

3shape 

3Shape Dental System™

Digitally moving the
world of dentistry



Technology designed the way you work

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3Shape Dental System™ 2012

Helping dental labs help their dentists

3Shape's Dental System™ 2012 carries forward 3Shape's global position as the market leader and creator of the world's most sold system for Dental CAD/CAM. 3Shape's high standing in the lab community is solidly based on solutions that are easy-to-use, offer most indications and enable maximum productivity. Now, with Dental System™ 2012, 3Shape has also become the only CAD/CAM provider truly bringing solutions designed to help labs build new services and stronger business relationships with their dentists.

3Shape's Dental System™ 2012 brings labs a whole realm of new opportunities for increasing their productivity and expanding their customer base.

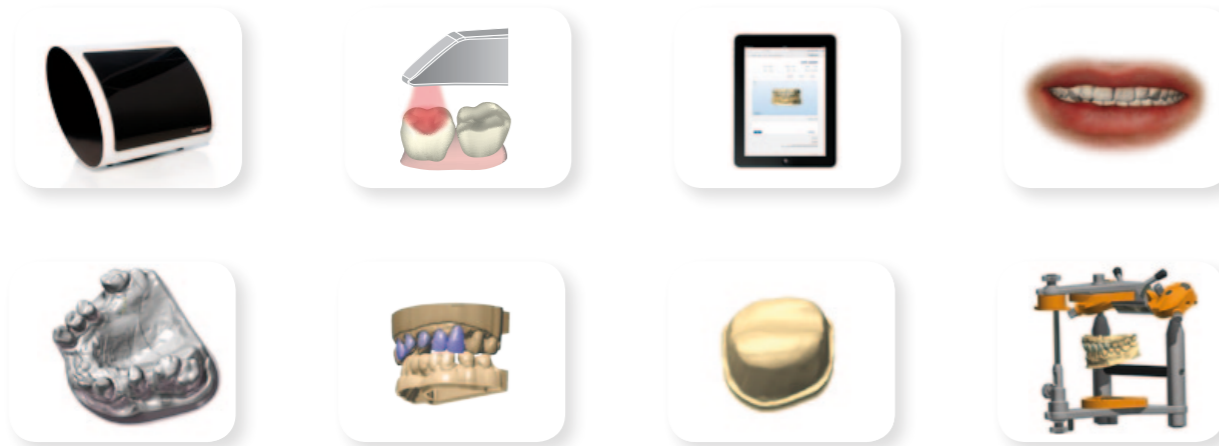
Known throughout the dental industry as the most powerful CAD/CAM system in the world, 3Shape's Dental System™ provides 3D scanning, CAD modeling, order management, intraoral scanning, dentist-lab communication, and interfaces to essentially all manufacturing equipment and materials.

No other CAD/CAM system on the market supports the comprehensive width of dental indications and dentist-services enabled by the 3Shape Dental System™.

3Shape's Dental System™ is backed by professional technical customer support and dedicated 3Shape Academy training programs.

3Shape's Dental System™ is highly flexible offering solutions matched to labs of any size and business model.

New in Dental System™ 2012



D500 Scanner, Texture Scanning, TRIOS® intraoral scanner, Model Builder™, 3Shape Communicate™, Virtual Preparation & Temporaries, 2D image overlay, Optimized Virtual Articulator and Smile Composer™

“3Shape’s solution not only helps me meet business goals, but has also established new ideas for me in the laboratory business. I am setting up an entire new business model based upon digital design and restorations and so far it has been very successful. Our clients are really thrilled about the results!”

Matt Roberts
CMR Dental Laboratory
USA



“3Shape Dental System is an excellent instrument that we like to use and employ, and which is a great supplement to the traditional way we work. I think it is engineered very well - it represents the future.”

Kurt Reichel
Reichel Zahntechnik
Germany

Join the Winning Team of Dental Technicians!

The global CAD/CAM market is evolving rapidly and for dental labs considering a move into digital dentistry, the alternatives are many. It has become of paramount importance for lab owners to make the right choice among systems, a choice that will add business value, ensure their lab's future, and expand their possibilities rather than restrict them. Not all CAD/CAM system providers can make these promises. 3Shape can and here's why ...

Superior innovation power

With more than 100 full-time developers dedicated to 3D solutions, 3Shape leads the market with unmatched innovative power, providing systems that are designed not only for today, but also for the future of digital dentistry.

Empowering real dental technician work

3Shape's highly acclaimed solutions are designed to produce advanced real dental work while releasing the technician's artistic touch and unique talents. Dental System™ is the result of close cooperative liaison with leading dental technicians in the field. No other CAD/CAM solution on the market offers so many dental indications.

Automation unleashing productivity

3Shape's user-acclaimed Dental System™ is designed to support familiar workflows, helping dental labs maintain their professional edge over competitors through complete automation of many traditionally manual tasks. 3Shape's scan and design processes are the market's fastest, and provide an initial computer-proposed design of unique quality.

Helping lab's help their dentists

With new innovations such as TRIOS® and Communicate™, 3Shape has become the only CAD/CAM provider truly bringing solutions designed to help labs build new services and stronger business relationships with their dentists.

Open flexible business model

3Shape Dental System™ is praised worldwide for its unrivaled versatility and ability to interface with virtually all manufacturing equipment and materials. Regardless of a laboratory's size, location, existing equipment and preferred business strategies, there will always be a 3Shape solution to match its current and future needs.

#1 - Thousands of labs all over the world

In many thousands of labs and more than 60 countries worldwide, 3Shape's Dental System™ is breaking records for high productivity and user satisfaction, reaching the market's #1 record for units produced per day by dental technicians.

Our Vision - the Full Digital Dental Lab

CAD/CAM is changing the competitive arena and the industry

The age of the full digital lab is closer than most realize. For many years Zirconia copings and frameworks were the main drivers for CAD/CAM systems. But with the increased capabilities and improved manufacturing support of some CAD/CAM systems, a much wider number of profitable indications have been introduced. For technicians and lab owners, embracing CAD/CAM is a necessary choice towards securing a prosperous future - and choosing the right system is critical.

Digitalization is being driven “fast-forward”, propelled by a combination of continuously increased CAD/CAM productivity, advanced CAD capabilities that deal with even advanced clinical situations plus support for high quality manufacturing.

CAD/CAM-created restorations not only represent cost reductions, but also assure higher clinical quality. With the combination of faster turnaround times and attractive prices obtainable by CAD/CAM, traditional manually created restorations are quickly becoming uncompetitive. Additionally, off-shoring of restoration work to low-cost countries is posing a se-

rious challenge for many labs and the business advantages of CAD/CAM provide effective answers.

Adaptation of digital methods is increasingly defining the success of dental businesses and the labs that move to meet this challenge will be the labs that grow – and it is probably better to get moving today rather than tomorrow.

Choosing the right CAD/CAM system, manufacturing partner and technology are the most critical business decisions a lab can make.

3Shape urges labs to seek a future secure investment and consider key parameters such as the scope of dental indications supported, openness to other current and emerging systems, integration with manufacturing equipment, flexibility in relation to materials, and the extent of workflows that truly add new value to lab business.

3Shape remains true to its vision for the future and has no doubts that its Dental System™ will be able to digitally create all work made in dental labs. Our latest innovative Dental System™ 2012 is a huge leap forward toward reaching this goal.

Looking inside 3Shape Dental System™

Defining the next step for CAD/CAM dentistry

3Shape's Dental System™ solution embraces the total professional scope of modern dentistry. Dental System™ brings together accurate 3D scanning, intuitive CAD modeling, efficient order management and reliable communication tools to provide streamlined workflows that increase productivity.

Efficient order management - for lab productivity

Dental System™ systematically organizes all case and production data. Orders can be searched, sorted and displayed according to selected parameters. On multiple workstations, technicians can work in parallel, while sharing files on-line.

3D scanners for impression and gypsum models

Dental System™ offers a flexible product family with 3 series of scanner models: D500, D700 and D800. 3Shape's broad product portfolio gives labs the freedom to make the perfect investment in relation to their scanning requirements and production capacity.

The World's most powerful CAD modeling software

Supports design of copings, bridge frameworks, anatomical modeling, inlay, onlay, veneers, pressed ceramics, customized abutments, sophisticated implant bars and bridges, removable partials, temps, wax-ups, telescopic crowns and more.

On-line communication with dentists and manufacturers

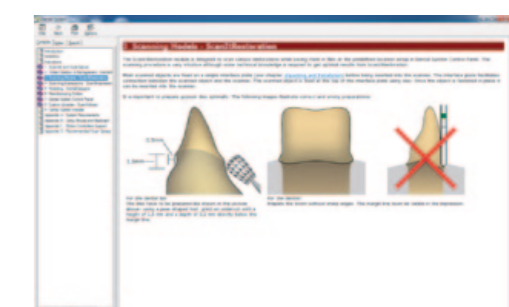
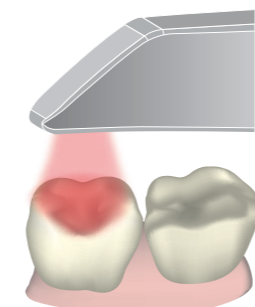
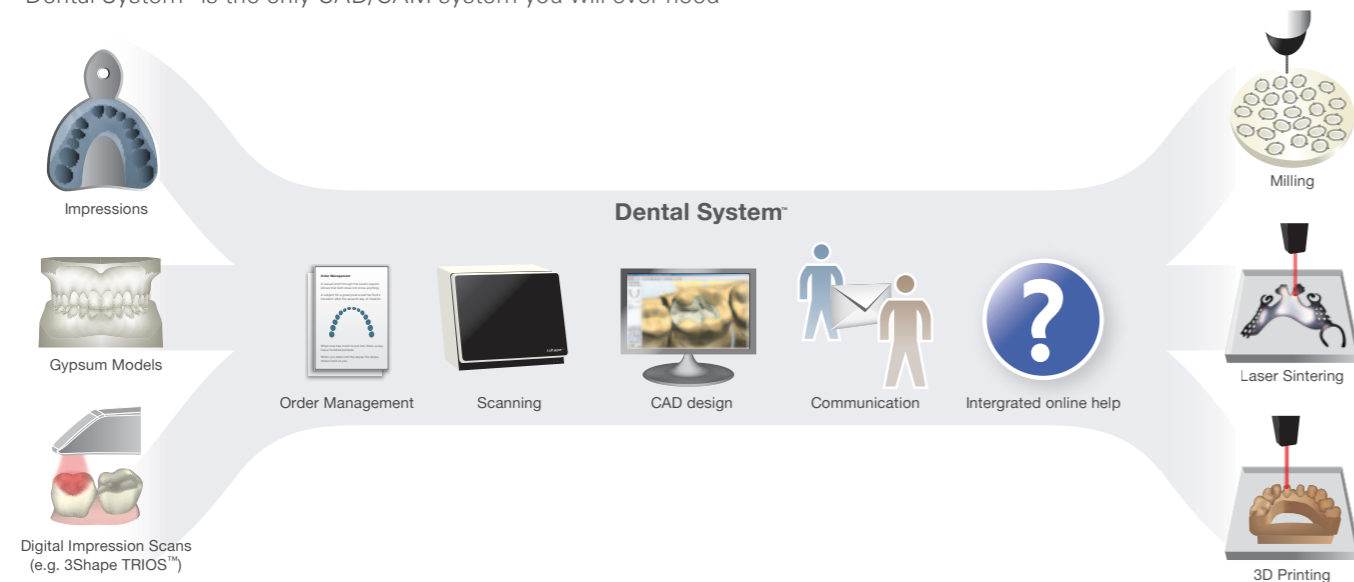
Labs can receive digital impression scans directly from the clinic. During design, technicians can send before-and-after treatment visualizations back to the clinic for feedback or approval. Completed orders can be safely transferred to manufacturers while monitoring production status in real-time.

Send to manufacturing - widest integration and flexibility

In various configurations, Dental System™ supports essentially all materials and manufacturing equipment, including 3-5 axis milling machines, wax printers, laser sintering machines and digital model making machines. The CAMbridge™ add-on module provides automatic preparation for milling and 3D printing.



Dental System™ is the only CAD/CAM system you will ever need



3ShapeTRIOS® - 3D intraoral digital impression solution

3Shape's TRIOS® intraoral scanner enables dentists to capture the patient's intraoral situation and immediately dispatch the order and digital model on-line - directly into the lab's 3Shape Dental System™. TRIOS® is designed to kick-start the digital workflow and strengthen business ties between labs and their dentist-clients.

Integrated on-line help and support for many languages

Users are guided every step of the way with Dental System's™ comprehensive on-line user manual and training material. The 3Shape Dental System™ interface and help system supports multiple languages – currently: English, German, French, Italian, Spanish, Japanese, Russian, Portuguese, Korean and Chinese.

3Shape Communicate™ NEW Dental System 2012

A 3D picture says more than 1000 words

3Shape Communicate™ enables labs to send dentists 3D design visualizations for their use in discussions both with the lab and with their patient. In today's increasingly competitive climate, labs that provide supplementary services for their dentists are winning territory in relation to production-only labs. That's why 3Shape gives you Communicate™ - a new service opportunity that retains dentist loyalty, attracts new clients and gives your lab a competitive edge.

