireless operation provides unmatched freedom of movement and improved ergonomics, the corded option ensures uninterrupted performance for complex cases or busy clinics where the scanner is in use all day. The scanner comes with a charging station and three batteries, each delivering up to 45 minutes of scanning time, ensuring a fully charged battery is always ready when you need it.

Reusable, autoclavable scanning tips

Designed with sustainability and safety in mind, the autoclavable scanning tips of Planmeca Onyx can be reused hundreds of times, reducing waste and helping your clinic operate more environmentally responsibly. Autoclavability and seamless tip design ensures impeccable and reliable infection control in every situation. Each tip is equipped with a memory chip that tracks usage for added safety and compliance.

- Standard tip – ideal for most common cases
- SlimLine tip – perfect for smaller mouths and reaching posterior teeth



Optimal scanning ergonomics

Planmeca Onyx is a lightweight intraoral scanner designed for maximum comfort and ease of use. Its compact size fits naturally in your hand, providing excellent support and control during scanning. For truly optimal ergonomics, you can pair Planmeca Onyx with our mobile scanning station, **Planmeca Imprex™**, which allows you to position the screen at the ideal height and angle – reducing strain on your eyes, neck, and posture.

Always within reach

Planmeca Onyx can be attached to any Planmeca dental unit with a dedicated holder. This keeps the scanner conveniently within reach, supporting efficient workflows and comfortable working positions. With the scanner always at hand, it becomes a natural part of daily clinical routines. The scanning process can be followed directly on the easily adjustable dental unit monitor, which also serves as an effective tool for patient communication, allowing you to clearly visualise and explain oral health conditions and proposed treatments.



Flexibility for multi-room environments

As a wireless intraoral scanner, Planmeca Onyx can be easily moved between rooms and shared by multiple users – offering true flexibility for busy clinics. The scanning process can be monitored from any computer within the clinic network, making it an ideal solution for large group practices, dental schools and universities as well as dental chains. This mobility ensures efficient workflows and maximises utilisation across multiple treatment rooms.

Desktop scanner for demanding restorative cases

Our *Planmeca Onyx™ Lab* desktop scanner is the ideal solution for the demanding needs of dental laboratories and technicians. Equipped with two high-resolution cameras, the scanner captures gypsum models, articulators, and impressions quickly and accurately for the design of advanced prostheses.



Planmeca Onyx™ Lab

Planmeca Onyx™ Lab desktop scanner is a top-class solution for transforming gypsum models and impressions into digital form. Designed to meet the demanding needs of dental laboratories and technicians, the scanner captures digital impressions with precision, ensuring an optimal passive fit for even the most complex restorative cases.

Accurate scans for demanding cases

Equipped with two cameras and utilising LED stripe light triangulation, Planmeca Onyx Lab captures even the most subtle details, including fissures and grooves, with precision. From articulator scanning to single, multi-die, full-jaw and impression modes, the scanner supports a variety of indications, ranging from single-unit crowns and abutments to full-mouth reconstructions, bridges, and implant bars.

Open and compatible

Planmeca Onyx Lab seamlessly integrates with our advanced **Planmeca PlanCAD® Premium** design software. The scanning process can be initiated from the design software with a single click, and once scanned, the digital model is directly available in the software for restoration design. The scanner supports open STL and PLY data formats and is also available as a standalone device for easy integration with preferred CAD/CAM systems.

Easy to operate

Planmeca Onyx Lab easily adapts to even the busiest dental and in-house laboratory environments. The scanner is user-friendly, featuring an intuitive touch screen and a straightforward method for attaching gypsum models, impressions and articulators. The fully automated system captures scans from different angles, and advanced scanning algorithms ensure that results are immediately available for further use.



Details in a nutshell

Accuracy	4 µm
Scanning technology	Stripe light triangulation with blue LED and 2 x 3.2 MP cameras
Scanning modes	Colour and monochrome texture models Articulators Impressions Orthodontic projects Multi-die for 12 slots
Scan time	10s for a full jaw
Open export	STL, PLY data
Software integration	Scan software operated from Planmeca PlanCAD Premium or standalone
Supported operating systems	Windows

DESIGN

CAD/CAM software for all needs

From simply scanning and analysing digital impressions to carrying out orthodontic simulations or the entire restorative workflow in house, Planmeca's software tools for CAD/CAM dentistry support you every step of the way. Just choose your workflow according to your needs or preferences and let our software take care of the rest.



Match your workflow with Planmeca software

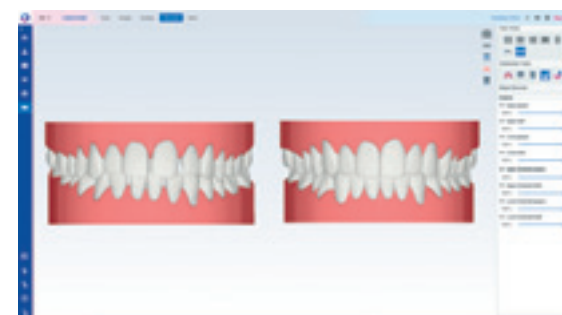
Scan and send

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.



Scan and simulate

Romexis CAD/CAM module includes an AI-powered tool for using intraoral scans to simulate the outcome of clear aligner treatments in a matter of minutes. The realistic 3D simulations offer an outstanding tool for patient communication and education.



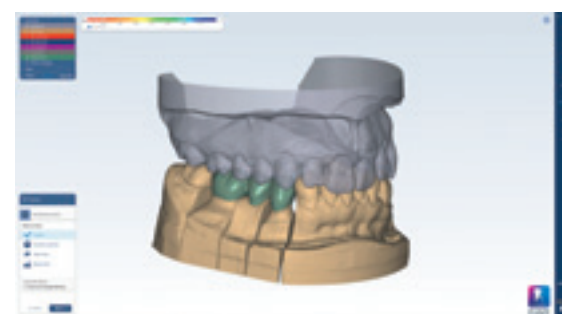
Scan, design, and mill

Romexis CAD/CAM module 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 works chairside, such as crowns to inlays, onlays and veneers.



Design and mill prosthetic works of any kind

Our advanced Planmeca PlanCAD® Premium 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.

Powerful tools for analysing digital impressions

Romexis CAD/CAM module is the perfect tool for patient communication and education as well as for dental analyses. Romexis uses AI to detect landmarks in intraoral scans, enabling automatic tooth width, arch length, overbite, and overjet measurements. You can also easily compare scans captured at different times for tooth wear or treatment follow-ups and create dental models for 3D printing with just a few clicks.

