A system for every eventuality

FLEXIBILITY. CEREC can be easily adapted to the individual requirements of dental practices. The outcome of many years of continuous technical development, the sophisticated dental CAD/CAM system is geared to a broad spectrum of applications. This also opens up completely new perspectives for in-house dental labs.

When you choose CEREC you keep all your options open. Thanks to its unique versatility, the CEREC system can be tailored exactly to the individual requirements of dental practices. In nearly all cases the dentist is in a position to offer conservative, interim–on–free treatment, as well as aesthetic, clinically proven ceramic restorations of a high quality.

The CEREC Connect portal is the perfect stepping–stone to CAD/CAM dentistry. Above all the dentist can maintain his proven mode of collaboration with an external dental laboratory. The dentist concentrates on the treatment process – i.e. prepares the tooth, acquires a digital impression and then uploads the data to CEREC Connect as a basis for delegating the production process to the dental lab. However, if the dentist decides to purchase a CEREC MC X1 milling unit in addition, he will also be in a position to offer a complete spectrum of chairside restorations, ranging from single crowns to temporary and small-span bridges.

The combination of Sirona’s CEREC and 3D X-ray technologies is the ideal choice for implantology specialists and delivers clear benefits in terms of planning, reliability, convenience as well as effective communication with patients. Dental practices with their own in–house laboratories likewise benefit from the versatility of the CEREC system. Depending on the specific clinical indication, practice workflow and the aesthetic expectations of the patient, the dentist has the option of involving the dental technician directly in the treatment process. The individual processing steps can be seamlessly integrated, thus ensuring optimum capacity utilization within the practice and dental laboratory. This in turn leads to improved cost–effectiveness and a rapid return on investment.

Users and patients benefit from the continuous development of the CEREC system allows the dentist to mill an anatomically sized, multi–unit bridge out of a single ceramic block. With the aid of the inFire HTC speed furnace it is possible to sinter inCoris TZI with such outstanding rapidity that bridge restorations can be created and incorporated in just one treatment session. In the light of these developments it is true to say that CEREC is a system for every eventuality.

Worry-free package for CEREC Club members

SERVICE. The new “CEREC Club Select” package offers attractive benefits to users.

A bird P. Sloan, the former President of General Motors, put it in a nutshell: “A car is only as good as its after sales service”. This adage underlines the importance of continuous and meticulous maintenance in safeguarding the optimum performance of high–value capital goods.

Against this background Sirona has redefined the scope of its long–standing CEREC Club service package based on the requirements of users in different countries worldwide. In both the USA and Canada existing CEREC Club conditions remain valid. Geared specifically to the requirements of new users, the new “CEREC Club Select” package offers several attractive advantages – for example, access to all software upgrades/updates, plus an extended two-year parts warranty for one CEREC AC unit and up to two milling machines (i.e. on top of Sirona’s standard one–year warranty). In addition, CEREC Club distributes special service kits and offers discounts on selected applications e.g. the OPEN GALILEOS implant interface.
Advanced CAD/CAM technology now indispensable in today's digital world

SOFTWARE. The CEREC 4.0 software streamlines chairside procedures and simplifies teamwork with the dental laboratory. Dr. Gerhard Werling demonstrates this with an anatomically sized bridge.

“I now trust modern dental treatment methods.”

PATIENT. CEREC patients like Nicole B. value the convenient treatment workflow, as well as the outstanding aesthetics of ceramic materials.

My last major dental treatment was very unpleasant,” said Nicole B. Several years previously she had received a conventional bridge restoration, and could still clearly remember the highly unpleasant impression-taking procedure. “The rubbery material made me gag as when the dentists removed the impression tray I felt as if he was tearing out my entire jaw.”

The CEREC procedure is ideal for anxious patients like Nicole B. – the bridge was created. The teeth are scanned optically with virtually no physical contact. “When my bridge fractured, I was very pleased to hear about the unique advantages of the CEREC procedure.”