Better services to dentists and their patients

Communicate™ is an advanced communication and visualization tool that lets labs and dentist discuss a patient's case while viewing the 3D model on-line. Additionally, dentists can present comprehensible before-and-after visualizations of restorations for their patients. With Communicate™, labs can provide better services, enhance both dentist and patient satisfaction, and cement business relationships with their dentist-clients.

A powerful communication tool

Upon completing a design, the technician can send the dentist a 3D visualization and questions about the case with a single click. At the clinic, a message notification pops up signaling arrived input. The dentist can login to view the design, write comments, add annotations directly on the 3D image or approve the results. The dentist's input is returned directly into the lab's order management base in Dental System™.

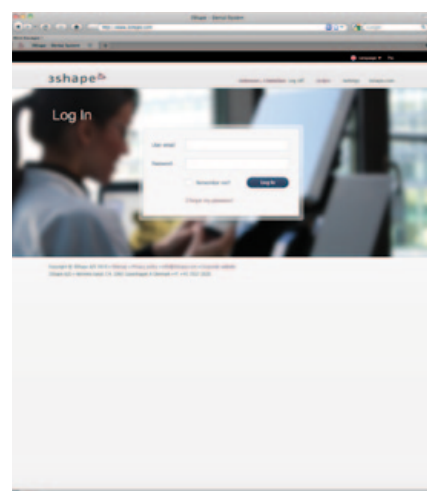
Communicate when it's convenient

All 3D-visual and text communication about the case waits in the system so users on both sides can view messages when it's convenient, never again postponing ongoing tasks every time the phone rings. The Communicate™ user-interface is intuitive and elegant, providing a superb user experience. Streamlined communication saves time and reduces the likelihood for errors and remakes.



Lab CAD design

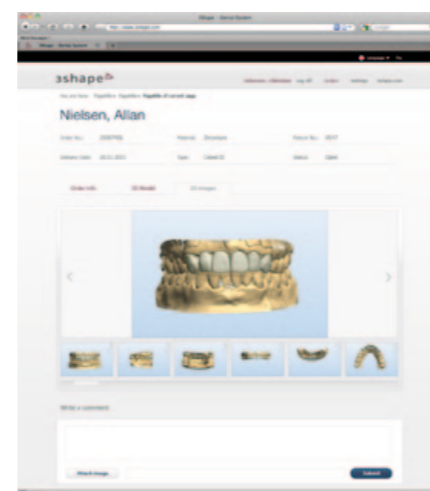
3Shape Communicate™ Dentist Interface



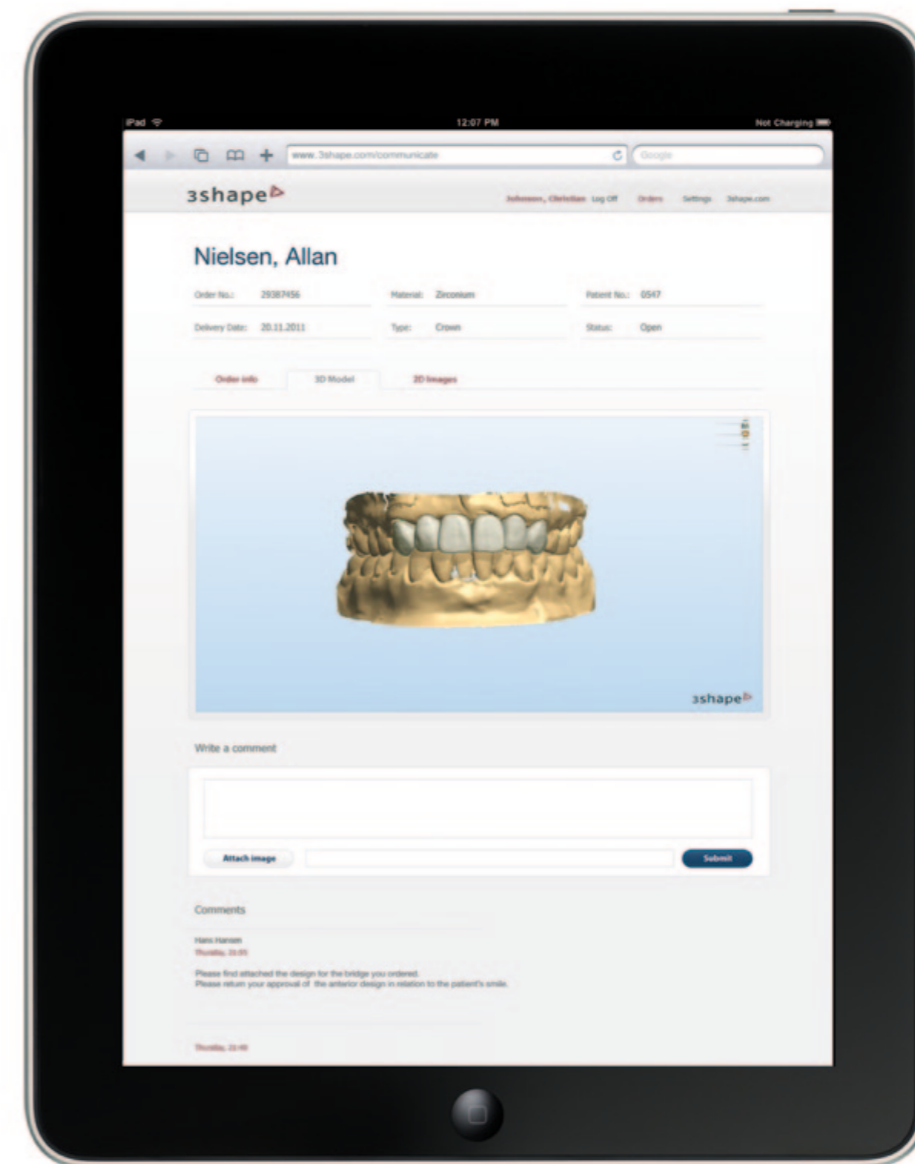
Login



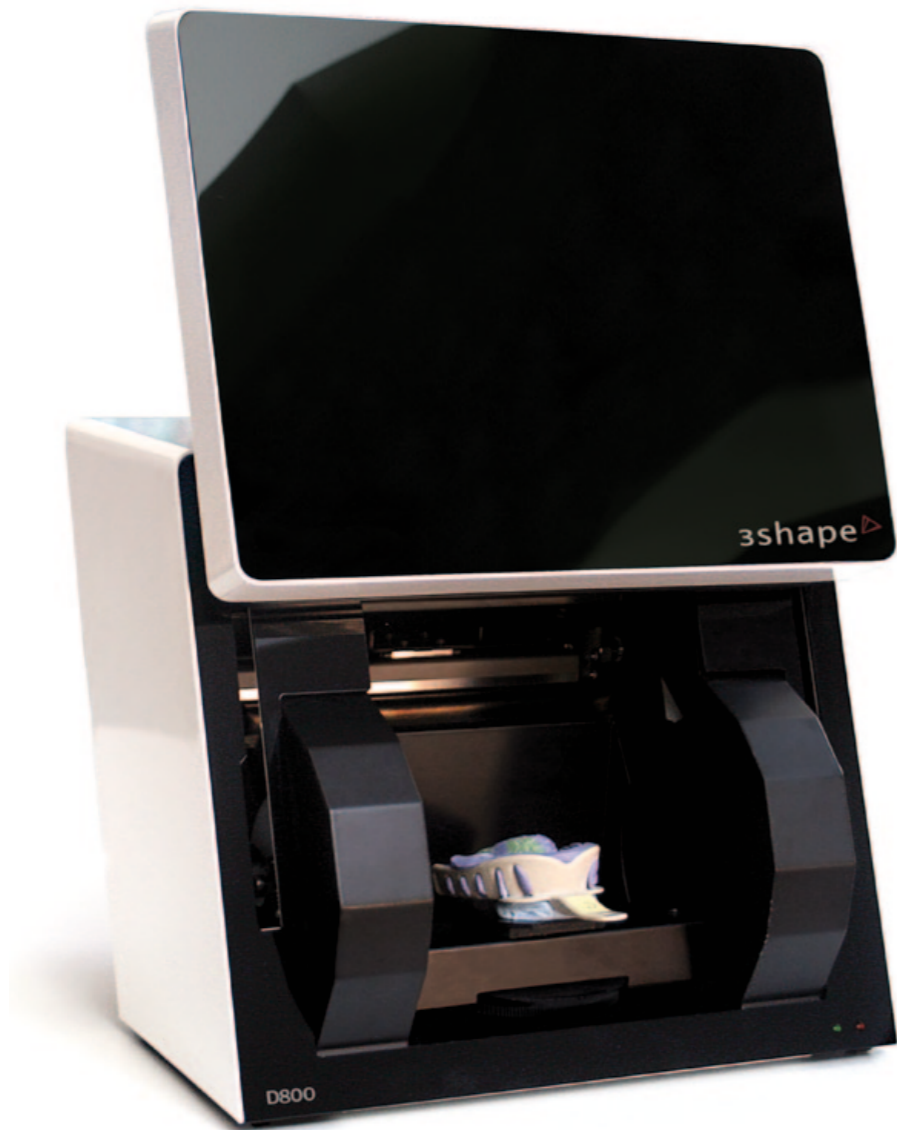
Case list



Case view



Dentist 3D view



3Shape 3D Dental Scanners

Surpassing all norms for speed, precision and detail level

A scanner solution for every lab

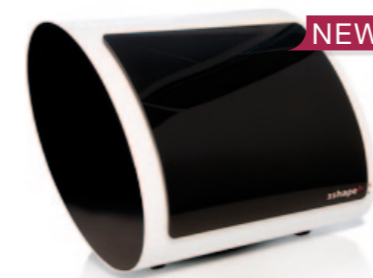
3Shape offers the market's most flexible range of technology-leading dental scanners for 3D scanning of both impression and gypsum models. Whether you are seeking a secure entry into digital dentistry, or expanding your business model with the full range of dental indications and utmost accuracy - 3Shape has a scanner solution for you.

Designed for productivity

3Shape's Dental Scanners - series D500, D700 and D800 give labs increased productivity plus customer satisfaction through faster delivery and superior clinical results. 3Shape's Dental Scanners are so easy to use that extra staff training is hardly required. Object fixation is quick, and a single click in the user-friendly software starts the scan.

The market's most complete 3D scans

2 cameras with reduced angle enables impressions, deep inlays and full undercuts to be scanned effectively. The 3-axis motion system tilts, rotates and translates the object facilitating scanning from any viewpoint - more than 350 degrees of a sphere.



3Shape D500

3Shape's D500 series scanner is designed for small to medium-sized labs looking for an easy entry into CAD/CAM digital dentistry.

These compact scanners are built on Shape's leading scanning technologies with a reduced range of dental indications to provide a cost-efficient CAD/CAM solution for any laboratory size and budget.



3Shape D700 series scanners

3Shape's D700 series scanners are for medium to large labs where productivity and flexibility are the key criteria.

The D700 scanner series is 3Shape's user-acclaimed success, servicing thousands of labs all over the world. The D700 is a workhorse of productivity, enabling high throughput for both standard and advanced indications. The D710 additionally supports Multi-Die scanning for ultimate efficiency.



3Shape D800 series scanners

3Shape's D800 series scanners are designed for medium to large labs that demand the utmost accuracy and detail levels for even the most advanced indications.

With its new and unique Texture Scanning capabilities plus 5.0 MP cameras, 3Shape's D800 series scanners wield the market's most advanced 3D scanning technologies. This is a no limitations device, providing high productivity, extreme accuracy and the complete scope of dental indications for full-service labs that accept only the best.

