SureSmile® Advanced

Help

Software Version 7.6

THE DENTAL SOLUTIONS COMPANY™

Dentsply Sirona

SureSmile Advanced Help Center

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United States & Canada

1 888 672 6387

or

1 972 728 5902

Case Types

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FAQs - Case Types

Customer Care Local Phone Numbers

Australia
1300 552 929

Belgium
+32 3 232 81 50

France
+33 (0)1 30 97 65 03

Germany
+49 625 116 16 14

Spain
+34 93 264 35 60

Ireland
+44 (0)1932 838323

Italy
800310333

Japan
+800 6655 1234

Lichtenstein
+41 800 33 11 99

Netherlands
+31 88 024 52 00

New Zealand
0800 336 877

Nordic Countries
+4543713377

Poland
+48 538 649 338

Portugal
+34 93 264 35 60

South Korea
+82 2008 7662

Switzerland
+41 800 33 11 99

United Kingdom
+44 (0)1932 838323

All Other Countries
+1 972 728 5902

Email
SureSmile-Customer-Care@dentsplysirona.com

Frequently Used Forms

Click below to print the forms you need to offer feedback, to make requests and to provide the clinical data that enables us to make continual improvements to the SureSmile system.

SureSmile® Case Transfer Form - Effective for Standard Case Starts beginning March 01, 2021.

Location Change Request Form - Use to add, remove or change addresses for a practice site.

Archwire Discrepancy Report - Use to report issues with archwires and archwire installation.

Treatment Discrepancy Request Form - Use to report any clinical inconsistencies between a patient's setup and treatment results.

Validating CBCT Scanner with a Phantom Scan - Instructions describing how to set up and perform the phantom scan. Also explains which data needs to be sent to SureSmile for evaluation.

CBCT Validation Request Form - Your CBCT scanner calibration must be verified by Dentsply Sirona before CBCT data can be accepted. Fill out and submit this form to start the 2 to 3-week CBCT validation process.

SureSmile® Treatment Consent Form - Patient form indicating that they understand the risks or options available for orthodontic treatment.

	The files above are in PDF format and require Adobe Acrobat reader. If you do not have Adobe Acrobat reader, download it here.

Useful Documents

Click the links below to open or save a PDF of a user guide, a scanning protocol, a job aid, or a Material Safety Data Sheet (MSDS).

User Guides/Reference Manuals

SureSmile® IDB Trays Instructions for Use - Software Version 7.6

SureSmile Advanced Wire Therapy User Guide - Please choose the version appropriate to your country/region:

- SureSmile Advanced Wire Therapy User Guide
- SureSmile Advanced Wire Therapy Process - Australia
- SureSmile Advanced Wire Therapy Process - Canada
- SureSmile Advanced Wire Therapy Process - European Union
- SureSmile Advanced Wire Therapy Process - Japan
- SureSmile Advanced Wire Therapy Process - New Zealand
- SureSmile Advanced Wire Therapy Process - United States

SureSmile Advanced Surgical Reference Guide

SureSmile Advanced Lingual Reference Guide - covers the following topics:

- bracket types
- bracket placement
- diagnostic treatment simulations
- bracket placement simulations

SureSmile Advanced Staff Level 1 Workbook

- Module 1 - Getting Started with the SureSmile Browser
- Module 2 - Building Complete Model Orders
- Module 3 - Managing Brackets for SureSmile Treatment
- Module 4 - Managing User Accounts
- Module 5 - Inserting & Managing SureSmile Wires

System Requirements/Installation

Technical Requirements Guide - describes SureSmile system components and technical/physical requirements for installation and integration in a practice. Intended audience: Practice IT staff.

SureSmile - Installing the SureSmile Update Service - step-by-step procedure for installing SureSmile update service on a desk-top or laptop computer. The update service makes sure that SureScan and image composer are kept up to date automatically.

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Scanning Protocols

Intraoral Scanners

SureSmile protocol CEREC® Scanner - includes the protocol and procedures for using the CEREC® scanner for SureSmile treatment.

SureSmile protocol for iTero® Intraoral Orthodontic Scanners - includes the protocol and procedures for using the iOC® scanner for SureSmile treatment. Although informative for the doctor, the primary audience is the clinical assistant who performs iOC scans and enters SureSmile orders.

SureSmile Protocol for 3Shape TRIOS® Intraoral Orthodontic System - includes the protocol and procedures for using the TRIOS® scanner for SureSmile treatment. Although informative for the doctor, the primary audience is the clinical assistant who performs TRIOS® scans and enters SureSmile orders.

SureSmile protocol for Carestream Intraoral Scanners - detailed steps and procedures for taking an intraoral scan for a SureSmile patient using a CS 3500 or CS 3600 intraoral scanner.

SureSmile protocol for 3M True Definition Intraoral Scanner - detailed steps and procedures for taking a 3M True Definition intraoral scan for a SureSmile patient.

CBCT Scanners

Validating CBCT Scanner with a Phantom Scan - Instructions describing how to set up and perform the phantom scan. Also explains which data needs to be sent to SureSmile for evaluation.

SureSmile Dentsply Sirona Imaging Systems Orthophos S and Orthophos SL - includes the protocol and procedures for using Dentsply Sirona Imaging Systems' Orthophos S and Orthophos SL scanners for SureSmile treatment. Although informative for the doctor, the primary audience is the clinical assistant who will be taking the images and entering SureSmile orders.

