

# What's new in Dental System™ 2013



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## WHAT'S NEW IN DENTAL SYSTEM™ 2013

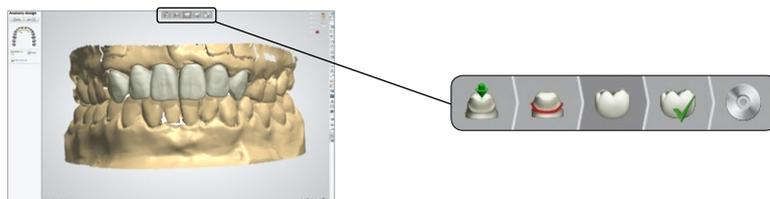
3Shape's Dental System™ 2013 carries forward 3Shape's long standing reputation as the creators of the world's most innovative and sold lab system for Dental CAD/CAM. This latest Dental System™ 2013 version release brings 3Shape users even more powerful features, improved functionalities and new tools to improve your productivity and business opportunities.

3Shape believes that a dynamic and continuously up-to-date system is a natural trait of any CAD/CAM solution for labs and that is why we include unlimited upgrading as an integral part of our LAB care™ package to regularly empower your system with the latest technologies. Now we give you yet another release, to ensure that your system represents a future-secure investment - stays alive for years to come, and grows stronger and more competitive every year.

Each of the new major additions is described below followed by a [list of minor improvements](#) implemented in coming updates during this year. Please refer to the online User Manual for detailed descriptions of each feature. We hope you will enjoy exploring the creative power of this new release and trust that it will add true value to your daily business!

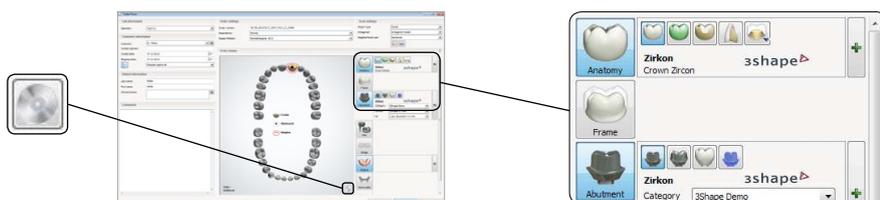
### New Dental System™ user interface

The basic user-interface has been redesigned in Dental System™ 2013 to improve ease of use and simplify the design workflow. The new Full Screen design window maximizes 3D design space while a redesigned workflow progress bar carefully guides the user through each design step. To ensure a high level of consistency, the same icons are now reused in the Order Form, workflow progress bar, visualization sliders, Control Panel etc.



### Improved Order Form

A new collection of Order Form icons makes it easier, faster and more intuitive to create orders. The Order Form has been expanded with a range of new indications, such as Anatomical Abutments, Screw Retained Crowns, Post and Core, and Gingiva design for selected restoration types. Using the new 'Set default' option icon, the user can save his Order Form selections as default for the particular order indication. A new option makes it possible to visualize the brand logo of selected materials directly in the Order Form for easier identification.



# What's new in Dental System™ 2013



## Change Order Form during design

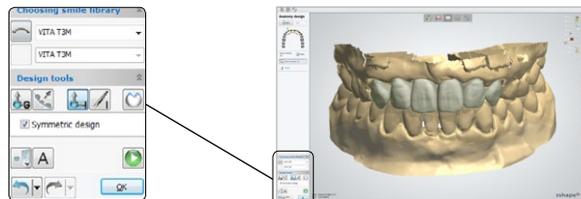
The 2013 release introduces a new option to change the selected Order Form indication during design and reuse the margin line and anatomy design that have already been created. This enables users to easily change the order without the need for redesigning. For example when changing a "Crown" order to an "Anatomical coping" order or when users need to change an implant library in the middle of the design workflow.



## Smile Composer™ - more tools, easier to use, better designs

Dental System's™ user-acclaimed Smile Composer™ just keeps getting better. In the 2013 release, Smile Composer™ has been updated with new tools, a new User Interface, new 'Preview images' in the library drop-down menu, and even more anatomy and smile libraries, including pritidenta® pre-manufactured glass-ceramic crowns and PhysioStar®. Transition from margin line to anatomy and the Global Transformation tool - used for moving multiple teeth simultaneously - have been improved significantly.

Upper and Lower designs can now be moved at the same time – and the new rotate and scale functions make it easier than ever to adjust your designs of single teeth - simply click on the new control point above the tooth to switch between the two functions. The toolbox has been expanded with new Short Keys (1-7) for fast changing between different tools and an improved Occlusal attrition tool. (Some features are partly released in Dental System™ 2012).



## Morph the Anatomy to Wax-up or Pre-preparation scans

A new powerful tool allows users to easily morph the anatomy layer to a Wax-up scan or Pre-preparation scan and thereby make the anatomy correspond to the original teeth or to a well-functioning temporary. The functionality is available whenever a Wax-up or Pre-operational scan is present and can be performed using the 'Mirror' icon in the Smile Composer™ step.



