

Progressive Orthodontics



R Only

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Symbols

No.	Symbol	Description
1		Read the user guide
2		Consult the user guide
3		Caution
4		Warning
5		Prescription use (USA)
6		Software release date
7		Manufacturer
8		Tips

Getting Started

Device Operation

Progressive Orthodontics is an innovative app (prescription only consistent with FDA 21 CFR 801.109) that enables dental professionals to generate realistic and reproducible simulations for the most common orthodontic treatments in minutes. Utilizing an intraoral scan and optional cephalometric X-ray and identifying a few basic landmarks, the app will instantly display the anticipated outcome, encompassing 3 to 9 common treatment options for each case.



For more details, please see the Data Management, User Interface, and Workflow chapters below.

Intended Use and Disclaimer

The software is meant to be used as a visual aid during patient consultations by utilizing the Data Validation Analysis method. The generated simulation results should not be used as the sole source of healthcare guidance.

Medit does not take responsibility for any miscommunication or improper use of the software and is not liable to either user or the patient for any decisions or actions taken in reliance on the information given by the software.

The user assumes full responsibility for the following:

- generated results and their further interpretation and communication to the patient;
- informing the patients that the results produced by the software may not be precise or reliable;
- actions and treatment decisions based on the generated results.



The Progressive Orthodontics software application does not modify the patient's anthropometric scan data, which remains accessible to healthcare professionals, as depicted through the Medit Scan software's 3D graphical representation tools.



The Progressive Orthodontics application has integration with SmileStream services (coaching). Please note that Medit is not responsible for any issues related to the performance or quality of those services. For inquiries or problems, please contact the SmileStream support team.

Indication of Use

The Progressive Orthodontics app is indicated for use as a front-end software tool for the management of orthodontic models, systematic inspection, detailed analysis, treatment simulation, and virtual appliance design options, which may be used for sequential aligner trays or retainers. These applications are based on 3D scans of the patient's dentition before the start of an orthodontic treatment. It can also be applied during the treatment to inspect and analyze the progress of the treatment. It can be used at the end of the treatment to evaluate if the outcome is consistent with the planned/desired treatment objectives.

The use of the Progressive Orthodontics App requires the user to have the necessary training and domain knowledge in the practice of orthodontics, as well as to have a dedicated training in the use of the software.

Target Users

The target user group for this software is dentists and dental professionals working in dental clinics practicing orthodontics.

Warnings

- Federal Law restricts the use of this software to dentists or licensed dental professionals.
- Orthodontic treatments can cause discomfort, especially after adjustments. Patients may experience sore teeth and gums.
- Long-term orthodontic treatment can lead to root resorption, where the roots of the teeth shorten.
- Braces can make it harder to maintain oral hygiene, increasing the risk of cavities, gum disease, and decalcification.
- Successful orthodontic treatment often requires patient compliance with wearing appliances and attending regular appointments.

Precautions

- The use of the Progressive Orthodontics app requires the user to have the necessary training and domain knowledge in orthodontics and to have received dedicated training in using the software.
- This is a software only device. Physical outputs such as aligners are FDA regulated medical devices and should be fabricated by manufacturers who have premarket clearance and are registered and listed with the FDA.

- Before utilizing the app, complete a medical history review to identify any conditions that might complicate treatment, such as bleeding disorders, heart conditions, or diabetes.
- Ensure that the patient has regular dental check-ups to monitor oral health throughout treatment.
- Ensure patients involved in contact sports use mouthguards to protect both their braces and teeth from injury.

Contraindications

The software should not be used to generate simulations for patients who have

- **Active Disease:** Orthodontic treatment is contraindicated in patients with active oral disease due to the risk of exacerbating the condition. Periodontal disease, dental caries, and endodontic/periapical diseases must be resolved before starting orthodontic treatment.
- **Severe Bone Loss:** Significant bone loss around the teeth can make orthodontic treatment unfeasible as it can compromise tooth stability.
- **Severe TMJ Disorders:** Severe temporomandibular joint (TMJ) disorders may worsen with orthodontic treatment and should be carefully evaluated.
- **Certain Systemic Conditions:** Conditions such as uncontrolled diabetes, certain heart conditions, and osteoporosis may contraindicate orthodontic treatment due to increased risks.
- **Poor Oral Hygiene:** Patients who are unable or unwilling to maintain proper oral hygiene may not be suitable candidates for orthodontic treatment due to the high risk of complications.

Impact on Manual Decisions

There is no impact on manual decisions, as the dentist makes all the decisions based on the information and options provided by the app.

Off-the-shelf Software

No off-the-shelf software is used.

AI/ML Use

The use of AI/ML is limited to identifying the points on the cephalometric x-ray. The related algorithms are locked to provide the same results each time the same input

is applied to it and does not change with use.

Interoperability and Interfaces

Interoperability with a wide range of 3D software is achieved by supporting standard formats such as STL, OBJ, and PLY, as well as our own meditMesh format.

The Progressive Orthodontics app is a separate and independent piece of software from the Medit scanner, and there is no direct user interface between the two. The app only receives path information for STL files using internally defined APIs via Medit Link and the Inter-Process Communication (IPC) protocol.

Cybersecurity Safety

Cybersecurity level: Level 3 (High)

The Progressive Orthodontics app employs robust cybersecurity measures to protect patient data confidentiality, integrity, and availability. It complies with industry standards and regulations, including HIPAA and GDPR. The application is downloaded from Medit Link and integrates with SmileStream services. Both the Medit Link software and SmileStream are hosted by AWS and use AWS Firewall Manager.

Instructions for Use

- **User Authentication:** Ensure that only authorized users access the Progressive Orthodontics app. Use your unique username and password credentials to log in. Contact your system administrator for assistance with account setup or password reset.
- **Data Encryption:** Progressive Orthodontics encrypts sensitive patient data both at rest and in transit. Ensure that you use secure internet connections when accessing the software and follow recommended security protocols.
- **Secure Access:** Access the Progressive Orthodontics app only from trusted devices and Medit Link. Avoid using public Wi-Fi or shared devices for accessing patient data to prevent unauthorized access or interception.
- **Incident Reporting:** Report any suspicious activities, security incidents, or potential data breaches immediately to your system administrator or IT security team. Follow established incident reporting procedures for prompt investigation and resolution.
- **Regular Updates:** Keep the Progressive Orthodontics app up to date with the latest security patches and updates. Regularly check for software updates and apply them promptly to address known vulnerabilities and

enhance cybersecurity defenses. Back up your data regularly and make sure the “restore” function on your hardware is switched on.

- Security Awareness: Stay informed about cybersecurity best practices and threats relevant to orthodontic software. Participate in cybersecurity awareness training sessions and follow recommended guidelines for protecting patient data and maintaining system security.

Security Contact Information

	System Administrator	IT Security Team
Name	Derrick Sanchez	Jonghwan Choi
Email	derrick@posortho.com	jonghwan.choi@medit.com
Phone Number	(714) 973-2266 #109	(82)-10-7600-9239
Toll-Free Number	(800) 443-3106	-

Compliance Statement

The Progressive Orthodontics app complies with relevant cybersecurity regulations and standards, including HIPAA, GDPR, and industry best practices. It is designed to safeguard patient data and ensure the highest standards of cybersecurity.



Disclaimer

While the Progressive Orthodontics app employs robust cybersecurity measures, it is essential to follow recommended security practices and remain vigilant against potential threats. The software provider is not liable for damages resulting from user negligence or non-compliance with security instructions.

System Requirements

Hardware Requirements

	Windows	macOS
CPU	Intel Core i5 2.6 GHz or higher	8-core or higher
Chip	-	M1/M2 or higher
RAM	16 GB or higher	16 GB or higher

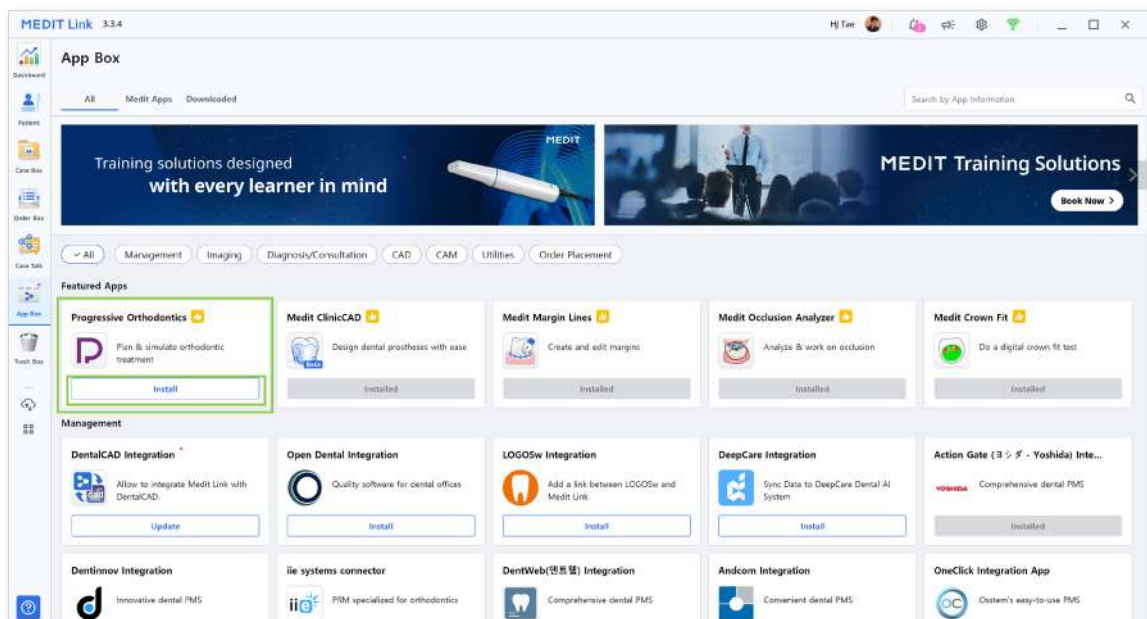
Graphics	NVIDIA GeForce GT 1060 (2 GB) or higher	-
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Software Requirements

	Windows	macOS
OS	Windows 10 64-bit, Windows 11 64-bit	Monterey 12

Installation Guide

- ① Log in to your Medit Link account and go to the App Box on the left-hand menu.
- ② Find the Progressive Orthodontics app and click “Install.”



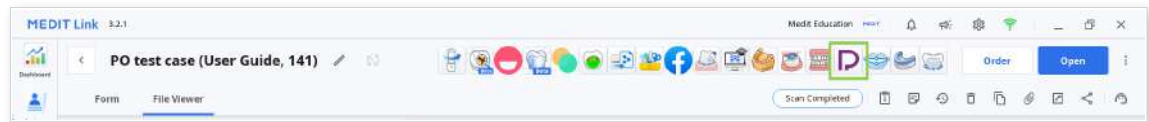
- ③ The app will be downloaded and installed automatically. It may take several minutes to finish the installation process; do not turn off the PC or close Medit Link.



Do not skip the CUDA installation, as it is required to enable the use of cephalometric data and related features. Without it, the functionality of the program will be limited.

- ④ Once the app is installed, you can run it from any case in Medit Link by clicking

the app icon in the top right corner of the Case Detail window.



Data Management

Input Data

Upon launching the application, the user must import the following data via the "Assign Data" dialog:

- 3D intraoral scan data (STL, OBJ, PLY, meditMesh)
- 2D facial and intraoral photos (BMP, JPG, JPEG, PNG)
- cephalometric and panoramic X-ray (BMP, JPG, JPEG, PNG)

Output Data

Upon completing work in the application, the user gets treatment simulation results that can be saved in STL, OBJ, PLY, meditMesh formats.

Preparing Case Data

Users must have the following data to utilize the program: maxilla scan, mandible scan, and cephalometric X-ray. The app can also be used without the cephalometric X-ray, but only if the simulations are generated as a visual aid for patient consultation, not for making treatment decisions. For reference purposes, users can also include other patient records, such as panoramic X-rays, facial photos, and intraoral photos.



Make sure to check the system requirements and install CUDA to be able to use the cephalometric X-ray and the related features.

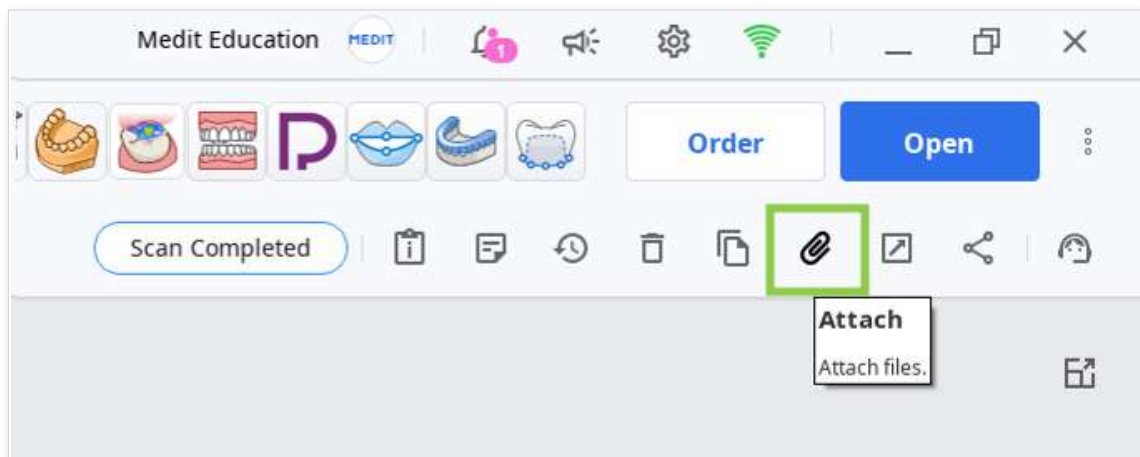


Note that without ceph data, the following limitations will apply:

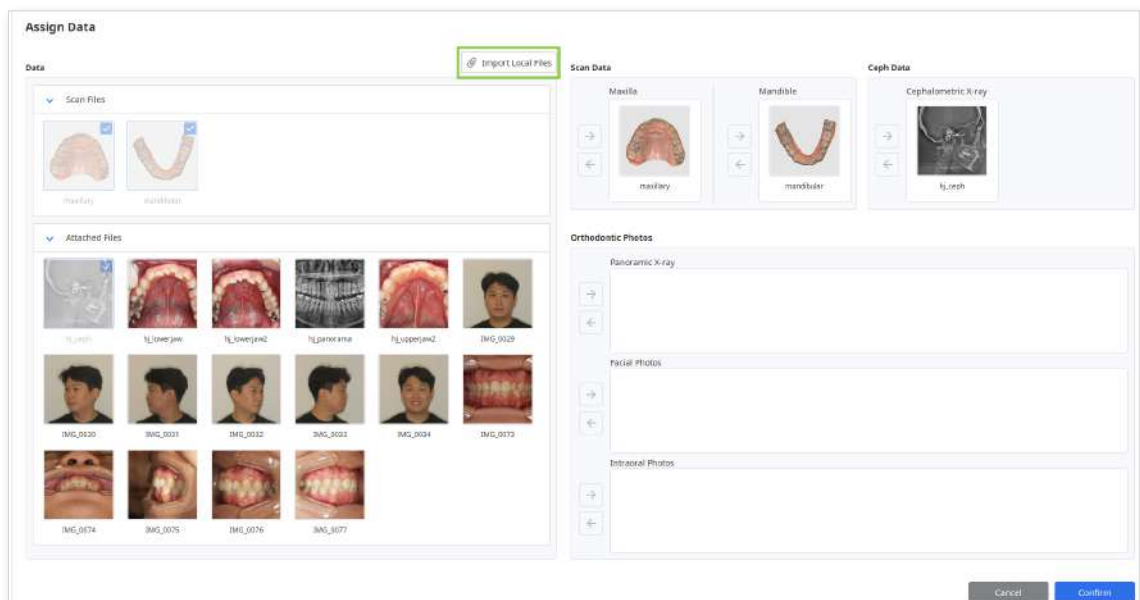
- Wits are automatically set to a range of -3 to +3.
- The patient's growth is not factored in.
- The Ceph Overlay feature is not available, so you can not visualize the final teeth position over the bone structure.

