MAESTRO 3D

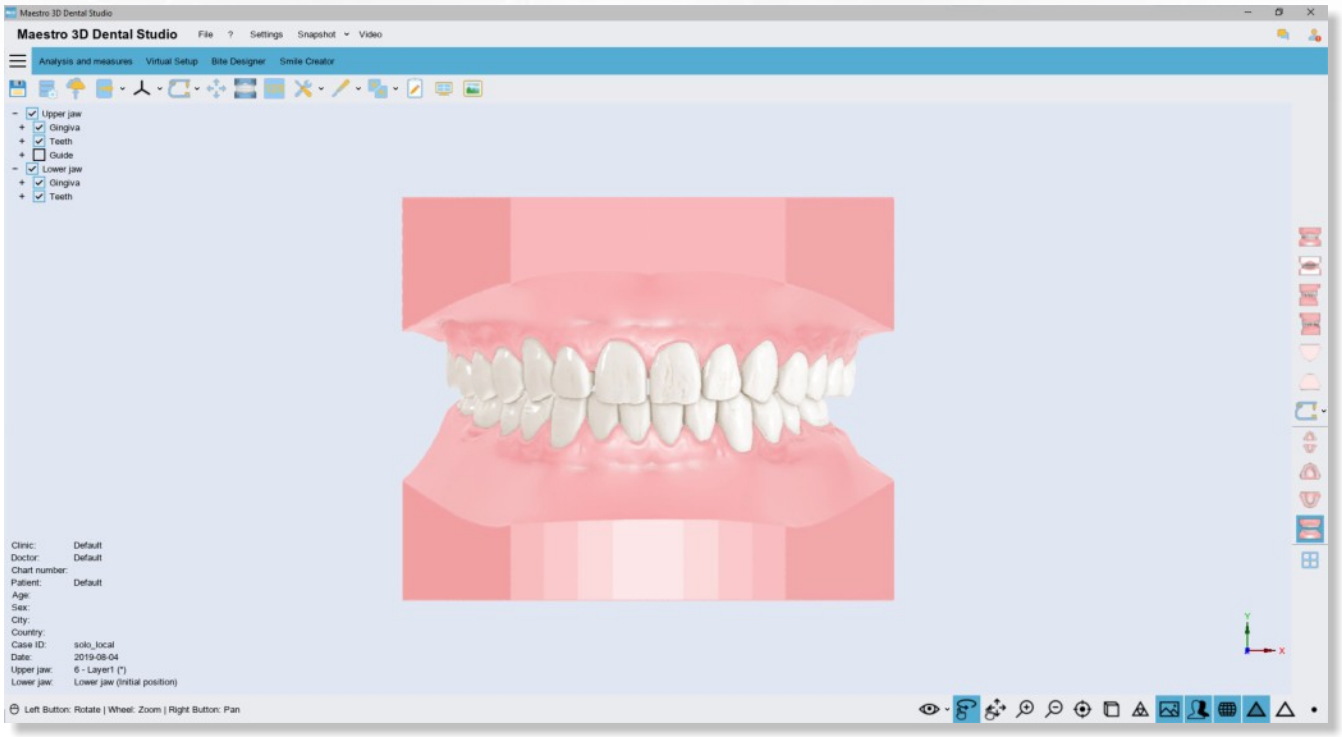
Dental Studio

Innovative solutions for dental applications

www.maestro3d.com

THE POWER TO BE EASY!

Dental Studio



Maestro 3D Dental Studio is a software based on a totally proprietary tecnology and is a complete tool for the realization of orthodontic and smile creator jobs. The software is modular and is composed from two main macro mudules:

Ortho Studio

Smile Creator

Easy to use both for the laboratories and for the clinicians, used in combination with Maestro 3D dental scanner, is the complete solution that helps the laboratories and the medical studies to enter in the digital era. Thanks to the union of the orthodontic module and the smile creator module in a single software, it is possible to exploit these several combined functionalities within an intuitive and integrated workflow.

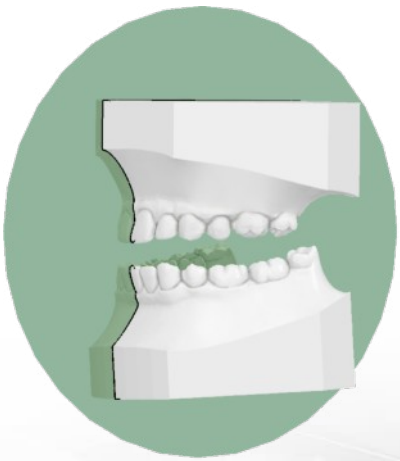
Dental Studio - Tools

3D Measuring \ 3D Modeling tools

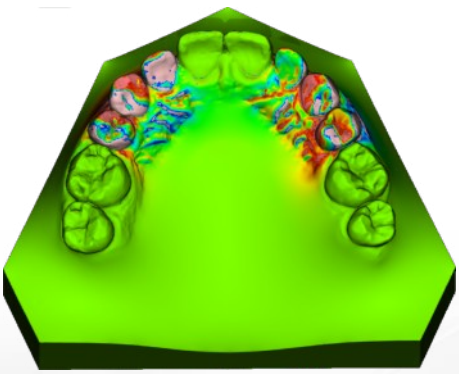
Maestro 3D comes with many tools for free modeling, repair of 3D models, measurement tools, brackets removal and the 3D comparison tool to evaluate the difference from 3D models, useful for evaluating the progress of orthodontic treatment.

Brackets Removal Tools

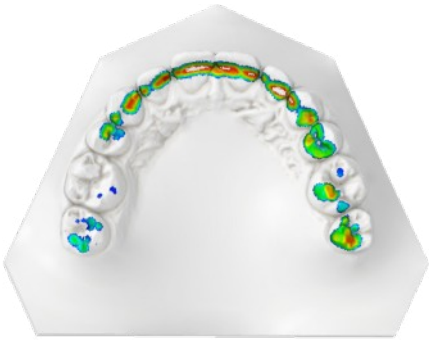
3D Measuring tools

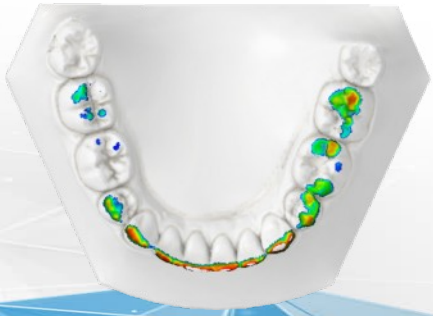


3D Compare



Occlusion map

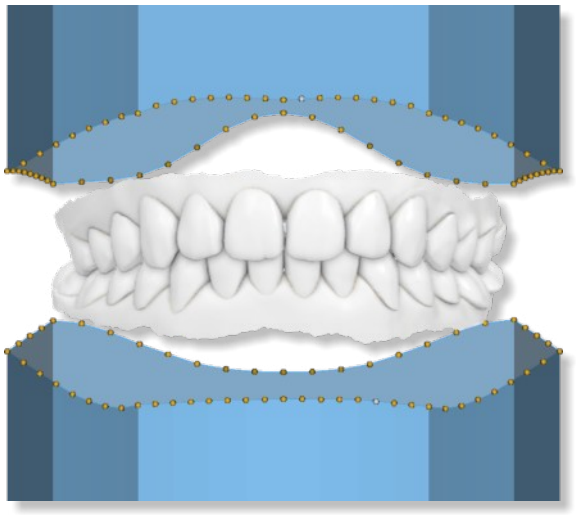


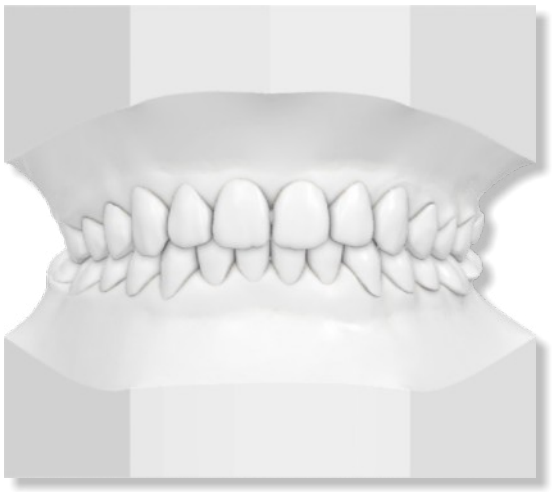


Dental Studio - Ortho Studio

Orthodontic Study Models

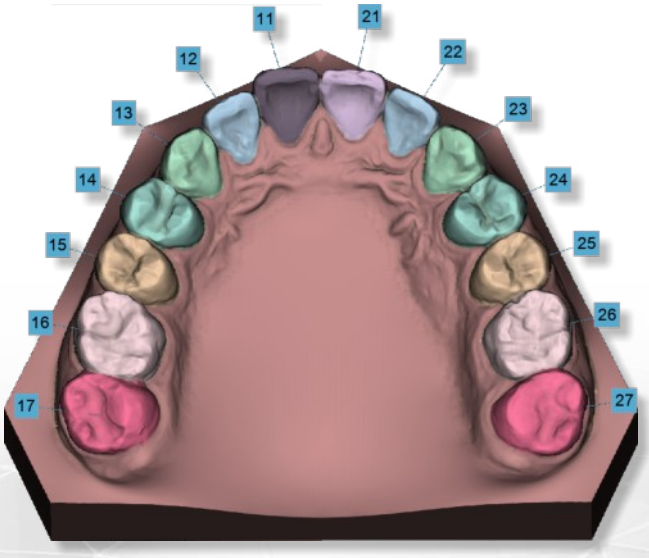
Maestro 3D allows to create virtual bases (ABO, ABO-2013, Ricketts, Parallel, Tweed) and add them to the scanned stone models. It is also possible to perform occlusal inspection analysis, 2D\3D sections, measurement on teeth and full arches.