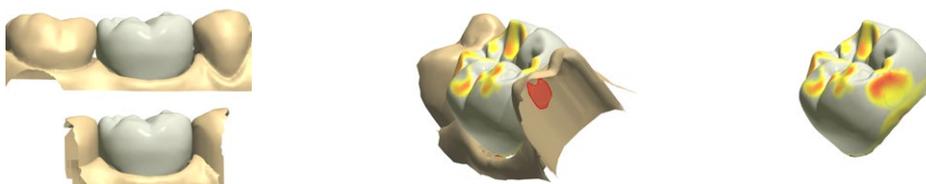
Pre-preparation scan



Design after morphing

## Crown Insertion Tool

The 2013 release introduces a unique Crown Insertion Tool that enables users to check for crown undercuts towards the neighboring teeth to ensure smooth insertion of the final crown. A color map instantly visualizes neighboring teeth undercuts and the new Threshold Sculpt tools make it easier than ever to adjust the crown for smooth insertion and optimal interproximal contact design.



# What's new in Dental System™ 2013



## Updated and improved Sculpt Toolkit

Once again we have added more advanced dental design tools to the Sculpt Toolkit. The new 'Threshold-based' Add and Remove tools enable technicians to control the exact distance of the CAD design to the preparation die, the adjacent teeth, or the antagonist, and the 'Precise Cut to Antagonist' function helps to obtain an even more realistic-looking contact surface. Users also benefit from the new "Cut-to-antagonist" function for CAD design on the antagonist and the updated attachment tool that now includes the option to create holes in any coping or crown design – this is for example a useful feature when designing a coping with a screw hole for placement on top of a stock abutment.



## New Post and Core design software

Dental System™ 2013 includes a completely new Post and Core solution with unique scanning and design workflows. Use the patented and specially designed scan-posts to capture post positions and depth from the model, and save time by designing all layers in a single workflow. By first designing the anatomy layer, technicians can model an optimally shaped Post and Core guided by the form and boundaries of the final crown. The software works with scans from both TRIOS® and 3Shape desktop scanners and can be used for even complicated cases involving parallel core design and multiple posts.



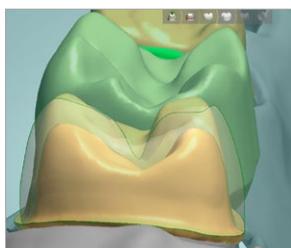
## Improved design of Inlays, Onlays and Veneers

Now technicians can use Dental System's Smile Composer™ to easily place the anatomy in their Inlay, Onlay and Veneer cases. An optimized algorithm automatically shapes and morphs the Inlay and Onlay surfaces to the remaining tooth, thereby ensuring high esthetic results with minimum need for adjustments.



## Multilayer Design for full digital bridges

The Multilayer workflow has been improved with higher stability and a new edge design that enables multilayer bridges to be split in two real layers. In addition, a new algorithm ensures a guaranteed minimum thickness of crown anatomy edges to avoid 'chipping' during manufacturing. When selecting the 'Enforce Shoulder' option during the 'Coping Design' step, the software automatically generates proper shoulders for crown support



# What's new in Dental System™ 2013



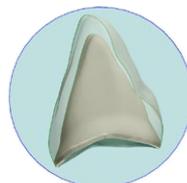
## High-esthetics with pre-manufactured glass-ceramic crowns

Enjoy a complete new approach to fully digital crown manufacturing using pre-manufactured crowns with multiple layers and colors mimicking the real tooth. The final restoration is designed inside the shape of the pre-manufactured teeth, thereby ensuring that the final restoration is always within the boundaries of the pre-manufactured teeth. The pre-manufactured teeth can be visualized in Smile Composer™ as design guidance. Pritidenta® pre-manufactured teeth library is included in Dental System™ 2013.



## Anatomical copings and frameworks

A new "simple edge" feature enables anatomical copings to obtain the same simple edge design as standard 'inside-out' copings for optimal milling performance. In addition, the 2013 release includes an improved feature to easily create Occlusal Stop on anatomical copings and frameworks to protect the crown from hard contact and ensure integrity of the ceramic material.



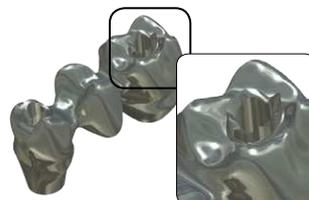
## Upgraded Telescope design including secondary telescopes

The improved software for designing telescopes now allows technicians to design both primary and secondary telescopes simultaneously in a single workflow without rescanning. Separate files can be outputted for all layers for manufacturing. Optimized telescope design tools include visualization of angle between insertion direction and telescope direction and option to define maximum angle difference.