All available data must be collected in the same Medit Link case to be automatically imported into the program upon opening. Follow these steps to prepare your case for work:

- ① Scan the maxilla and mandible in Medit Scan Software.
- ② Import other records (X-rays and orthodontic photos) from local files into the Medit Link case. Use the “Attach” feature in the Case Detail window.








- ③ Run the app and assign the data you will be using for this project. Locally stored data can also be imported at this step via the “Import Local Files” feature.















3D Data Control

You can control the 3D data using a mouse alone or both mouse and keyboard.

3D data control using a mouse

Use	Action	Image
Zoom	Scroll the mouse wheel.	
Zoom Focus	Double-click on the data.	
Zoom Fit	Double-click on the background.	
Rotate	Right-click and drag.	
Pan	Hold both buttons (or wheel) and drag.	

3D data control using mouse and keyboard

Use	Windows	macOS
Zoom	 + 	 + 
Rotate	 + 	 + 
Pan	 + 	 + 

Saving Case

There are two ways to save your case project: Complete and Save As.

Complete

The “Complete” button is provided in the bottom right corner of the final workflow step. Click it to save your finished project to the current case in Medit Link and close the program.

Save As

This option allows you to save the unfinished project at any moment without losing your progress. Use it when you want to pause working on the case and resume later.

To use it, go to Menu in the Title Bar and choose “Save As.” The next time you run the program from the same case, you will be asked if you want to continue with the saved project.



You can still save your work even if you click “Exit.”

Exit Options

Exit Program After Saving

Save all current progress and terminate the program.

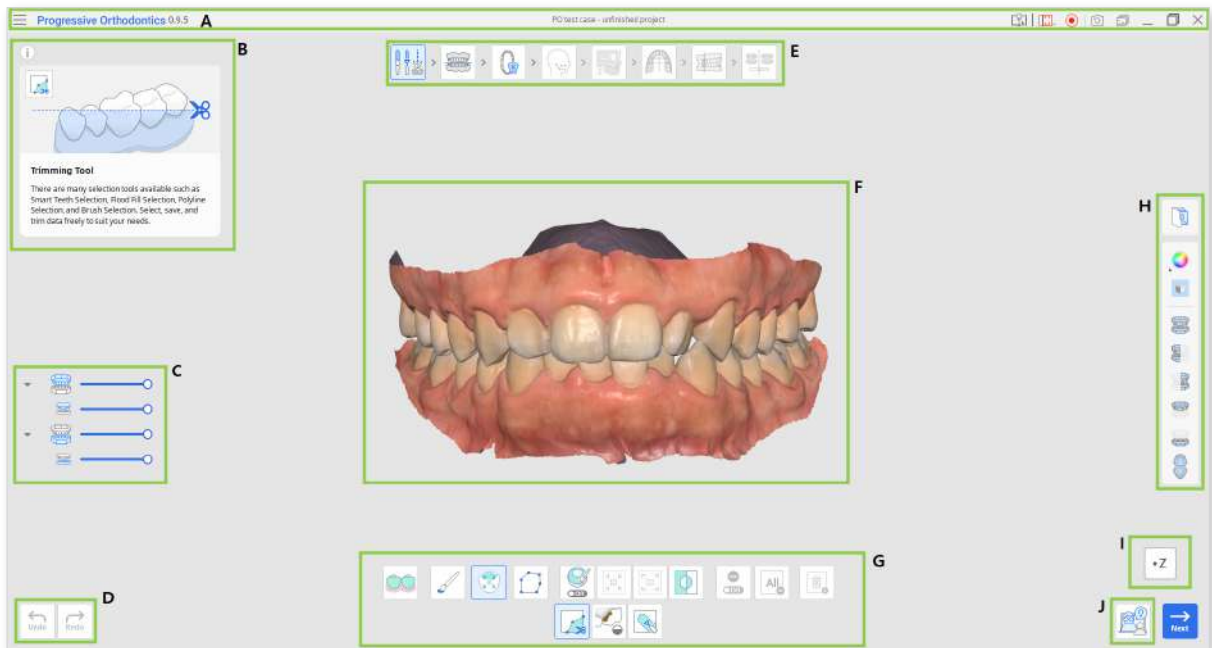
Exit Program Without Saving

Terminate the program without saving any of the current progress.

Cancel

User Interface

User Interface at a Glance



- A. Title Bar
- B. Info Box
- C. Data Tree
- D. Action Control Buttons
- E. Workflow Steps
- F. 3D Data
- G. Toolbox
- H. Side Toolbar
- I. View Cube
- J. Coaching Request



Please note that this is a general overview of the main elements. The interface may vary slightly depending on the tasks of each workflow step.

Title Bar

The Title Bar is the ribbon at the top of the application window that contains basic controls on the right and the program menu on the left. It also shows the app name and the opened case name.

Menu	Manage the opened project, access available assistance resources, and check app details.
Select Video Record Area	Specify which area shall be captured for video recording.
Start Video Recording	Start and stop the video recording of the screen.
Screenshot	Take a screenshot. Capture the app with or without the title bar using automatic selection, or click and drag to capture only the desired area.
Screenshot Manager	View, export, or delete the screenshots. Upon completion, all captured images will be saved to the case automatically.
Minimize	Minimize the application window.
Restore	Maximize or restore the application window.
Exit	Close the application.

Data Tree

Data Tree is located on the left side of the screen below Info Box and shows the data you use in groups. You can show or hide data by clicking its icon in the tree or change its transparency by moving the corresponding slider.



Note that the presence and structure of the Data Tree depend on the objectives of each step.

Action Control Buttons

There are four buttons that control the overall work progress. They are located in both bottom corners of the application window.

The “Complete” button will appear at the final step only.




Button	Description
Undo	Undo the previous action.
Redo	Redo the previous action.
Next	Apply changes and move to the next step.
Complete	Finish working on the case and save the results to Medit Link.

Toolboxes



The Toolbox of each step provides features necessary for completing the primary goal of that step.

Below are explanations of the features found in the toolboxes throughout the entire workflow.


Data Editing

	Trimming Tool	Use the various selection tools to select and remove unnecessary data.
	Fill Holes	Fill empty spaces in the 3D mesh data.
	Sculpting	Sculpt data using tools to add, remove, morph, or smooth its parts.



Occlusal Table/Ceph Overlay

	Delete Point	Delete the last added point.
	Detach Data	Reset alignment and move data to the initial position. Select points on the data to align it manually.


Tooth Identification

	Growing Patient Settings	Provide growing patient information, including gender (male/female), age, and dental maturity.
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Ceph Tracing

	Edit	Modify the automatically generated tracing lines.
	Reset	Restore the results of automatic tracing.

Arch Form Selection

	Symmetry	Show perpendicular lines to assess the symmetry of the left and right arch sides in relation to the midline.
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Simulations Preview

	Tooth Orientation	Review and adjust teeth orientation based on simulation 1.1. This tool includes sub-tools: Rotation/Angulation(Tip)/Inclination(Torque)/Reset.
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Side Toolbar

The Side Toolbar provides a set of tools for data control and visualization, as well as some step-specific tools.



Note that the presence and structure of the Side Toolbar depend on the objectives of each step.

Imaging Management

	Orthodontic Photos	Refer to photos and X-rays imported from the case.
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Data Display Tools

	Show Grid (mm)	Show the grid overlaid onto the data.
	Data Display Mode	Change between different data display options. (Textured/Textured with Edges/Monochrome/Monochrome with Edges)





Viewing Tools

	Frontal View	Show the front side of the data.
	Right Lateral View	Show the right lateral side of the data.
	Left Lateral View	Show the left lateral side of the data.
	Frontal View (Maxilla)	Show the front side of only the maxilla.
	Frontal View (Mandible)	Show the front side of only the mandible.
	Occlusal Surface View	Show occlusal surfaces of the maxilla and mandible.

Visualization Tools (in Tooth Orientation)

	Color Labeling	Color-code teeth according to their type.
	Zoom Fit	Zoom to fit data to the screen.

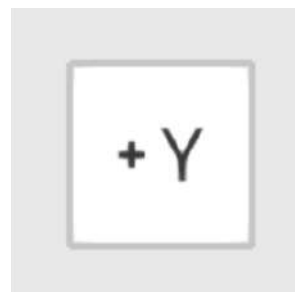
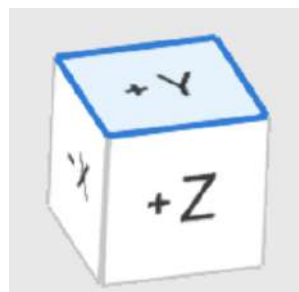
Simulation Review Tools (in Simulations Preview)

	Animation	View the animated simulations.
	Superimposition	Superimpose the original scan data and the simulation.
	Ceph Overlay Comparison	Align simulations to the cephalogram.
	Occlusal Relationship	Examine occlusal contact displayed through color.

View Cube

View Cube displays the 3D view orientation, updated in real-time as the view is being rotated.

You can align the view to specific directions by clicking on the face of the cube.



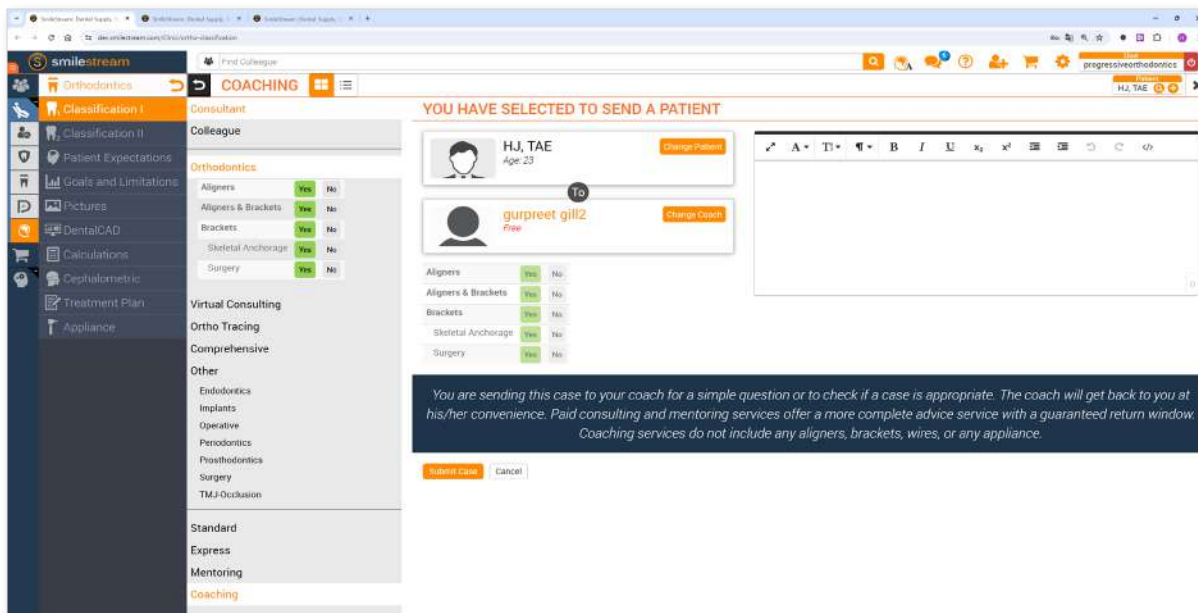
Coaching Request

Users can access the Coaching Request feature from the bottom right corner of every step. When clicked, it redirects users to the SmileStream and shares all current case information to their account on the page with one of the experienced instructors of Progressive Orthodontic Seminars who are qualified dentists with long orthodontic training and software experience. The users can then choose what type of technical support service they want to use: Consulting or Mentoring. Check the general information on the available service types below.

Service Type	Avg. Cost	Duration	Description
Consulting	\$300	1-2 hours	Offers technical support during the initial diagnosis.
Mentoring	\$600	3-4 hours	Offers technical support during the initial diagnosis and provides continuous support.



This is a general introduction of SmileStream services, for more details or inquiries please visit [SmileStream](#) or contact their support team for problems at support@posortho.net









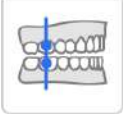

Workflow

The complete workflow consists of 9 steps, guiding users from data editing to simulation generation and finally to reviewing and ordering the treatment appliance. Users must complete these steps in the given order.



If the ceph data was not assigned, the workflow will not include the Ceph Tracing and Ceph Overlay steps.

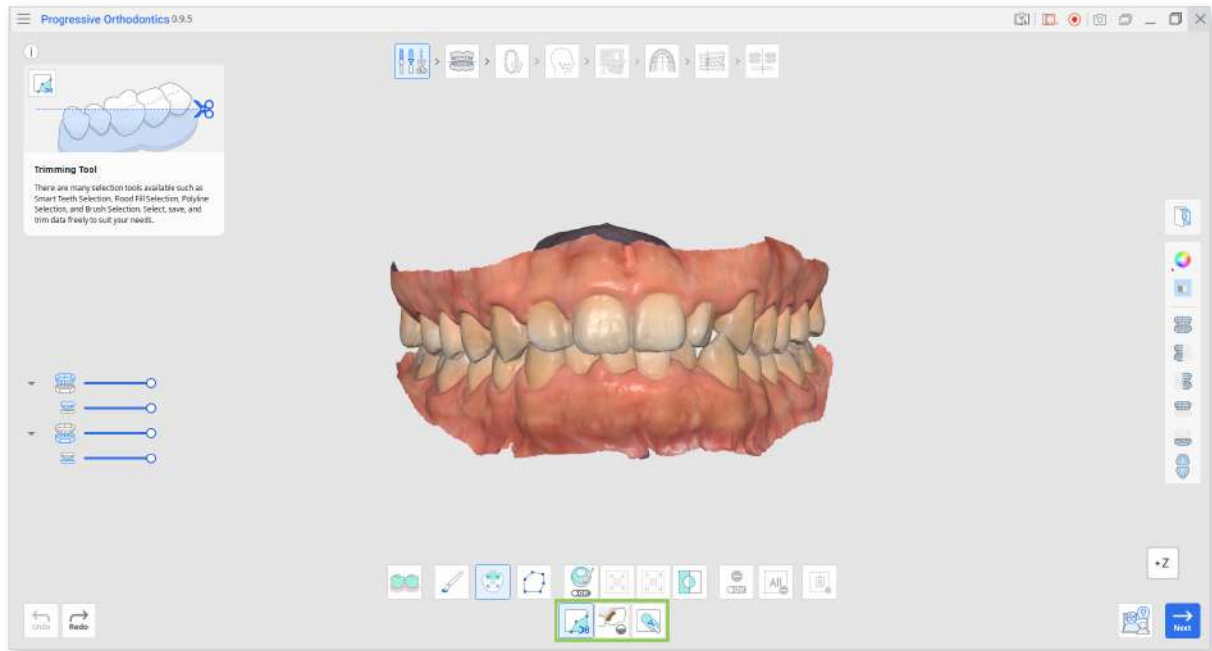
Workflow Steps

	Overview	Check your scan data.
	Data Editing	Edit and trim data using the wide array of functions provided.
	Occlusal Table	Align scan data to a plane to set the position of the occlusal table.
	Tooth Identification	Chart the patient's dentition.
	Ceph Tracing	Examine the automatically traced lateral cephalogram.
	Ceph Overlay	Align scan data to the cephalogram.
	Arch Form Selection	Select an arch form for the maxilla and mandible.
	Bite Classification	Classify the bite based on the relationship between the teeth.
	Simulations Preview	Examine the generated simulations to choose a treatment scenario.

Data Editing





Upon data assignment, users proceed to the Data Editing step, where they can trim unnecessary parts, fill mesh holes, or sculpt data to optimize the simulation outcome.

