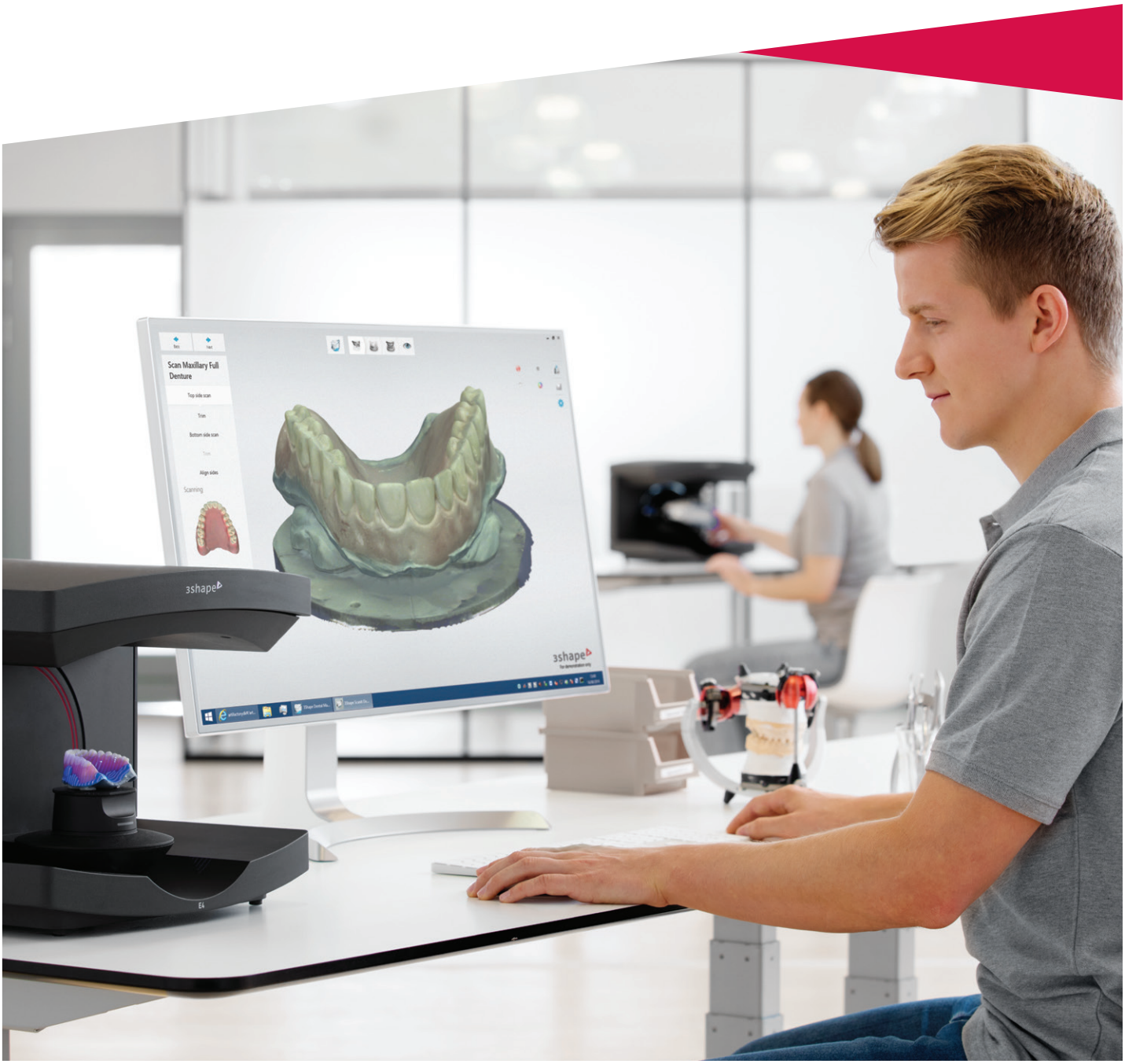
What's new

in 3Shape Dental System 2021



3shape

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Highlights from 3Shape

The New Generation Red E scanners –20% faster!

Introduced in 2020, the new Generation Red E scanners boast all the award-winning benefits of our E scanner line but with 20% extra speed for the same great prices. 3Shape Generation Red E scanners have 5 MP cameras to deliver unprecedented scan speeds for superior productivity, as well as extreme high accuracy for even precision-demanding cases.

Did you know that the E4 Generation Red scanner, our fastest and most accurate scanner ever, now includes "Enhance Detail" on select scans? You can read more about it here.

Get going with Digital dentures

3Shape Denture software is the leading denture design software. The intuitive software has been updated to deliver even simpler step-by-step workflows for denture design and to support the latest workflows for manufacturing.

Read more about it and the improved workflows here.

NEW Scale your business with 3Shape Automate - AI Driven Dental Design

Scale up your productivity with the groundbreaking technology of Artificial Intelligence and get a crown design, for example, in 5 minutes. 3Shape introduces Automate – an AI-powered dental crown design available directly from the 3Shape website. Use the self-service 24/7 Automate to meet your lab's additional crown-designing needs and reduce your team's overtime, stress, and get help in scaling production. Automate features an intuitive and simple workflow from Dental System 2021, enabling you to seamlessly upload cases for AI design. (https://automate.3shape.com/)

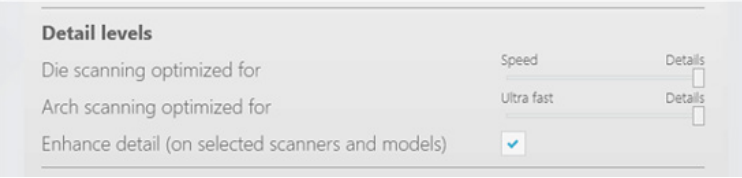
ScanIt Dental

ScanIt Dental is the software that runs 3Shape lab scanners. ScanIt Dental is included with your 3Shape Dental System and provides you with all the scanning workflows you need to go digital with your lab.

The latest version of ScanIt Dental greatly improves the sharpness of scans with a brand-new feature: "Enhance Detail." The new technology is exclusively made for the original E4 and the Generation Red E4 scanners.

The updated ScanIt Dental has also improved usability for the Multi-die fixture in all scanners and added impression scanning. There is also color scanning now in the Digital Denture scanning workflow.

Updates to ScanIt Dental in Dental System 2021



Before

After

NEW Enhance Detail option for E4 and Generation Red E4 scanners

As an E4 user, you now have the option in the settings menu to enable a whole new level of detail using "Enhance Detail." The feature significantly enhances image quality for select workflows.

Simply enable the option for a siginifacant improvement in scan quality.

NEW Multi-die fixture support improvements

The Multi-die option is now available for all E and Generation Red E models running Dental System 2021. If you have the tools available, you simply enable this in your settings menu to scan several dies simultaneously. You can also combine the multi-die feature in combination with impression scanning.

You can now scan multiple dies together with impressions.

NEW Color scanning added to the denture scanning workflow

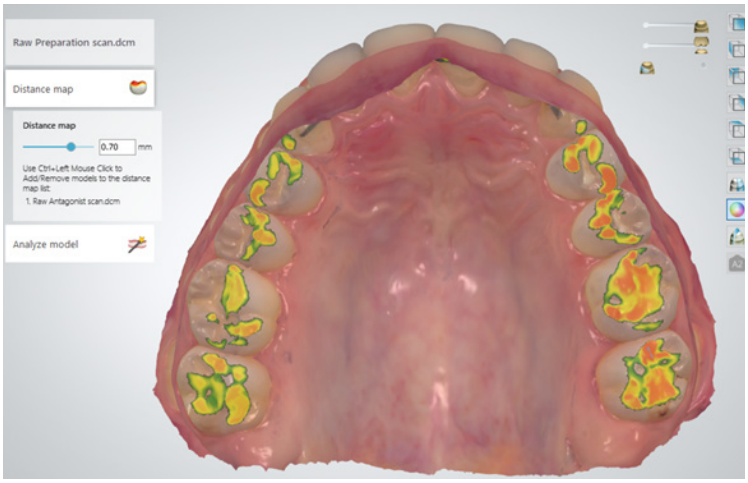
There is now color scanning on all E and Generation Red E-scanners (color scanning supported models) for Customized Impression Trays, Full Dentures, and 3DBitePlates.

You can now scan the texture, when supported by the scanner, on dedicated digital denture scanning workflows for a superior digital denture workflow experience

3Shape Dental Manager

Dental Manager is the heart of the Dental System software. Dental Manager contains all your cases created from lab scans. It also enables you to receive TRIOS scans directly in your Dental Manager and have them ready for design. Within Dental Manager, you will also find material settings - which are central to your restorative workflows.

Updates to Dental Manager in Dental System 2021

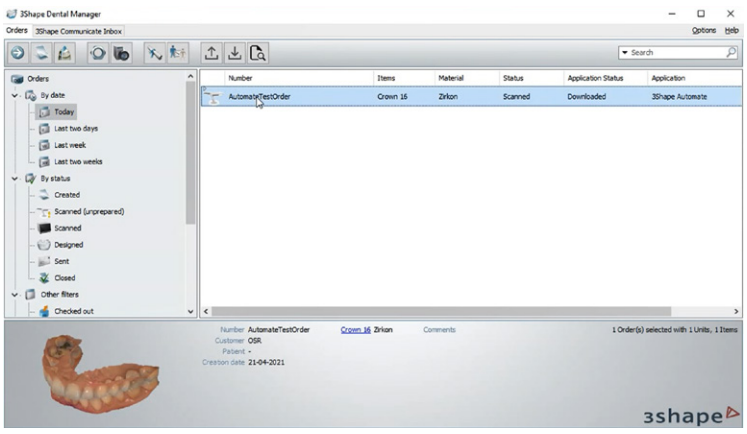


NEW 3D Preview

The updated 3D preview tool offers a full set of instruments for quality control on the case. You do not need to reopen the order to check the CAD model, all visual tools from the design modules are now available in one click.

The tool shows all scans and CAD models used in the case. Everything is controllable by visibility sliders. The individual toolbox can be brought forward with a left click on any visible model. The set of tools depends on the model type.

It is also possible to check the quality of scans and occlusion contacts before accepting a case in the 3Shape Communicate® Inbox.



NEW Case status with design centers

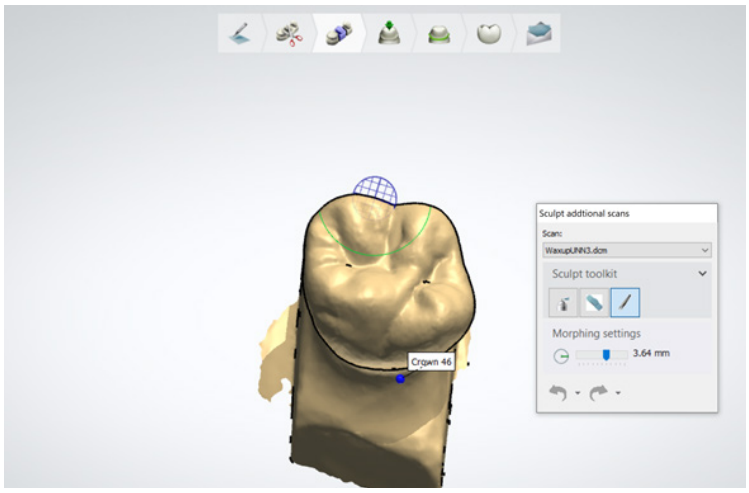
Now you have even more transparency for the cases that you send to design centers. Case status will be customized by the 3rd party design center and shown in your Dental Manager.