## Screw-retained crowns and Anatomical abutments

With Dental System™ 2013 we introduce a new workflow for designing screw-retained restorations in Abutment Designer™. All types of abutments – Standard customized abutments, screw-retained Crowns and anatomical abutments – are now selected directly in the order form, followed by a new 'Anatomy-First' workflow for efficiency and optimal esthetics. A new design tool allows technicians to snap the abutment emergence profile to the crown anatomy to ensure a highly esthetic continuation of the crown onto the abutment emergence profile. Furthermore, technicians can enjoy updated tools for creating optimal screw-hole protections and limited cut-back on anatomical abutments.



# What's new in Dental System™ 2013



## Abutment Designer™ with expanded toolbox

The 2013 version of Abutment Designer™ offers an extensive range of new functionality, improved tools and more settings for faster and better customized abutment design. Now technicians always design the full anatomy first and visualize it directly in the abutment design process to ensure optimal esthetics. A new right-click option makes it possible to add (or remove) horizontal or vertical profiles during robotic abutment design enabling improved and more sophisticated design.

Users can also enjoy the new option to change implant kit during the design – a useful feature in situations where you suddenly need a 1-piece abutment instead of a 2-piece abutment due to clinical circumstances, and the improved possibility to keep design within the regulatory limitation.



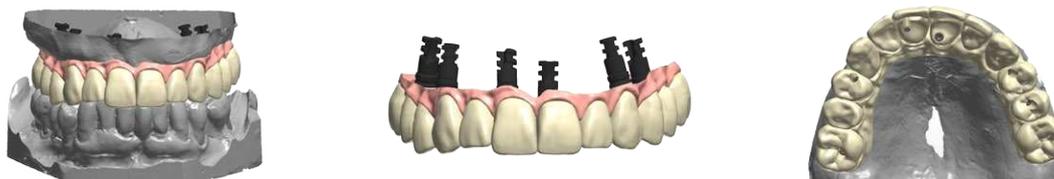
## Improved Implant Bars

It is now possible to combine different bar types in the same Bar design. With a new right-click option the user can select specific bar profile types for each segment of the bar. A new option has been added in the Dental System™ Control Panel allowing the technician to increase number of triangles (add extra points) and thereby improve the smoothness and finish of the manufactured bar.



## Advanced implant bridges with gingiva ("Prettau style")

The 2013 release also offers a brand-new workflow to virtually design advanced bridges - complete with gingiva, teeth, and implant interfaces. Use Smile Composer™ to design the anatomy and draw a single boundary curve to obtain an automatic proposal for the gingiva. Optionally, cut back selected areas of the teeth to prepare space for hand veneering and acrylic layer. Use the design as the temporary or final bridge. The design can be milled directly in Zirconia, titanium, PMMA, or other materials.

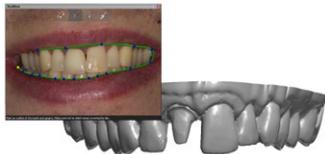


# What's new in Dental System™ 2013



## RealView™ engine including 2D Image Overlay

Get a near photo-realistic visualization of the patient-case that includes not only the newly designed teeth, but also the scanned existing teeth and the gingiva. When combining the RealView engine with 2D image overlays of the patients, labs can offer dentists a "What-You-See-Is-What-You-Get" communication tool and enhance client-relations. Easily align 2D patient images with the CAD design and zoom in and out. Only partly released, final version will be available end of Q1, 2013.



*Cut out original teeth in 2D image*



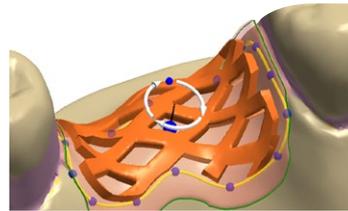
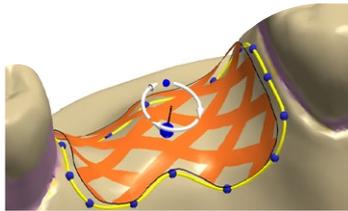
*Align 3D model and 2D Image*



*View 3D design and 2D image together*

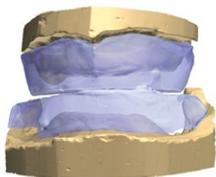
## Updated Removable Partial Denture workflow

The Removable Partial Denture design toolbox has been updated with a new Retention Grid tool to easily pan and rotate the retention grid patterns for optimal placement. In addition, the retention grid library has been expanded with a new 'Rhombus' grid pattern. Among the new tools you also find the option to control the resin gap width, thereby allowing technicians to design Removable Partials with a self-cleaning effect. New algorithms improve RPD fit through enhanced precision of the 3D surface, and the Curve (spline) validation functionality checks curves and highlights problematic sections to be adjusted during design. (Some features are partly released in Dental System™ 2012)



## Ground-breaking Digital Denture Design

The completely new Denture Design™ software brings digital precision and efficiency to a traditionally technique demanding process. Scan the wax rim, upper and lower gypsum model to obtain correct case setup. By combining the flexibility of 3Shape's Smile Composer™ with the unique Gingiva Creation Tool, technicians can model highly esthetic and functional dentures while significantly shortening the design step. Place the teeth with Smile Composer™ and quickly adjust all teeth simultaneously. Draw the outer boundary of the denture and the system automatically designs the gingiva shaped to fit the teeth. All sculpt and edit tools can easily be applied to add anatomical details to the gingiva with your own artistic touch.