Check data for any excessive gingiva data or missing tooth data and make any necessary modifications. When done, click the next step icon at the top of the screen or the “Next” button in the bottom right corner.







How to Trim Data

- 1 Choose one of the selection tools to designate what part of the data you want to remove.

	Smart Teeth Selection	Automatically select all teeth of the arch, leaving out gingiva parts.
	Brush Selection	Select all entities on a freehand-drawn path on the screen. Only the front face is selected. The brush comes in three sizes.
	Smart Single Tooth Selection	Automatically select the area of a single tooth, leaving out gingiva parts. Click and drag the mouse on the tooth.
	Polyline Selection	Select all entities within a polyline shape drawn on the screen.

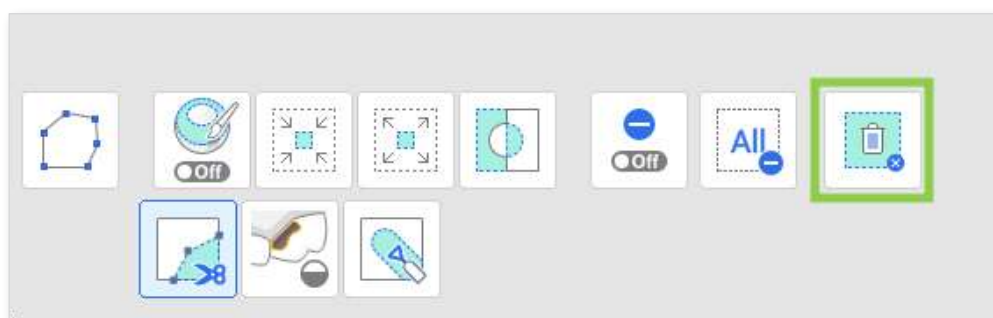
② If needed, modify the selected area using the following tool options.

	Autofill Selected Area	Automatically fill in entities of the selected area.
	Shrink Selected Area	Reduce the selected area each time you press the button.
	Expand Selected Area	Expand the selected area each time you press the button.
	Invert Selected Area	Invert the selection.

- You can also turn on “Deselection Mode” to modify selection manually or use “Clear All Selection” to automatically deselect everything.

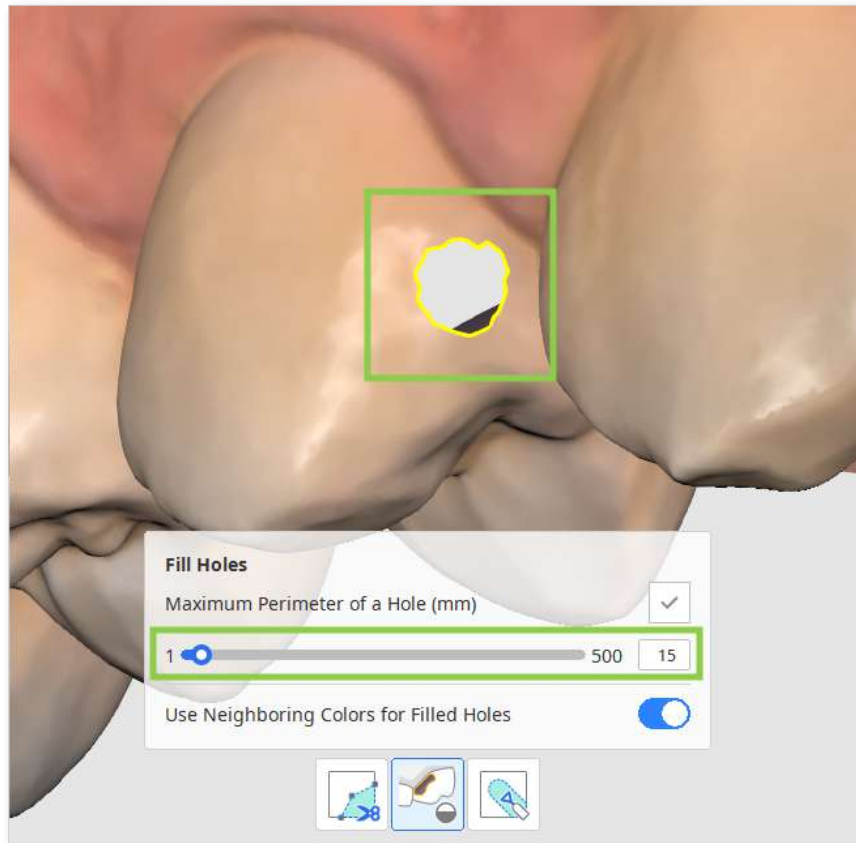


③ To complete the trim, click “Delete Selected Area.”



How to Fill Holes

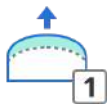


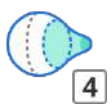
- ① Locate any missing data areas and adjust the "Maximum Perimeter of a Hole." If the "Use Neighboring Colors for Filled Holes" option is on, the program will use the matching color palette to fill the area; otherwise, it is filled in grey.



- ② Click "Apply" to fill the hole with the new mesh.

How to Sculpt Data

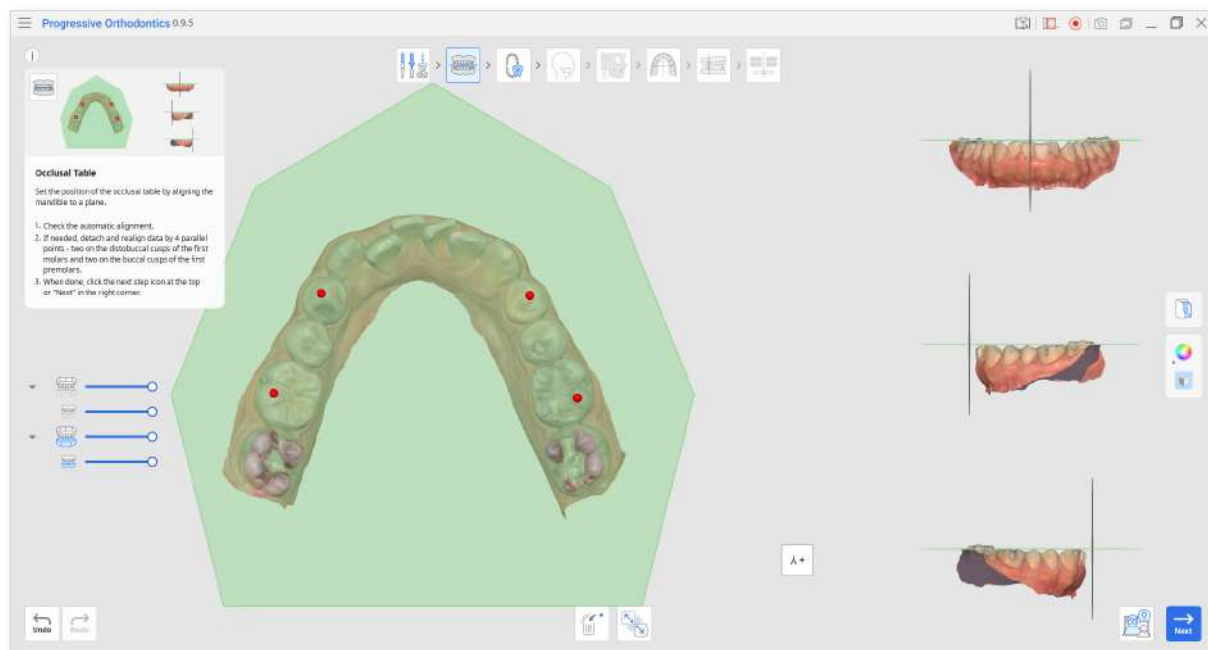
- ① Find the area that needs modifications and, using the tools below, add, remove, smooth or morph its parts.

	Add	Use the mouse to add on part of the data. Hotkey: 1
	Remove	Use the mouse to remove parts of the data. Hotkey: 2
	Smooth	Use the mouse to smooth parts of the data. Hotkey: 3
	Morph	Use the mouse to morph parts of the data. Hotkey: 4

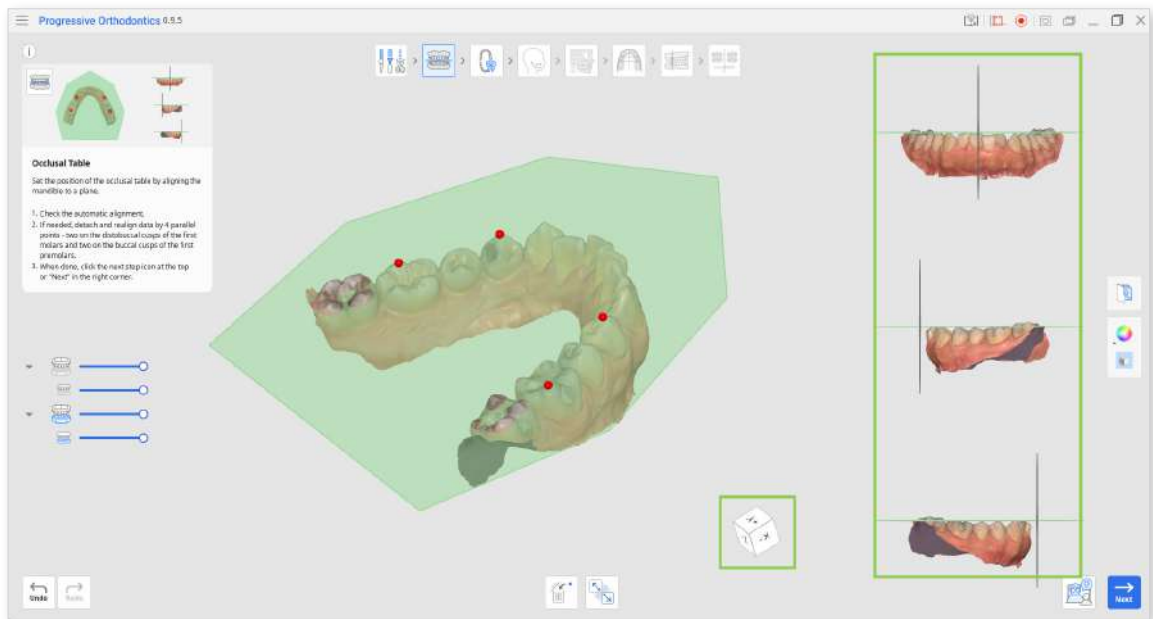
Occlusal Table

The second step of the workflow focuses on determining the position of the grinding surfaces based on the lower arch (the occlusal table).

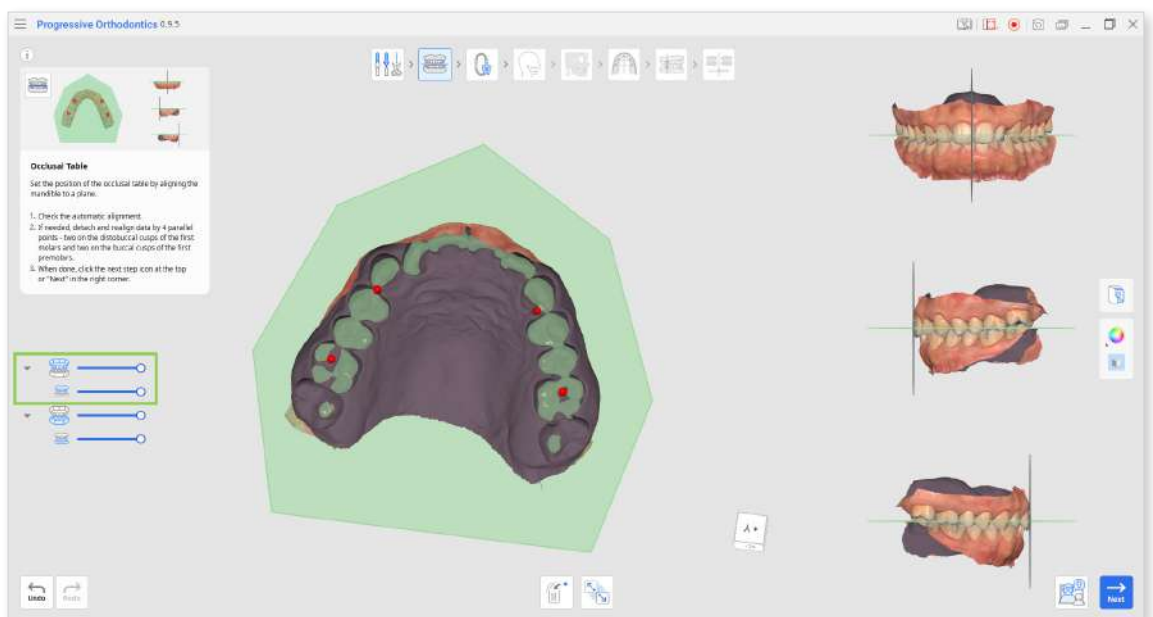
This involves aligning the mandible scan data to a plane using four specified points. By default, this alignment process is automated for the user's convenience.



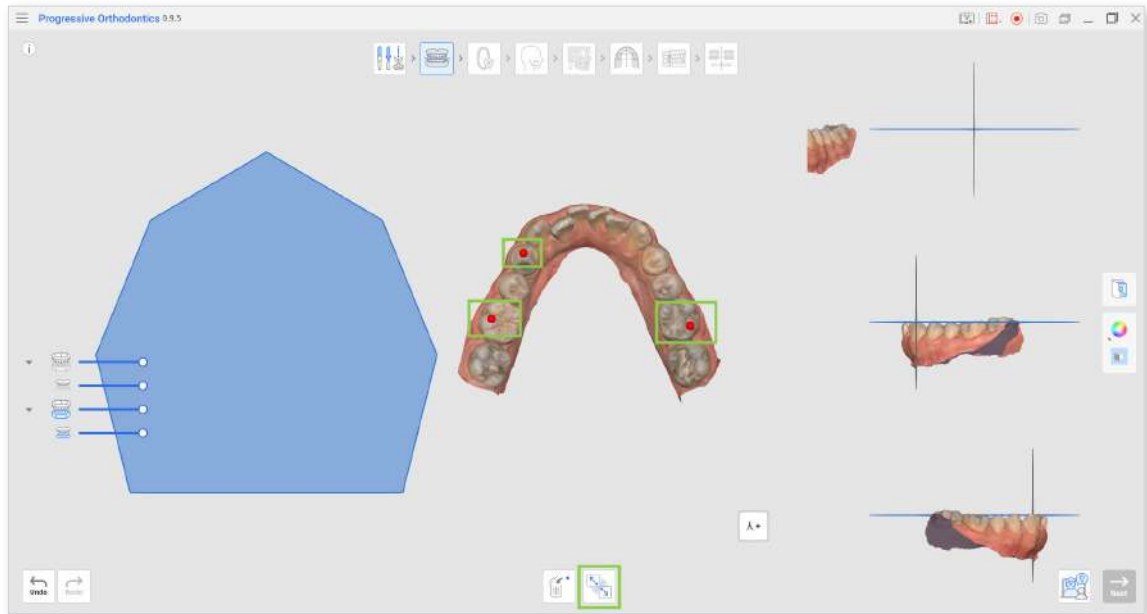
- ① First, check the automatic data alignment by viewing it on Multi-View or rotating it with the "View Cube."



- ② If you want to check the occlusal relationship, click the maxilla icon in the Data Tree on the left to show it and view together with the mandible data.