SureSmile Protocol for Planmeca ProMax CBCT Systems - detailed steps and procedures for taking an Planmeca ProMax CBCT scan for a SureSmile patient.

SureSmile Protocol for iCAT CBCT Systems - detailed steps and procedures for taking an iCAT CBCT scan for a SureSmile patient.

SureSmile Protocol for Carestream CBCT Systems - detailed steps and procedures for taking a Carestream CBCT scan for a SureSmile patient.

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Job Aids

SureSmile Advanced Patient Selection Criteria - selection criteria for choosing ideal SureSmile patients for initial SureSmile implementation.

SureSmile Aligner Patient Selection Criteria - guidelines for selecting patients for aligner therapy

SureSmile Aligners Scanning Requirements - guidelines for scanning for aligner treatment.

SureSmile Advanced Protocol for Therapeutic Photographs - checklist of best practices for taking the set of photos associated with the therapeutic scan.

SureSmile Aligner Prescription (MACROS) - Quick guide for completing the prescription form so that the Digital Lab technician has enough information to process your order.

FAQs - Frequently Asked Questions on Wires - frequently asked questions about SureSmile wire insertion and management.

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Material Safety Data Sheets

SureWhite SDS: United States - Safety Data Sheet (SDS) for SureWhite in English.

SureWhite MSDS: European Union - Material Safety Data Sheet (MSDS) for SureWhite in English.

SureWhite MSDS: Germany - Material Safety Data Sheet (MSDS) for SureWhite in German.

Beta TI MSDS - Material Safety Data Sheet (MSDS) for Beta TI wires.

Beta TI MSDS (Metalwerks) - Material Safety Data Sheet (MSDS) for Metalwerks TI Beta wires.

NiTi MSDS - Material Safety Data Sheet (MSDS) for NiTi wires.

Elgiloy MSDS - Material Safety Data Sheet (MSDS) for Eligiloy wires.

AcmeMonaco NiTi MSDS - Material Safety Data Sheet (MSDS) for AcmeMonaco NiTi wires.

AcmeMonaco Elgiloy MSDS - Material Safety Data Sheet (MSDS) for AcmeMonaco Eligiloy wires.

ORMCO Metal Products Composition - Table show metallic composition of all ORMCO metal products.

	The files above are in PDF format and require Adobe Acrobat reader. If you do not have Adobe Acrobat reader, download it here.

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Instructions for Use

Here are the Instructions for Use (IFUs) for this software in English, followed by currently available translations.

Note: User Guides are now called Instructions for Use. Click the links below to open or save a PDF.

English

SureSmile® Advanced Aligner Design

SureSmile® Aligner Patient Selection Criteria

SureSmile® IDB Trays Instructions for Use - Software Version 7.6

SureSmile® Retainers Package

Dansk

SureSmile® IDB-skinner Brugsanvisning

Deutsche

SureSmile® IDB-Trays Gebrauchsanweisung - Softwareversion 7.6

SureSmile® Aligner Patientenauswahlkriterien

Español

Férulas de transferencia IDB SureSmile® Instrucciones de uso

Criterios de selección de pacientes para el alineador SureSmile®

Français

Gouttières de transfert SureSmile® à collage indirect Mode d’emploi

Critères de sélection des patients pour la Gouttière SureSmile Aligner®

Italiano

Mascherine SureSmile® IDB Istruzioni per l’uso

Criteri di selezione dei pazienti con allineatore SureSmile®

Korea

SureSmile® IDB Trays 사용 설명서

Nederlands

SureSmile® IDB-trays Gebruiksaanwijzing

Norsk

SureSmile®-IDB-skinner Bruksanvisning

Português (Brasil)

Critérios de seleção do paciente do alinhador SureSmile®

Português (EU)

Moldeiras SureSmile® IDB Instruções de utilização

Română

Portamprente SureSmile® IDB Instrucțiuni de utilizare

Svenska

SureSmile® IDB-skenor Bruksanvisning

Russia

SureSmile® IDB-каппы Инструкция по использованию

	The files above are in PDF format and require Adobe Acrobat reader. If you do not have Adobe Acrobat reader, download it here.

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Software Release Notes

Here is a comprehensive list of enhancements associated with SureSmile Advanced. In addition to the primary features listed, each release includes numerous refinements and fixes to existing features. Click the links for a PDF of the associated release notes for detailed information.

Is there a feature you would like to suggest? We welcome your input: customercare@suresmile.com