Only seconds after Dr. Werling had acquired the necessary digital impressions, Nicole B. was able to view a 3D model of her teeth. She was fascinated and discovered that this model would then serve as the basis for fabricating a new bridge in the dental lab.

“Dr. Werling suggested a bridge made of ceramic material, and I immediately agreed. I was convinced that the ceramic material is very strong and does not need a separate veneer facing,” Nicole B. explains. “All-ceramic bridges are lighter than metal bridges and resistant to chipping and fractures. A dental technician then determined the exact color of my existing teeth on the basis of ceramic samples, and confirmed that the ceramic material can be individually shaded in order to achieve a perfect fit.”

“We are now in a position to create and place computer-machined, manually characterized restorations (onlays, partial crowns and crowns) in a single treatment session. This service has proved to be particularly popular with busy professionals and commuters in the local region. Alongside crowns and bridges we also fabricate superstructures for implant-borne prostheses, as well as telescopic primary crowns with parallel milling for combined prostheses. Following preparation of the teeth and the acquisition of digital impressions, the design and milling processes are performed in the laboratory.”

“By now I trust modern dental treatment methods.”

With the aim of achieving optimum aesthetic results the dental technician can choose between different ceramographic density ranges and/or deploy dentin-like shading products for bridge frameworks. As restorations design, aesthetic fine-tuning and functional evaluation all take place under a single roof, we save an enormous amount of time – see following case study. I can devote this time to intensive patient counselling and to the preparation of difficult surgical interventions.

Anatomically sized bridge milled out of translucent zirconium oxide with inLab 4.0

In this case I began by removing a defective veneered bridge. My assistant acquired scans of the opposing jaw and created a virtual bicuspid bite registration. I was then responsible for scanning the available data in order to mill a polymer model for the articulator. With the aim of achieving optimum aesthetic results the dental technician can choose between different ceramographic density ranges and/or deploy dentin-like shading products for bridge frameworks. As restorations design, aesthetic fine-tuning and functional evaluation all take place under a single roof, we save an enormous amount of time - see following case study. I can devote this time to intensive patient counselling and to the preparation of difficult surgical interventions.

inCoris TZI is a tooth-colored, semi-transparent zirconium oxide, that can be milled to full anatomical dimensions.

New software simplifies teamwork

Released in the summer of 2011, the new CEREC 4.0 software represents a major step forward. For example, we can now process and functionally coordinate several restorations in parallel. The workflow is divided into five clearly defined phases. The eye and mouse movements are much shorter. The software is easy to operate, thanks to the self-explanatory icons and the location of the tools on the intuitive user interface. The user can evaluate the functional characteristics of the virtual model in advance. In many cases the accuracy of fit is superior to that of conventional impressions and stone models.

The new 4.0 software version facilitates the closer integration of clinical and laboratory procedures. The processing steps are clearly structured and thus streamline collaboration with the dental technician. The scanning data of the jaw arch and the antagonists is transmitted directly to the laboratory via our practice network. This means that the technician can determine the functional paths and contacts at an early stage, without the need for a physical working model. As a result, non-veneered restorations can be created on the basis of the virtual model. In the case of veneered restorations we process the available data in order to mill a polymer model for the articulator. With the aim of achieving optimum aesthetic results the dental technician can choose between different ceramographic density ranges and/or deploy dentin-like shading products for bridge frameworks. As restorations design, aesthetic fine-tuning and functional evaluation all take place under a single roof, we save an enormous amount of time - see following case study. I can devote this time to intensive patient counselling and to the preparation of difficult surgical interventions.

To sum up I can confirm that CEREC is the only universal CAD/CAM system which caters for chairside restorations and labside restorations on the basis of a seamless software concept – either under a single roof as in our case, or at separate locations. Working with such a system is great fun – and absolutely indispensable in today’s digital world. The outstanding convenience of CEREC has been further enhanced by the new CEREC 4.0 software. I have more time at my disposal for intensive patient counselling and for the preparation of challenging surgical interventions. This delivers both clinical and economic benefits.
CEREC is “Made in Germany”

PRODUCTION. Components of the CEREC system are manufactured at Sirona’s factory in Bensheim, Germany. “Made in Germany” is an internationally recognized seal of quality. In the following interview Sven Redemund, Manager of Production and Component Sourcing in Sirona’s CAD/CAM Division, explains the company’s “quality-first” approach.