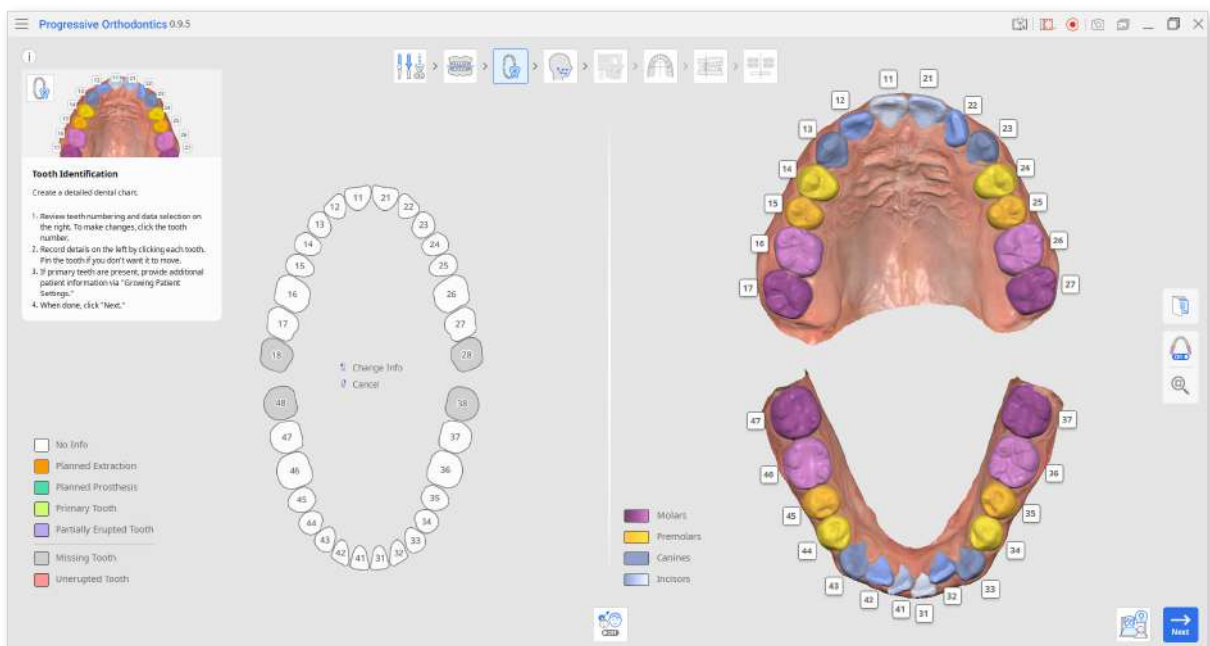
- ③ If realignment is necessary, click the “Detach Data” tool at the bottom and manually align data by setting 4 parallel points on the maxilla. As shown below, two are on the distobuccal cusps of the first molars, and two are on the buccal cusps of the first premolars.



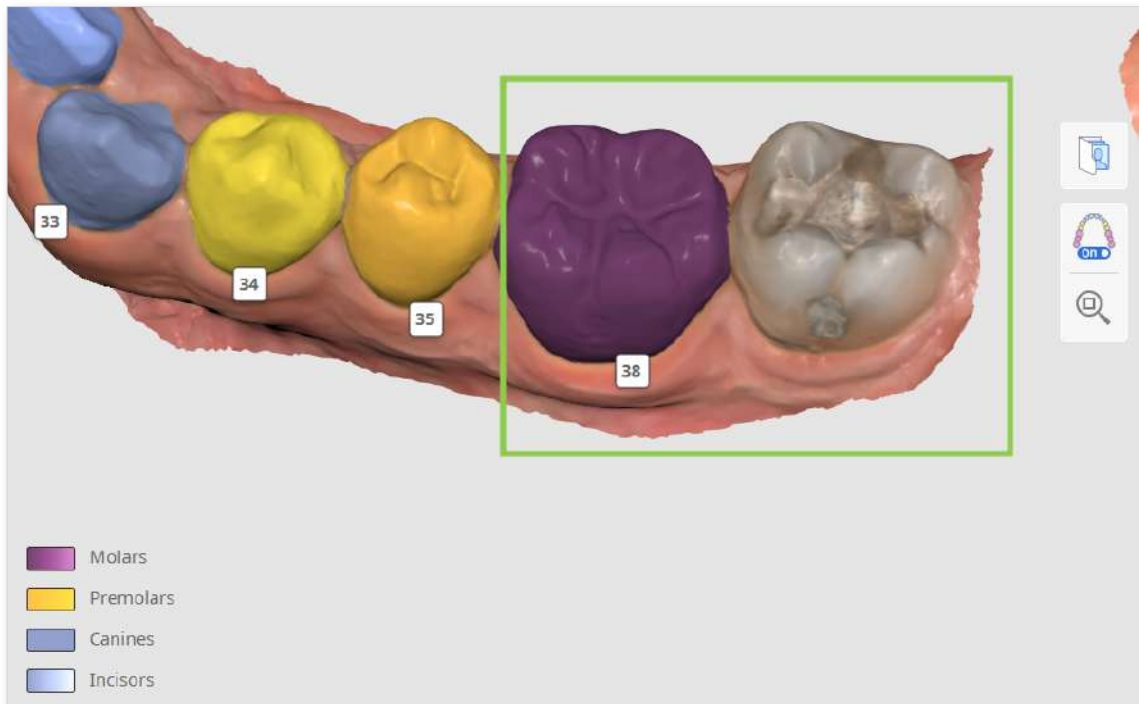
Tooth Identification

Tooth Identification is a step in which users create a detailed dental chart for the current project. Here, users need to verify tooth numbering on the right and record dentition details on the left.

All provided details in this step will be considered when generating the teeth movement later on.



- ① Start by checking the automatic tooth numbering on the right to ensure that all teeth were identified and numbered correctly.

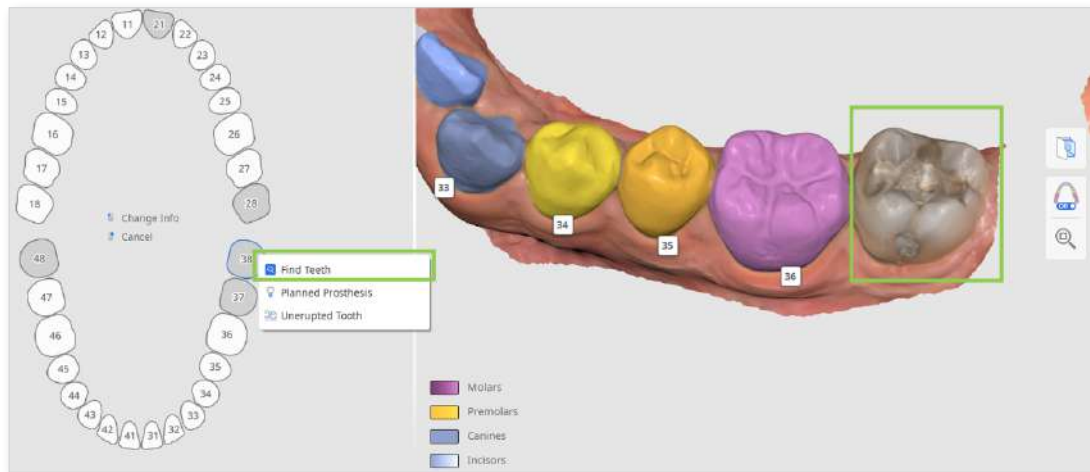



- If the tooth numbering is incorrect, click on it to reassign.



- If a tooth is not identified, it will appear as missing in the chart on the left (colored in grey).

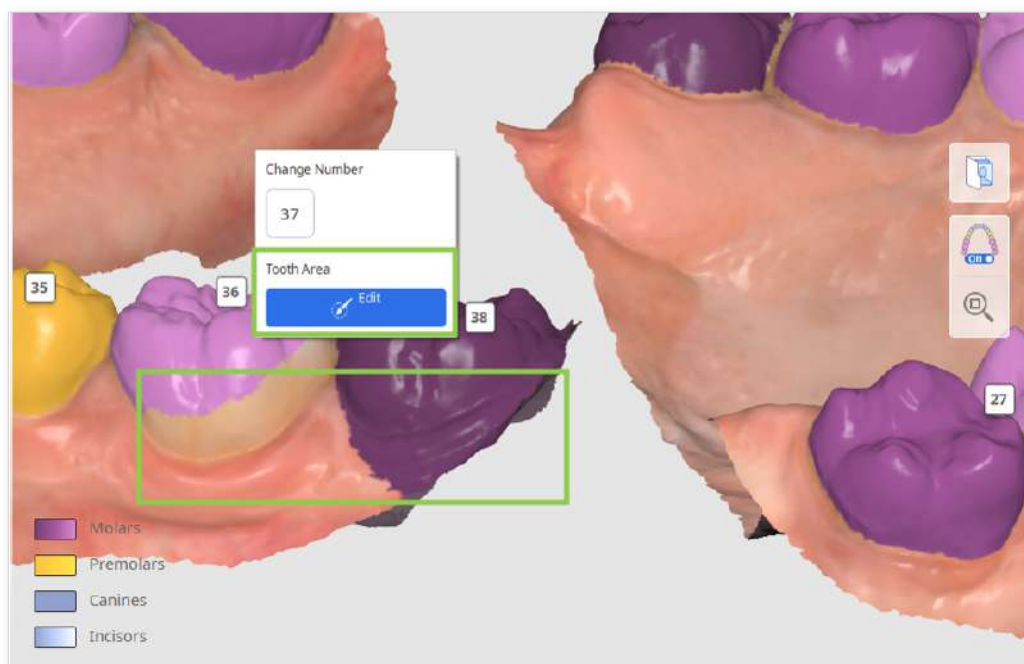
To manually identify it, click on it in the chart and choose the “Find Teeth” option. This will enable you to select the tooth data on the scan manually.



 In complex cases, where it may be hard to identify the tooth number by its current position alone, use the Orthodontic Photos feature. Imported panoramic X-rays can be viewed to verify tooth numbering and data selection.

- ② Ensure that data for each tooth is selected accurately and precisely, covering the entire tooth without any gum data. This will ensure a higher detailization in each tooth movement later on.

To adjust or correct the selection, click the tooth number and choose “Edit.”



- ③ Next, you have to document details about the patient's current dentition or any planned treatment in the chart on the left. All added information will change the simulation according to the provided chart details.

To add information for a specific tooth, click on it; to remove it - right-click.

Below is the list of details and actions that are applicable to existing teeth (white) and missing teeth (grey).

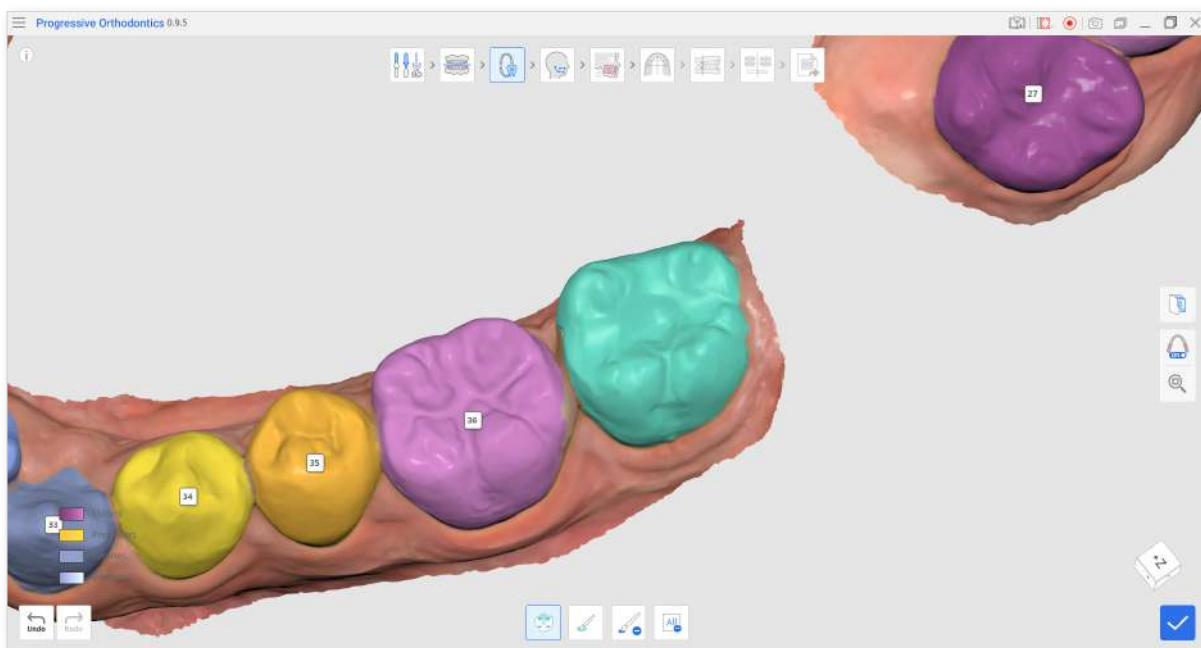
Existing Tooth	Missing Tooth
Planned Extraction	Planned Prosthesis
Planned Prosthesis	Unerupted Tooth
Primary Tooth	Find Teeth
Partially Erupted Tooth	
Pin the Tooth	



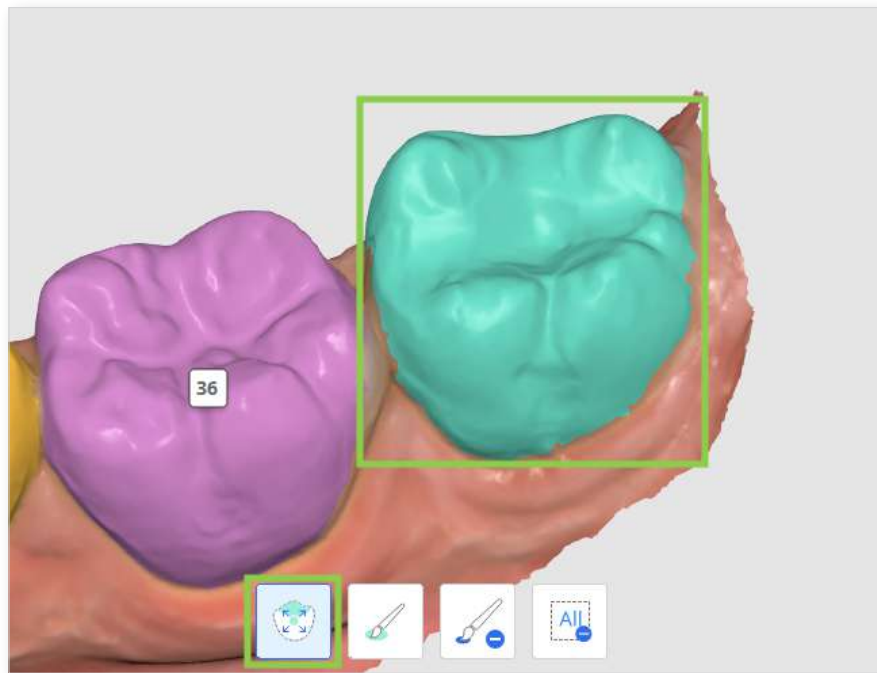
To prevent a tooth from moving during the simulation, 'pin' it in the chart.

How to Select Tooth Data

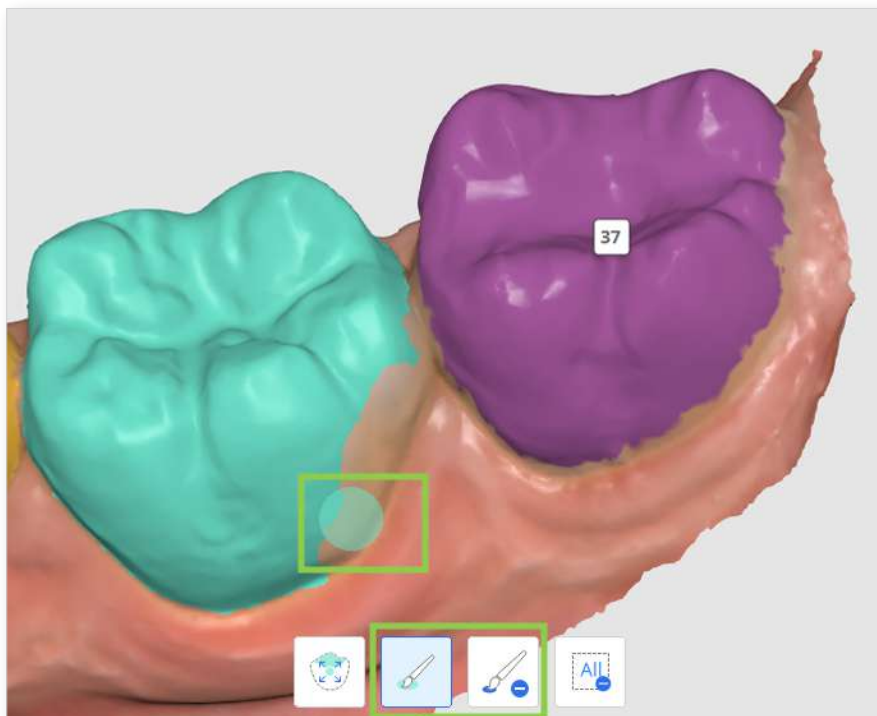
Selection editing mode is prompted if users need to manually select data for a non-identified tooth or correct the existing data selection.