Primary Features by Release

Recent Releases (click link for PDF of release notes)	**Enhancements**
June 25, 2023 - Release Notes 7.6 Commercial Update 20	Software Enhancements • Improve Voucher Experience (all platforms) • Change Treatment Completion Date Display (all platforms) • Refinement IPR History Communication (all platforms) • Replace “DS CEREC” with “DS Digital Impressions” (all platforms) • Replace “Jobs” with “Downloads” (all platforms) • Replace “Select Package Type” with “Choose Package Type” (Aligner & Ortho) • Update IDB Sign-Up Email (Ortho) • Improve Visibility Of Notes For The Digital Lab (all platforms) • Automated Don’t Allow Attachments Prescription (all platforms) • New Don’t Allow Attachment Prescription Option (Ortho) • T&Cs: Poland, Netherlands (all platforms) • New Languages: Netherlands (all platforms)
March 25, 2023 - Release Notes 7.6 Commercial Update 19	User Enhancements • Preferences: Order Retainers task added to Task Owner preferences (all platforms) • Passive Aligners: Deselected by default in Select cases(all platforms) • Cancellations: “Accidental” reason added to cancellation reasons (all platforms) • Trimline: Insert straight trimline segment to bridge gaps (all platforms) • General Updates: About Page & Privacy Policy (all platforms) • New Language: Polish (all platforms) • New T&Cs: Thailand (all platforms)
January 25, 2023 - Release Notes Retainer Case Package	SureSmile® Retainers Case Package • The SureSmile Retainers case package is now available on the new Select Package Type screen • SureSmile Retainers can be ordered in quantities of 1-5 for each arch • SureSmile Retainers have a straight 0 mm trimline
December 25, 2022 - Aligner Release Notes 7.6 Commercial Update 18	User Enhancements • Cookie Management: Cookie banners now displayed in SureSmile (all platforms) • System & Account Cleanup: Manually cancel integration cases (all platforms) • SureSmile VPro Orders: Prop 65 disclaimer added for US California residents (all platforms)

	• SureSmile Aligner Report: Removed from Retainer orders (SureSmileAligner & SureSmileOrtho)
October 29, 2022 - Release Notes 7.6 Commercial Update 17	User Enhancements • SureSmile® Terminology: Updates to various SureSmile® terms • Tasks Tab: Improvements to clickable links • Customer Holds: Process to release customer holds streamlined • Aligner Staging: Improvements to scanned attachments • Aligner Staging: Automatic application of slits & buttons • Shipments Tab: Sort by Order Date by default
June 30, 2022 - Release Notes 7.6 Commercial Update 15	User Enhancements • Attachments: Enable removal of scanned attachments in staging (all platforms) • System & Account Cleanup: Cancel older open Full-Service Aligner Cases (all platforms) • Staging Improvements: Reduced root movement (all platforms) • Pontic Enhancements: Improvements to appearance and size (all platforms) • Aligner & Retainer Ordering: Text added to order dialog box (all platforms) • SureSmile VPro: Now available for purchase through DIY cases (Ortho/Advanced)
April 29, 2022 - Release Notes 7.6 Commercial Update 14	User Enhancements • 3D Tooth Modification: Ability to move teeth in Setup & Staging (Aligner) • CBCT: Premium Models (Aligner / Ortho) • STL: Changes to Staged Models Exports (Ortho / Advanced) • System & Account Cleanup: Cancel older open Full-service Aligner Cases (all platforms) • Trimline Changes:Straight to Scalloped no longer allowed at aligne order (all platforms) • Pontic Enhancements: Improvements to appearance and size (all platforms) • Privacy Policy (all platforms)
February 25, 2022 - Release Notes 7.6 Commercial Update 13	Interface Improvements • Cancel Older Full-Service Aligner Cases (all platforms) • Alerts for Duplicate Orders (all platforms) • Laser Marking Enhancements (all platforms) • Pontic Improvements (all platforms) • Shipment Email Notifications Default Changed (Aligner/Ortho) • Updates to Terms & Conditions(Aligner/Ortho) • Invitation-based Registration Improvements (Aligner/Ortho) • Aligner Plan Approval Streamlined (Ortho/Advanced) • Sequential Distalization Updates (Advanced)
January 7, 2022 - Release Notes 7.6 Commercial Update 12 January 7, 2022 - Release Notes 7.6 Commercial Update 12 Retainers January 7, 2022 - Release Notes 7.6 Commercial Update 12 Whitening Kits January 7, 2022 - Release Notes 7.6 Commercial Update 12 VPro January 7, 2022 - Release Notes 7.6 Commercial Update 12 Retainers (Aspen)	• Interface Improvements (all platforms) - Sequential Distalization - Enhance the maximum number of stages from 50 to 70 - Change default trim height for aligners to 0 mm - Aligner Templates should not have slits - Shipment Email Notification Preference for new registrants • Russia (Aligner & Ortho) - Country Support & Languages

October 29, 2021- Release Notes 7.6 Commercial Update 11	• Improved UI/UX (SureSmile Aligner only unless specified)
	  • Simplified ordering a Full-service Aligner case
	  • Dental Examination redesign
	  • Prescription form redesign
	  • Patient Overview Page updates (all platforms)
	  • Dental Exam, Prescription and Timeline simplified
	  • Complete Case expiration added
	  • Simplify the review of a case
	  • More space and focus on the 3D model
	  • Checklist, Dental Exam and Prescription form updates
	  • New Tooth Movement button to show Displacements, Elastics and Measurements
	  • IPR display updates (all platforms)
	  • Simplify resolving a customer hold (all platforms)
	  • New 'Keep Attachments' checkbox in Prescription (all platforms)
	  • Updates to Preferences (all platforms)