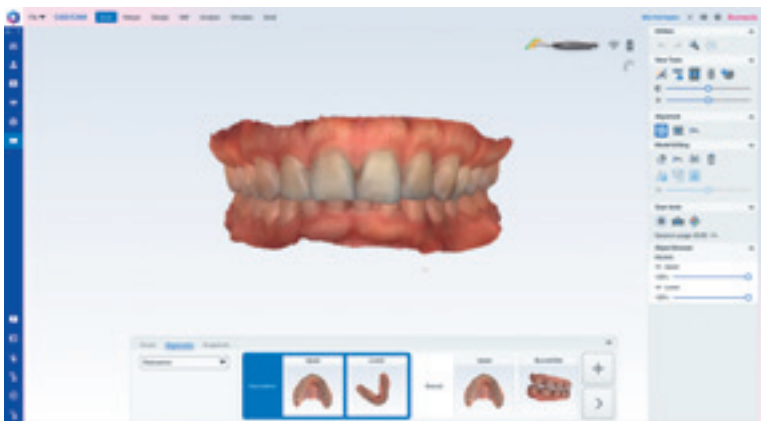
Easy one-click exports

With the Romexis CAD/CAM module, it is extremely easy to send scans to partners with the **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

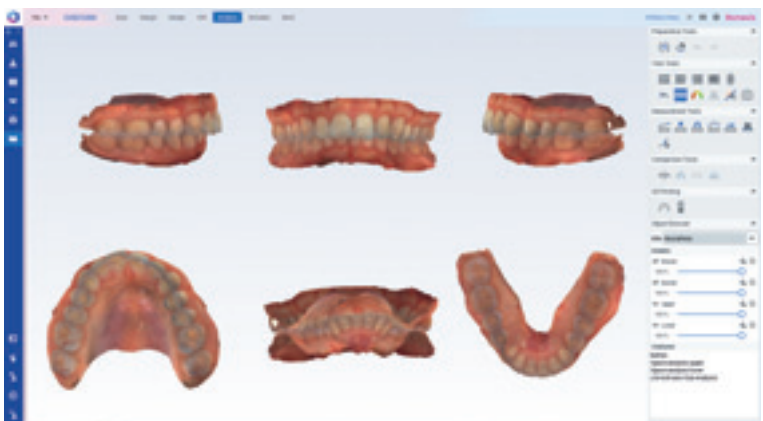
1 Scan

- Capture digital impressions with a **Planmeca Onyx™** intraoral scanner.
- Mark the margin line for restoration design, if needed.



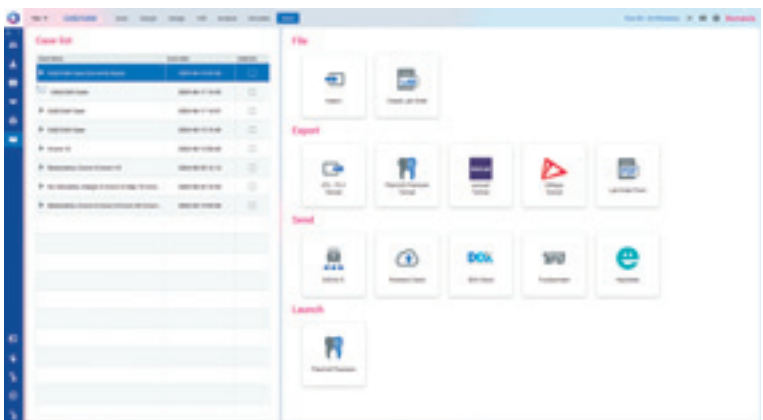
2 Analyse

- View and examine digital impressions using predefined views.



3 Send

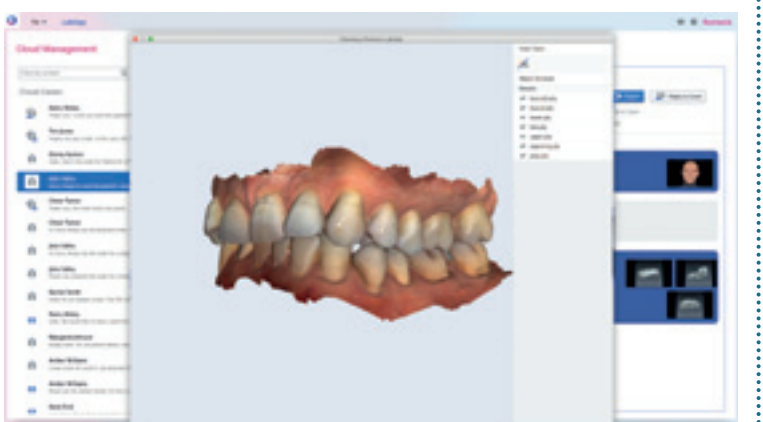
- Send digital impressions to external partners and software with just a single click.



What comes next

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

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



Software for orthodontic treatment simulations

Planmeca Romexis® Ortho Simulator is an intuitive software module for orthodontic simulation. It allows using intraoral scans to reveal the true potential of a patient's smile in a matter of minutes. The intelligent algorithm of Romexis Ortho Simulator produces treatment simulations for the most common orthodontic indications, motivating patients of the benefits of clear aligner and other orthodontic treatments alike.

Simulate treatment goals together with patients

The smart algorithm of **Romexis® Ortho Simulator** creates simulation proposals of even the most demanding orthodontic cases. The simulation results can be easily fine-tuned taking into consideration the patient's wishes and the clinical reality by the doctor. In simple cases, minor tooth movements can be simulated manually in a matter of seconds. The current dentition and simulation can be easily compared in a side-by-side view.

Show the potential of clear aligner treatments

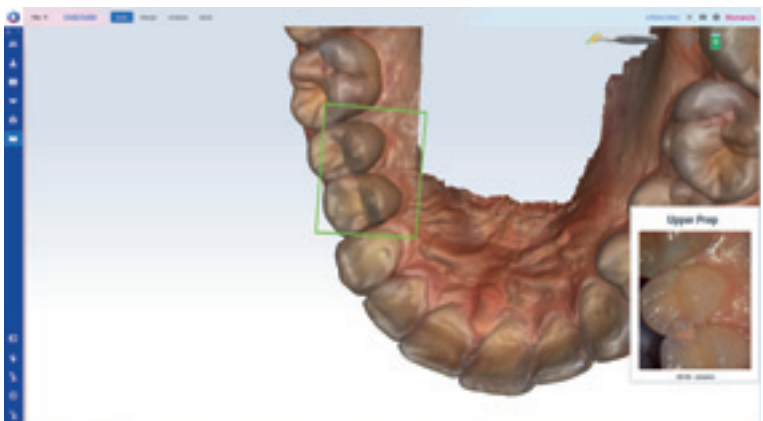
Romexis Ortho Simulator makes it easy to discuss treatment possibilities and explain the aesthetics of the smile in a visual and understandable way. It is a perfect tool for an orthodontic professional to showcase the potential of clear aligner treatments, such as **HeySmile®** treatments.