- ① Use the “Smart Tooth Selection” tool to automatically select an area of an entire tooth with a click and drag.

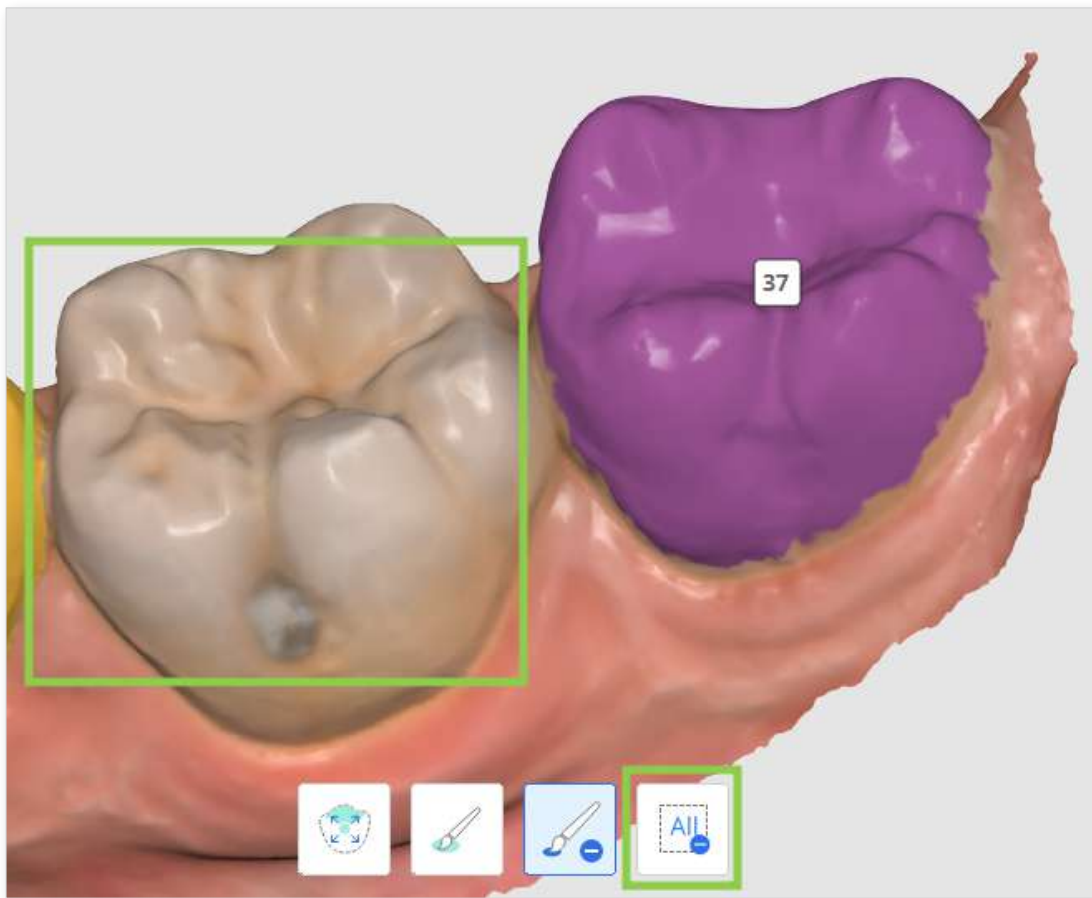


- ② To make the data selection more precise, adjust it using “Brush Selection” or “Brush Deselection.”



💡 If multiple teeth need selection editing, click their number to switch the focus target.

- ③ To clear all selection and start over, use “Clear Selection.”



- ④ Click “Done” in the bottom right corner when done to save changes and return to charting.

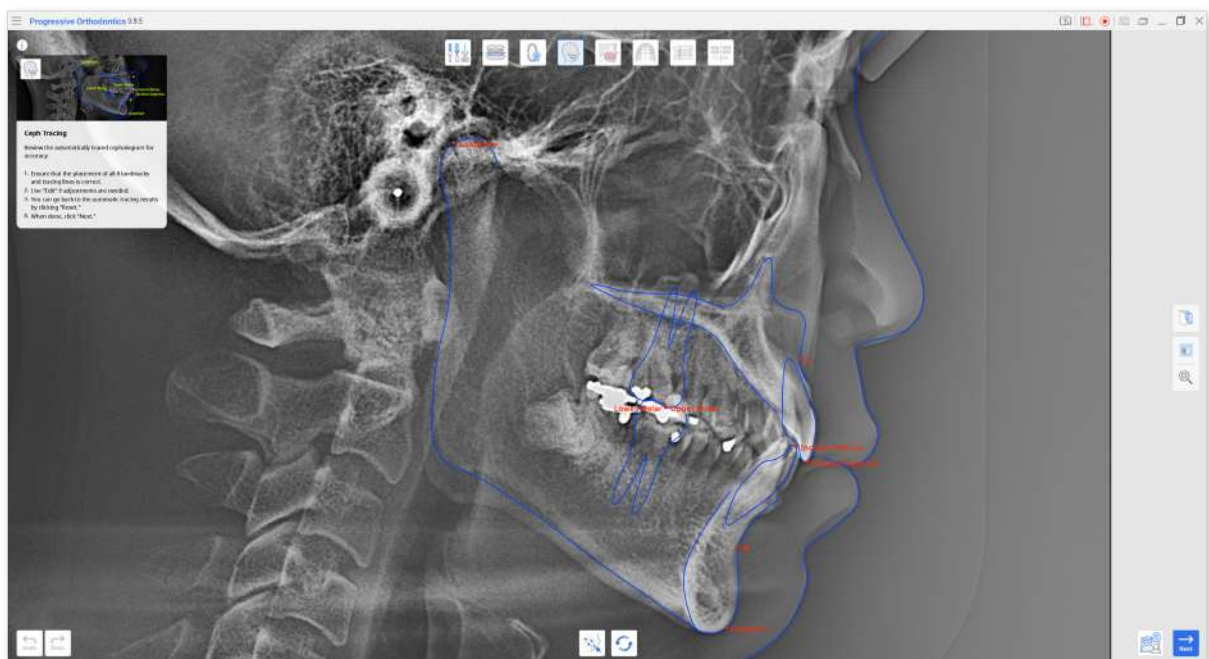
Ceph Tracing

The Ceph Tracing step will be available only if ceph data was imported during the data assignment. Its goal is to create a digitally traced cephalogram. The program will automatically outline the bone and tissue structures on the imported X-ray and place some of the main landmarks.



Running the program without ceph data is advisable only when the simulations are created for patient information, not for making treatment decisions. Without ceph data, the following limitations are present:

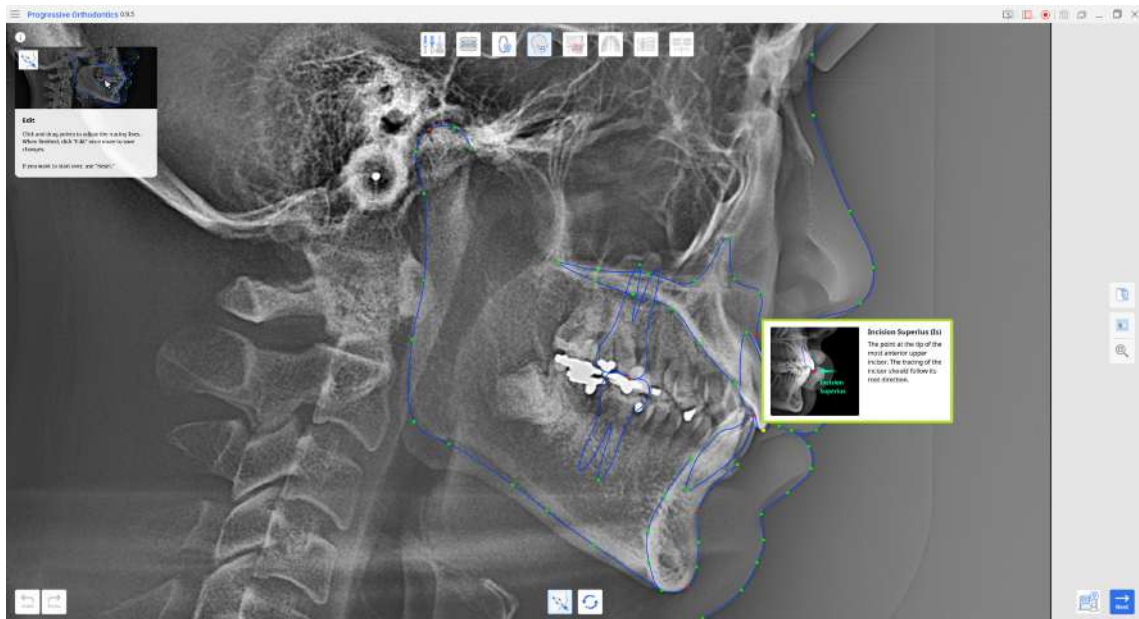
- Wits are automatically set to a range of -3 to +3.
- The patient's growth is not factored in.
- The Ceph Overlay feature is not available, so you can not visualize the final teeth position over the bone structure.



- ① First, examine the result of automatic tracing. Ensure that the outlines have no sharp bendings and that all 8 key points are correctly placed.

The app must identify the following landmarks: A Point, B Point, Gnathion (Gn), Condylion (Con), Upper Molar, Lower Molar, Incision Superius (Is), and Incision Inferius (Ii).

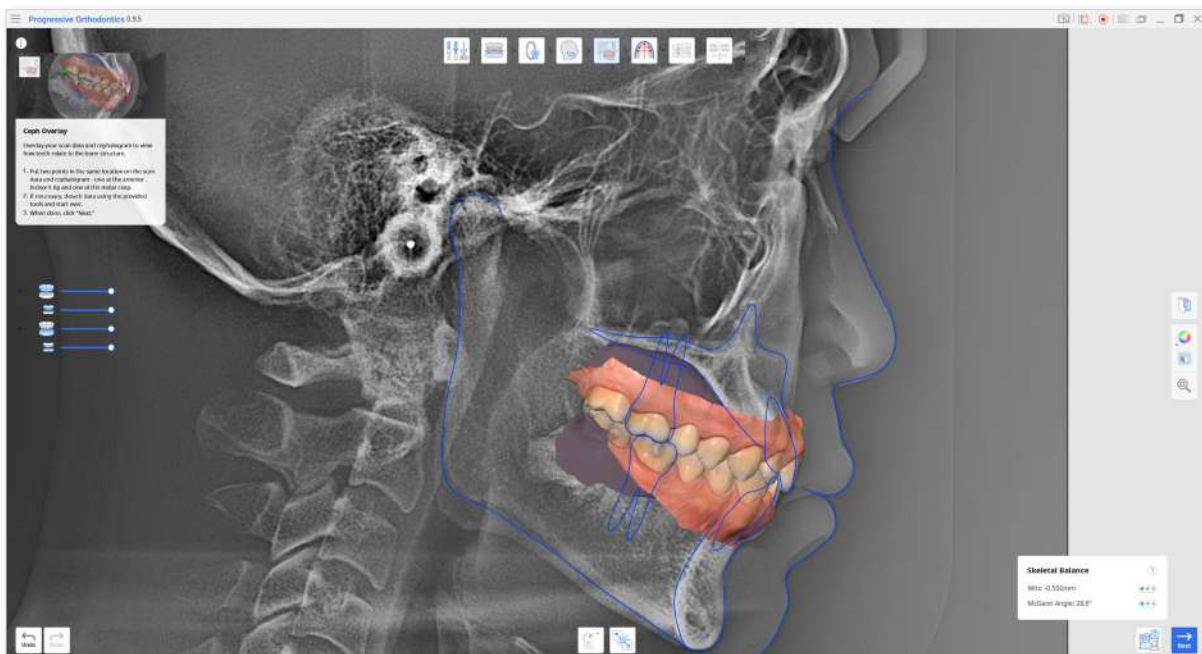
- ② If adjustments are needed, click “Edit” and drag the control points. Hover over the red points to see the guide on where the point must be placed. Click “Edit” again to save the made changes.



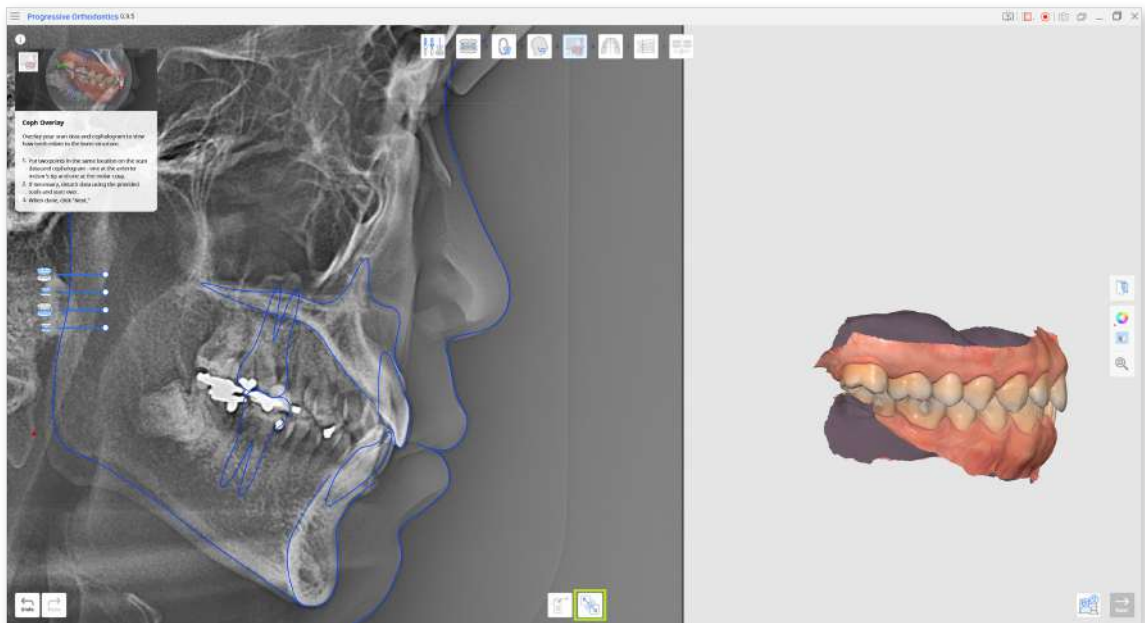
- ③ You can always restore the results of automatic tracing by clicking “Reset.”