3Shape Dental Designer

Dental Designer is the core CAD module in Dental System. It enables you to perform and design indications on lab and intraoral scans with advanced workflows. Dental Designer covers restorative workflows, such as crown & bridge, dentures, as well as model builder. The software is easy to learn because of its intuitive next-next interface.

Dental Designer 21.1 has significantly updated many of its workflows. The updated workflows improve your user experience and provide you with more flexibility and increased productivity. Dental Designer 21.1 now uses AI to enhance its workflows. This means fewer manual steps for certain workflows, as well as improved workflows for Implant Bridges.

Updates to Dental Designer in Dental System 2021



NEW Additional scan updates

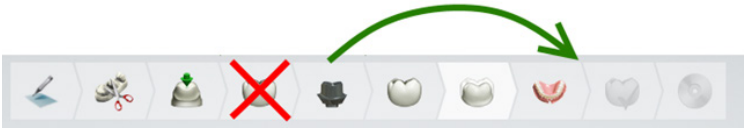
You can now modify additional scans during design. Any scan that is loaded to the case can be now altered using morph, add/remove/smooth and the remove artifacts tools.

The "Remove Artifacts" tool has a new option called "Repair surface." If it is activated, the marked surface will be deleted, and the hole will be closed. But if you uncheck the option, it will be possible to remove the surface entirely, leaving the hole. This can be used to cut teeth from the face scan for example.

NEW Save files as PLY and STL

When handling scans in Dental System, you now have the option to save files not only as DCM, but in PLY and STL formats. This is available both when saving models in Dental Designer or exporting scans from Dental Manager.

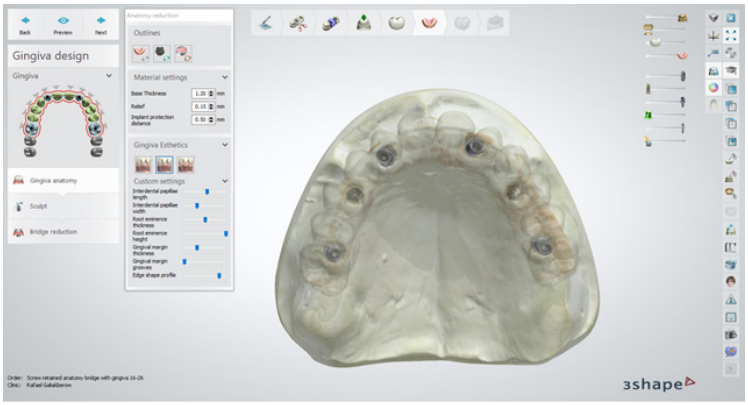
NEW Improvements for Advanced Implant Bridge workflow



NEW Updated design strategy for Advanced Implant Bridge workflow

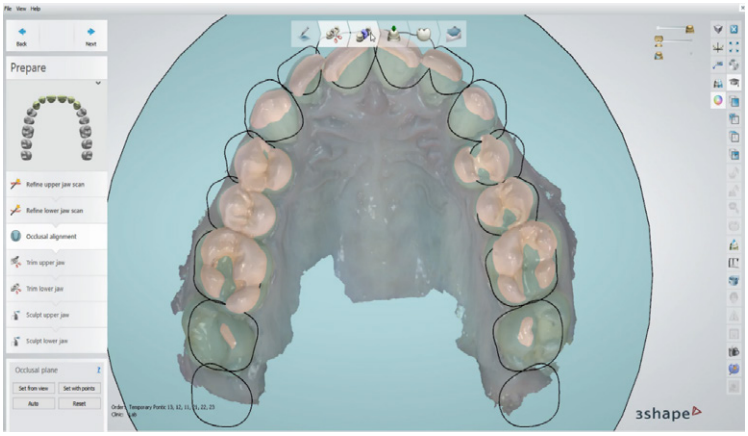
The implant bridge workflow has been optimized to increase productivity and quality of the final restoration. We have removed the exit profile connection to the single anatomy and moved it to the very last step.

The design starts with anatomy setup, where crowns can be easily adjusted as an arch. After that, connectors and/or gingiva are built, and the bridge is combined into one piece. And only at the end of the workflow, are all exit profiles adjusted to the final design in one single step.



NEW Gingivator 3.0 in Advanced Implant Bridge workflow

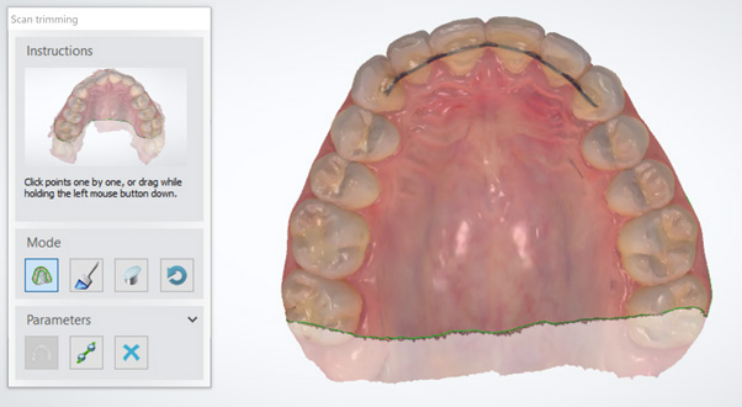
It is now possible to use all available aesthetic settings. This makes gum designing faster and more predictable as with Gingivator 3.0 in our denture workflow.



NEW AI Enhancement

Selected Dental System workflows have been enhanced with AI algorithms to reduce the number of manual modifications needed.

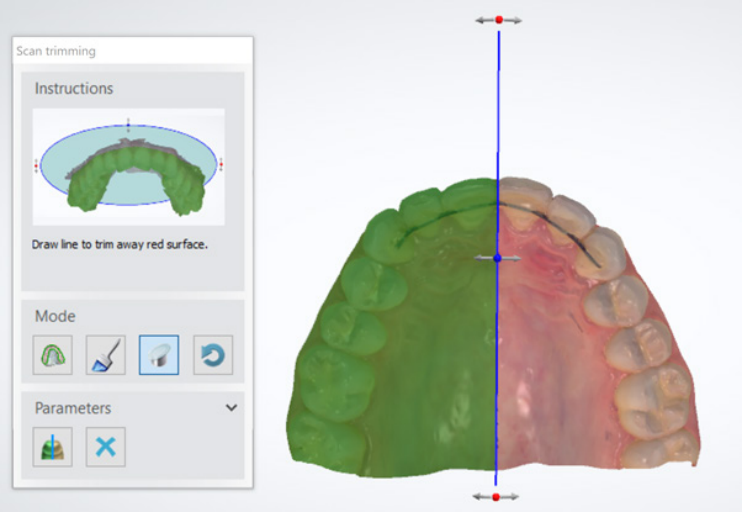
Dental Designer occlusal plane is now adjusted using AI technology. During the segmentation step for intraoral cases – lines are now placed automatically for both temporary indications and dies.



NEW Improved scan trimming

A new trimming tool for intraoral scans has been introduced. It has three different options that help to select the area of interest on the model and cut away the rest. Every option is automatically applied when switching to the next option or moving further in the workflow.

Spline trimming. This tool works in the same way as in previous versions of Dental System. Using the line, you can select areas to remove from the scan. The part trimmed away is shown as semi-transparent.

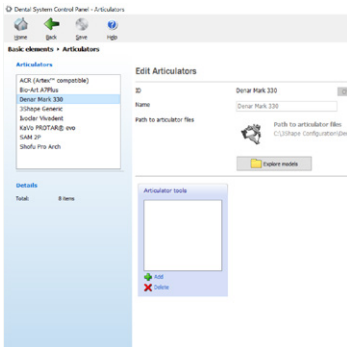


NEW Selection trimming. The option allows you to select the scan area you want to keep. It is highlighted with green color. To deselect a part of the area, use the ctrl button in combination with the mouse clicks.

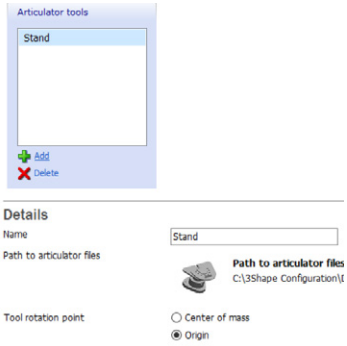
NEW Digital facebow and jaw motion support

Virtual articulators are now more flexible with the new set of tools introduced in Dental System. If you are using any device that guides the placement of your cases in the articulator (e.g., a facebow with a bite fork), you can now perform this placement virtually.

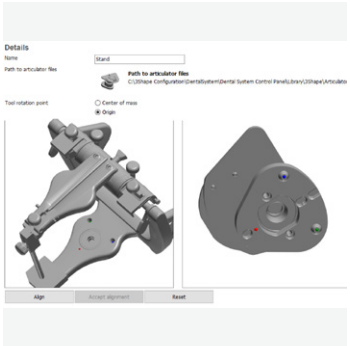
The setup of the tool is done using a dedicated Control Panel page.



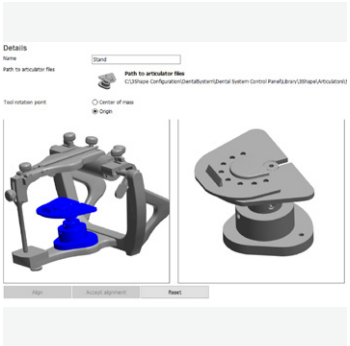
Step 1. Select the appropriate articulator.



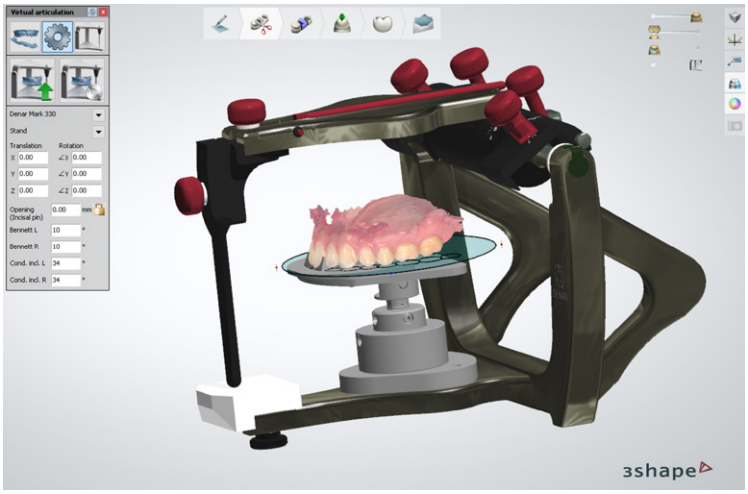
Step 2. Add a tool model.



Step 3. Using 3 points, align the tool to the articulator.

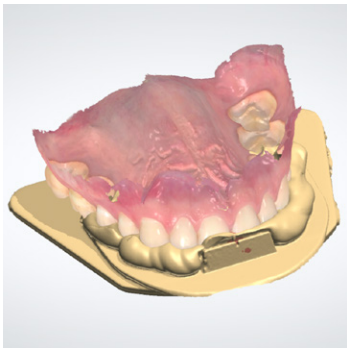


Step 4. Accept the alignment and save the tool.

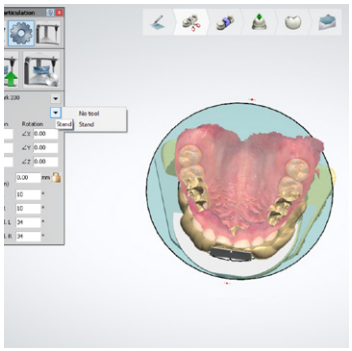


Tools added in the Control Panel are available in Dental Designer. You can select the tool and make the articulator placement according to the bite fork model using the tool.