Assuming that I order a CEREC AC acquisition unit today – how and where would Sirona manufacture this product?

Redemund: Components of the CEREC system are produced at our factory in Bensheim, Germany. When a customer orders a CEREC AC, it is assembled according to his or her individual wishes.

How long does this take?

Redemund: Our fitters need approximately four days to produce a CEREC AC, including all the country-specific components and individual extras for the customer. But this is only part of the order process. Approximately two to four weeks usually elapse between the receipt of initial order and the delivery of the finished product. When the order books are full, delivery times can be longer, due to the limited availability of material and personnel capacity. However, our sales team usually manages to anticipate the order situation so that we can plan ahead.

How do you ensure that each machine functions perfectly?

Redemund: Firstly, we order materials and prefabricated components only from suppliers who can guarantee high quality and have the necessary technological expertise. For example, we order mechanical components in Germany and Switzerland, and computer monitors in Asia. New suppliers are specially qualified before their components enter the production process. In addition, our production staff in Bensheim receive continuous training, thus ensuring that they can manufacture each product in accordance with the latest requirements. Finally, each CEREC product is thoroughly tested before it leaves our factory.

How do you test the products?

Redemund: Each product is tested individually and then as part of the CEREC system – for example, the CEREC AC is tested in combination with the CEREC MC XL milling unit. In the case of the CEREC AC we simulate the complete design process on the basis of a crown. In this way we ensure that the camera is functioning properly. To test the precision of the milling machine we process a trial workpiece – a so-called pyramid.

Sirona’s products are being continuously developed and enhanced. Is the concentration of expertise in Bensheim an advantage in this respect?

Redemund: Yes, without a doubt. Despite the fact that we work in different departments – i.e. Technology, Development and Production – we collaborate closely. This speeds up decision making and allows us to respond to complex challenges flexibly and quickly. The continuous communication between departments means that each member of staff can contribute his or her special knowledge. In this way we are able to continuously optimize our products and production processes, thus enabling us to maintain continuously high quality standards.

Beautifully profitable!

My Lava™ Ultimate Chairside Crown

• High productivity – true chairside workflow, no post-firing.
• Outstanding strength – tough and resilient, more durable than feldspathic glass ceramics.
• Functional performance – less wear to opposing enamel than glass ceramics, not brittle like glass.
• Lifelike aesthetics – brilliant and long-lasting polish.

3M ESPE. Passionate about quality.

www.3MESPE.com

Products – especially technical products – labelled “Made in Germany” have a worldwide reputation for quality. What is the reason for this?

Redemund: At Sirona we attach top priority to high-quality workmanship and cooperate with reliable partners. Training of skills and motivation are crucial factors. For this reason new employees receive extensive practical instruction in our own training workshop before they are allowed to work independently. Each new employee is supported by a “mentor” who is always on hand to answer questions and provide guidance. Up to 15 persons are involved in the assembly of a complex product such as a CEREC AC acquisition centre or a CEREC MC XL milling unit. Each of these persons has their own area of specialist expertise. The product progresses from station to station until it finally reaches completion. Each member of the production team contributes to the creation of a top-quality product. In my view the combination of highly skilled staff, many years of experience and continuous product development ensures that the label “Made in Germany” fulfills the promised quality standards.
Many roads lead to CAD/CAM technology

CEREC Connect – the perfect stepping stone to dental CAD/CAM

CEREC Connect allows both dentist and dental technician to maintain their established mode of working and at the same time reap the benefits of CAD/CAM technology. With the aid of the CEREC Bluecam, the dentist acquires digital impressions of the patient’s teeth and transmits this data to the dental technician. The latter is responsible for designing and fine-tuning the restoration. CEREC Connect has now become an integral part of Gregor Findes’ treatment concept.