- **Optimized scanning** of gypsum models and impression models

- **Dental System™ Standard** - Covers all basic dental indications

- **Scan time:**
Die: 50 sec (55 sec)
3 unit bridge: 160 sec (185 sec)

- **2 cameras, 1.3 Mega Pixel**

- **High Accuracy:** 20 microns

- **Upgradable** - to Dental System™ Premium for extending the range of available indications and widening your business scope

- **Optimized scanning** of gypsum models and impression models

- **Dental System™ Premium** - Covers the full range of dental indications

- **Fast Scan time:**
Die: 25 sec (30 sec)
3 unit bridge: 100 sec (125 sec)

- **2 cameras, 1.3 Mega Pixel**

- **High Accuracy:** 20 microns

- **Multi-Die Scanning** on the D710 - for high productivity with single or multi-case processing

- **Highly accurate scanning** of gypsum models and impression models

- **Dental System™ Premium** - Covers the full range of dental indications

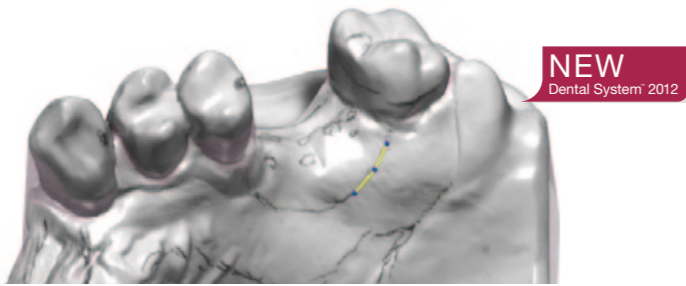
- **Fast Scan time:**
Die: 25 sec (30 sec)
3 unit bridge: 100 sec (125 sec)

- **2 cameras, 5.0 Mega Pixel**

- **Ultra High Accuracy:** 15 microns

- **Multi-Die Scanning** on the D810 - for high productivity with single or multi-case processing

- **Texture Scanning technology** for high detail detection and capture of hand-drawn design markings on the model



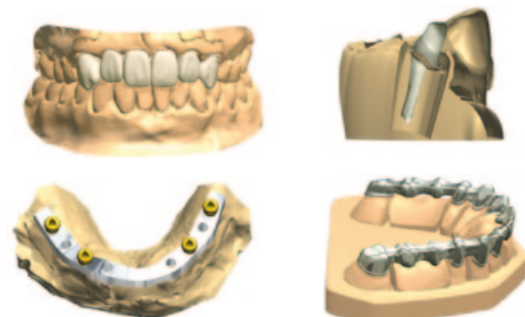
Capture complete textures and pencil markings

Utilizing its 5.0 Mega Pixel cameras, the high-end D800 scanner supports unique **Texture Scanning** capabilities. Texture Scanning captures 2D images of the model surface and precisely overlays these on the 3D model, enhancing visualization of surface details and allowing technicians to include hand-drawn design guidance markings in the digital design. Patent pending.



Implant bridge and bar accuracy

3D scanning in connection with designing implant bridges and bars requires very high accuracy and 3Shape's D800 series scanners with improved performance are among the few that can deliver reliable data. The D800/D810 scanners are equipped with 5.0 Megapixel cameras which, in combination with high quality scan abutments, enable perfect 3D data capture of both implant positions and implant orientations to ensure a perfect tension-free fit.



Market's most extensive suite of scan indications

All standard scan indications and in addition impression scanning, post & core, 16-unit bridges, articulated antagonist model, wax-up bridges for copy milling, deep inlays, pre-preparation model, un-sectioned model for temporaries, implant position and orientation detection, wax-up customized abutment and wax-up implant bridges for copy milling. The range of available indications depends on the Dental System™ version – Standard/Premium.

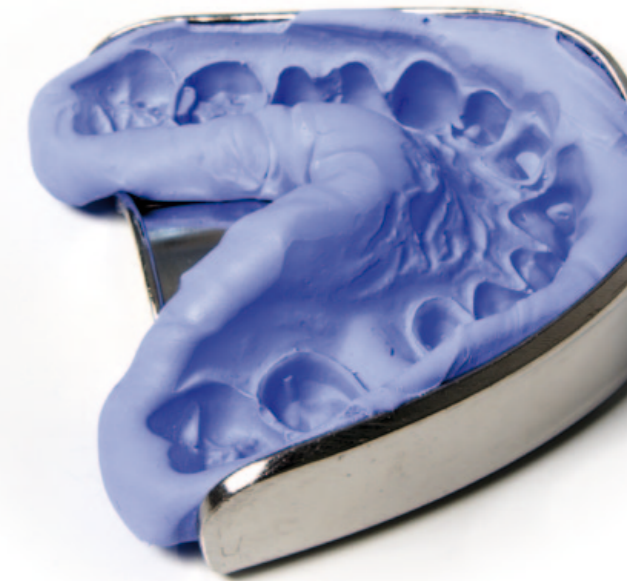


High productivity with Multi-Die scanning

Multi-Die scanning on the D710 and D810 scanners provide labs with ultra-efficient batch and multi-case processing. Dies for one or more cases are fixed to the Multi-Die plate, and scanning is automatic, freeing the technician to work with other tasks. Maximum accuracy is obtained by an obstacle free camera angle, ultra sharp focus, and optimal mechanical precision.

Adaptive Impression Scanning Make temporary crowns without gypsum models

Omit traditional gypsum model fabrication and jumpstart the digital design process. 3Shape's Dental Scanners provide fast impression scanning at scan times below 2 minutes. Unique adaptive impression scanning technology ensures the market's most complete and accurate capture. Looking ahead, impression scanning is expected to become the most productive method for 3D scanning in the lab leaving "gypsum only" scanners obsolete. Patent pending.



Unique Adaptive Impression scan technology

3Shape's patented adaptive scanning technology, combined with 3-axis motion and 2 cameras with reduced angle facilitate unique impression scanning capability. Adaptive scanning intelligently detects incomplete areas and automatically builds adaptive scan sequences capturing full object geometry. Sophisticated automatic alignment methods bring the preparation and antagonist scans into natural occlusion.

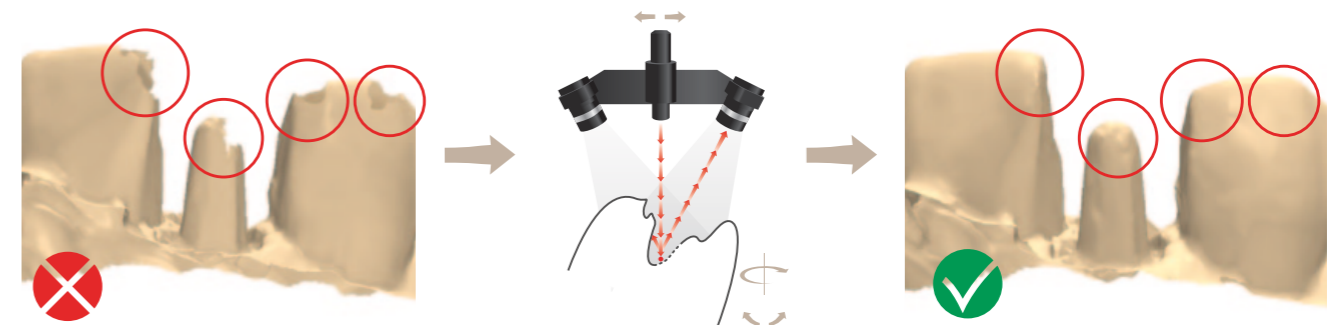
Reducing turnaround times for the lab

Direct scanning of silicone and alginate impressions represents a truly unique opportunity for reducing turn-around time and cost savings.

Labs can start CAD design immediately and manufacture the model, coping/crown in parallel. When combined with 3Shape's Virtual Preparation & Gingiva, technicians can even create temporaries without physical models.

Gypsum models - soon relics of the past

Digital model-making directly from impression scans is surging forward as CAD/CAM advances provide new model-making technologies at lower costs and with higher accuracies. Driven by these developments, impression scanning is likely to completely replace gypsum scanning in the near future making "gypsum only" scanners a potentially insecure investment.



Before Adaptive Scanning

The first scan result is incomplete in the preparation, proximal and contact areas, which will jeopardize fit and clinical performance.

After Adaptive Scanning

A complete and accurate scan after adaptive scanning of incomplete areas automatically applying the optimal combination of 2 cameras and 3-axis motion.

3Shape TRIOS® **NEW**

3Shape's new intraoral digital impression solution cements lab-dentist relationships

3Shape's TRIOS® is a digital impression solution that enables dentists to capture the complete intraoral situation directly and send it as a highly accurate 3D digital model for expert design and manufacturing at the lab. TRIOS® provides flexible output that arrives directly in the lab's Dental System Inbox™. TRIOS® is a next generation digital impression approach, designed to strengthen the lab's market position and maintain complete profitability of their services.

The market's leading intraoral scanner technology

3Shape has developed an intraoral scanner that is accurate, fast, and contains many ground-breaking features. Dentists can omit the taking of physical impressions and bypass related disadvantages such as inaccuracies, material costs, retakes and manual handling. Patient satisfaction soars – due to less chair-time, reduced remakes, faster treatment completion, better fits and an overall improved chair-side experience.

Improved productivity at the lab

Labs using Dental System™ can receive TRIOS® impression scans from the clinic directly into their Dental System Inbox™ and immediately start the design process without first creating a physical model.

Labs get accurate case input and achieve shorter turn-around times. The complete case input arrives digitally, reducing logistics, manual handling and the need for picking up impressions. TRIOS® opens up whole new workflows such as parallel designing, virtual temps and digital lab model design.

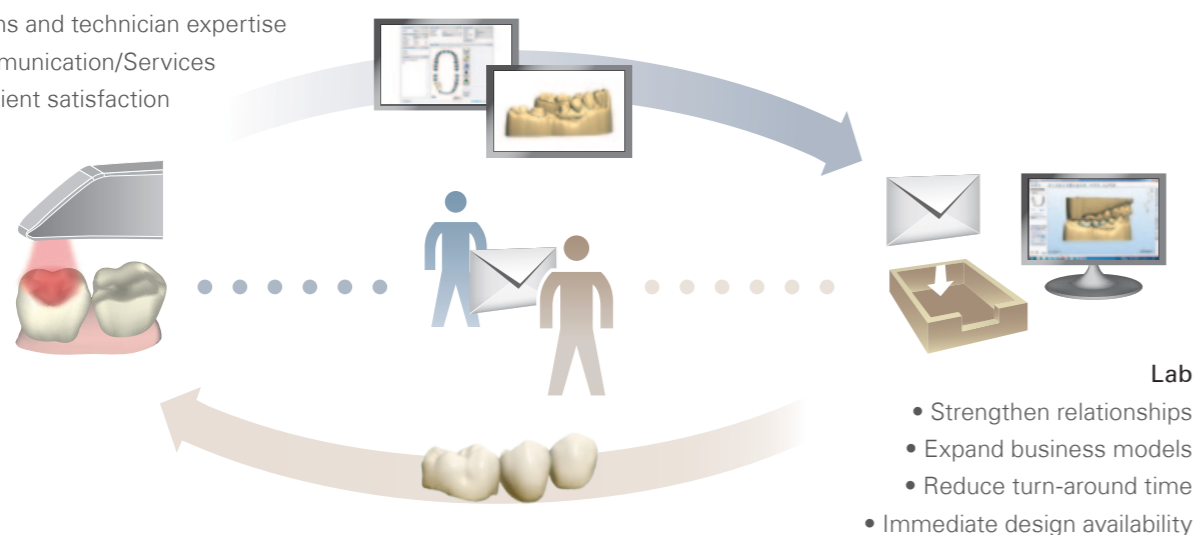
Strengthening relationships between labs and their clients

Digital impression taking systems are an emerging technology in dental clinics worldwide. TRIOS® is the market's most dedicated solution for optimized dentist-lab communication and collaboration.

With Dental System™, labs can offer new digital services that include receiving the dentist's TRIOS® scans directly and providing the full scope of dental indications. Advanced on-line communication features enable labs to return digital visualizations of designs for evaluation and approval.

Dentist

- All Indications and technician expertise
- Online Communication/Services
- Increase patient satisfaction
- Save costs



Lab

- Strengthen relationships
- Expand business models
- Reduce turn-around time
- Immediate design availability

"Impression taking is easier, faster and better with TRIOS. I get great services from the lab and make more profits by treating patients rather than spending time and money milling crowns in my clinic."

Dr. Jan Bjerg Andersen
Just Smile Dental Clinic
Denmark



"Because we can receive the open TRIOS scans directly, we now get a larger percentage of the dentist's work. By promoting TRIOS, we have avoided seeing our key dentists buying closed intra-oral solutions which we can't work with."

Dorte Flügge
Flügge Dental Lab
Denmark



Model Builder™ **NEW**
Dental System 2012

Manufacture your lab models locally - saving costs and time

3Shape's new Model Builder™ allows technicians to design lab models for an extensive range of indications including implant models, directly from intraoral scans, physical impression scans and gypsum scans. Now you can easily produce all lab models locally - either in-house or through your manufacturing center - completely bypassing slow and expensive manufacturing services bound to the scanner device.

One solution for all

3Shape's Model Builder™ provides a single lab model solution for all of your clients and manufacturing methods. Labs can receive 3D input from a wide range of digital impression taking solutions and produce optimized output for any of the market's working 3D printers or milling machines. A lab can invest in a single model-making machine to produce models for all its dentist-customers.