August 27, 2021- Release Notes 7.6 Commercial Update 10	• Digital Lab protocol improvement for scans with existing attachments • Expired vouchers now automatically removed • New: Korean language user interface • Missing Records option removed from Patient Notes • Full-service Aligner Refinement orders simplified for SureSmile Advanced users • Search improved for DS CEREC Orders tab
July 9, 2021 - Release Notes 7.6 Commercial Update 9	• Terms & Conditions now supported globally • SureSmile registration for new users more efficient • Positioning of slit cut-outs improved • Attachment, slit and button placement guidance added • Price disclaimers added for post-pay customers
May 28, 2021 - Release Notes 7.6 Commercial Update 8	• Product page now shows after clicking task alert email link even when "Review setup & staged models" task already completed • New preference settings to set default stages for: - Automatic attachment placement - 1st IPR appointment • New edit button allows you to edit constraints from MACROS • New toggle hides global movements in 3D view • Multi-site practices can now move patients between sites without notifying SureSmile customer service • New firewall settings for CBCT users • CuNiTi archwire material and AzurloyTM archwire brand no longer supported
April 19, 2021 - Release Notes 7.6 Commercial Update 7	• Improved Patient Information dialog • New ability to set start points for IPR in aligner constraints • Order button renamed when reordering aligners • SureSmile interface now available in 7 languages • Overcompensation stages now shown by default

	• Improved tools for slit and button aligner tray cutouts • Removed task reminder and upload button for treatment cards
March 15, 2021 - Release Notes 7.6 Commercial Update 6	• Pontic processing time reduced • Pontics now moveable in stage 0 • Add Stage and Copy Stage buttons now handle attachments identically • Credit card user interface improved
February 10, 2021 - Release Notes 7.6 Commercial Update 5.2	• Unable to export staged models from Order tab • Incorrect case fee message shown when exporting staged models
January 28, 2021 - Release Notes 7.6 Commercial Update 5	• Pricing visible for pre- and post-pay customers • Aligner tray cut-out placement improved • Attachment templates standardized • Task owner defaults for Ortho & Aligner practices updated • Practice notes more visible • X-rays optional for Ortho & Advanced full-service aligner cases
November 27, 2020 - Release Notes 7.6 Commercial Update 4	• Open Staged Model Sequence Next Check Box now unchecked by default • Newest images are used to fill image slots • Add past receipts back to Practice Settings/Receipts • Wording Changed in Approve Plan Dialog for Aligner Cases • Users can now upload phantom validation scans directly into Suresmile • Setup tools: Upper vertical alignment no longer produces reverse CoS. • Build ups in a simulation are not considered in the staged models • Missing image set message updated • Passive stages cause by IPR intervals now removed • Display of Anterior Pontics improved • Pontics now have a special color to distinguish them from teeth • Scan data instructions improved for CEREC users • Wording clarified for Misaligned or Missing Data rejection notice • Trim height only shown in Product Notes if trim type is straight. • Edit Target modifications now tracked in Product notes • Message updated for products and setup cancellations • New vertical Favorites toolbar added

October 1, 2020 - Release Notes 7.6 Commercial Update 3	• Aligner and Wire case vouchers now available for all SureSmile practice types
	• Combined Case Fee Charges for Full Service Aligners
	• Vertical position of buccal pontics now references marginal ridges of neighboring teeth
	• Movements during staging now optimized to reduce number of stages
	• User preference added Gingiva base height for 3D printing
	• Free navigation mode for buttons (cut-outs on Aligners)
	• Now you can edit all aligner stages, including:
	  • target
	  • overcorrection
	  • passive
	  • retainer

August 11, 2020 - Release Notes 7.6 Commercial Update 2.1	• Patient MACROS incorrectly replaced by Preferences settings
August 5, 2020 - Release Notes 7.6 Commercial Update 2	• Printing Optimization setting for 3D models now available • Image Sets older than 42 days are no longer displayed in Refinement order workflow • Moving FA point now also moves corresponding bracket • Fullscreen toggle button returned • About Page for Japan Updated • Blue 3D View background color once again available • Models now displayed below the 3D toolbars
June 18, 2020 - Release Notes 7.6 Commercial Update 1	• Skip Automatic Blockouts for 3D Prints and Exports
April 2020 - Customer Upgrade Guide - SureSmile Aligner 7.6	• Adjust aligner tray cut-outs to accommodate elastics Scalloped or Straight Trim Lines • Set preferences for each arch • Timeline with player shows both arches IPR • IPR labels in 3D window • IPR indicated in Aligner Report • One-click IPR pop-up • Pontics automatically placed and resized for space closure or space opening • SureSmile now uses AI to automatically trace the smile line • New tool on Display menu to hide spine
April 10, 2020 - Release Notes 7.6 Commercial	• Undo / Redo buttons now indicated with arrows • Movement of slits now restricted to 180 degrees • New Password label added • Display Trim Type and Height dialog box now appears when ordering a Aligner Refinement • Passive stages no longer inserted in opposing arches when adding or copying stages • Amount of tipping applied by conflict-solver adjusted • Tooth roots no longer protrude through morphed gingiva

SureSmile's Bracket Library

SureSmile's bracket library has more than 20,000 brackets registered in our bracket library. This means that each of these brackets as been specially scanned by our technicians and certified for use in SureSmile. You can determine if a bracket is in the SureSmile library by opening the **Bracket Selection** dialog box in SureSmile and searching for the bracket (for instructions please go to the help topic Assign Brackets.)

Bracket Request

If a bracket of set of brackets you use is not in the bracket library, please send an email to brackets@suresmile.com.