Automatic Teeth segmentation (zero click!)

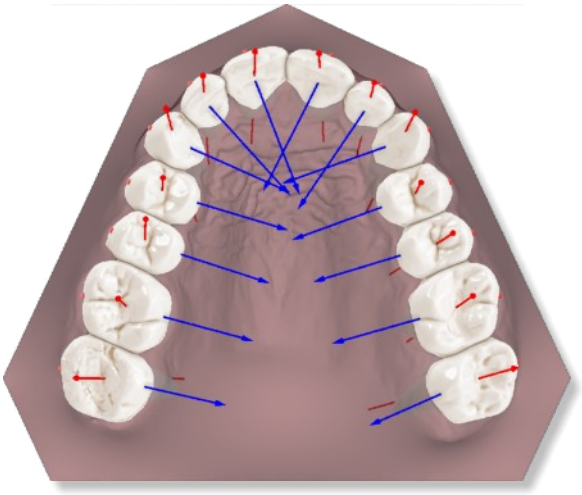
Maestro 3D's automatic segmentation uses artificial intelligence to recognize the teeth of an arch, the margin line and the correct numbering. Within a few seconds it allows you to obtain a complete segmentation, saving a lot of time, making the most boring part of the work, very fun and simple.



Dental Studio - Ortho Studio

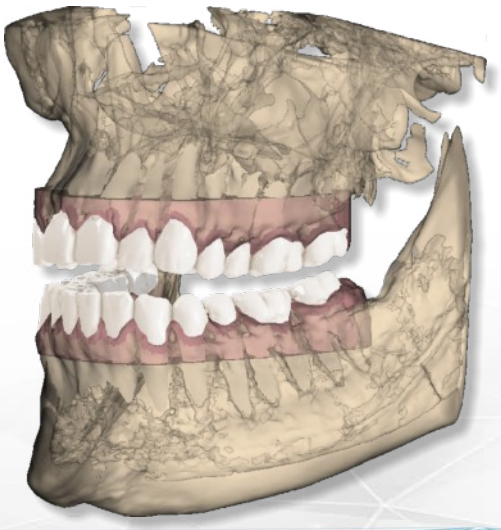
Combine the real roots coming from CBCT devices

Maestro 3D automatically calculates the axes of the individual teeth, the center of rotation, Tip, Torque and the FA point. These values are easily adjustable by the user who can define his own working process, making the movements much more predictable.
Use the real roots, when available, is really important in order to exactly determine the axes of the teeth and to know the exact position of the roots. The software allows to combine the scanned crowns with the real roots, obtaining a very accurate and detailed final 3D Model, very useful in the successive steps. The picture shows an example of scanned crowns merged with roots coming from a CBCT scan. The merging process is fast, easy and totally automatic.



CBCT mandible\maxilla and 3D Face

Maestro 3D allows the import of mandible and maxilla, coming from CBCT machines; In addition to this it is possible to import the three-dimensional scan of the patient's face.



Dental Studio - Ortho Studio

Virtual Pontic

A virtual pontic is defined as an artificial tooth on a fixed dental prosthesis that replaces a missing natural tooth, restoring its function and esthetics. It usually fills the space previously occupied by the clinical crown of the missing tooth.
Maestro 3D allows you to add a virtual pontic, choosing a tooth from the library or mirroring an existing element. It is possible to adjust and scale the pontic or use the automatic adjustment function which sizes the tooth by preventing intersections with the other teeth.
During the creation of the transition models, the pontic is automatically adapted to the mesial-distal teeth to prevent possible intersections.

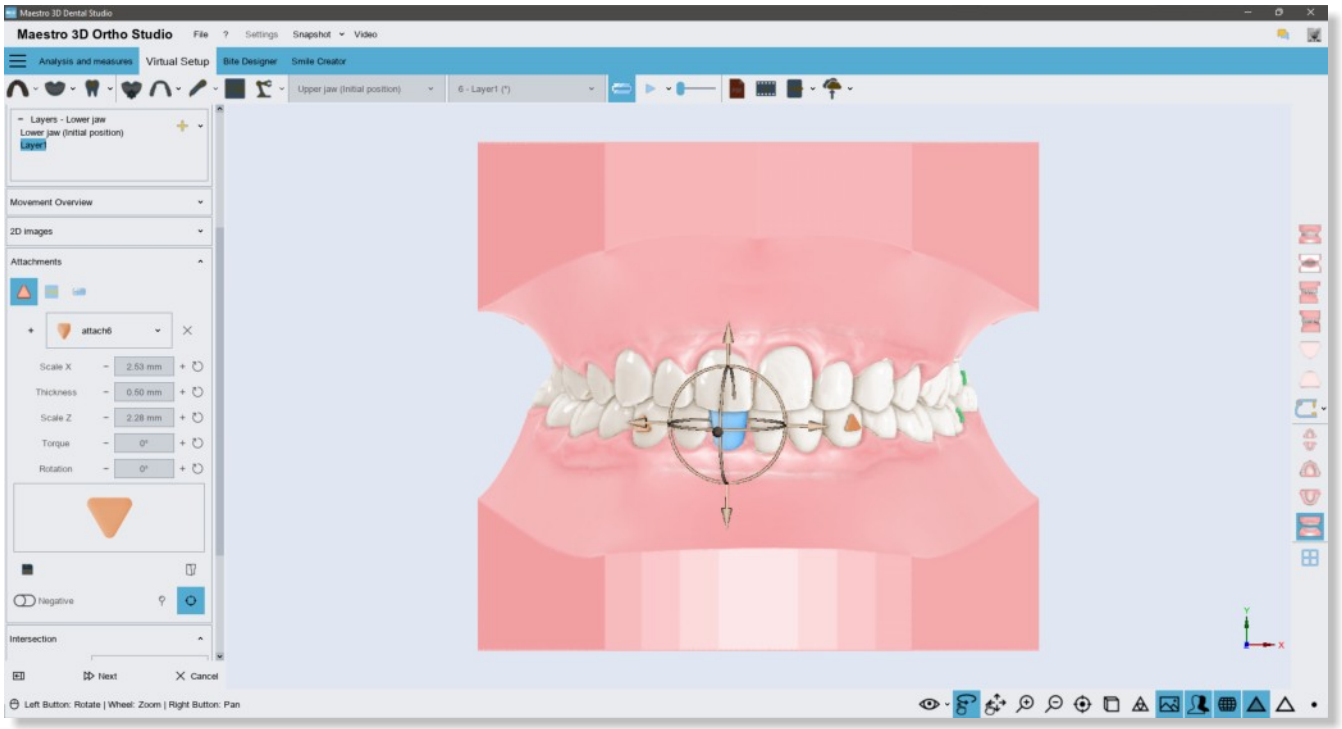
Virtual Articulator

Maestro 3D's Virtual Articulator allows you to evaluate dynamically contact points\intersections when designing any treatment with occlusion.
Parameters such as condylar angle, bennet angle, and immediate side shift can be adjusted as in a physical articulator.

Dental Studio - Ortho Studio

Virtual Setup

3D virtual setup is able to simulate the orthodontic treatment by segmenting individual teeth and moving each individual tooth to its desired position.
It is a diagnostic tool to confirm, modify, or reject a suggested treatment plan. The individual need for inter-proximal reduction or dental extractions to solve crowding or dental protrusion can be predicted. In addition, the virtual setup has the potential to be used as a therapeutic tool to execute the orthodontic treatment with the use of indirect bonding trays and thermoplastic aligners.