Indications
With external support: crowns, inlays, onlays, veneers, temporaries, bridges, bridge frameworks, implant abutments, models, wax-ups for gold castings

Materials
Feldspar and glass ceramics including polychromatic blocks, lithium disilicate ceramics, polymers

Equipment
CEREC Connect

Benefits
• Optimum workflow in the case of complex indications
• Simple and fast digital collaboration

Capital outlay

Value added

Degree of control

Specialist knowledge

Prestige

CEREC Chairside – aesthetic all-ceramic restorations in a single treatment session

The dentist performs the entire restoration process - acquisition of digital impressions, design, milling, characterization, placement - during a single appointment. CEREC Chairside users require the services of a dental technician only in the case of complex indications. Dr. Michael Maier has been using CEREC since 1998 and is pleased that this treatment method is so popular with his patients.

Indications
Single-tooth restorations - crowns, inlays, onlays, veneers - and temporary bridges with up to four units

Materials
Feldspar and glass ceramics including polychromatic blocks, lithium disilicate ceramics, polymers

Equipment
CEREC MC XL milling unit

Benefits
• Complete treatment during a single appointment
• Time savings

Capital outlay

Value added

Degree of control

Specialist knowledge

Prestige

Pooling professional skills

COLLABORATION. By pooling their professional skills and knowledge, dentists and dental technicians can contribute significantly to the health and well-being of their patients. Such collaboration is particularly effective when the dental technician works directly on the practice premises. However, not all dentists have the time to individualize and characterize inlays, onlays, crowns and veneers. In such cases we work closely with our in-house dental laboratory. This means that we can capitalize on the special skills of our dental technicians and offer our patients restorations that are clinically and aesthetically perfect.

In the case of a typical crown restoration we proceed as follows: the dentist prepares the tooth, scans the intraoral situation with the CEREC Bluecam, designs the restoration and initiates the milling process. The trying of the milled restoration is performed jointly by the dentist and dental technician. The latter can accurately assess the intraoral situation and the patient’s general appearance, determine the shade of the adjacent teeth in “real life” i.e. without colour distortions encountered in photographs and then individualize the restoration accordingly. During the individualization phase the dentist can focus his attention on other patients. This has significant financial benefits. The dentist is free to concentrate on providing treatment and thus maximize his revenues. Tasks such as individualization are best performed by a specialist dental technician. After the restoration has been placed the dentist and the technician jointly assess the final result from a clinical and aesthetic viewpoint. This is especially important in the case of veneers.

Dr. Wilhelm Schweppe set up his dental practice in 1987 and is a certified CEREC trainer and instructor.

In addition to providing assistance with chairside restorations, the technician fabricates all other restoration types in the dental lab. Here as well, this entails close collaboration between the dentist and the dental technician. The technician produces the bulk of the restorations with the aid of the CEREC MC XL and inLab MC XL milling machines. The laboratory operates cost-effectively. In particular, the milling units are utilized to full capacity, thus ensuring a rapid return on investment. On the one hand, patients receive custom-made restorations – fabricated jointly by two competent professionals – in the shortest possible time. On the other hand, the dental practice works more efficiently and is not compelled to delegate value-adding activities to an external laboratory.

FLEXIBILITY. Around 5,000 kilometers separate the rural dental practice in Otjiwarongo, a small town with 35,000 inhabitants in Namibia, and the specialist role, together with areas of specialization and the local clientele. Nevertheless, CEREC figures prominently in both dental practices – and in many other dental practices identified. These are described here.
Implantology

The implantology practice in London’s city centre. These two practices are also worlds apart in terms of their treatment concepts. The location plays a decisive role in dental practices worldwide. CEREC is a system that dental professionals can tailor to their individual requirements. However, four basic configurations can be identified. These are described here.