Please include in the email the following information:

- Doctor Full Name (e.g., Dr. John Doe)
- Bracket Part Number (e.g.,123-456A)
- Bracket Manufacturer (e.g., GAC)
- Bracket Family (e.g., Inovation R)
- Bracket Slot Size (e.g.,.022)
- Tooth Number (e.g.,UR5)
- Indicate if needed for CBCT scanning

Important: Gold brackets are not acceptable for CBCT products such as CBCT scans or premium models.

Please allow the following lead times for your bracket requests to become available in SureSmile:

Brackets approved for Direct Bonding	Brackets approved for Indirect Bonding
Up to 60 days	Up to 90 days

Legal Notices

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Last updated on August 23, 2023 3:00 pm

Definitions

- Note: A helpful hint, sometimes a tip, to help the user work more efficiently.
- Caution: Advises user that failure to take or avoid certain actions could result in an unintended outcome from the software.
- Warning: Advises user that failure to take or avoid certain actions could result in an unintended outcome for the appliance design that might have a clinical impact.
- Limitations: Describes limits that must be respected to achieve the referenced task or goal.
- Requirements: Describes what must be done to achieve the referenced task or goal.

Instructions for Use

If you want to receive these instructions for use / online help in paper form, click here to download a PDF suitable for printing, or contact us and we will send you a printed version at no additional cost within 7 business days.

Acknowledgments

Elgiloy is a trademark of Rocky Mountain Orthodontics.

Centric is a trademark of Degussa-Ney Dental, Inc.

Endo Ice® Refrigerant Spray is a registered trademark of Coltène/Whaledent Inc.

All other trademarks are the property of their respective owners.

Getting Started with SureSmile

SureSmile is the first end-to-end solution for fixed appliances that provides the orthodontist with greater control and efficiency than with traditional orthodontic treatment. This solution applies 3D diagnostic imaging and computer-aided treatment planning to unlock the power of both shape memory alloy and ductile archwires through customization. This results in greater control and efficiency for orthodontic diagnosis and treatment.

SureSmile is comprised of three key components:

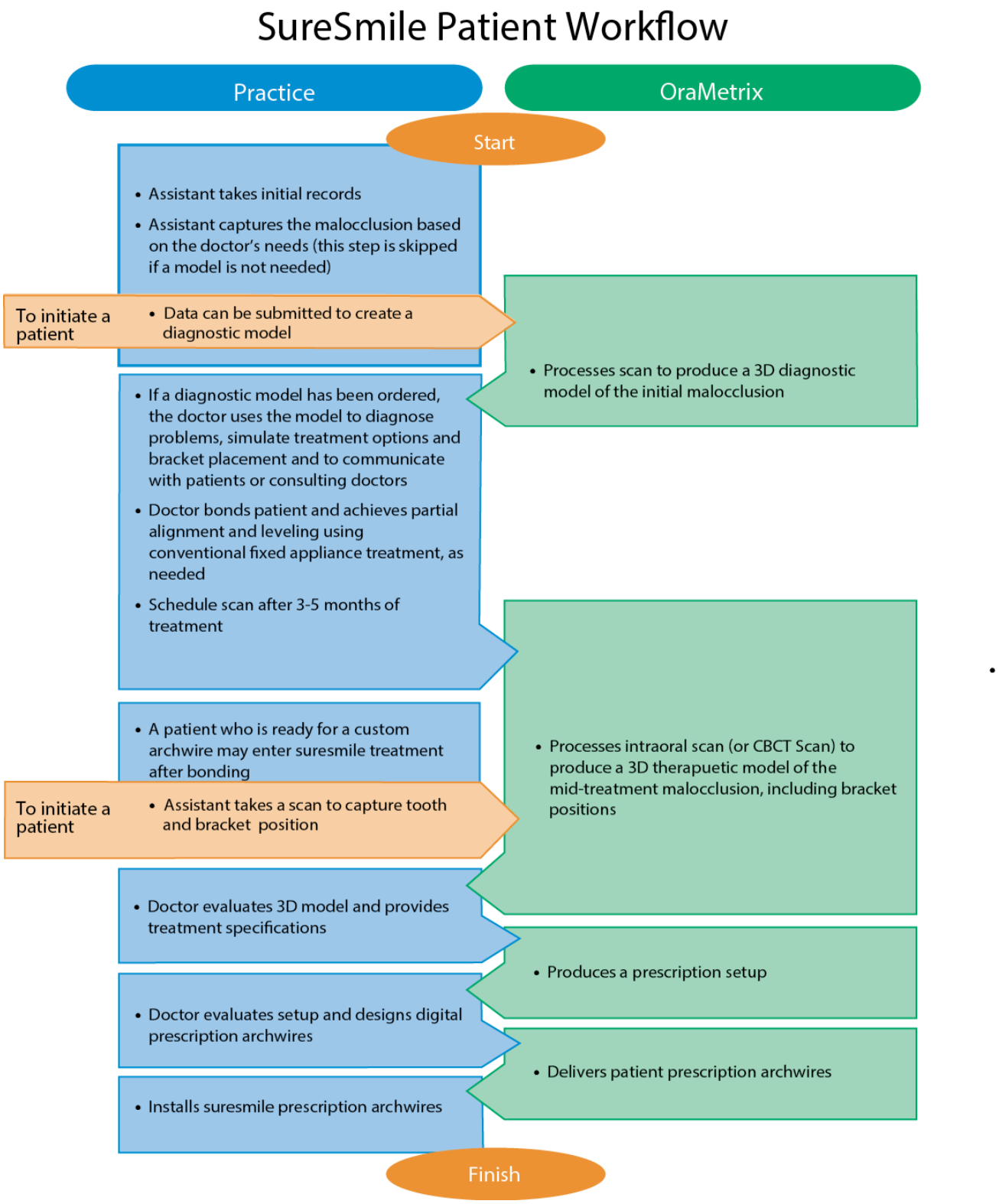
- In-vivo scanning, using either a certified third-party scanner or the OraScanner, a patented handheld white light imaging device, used to capture 3D images of a patient's dentition. 3D models with individually movable teeth are produced from a certified scanner or from a combination of scans.
- SureSmile 3D software provides powerful visualization tools for precision diagnosis, treatment simulation, and customized appliance design. You can review digital setups with this software and use it to communicate with patients, colleagues, and the SureSmile Digital Lab.
- The Digital Lab provides scan and setup processing to produce:
    - 3D diagnostic and therapeutic models for treatment planning and analysis
    - precise, robotically bent archwires,
    - staged models and aligners, and
    - IDB trays.