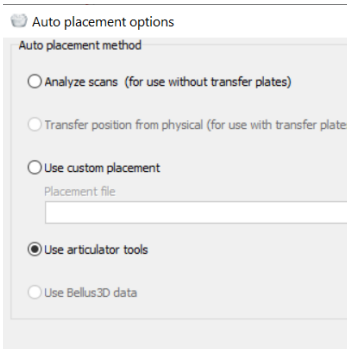
To make the placement, the bitefork should be added to the case as an additional scan and appropriate tool configured.



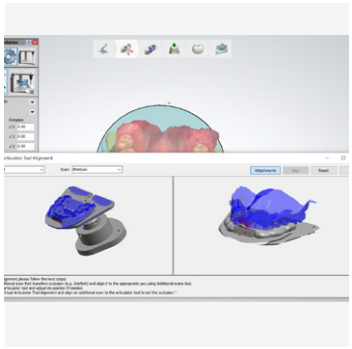
Step 1. Load the bite fork as an additional scan and align it to the corresponding jaw.



Step 2. Select the tool in the articulator menu. Adjust the tool position if needed.



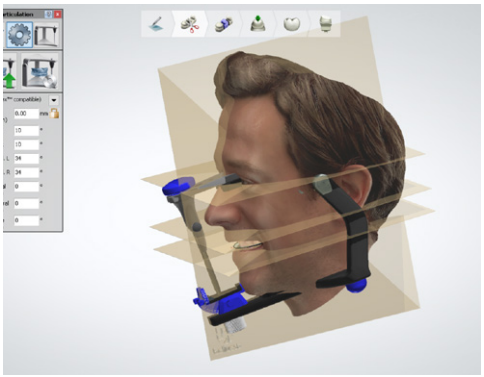
Step 3. Select the alignment option to perform the placement.



Step 4. Select appropriate tool and scan to perform the placement.

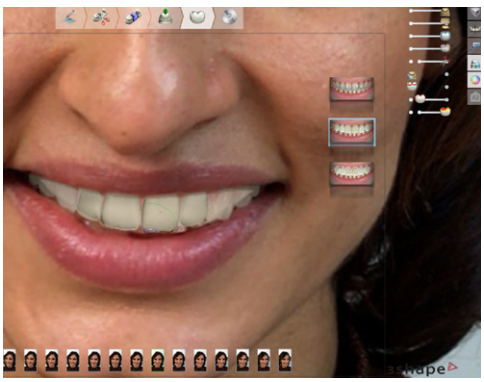
NEW Bellus 3D digital articulator placement

The Dental System integration with Bellus3D Dental Pro face scanning application has been improved with the option to now place jaws automatically in occlusion as defined by the doctor. The app enables you to set the condyle points and determine the main planes. This data is transferred seamlessly to Dental System and the articulator placement is performed according to it. Condyle points are visualized together with main planes to make a positioning in the articulator easier.



NEW Augmented reality IvoSmile integration*

3Shape Dental System was first integrated with the IvoSmile® augmented reality app by Ivoclar Vivadent in 2019. The integration enables labs to receive patient face images, including the proposed aesthetic treatment, directly from the app to Dental System. The proposed aesthetic treatment is received in the Anatomy Design, via 3Shape Communicate®. Now with a new upgrade, the restoration can be designed using actual patient images and then sent back from Dental System to the IvoSmile® app for an AR review and approval by the doctor and patient.



*IvoSmile(R) is not available in North America and Canada

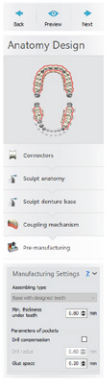
Dentures

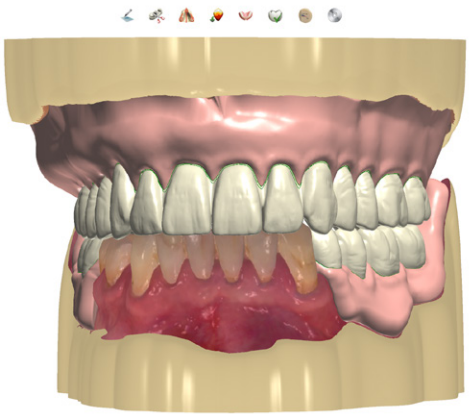
Denture CAD software is a part of Dental Designer, which delivers cutting edge workflows on removables, such as full Dentures and Removable Partial Dentures (RPDs) and is suited for edentulous cases and others.

Updates to the denture software in Dental System 2021

Dentures 21.1 delivers updated and improved workflows as well a better user experience.
The improvements include being able to create partial dentures in a full denture workflow.

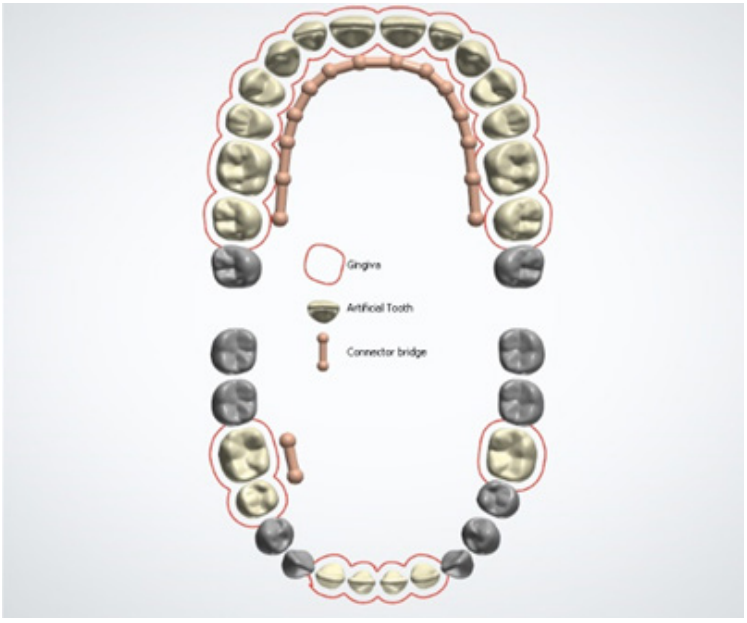
NEW Partial Dentures in Full Dentures workflow



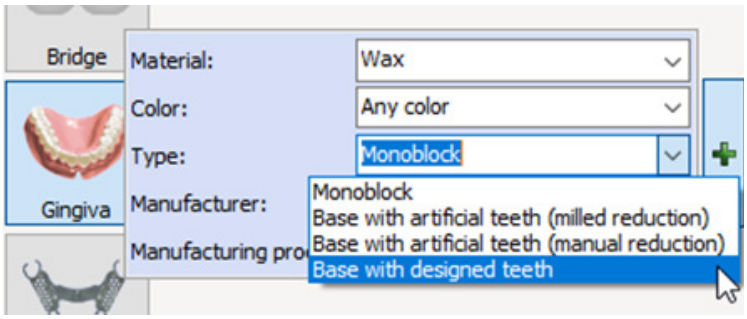


Boost productivity with the fully integrated Partial and Full Dentures workflow. You will now be able to design full dentures and partial dentures in the same order.

All existing Full Denture tools will now be available for designing partials as well.



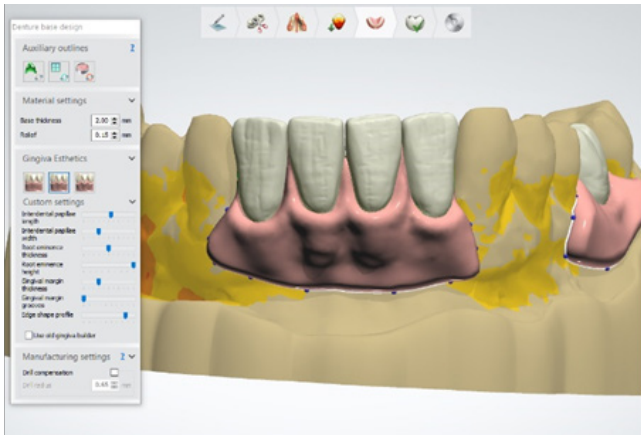
It is possible to create an order with i.e., full denture on the maxilla and partial denture on mandible in one single order. It is also possible to create partial over a partial denture or design the order with only partial in one jaw.



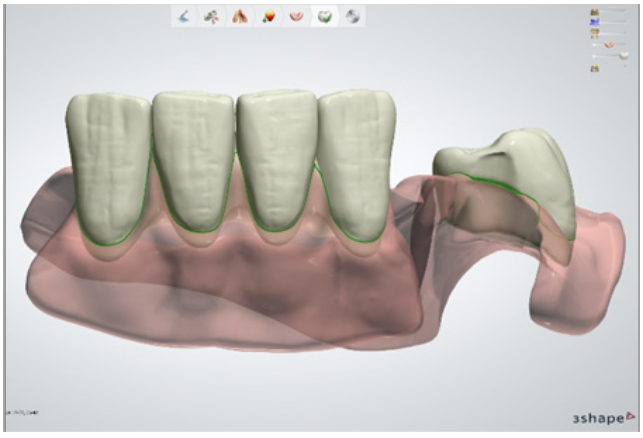
You can also design the try-in, work with artificial teeth, or design and manufacture teeth for a perfect smile.

Denture smile libraries from well-known teeth manufacturers will allow you to achieve optimal results for your patients.

	ivoclar vivadent	Candulor	KULZER	Vertex Dental	Fabulous Smiles	VITA	NOBILIUM	Dentsply Sirona
	SRPhonaresI-ISRVivodentS-DCL/SPEBlue-lineIvotion	PhysiostarIIN-FC+BonarticI-INFC+Condy-loformII NFC+	1.Pala2.Artic Digital	Quint	Fabulous Smiles	1.VITAVION-ICVIGO2. VITAPANEX-CELL&LINGO-FORM	1.NOBIL-DENT2. NOBILIUM-NOBILDENT-PREMIUME-PNMASSAD	1.PortraitIPN2. IPN3DPortrai-tInspired
Denture base for artificial teeth	✓ Distributed by Ivoclar	✓	✓	✓	✓	✓	✓	✓ Distributed by DS
Monoblock	✓ Distributed by Ivoclar	✓	✓	✓	✓	✓ Noised Output	✓	✓ Distributed by DS
Bridged-teeth	✓ Distributed by Ivoclar	✓	✓ Enabled by Kulzer	✓	✓	✗	✓	✗
Separated teeth	✗	✗	✓ Enabled by Kulzer	✓	✓	✗	✓	✗
	Contact Ivoclar	Included in installer	Available in Download Center	Available in Download Center	Available in Download Center	Available in Download Center	Available in Download Center	Contact Dentsply Sirona



Use the full power of the Gingivator 3.0 with predefined gingiva profiles to design your partial prosthesis with high esthetics in one click.