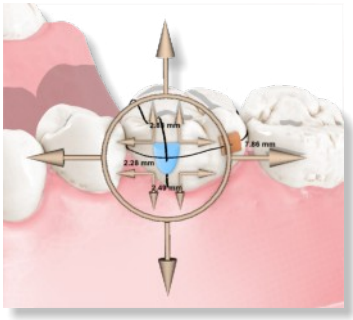
Highlights

- Multiple virtual setup projects
- Real-Time collision detection (automatic intersection\distance calculation)
- Attachments placement (positive\negative)
- IPR (interproximal reduction), tooth extraction
- 3D Label (positive\negative)
- 2D Image support
- Layers support
- Virtual Pontic

Dental Studio - Ortho Studio

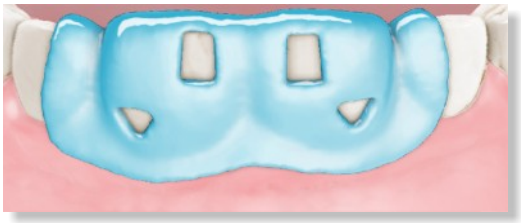
Attachments

The software has a large library of attachments. The software allows to inserting of new geometries and changing the shape, size, and thickness of existing attachments.
Attachments can be positioned either positively or negatively. The user has complete freedom to create their own workflow making movements much more predictable.



Etching guide for attachment placement

It allows creating a guide for the etching of the tooth surface where the attachments will be placed. The guides created can be easily exported and printed with the appropriate resins.



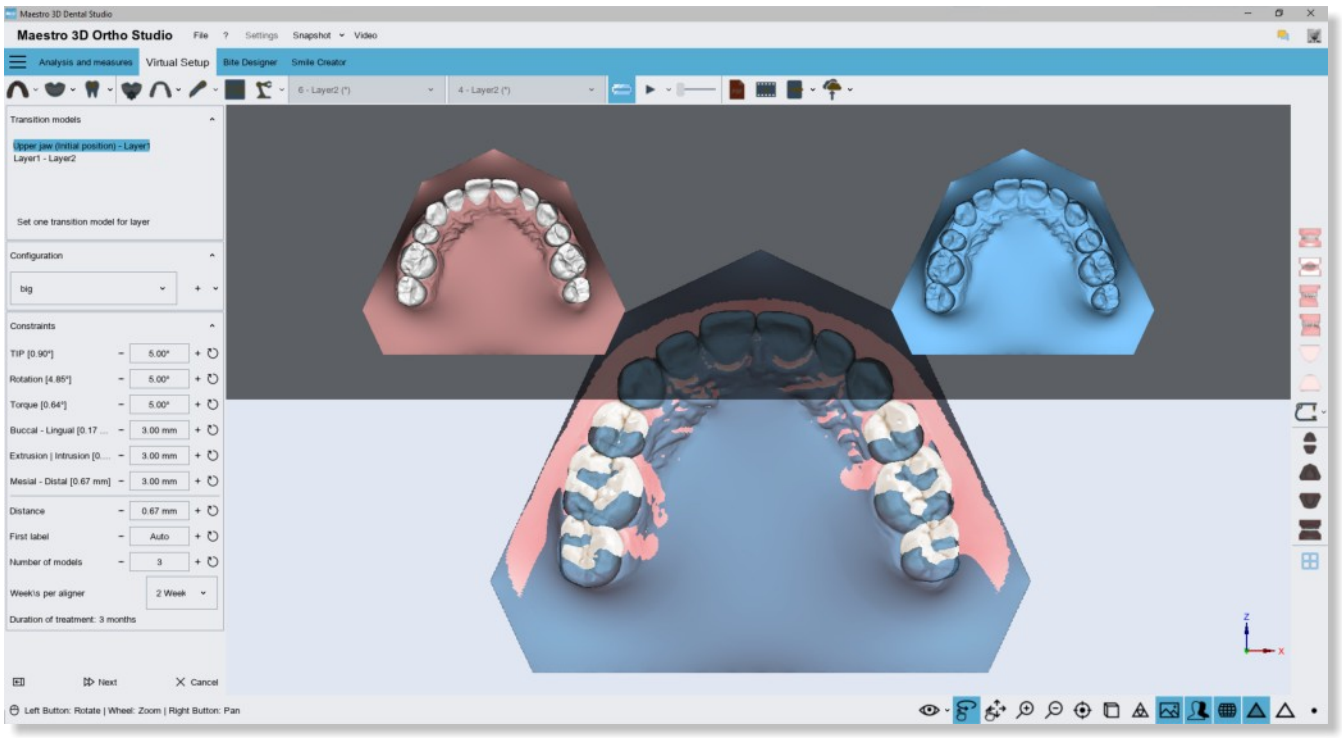
Tooth extraction

The software allows the extraction of the teeth. The geometry of the gingiva is automatically reconstructed and allows you to create space for the movement of the teeth.

Dental Studio - Ortho Studio

Models Builder

The models builder allows to create the set of 3D models needed for the whole orthodontic treatment, ready to be exported in STL/PLY/OBJ file format and optimized for the 3D printing. The user can decide the number of transition models, the maximum movement along the canonical axes and the maximum expected rotation for each model.



Cut & Close

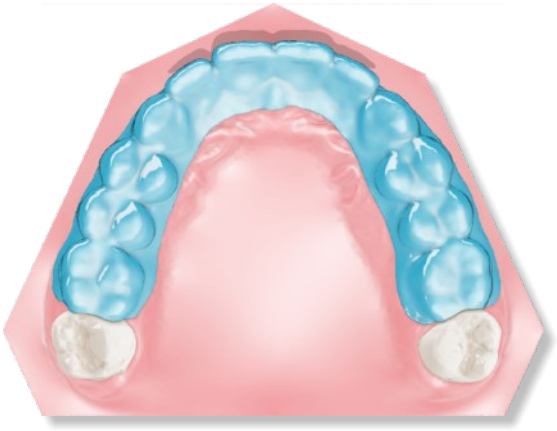
Removes excess parts to save material and speed up the printing process. It is possible to eliminate material through a plane or through a line. It is possible to leave the bottom of the model open or closed and export it later with the hollow option to further save printing material.

Hollow Models

Dental Studio - Ortho Studio

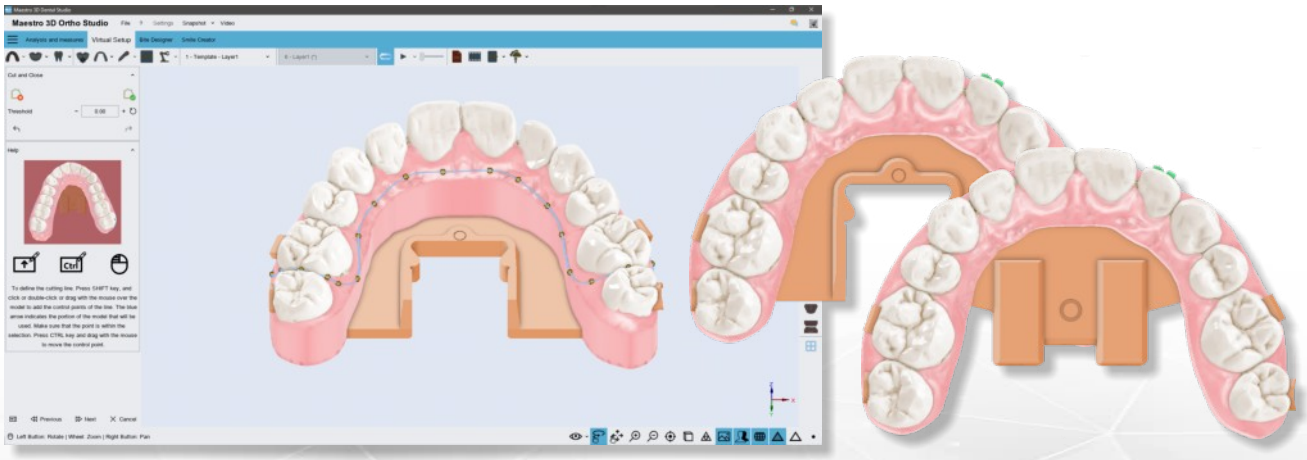
Printable Clear Aligner

Maestro 3D allows to design and construct the clear aligners in a virtual way; with this feature is possible to draw the aligner shape, set a variable thickness and simulate the thermoforming. The templates can be exported and ready for 3D printing.