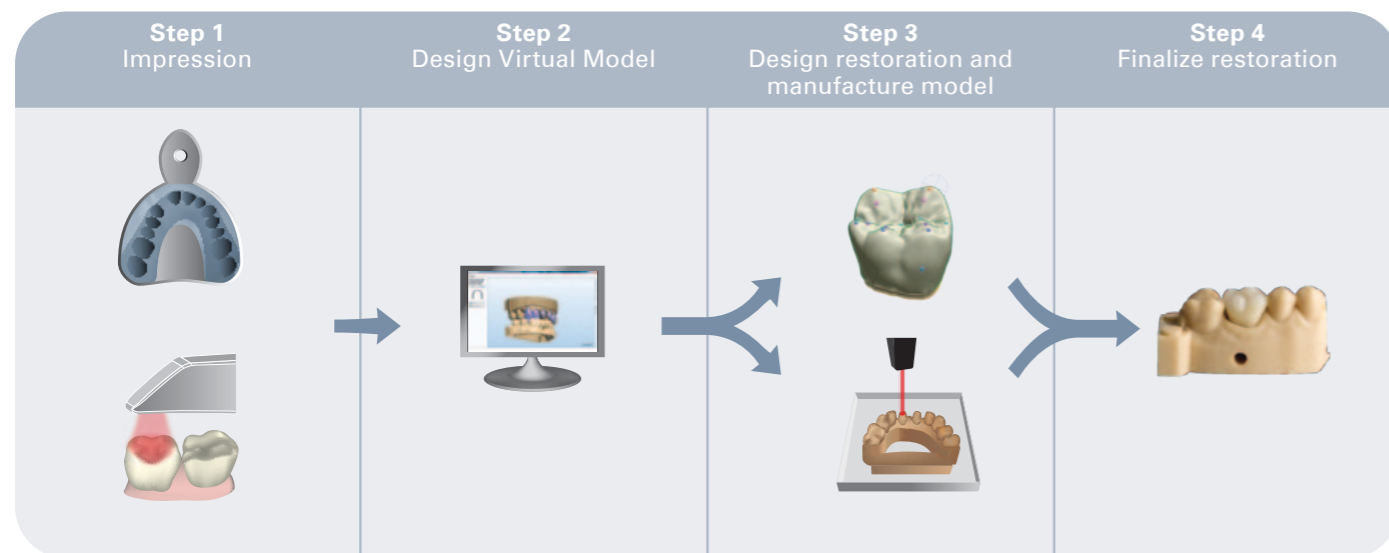
From digital model to final crown

3Shape Model Builder™ shortens the workflow and reduces turn-around time. The Model Builder™ cleans and optimizes the scan, preparing it for direct utilization in the CAD design. The highly accurate digital lab model design can be manufactured in parallel with the CAD design steps and used when finalizing the crown.

Optimized for user-friendly models

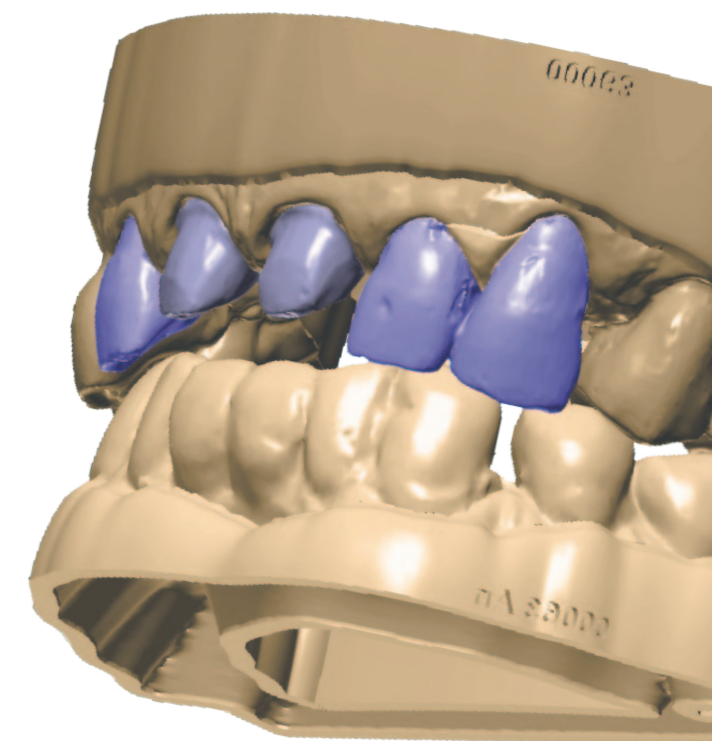
The software automatically adds extremely precise friction bars that hold the dies firmly in their shaft during articulation and handling. Users can engrave case data virtually on the model, such as the order number or the patient's name. Select the right articulator interface and add to the design so the model can be used with a physical articulator after manufacturing.

Enhance your business model with 3Shape Model Builder™



Fast and intuitive workflow

Model Builder™ supports semi-automatic virtual sectioning and trimming for designing removable dies. The software detects and suggests margin lines and die insertion directions that can be fine adjusted by the user. Model Builder™ automatically builds a virtual model base and articulator base with articulation pins positioned for perfect occlusion. Patent pending.



Precise implant models

Model Builder™ is the only CAD/CAM software that enables model design for implant cases. Based on integrated implant position detection, users can virtually add interfaces for implant analogs directly in the model design. Support for both integrated implant analogs and glue-in implant analogs. Patent pending.

Input from TRIOS® and 3rd party digital impression-taking solutions

3Shape's Dental System™ is known for its flexibility and problem-free integration with a wide range of dental equipment. Model Builder™ is open for input from both 3Shape's TRIOS® and many other validated digital impression-taking solutions and enables labs to bypass the disadvantages of scanner-dependent model-making services.

Market's broadest manufacturing support

3Shape has worked closely with 3D printer and milling machine vendors to develop a Model Builder™ solution that delivers the specific model designs required for optimal manufacturing on given model making machines. Machine-specific parameters are stored in editable and reusable profiles.

Copings & Bridge Frameworks

Productive and flexible inside-out modeling

Productivity is at the core of 3Shape Dental System™. Thanks to a number of automated positioning and modeling features, it takes less than 2 minutes from order creation to completed design of a single coping ready for manufacturing. This enables a large lab to create 100 units per day by a single technician.

Boost lab productivity

All selected production parameters are preset for the material and equipment chosen at the time the order is created. The completed framework design is just a few mouse clicks away.

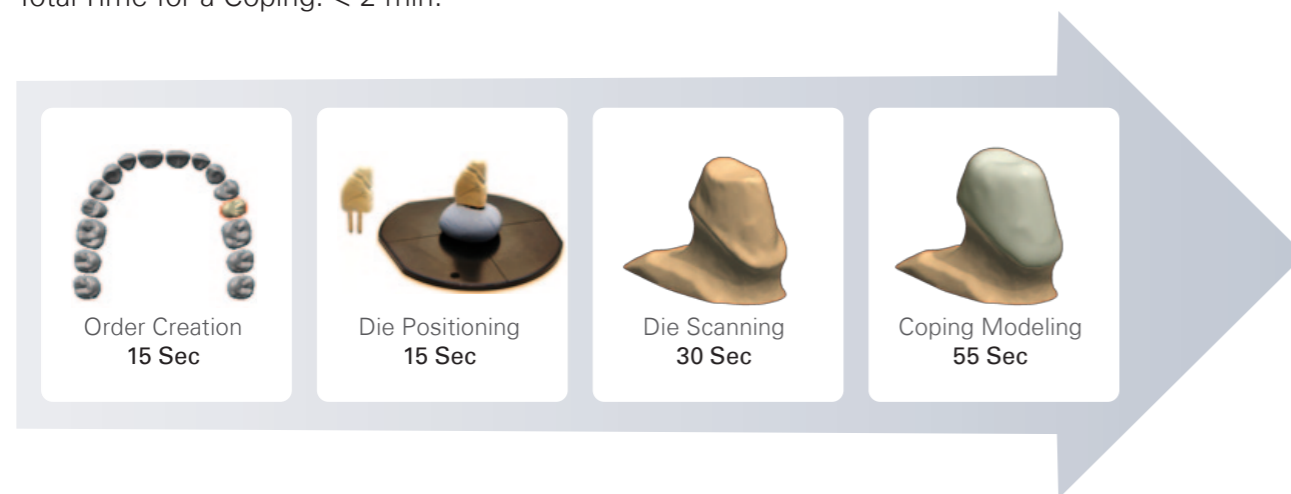
Automation makes it easy

Dental System™ positions design elements automatically so framework design is really only about fine-tuning the system's suggestions.

New optimized drill compensation

3Shape's new and optimized drill compensation feature ensures better fit at the preparation and reduces the occlusion space requirements while ensuring adequate material thickness of the restoration.

Total Time for a Coping: < 2 min.

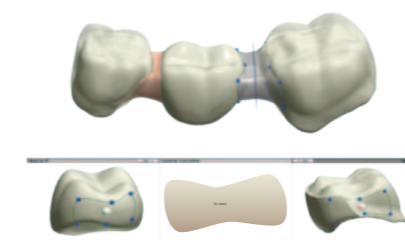
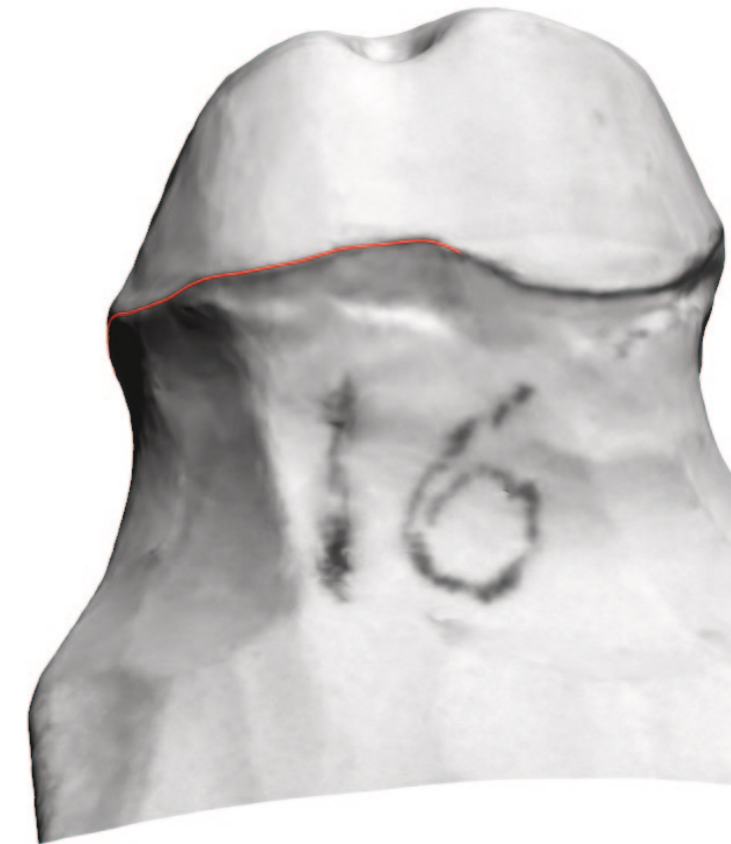


3Shape optimizes your complete workflow - less than 2 minutes (1 minute in parallel) is enough to create a standard coping from order creation to completed design.

Texture - Bring your hand-drawn margin line into 3D

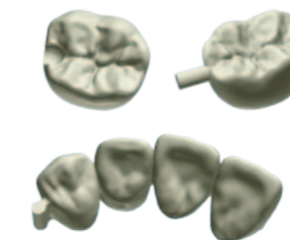
NEW
Dental System 2012

Dental System's™ D800/D810 scanners support unique Texture Scanning that will accurately capture a hand-drawn margin line that you penciled directly on the physical model. The software automatically detects and translates the hand-drawn line into the 3D margin line for the coping. The margin line can be fine-adjusted for perfect positioning in just a few clicks.



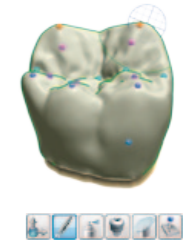
Advanced connector design

Intuitive tools enable technicians to create and edit connectors with optimized mechanical and esthetic properties. Users have full control of the connector's interface profile, curvature and thickness.



Add any attachment

Advanced attachment functionality lets users place any attachment e.g. slide attachments, ball attachments, wax pins, holes and generic CAD files. One or more attachments can be added to or subtracted from any restoration. The position and orientation can be adjusted interactively.



Extensive sculpt toolkit

Dental System's™ sculpt toolkit gives technicians maximum design flexibility with freeform and optional automatic tools including: the user-acclaimed virtual wax knife, freeform morphing of any part of the surface, transformations for global repositioning, automatic smoothing, automatic minimum material enforcement and automatic high esthetic cut to antagonist or gingiva.

Smile Composer™ - Full Anatomical Design

Optimize productivity, strength and esthetics with a few clicks

Dental System™ offers the most advanced and efficient tools for full anatomical crowns and bridges modeling. Extensive indications and 3Shape's unique Smile Composer™ provide user-friendly and productive tools for creating highly esthetic and functional restorations based on full anatomies.

Full anatomical crowns

Full anatomical crowns are automatically morphed to precisely fit the clinical situation. Full anatomical crowns can for example be milled in full Zirconia or glass ceramics, or be used as temporary restorations.

3Shape knows that every tooth is special. Users can create customized morphologies by scanning their favorites from wax for direct use in designs, or they can select from the various morphology libraries.