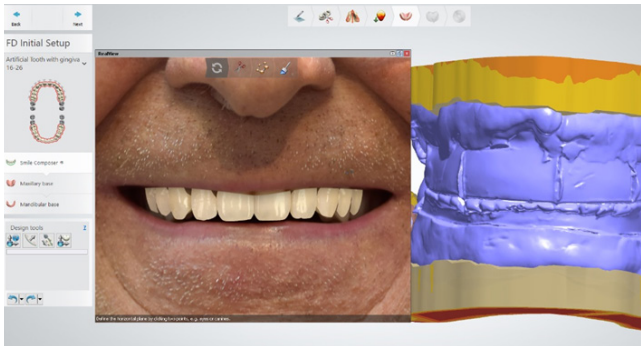


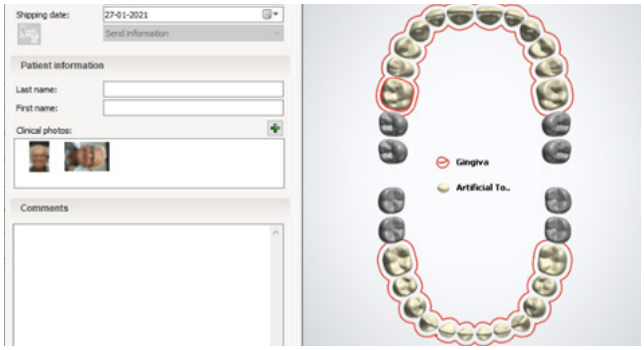
Bridged teeth for partial dentures will allow you to save manufacturing time and eliminate 3rd party tools.

NEW Advanced smile design features for best results

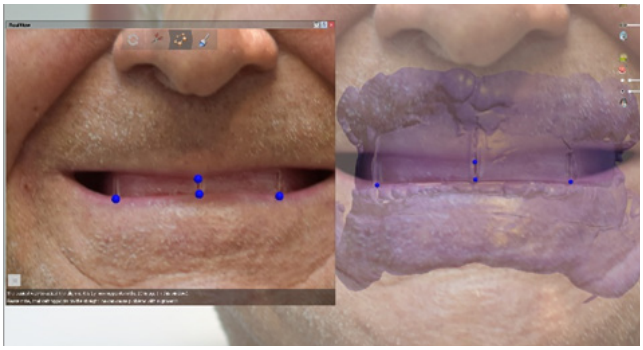
Producing the perfect set of teeth just got simpler and faster. You can now overlay the patient photo from Smile Design on to the wax rim or impression scans in Dental System 2021.

This improvement is useful on orders when there are no reference points to align the designed smile to the scan, like full dentures.



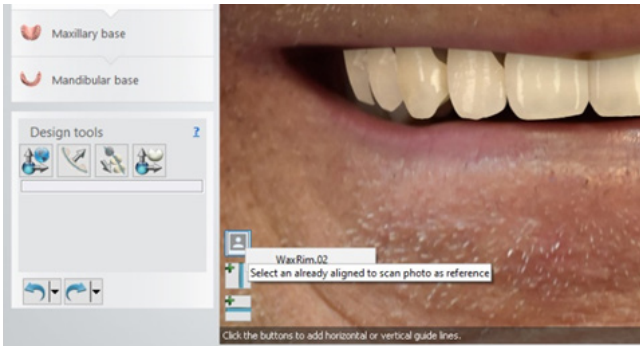


Step 1. Add photo with wax rim and with designed smile from Smile Design app in order form.



Step 2. Align primary photo, with wax rim, to the scans during the Smile Composer step.

Step 3. Switch to the secondary photo. Place points on the same spots as on primary photo to orient the photo.

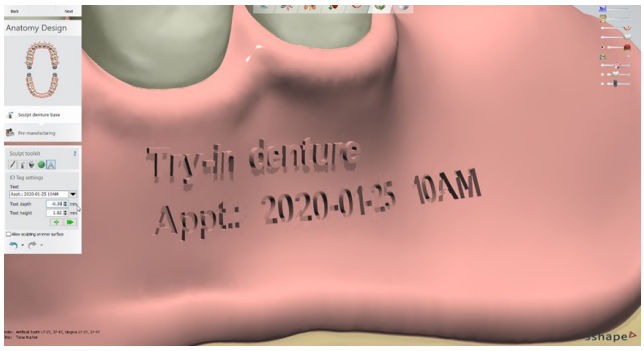


Step 4. Select primary photo from the list.

Step 5. Define lip line, or copy it from master photo and adjust, if needed.

Step 6. Copy placement points from reference photo.

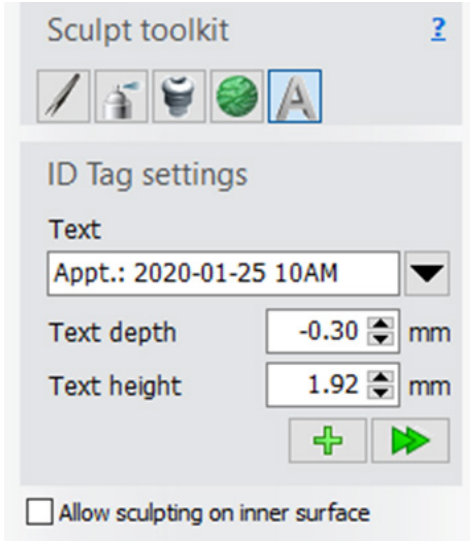
Step 7. Use photo with the smile to place the teeth and deliver the image to the doctor and patient.



NEW ID Tag for removables

Easily add custom information on the dentures using the ID tag tool. The ID Tag tool enables you to follow best manufacturing practices.

Use this tool to design an appliance, like a Custom Tray, with the patient's name and scheduled appointment date or other custom information.

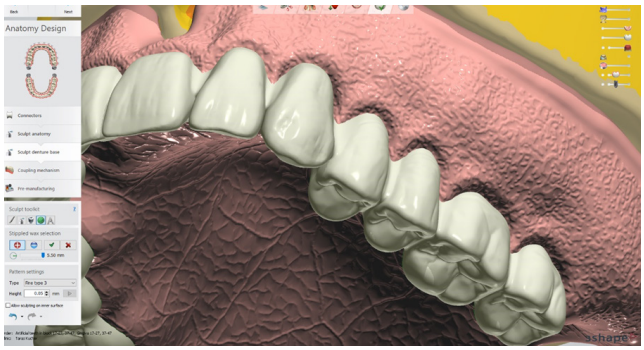


The tool is available for Custom Trays, Full/Partial/Copy dentures and RPD frames as well. It is located in the final design step under Sculpt toolkit.

It is possible to use pre-defined templates as *Patient name*, *Order Number*, or input text manually.

Set positive value in *Text depth* field to make text convex, or negative – to make it concave.

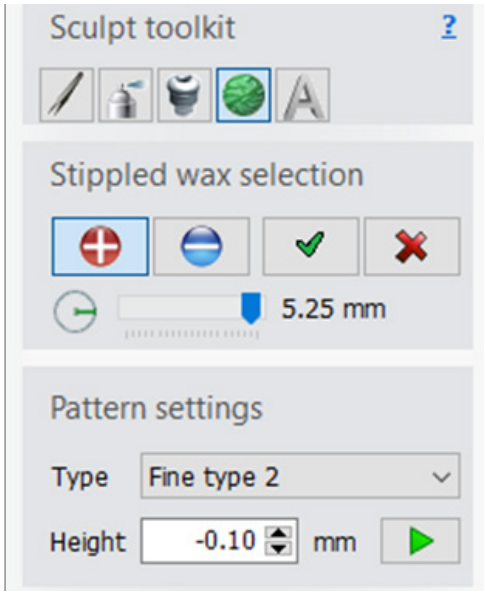
It is possible to add multiple lines with + button.



NEW Stippled wax sculpt tool to enhance aesthetics

Making personalized dentures is now easier with the new stippled wax sculpt tool. The tool helps you to deliver better esthetics and more comfort for patients.

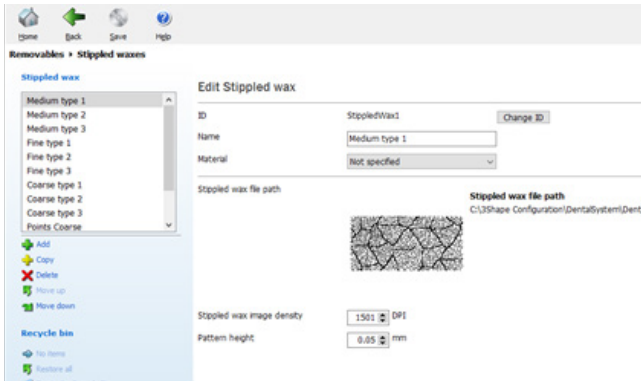
The tool is available for all workflows for removable such as Full/Partial/Copy dentures and RPD frames.



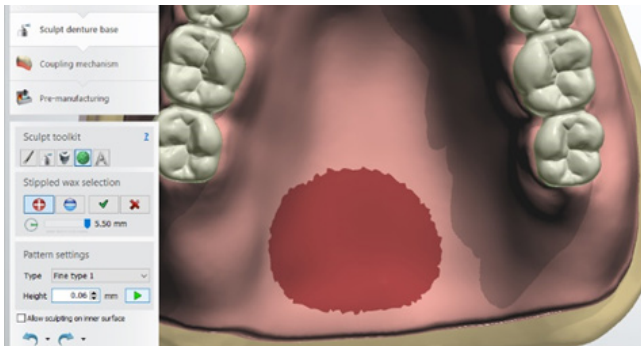
It is located at the final design step under the Sculpt toolkit.

It is possible to apply multiple patterns on different areas.

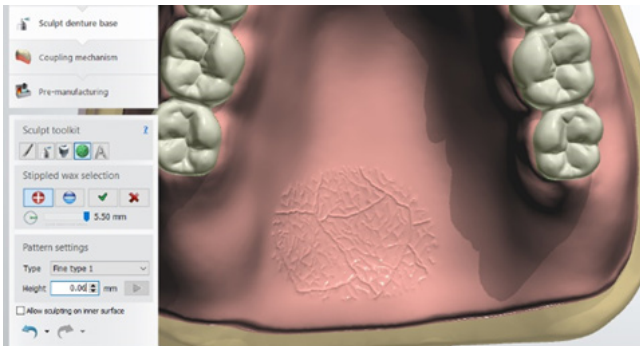
Set positive value in Height field to make pattern convex, or negative – to make it concave.