Ceph Overlay

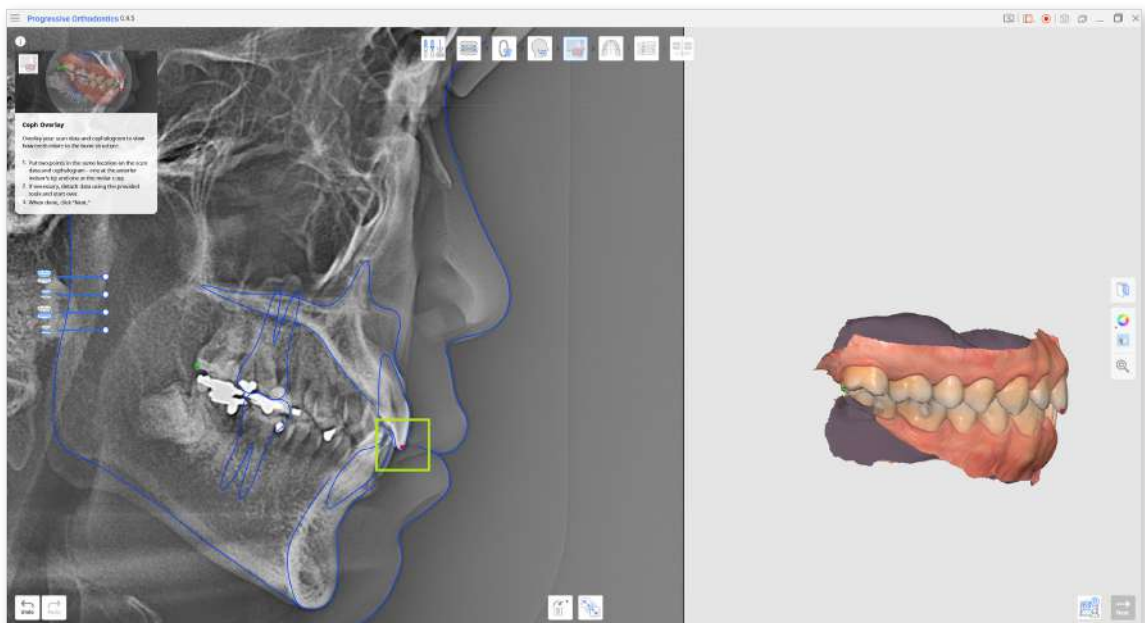
This step is only accessible if ceph data is included in the case. Here, the scan data is automatically aligned with the traced cephalogram, enabling users to examine the relationship between teeth and bone structures.



- ① Check the automatic overlay results. If adjustments are necessary, detach the data from the cephalogram using the "Detach Data" option at the bottom.



- ② To manually realign, place two points at the same spot on both the scan data and cephalogram: one at the tip of the front incisor and one at the molar cusp, as shown below.

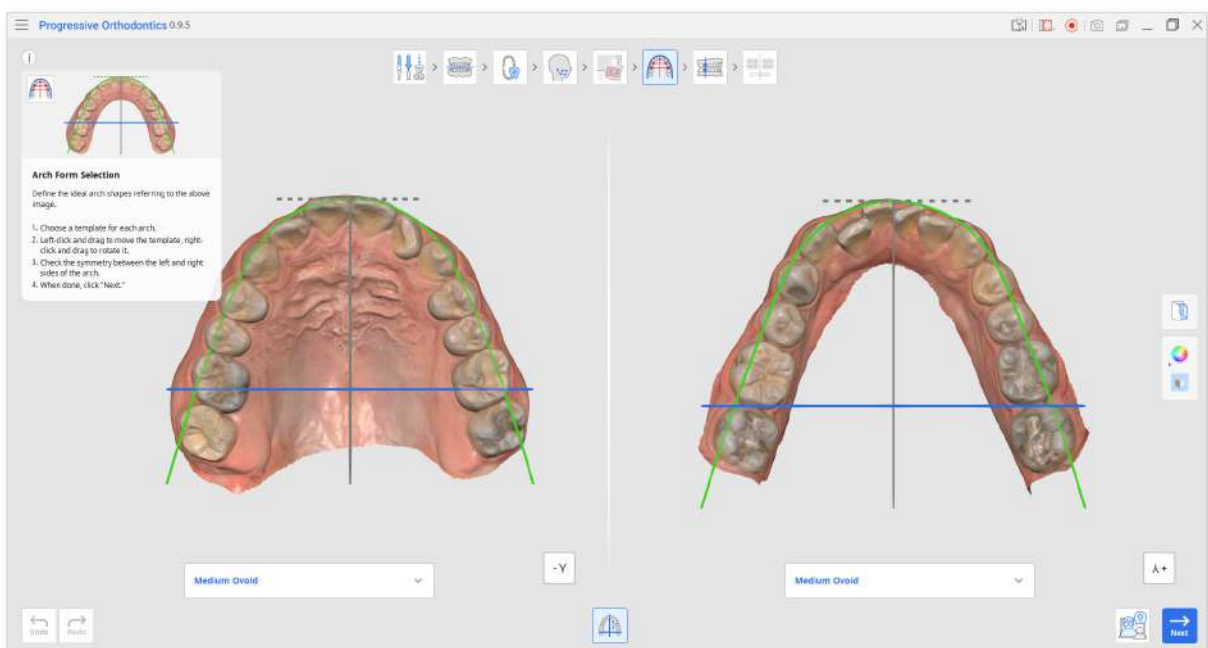


- ③ Then, check the skeletal balance before proceeding to the next step. The Wits and McGann Angle are automatically calculated and are displayed with a color-coded mark indicating the potential difficulty of treating the case. Click on the question mark in the box to view more details.



Arch Form Selection

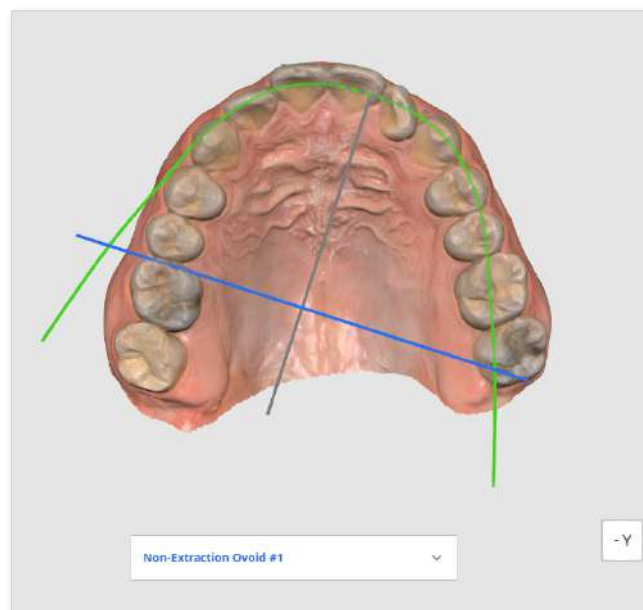
The next step is Arch Form Selection, which entails choosing an arch form template that closely matches the patient's actual arch shape and size.



- ① Select a template for both the maxilla and mandible from the dropdown menus below each. Choose the one that closely matches the actual shape and size.



- ② If needed, reposition the selected template using your mouse: left-click and drag to move, and right-click and drag to rotate.



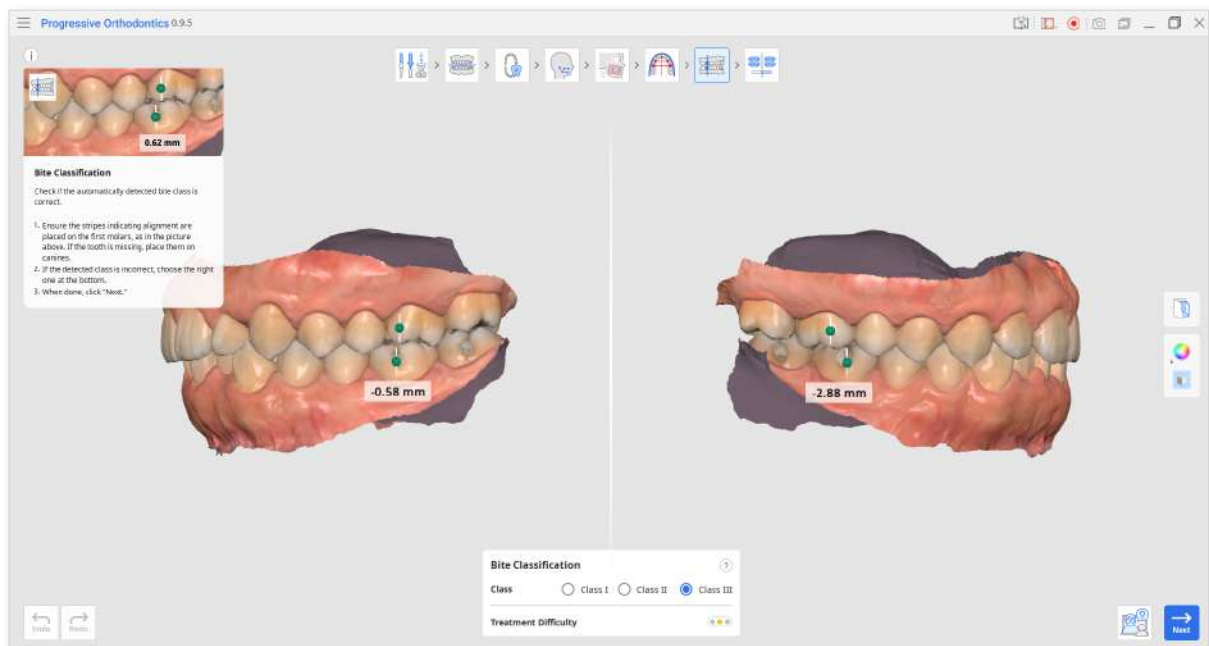
Please ensure that the arch form is not positioned unevenly or off-center. The position of the arch form will determine the direction of tooth movement.

- ③ Make sure that the arch form is oriented symmetrically on the scan data. Use the perpendicular lines to assess the symmetry; the blue line can be moved with a mouse.



Bite Classification

Bite Classification is the final step before simulating teeth movement. Its primary objective is to determine the bite class based on the relationship of posterior teeth. This step is automatic, but users can adjust the detected class if needed or in case there are missing teeth.



- ① Verify that the alignment stripes were placed correctly: one on the mesiobuccal cusp tip of the upper 1st molar and the other on the buccal grooves of the lower 1st molar. If the 1st molars are missing, you can use canines instead.

If the automatically detected class is incorrect, choose the correct one from the options provided in the box at the bottom of the screen.



- ② The distance between molars is measured automatically and used to estimate treatment difficulty.

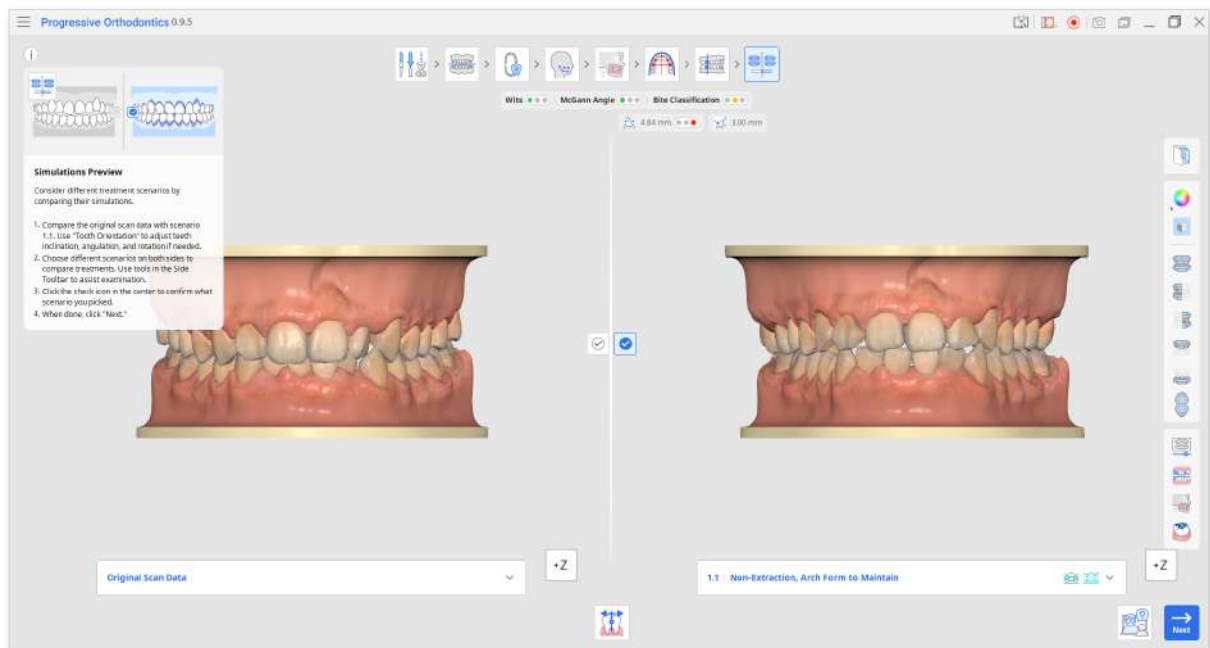


- ③ The traffic light icon next to the Treatment Difficulty option displays different colors based on the level of difficulty. Green indicates easy, yellow represents moderate, and red signifies hard.

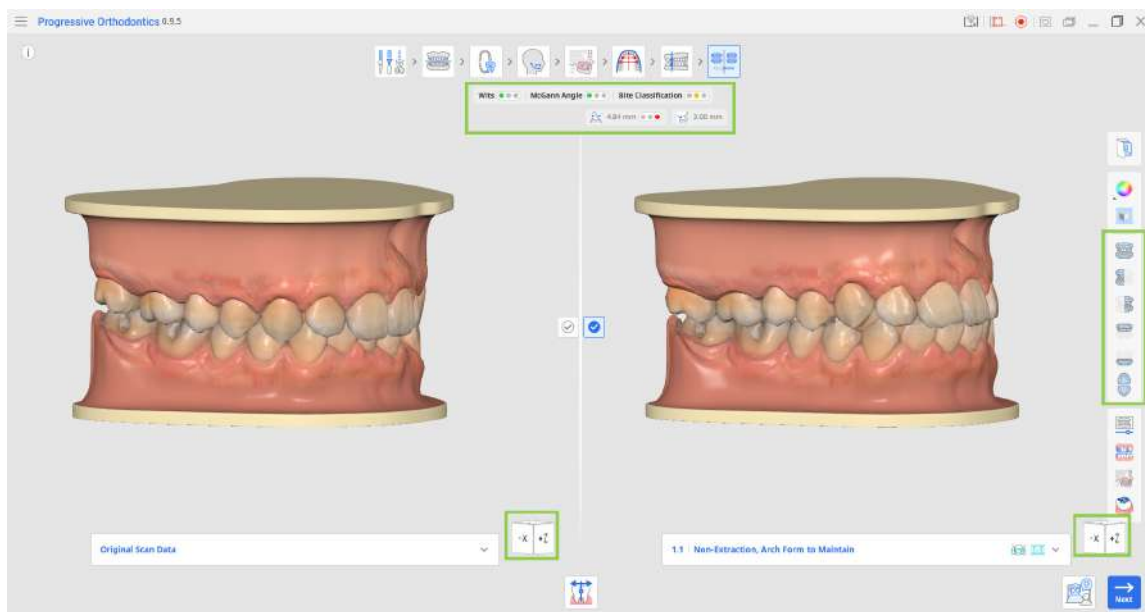


Simulations Preview

The Simulations Preview step involves generating simulations of teeth movement based on the information provided in previous steps. The main goal here is to assess potential treatment scenarios and determine the best course of treatment. Additionally, these simulations can be employed during patient consultations to visually illustrate the treatment process and expected outcomes, thereby increasing the patient's understanding of future procedures.



- ① First, compare the original scan data and the simulation for scenario 1.1. Click the Info Box to hide it and use the View Cube or viewing tools in the Side Toolbar to help with the visual examination.