SureSmile Workflow

SureSmile Patient Workflow Chart

This chart illustrates the integration of a SureSmile *Standard* case into the course of the treatment process. The SureSmile process is comprised of each patient interaction with SureSmile.

The left side of the chart, shaded in blue, lists the key activities occurring at the clinic. The right side of the chart identifies the interaction with the Digital Lab and manufacturing at Dentsply Sirona.



Key Workflow Phases

Start: A SureSmile case starts with the consultation appointment and the creation of the record, which includes importing photos and x-rays into SureSmile. The doctor can then use the images for ceph analysis and treat-

ment planning on the computer. At the start of treatment, the doctor may choose to scan the patient's malocclusion to produce a diagnostic model.

Treatment Simulation, Bonding: Simulation software allows the orthodontist to use a diagnostic 3D model to evaluate treatment alternatives. The software also provides a method to simulate bracket placement. This bracket simulation can then be referenced during the bonding appointment.

Therapeutic Scan, Setup: After the practice has taken a scan to capture current tooth and bracket positions, the doctor can review treatment progress in the resulting therapeutic 3D model and then direct the production of the setup. The Digital Lab, a group of technicians at Dentsply Sirona, produces models from scans and setups according to the doctor's instructions.

Prescription, Archwire Installation: Custom archwires are ordered based on a prescription and are then inserted at the wire installation appointment. If a patient loses a bracket following the intraoral scan, an update scan captures the rebonded bracket position.

Start and Exit SureSmile

To start SureSmile, you must log into a web browser. Google Chrome is the recommended browser for accessing SureSmile. Mozilla Firefox and Safari on the Apple OS are also supported, but WebGL must be manually enabled for Firefox and Safari.

> **Tip**: To download and install a free Chrome browser, go to https://www.google.com/chrome, and follow the instructions to download Chrome.

Because you are now in a browser environment, you can open different areas of SureSmile in multiple tabs or in multiple windows. The name on the tab indicates the area available on that tab. For example, you could have a window open to the images page and another tab open for the therapeutic model. The label for the first tab would be *HRID* Images and the label for the second would be *HRID* therapeutic model, where *HRID* is the patient ID.

Obtain a SureSmile user name and password

If you do not have a SureSmile user name and password, follow these steps:

1. Open your web browser and go to https://login.SureSmile.com.
2. Click **Register.**
3. Enter a username, your email, and a password.
4. Type the password a second time to confirm it.
5. Confirm that the selected time zone is correct, and change it if necessary.
6. Click **Submit**.

Log into SureSmile

If you have a user name and password, follow these steps to access SureSmile:

1. Open your SureSmile web browser and go to https://login.SureSmile.com.
2. Enter your email and password, and click the **Login** button.
   Result: When you log in successfully, the clinic overview opens.
   OR
   If you have access to more than one practice, click the name of the clinic in which you want to work, and that clinic overview opens.

Email Verification

The first time you log onto SureSmile, you will see a notice informing you that your email address must be verified as a valid address. If you ignore this notice, a reminder continues to display at the top of your screen.

You can click the “X” to close it, but the notice will appear every time you switch pages until you do one of following:

- **If you are *not* using a valid email address:***

  Click the update link in the message to go to your profile page. Enter a valid email address* and click Save Changes.

Switch back to the message on the previous page (click the back arrow of your browser) and this time on the message click the verify link to send an email to the email address associated with your user account. When you receive this system-generated email, open it and click the verify link in the body of the email. Go back to SureSmile. You should see a notification that your email address is now verified. Close this message. It will not reappear the next time you log in.

- **If you *are* using a valid email address:***

  Click the verify link to send an email to the email address associated with your user account. When you receive this system-generated email, open it and click the verify link in the body of the email. Go back to SureSmile. You should see a notification that your email address is now verified. Close this message. It will not reappear the next time you log in.

  ** A valid email is defined as a unique, actual email address from which you can send and receive emails.*

Exit SureSmile

To exit SureSmile, select **Logout** from the settings menu on the upper-right side of any screen.