Intuitive workflow for orthodontic treatment simulations

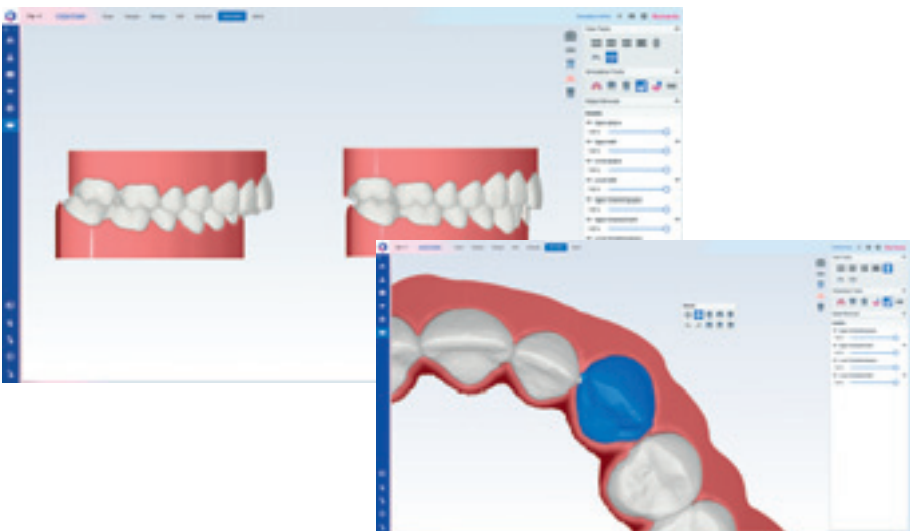
1 Scan

- Capture digital impressions with a **Planmeca Onyx™** intraoral scanner.



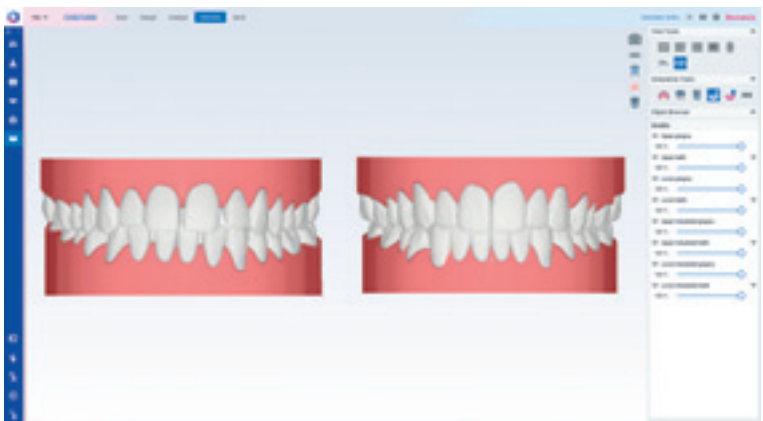
2 Simulate

- Create orthodontic simulation with a single click – the software automatically creates a simulation proposal.
- Adjust the simulation manually, if needed.



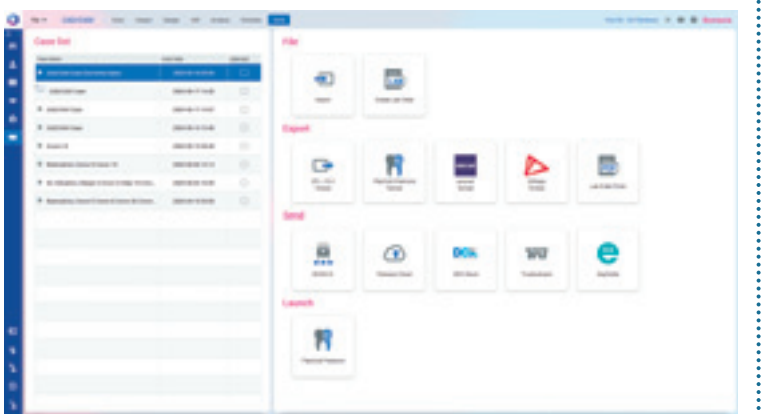
3 Communicate

- Using the simulation, visualise the outcome of an orthodontic treatment to your patient and discuss treatment options.



What comes next

Should your patient opt for a clear aligner treatment, send the scans to an orthodontic solution provider, such as HeySmile.



Software for the complete chairside workflow

Intuitive and efficient CAD software is the key for offering same-day restorations. **Planmeca Romexis® CAD/CAM** software module allows dental professionals to design and manufacture high-quality dental restorations directly at a dental practice. It is the perfect tool for the sophisticated 3D design of prosthetic works, such as single-unit crowns, inlays, onlays, and veneers.

Intuitive CAD software for prosthetic works

The **Romexis® CAD/CAM** software module is an efficient tool for completing all the steps of a restorative workflow from intraoral scanning to the design and manufacturing of single-unit crowns, inlays, onlays, and veneers. The software comes with numerous easy-to-use tools for the automated design of dental restorations with optimal contact strengths, anatomical shapes and minimum material thicknesses, which can also be manually adjusted.

User-friendly and care-free workflow

Unlocking the full potential of chairside dentistry is a breeze with Romexis CAD/CAM module. The intuitive user interface guides users through all required steps for the restoration design, ensuring even first-time users complete all necessary steps before the restoration is sent to mill.

Exceptional restorations based on patient anatomy or a tooth library

Romexis CAD/CAM module supports designing single-unit restorations on up to 32 teeth across both jaws in a single case. The module offers a variety of features for creating aesthetically pleasing restorations, which blend seamlessly with the patient's natural dentition. Thanks to the automatic segmentation of the teeth, you can easily clone an existing tooth of the patient for your design. Alternatively, you can use an anatomy from one of the integrated libraries of the software. Whatever you choose, a wide set of intuitive tools allows you to customise and adjust the design as you wish to achieve the desired aesthetic and functional outcome.