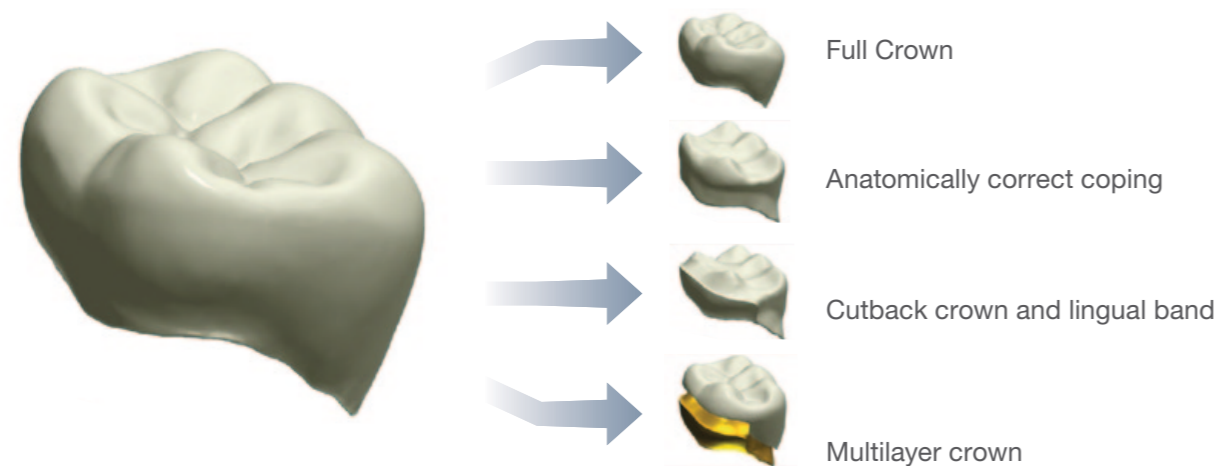
Anatomical correct copings and cut-back crowns

Anatomical correct copings are reduced from the full anatomical crown, creating anatomical copings and frameworks with excellent ceramic support and restoration strength.

Produce sophisticated cutback crowns and lingual bands following the anatomical shape, and anatomical copings on the remaining crown for superior ceramics support.

Multilayer crowns

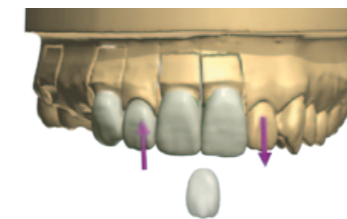
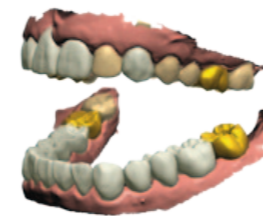
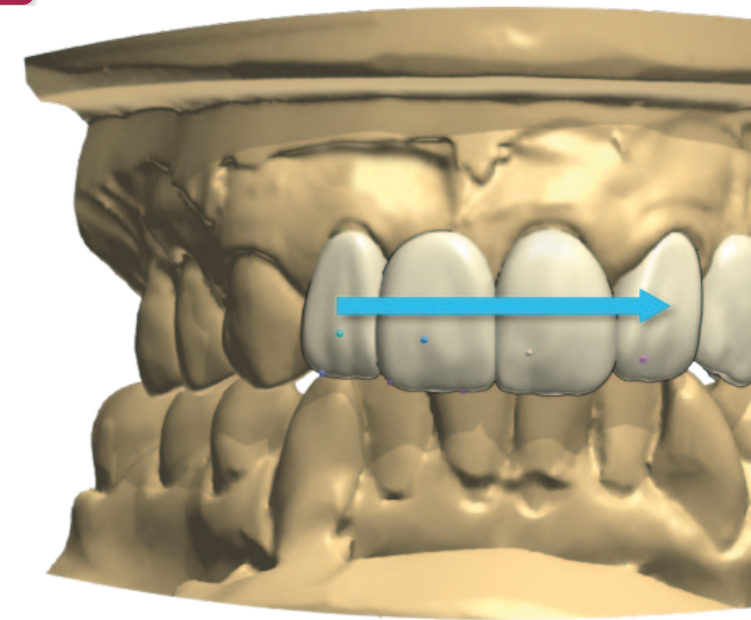
Achieve easy design of multilayer crowns, such as porcelain pressed-to-metal and all-ceramic restorations. Design your coping and crown and split the file into two outputs - one for the anatomically correct coping and the other for the pressed wax-pattern.



Design esthetic full anatomy bridges at unmatched speeds

NEW
Dental System™ 2012

With Smile Composer™ technicians can easily design highly esthetic full anatomy bridges by working with full smiles. A unique and productive workflow enables morphing of whole tooth-sets as a single unit, thus continuously maintaining the unique smile structure and relationships between teeth. Utilize full-smile set-of-teeth templates, insert single teeth from libraries or scans, and make your own smile templates. Patent pending.



Simultaneous Upper & Lower modeling

Dental System™ supports clinical cases requiring both maxillary and mandibular restorative work. In one integrated session, technicians can create, scan and design orders that engage preparations in both jaws - all fully aligned in occlusion. A single mouse click activates restorative elements for modification as the technician controls, adjusts and designs according to the opposing dentition.

Mirroring from existing tooth or CAD design

Virtual Mirroring of CAD-designed and existing teeth enables users to rapidly achieve perfect symmetry and esthetics. The technician simply selects the tooth he wishes to reproduce on the other side of the mouth. A single click creates and accurately positions a perfect "mirrored" match in the design. Users can "cut-out" existing teeth from their scan and select them for mirroring. Patent pending.

Automatic crowns and Cut-to-Neighbor

Dental System's™ powerful sculpt tool includes Cut-to-Antagonist and Cut-to-Neighbor functionality enabling single-click adaptation to proximal and antagonist teeth. This unique and powerful feature makes it easy and fast to achieve perfect inter-proximal and occlusal contact in your designs.

Multilayer Design NEW Dental System™ 2012

Productive pressed and glass ceramics crowns and bridges

The new Dental System™ Multilayer functionality enables highly productive bridge design for pressing or combinations of milled glass-ceramics and Zirconia. 3Shape's Multilayer technology automatically splits full anatomy designs into two true and entire parts, completely without undercuts or lost areas. 3Shape's solution ensures a perfect match when the manufactured layers are reunited, drastically reducing manual interaction and finishing.

Multilayer bridge design

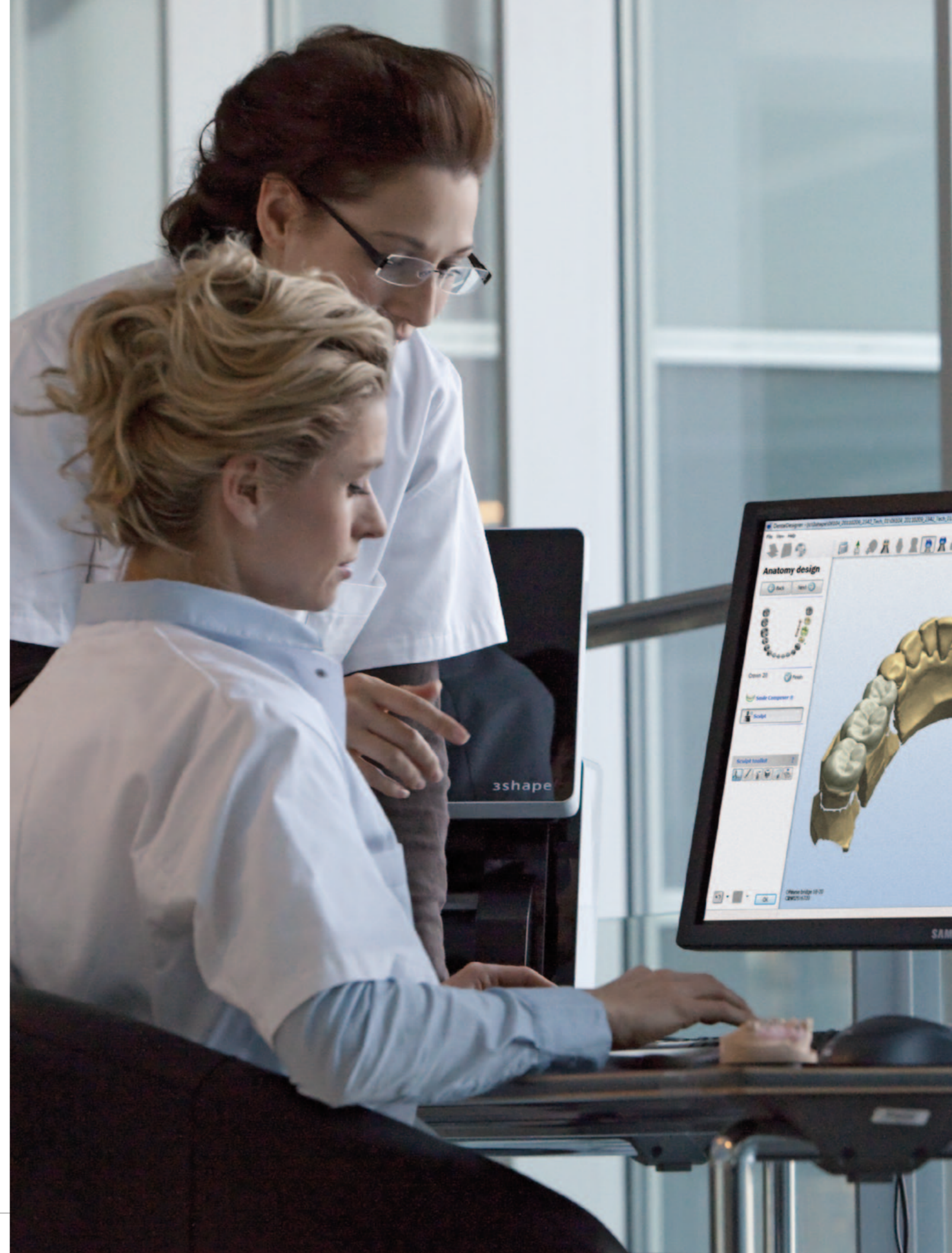
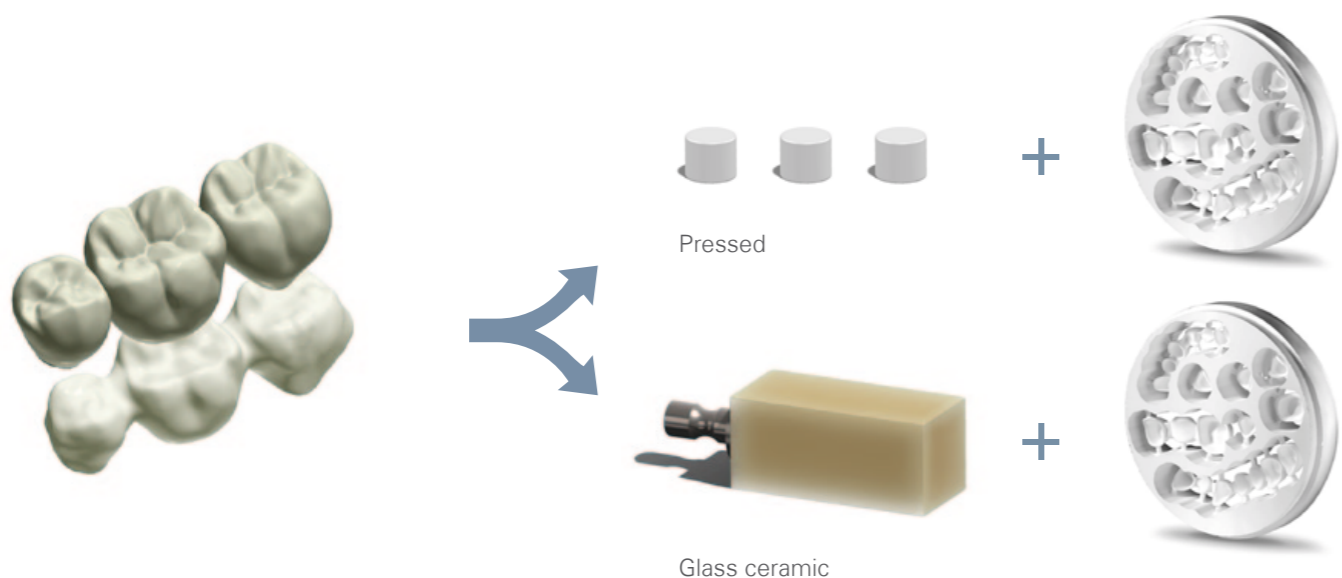
Dental System™ enables highly productive and seamless workflows for designing both the overlying and substructures for over-pressed or glass ceramic crowns and bridges. In combination with Smile Composer™ technicians can rapidly create highly esthetic full anatomies.

Pressed crowns and bridges

3Shape's Multilayer technology is highly optimized for pressing of crowns and bridges. Two separate files are automatically created for output - one for the substructure and one for the overlying anatomical wax pattern - both files ready to be transferred to their respective manufacturing equipment.

Glass Ceramics with high clinical quality

3Shape's Multilayer functionality enables high quality clinical results through restorations created by combining glass ceramics and Zirconia. The software creates the strongest possible support between the overlying glass ceramics layer and Zirconia substructure while ensuring optimal material thickness.



Temporaries and Diagnostic Wax-Ups

NEW
Dental System 2012

Complete digital workflow from virtual preparation to final crown

Powerful new features come together to form a revolutionary workflow solution for producing temporary crowns and diagnostic wax-ups - including Virtual Preparation, Virtual Gingiva, CAD Temporaries, Virtual Diagnostic Wax-up design and a unique Align & Reuse technology that utilizes the initial designs to produce the final crown in record time. Patent pending.