> **Note**: SureSmile automatically logs you out after four hours with no activity.

See also...

navigate_SureSmile

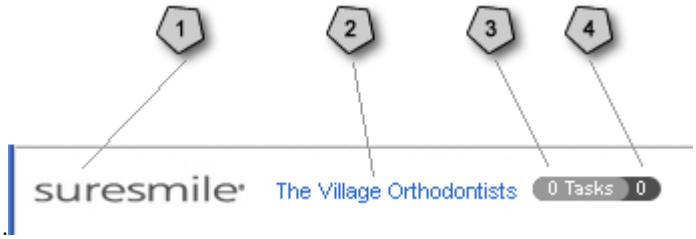
Navigate SureSmile

The SureSmile software has four primary workspaces:

- The clinic overview provides access to all patients as well as to the subset of patients that have pending tasks.
- The patient overview provides access to all information about an individual patient.
- The treatment planning workspace allows you to work with images and models in developing a treatment plan.
- The wire workspace allows you to design custom archwires.

In the SureSmile bar at the top of most pages, you have information about the clinic, as shown below:

1. Click the SureSmile logo from any screen to return to the list of practices



2. Name of the clinic. Click on the clinic name from any screen to return to the clinic home page.

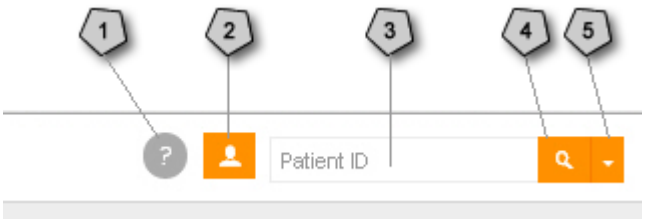
   Note: If you have a multi-site practice, you can click the practice name to display a drop-down list of all of your practices. To display all patients in all practices, select the first item in the drop-down list; otherwise, select any of the sites lower in the list to show only a single practice.

3. Number of tasks assigned to you from this clinic.

4. Number of tasks in this clinic.

Help, Profile, and Search

The right side of the SureSmile bar on each page gives you access to online help, the settings menu, and search functions as shown below.



1. Online help button. Click to display:
   - **Help Center** - Click to open the help center page within the SureSmile online help with links to more than 200 topics and resources designed to provide you information and guidance when using SureSmile.
   - **sure u** - Click to go directly to SureSmile's online resource and education center.
   - **Contact Us** - Click to go to the SureSmile customer support page with useful forms and a list of local customer care numbers.

- **Marketplace** - Click to go to MarketPlace, where you can purchaser consumables and marketing related items
- **Marketplace AUS** - Click to go to the Australian version of MarketPlace. For Australian customers only.
- **MyPractice** - Click to review analytics about SureSmile usage at your practice-such as average monthly number of case starts and finishes, average length of treatment, and so forth.

Settings menu

Click this menu to access your profile. See Change Your Profile. If you have permission, this menu also allows you to access preferences and administration tasks. See Administration.

Text area for entering search criteria. See Find Patient Information.

Quick search button. See Find Patient Information.

Advanced search button. See Find Patient Information.

Change your Profile

From the profile menu, you can change your language, time zone, and password.

Change your password

To change your password, follow these steps:

1. Click on the upper-right side of any screen, and select your login name from the menu.
   Result: Your profile page appears with your user name and email address.
2. Click the **Password** tab.
3. Type your current password and then enter a new password that has at least eight characters, including upper and lower case letters, a number, and at least one of the following special characters:
   ~ ! @ # $ % ^ & * ( ) _ - ' " ; : < > , . ? | [ ] \
4. Enter the password again, and then click **Update password.**

Reset a forgotten password

If you forgot your password, follow these steps to get a new password.

1. From the SureSmile Advanced home page, click **Login**.
2. On the Login screen, click **Forgot your password?**
3. On the next screen, enter your email address and click **Reset your password!**
   Result: You will receive an email with a link to choose a new password.

   Note: The link that you receive in the email is good for only 24 hours. After you reset your password using that link, your practice administrator must reactivate your account before you can access patient data. See Manage Users for more information.

Change your username

If you notice your username has been entered incorrectly or your name has changed, you may update your username at any time without any action needed by the Practice Administrator.

1. Click on the upper-right side of any screen , and select your username from the menu.
2. Under the **General** tab, type a new username.
3. Click **Save Changes**.

   Note: If your username does not update when you change to another SureSmile Advanced screen, refresh your browser.

Change your language and time zone

When you log in to SureSmile Advanced for the first time, make sure that you set the correct time zone so that your product notes and other records have the correct time associated with them. You must set the time zone only once; on subsequent log ins, the correct time zone is set automatically.

To change your time zone and language, follow these steps:

1. Click on the upper-right side of any screen, and select your user name from the menu.
   Result: Your profile page appears with your user name and email address.

2. Click the **Language and Timezone** tab.
3. Select the appropriate values from the Language and Timezone menus.
4. Click **Save regional settings**.

Return to SureSmile Advanced

To return to SureSmile Advanced from your profile page, do one of the following:

- Click the back button on your browser until you get back to the home page.

  OR

- Click the Home link at the top of the page, above **Your Profile**.