Seamless part of treatment workflows

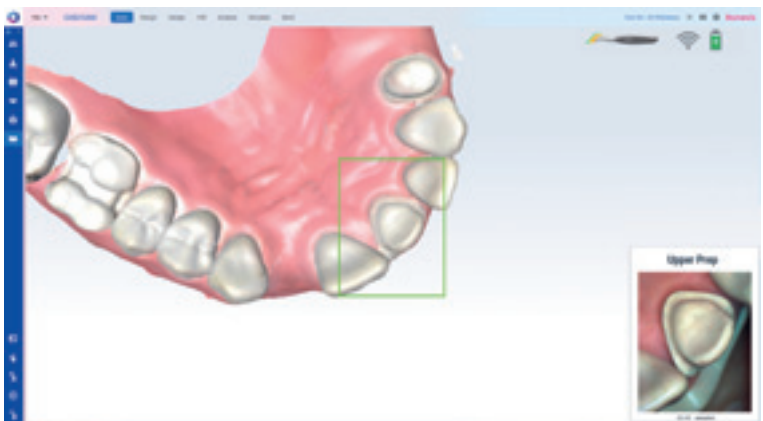
Romexis CAD/CAM is part of our comprehensive **Planmeca Romexis®** software platform. There is no need to toggle between different software, as Romexis supports several types of data and all actions take place in the same platform. Implant planning, surgical guide design and other workflows are carried out smoothly and efficiently.



Straightforward workflow for chairside restorations

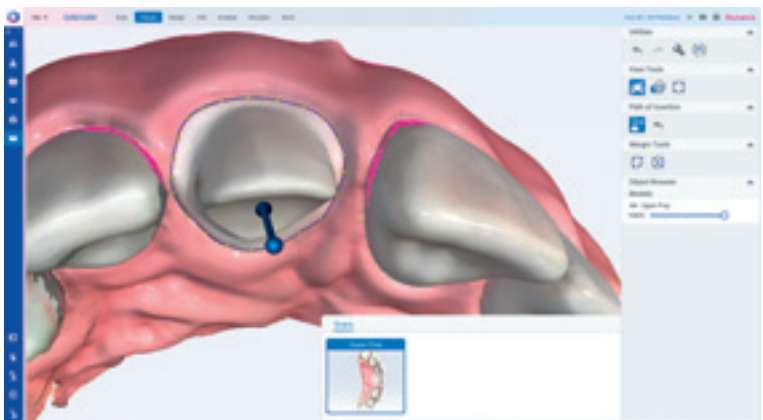
1 Scan

- Capture digital impressions with a **Planmeca Onyx™** intraoral scanner.



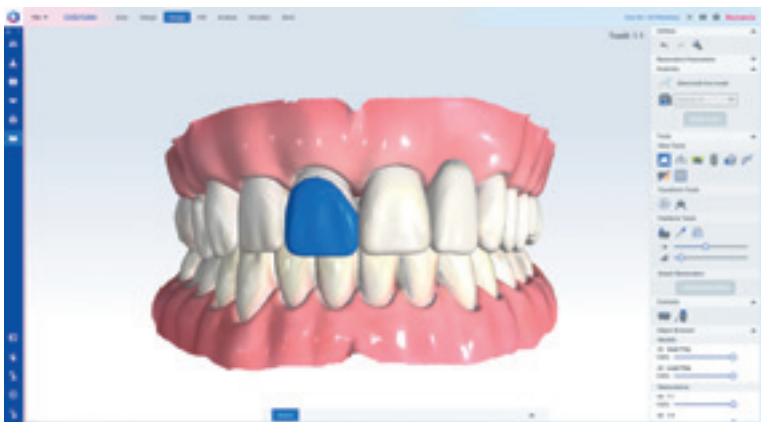
2 Margin

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



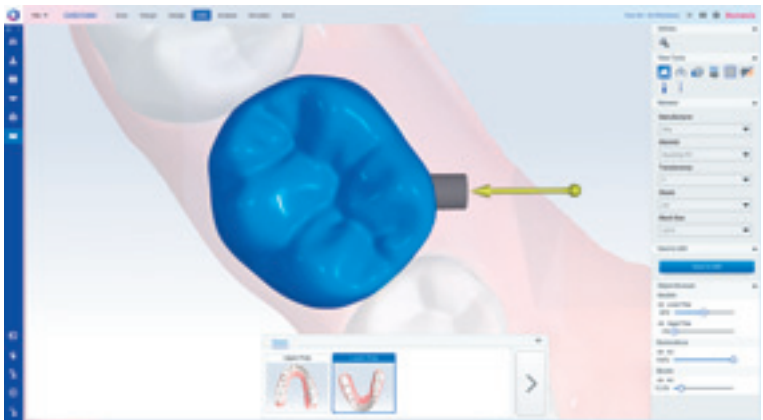
3 Design

- Design the restoration with the help of our intuitive design process.



4 Manufacture

- Send the design to a **Planmeca PlanMill®** milling unit or **Planmeca Creo® X** 3D printer for manufacturing.



What comes next

Continue to fitting and placing the finalised 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

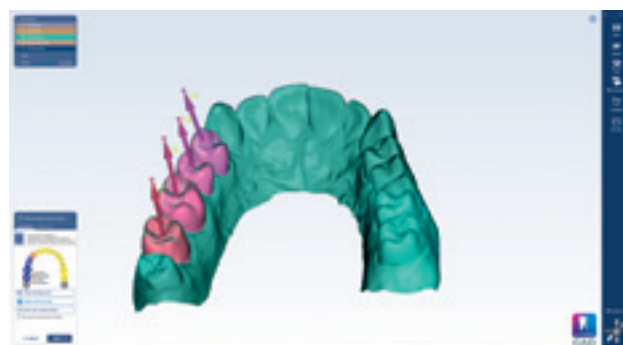
Planmeca PlanCAD® Premium is an ideal software solution for dental laboratories and advanced dental practices, offering a straightforward workflow for the design and manufacturing of high-end CAD/CAM restorations. The software lets you design a wide range of applications, including crowns and bridges, 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 solutions guarantees an efficient workflow. Digital impressions from Planmeca intraoral and desktop scanners are effortlessly launched into the software for restoration design, and all parameters are seamlessly transferred to Planmeca milling units. Furthermore, the connection with Planmeca Romexis® ensures smooth data imports. 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