Efficient Temporaries design software

Labs can now prepare teeth and design temporaries in an all-digital workflow omitting the need for a physical model. Starting with an impression, intraoral or optional gypsum scan, technicians can apply automatic tooth segmentation followed by Virtual Preparation & Gingiva using accurate tools that also allow subgingival preparations for superior clinical results.

Building on the virtually prepared tooth, technicians can easily design a perfectly fitting temporary using Smile Composer™, free-form sculpt toolkit and more.

Virtual Diagnostic Wax-ups for dentist and patient previews

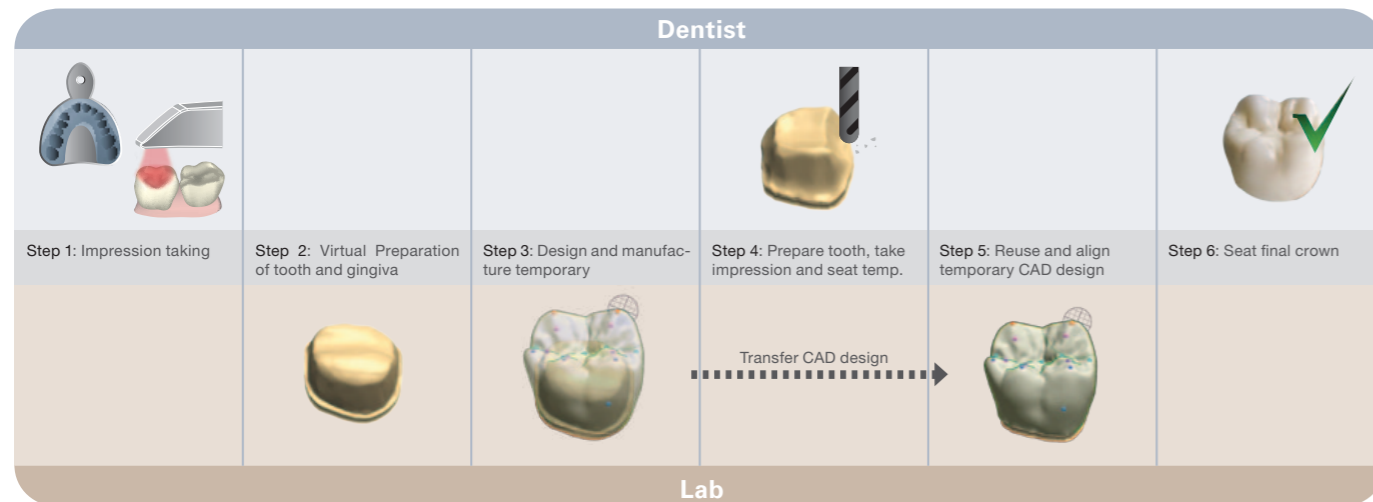
Based on Virtual Preparation & Gingiva, technicians can easily CAD-design highly esthetic Virtual Diagnostic Wax-ups for accurate design previews. Use Smile Composer™ to include both crowns and veneers in a completely model-free design.

The Virtual Diagnostic Wax-ups can be sent to the dentist on-line. With 2D-Image Overlay tool and Communicate™, labs can send before-and-after visualizations of the design and resulting smile for previewing and approval at the clinic.

An instant crown from the Virtual Diagnostic Wax-up

Using 3Shape's Align & Reuse technology, designs for the CAD Temporary or Virtual Diagnostic Wax-up are instantly available to be reused directly for the final crown. The scan of the physical preparation is accurately aligned with the existing CAD Temporary design or Virtual Diagnostic Wax-up to create a perfectly fitting final crown in record time.

This revolutionary digital workflow is fast, easy and provides high quality because final results are actually based on existing designs tested or viewed by the patient.

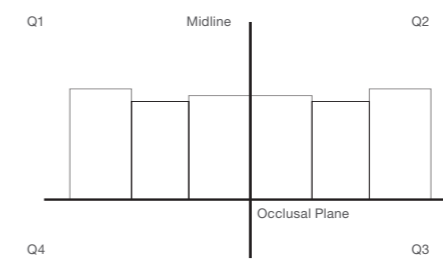


2D-Image Overlays

NEW
Dental System 2012

Making CAD-Designs Smile

3Shape's new 2D-Image Overlay tool enables labs to superimpose a patient's actual face and smile images in the design process and utilize both directly to produce optimally esthetic and personalized restorations. When combined with 3Shape Communicate™, labs can show the dentist's patients exactly how a new restoration will transform their smiles and get immediate feedback. The smile visualization is highly realizable because it is solidly backed by the manufacturable 3D model and not just 2D image manipulations. Patent pending.



Personalized designs with patient-specific 2D-Image Overlays

Import 2D images of the patient's lips, teeth and smile to design restorations that exactly suit the patient's personal look. Apply image manipulation tools to mask away the teeth, and alignment tools to bring lips and new teeth design together as your perfect personalized design guide.

High esthetics with generic 2D-Image Overlays

Dental System™ supports 2D-image libraries that help you achieve astounding esthetics, even without pictures of the actual patient's smile. Select from a variety of smile-guides and design-templates to recreate complete smile compositions to apply with your restoration design.

Before-and-after visualization

By continuously interchanging between situation views through gradual fading in-and-out, technicians, dentists and patients are easily able to detect even the smallest alterations and smile details for optimal comparisons.



Dynamic Virtual Articulation

NEW
Dental System™ 2012

Superior function and fit with true articulator motions

Creating a crown or a bridge without the guidance of dynamic articulation and articulating paper would be improbable to most dental technicians. 3Shape's Dental System™ recognizes the relentless pursuit of the perfect occlusal fit, and takes articulation to whole new levels with its new generation Dynamic Virtual Articulator. A high degree of automation and unsurpassed precision save valuable time and minimize the need for manual finishing.

3Shape's Dynamic Virtual Articulator provides a fast and precise way to carry out a traditionally manual task. Based on familiar methods, this tool truly links the virtual world with its equivalent physical workflow.

3Shape's Dynamic Virtual Articulator software can both automatically and manually perform all classical jaw movements including Protrusion, Retrusion, Laterotrusion, Mediotrusion and Immediate Side Shift, providing complete articulation in a single digital-only workflow.

Technicians can work virtually with a generic articulator or with the specific articulator model in their lab. Dental System™ supports the market's widely recognized articulators, providing an optimal user-experience and ensuring that the software settings remain compatible when executing final quality control of the physical restoration.

Extended automation and superior occlusal fit enable dental technicians to significantly reduce, or even avoid, the time needed to finish and correct a manufactured crown manually.



3Shape Virtual Articulator



KaVo PROTAR®evo



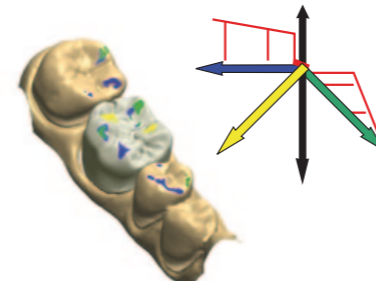
Whip Mix Denar® Mark 330

Feels just like your own physical articulator

The digital model is automatically loaded into the Dynamic Virtual Articulator with the default system-calculated occlusal plan already in place and ready to be fine-adjusted if needed. Perform jaw movements either manually or let the system play them all automatically as you watch. Apply virtual articulating paper to see the occlusion colored contact points. Additional sophisticated articulation tools include support for Intraoral Occlusal Design. Patent pending.

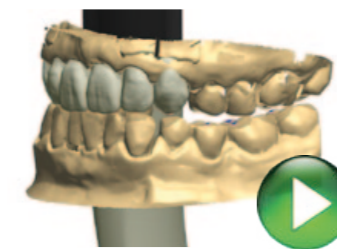


SAM® 2P



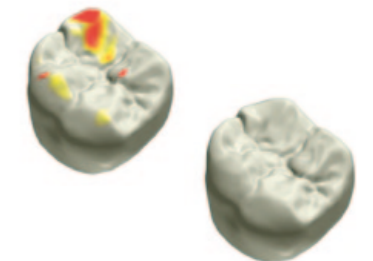
Occlusion Compass

Dental System™ introduces its new Virtual Articulation Paper with a unique Occlusion Compass that gives occlusion paper usability a whole new meaning. With occlusion Compass functionality, the color of contact points are mapped to specific occlusion movements.



Intelligent auto-play jaw motion

Create and play predefined motion scripts that automatically run through Protrusion, Retrusion, Laterotrusion, Mediotrusion and Immediate Side Shift. Technicians can define their motion sequences in customized scripts if they need to repress or repeat one or more motions for specific cases.



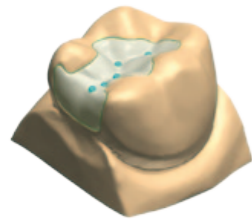
Automatic adapt occlusion

The unique Adapt Occlusion feature enables users to set occlusion with a single click. As it runs through the different motions, the Dynamic Virtual Articulator software records the complete occlusal story including all contact points and their depths in all jaw movements. The system utilizes the movement data to automatically calculate and adapt occlusion, enabling technicians to easily achieve superior occlusal fit in record time.

Inlay, Onlay & Veneers

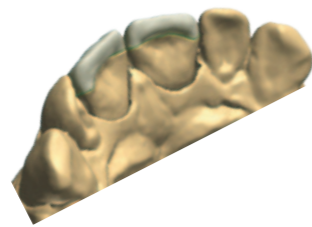
As simple as designing a coping

3Shape's Dental System™ supports highly productive design of inlays, onlays and veneers. Automatic anatomy morphing and integrated design workflows with 3Shape's Smile Composer™ ensure both superb esthetics and high-strength results. Inlays, onlays and veneers are important indications and 3Shape's solution will enable labs to broaden their services and significantly increase returns on their CAD/CAM investment.



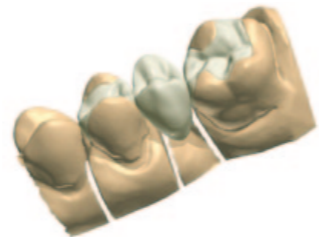
Inlays and Onlays NEW Dental System™ 2012

Dental System™ intelligently suggests insertion directions, margin lines, undercut removal, anatomical shape, and matching to proximal/antagonist surfaces. Margin line protection ensures restoration strength while new drill compensation optimizes for a perfect fit. Technicians can fine-tune the automatic design proposals using Dental System's™ extensive sculpt toolkit.



Veneers NEW Dental System™ 2012

Technicians can utilize the full power of Dental System™ for designing highly esthetic and correctly offset veneers based on the full smile. Combining Smile Composer™ with Dental System's™ automatic and freeform morphing technologies provides unsurpassed design flexibility. Dental System's™ Veneer designs are optimized for efficient manufacturing using the market's most esthetic materials such as those used with pressing or glass ceramics.



Inlay & Maryland Bridges

Dental System's flexible and productive Inlay, Onlay, Veneer modeling tools can be applied for creating multi-unit as well as single-unit designs. Easily generate esthetic Maryland Bridges by directly applying Veneer designs using Smile Composer™. Design Inlay Bridges by combining multiple Inlay designs in a single restoration.

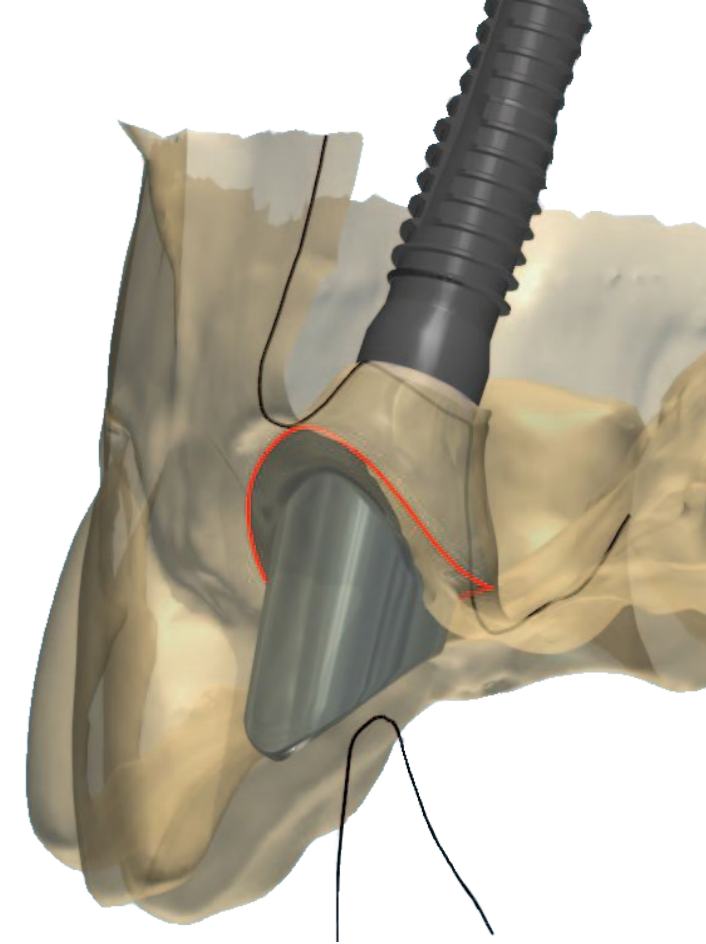




New 3rd generation abutment design - ultimate design power

NEW
Dental System 2012

3Shape's new Abutment Designer™ introduces Robotic Abutment design tools, providing technicians with better design control, including numerical fixed radius on edges, improved control of shoulder width and accurate drill compensation ensuring optimal fit of copings designed simultaneously with the abutment.