*Establish occlusion*



*Place teeth with Smile Composer™*



*Design Gingiva with a few clicks*



*Final denture*

# What's new in Dental System™ 2013



## Improved Model Free Crown Workflow

Dental System™ 2013 includes an improved workflow for Model Free Crown production based on impression scans, TRIOS® scans, and 3rd party digital impressions. As the 'scan segmentation' step is now fully integrated in the CAD design software, the workflow has fewer steps and is faster and more intuitive to use.



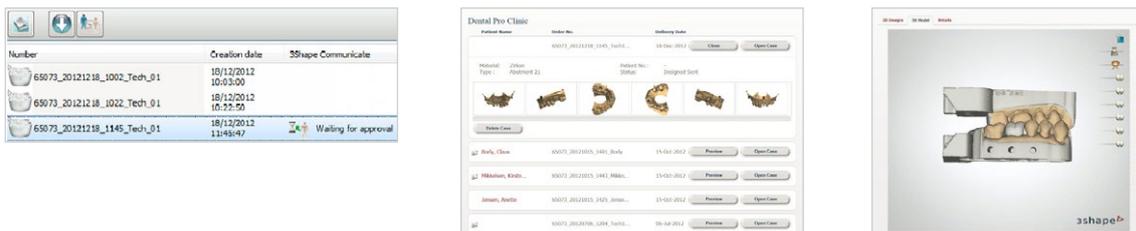
## Connect to any TRIOS® with the TRIOS® Inbox

The new TRIOS® Inbox added to Dental Manager™ enables labs to receive scans from TRIOS® Digital Impression Systems worldwide when lab and dentist are connected through 3Shape Communicate™. Incoming cases are accepted or rejected with a single click and a notification is immediately send back to the dentist's TRIOS® system. TRIOS® orders are quickly identified in Dental Manager™ with the new "TRIOS® Scan" icon added to the Dental Manager™.



## Improved 3Shape Communicate™

3Shape Communicate™ offers labs and dentists an advanced communication tool that lets them share case information and 3D designs on-line. Through Communicate™, labs can provide better services, enhance both dentist and patient satisfaction, and cement business relationships with their dentist-clients. With the improved version Labs and Dentists can easily connect – "facebook style". New optimized communication protocol allows faster transfer of 3D data and an improved 3D viewer enables improved 3D experience. A new Communicate™ column in Dental Manager™ keeps you updated with 'Communicate Status' for each order and informs you when new messages or approvals are received from the dentist.



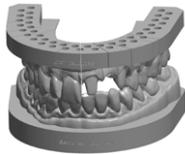
# What's new in Dental System™ 2013



## New Digital Model types for Crown and Bridge

Technicians can now design three different types of digital lab models for crown and bridge cases. Choose between Sectioned (dies ditched) models, Sectioned (Cut) models, and Unsectioned models with the option to produce dies separately. More than one model type can be selected in the same order. Furthermore, Model Builder™ now supports the option to cut digital model with final crown design to ensure the restoration does not collide with the gingiva area of the model. Model Builder™ now includes a new articulator interface for design of digital models to be used with 3Shape's own articulator.

(Some features are partly released in Dental System™ 2012)



Sectioned (Cut)



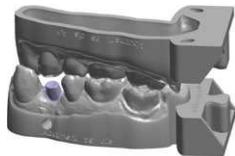
Sectioned (dies ditched)



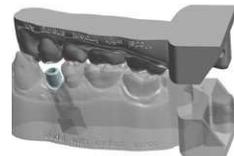
Unsectioned

## Advanced Digital Implant models

The new Model Builder™ enables users to choose between two different types of digital implant models depending on indication type and personal preferences. You can either design your Implant Model with interfaces for integrated implant analogs, or you can design the model with the abutment inserted as a die (i.e. no need for implant analogs). Following the design of the customized abutment the software automatically adjusts the digital model to fit the actual abutment design.



Implant Model with Abutment as a die



Implant Model with implant analogs

## Transfer exact position to virtual articulator

Transfer the exact jaw position from the physical articulator into the Dynamic Virtual Articulator. Use the specially designed 3Shape Transfer Plates, together with your 3Shape scanner, to capture the exact 3D position and bring it into the software.

(Some features are partly released in Dental System™ 2012)



## Create your own Dental Manager™ buttons

Dental Manager™ now allows you to create your own customized buttons and associate them with pre-defined actions. Labs can use their customized buttons for launching CAM software, for launching Track 'n Trace systems, for 3rd party integration or other actions of your own choice.