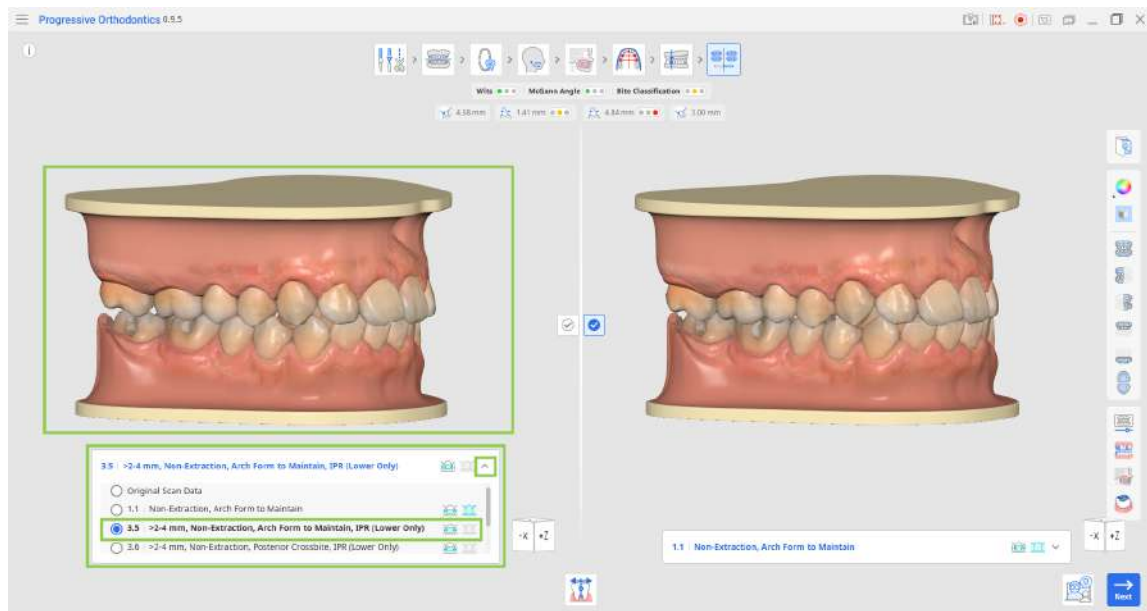
- Check for any poor teeth alignment in this simulation. If any is present, adjust it using the “Tooth Orientation” tool, where each tooth can be individually reoriented. Read more on how to use this tool at the end of the current chapter.



- When comparing between scenarios, check the general summary for the case below the workflow steps. It presents overview of the treatment difficulty through traffic light colors, as well as the information on advancement of the lower incisor and additional jaw advancement for growing patients.



- ② To explore additional treatment options for the current case, open the scenario list under the original scan data or simulation 1.1. Click on any of the available scenarios to preview its simulation. Each scenario in the list also indicates what type of appliance options are possible for treatment.

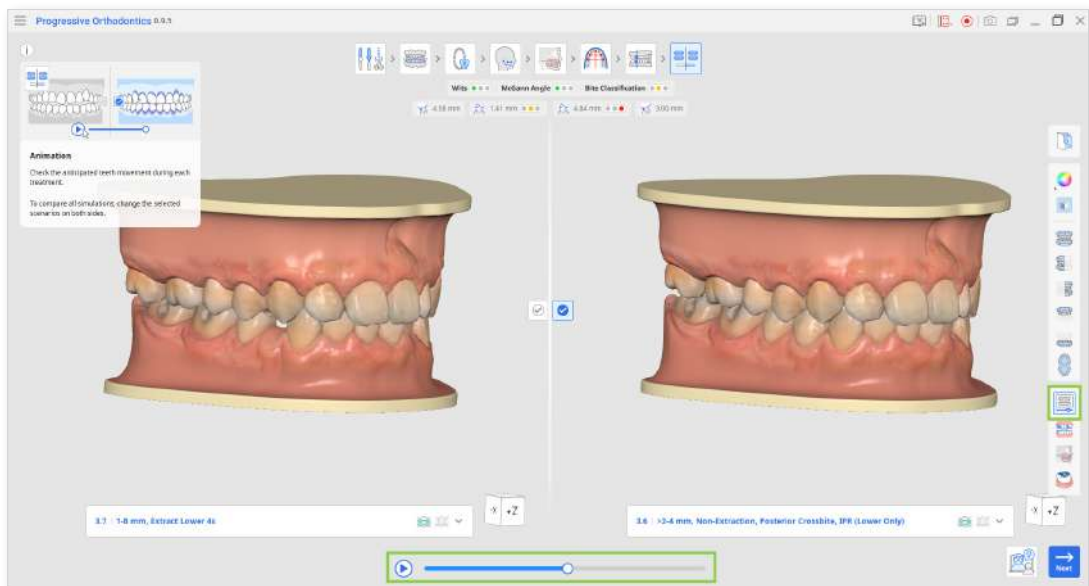


💡 Use “Orthodontic Photos” in the Side Toolbar to check if the suggested protrusion is plausible in the current patient by referring to other imported imaging (X-rays, intraoral and facial photos).

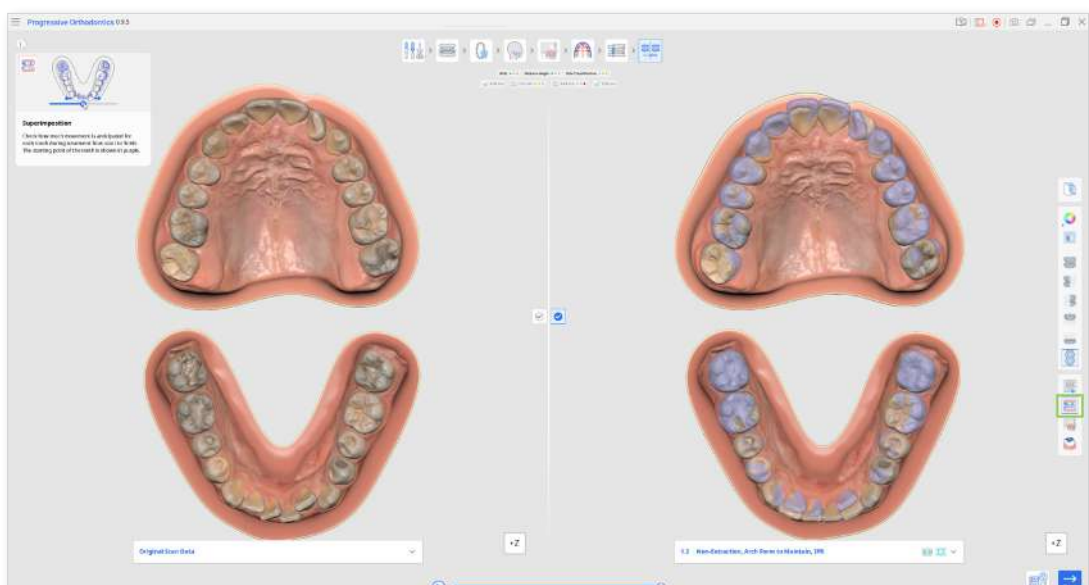
- ③ Change between scenarios on both sides of the screen to compare different treatment simulations side-by-side. Utilize the following tools in the Side Toolbar to assist you: Animation, Superimposition, Ceph Overlay Comparison, and Occlusal Relationship.



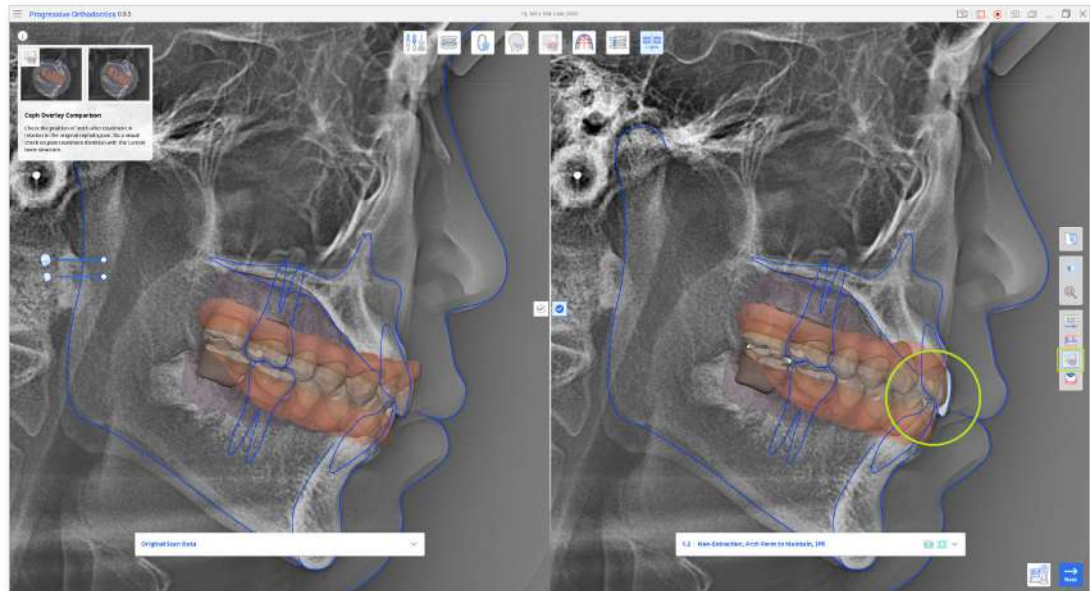
- Use "Animation" to visualize the movement of teeth for the selected scenario.



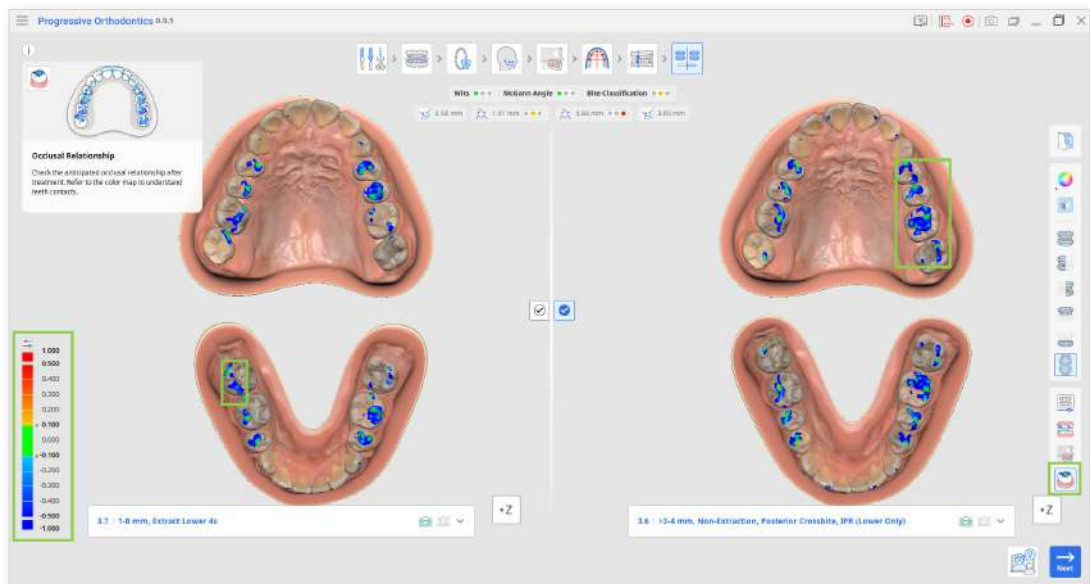
- Use "Superimposition" to assess the anticipated movement of each tooth from start to end, with the start point depicted in purple. Superimposed data is animated for your convenience.



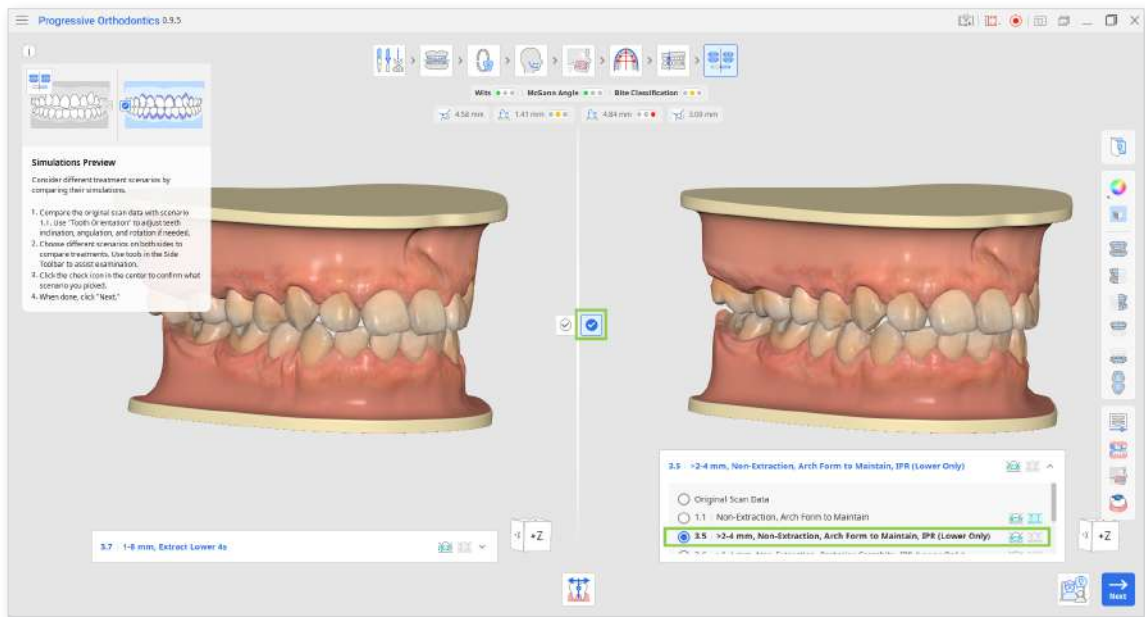
- Use “Ceph Overlay Comparison” to see the post-treatment dentition in relation to the bone structure. For example, by examining the area highlighted in the green circle in the image on the right and comparing it to the image on the left, you can easily see the movement of the teeth.



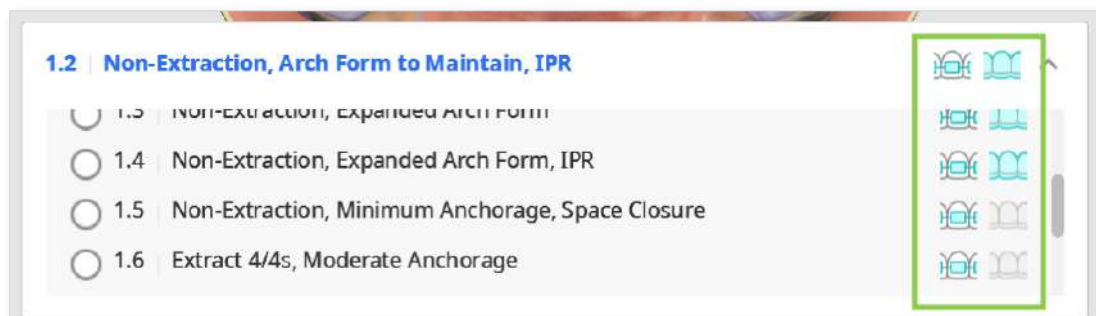
- Use “Occlusal Relationship” to analyze the occlusal contact for the posttreatment dentition, referring to the color bar on the left for color interpretations.



- ④ Once you have made a decision on the final treatment, confirm choosing your preferred treatment scenario by clicking its check icon located in the center of the screen.



- Applicable treatment types (aligner, bracket) for each scenario are shown next to the scenario title in the list.



- ⑤ When done, click "Next" to proceed to review of the treatment.