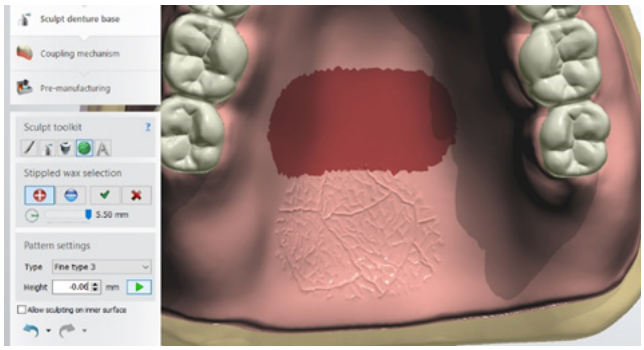
It is possible to adjust the settings of the existing patterns, or add additional patterns in the Control Panel -> Removable -> Stippled Waxes page



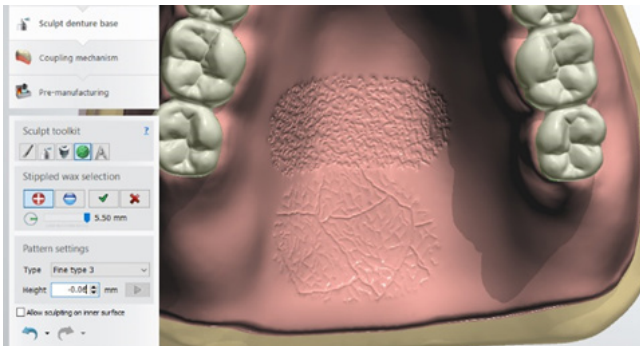
Step 1. Select the area for the first pattern



Step 2. Choose the pattern, adjust the settings, and apply the pattern with  button



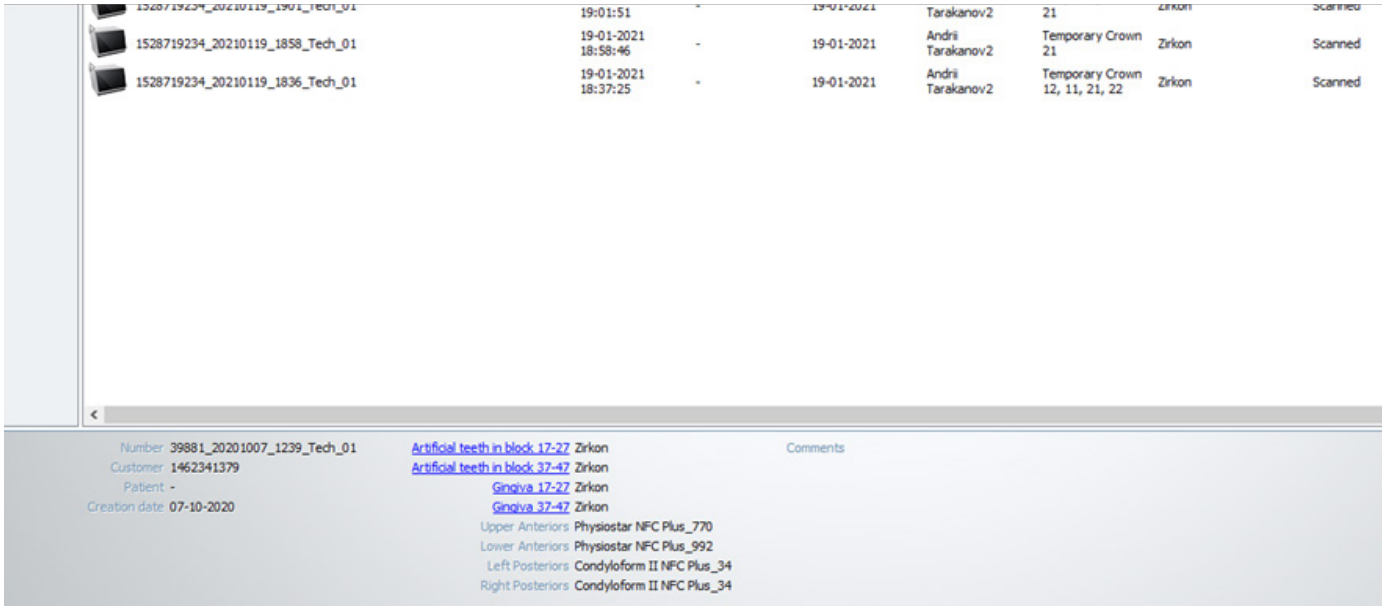
Step 3. Select new area for another pattern to be applied



Step 4. Choose another pattern, adjust the settings, and apply the pattern with button

NEW Share Smile Libraries name with manufacturer

Easily check which smile library has been used in the software to select the proper teeth to glue in the denture base. Select the order in the Dental Manager and Smile libraries will appear in the information panel.

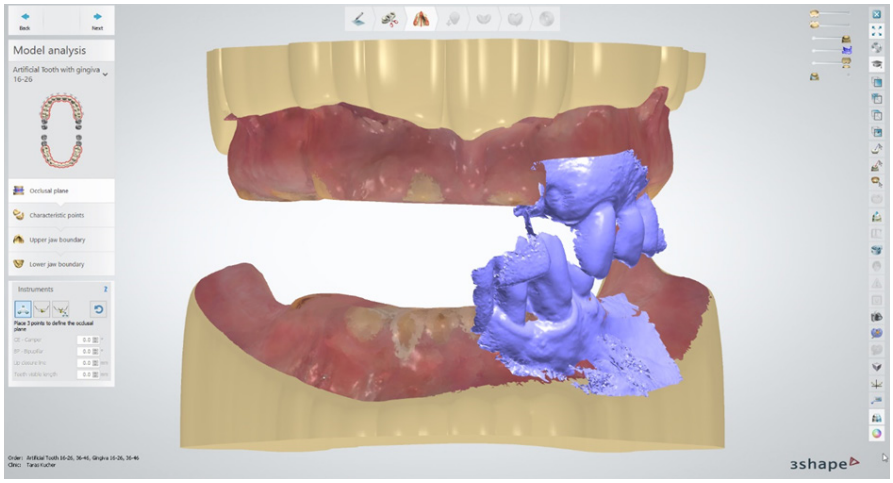


NEW Natural bite to set the occlusion

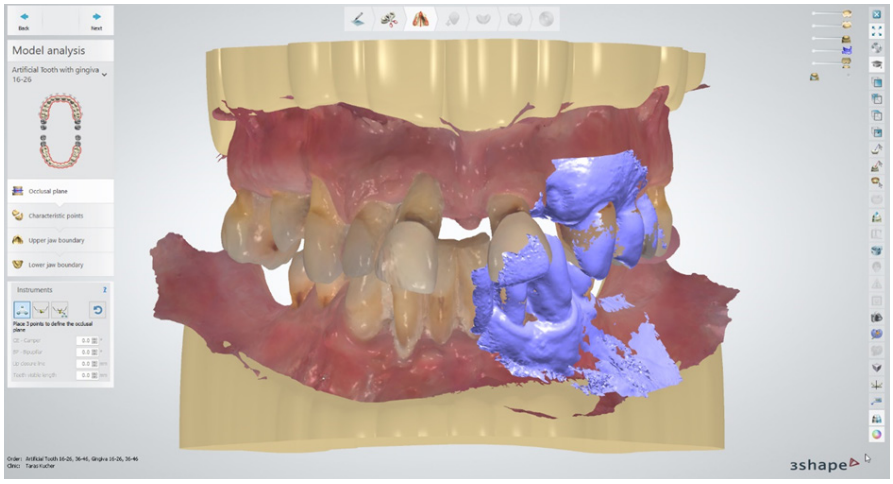
Now it is much easier to set the occlusion for immediate dentures – you can use virtually extracted teeth to set the occlusion.

This option is beneficial for when the bite does not include the full information about the occlusion.

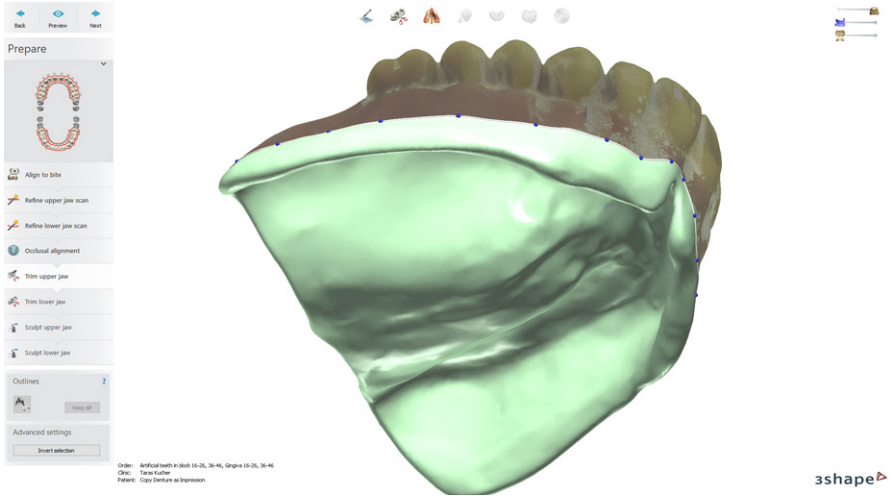
It's possible to show original scans with visibility sliders Original scan upper/lower that are located at the top right corner of the screen.



Before



Dental System 2021



NEW Use impression from Copy Denture to design final dentures.

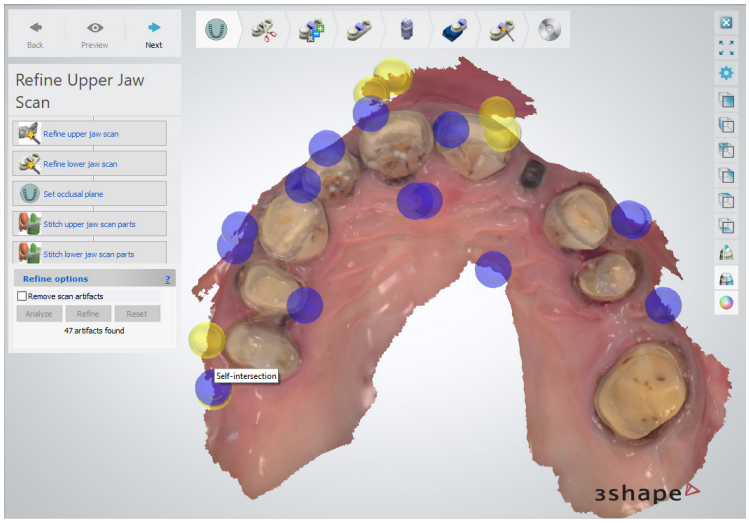
You can now use impressions from a scanned Copy Denture to design a new one. This saves an extra visit for the patient and the dentist. It is no longer needed to use 3rd party software to trim the scans, and we have removed the "Input model cannot be is WaterTight for Impression type scan" messages - when trying to design a denture.

Simply place the trim line, identify the area of interest, and the software will use the selected area to create a model.

3Shape Model Builder

Model Builder 21.1 delivers an improved user experience, handling of digital impressions and model creation, as well as the creation of models of dies in impression scans.

Model Builder is a crucial step in the digital workflow, which enables you to create physical models ready for 3D print and based on an intraoral scan. Furthermore, it also utilizes model creation of impression scans, impression scans combined with stone dies.



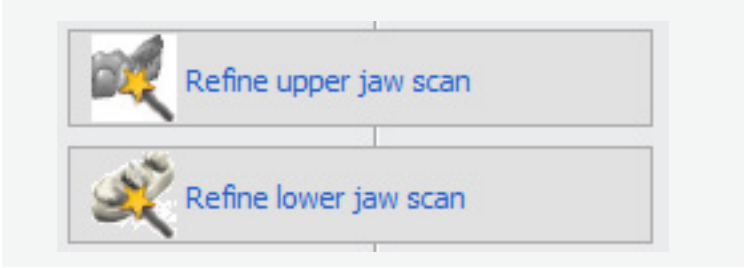
NEW Refining your scans

Received scans may contain invisible artifacts, which can lead to instability in model design and possibly, a time consuming to fix.

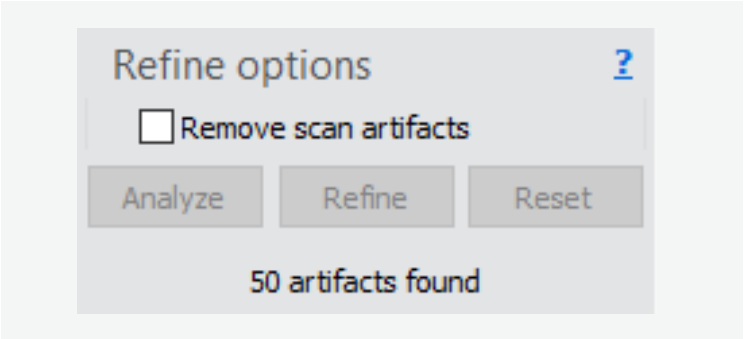
By applying the new features within Model Builder: Refine Upper Jaw Scan and Refine Lower Jaw Scan, the artifacts introduced by the scanner will be highlighted and removed on the Maxilla and Mandible, respectively.