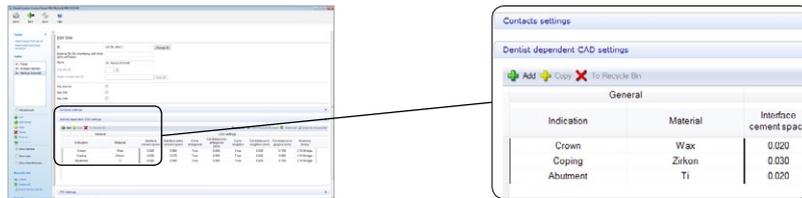


# What's new in Dental System™ 2013



## Dentist dependent CAD settings

A new option makes it possible to create specific Dental System™ design settings for each of the labs' dentists. When a specific dentist is selected in the Order Form, the predefined dentist parameters are automatically used for the order. Design settings can be defined for each indication and for each material, e.g. cement gap and extra cement gap settings for a zirconia coping. The design parameter settings are found under 'Dentist Settings' in the Control Panel.



## New solution for the smaller lab

To supplement the two existing Dental System™ packages - Standard and Premium – 3Shape introduces a new subscription called 'Dental System™ Full Contour'. The indications and tools in the 'Full Contour' package are optimized for dental labs that focus on full-contour modeling like full contour crowns.



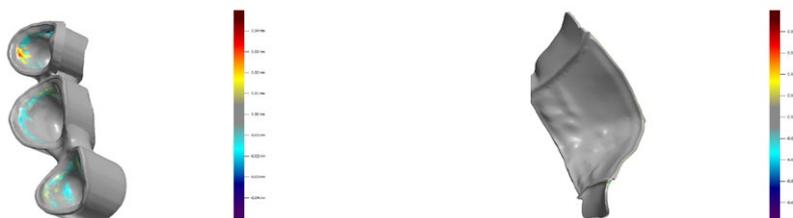
## Updated Online Help System with embedded training videos

Dental System™ 2013 comes with integrated Online Help in 12 languages. Users get instant access to detailed instructions directly from the software and are automatically sent to the relevant section in the manual. Embedded Training Videos can now be started directly from the relevant chapters in the Online Help manual, carefully guiding users through the different workflows and design tools. The Download Center in Dental Manager™ gives access to all the Online Help manuals in all 12 languages, training videos and other training tools.



## Auto-testing for increased software stability

With the release of Dental System™ 2013, 3Shape also introduce a new initiative to ensure high software stability. Everyday 200 cases sampled across indications, materials and countries are automatically tested in Dental System™ using 3Shape's new Auto-Test server setup. The manufacturing output – both STL files and text files - are compared against validated references and this ensures that most issues are identified and corrected on a daily basis before release of any software patches.



# What's new in Dental System™ 2013



## Version 2.8.8.9 (November 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.9:

### 3Shape 3D viewer

- New 3Shape 3D Viewer is available as a standalone version and included in the Dental System™ Installer. New features include:
  - Texture support.
  - Updated user-interface.
  - Multiple 3D models in the same application window with one slider per model.
  - Various file formats supported (STL, DCM/HPS, WRL, ASC, PTS).
  - Improved stability and various issues fixed.
  - Separate installer is available for standalone version (no dongle required).

### Scanning and Model Builder™

- Various issues fixed, including an "Out of memory" issue occurring in Model Builder™ for some Post & Core orders.

### CAD design

- New option allows the technician to configure minimum connector thickness for each connector depending on the connector's corresponding tooth position and the number of pontics. Advanced connector validation table is available on "Materials" page in the Control Panel (disabled per default).
- Optimized functionality for export of materials to significantly reduce the time needed for generation of dme-files.
- CAD Block rotation can be limited according to the axis of the milling machine.
- Various issues fixed, including issue with "flickering points" on texture scans.

### Dental Manager and Control Panel

- Orders sent from a newer version of Dental System™ to the Manufacturing Inbox of an older version are now automatically rejected. A corresponding message is visualized in the "Order Track and Trace" window on the Lab side and an e-mail is sent to the manufacturer. Requires e-mail configuration in the Control Panel.
- During manual synchronization with 3Shape Communicate™, a new "progress bar" informs the user about progress for order download and updates. Download limits are:
  - Maximum 100 orders can be received during one download session.
  - Download times-out after 15 minutes download time
  - To download remaining orders, perform manual synchronization again until all orders are received.
- New option to output abutment base line as pts. file in CAM output. Requires configuration in the Control Panel under "Manufacturing Process".
- New "Model Height" and "Pontic Position" data fields are added to the 3OX file
- Various issues fixed, including a problem with TRIOS® Inbox and 3Shape Communicate™ not working properly with Dental System™ Standard and Full Contour subscriptions.

## Version 2.8.8.8 (September 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.8:

### Scanning and Model Builder™

- New option to "Show hole closed areas" has been added to the visibility tool in the last step of the Post&Core scanning workflow.