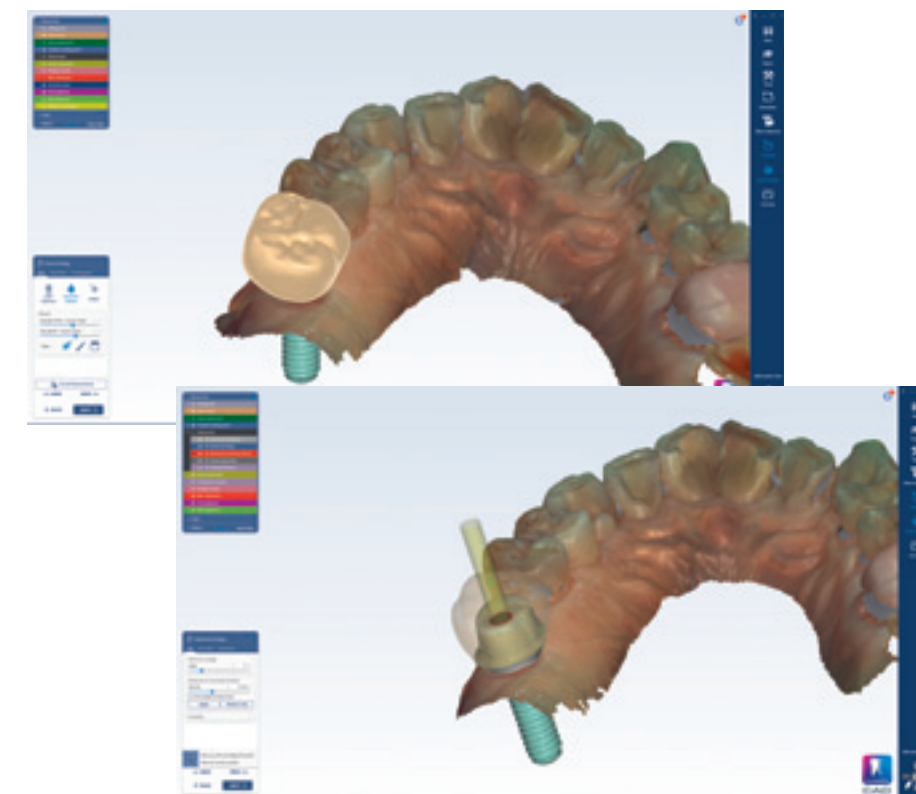
1 Capture digital impression

- Import a scan from the Planmeca Onyx™ Lab desktop scanner or from an intraoral scanner.
- or
- Receive a case from a dental practice using Planmeca Romexis® LabApp application.
- Launch the case in Planmeca PlanCAD Premium.



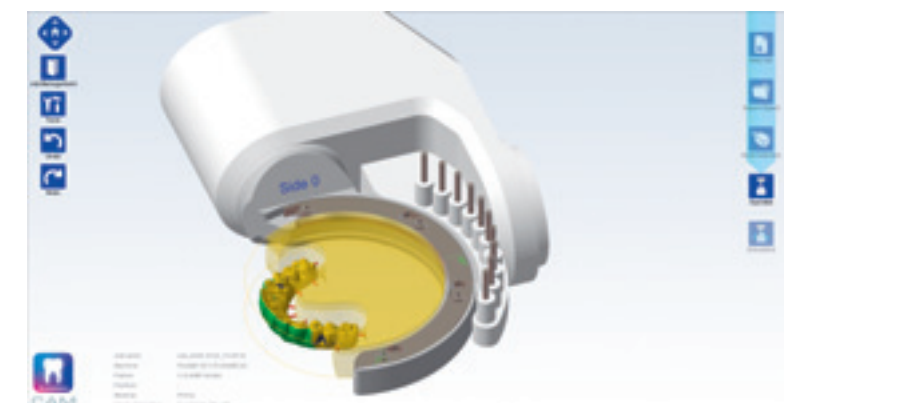
2 Design

- Design the restoration.



3 Manufacture

- Nest the restoration for milling.
- Send to a Planmeca PlanMill® 60 S milling unit for manufacturing.



Powerful solutions for dental manufacturing

Select the optimal solution for producing dental restorations from our comprehensive selection of powerful milling units or start manufacturing 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 restorations chairside. 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.

Planmeca PlanMill® 60 S

Specifically designed for dental technicians and 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® X

Add 3D printing to your dental manufacturing capabilities with Planmeca Creo® X, a reliable 3D printer targeted specifically for dentistry. The printer enables producing dental applications, such as surgical guides, dental models and dental restorations, easily and in a fraction of the usual time.

Chairside milling unit for dental practices

Planmeca PlanMill® 35 is a versatile milling unit for producing dental restorations directly at a dental practice. The unit supports both dry and wet milling, enabling the creation of high-quality chairside restorations with a precise fit for a wide range of clinical needs and from various milling materials.



Same-day convenience with chairside milling

Chairside milling is the key to offering single-visit restorative treatments to patients. With our **Planmeca PlanMill® 35** chairside milling unit, dental practices can produce a wide range of restorations efficiently in house, including crowns, inlays, onlays, veneers and smaller bridges, from a broad range of supported block materials.

Capable of wet and dry milling

With Planmeca PlanMill 35, you can easily switch between dry milling zirconia and wet milling a wide range of ceramic and composite materials. The unit utilises different milling strategies and speed for each material to suit their characteristics, which guarantees optimal fabrication and high-quality of the restoration. For dry milling zirconia, the unit is equipped with a suction system. The suction system is also available as a retrofit, so you can start with wet milling and add dry milling capabilities to your clinic later. The choice is yours!

Easy to operate

The integrated computer of Planmeca PlanMill 35 allows anyone of the dental staff to operate the milling unit independently and choose the milling priorities. The single-spindle unit mills both sides of a block quickly, and the linear motors and smart tool paths of the unit ensure all restorations fit precisely. The unit also automatically selects proper tools for each restoration and replaces worn or broken tools.

Available materials

Blocks	
GLASS CERAMICS	IPS Empress CAD
	IPS Empress CAD Multi
	VITABLOCS Mark II
	VITABLOCS TriLux forte
REINFORCED GLASS CERAMICS	IPS e.max CAD
	Straumann nIce
	VITA SUPRINITY PC
COMPOSITES	Telio CAD*
	Tetric CAD
	VOCO Grandio blocs*
REINFORCED COMPOSITES	COLTENE BRILLIANT Crios
	GC CERASMART
	VITA ENAMIC
	VITA ENAMIC multiColor
ZIRCONIUM DIOXIDE	IPS e.max ZirCAD
	IPS e.max ZirCAD MT Multi

* For temporaries and long-term temporaries.