Automatic aligner trimming

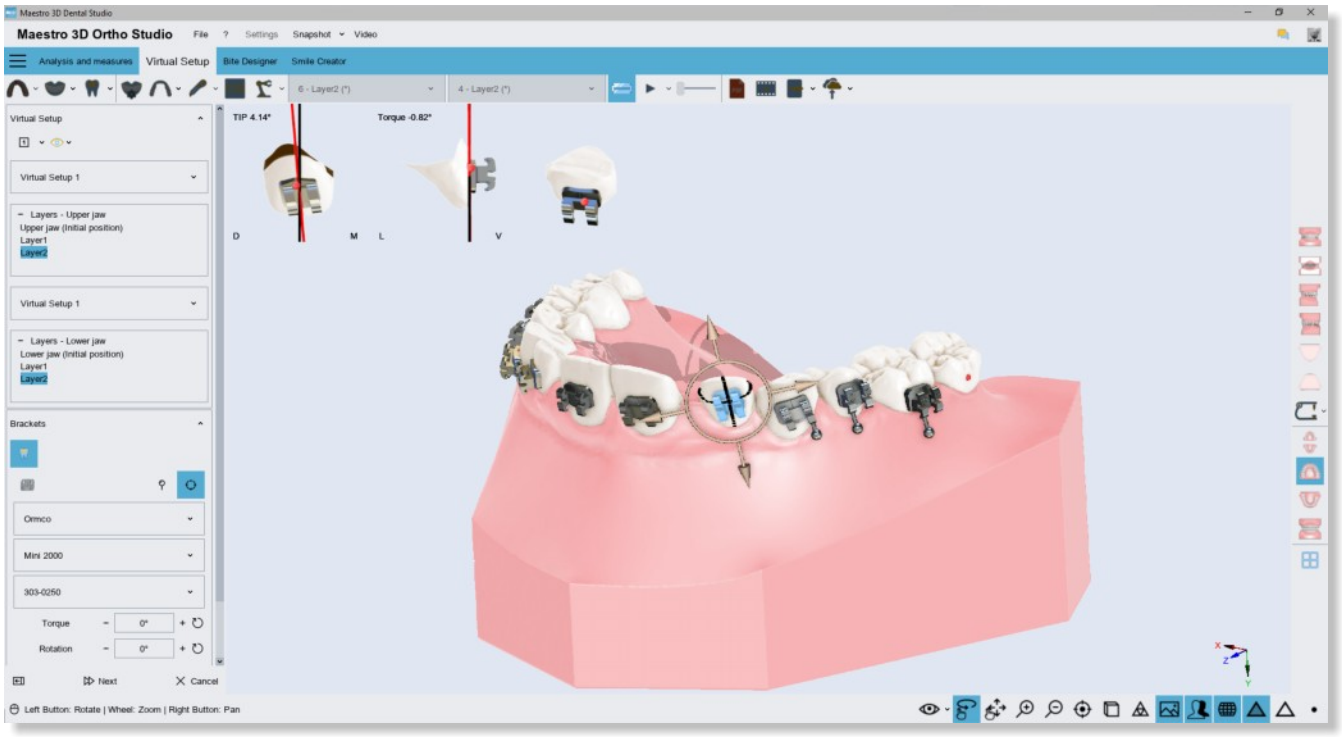
Maestro 3D is integrated with leading manufacturers of CNC cutting machines. With a simple click you can add the fixture to all transition models and define the cutting line for the aligners.
The software will automatically export all models with the fixture and the cutting line for each model in open PTS format in order to integrate a cutting machine into your production process.
Each CNC cutting machine has its own fixture and it is possible to expand the Maestro 3D library in a very simple and fast way in order to add or change components to integrate with new machines.



Dental Studio - Ortho Studio

Brackets placement

The brackets placement allows to automatically place the brackets on the teeth. It offers various placement techniques (Step, Roth, Wick Alexander, Dwight Damon, MBT, Andrews) and, in combination with the clear aligner feature allows to construct of several types of trays for the transfer of the brackets in the mouth of the patient.
It is possible to create customized libraries with brackets from different manufacturers. Maestro 3D offers maximum freedom and flexibility for the correct planning of orthodontic treatment.



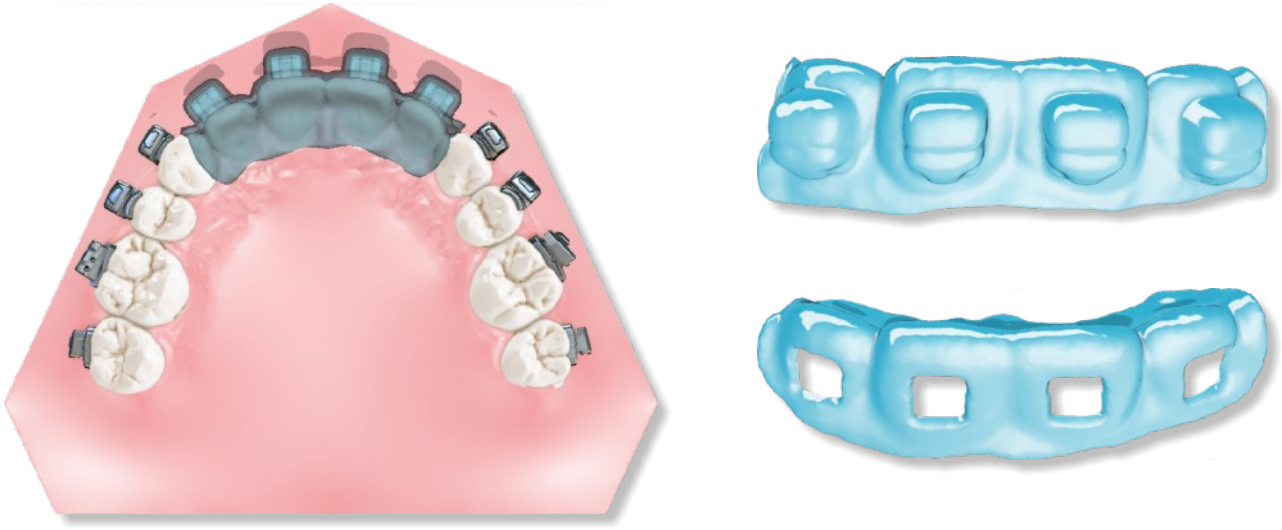
Maestro 3D automatically calculates the degree of tip and torque of the tooth and the brackets, helping treatment planning and making tooth movements more predictable.

Dental Studio - Ortho Studio

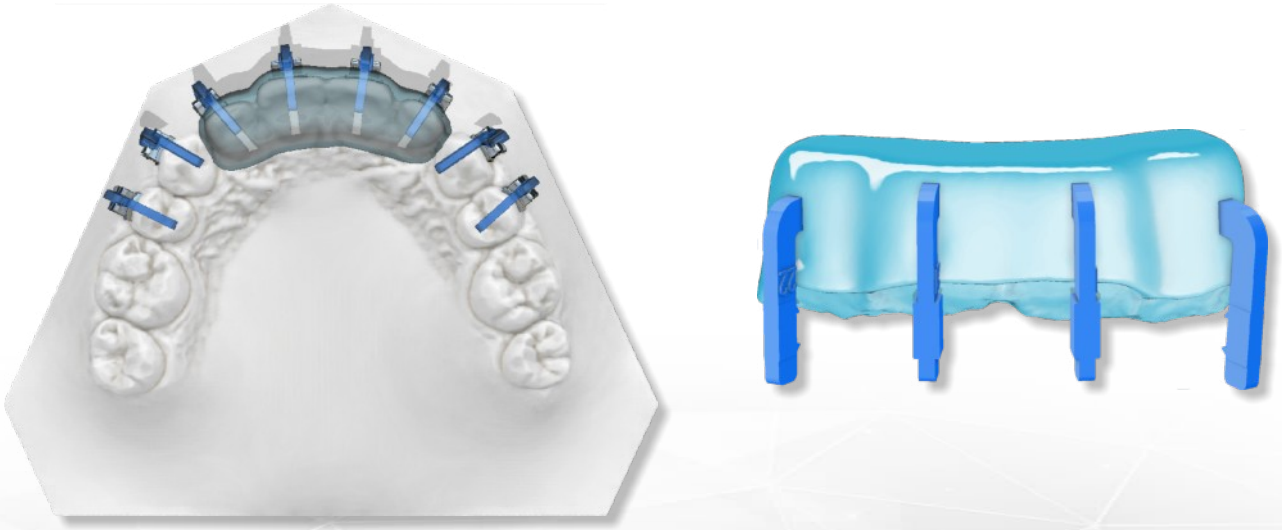
Bracket transfer trays for bracket placement

Maestro 3D allows to make the bracket transfer trays for bracket placement. These can be easily printed to facilitate the positioning process in the patient's mouth.