### CAD design

- During Dental System™ installation, users can now choose which implant libraries to download and install. Only libraries approved by the reselling partner can be downloaded.
- New option to ensure minimum wall thickness at the boundary of the abutment screw channel. The option is available in the "Assembly" feature in Abutment Designer™.
- Various improvements to RealView Engine™, including improved possibility to smoothly cut-out teeth on even large 2D face images.
- "Lingual band" spline is in "fast-edit" mode per default during Pontic design.

### Dental Manager

- 3OX files now contain additional information, such as the name of color (ColorDisplayName), material (MaterialDisplayName) and model elements (ModelElementDisplayName).
- Various issues fixed, including a problem with receiving duplicate orders in TRIOS® Inbox when using a client-server setup in Dental System™.

# What's new in Dental System™ 2013



## Version 2.8.8.7 (August 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.7:

### General

- Updated software translations (13 languages).

### Scanning and Model Builder™

- Improved 1-point alignment of abutment scan flags in ScanIt Restoration and Model Builder™.

### CAD design

- Possible to set minimum wall-thickness parameters for materials in Control Panel with subsequent validation in Dental Designer to protect Coping Edge and avoid chipping issues during milling.
- Several improvements to Abutment Designer™:
  - New option to block user from ignoring inner limit violation and continuing the design process.
  - New option to manually define angulation starting point for angled screw-hole channel.
  - New "Non-millable areas" visibility slider added on Sculpt step for Robotic abutments with a restoration on top to ensure proper fit between abutment and restoration.
- Many improvements to CAD Blocks functionality for placing and cutting the anatomy design inside CAD blocks, including:
  - Support for Multilayer CAD blocks
  - Improved adjustment of sprue position
  - New visibility sliders for adjusting transparency of active/inactive teeth and CAD blocks.
  - Possible to lock sprue diameter. Requires con-figuration in Control Panel.
- Screenshot tool now captures the complete CAD design window including all visible objects, e.g. 2D image overlays and Virtual Articulators.
- "Clear" function added in the Anatomical Coping feature allowing the user to delete the default edge spline and to draw a customized spline instead.
- "Active item" and "Inactive item" visibility sliders now control visibility of the entire group of teeth when using Group Transformation tools in Smile Composer™.
- Threshold values are now saved separately for Add and Remove operations on Wax trimming step in RPD cases.

### Dental Manager and Control Panel

- Optimized Color Order mapping: auto-mapping between TRIOS® and Dental System™ colors is performed if the corresponding TRIOS® color exists in Dental System™.
- For imported dcm files the Scan Source is now set according to the used scanner and exported into the 3OX file.
- "Table mode" introduced on Implant systems page in Control Panel, enabling the option to view all implant libraries in a table for fast and easy overview.

## Version 2.8.8.6 (July 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.6:

### Scanning and Model Builder™

- Optimized scanning of standard stock abutments in unsectioned models. For each abutment being scanned move the model such the current abutment is centered on the scan interface plate.
- Dentona articulator interface added to Model Builder™.

### CAD design

- RealView - 2D patient image overlay completed with image rotation, mouth segmentation, easy and exact alignment of 2D image to 3D scan and finally perform CAD design in the 2D patient image. New visualization sliders are used to easy control the visualization. Watch RealView video at <http://www.youtube.com/watch?v=k4traaT7ybA&feature=c4-overview-vl&list=PL3850CC17F484B05B>
- CAD block placement: Improved feature for placing and cutting the anatomy design inside CAD blocks:
  - Block, sprue and mandrel models are marked red when safety zone or minimum distances are violated.
  - Minimum sprue diameter is limited according to the new minimum value set in Control Panel.
  - New visualization slider for showing the distance to safety zone with a color map.

# What's new in Dental System™ 2013



- Optimized Sculpt toolkit:
  - Model silhouette is now highlighted in Morphing tool.
  - Possibility to place attachment along the current "View direction"
  - Possible to apply multiple cutting planes to a design.
- Auto saving speed is significantly improved – particular for server installations.
- New possibility to rate feedback reports: from minor annoyance to major issue.
- Several improvements to RPD design, including "Adapt Design" functionality when using Virtual Articulator during Finalize stage.
- Improved Digital Temporaries functionality, including additional "Sculpt on die" step and "Apply all" button on Virtual Preparation step.
- Smile Composer™: Possible to select single anatomy from all Smile libraries.
- Possible to export materials for 3rd party applications, ERP settings and Order import mapping.
- Complete Vita 3D Master and Ivoclar Chromascop colors added in Control panel.
- Virtual Articulator is now also included in Dental System™ Full Contour and Dental System™ Standard licenses.