In-house dental lab – the “all-in-one” concept

- Indications: In-house: crowns, inlays, onlays, veneers, temporaries, bridge frameworks, as well as all-ceramic and non-precious-metal bridges, implant abutments, models, wax-ups for gold castings
- Materials: Feldspar and glass ceramics, lithium disilicate, oxide ceramics, infiltration ceramics, polymers, inFireDent: non-precious metal alloys and titanium
- Equipment: CEREC AC, MC XL milling machine, inFire HTC speed furnace
- Benefits: Close collaboration between the dentist and the dental technician, Pooling of professional know-how
- Capital outlay
- Value added
- Degree of control
- Specialist knowledge
- Prestige

EVE polishes inCoris TZI to mirror-like finish

EVE Diacera diamond polishers for inCoris TZI

EVE for all-zirconia restorations

more informations: www.eve-rotary.com

CEREC meets 3D – high-tech solution for an extended treatment spectrum

- Indications: Single-tooth restorations - crowns, inlays, onlays, veneers - and temporary bridges, implant abutments, surgical guides
- Materials: Feldspar ceramics, glass ceramics, lithium disilicate, polymers
- Equipment: CEREC AC, GALILEOS or ORTHOPHOS XG 3D, MC XL milling machine
- Benefits: Reliable planning, Ability to fulfill exacting demands, Differentiation from other practices
- Capital outlay
- Value added
- Degree of control
- Specialist knowledge
- Prestige

CEREC is also geared to the requirements of specialist dental practices and clinics. In combination with Sirona’s CBCT systems CEREC provides the basis for “integrated implantology”. In this way it is possible to carry out prosthetic and surgical planning simultaneously. In addition to fabricating crowns and bridges, Carlo Raimondo places around 300 implants per year. CEREC PLUS aids communication: the patient is in a better position to understand the planned treatment procedure.

Dr. Carlo Raimondo: “Thanks to integrated implantology, surgical interventions are much simpler and safer. I know right from the beginning what the final outcome will be.”

Dr. Bernhild-Elke Stamnitz: “Collaborating with my in-house dental technician couldn’t be more simple: no long telephone calls, no additional appointments for my patients in the case of queries. Direct communication streamlines my workflow enormously.”

FLEXIBILITY.

Around 5,000 kilometers separate the rural dental practice in Otjiwarongo, a small town with 35,000 inhabitants in the region of Oshana, Namibia, from Sirona’s manufacture in Loderitz. These two practices are also worlds apart in terms of their treatment concepts. The location plays a decisive role, together with areas of specialization and the local clientele. Nevertheless, CEREC figures prominently in both practices. This system is a system that dental professionals can tailor to their individual requirements. However, four basic configurations can be identified. These are described here.

Dentists who operate their own in-house dental laboratories can combine the benefits of CEREC Connect and CEREC Chairside. In this way they are able to provide an extended range of treatment services. For several years Dr. Bernhild-Elke Stamnitz has treated up to six patients a day with restorations fabricated by his in-house laboratory.

Dr. Bernhild-Elke Stamnitz: “Collaborating with my in-house dental technician couldn’t be more simple: no long telephone calls, no additional appointments for my patients in the case of queries. Direct communication streamlines my workflow extraordinarily.”

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Guided implantology

**OVERVIEW.** Implantology specialists can choose between three different methods for producing surgical guides. Dr. Lutz Ritter explains the differences.

Dr. Lutz Ritter is employed at the Clinic for Maxillofacial Surgery, Oral Surgery and Implantology at Cologne University.

The central production of surgical guides by SICAT is recommended for complex prosthetic setups. In all other cases, the dentist can use the CLASSICGUIDE method. In other words, he acquires digital impressions of the patient’s dentition and generates a prosthetic proposal using the CEREC system. The design data is then transmitted to SICAT. This has logistical advantages compared with the CLASSICGUIDE method. In both cases the user benefits from SICAT’s central quality management system. Each set of planning data is checked for anomalies and errors (see the interview with Jochen Kusch). On the other hand, the dentist has to allow for SICAT’s delivery times and cannot retain the entire value-adding process in-house. The CEREC Guide method is better suited to smaller and simpler cases (see the article by Andreas Bindl). This new technology offers an incentive to dentists to place more implants, due to the fact that they can create CAD/CAM surgical guides on their practice premises without the need for external assistance.