Ivoclar Vivadent AG 0123 IPS e.max CAD 0123 IPS e.max ZirCAD
 0123 IPS e.max ZirCAD MT Multi 0123 IPS Empress CAD
 0123 Telio CAD 0123 Tetric CAD
 VITA Zahnfabrik 0123 VITA ENAMIC 0123 VITA ENAMIC multiColor
 0123 VITA Suprinity blocks 0123 VITABLOCS Mark II
 0123 VITABLOCS TriLux forte

Details in a nutshell

Processing	Wet and dry
Designed for	Dental practice
Number of high-speed spindles	1
Axes	4
Average milling time for molar crown (IPS e.max)	11–13 min
Automated tool changer	for 5 tools
Integrated control PC and touch screen	✓
Guided maintenance	✓
Tool wear indicator	✓
Suction system	✓
Send to Mill application for producing restorations designed in 3 rd party design software	✓

Institut Straumann AG 0123 Straumann nIce
 Coltène/Whaledent AG 0123 BRILLIANT Crios
 GC Europe N.V. 0086 GC CERASMART
 VOCO GmbH 0482 VOCO Grandio blocs

Powerful milling unit for laboratories and technicians

The 5-axis **Planmeca PlanMill® 60 S** milling unit is a powerful choice for wet and dry milling of discs, blocks, and implant abutments. Packed with several intelligent features, the milling unit can effortlessly fulfil even the most demanding tasks, offering an exceptional tool for dental laboratories, technicians, and dentists aiming to produce advanced dental restorations and applications in house.

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 producing various dental restorations, bite splints and dental models. The necessary tool path calculation is performed on an easy-to-use nesting software which guarantees a fast and easy workflow in the busy laboratory environment.

Versatile and predictable dental milling

Planmeca PlanMill 60 S supports a broad range of indications, offering an exceptional tool for dental laboratories, technicians, and dentists aiming to produce advanced dental restorations and applications in house. Besides restorations, the unit can also mill bite splints, custom implant abutments, bars, and partial frames. Seamless integration with **Planmeca PlanCAD® Premium** ensures milling parameters and instructions are directly transferred from the design software, leading to predictable results.

Precision for even the most demanding tasks

Planmeca PlanMill 60 S utilises five simultaneous axes to ensure highly accurate and aesthetic restorations. The unit supports various materials and material holders, which can be changed quickly and easily as needed. The quick clamping system also allows using a half-open blank holder, enabling the unit to mill even the most demanding anterior restorations with precision and detail.



Available materials

Blocks	
See page 33	
Discs	
STANDARD 98MM WITH SHOULDER	Zirconium dioxide
	PEEK
	PMMA
	Wax
	Cobalt-chrome
Other	
PREFABRICATED ABUTMENTS	Titanium
	Cobalt-chrome

Details in a nutshell

Processing	Wet and dry
Designed for	Dental laboratory
Number of high-speed spindles	1
Axes	5
Average milling time for molar crown (IPS e.max)	20 min
Automated tool changer	for 10 tools
Integrated control PC and touch screen	✓
Guided maintenance	✓
Tool wear indicator	✓
Material holder	Interchangeable clamping fixtures
Suction system	✓

Reliable 3D printer for dentistry

Designed specifically for dental clinics and laboratories, **Planmeca Creo® X** 3D printer offers industry-leading precision, reliability, and smooth workflows from start to finish. Supporting a wide selection of validated printing materials, Planmeca Creo X ensures consistent, high-quality results across a broad range of dental applications from restorations to surgical guides and night guards.



Designed for dental use

Planmeca Creo® X dental 3D printer is the result of over a decade of experience in 3D printing, shaped by a deep understanding of clinical workflows and practical needs of dental professionals. Every detail of the printer has been carefully engineered to deliver consistent, high-quality prints while meeting the requirements of dental applications.

Unmatched printing accuracy

Planmeca Creo X delivers industry-leading printing precision, making it ideal for even the most demanding dental cases. Its advanced LED light source, combined with a distortion-free LCD panel, ensures uniform exposure and highly detailed results. The printer's durable mechanical design and robust aluminium body provide exceptional stability, maintaining consistent performance with every print.

High-quality printing materials

Planmeca Creo X users have access to an extensive selection of 3D printing materials from various established manufacturers. The wide range of available resins allows dental professionals to print all components they need for their workflows, including temporary and permanent restorations, surgical guides, splints, night guards, and dental and orthodontic models. Each resin has been thoroughly validated for compatibility with the printer and meets the necessary regulatory requirements.



Available materials

SURGICAL GUIDES	FotoDent guide KeyGuide
PERMANENT RESTORATIONS	VarseoSmile Crown plus VarseoSmile TriniQ
TEMPORARY RESTORATIONS	VarseoSmile Temp
DENTURES	VarseoSmile Teeth
TRIAL DENTURES	KeyDenture Try-In
DENTURE BASES	FotoDent denture
SPLINTS AND NIGHT GUARDS	KeySplint Soft KeySplint Hard

DENTAL AND ORTHODONTIC MODELS	FotoDent model2 KeyModel Ultra Ivory KeyModel Ultra Light Grey
GINGIVA SEGMENTS IN DENTAL MODELS	FotoDent gingiva
BLEACHING TRAYS	KeySplint Soft
IMPRESSION TRAYS	FotoDent tray
INDIRECT BONDING TRAYS	FotoDent IBT



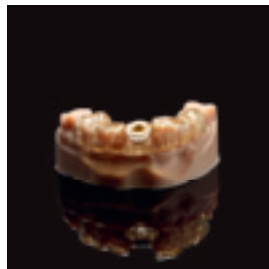
From scan to smile – with Planmeca PULSE™

Planmeca PULSE™ is a fresh approach to digital dentistry that simplifies workflows for both dental practices and laboratories. At the core is a digital scan that unlocks a wide range of treatment options. With seamless data transfer and a unified ecosystem, every case moves smoothly from start to finish – saving time, minimising errors, and supporting excellent clinical outcomes.



Patient requires a crown

- Scan with **Planmeca Onyx™**
- Design crown with **Romexis®**
- Manufacture the crown with **Planmeca PlanMill® 35** or **Planmeca Creo® X**



Patient needs an implant

- Capture a 3D image with Planmeca CBCT unit
- Scan with Planmeca Onyx
- Create implant plan proposal and design surgical guide with Romexis
- Manufacture the surgical guide and temporary restoration with Planmeca Creo X
- Create permanent crown with **Planmeca PlanMill® 60 S** or Planmeca Creo X



Patient requests clear aligner treatment

- Capture cephalometric image with Planmeca imaging unit
- Scan patient with Planmeca Onyx
- Simulate orthodontic treatment results with Romexis
- Add a base into the digital impression to print dental and setup models with Planmeca Creo X
- Send case to **HeySmile®** clear aligner service



Patient needs a night guard for bruxism

- Scan with Planmeca Onyx
- Send the scan to **Planmeca PlanCAD® Premium** software to design a splint
- Manufacture the night guard with Planmeca Creo X



Patient needs a bridge between two implants

- Scan impression with **Planmeca Onyx™ Lab**
- Design restoration with Planmeca PlanCAD Premium
- Manufacture the bridge with Planmeca PlanMill 60 S

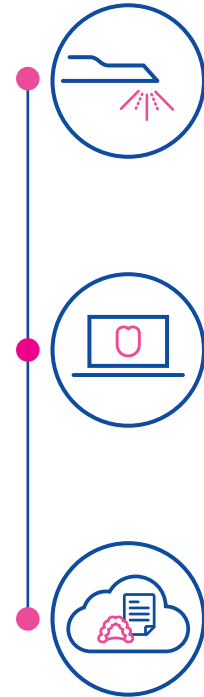


Seamless chairside workflow

With Planmeca CAD/CAM solutions, dental practices can choose the workflow that best suits their needs. You can either scan digital impressions and collaborate with external partners, or complete the entire restorative process in-house. Our chairside solution provides all the tools you need for a smooth, fully digital workflow.