## Dental Manager™

- Item description for Anatomical copings changed from "Coping" to respective "Anatomical coping".
- Updated 3OX communication format to include additional fields: lab contact information, shipping address, upper and lower insertion direction for each tooth on a model element, scanner serial number and system language.
- Option to compress CAM output to ZIP format. Compression is enabled in Control Panel on the Manufacturing Process.
- New UDX Export version 1.25 supports wider range of indications.
- "Check out/Check in" functionality with UDX support. Allows remodeling of orders.
- Change state of order to "Preparing production" state when the order is sent to 3rd party CAM application.
- New option for 3rd party CAM applications to enable opening of the application for each model element in the order. Requires configuration in Control Panel.

## Version 2.8.8.5 (June 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.5:

### General

- Support for Windows 8.
- Special focus on bug fixing. Approximately 100 bugs fixed.

### Scanning

- Several improvements to model scanning:
  - Support for Upper and Lower RPD cases in the same order.
  - Support for texture scanning of Abutments and Post & Cores.
  - Possible to enable or disable texture scanning when starting the scanning process .
- Various issues fixed, including a problem with the ScanServer version which could cause an error in ScanIt Restoration.

### CAD design

- CAD Points can now be used for Model Builder (TRIOS and 3rd Party scans).
- New possibility to easily add, scan and align a pre-preparation model to an existing order e.g. containing a try-in bridge. Simply copy the existing order, add the pre-preparation scan in the order form, start the scanning and easily morph the original design to pre-preparation scan.
- Possible to skip Die Interface step during design. Enable or disable using the "Show Die Interface step" check-box for your Site in Control Panel (enabled per default).
- New visualization slider for showing hole-closed areas on TRIOS scans in Smile Composer™, Sculpt and 3D Preview in Dental Manager™.
- Cut-to-neighbor functionality added for Screw-retained crowns.
- Improved "Remove Undercuts" functionality for Post and Core cases to avoid the issue with big undercuts areas.
- Several improvements to RPD design, including a new retention type "Resin Gap" and a possibility to add space between the model and RPD frame in Pre-manufacturing step.
- Possible to have 2 aligner spaces for multilayer bridge design.
- "Drill hole diameter" added to Attachment settings in Control Panel and to ImplantDirectionPosition.xml file in CAM output.
- Optimized feature for placing and cutting the anatomy design inside CAD blocks:
  - Adjustment of blocks and sprues is moved to the 3D window.
  - Rotation handles of blocks are now controlled by the "Milling machine axis" parameter configurable in Control Panel.
  - Auto-selection of block size based on the crown size.
  - Mandrill models can be added in Control Panel and visualized during design.
- Possible to automatically launch a 3rd party CAM application and generate CAM output after finishing CAD modeling. Requires configuration in Control Panel.

# What's new in Dental System™ 2013



## Dental Manager™

- Improved Dentist Mapping when receiving orders from unknown senders in TRIOS and Manufacturing Inbox:
  - When accepting an order from an unknown sender, the sender is automatically added to Control Panel
  - If Auto Accept option is enabled, orders from unknown senders remain in TRIOS or Manufacturing Inbox with a message informing that manual handling is required.

## Version 2.8.8.4 (May 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.4:

### Scanning

- Release of ScanSuite version 1.0.6.1 with support for D900.
- Various improvements to Texture Scanning.

### CAD design

- Start-up speed has been improved significantly - in particular for systems with many implant libraries.
- Dental System™ Installer has been optimized to speed up the installation process (2-3 minutes saved for a new installation).
- New Shortcut Keys for Sculpt Toolkit. Use Q-W-E-R-T-Y keys to switch between active tools.
- The RealView Engine™ workflow now starts with the "Cut-Out" step, followed by the "Alignment" step.
- Possibility to rotate the titanium interface for 2-piece abutments. Requires configuration in Control Panel. Full support for non-circular abutment base models.
- New option to create a screw hole through all layers during multilayer abutment design.
- New options to enable/disable Angled Screw Hole functionality in the Control Panel and to define maximum angle.
- Optimized design for Post and Core cases with anatomy on top:
  - In margin line step, the Post and Core margin line is edited as default.
  - New 'Anatomy offset' option in Core Design step to make the Core top follow the anatomy shape.
- Various improvements to Full Dentures module, including possibility to adjust 'Glue space' between each tooth and the denture base model.
- When working on Upper + Lower RPD cases it is now possible to see the active jaw and switch between jaws in the Order Overview window (top left corner).
- Several improvements for placing and cutting the anatomy design into one or multiple CAD blocks. New set of standard block models added to the Dental System™ installer. Possible to remove blocks as well as cutting planes and to change the width of cut between the cutting planes.
- Possibly to have 2 aligner spaces for multilayer single crown design.
- Now possible to create lingual bands for single wax-ups.
- Optimized Connector feature to speed-up software when working on cases involving multiple connectors

## Dental Manager™

- New possibility to print Order Forms.
- Several improvements to 3Shape Communicate™, including handling of dates. "Creation date" is now set to the current date when order is received in Dental Manager™ and a new "Scan date" field has been added.
- Improved Dental Manager™-CAMbridge™ integration:
  - CAMbridge™ manufacturing process method is added to the Control Panel.
  - Complete Cut-In-Block information is now transferred from Dental Manager™ to CAMbridge™.
- New option to rename implant system categories in the Control Panel.