Abutment Designer™ Customized abutments - perfect esthetics made easy

3Shape's 3rd generation Abutment Designer™ offers extensive new functionality for faster and better customized abutment design, scan of wax-up abutments, and integrated design of abutments, copings/frameworks and crowns. Abutment Designer™ supports an extensive range of implant systems while the list continues to grow.

Implants and abutments are a key factor in maintaining high profitability in many labs.

Abutment Designer's™ integrated design functionality enables simultaneous creation of customized abutments, copings/frameworks and crowns. This not only increases turn-around time and productivity by eliminating the time spent on waxing and casting, but it also enhances accuracy and esthetic results – providing higher profitability and dentist satisfaction.

Abutment Designer™ supports a vast number of different implant systems covering all major players. The actual implant system libraries used in Abutment Designer™ are provided by different suppliers and include both original implant manufacturers and "compatible-with" manufacturers.

The actual materials offered depend on the selected supplier. Abutment Designer™ can design single material abutments, or apply pre-manufactured CAD/CAM abutments for cementing together with a modeled customized piece.



Outside-in abutment design

Design anatomically correct abutments with only a few clicks. Fit a draft model of the crown to its neighbors leaving an even margin for the porcelain layer and the system automatically designs the abutment, matching the crown's form. Set margin to zero for producing single-piece restorations such as screw retained crowns in materials such as E.max, Zirconia, composite and temporary materials.



Parallel abutments feature

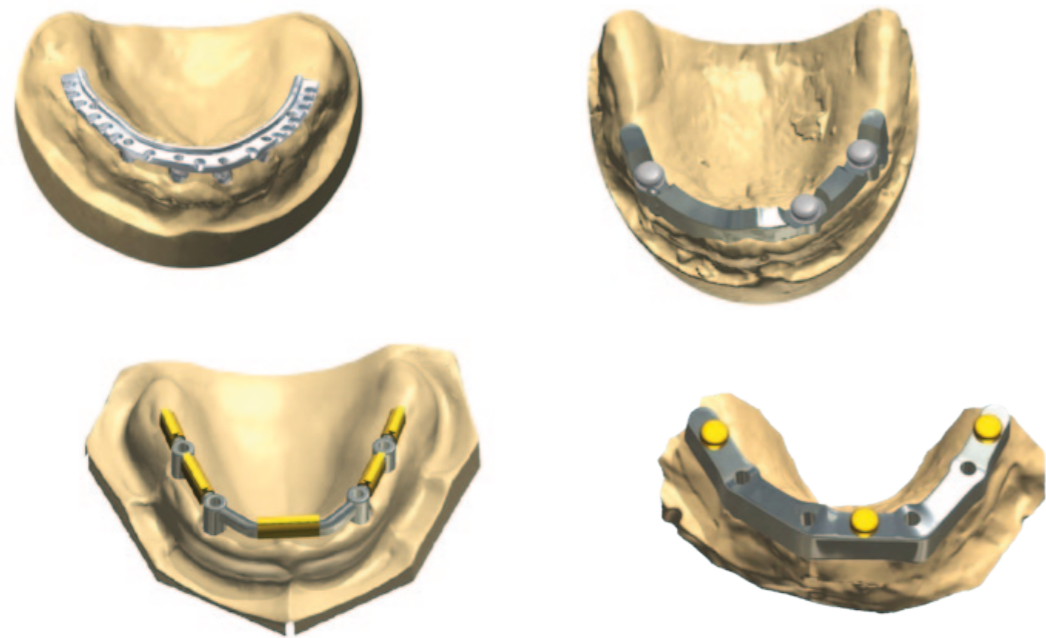
Define a common insertion direction for groups of customized abutments to ensure perfect angles for the secondary structure. Virtually lock abutments together for interactively changing the insertion direction for all simultaneously.



Simultaneous prosthetic and surgical planning

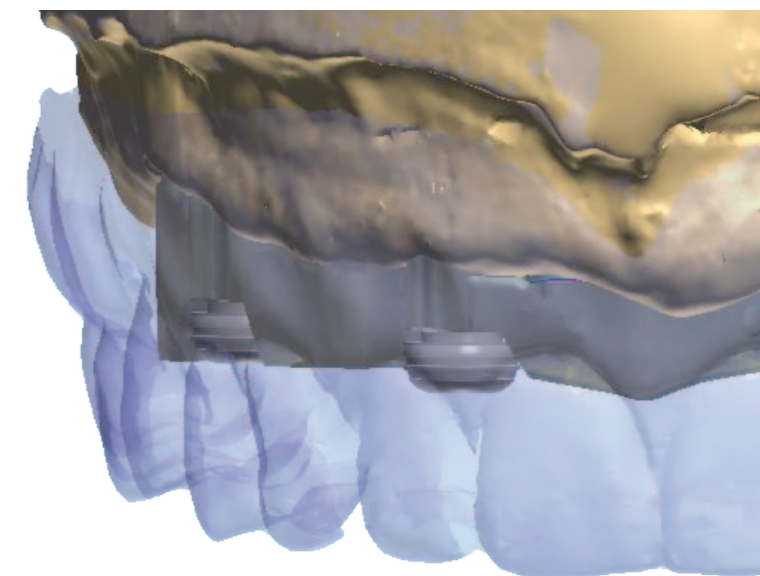
Export scans and design files from Dental System™ into 3rd party implant planning software to get optimal clinical and esthetic implant planning. Import planned implant positions and CT-scan surfaces from implant planning into Dental System™ to design customized abutments, temporaries and potentially the final crown for direct loading.

NEW
Dental System 2012



Flexible design - shape the bar, add attachments and cut-to-gingiva

Use the intuitive tools to form and cut the bar for optimal fit to the denture, gingiva and implants. Measure space and distance. Shape implant connections as cylindrical extensions or freeform emergence profiles. Freely add slide attachments, ball attachments, locators and retention holes, and fine-adjust their position and angles. Technicians can import their own CAD library of attachments into the system.



Implant Bars and Bridges Unleashing creativity with precision, flexibility and esthetics

Get the market's most precise, productive and cost-saving tool for designing sophisticated implant bars and bridges for both removable and fixed prosthesis. 3Shape's solution supports standard and free-form bar shapes and enables virtual addition of attachments, locators and retention holes. Enjoy significant material savings while cutting production time by 60-70%.

Implant bars and bridges often involve complex geometric patterns and demanding accuracy requirements. 3Shape's dental scanners are renowned for their long-span bridge scanning capabilities, and superior results with such restorations.

5.0 Megapixel cameras on the D800/D810 scanners and high quality scan abutments enable perfect 3D data capture of both implant positions and orientations to ensure a perfect passive fit of the produced bridge or bar when seated.

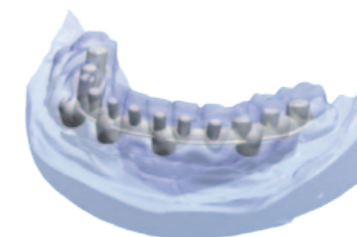
Technicians can combine a scan of the acrylic denture with the bar design to visualize and measure on-screen for a perfect match between denture, bar and implants.

3Shape's Implant Bar and Bridge solution provides a completely digital linear workflow, bypassing numerous cumbersome, time-consuming and material-expensive steps to allow your lab's productivity and profitability to reach new heights.



Fully digital implant bridges

Applying Smile Composer™ in combination with implants lets technicians easily model full anatomy and highly esthetic implant bridges. The Cut-back feature provides fast and accurate anatomical reduction of the implant bridge for veneering when designing either with Smile Composer™ or on scanned dentures.



Design accuracy for implant hybrids

Scan and utilize the try-in denture, including its gingiva to create the hybrid bar directly underneath the denture scan. Apply the powerful attachment tools to include retention structures for acrylic teeth. You can place your pins with supreme accuracy to achieve perfectly fitting implant hybrids.



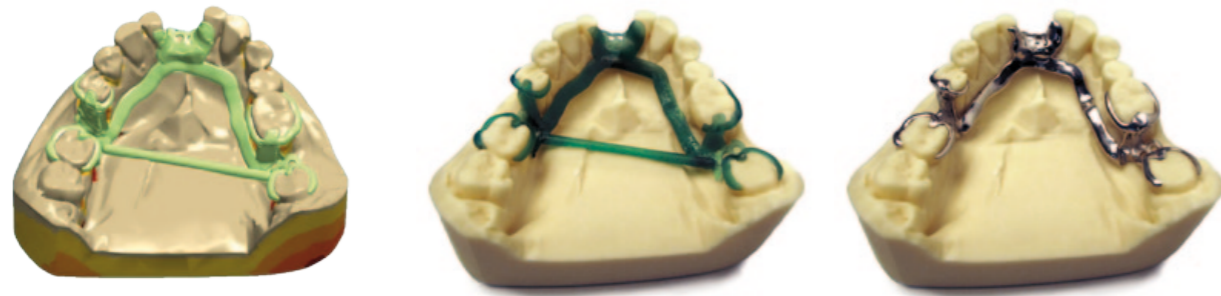
Create optimal designs for copy milling

Scan an original wax-up bridge or hybrid design for remodeling in a new material to create a digitized file that is perfect for copy milling. Apply fine adjustments to the digitized model to achieve the optimal copy milling result.

Scan your pencil markings on the model for semi-automatic design creation

NEW
Dental System 2012

Combine your artistic technician skills with the digital process and jumpstart the design workflow. Texture Scanning on the D800/D810 scanners enables technicians to capture their hand-drawn framework position markings made directly on the physical model. The software semi-automatically detects and translates the lines in 3D to jumpstart modeling of complete partial structure and clasps.



Removable Partial Design Design removable partials in less than 12 minutes

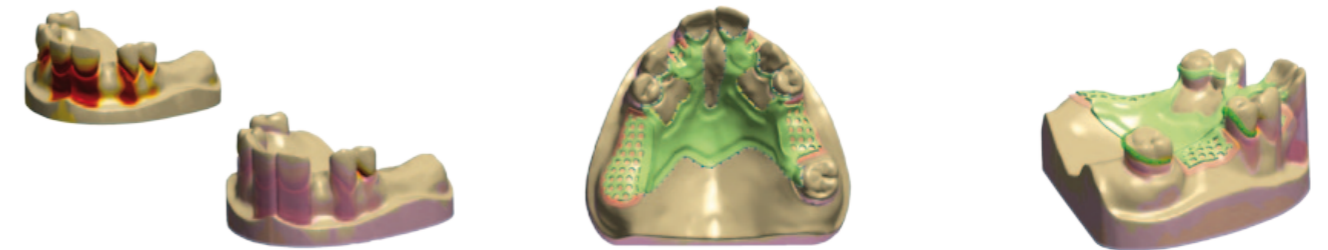
3Shape's groundbreaking Removable Partial Design is the ultimate tool for highly productive and reliable creation of removable partials, providing labs with accurate digital control over a technique-demanding process while reducing production time by 70-80%. Removable Partial Design enables fast and robust design of both metal and flexible frameworks.

3Shape's Removable Partial Design brings lab productivity and profitability to new heights. The fast and easy workflow saves time and frees design technician-time for other tasks. Digital design removes the need for 2nd re-factory model-making saving both time and money.

3Shape Dental scanners will capture a gypsum model or impression with the required accuracy in only 100 seconds. Include your hand-drawn markings with Texture Scanning on the D800/D810.

Fully exploit your technician expertise within a digital design process that intuitively mimics the familiar manual steps, including automatic blocking out of undercuts, retention grid design with automatic resin gap, major connector, and addition of clasps.

The system's high accuracy ensures results that matter to the dentist and patient, such as high esthetics, easy removability, proper chewing, and a perfect fit.



Survey, block-out and expose undercuts
The completely digital survey accurately identifies undercuts according to 3 virtual gauges enabling users to plan clasps at optimal positions. Automatic virtual wax block-out ensures easy denture insertion and reliable retention – all in less than a minute.

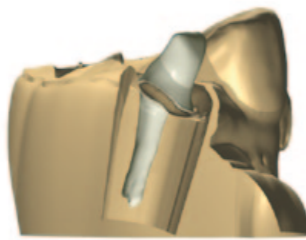
Retention grid and major connector design
Highly intuitive workflow aids for designing the retention grid. Select from the list of pre-defined grid patterns and apply the mesh to the digital model for a perfect retention. Efficiently mark the area for your major connector using 3Shape's fast edit tool. A unique acrylic retention profile automatically appears at the border between major connector and retention grid.