Scan and collaborate with partners

With **Planmeca PULSE™**, your digital workflow starts from capturing intraoral scans with **Planmeca Onyx™**. Review and analyse the scans, then send them to your partner laboratory for restoration design. If you offer clear aligner treatments, use the intraoral scans to simulate orthodontic treatment outcomes and share them easily with providers such as **HeySmile®**. Whichever path you choose, you will save significant time and resources compared to conventional methods.

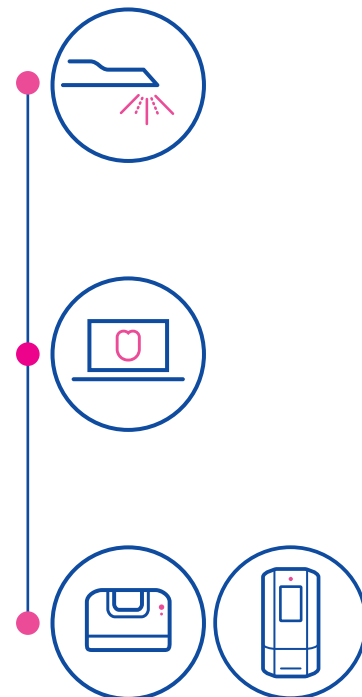


Key benefits

- Fast and accurate intraoral scanning
- One software for various digital workflows
 - Scan data stored and directly available in all Romexis workstations
 - Intuitive tools for viewing and analysing the scans, simulating orthodontic treatment outcomes, and designing restorations
 - Allows combining scans with other clinical data for smile design, implant planning and surgical guide design
- Efficient chairside manufacturing with Planmeca milling units or 3D printers
- One-click data transfers to laboratories and cloud portals

Scan and provide same-day restorations

Take efficiency to the next level by completing the entire restorative workflow in-house with Planmeca PULSE. After scanning, design restorations within the same software and share data instantly across all workstations connected to the **Romexis®** database. Manufacturing parameters transfer seamlessly to milling units and 3D printers, ensuring a precise fit and exceptional results.



Streamlined laboratory workflow

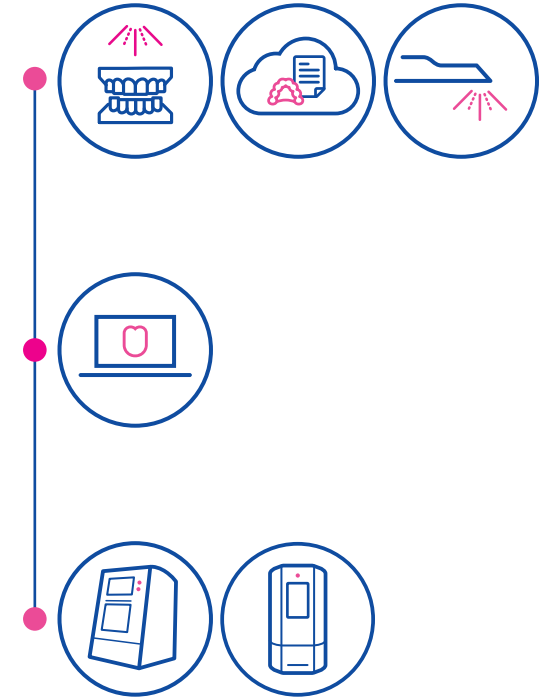
Planmeca provides cutting-edge tools for dental technicians, labs and in-house laboratories – from high-precision desktop scanner and advanced design software to a powerful 3D printer and a dedicated milling unit. Built on an open platform, they can be easily integrated into your existing workflows.

Integrated digital workflows

With **Planmeca PULSE™**, dental laboratories can benefit from a streamlined digital workflow where every step is seamlessly connected. Digital impressions transfer directly to **Planmeca PlanCAD® Premium** software for the design of prosthetic works and appliances – whether captured with the **Planmeca Onyx™ Lab** model scanner or launched from the **Romexis®** software. Once the virtual designs are finalised, all details and production parameters are seamlessly transferred to the **Planmeca PlanMill® 60 S** laboratory milling unit and **Planmeca Creo® X** 3D printer for precise, high-quality manufacturing.

Easy communication with dental practices

Planmeca CAD/CAM solutions fit perfectly into any lab environment – whether you adopt the entire workflow or select only the components you need. Thanks to open interfaces and file formats, you can easily export cases and intraoral scans in STL or PLY formats. To ensure smooth collaboration, our free **Planmeca Romexis® LabApp** enables secure, hassle-free communications and data transfers between dental practices and laboratories.



Key benefits

- Accurate digital model scanning with direct integration into CAD software
- Secure data transfers with Planmeca Romexis LabApp
- Sophisticated treatment planning and design
- Precise manufacturing of dental restorations and appliances with a Planmeca milling unit or 3D printer
- Seamless integration of software and devices for uninterrupted workflows
- Support for even the most complex cases

Technical specifications

Intraoral scanner

	Planmeca Onyx
Indications	Capturing digital impressions: Single tooth Full arch Bite records Scan bodies Dental models and impressions Taking 2D snapshots
Scanning technology	Projected pattern triangulation with actively heated tip
Light source	Red, green, and blue LED
Scanning software	Planmeca Romexis (6.5.2 or newer)
Operation	Wireless and wired
Setup options	Connected to any Romexis workstation in the clinic network after a one-time setup on one computer Connected to Planmeca Imprex
Data output	STL and PLY files
Scanning tips	Autoclavable scanning tips in two sizes: Standard and SlimLine
Dimensions (scanner with tip and battery)	45 x 43 x 292 mm (1.77 x 1.69 x 11.5 in.)
Weight	Scanner with tip and battery: 286 g (10.1 oz) Scanner with tip and cord: 333 g (11.75oz)
Connectivity	LAN & wireless (Wi-Fi 5, 6 and 6E)
Batteries	Up to 45 min scanning time / 8 h standby per battery. Three batteries and charger included.
Cable interface	Dedicated cable. Laptop connection through USB-C.
Recommended PC system requirements	See planmeca.com