Bracket transfer trays for bracket placement (with/without windows)



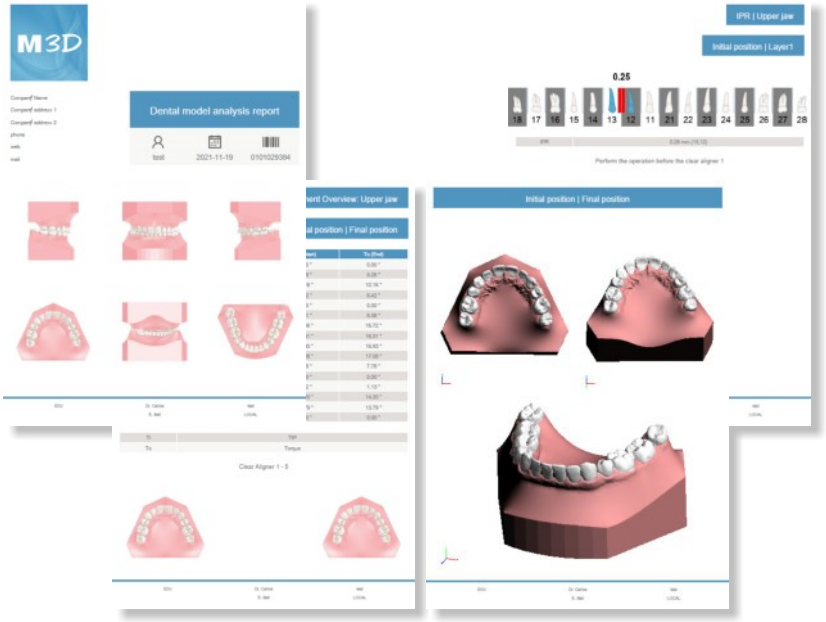
Bracket transfer trays for bracket placement (with JIG)



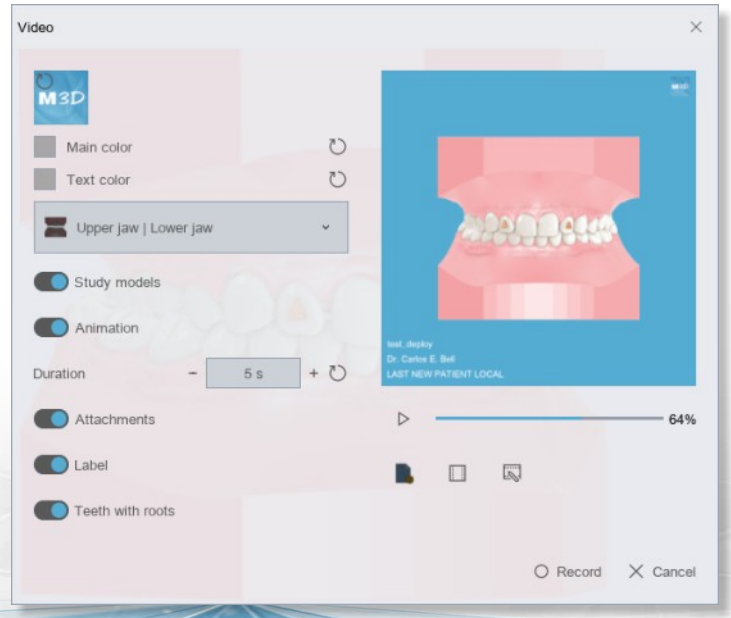
Dental Studio - Ortho Studio

Treatment Report

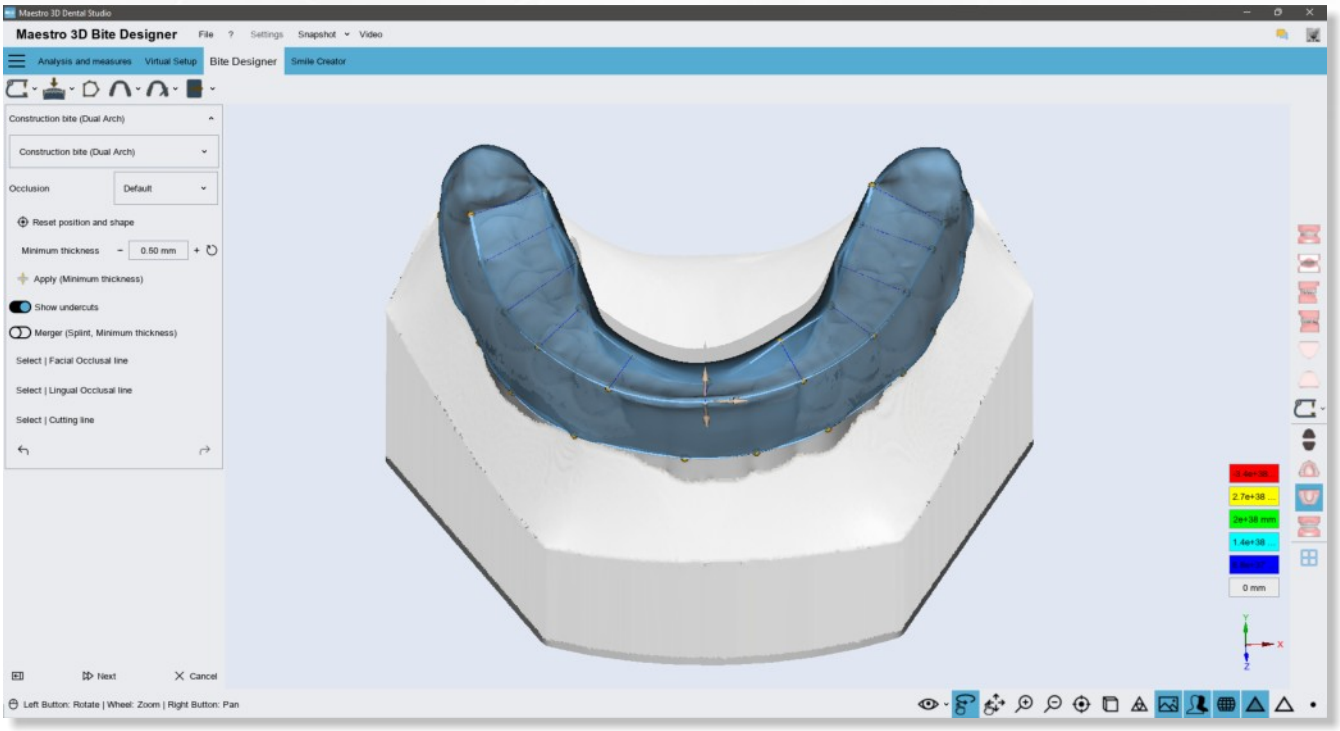
Maestro 3D automatically creates PDF reports, containing all the information of the treatment. It allows you to add the movement overview, the positioning of attachments and brackets, the 3D models, and much more.
This is a very powerful and effective way to share your work with your doctor.



It is also possible to automatically create a customizable video presentation.