Potentially problematic areas are highlighted with blinking indications:

- Self-intersections of the surface are marked with yellow,
- Flying islands are marked with red,
- Other mesh artifacts are marked with navy.



Step 1. The Refine Upper Jaw Scan and Refine Lower Jaw Scan are found in Prepare Scans step for the corresponding jaw.



Step 2. Tick Remove Scan Artifacts option and click Refine to remove the artifacts.

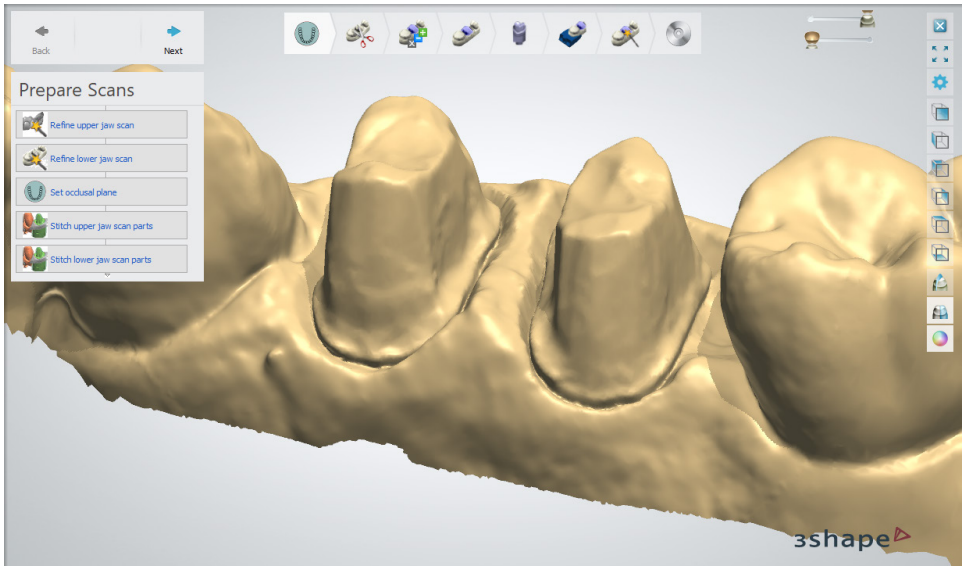
While the Analyze button serves for inspecting the current state of the scan for artifacts, the Reset button removes all the changes made to the scan.

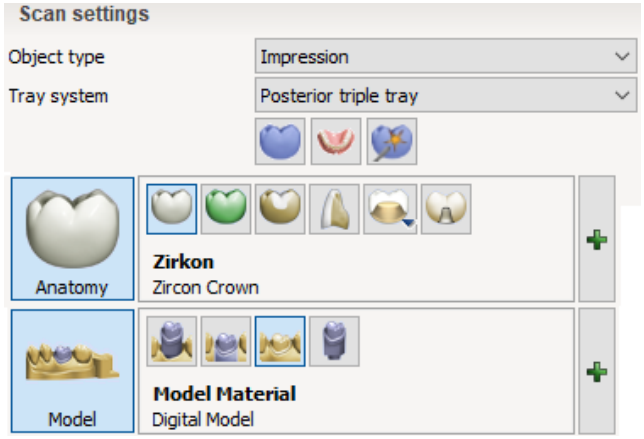
Holes are closed automatically on transition to the Adjust Scans step letting you proceed to the next steps in Model Builder.

NEW Models created on impression scans and gypsum dies

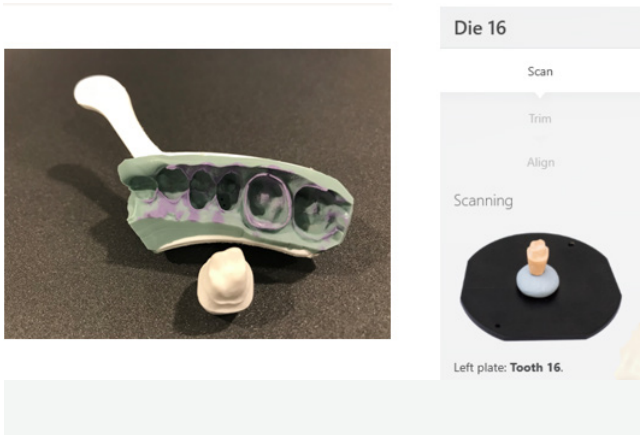
Model Builder for Dental System 2021 provides your lab with increased efficiency. A new option enables you to design models based on impression scans and corresponding gypsum dies. The new Stitch Scan Parts step automatically stitches the gypsum dies to the impression scan, catering for design of digital models.

This workflow is a good alternative for the conventional gypsum casting, as an eventual manufacturing center will not have to wait for the delivery of the impression and casting of the gypsum model.

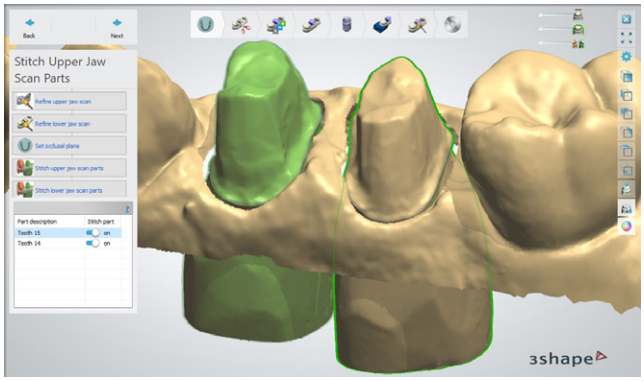




Step 1. When creating an order, select impression scanning, restoration's design, and digital model's design.



Step 2. Use a 3Shape lab scanner to scan the impression and scan the gypsum dies.



Step 3. Design the restorations and start the model design in Model Builder. The Stitch Scan Parts step will automatically stitch the gypsum die scans to the impression scan, so that you can continue your digital model design as usual.

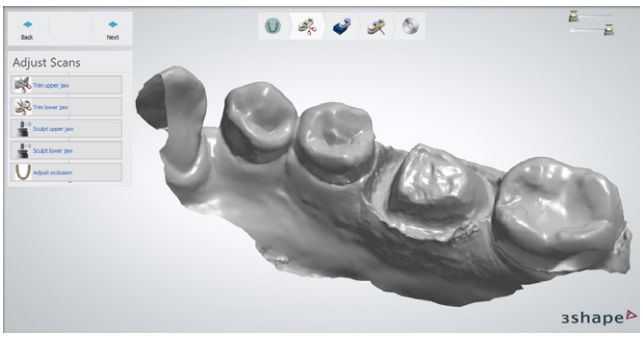
NEW Automated Trimming

An intraoral scan usually has a rough boundary that needs to be trimmed when designing a satisfactory model. Previously, trimming needed to be performed manually on Trim steps with Model Builder. This was time consuming.

With the updated Model Builder in Dental System 2021, you can save time and skip trimming intraoral scans, as a Trim step automatically provides a smooth trimming line that is close to the scan's boundary.

On opening an order case in Model Builder, you can observe rough boundaries of the intraoral scan.

Before. Scans are trimmed in the next step.



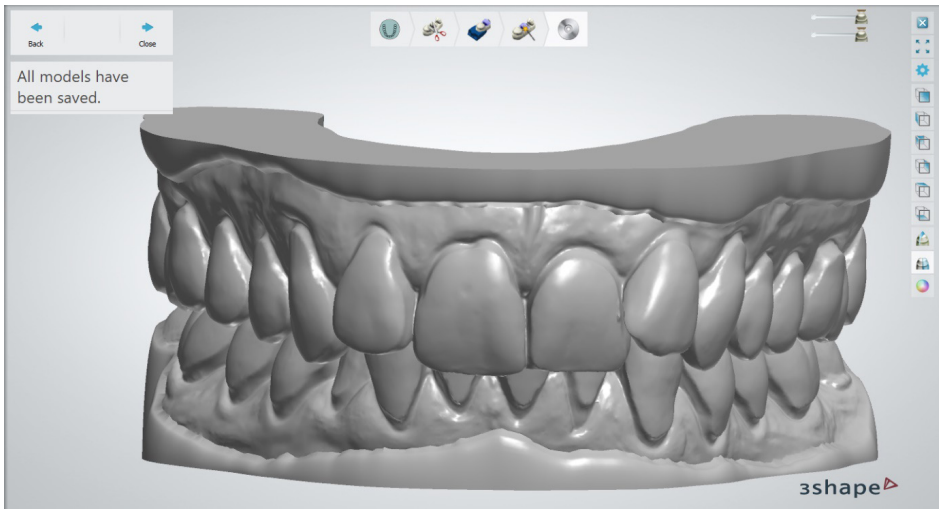
After

NEW Therapeutical Model

A new functionality in the Model Builder Wax knife settings, provides more control and precision when applying or removing material from the scan.

You can define a maximum thickness of the material that you are adding or subtracting from the scan. This is done with the new desired thickness field.

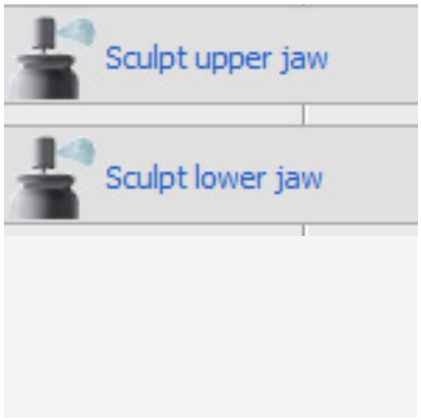
This is beneficial when you want to modify the model, prior to creating appliances with the use of a vacuum form.

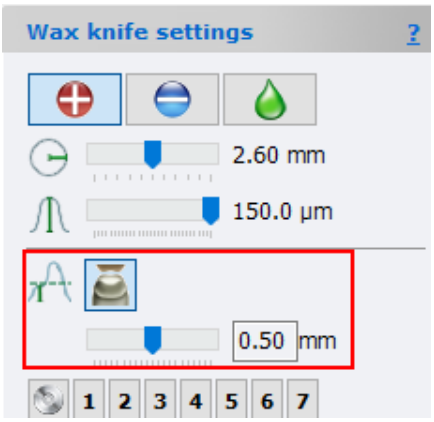


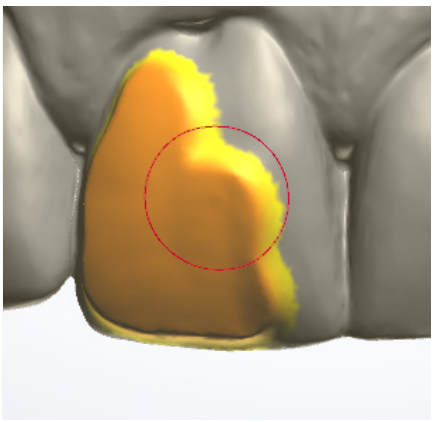
Step 1. Visit Sculpt Upper Jaw or Sculpt Lower Jaw step of Model Builder.

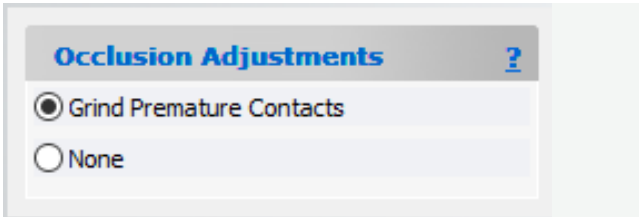
Step 2. Push Preparation Scan button in new Desired Thickness section to enable limitation on added/removed material. The amount of added material will be limited with desired thickness value.