As outlined above, the chosen method for producing surgical guides depends on the specific clinical indication and the equipment which is at the user’s disposal. All three methods encourage the dentist to devote closer attention to the case in hand. The integrated visualization of prosthetic and anatomical information provides the basis for improved implant planning and more effective patient counselling. Dentists who operate their own in-house dental labs are in a position to perform the decisive steps on the premises. In addition, an in-house lab results in an optimum workflow. The dental technician can perform numerous tasks and thus significantly reduce the dentist’s workload.

Dr. Lutz Ritter explains the difference between the OPTIGUIDE and CLASSICGUIDE methods.

In-house surgical guides

**INDIPENDENCE.** In the near future CEREC users will be able to produce surgical guides in-house. The Zurich-based dentist Dr. Andreas Bindl describes the process as follows.

Surgical guides enhance the safety and reliability of implant insertion procedures. For some time now CEREC users have been in a position to benefit from the new CEREC Guide process. Firstly, the user begins by creating a so-called scanning template. To this end he heats a thermo-plastic material until it becomes soft and pliable and applies it to the tooth he wants to move. As the heated material hardens, CEREC Guide gives the dentist greater confidence.

In particular inexperienced implantologists are now able to create guided pilot drill holes.

SICAT surgical guides simplify implantation procedures

**ENHANCED SAFETY AND RELIABILITY.** Implantology demands absolute precision. Surgical guides provide optimum support for implant specialists. Jochen Kusch, Director of Marketing and Sales at SICAT, explains the details.

**Surgical guides enhance the safety and reliability of implant insertion procedures. For some time now CEREC users have been in a position to benefit from the new CEREC Guide process.**

A CLASSICGUIDE surgical guide is fabricated with a thermoformed stent from a conventional impression. The finished surgical guide consists of the CAD/CAM surgical guide and the scanning template. The In-house surgical guide costs only half as much.

The patient wears the scanning template during the 3D X-ray procedure.

More often than you may think. I would say that SICAT contacts the dentist in approximately 30% of all cases. Dentists have the option of sending OPTIGUIDE. A further option is CLASSICGUIDE. The surgical guide is then created on the basis of the radiograph with the aid of a five-axis CNC milling machine. Alternatively, SICAT fabricates the surgical guide on the CEREC system. SICAT documents the accuracy of each planning procedure and for conventional impressions has significant benefits for the patient and the dentist. The procedure is

In the case of non-existent or insufficient residual dentition the CLASSICGUIDE method is employed at the Clinic for Maxillofacial Surgery, Oral Surgery and Implantology at Cologne University.

SICAT fabricates an OPTIGUIDE surgical guide using the digital planning data from CEREC as well as GALILEOS or ORTHOPHOS XG 3D.

CEREC users will soon be able to fabricate their own surgical guides in-house (CEREC Guide). What is the advantage of ordering surgical guides from SICAT?

**SICAT surgical guides simplify implantation procedures.**

**How can an implantologist obtain a SICAT surgical guide?**

Kusch: The dentist has two options. In the case of the CLASSICGUIDE process SICAT bases the surgical guide on an optical impression of the patient’s jaw structure and dentition. In both cases we require three-dimensional X-rays in addition to the impressions.

**Should CEREC users opt for the OPTIGUIDE process?**

Kusch: The problem is that the need for conventional impressions has significant benefits for the patient and the dentist. The procedure is

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SICAT fabricates an OPTIGUIDE surgical guide using the digital planning data from CEREC as well as GALILEOS or ORTHOPHOS XG 3D. The scanning template consists of a thermo-plastic material and a scanbody.

SICAT surgical guides simplify implantation procedures

The dentist’s planning data is checked for anomalies and returned to the dentist directly. The material is hardened and can be removed from the model without any risk of distortion.