## Version 2.8.8.3 (May 2013)

This version has been merged with version 2.8.8.4

## Version 2.8.8.2 (March 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.2:

### Scanning

- Full Support for D900, including support for new Multi-Die fixture and RealColor scanning.

# What's new in Dental System™ 2013



- Various workflow improvements to the model scanning workflow, including:
  - Auto-selection of scan area after preview scan
  - Auto-alignment of Upper and Lower arches to bite scan

## CAD design

- 'What's New' highlights are now presented during Dental System™ installation/update.
- Full support for Color Scans from D900 scanner and TRIOS® Color.
- Optimized model free workflow reducing the number of steps needed to complete the anatomy.
- Optimized alignment and new possibility to rotate patient images when using RealView Engine™.
- Several improvements to Abutment Designer™, including optimized shoulder on the emergence profile functionality.
- When design limitations are violated in Abutment Designer™ (e.g. abutment too high), a warning message explains the problem and visualizes the problematic area directly on the design (red marking).
- New implant libraries added to Dental System™ installer (requires dongle enable for installation):
  - Thommen Medical, Conelog and Camlog library are updated
  - Wital implant library has been renamed to Prowital
  - Prowital implant system with extended interfaces is added
- Possible to switch between active 'Implant Bridges With Gingiva' by clicking on the implant bridge in the Order Overview window (top left corner).
- Various improvements to Full Dentures module, including a new option to avoid collision and gaps during arch transformation in Smile Composer™.
- New option in RPD module to enable or disable base to attachments for extra strength.
- When placing final design inside a block, a new feature allows you to move and rotate the blank and select blank-shader material.
- Various issues fixed, including a problem with 'Remove Undercuts' option for Smile Libraries with linked Frame libraries.

## Dental Manager™

- Optimized Dental Manager™ performance to reduce application start-up time for systems with many implant libraries.
- Possible to preview clinical photos of the patient directly in the Order Form.
- Ability to save default indications for each layer in the Order Form, e.g. make Coping or Anatomical Coping default for frame layer.
- Ability to save default settings for abutments and bridges, e.g. select specific abutment kit as default in Abutment orders.
- Manufacturing Inbox and TRIOS Inbox™ can now handle orders containing special characters.
- Possibility to copy Implant kits in the Control Panel for easy and fast creation of additional Implant Kit variants.

## Version 2.8.8.1 (February 2013)

The following new features and solved issues are available in Dental System™, version 2.8.8.1:

### CAD design

- Optimized Drill Compensation feature on Die Interface step.
- "Save" and "Measurement" buttons has been moved to right toolbar.
- New functionality implemented in the Insertion Direction feature: Place mouse over arrow-buttons to visualize change of direction in the design window.
- Maintain teeth position when switching smile libraries in Smile Composer™.
- Improved Morph of anatomy to Pre-preparation/Wax-up in Smile Composer™.
- Improved Plane Cut tool now allows simultaneous cut between two teeth.
- New option in Sculpt Toolkit to force design inside pre-manufactured blank.
- Option to design gingiva for a wide range of indications, e.g. crowns, pontics, and anatomical abutments.
- Introduced "Thickness map" and "Minimum Thickness" sliders for abutment design. Minimum thickness is based on the "Minimum wall thickness" defined on the material in the control panel.
- Introduced 'Cut to antagonist' functionality for Parametric abutments.
- Option to add extra control points on 2D bar profiles for sophisticated implant bar design
- Several improvements to Full Dentures module, including new sliders for jaws and teeth, wax rim and symmetry planes.
- Possible to set common insertion direction for grouped Post & Cores.
- Optimized virtual camera perspective for realistic view of the scan and design.
- Various improvements to RealView Engine, including support of two or more patient images.
- New option to lift frame and anatomy designs from the active jaw in "Save" step.
- Completely new workflow step allowing the user to place restoration design inside a block and add the sprue:
  - The step is optionally enabled for each material in Control Panel.
  - Add your own block CAD files in Control Panel.
  - Split long span bridge designs into multiple blocks using Plane Cut tool.

## What's new in Dental System™ 2013



### Dental Manager™

- Option to start 3rd party applications with custom parameters, e.g. pass the folder of the manufacturing output to the CAM software.
- "Auto Accept" option added to TRIOS Inbox™.
- TRIOS Inbox™ is now a Site Option instead of a regular license.
- Possibility to easily send scan for design at another site using the new "Send to customer" option and Manufacturing Inbox. Right-click the order in Dental Manager™ and select "Send to customer".
- Improved Dental Manager™-CAMbridge™ workflow (support of multiple items in order elements).
- Changed default Cement gap and Extra cement gap parameters in Control Panel for Inlays to 0.050 mm and 0.060 mm accordingly.
- Various improvements to ScanSuite™ (version 1.0.5.6).
- Various issues fixed.