Step 3. Start painting the model where you need to add the material.









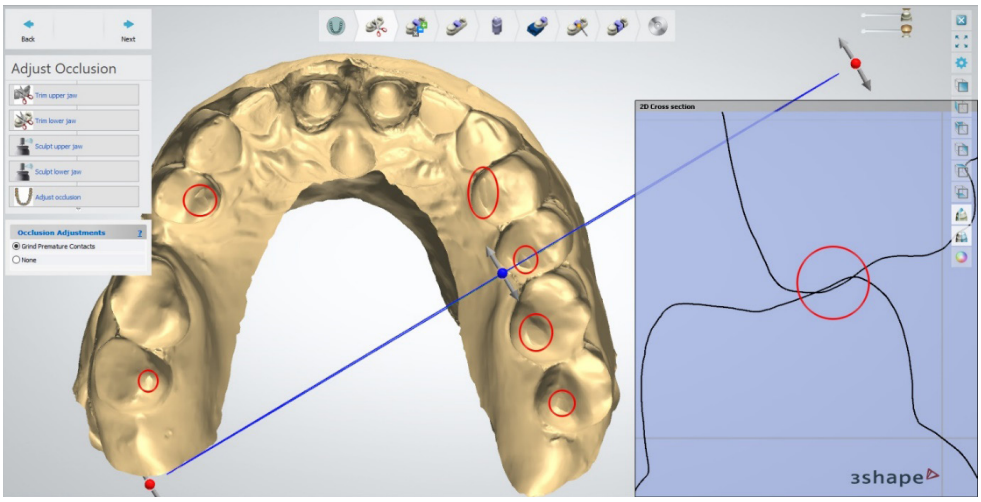
NEW Grind premature contacts

A doctor can take a bite scan in a stressed jaws' position and as a result, receive too high of a restoration from the lab. While the restoration perfectly fits the models, it can require massive grinding in a patient's mouth to make it fit.

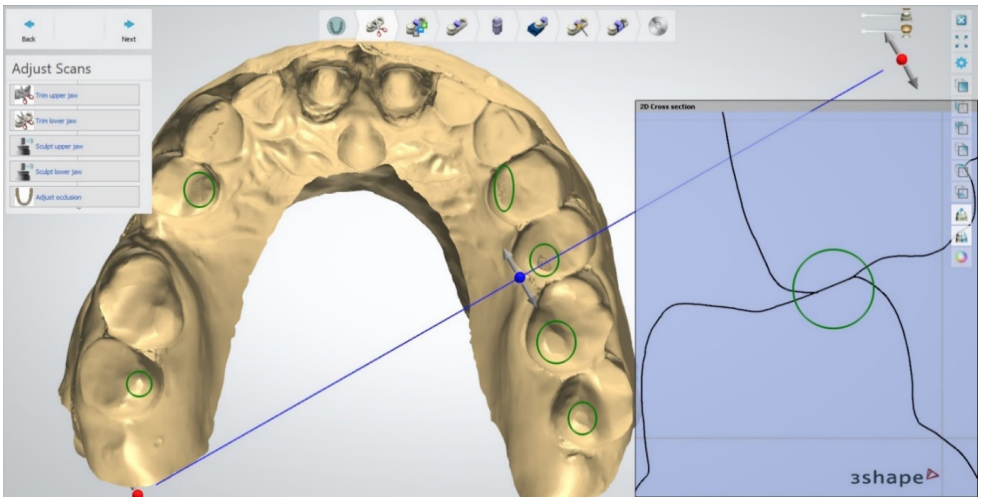
New Grind Premature Contacts option in Model Builder helps to adapt scans and avoid this issue.

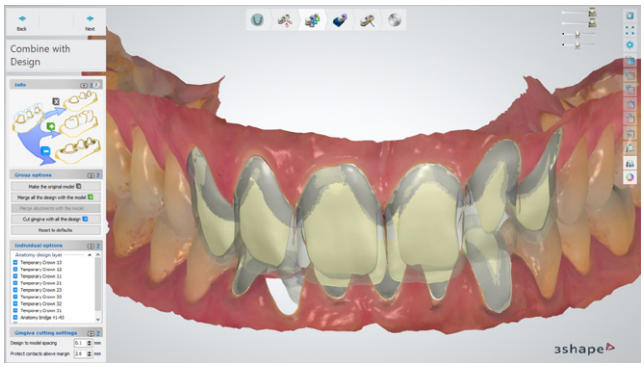
The resulting model set simulates the stressed bite position of the jaws. That lets adjustments of the restorations' height in the manufacturing phase to maintain the restoration's aesthetics and function for the patient.

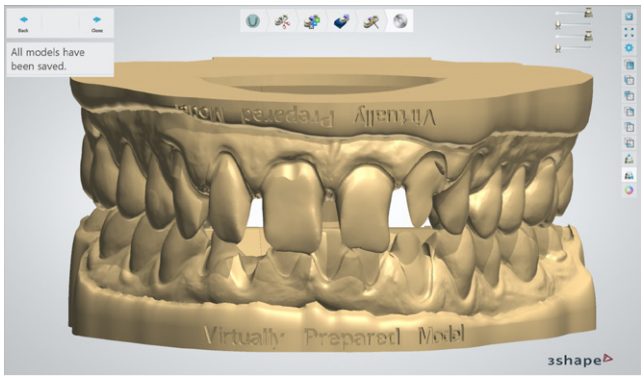
Apply the new Adjust Occlusion sub-step in Model Builder if your scans are intersecting.



Choose Grind Premature Contacts option and click Next to observe the scans in the same position but with no intersections.







NEW Virtually Prepared Model

A doctor may need a virtually prepared model for visual guidance to reduce teeth for the fitting of the provisional restoration. Now labs can provide a virtually prepared model together with the temporary crowns and bridges.

Model Builder creates the models using a virtual preparation of the teeth performed in Dental Designer as part of the temporary crown design.

Order an unsectioned model and temporary crowns. Go to Model Builder after designing the provisional restorations.

Choose ‘cut gingiva with the design’ option for temporary crowns to get the virtually prepared model on the next step.

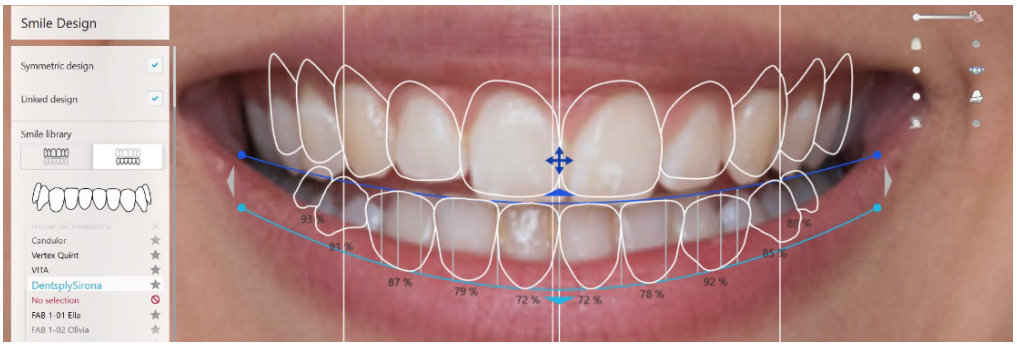
3Shape Smile Design 21.1

3Shape Smile Design 21.1 delivers improved user experience, speed gains via automation, and new tools for adjusting and sharing simulations.

Dentists use 3Shape Smile Design, a 3Shape excitement app, to propose a treatment based on the patient's photos and available teeth libraries. The agreed treatment, consisting of patient photo, smile design as well as TRIOS scan, are then sent to your lab and simply imported into Dental System. This enables you to create the desired treatment based on the smile design for the patient.

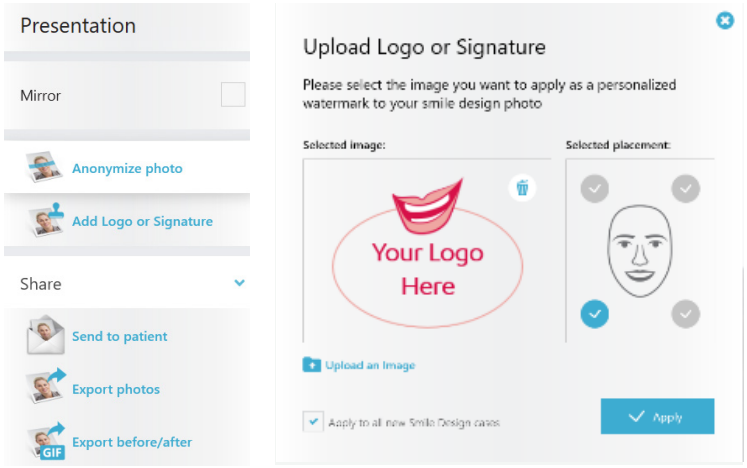
NEW Selection of libraries for lower incisors

Smile Design now provides dental professionals with more varied design options than ever before with the introduction of smile libraries for the lower incisors. Patients can now be shown designs including both the upper and the lower teeth when considering their aesthetic concerns and treatment goals.



NEW Automated Photo Alignment

Building on the previous update's automation of the placement of the facial landmarks and lip line, the new updated version of Smile Design has automated the alignment of the portrait photos showing the patient's smile and retracted view. The photo-preparation steps are now fully automated and require the user to simply inspect and press "next" or make minor adjustments if desired: leaving you more time for designing beautiful smiles.



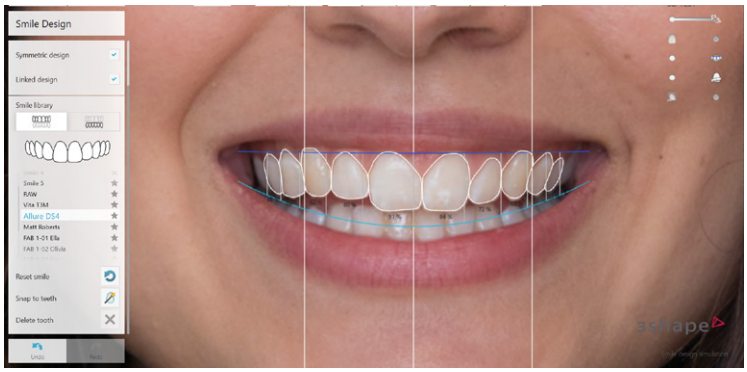
NEW Extended Photo Export and Sharing Options

When a Smile Design is completed, it is easier for you to share your work.

1 Anonymize the photo of the patient by covering the eyes.

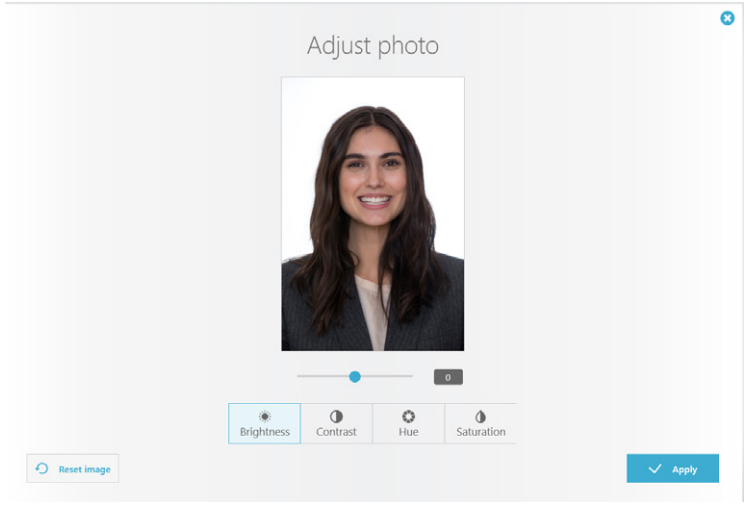
2 Add your clinic's logo, your signature, or any other images to any corner of the simulation.