By opting for CEREC software. Using his CEREC MC XL milling unit he then machines a drilling template out of a special polymer block containing a prefabricated drilling channel. The scanbody is then replaced by the drilling template. The surgical guide is now ready for use. Firmly positioned in the patient’s mouth, the surgical guide automatically transfers the planned position and angle of the implant to the drilling bur. CEREC Guide is a quick and uncomplicated solution for single-tooth implant placements in dental practices. The thermo-plastic material fulfills all the relevant requirements – it is easily moulded when warm and very stable after it has hardened. CEREC Guide gives the dentist greater confidence.

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Extensive support for new users

**SUPPORT.** Newcomers to computerized dentistry are not left to fend for themselves. On the contrary, regular training courses, tutorials and face-to-face encounters with other users help them to come to grips with the CEREC system.

Change often leads to insecurity. New technology exerts a unique fascination, yet at the same time unleashes anxieties.

In the case of CEREC such anxieties are completely unfounded. Before they purchase their CEREC system new users have ample opportunities to find out more about CAD/CAM dentistry – not only in publications such as CEREC Times, but also in the context of live treatment sessions staged on the practice premises of established CEREC dentists.

These experienced practitioners demonstrate the capabilities of the CEREC 4.0 software, describe the various treatment steps and discuss other important issues such as workflow integration and return on investment.

Sirona continues to provide extensive support after the newcomer has purchased his or her CEREC system. After setting up the CEREC system for the first time the service technicians explain the basic functions and processing steps – an invaluable basis for deploying CEREC under real-life conditions.

Following this, new users can develop their knowledge and skills by attending dedicated CEREC training courses. “Good training is essential. Without it I wouldn’t have coped nearly as well,” says Dr. Stéphane Kassel, a dentist based in Belleville-sur-Meuse in France who began using CEREC in 2000. The Sirona Dental Academy offers regular training courses, during which CEREC experts demonstrate the unique potential of the system and answer specific questions. In addition, there are regular training sessions for beginners and advanced users in most international markets.

Numerous other possibilities exist to learn the CEREC system. For example, the Sirona website offers online tutorials relating to the new CEREC 4.0 software. These describe the individual treatment steps and tools and then guide the user step-by-step through the design of a crown restoration.

The clinical guide “CEREC Basic Information 4.0” presents a wealth of useful knowledge relating to the functions and settings of the CEREC software, plus information about bonding techniques, materials and scientific studies. A PDF version of this guide can be downloaded directly from the Sirona website. In-depth information and instructional videos are available via the e-learning portal “dentalusers.com”. CEREC users worldwide have meanwhile formed a closely networked community which meets regularly at conferences and on the Internet.

Via numerous forums and portals CEREC users can ask questions, swap information and discuss particularly challenging cases.

**New Resin Nano Ceramic reduces treatment time**

**MATERIAL.** Pilot user Dr. Stergios Zafiriadis reports on his experience with 3M ESPE Lava Ultimate CAD/CAM Restorative, a material based on a unique resin nano ceramic. It is indicated for diverse single tooth restorations such as crowns, onlays, inlays, veneers and implant-supported restorations.

On the one hand, the milling times are reduced by using the fast milling mode, which can be employed without concern. Even in this mode, no marginal fractures occur. The subsequent removal of the milling sprue is very easy. In addition, the subsequent firing or sintering step is eliminated. On the other hand, polishing of the restorations made of resin nano ceramic (RNC) is fast and simple. Finally, etching with hydrofluoric acid is not necessary. If the restorations are cemented adhesively in combination with Scotchbond Universal Adhesive and RelipX Unicem Adhesive Resin Cement (both 3M ESPE), the need for an additional step of silane coating is eliminated. And due to the outstanding processability of the material, e.g. proximal contacts can be adjusted easily. Altogether, the treatment time is reduced about seven to twelve minutes per unit.

Dr. Zafiriadis, we thank you for the conversation.

**VITABLOCS RealLife® – ingeniously three-dimensional!**

At a simple mouse click: truly natural anterior esthetics through 3D dentine core-enamel structure!
77 and still going strong...