Dental Studio - Bite Splint

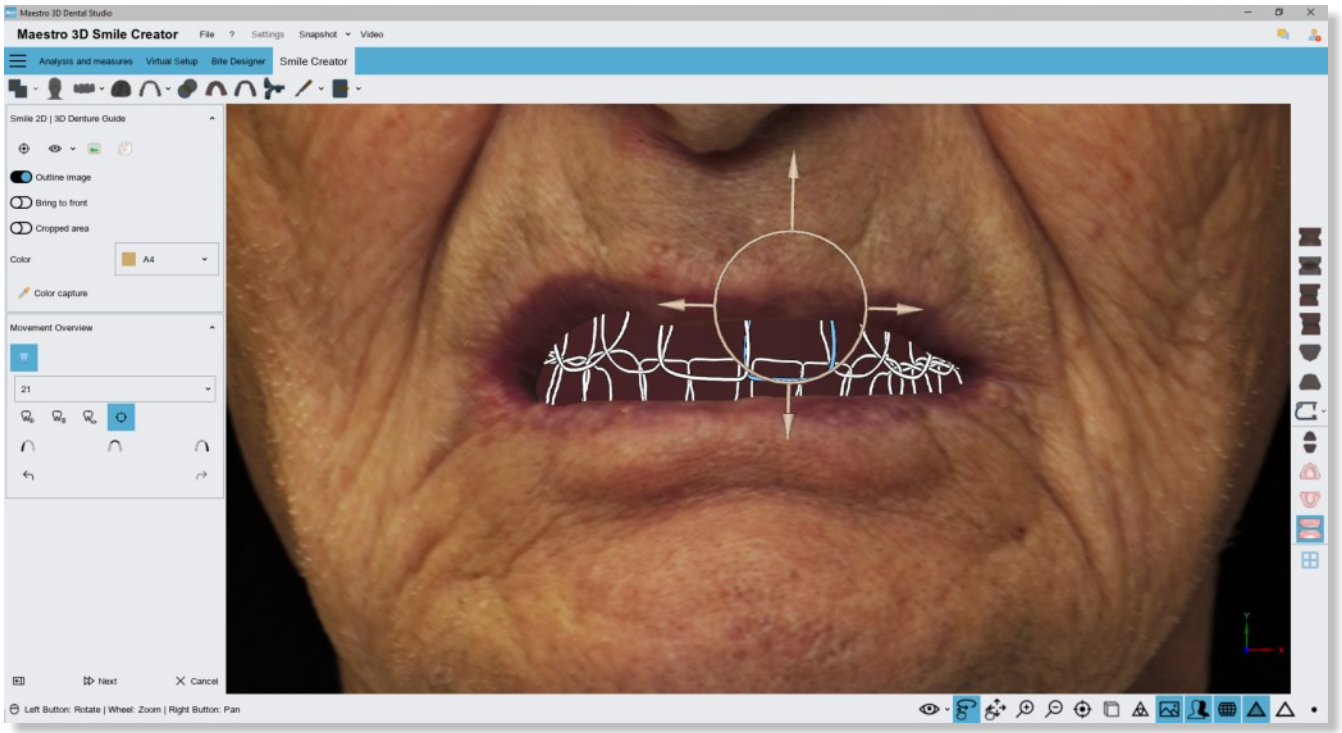


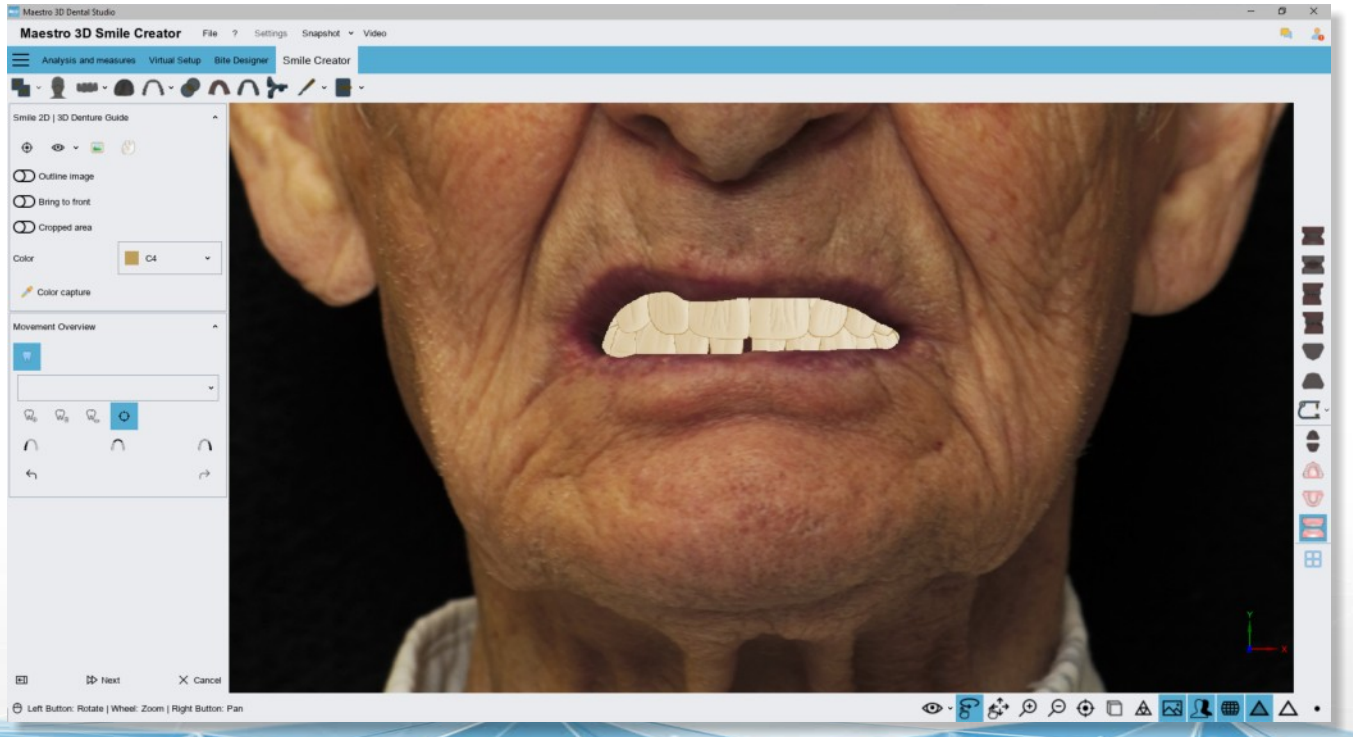
Maestro 3D designs and produces all major types of single and multi-jaw occlusal splints with a fast and intuitive workflow.
The Maestro 3D's powerful software engine calculates the desired splint design in seconds.

Dental Studio - Smile Creator

2D Smile

Maestro 3D's innovative smile design solution for predictable esthetic smile makeovers. The 2D simulation can be done by the doctor and used as a preview of the treatment for easy communication with the patient. Create a new smile by simply editing 2D teeth shapes. The facial analysis enables you to design the perfect smile for the patient's individual anatomy.
The 2D design will be used and integrated into the 3D project while maintaining the movements and choices made in the 2D design.

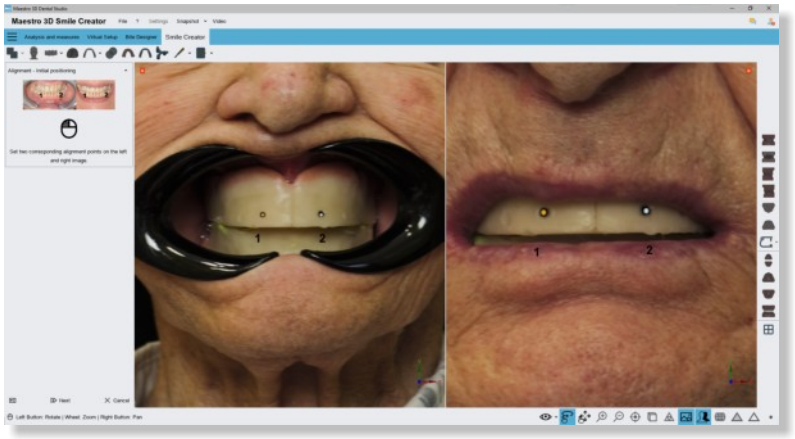




Dental Studio - Smile Creator

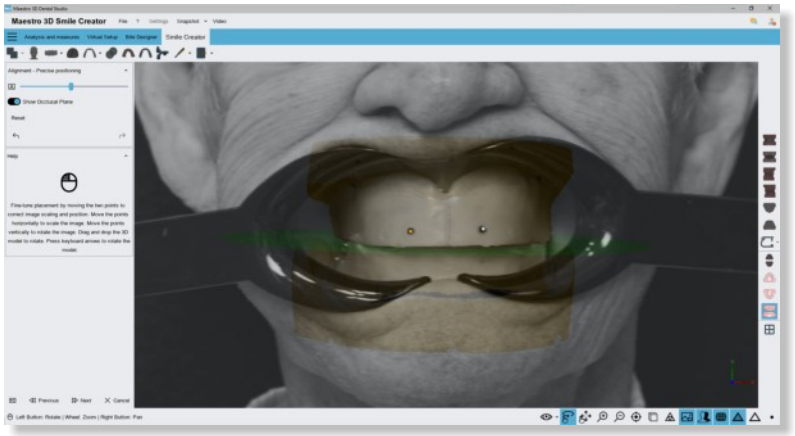
3D Denture Guide

The software guides and assists the user in positioning artificial teeth in order to build a printable guide needed to make a prosthesis for an edentulous patient. The software also allows you to combine photographic previews with the virtual positioning of the teeth, in order to see the final result directly on the patient's face. A tool that allows predictable results, improving communication between the dental technician, doctor and patient.