3 Export a GIF, showcasing the transition from "before" to "after," including the anonymization and any branding option specified.



NEW Snap to Teeth Tool

Adapt any library to match the exact outlines of the patients' teeth for cases where only minor adjustments are needed to the patient's natural dentition. You can use the "snap to" tool either for all the teeth or only for selected teeth.



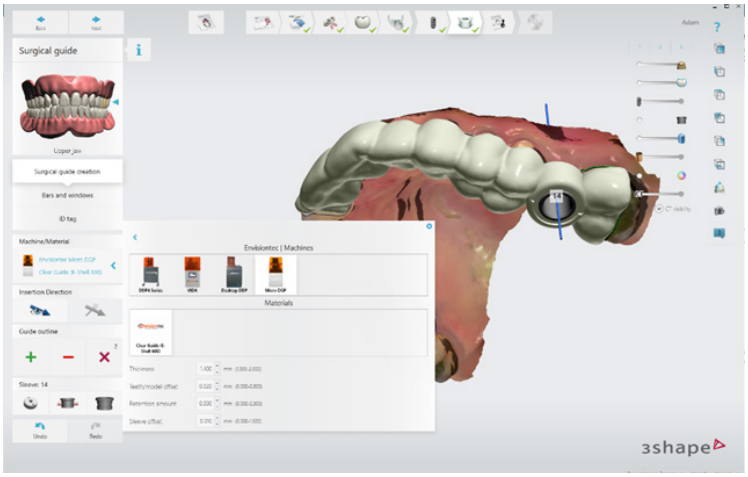
NEW Photo Adjustment Tools

Should the photo/s used within smile design require any optimizations to maximize the photo quality, you can now adjust brightness, contrast, hue, and saturation in the Smile Design software.

3Shape Implant Studio 2021

Implant Studio enables you to plan implant cases as well as design implant guides which support the dentist in the surgery of the actual implant.

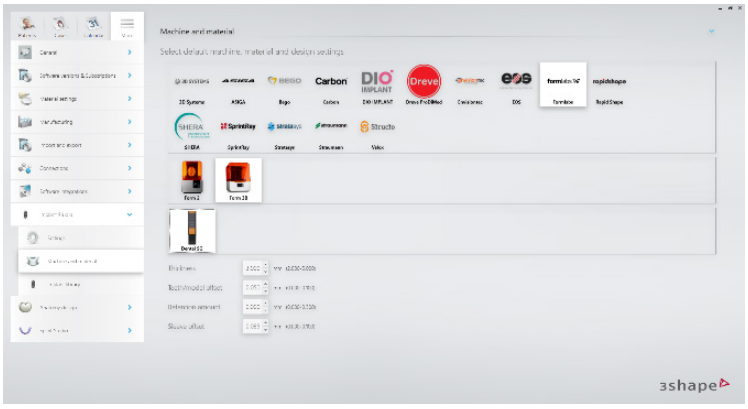
3Shape Implant Studio® 2021.1 has improved the user interface as well as now enabling the export of bone-models. Specialists can create study models with dental labs now having the option to plan restorative work also on bone-level guide cases.



NEW Machine/Material selector

In Implant Studio 2021.1, choosing machine and materials has been simplified to make it easier to find and group the machines and materials needed.

Please note that there are less machines/ materials available in the US version of Implant Studio due to FDA requirements.

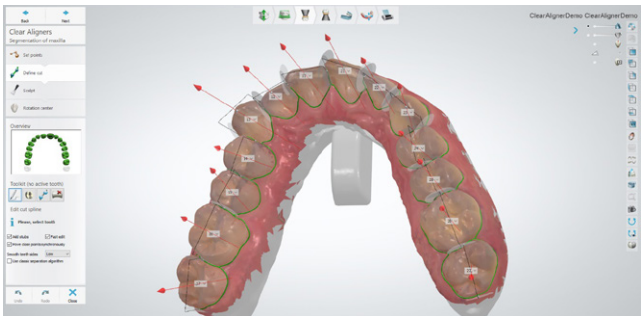


NEW Bone model with implant positions

Implant Studio® 2021.1 has improved the bone-supported guide workflow, and now allows the bone surface model to be exported to use as either a study model or in 3Shape Dental System for pre-planning prosthetic restorations.

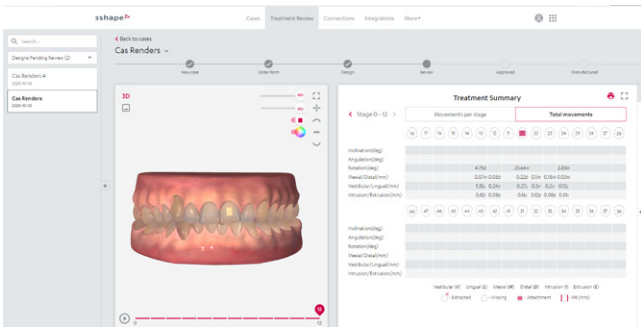
3Shape clear aligner treatment software

3Shape clear aligner treatment software* is an intuitive CAD software for the design and production of clear aligners - one of the most in-demand treatments in dentistry. Clear aligner treatments designed in the software can be vacuum formed on top of printed models.



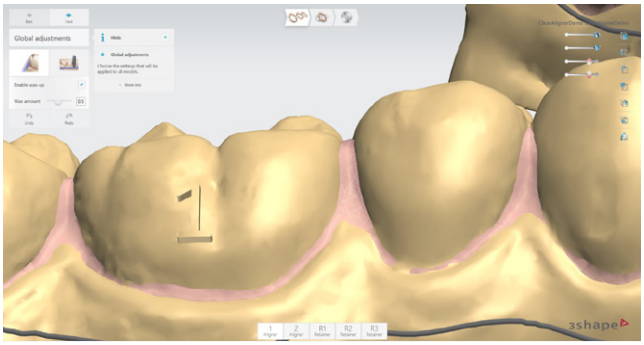
NEW Auto Segmentation

The new clear aligner update reduces processing time and the need for manual segmentation. The software now auto segments the scan into individual teeth. This is done in the background along with creating faster export times. You no longer need to help the computer process the data and instead, can spend more time on the design and clinical aspects of the case.



NEW Treatment Review

"Treatment Review" now allows doctors to clearly communicate their treatment vision to the labs, which in turn, can show the clinic their treatment proposal with a click of a button. This makes case communications more efficient for the doctor as they can approve your treatment proposal before you proceed further in the workflow.



NEW Automatic Wax-up

The analog step with applying wax on the printed models has been eliminated with the automatic wax-up feature which applies wax in the interproximal pockets and fills gaps between teeth in the design step. This can save labs several minutes for each aligner.

Other features

NEW Hollowing of models

The resin used for printing the models are one of the most expensive elements when producing aligners. The software can automatically hollow out the models to a desired wall thickness, so you can save a lot of money on material consumption. The hollowed models are optimized and ready for printing.

* Available in Q3 2021. The official product name will be communicated closer to launch.

Stabilization

Dental Manager

- It is now possible to send a case with specific characters (like Japanese or Chinese letters) to 3Shape Communicate® inbox.
- 3DD orders with RPD indication arrive at 3Shape Communicate inbox normally.
- Possibility to modify orders with digital models for Gingival\Waxup pre-preparation scan.
- Manufacturing Inbox Service no longer hangs on accepting orders with the same ids.
- More stable performance of Control Panel when the Dongle Server Service is inaccessible.

Dental Designer

- "The process cannot access the file because it is being by another process" error no longer raised during saving the design in Dental Designer.
- It is possible to change connector type for part of a split bridge with no errors.
- Improved performance in Connector validation.
- Possibility to change anatomical coping to crown during design.
- "Gingiva bottom creation failed: number of boundaries differs from planned" is no longer raised on implant bridge cases.
- Screw hole angulation point is now affected by vertical screw offset.
- Screw hole can be generated for crown on customized abutment and bridge.

Dentures

- The Sculpt tool "Remove artifacts" is improved and doesn't causes holes in the scan.
- No more error messages during scanning if you forget to add the Antagonist to the order with denture on one jaw.
- Gingivator 3.0 makes sure that the denture base follows minimal thickness even if a tooth margin line is below the scan surface
- Intraoral scans do not change the texture/ turns black after design.

Model Builder

- 'Post to model spacing' setting is now used to make a hole in a die for a post in a Post & Core restoration for order cases with an unsectioned model and standalone dies.
- An error of a die generation with Ditch Height setting 0.01mm and below is now resolved.
- Stability of soft tissue items generation is improved.
- Visibility sliders of a few workflow steps are now able to make the model fully transparent.
- Model Builder now sets margin lines in Dental Designer as a proposal for scan sectioning.

Known issues

ScanIt Dental

- The Difference map cannot be rescaled due to UI issue
- If load Neighborhood scan DCM - the order cannot be finished
- Scans are rewritten (in Aux folder) if order reopened
- "Value cannot be null. Parameter name: key" when trying to scan implant bridge and wax-up bridge on the same jaw
- Multi-die scanning enabled in the workflow even when it is disabled in the settings
- SID stuck in Post-processing state after Empty scan message
- Axis based sub-scan alignment crashes when a scan is very small
- EHA calibration workflow cannot be finished
- Wax-up Bridge on Blue tack has wrong scan orientation
- SID crashes if to re-scan preview scan
- Wrong help image on Trim mandibular sidestep in 3D Bite Plate and FD Impressions with Centric Tray workflows

System Requirements for 3Shape Dental System

Item	Minimum Requirements*	Recommended
Operating System	Windows 8.1 Home (64-bit) Windows 10 Home (64-bit)	Windows 8.1 Pro (64-bit) Windows 10 Pro (64-bit)
Memory (RAM)	16GB	32GB (64GB**)
Video Card	2GB NVIDIA GeForce or NVIDIA Quadro DirectX 10 or later***	4GB NVIDIA GeForce or NVIDIA Quadro DirectX 10 or later***
Storage Media	250GB	500GB SSD (1TB****)
Available Storage Space	Minimum of 20GB of free disk space	
Processor	Intel Core i5	Intel Core i7 or equivalent
3D Mouse		3DConnexion SpaceMouse™ Pro
Monitor Resolution	1920 x 1080 1920 x 1200	
Network	Internet connection	
USB Ports	USB 2.0 for 3Shape desktop scanner	
Mouse	Mouse with wheel button support	

* If you are planning to use 3Shape Implant Studio® integrated with Dental System, please check the system requirements for Implant Studio in the corresponding user manual.

** For simultaneous scanning and modelling of large cases, we recommend 64GB RAM.

*** For scanning minimum requirement is 2GB

**** We recommend 1TB SSD if used as a stand-alone system or a server with the order folder.

PLEASE NOTE

The 3Shape desktop scanner has to be connected to a USB 2.0 port and it should be the only device int the USB host controller unless otherwise recommended by 3Shape for specific PCs. It is recommended to connect keyboard, mouse, dongle and other peripherals to free USB 3.0 port when available 3Shape lab scanners do not work on shared USB connections.