Optimal clasp design and attachment
Virtually draw your lines for clasp placement and apply predefined or customized clasps to the model. The interactive preview lets you fine-adjust each clasp through control points. Apply the powerful attachment tool to add additional structures such as post-springs for retention of acrylic teeth.

Advanced Indications and Interfaces

Your access to emerging technologies and new indications

Through constant attention to technology innovation, flexible interfacing and workflow integration, the 3Shape Dental System™ provides the safest platform for your CAD/CAM investment. Flexibility and versatility are among the most important factors to consider when selecting a CAD/CAM system that can grow with your lab business.



3rd party digital impression scan import

NEW
Dental System™ 2012

Digital impression taking has become a key component in driving the future of digital dentistry. 3Shape's Dental System™ supports the import of scans, margin lines and order information from intraoral scanners such as Sirona CEREC, Cadent iTero and 3M Lava Chairside Oral Scanner. Imported scans can be used for restoration modeling without constraints on the manufacturing output.

Post & core using impression scanning

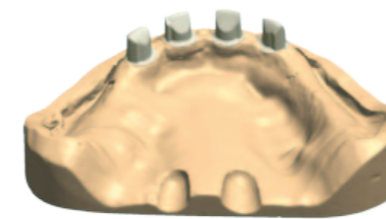
3Shape's adaptive impression scanning capabilities enable the scanning of post & core restorations, something which is impossible on traditional gypsum scanners due to the narrow core. Designing the post & core restoration takes place using the advanced 3Shape modeling functionality. Patent pending.

Copy milling of wax-up bridges

Enables high accuracy copy milling of complex and advanced wax designs by scanning the original wax-up design. The scan can be further modified using for example overall reduction, or by applying the sculpt toolkit to make the most of the CAD/CAM investment.

Simultaneous design of multiple indications

The unique flexibility of Dental System™ allows users to design all restorations in the same modeling session. For example, it is possible to simultaneously design a standard bridge, full anatomy crowns and an implant bridge. Simultaneous modeling of multiple indications empowers technicians with intuitive workflows that increase efficiency, enhance esthetics and improve clinical results.



Integrated primary and secondary telescope crown design

NEW
Dental System™ 2012

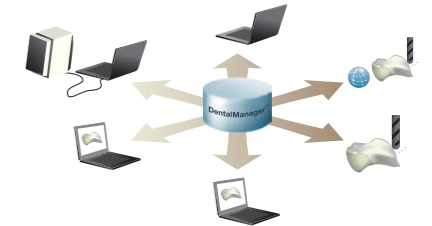
New Dental System™ software for optimized creation of telescopic crowns - now with both primary and secondary telescope modeling and improved edge design. Easy workflows let you base designs on pre-defined geometrical shapes, user-defined angle and common insertion direction. With Dental System's™ powerful attachment tool, any attachment can be added to the design. Patent pending.



Applying pre-preparation model directly in the design

NEW
Dental System™ 2012

With Dental System™, technicians can segment teeth from pre-preparation scans and diagnostic wax-up scans, and use these directly as designs in the modeling process. This enables fast and efficient replication of existing dentition.



Multiple workstations for ultimate productivity

Get the most out of your technician staff. Set up multiple workstations with Dental System™ to flexibly match your lab's current and future tasks. Users can efficiently scan, design and create orders in parallel, sharing files with continuous data consistency.

Dental System Inbox™ NEW Dental System 2012

Improved service and reduced handling costs

3Shape's Dental System Inbox™ offers a fully integrated order flow - from the dentist to the lab and from the lab to the manufacturer. Inbox™ is a powerful remote order management tool that automates and optimizes time-consuming order-administration processes and enables technicians to be more productive. Three free Inbox™ user-licenses are included with every Dental System™ Premium.

Providing Order transparency for all parties

Inbox™ provides an easy-to-use interface, where users, with the click of a button, can safely transfer orders across networks to and from the lab. Lab-partners can monitor the status of their orders in real time, and effectively communicate with the lab. Inbox™ is scalable for labs of any size and is easy to set up on any FTP enabled network.

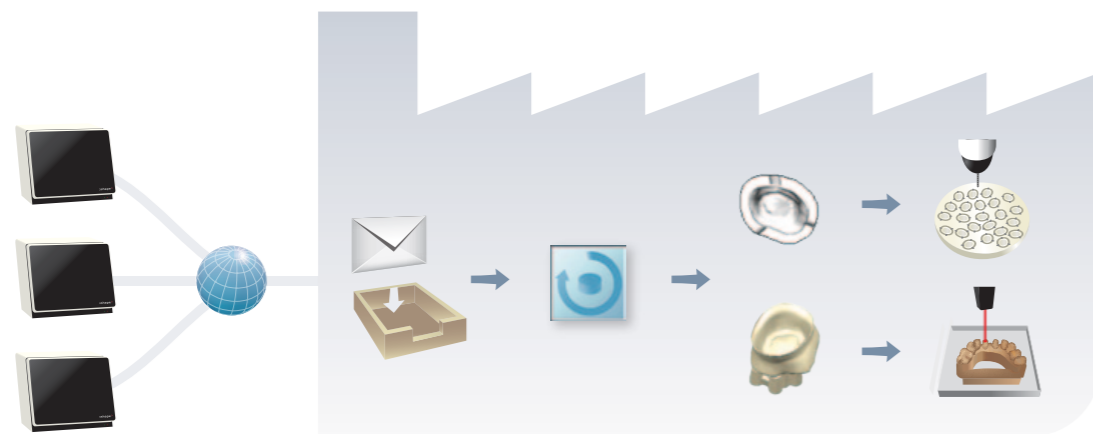
A new service for your dentist-clients

Your dentist-clients can send their orders and digital impressions directly into your Inbox™ making them immediately available for starting design and manufacturing. Incoming orders can then be processed when convenient and if needed, the lab can easily return feedback or questions directly on-line. Inbox™ saves loads of administrative hassles while providing an attractive service that tightens relationships with dentist-clients.

Streamlined communication with manufacturers

The lab can send completed orders and 3D designs from Dental System's™ order management directly to the manufacturer with a single click. Inbox™ automatically creates estimated shipping and delivery dates based on the material ordered and the manufacturing process involved. With 3Shape's CAMbridge™ included in the workflow, labs can realize fully automated manufacturing.

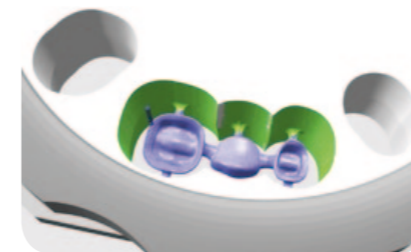
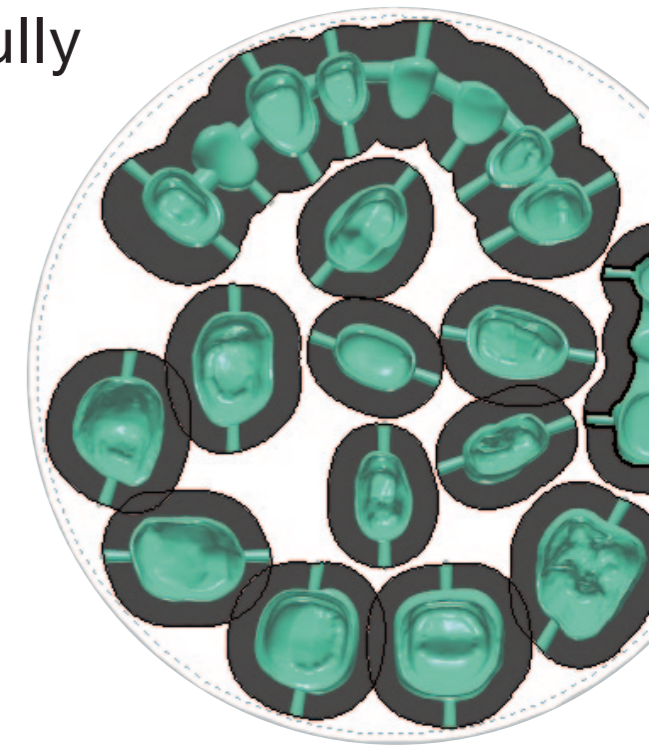
Streamlined administration of orders on both sides – input from dentists and output to manufacturing



CAMbridge™

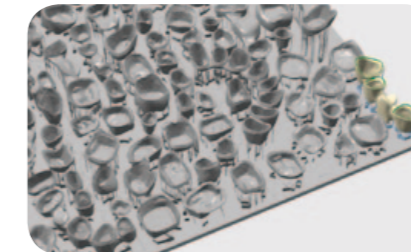
Be more competitive with fully automated manufacturing

As orders are ready for manufacturing, CAMbridge™ automatically prepares the completed digital designs for the selected material and corresponding manufacturing equipment. CAMbridge™ is fully integrated with Dental System™, automatically exchanging complete order information and manufacturing progress. CAMbridge™ not only reduces manpower and skill requirements, but also improves material utilization and increases manufacturing capacity.



Efficient CAM software with milling strategies

Get one of the market's fastest milling strategies, razor sharp margins and perfect fit that removes the need for manual finishing. Milling strategies are for 3.5-axis machining and 3+1, 3+2 machining for selected 4 and 5 axes milling machines. The software can seamlessly transfer files and control the machine and calculate milling strategies for a full blank in 150 seconds. CAMbridge™ contains high-end support for STL files, including auto detection of margin line and undercut reduction.



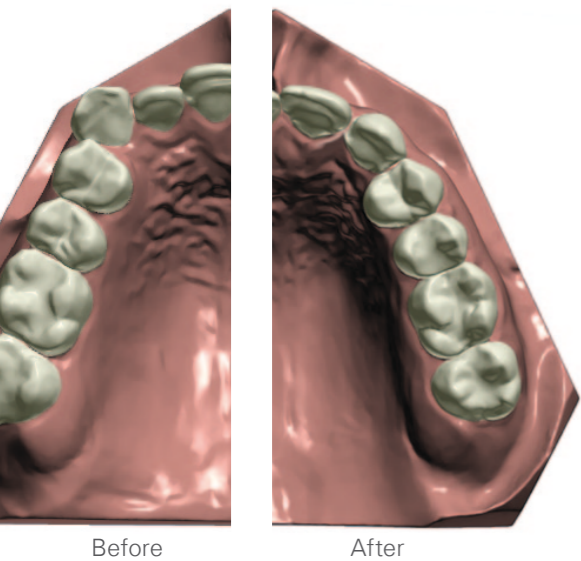
Wax printers and model making machines

Automatic preparation includes optimal placement, orientation, support generation, order management and communication with the machine. Adaptive grouping enables automatic clustering of cases and groups can be defined based on names or clinics. Use configuration rules to automatically group items on the build platform with optional printed boundaries for easy identification. ID tags can be placed next to each item to minimize processing after printing.



Automated preparation for Laser sintering machines

Includes optimal placement, unique support generation and ID tags for easy identification. The unique support structure suppresses warping during the sintering process, yet is still easy to remove. Adaptive grouping is also provided for laser sintering.



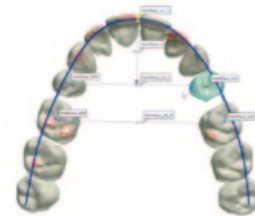
Ortho System™ NEW Dental System 2012

Extend the digital workflow to your orthodontic department

Leverage your 3Shape Dental System™ investment with the Ortho System Add-On Module™. Expand your business by offering full digital services including the creation of digital Study Models, 3D treatment planning, and manufacturing of appliances using digital input.

Prepare your lab for the future of orthodontics while cementing customer relations. Enjoy immediate cost reductions in manufacturing, shipment and archiving. Provide efficient communications that give your customers instant insight into their patient's case.

3Shape has firmly established its position as the leading industry pace-setter for breakthrough developments in 3D scanners and CAD/CAM technologies. More than 200 employees and over 100 developers work daily to bring 3Shape's innovative solutions to dental labs worldwide. 3Shape is a global company and its offices span the world with presence in Western Europe, Eastern Europe, Asia and the Americas.



Offer a new Digital Study Model service to your orthodontists

Scan silicone or alginate impressions, or gypsum models and wield 3Shape's Orthodontic solution to easily create digital Study Models with the virtual base of your choice.

Omit the physical model and save storage space plus handling. Make the digital Study Model, treatment plan and appliance-options available for your orthodontist using 3Shape Communicate™ or via email with a dedicated 3D viewer. Discuss treatment and appliances options online with your customers as you both view the 3D model.

Powerful 3D treatment planning tools in OrthoAnalyzer™

Using the digital Study Model, technicians or orthodontists can create optimal treatment plans, showing and comparing different treatment alternatives.

High performance tools help to segment the dentition accurately, perform virtual setups and export treatment plans that summarize detailed teeth movements. Includes accurate comparison of before-and-after models.

3D-based manufacturing

Digital Study Models and 3D treatment plans can be used directly to create orthodontic appliances using powerful 3D modeling tools and rapid prototyping technology.

The open output format guarantees smooth interfacing and compatibility with the market's widest range of manufacturing equipment. Should your customers request physical Study Models, these can be quickly and conveniently created on Rapid Prototyping machines.

www.3shape.com

Technology designed the way you work

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