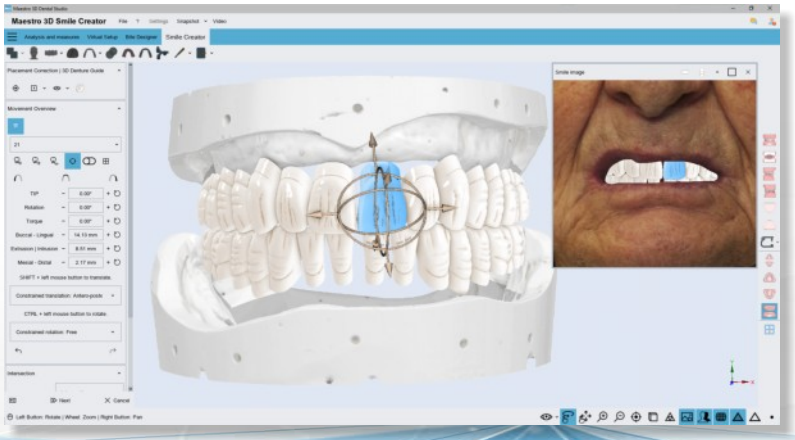
2D photographic alignment

2D alignment of patient photographs. This function allows you to use photographs of any size and orientation. With a simple and intuitive procedure it is possible to align and superimpose the various photographs.



3D Alignment

3D alignment allows you to overlay and align the scanned 3D model with the patient photo. With just 2 points you can make a correct alignment.



Teeth positioning

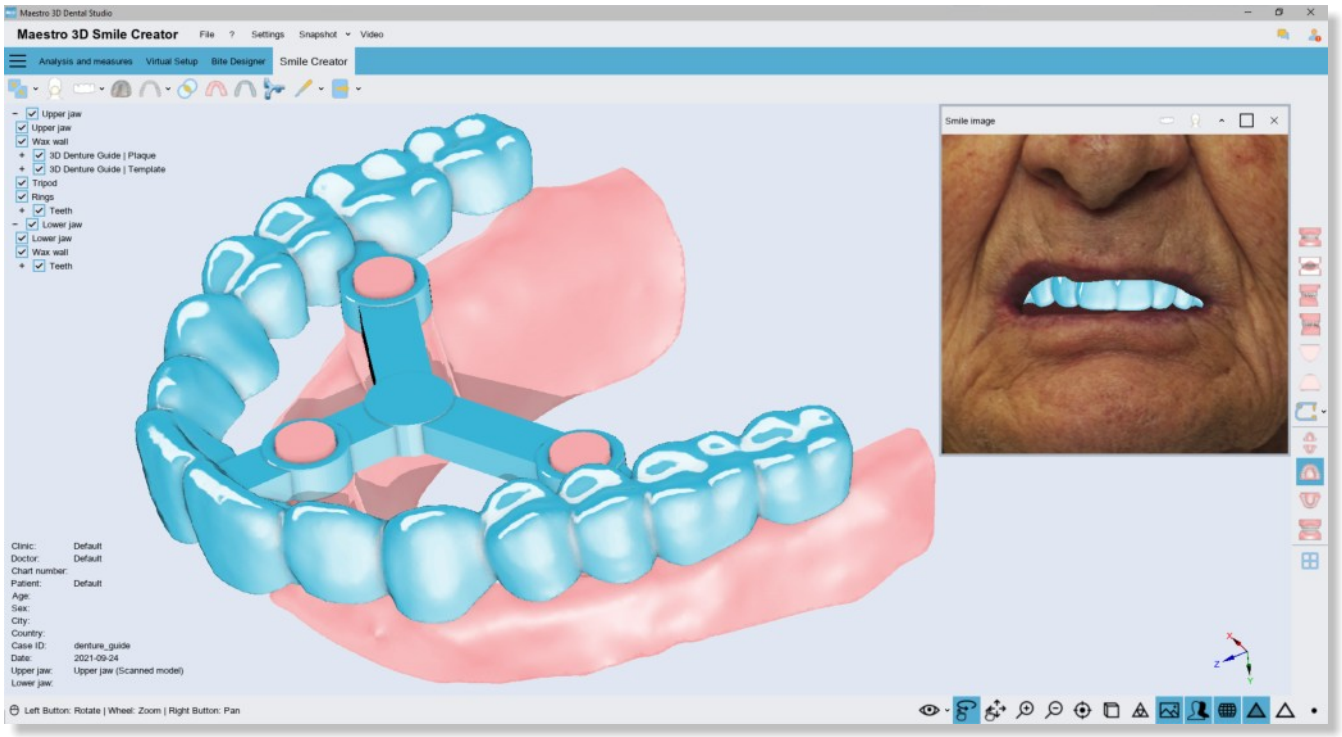
All the tools needed to make a correct positioning of the acrylic dental anatomies available on the market are at hand. Possibility to evaluate collisions, contact points, relationships with canonical planes and gingival crests.

Dental Studio - Smile Creator

3D Denture Guide

Tripod

All the tools needed to make a correct positioning of the acrylic dental anatomies available on the market are at hand. Possibility to evaluate collisions, contact points, relationships with canonical planes and gingival crests.



Printable device

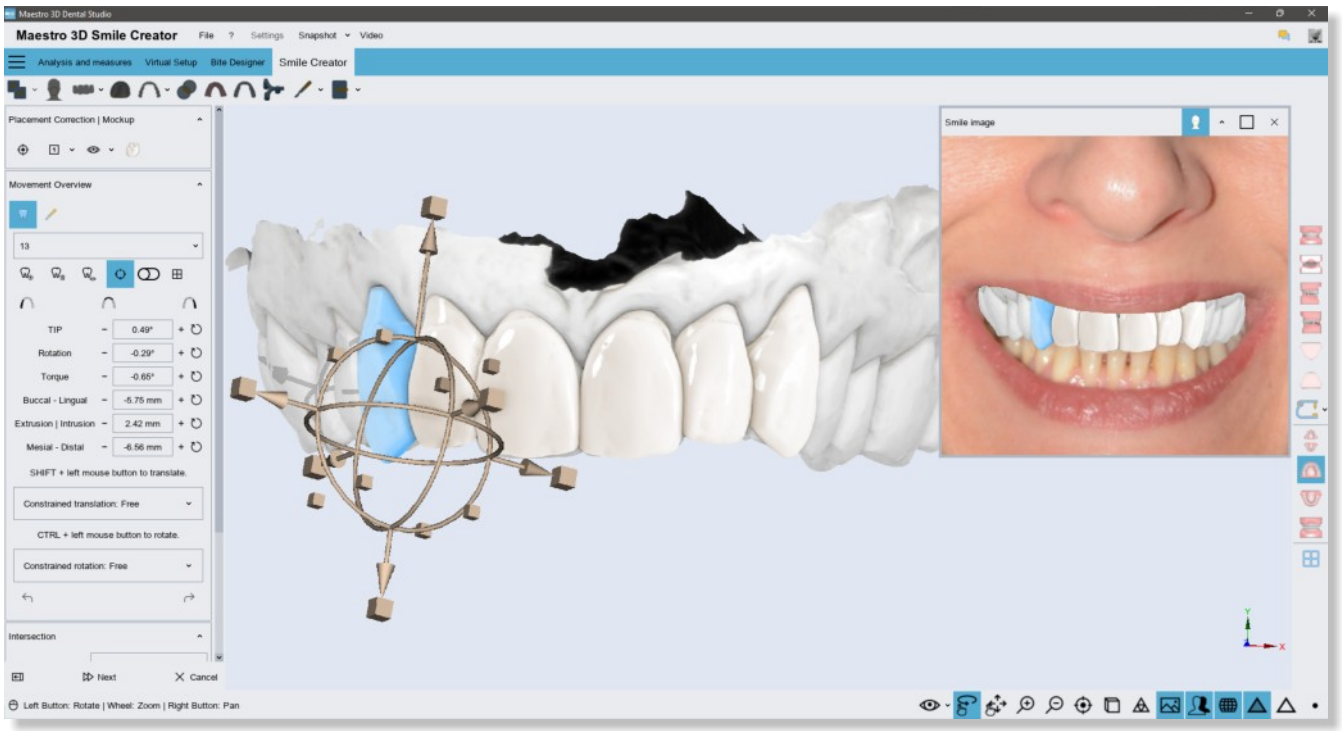
The device consists of two printable parts. With this device it is possible to create highly functional prostheses by shortening the distance between the prototype and the final result. Maestro 3D Denture Guide allows to combine the traditional experience of the dental technician with a digital approach.

Dental Studio - Smile Creator

Digital Mockup

The software helps dental technicians and doctors to create highly aesthetic restorative treatments based on the smile desired by the patient. The software also allows you to combine photographic previews with the virtual positioning of the teeth, in order to see the final result directly on the patient's face. A tool that allows predictable results, improving communication between the dental technician, doctor and patient.