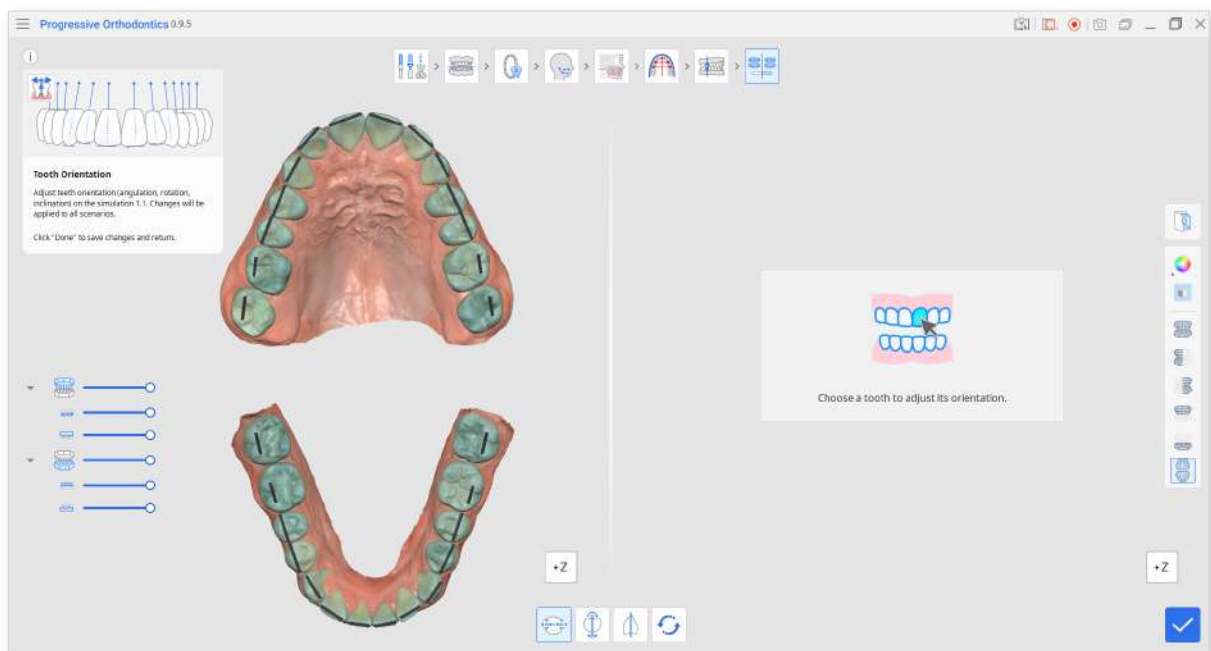
How to Use Tooth Orientation

Tooth Orientation is used to ensure that the software is accurately identifying the orientation of each tooth in the following planes:

- Amount and direction of rotation relative to the chosen arch form to be maintained.
- Degree of angulation or tip from the occlusal table.
- Degree of inclination or torque from the occlusal table.

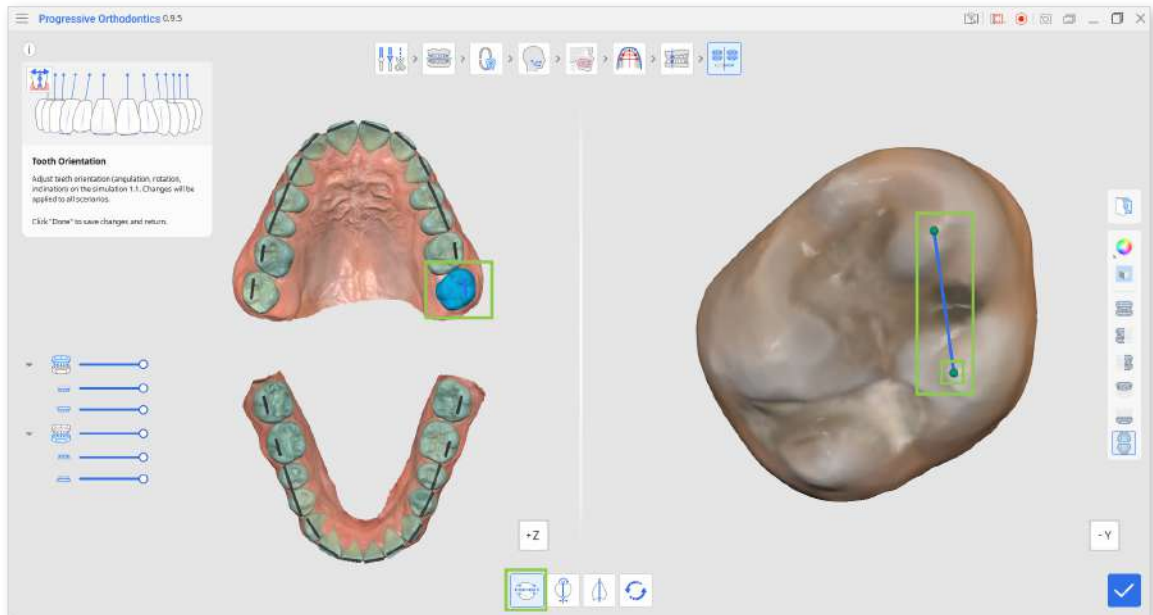
Errors in tooth orientation detection can be caused by misshapen teeth, teeth with worn or uneven edges, blocked-out or crowded teeth, poor scan quality, or other complications. These errors can be detected when reviewing simulation 1.1 in comparison to the original scan data by viewing any tooth that appears to not have been leveled, aligned, or out of position in some direction.

This tool displays the orientation using simulation 1.1, which is after all teeth have been leveled and aligned to the chosen arch form. Changes made to orientation are applied to how the software identifies the current position of each tooth, and thus, changes will be applied to all scenarios automatically.

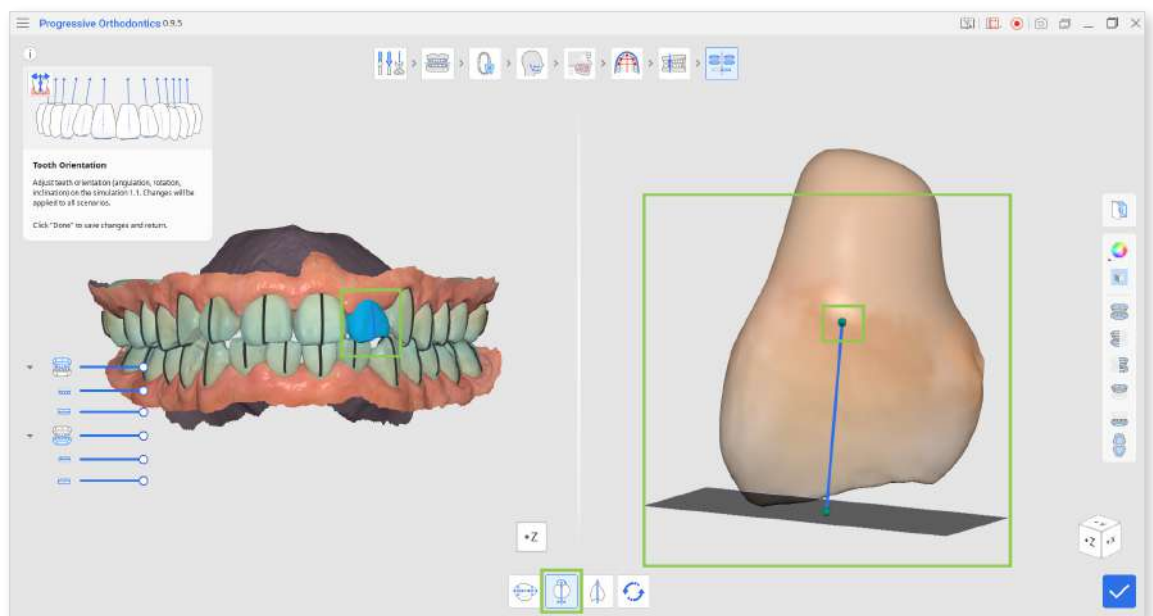


- ① Click on any desired tooth to start adjusting its orientation; by default, the "Rotation" tool is activated first.

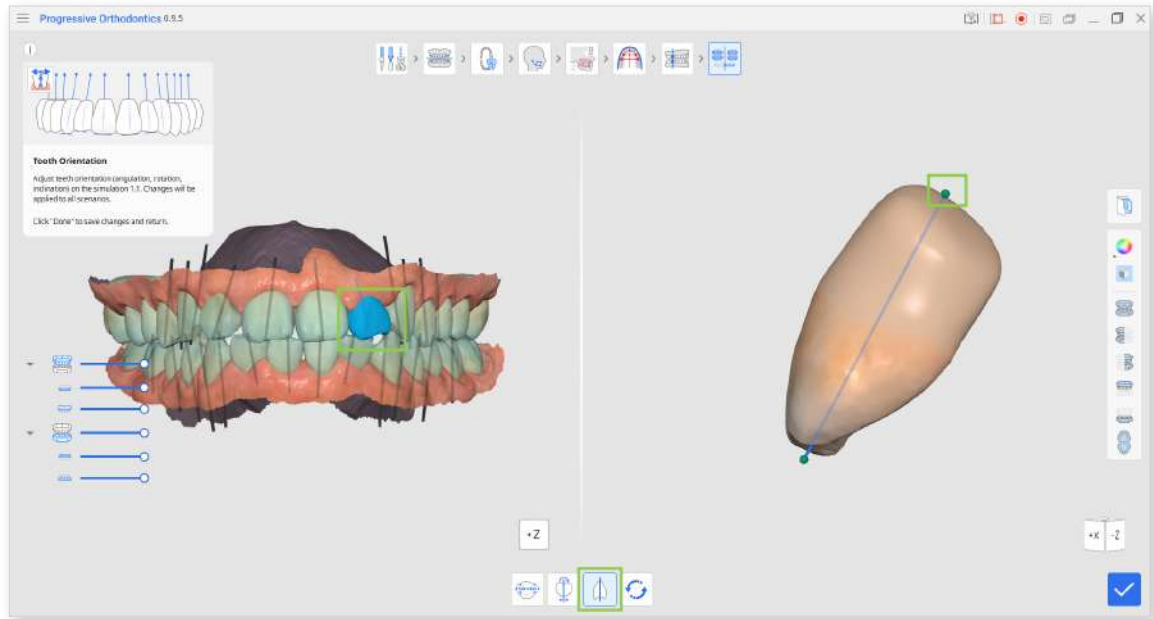
The chosen tooth will be shown on the right, with the rotation defined by the blue line with green control points on each end. To adjust the rotation, drag by one of the points so that the blue line accurately identifies your perceived rotation of each tooth.



- ② To edit the degree of angulation or tip from the occlusal table, click "Angulation (Tip)." Then, choose a tooth and start adjusting by dragging by the control points to change . The occlusal plane is displayed at the incisal edge of the blue line for your reference.



- ③ To edit the degree of inclination or torque from the occlusal table, click "Inclination (Torque)." Then, choose a tooth and start adjusting by dragging the control points.



- ④ If you want to reset back to the initially identified tooth orientation, click "Reset" in the toolbox below.



- ⑤ Click "Done" in the bottom right corner to return to the simulations preview and comparison.



Appliance Ordering


After reviewing the simulations in the Simulations Preview step and choosing one for treatment, the user will proceed to the final review and ordering process for the selected appliance (either brackets or aligners).

Ordering Aligners

If the treatment plan involves using aligners, the user will need to fill out an order form. This form collects general information about the patient and doctor, as well as billing details, and provides space for any additional instructions for manufacturing the aligners. Once the form is completed, it is saved to the Medit Link case.


Order Form for Aligners

Fill out and save the form, then exit the app and place your order with Progressive Aligners through Medit Link.

 Selected Scenario

2.4 | >3 to 5mm Non-Extraction Archform to Maintain Class 2 Elastics Growth

<p>Patient Information</p> <p>Name</p> <input type="text" value="Enter first and last name"/> <p>Gender</p> <p><input checked="" type="radio"/> Male <input type="radio"/> Female</p> <p>Date of Birth</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;"><input type="text" value="YYYY"/></td> <td style="width: 33%;"><input type="text" value="MM"/></td> <td style="width: 33%;"><input type="text" value="DD"/></td> </tr> </table> <p>Notes (optional)</p> <input style="width: 100%; height: 60px;" type="text" value="Enter additional instructions or case details."/>	<input type="text" value="YYYY"/>	<input type="text" value="MM"/>	<input type="text" value="DD"/>	<p>Doctor Information</p> <p>Name</p> <input type="text" value="Enter first and last name"/> <p>Practice Name</p> <input type="text" value="Enter the name of your clinic"/> <p>Email</p> <input type="text" value="Enter your email address"/> <p>Billing Address</p> <input type="text" value="Enter your street address, city, state, and ZIP Code"/>
<input type="text" value="YYYY"/>	<input type="text" value="MM"/>	<input type="text" value="DD"/>		

 Note that when placing an order with Progressive Aligners through Medit Link, physical outputs and case information will be shared with aligner manufacturers who have the necessary regulatory clearances. The designers at Progressive Aligners will use the selected simulation scenario and the details provided above to stage your case. For further information and assistance, please contact support@posortho.net.

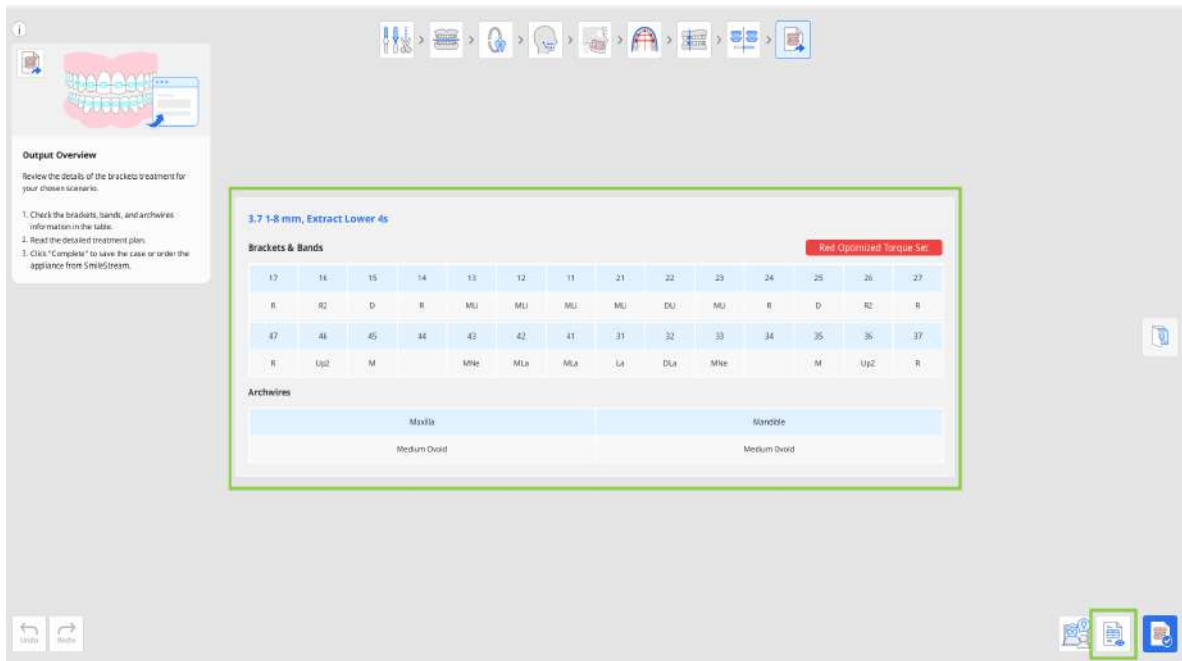
After saving, exit the Progressive Orthodontics program and use the "Order" button in Medit Link to place the aligner order with Progressive Aligners.



Note that when ordering aligners from the Progressive Aligners website through Medit Link, your data is exported and shared to the website. Please contact support@posortho.net for further information and assistance.

Ordering Brackets

If brackets are chosen for the treatment, the user will move to the Output Overview step. Here, they can review the details of the bracket treatment plan for the selected case. A table will display the suggested brackets, bands, and archwire information. Additionally, a detailed treatment plan file is available in the bottom right corner.



After reviewing all the information, click "Complete" in the bottom right corner. The user can then choose to place the order immediately or save the completed case and order later. The ordering process is done through SmileStream services.



For more details or inquiries on how to order brackets please visit SmileStream or contact their support team at support@posortho.net