 Planmeca
CE  Planmeca Onyx

Scanning station

	Planmeca Imprex
Power requirements	100/240 VAC
Mains frequency	50/60 Hz
Power input	300 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

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3D printer

	Planmeca Creo X
Open import	STL, PLY
Printing technology	Monochrome LCD (MSLA)
Resin temperature control	Integrated PTC heater
Indications	Surgical guides Temporary and permanent restorations Trial and final dentures Denture bases Splints and night guards Dental and orthodontic models Gingiva segments in dental models Bleaching trays Impression trays Indirect bonding trays
Build area	130 x 80 x 120 mm (5.1 x 3.1 x 4.7 in.)
Dimensions	Ø 300 mm (11.8 in.), h 500 mm (19.7 in.)
X,Y resolution	34 µm
Z resolution	25–100 µm
Weight	32 kg (70.5 lbs)

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CE  Planmeca Creo X

Desktop scanner

	Planmeca Onyx Lab
Dimensions when closed (W x H x D)	431 x 432 x 398 mm (16.97 x 17 x 15.7 in.)
Weight	20 kg (44 lbs)
Scanning modes	Colour and monochrome texture models Articulators Impressions Orthodontic projects Multi-die
Accuracy (according to ISO 12836)	4 µm
Light source	Blue LED light
Scanning technology	Stripe light triangulation, 2 x 3.2 MP cameras
Scanning area XYZ (max. object size)	80 x 60 x 85 mm (3.15 x 2.36 x 3.35 in.)
User interface	5.7" touchscreen
Software	Full integration with Planmeca PlanCAD® Premium
Export file format	STL, PLY
Operating system	Windows
Voltage	100–240 V
Mains frequency	~ 50/60 Hz
Power input	60 W
Storage temperature	5–50 °C (41–122 °F)
Operating conditions	18–30 °C (64–86 °F) 40–60% relative humidity 80% maximum humidity

 smart optics Sensortechnik GmbH
CE  Planmeca Onyx Lab

Milling units

	Planmeca PlanMill 35	Planmeca PlanMill 60 S
Wet/dry milling	Wet and dry	Wet and dry
Indications	Inlays/onlays Veneers Crowns Smaller bridges	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/m³	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/m³
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

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 imes-icore GmbH
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CAD/CAM software

	Planmeca Romexis CAD/CAM	Planmeca PlanCAD Premium
COMPARISON		
Intraoral scanning	✓	
Comparison of scans	✓	
Base creation for 3D-printable models	✓	✓
Creating lab order forms (PDF)	✓	
Restoration design	✓	✓
Bolton and space orthodontic analyses	✓	
Orthodontic simulations	✓	
Tooth width, arch length and free measurements	✓	
COMPATIBILITY		
Import file formats	STL, PLY	STL, PLY, OBJ
Export file formats	STL, PLY	STL, PLY
Interfaces	CAD Software Planmeca PlanCAD Premium 3Shape exocad Cloud portals Romexis Cloud HeySmile DDX Dental TruAbutment 3D printing software Planmeca Creo Studio SprintRay	Scanning / CAD software Planmeca Romexis 3M True Definition exocad iTero TRIOS Nesting software Planmeca PlanCAM Planmeca Creo Studio
INDICATIONS FOR RESTORATION DESIGN		
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		✓
LICENCES		
Licence options	Scan (scan, margin, analyse, send) Design (scan, margin, design, mill, analyse, send) Ortho Simulator (scan, margin, analyse, simulate, send) Complete (scan, margin, design, mill, analyse, simulate, send)	Basic licence Basic Crown and Bridge Design Provisional Crown Design Virtual Articulator & TruSmile ZRS Tooth Library Implant & Bar Design DICOM Viewer Optional add-on modules to Basic licence Model Creator Smile Creator Full Denture PartialCAD Bite Splint Jaw Motion Import Full licence with all available modules
Software updates	Included in licence Optional major version upgrades	Optional yearly upgrades
COMPUTER REQUIREMENTS		
Recommended computer system requirements	See planmeca.com 	See planmeca.com 

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CE 0598  Planmeca Romexis

 PlanSmile SL
 HeySmile



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

Asentajankatu 6 | 00880 Helsinki | Finland | tel. +358 20 7795 500 | fax +358 20 7795 555 | sales@planmeca.com | www.planmeca.com

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All in one, Anatomat Plus, Cobra, Comfy, DentoVac, Digital perfection, Economat Plus, Elegant, Flexy, Mini-dent, Perio Fresh, PlanEasyMill, Planmeca 4D, Planmeca AINO, Planmeca ARA, Planmeca CAD/CAM, Planmeca CALM, Planmeca Cariosity, Planmeca Chair, Planmeca Clarify, Planmeca Cleanic, Planmeca ClinicPatrol by BWT, Planmeca Compact, Planmeca ConBo, Planmeca CORE, Planmeca Creo, Planmeca Emerald, Planmeca FIT, Planmeca Halo, Planmeca Imprex, Planmeca Intra, Planmeca Insights, Planmeca iRomexis, Planmeca Lumion, Planmeca Lumo, Planmeca Maximity, Planmeca Minea, Planmeca Minendo, Planmeca Minetto, Planmeca mRomexis, Planmeca Noma, Planmeca Olo, Planmeca Online, Planmeca Onyx, Planmeca Patrol by BWT, Planmeca Piezon, Planmeca PlanCAD, Planmeca PlanCAM, Planmeca PlanClear, Planmeca PlanDesk, Planmeca PlanID, Planmeca PlanMill, Planmeca Planosil, Planmeca PlanPure, Planmeca PlanScan, Planmeca PlanView, Planmeca Pro40, Planmeca Pro50, Planmeca ProCeph, Planmeca ProFace, Planmeca ProID, Planmeca ProMax, Planmeca ProModel, Planmeca ProOne, Planmeca ProScanner, Planmeca ProSensor, Planmeca ProX, Planmeca PULSE, Planmeca Romexis, Planmeca Serenus, Planmeca SingLED, Planmeca SmartGUI, Planmeca Solanna, Planmeca Somia, Planmeca Sovereign, Planmeca Ultra Low Dose, Planmeca Verity, Planmeca Vision, Planmeca Viso, Planmeca Waterline Cleaning System, Planmeca Xtremity, Proline Dental Stool, ProTouch, Saddle Stool, SmartPan, SmartTouch, Trendy, and Ultra Relax are registered or non-registered trademarks of Planmeca in various countries.

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