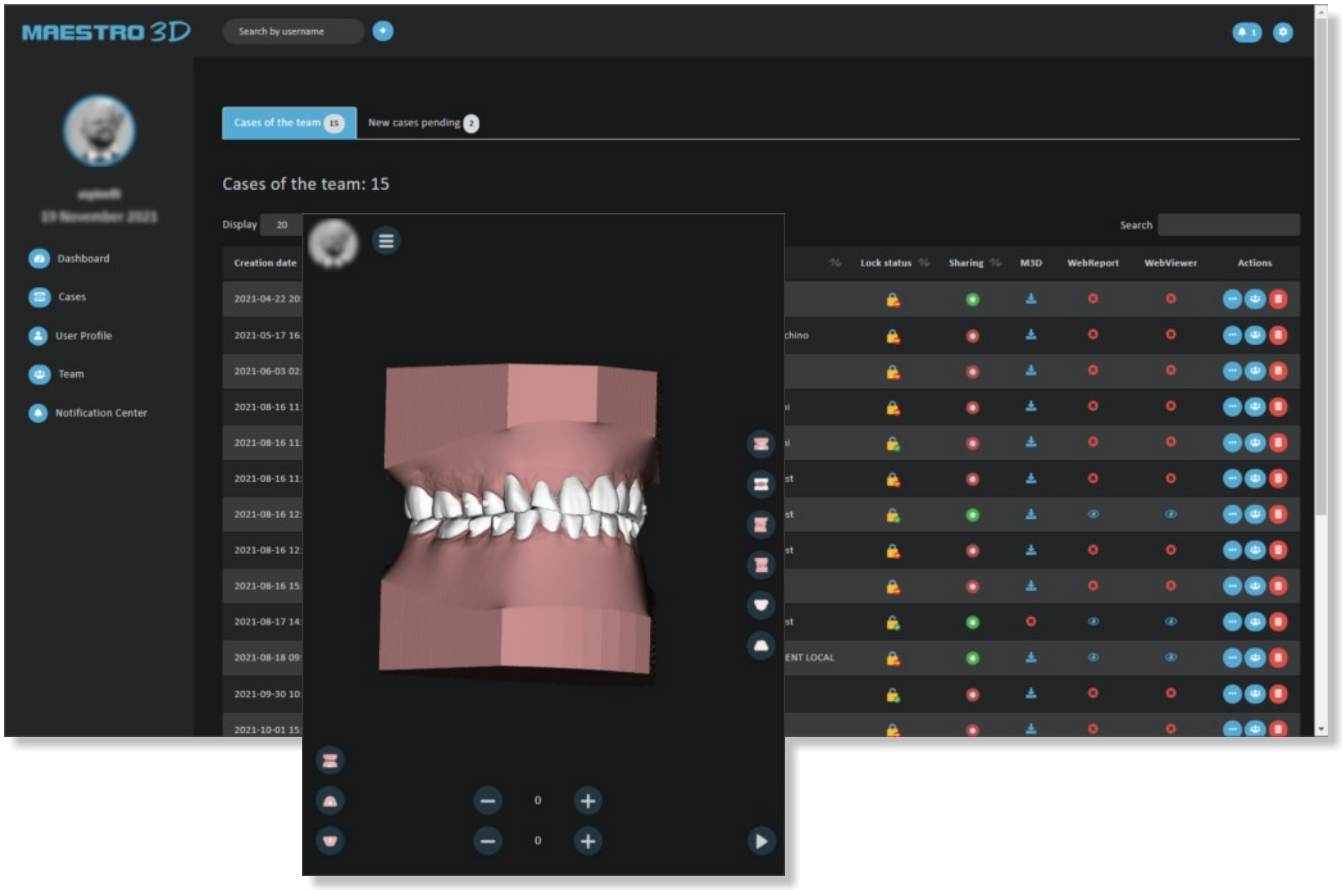
Many tools are available to perform a correct diagnostic wax-up in a few clicks. Ability to choose initial dental anatomies from the library of available anatomies. The user has multiple tools available, to correctly position the teeth, to model the teeth in real time, to evaluate contacts and intersections. During the realization phase it is possible to see directly on the patient's face the final effect of the treatment being worked.



Printable mockup

Maestro 3D Cloud

Store your work cases on the cloud and make them always available for your entire work team.
Create your work team, manage access rights, connect your doctors and share your work with them.



Highlights

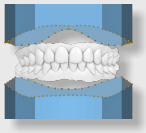
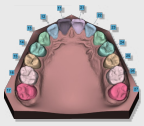
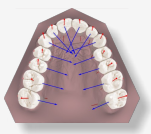
- Direct integration with Dental Studio\Dental Studio Viewer
- 3D web-based viewer (phone\tablet\PC)
- Web-based treatment report
- Easy share of the cases across the team (employees, doctors)
- Work case lock\unlock function to allow multiple users to work on the same case
- Lock\unlock the virtual setup and brackets placement features for doctor use
- Messaging between operators and doctors relating to the individual work case
- OEM Server customization (url, mail, logo, color theme, …)

Dental Studio - Specification Sheet

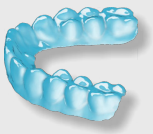
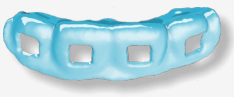
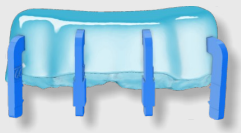
Combined with third party scanners	✓
Intraoral scanner ready	✓
Input Files	.STL, .PLY, .OBJ
Management of the actual color of the scan	✓
Study Models	ABO, ABO 2013, Ricketts, Parallel, Tweed
3D Label	✓
3D Modeling tools	✓
Brackets removal tools	✓
3D Measuring tools	✓
2D Image support	✓
Occlusion map	✓
Automatic teeth segmentation (zero-click!)	✓
Automatic teeth axis, FA, Tip, Torque calculation	✓
Virtual roots	✓
Virtual Pontic	✓
Virtual setup	✓
Multiple virtual setup projects	✓
IPR (interproximal reduction), tooth extraction	✓
Real-Time collision detection (automatic intersection\distance calculation)	✓
Attachments placement	✓
Customizable attachments	✓
Attachments designer	✓
Brackets placement	✓
Brackets designer	✓

Brackets JIG support	✓
Automatic transition models constructions	✓
Automatic 3D label over transition models	✓
Automatic template models generation	✓
Cut and Close	✓
Hollow Models	✓
Automatic Aligner Trimming	✓
PDF report	✓
Video recording	✓
Video report	✓
Clear aligners for transition models	✓
Etching guide for attachment placement	✓
Clear aligners for brackets placement	✓
Bite Splint	✓
Digital Mockup	✓
Denture Guide	✓
Maestro 3D Cloud support	✓
Output files	.STL, .PLY, .OBJ, .ZIP-STL, .ZIP-PLY, .ZIP-OBJ
Multiple languages	IT, EN, ES, DE, FR, HU, JA, KR, PT, RU, TR, VI, ZH
Annual fees	✗
Compulsory updates	✗
3D mouse, touchscreen ready	✓
Operation system	Windows 10, 11 64 bit
Video tutorials	✓
Wiki user manual	✓
Certification	MDR 2017/745 CE

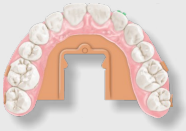
Maestro 3D Configuration

	Ortho Studio Basic	Ortho Studio Indirect Bonding [1]	Bite	Ortho Studio Aligner Trimming [1]	Smile Creator Digital Mockup	Smile Creator 3D Denture Guide
 Study Models	✓					
 Virtual Articulator	✓		✓		✓	✓
 Auto Teeth Segmentation	✓					
 Real Roots	✓					
 Virtual Pontic	✓					
 Virtual Setup	✓					
 Cut & Close	✓					

Maestro 3D Configuration

	Ortho Studio Basic	Ortho Studio [1] Indirect Bonding	Bite	Ortho Studio [1] Aligner Trimming	Smile Creator Digital Mockup	Smile Creator 3D Denture Guide
 Hollow Models	✓					
 Brackets Placement		✓				
 Clear Aligner		✓				
 Attachments Guide		✓				
 Brackets Guide		✓				
 Brackets Guide (win)		✓				
 Brackets Guide (Jig)		✓				

Maestro 3D Configuration

	Ortho Studio Basic	Ortho Studio Indirect Bonding [1]	Bite	Ortho Studio Aligner Trimming [1]	Smile Creator Digital Mockup	Smile Creator 3D Denture Guide
 Bite/Splint			✓			
 Aligner Trimming				✓		
 Digital Mockup					✓	
 Denture Guide						✓

1 the Ortho Studio Basic is required.

MAESTRO 3D

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