PRACTICE PROFILE. For more than 20 years CEREC has been up and running at the Pathedent dental practice in South Africa. The 77-year-old senior partner claims that operating CEREC is as much fun as using a PlayStation.

South Africa automatically awakens associations with gold. For decades the country ranked as the largest producer of this precious metal. Krugerrand coins remain in high demand. And for a long time gold fillings and crowns were regarded as a status symbol. However, the desire for metal-free, tooth-colored dental restorations has boosted the popularity of ceramic dentistry – in South Africa and elsewhere. Back in 1992 Dr. Cecil Josephson decided to install a CEREC system in his dental practice. “The prime motive for this investment was the ability to acquire digital intraoral impressions and create ceramic restorations during a single appointment,” Cecil Josephson explains. His patients responded positively to this uniquely convenient treatment procedure. As a result his CEREC system paid for itself after just one year. To augment his chairside treatment services Dr. Josephson decided to set up his own in-house dental lab. Time-consuming, complex and aesthetically challenging ceramic restorations are fabricated by his dental technician. Implants, tele-scope crowns and model-based casings are delegated to an external laboratory via the CEREC Connect portal. This paves the way for effective communication between the dentist and the dental technician.

Born in 1934, Dr. Cecil Aubrey Pat Josephson began practising dentistry in 1953. He studied at Witwatersrand University in Johannesburg, whose alumni include Nelson Mandela, winner of the Nobel Peace Prize, and Nadine Gordimer, winner of the Nobel Prize for Literature. Cecil Josephson began his career in Great Britain. He then underwent further training in periodontology, endodontics, implantology and oral surgery in the United States, Norway and Germany. In 1957 he set up his own dental practice in Cape Town. In 1983 he went into partnership with the dentist Theo van der Walt. Subsequently Drs Pieter van Rooyen and Andrew Ellis joined the practice. As a result they were able to extend their treatment portfolio to include orthodontics, oral surgery, periodontology, implantology, as well as restorative and aesthetic dentistry.

Dr. Josephson’s practice now known as Pathedent recently installed the CEREC 4.0 software and an ORTHOPHOS XG 3D X-ray system. “In this way we can perform ‘pre-operative planning’ with the aid of the CEREC system. This results in much greater surgical reliability when inserting the endosseous post,” he emphasizes. A further advantage is the automated design of the occlusal surfaces. This enables him to create and coordinate several restorations in parallel. He also greatly appreciates the new and improved user interface. “CEREC is so simple to operate. CEREC is a PlayStation for dentists!”

Despite his 77 years, Cecil Josephson’s enthusiasm knows no bounds. For instance, he has been involved teaching courses at Stellenbosch University and Western Cape Dental School and contributes regularly to quality circles in Cape Town, Bloemfontein, Harare, Windhoek and Oranjemund. There is no way that he could do without CEREC. “I simply couldn’t afford it. The system is a future-proof investment. It was exactly the right decision for me and my dental practice.”

COMING SOON
15 – 17 March 2012: Dental Expo, Amsterdam, Netherlands
23 – 25 March 2012: ADX12, Sydney, Australia
23 – 26 March 2012: Dental Salon, Moscow, Russia
30 March – 01 April 2012: ISCO Training Course, Istanbul, Turkey
20 – 22 April 2012: IDEM, Singapore
26 – 28 April 2012: British Dental Conference, Manchester, UK
26 – 28 April 2012: Scandinaf, Copenhagen, Denmark
03 – 04 May 2012: 6th CAD/CAM & Computerized Dentistry Congress, Dubai, UAE
10 – 12 May 2012: Ontario Dental Association Spring Meeting, Toronto, Canada
24 – 25 May 2012: Scottish Dental Show, Glasgow, UK
24 – 26 May 2012: Amici de Bruno, Rimini, Italy
09 – 12 June 2012: Sino Dental, Beijing, Peoples Republic of China
14 – 19 June 2012: Sidney, Seoul, South Korea
16 – 18 August 2012: CEREC 27 and a half, Las Vegas, USA