Add Patient

To add a patient to the clinic, follow these steps:

1. From the clinic overview, click the **Add Patient** button.
   Result: The Display changes to the New Patient page.
2. In the next two fields, enter the patient's **last name** and **first name**.

   Note: After you enter the patient's first and last names, an 8-character Patient ID is created automatically using two letters (the first letters of the patient's last and first names) and a 6-digit number.
3. Click in the **Date of Birth** box; the date defaults to the current day, so you must select the month, year, and day from the calendar or type over the date in the format shown.
4. Select the **Gender** from the drop-down menu.
5. Select the treating doctor and assign a staff member using the **Orthodontist** and **Staff** drop-down menus.
6. Click in the **Bond Date** box. The date defaults to the current day. If you know the bond date and it is not today, select the month, year, and day from the calendar or type over the date. The bond date cannot be more than 2 years in the past before today's date, or more than 4 years in the future.
7. Use the up and down arrows in the **Estimated Treatment Time** box or type the number of months. The default value is the number of months indicated in your preferences.

   Note: The Debond Date in the Treatment Timeline is calculated based on the Bond Date and the Estimated Treatment Time value.
8. If this record is for demonstration purposes, click the check box next to Demo.

   Note: You can also create a demo copy from an existing patient record by clicking the Demo Copy button on the Patient Overview. When you create a demo patient, SureSmile generates a unique HRID and appends “Demo” to the number. For example, for demo patient John Smith, the HRID would be 0008Demo.

   Patient records classified as Demo are not processed by the SureSmile Digital Lab.
9. Select a **Site** from the drop-down menu. The site indicates where you expect to have the wires shipped and where you will treat this patient.
10. (Optional) If you are ready to select a case type for the patient do so now. See Select a SureSmile Case for more information.
11. Click **Save**.

    Result: The patient overview for the new patient opens.

    Note: Before a new patient record is saved for the first time, SureSmile checks to see if a record already exists with the same first and last name and birth date. If a duplicate record exists, SureSmile displays a warning with the option to cancel the creation of that patient record.

Using the Treatment Timeline

When you go to a patient overview page, the treatment timeline at the top of the page shows five core events in the patient's SureSmile treatment process. The status of each event is shown under the event.

The treatment timeline is dynamically reconfigured as you treat the patient.

Click the clock icon to the right of the timeline to display a list of all current and past products associated with this patient. Use the drop-down lists in the status column to change the status of tasks. Click on the date links in the Date column to change dates.

Timeline events and products

The following milestones and products are captured by the SureSmile software.

Standard Timeline Milestone	**Aligner Timeline Milestones**
Bond date	Therapeutic Scan date
Therapeutic Scan Date	Setup Approval Date
Setup Approval Date	Treatment Start (date of appointment when patient receives first set of aligners)
Wire Insertion Date	Treatment Completion (date of appointment when patient transitioned from treatment to retention).
Debond date	

> **Important!** All estimated dates in the timeline are set by your practice, either manually or by setting estimated date parameters under your treatment preferences (see Treatment Time Preferences). Estimated dates are NOT changed or updated by the SureSmile system, the Digital Lab technicians or Dentsply Sirona manufacturing.

Products shown on timelines

These items are shown in the treatment timeline at the top of the Patient Overview workspace. Only the most recent item appears if there is more than one of the same item for a patient:

- bond date
- therapeutic models
- setup model
- wire orders
- IDB tray
- wire (*finished* and received at practice)
- upper wire insertion date

- lower wire insertion date
- debond date

These items are displayed only if they are used in the case:

- diagnostic models
- 3D prints
- final model
- treatment simulations

Product States

The product states in the timeline are labeled as follows:

- Not Ordered
- Ordered
- On Hold
- Reviewing
- Approved
- Finished

  Notes: A wire may also have a state of “Inserted” or “Not used.” Staged models only have a status of *Not Ordered* or *Approved*.

Timeline Dates Calculated from Left to Right

After the patient record is initially created, date calculation occurs in a forward direction. When you change a date, all future estimated dates are moved forward or backward by an equal amount. For example...

- If you move the setup approval date forward by one week, the estimated wire insertion date and the estimated debond date are also moved forward a week.
- If you move the estimated, scheduled, or actual scan date, then any future estimated setup approval dates, wire insertion dates, and the debond date are rescheduled.
  Note: SureSmile does not automatically change any scheduled dates.

suresmile calculates the estimated wire insertion date for three weeks from the date you ordered the wire instead of from the setup approval date.

Color Coding on the Timeline

On the timeline, the colored circles identify the status of the product or milestone as listed in the table below.

Color code	Description
	The item is complete.
	The item is in work but nothing is required of you at this time.

	The item is in work and you have a task to complete.
	The item is overdue.
	The item is not due soon.

When should you use the timeline features?

- **To track the insertion of wires.** You can see a separate wire insertion date for upper and lower wires on the timeline so that you can track wires even if only one wire is inserted at the appointment.
- **To initiate a new order.** If you need to order a product, you can click the New button on the timeline to go immediately to the correct page for placing the order.
- **When working with surgical patients.** You can see the dates for the post-surgical and pre-surgical models without having to open the patient and then view the patient's list of products.
- **To track patient dates**. If you need to postpone a scan appointment date for two weeks, you do not have to manually update the estimated wire insertion and debond dates because estimated dates are automatically calculated from the left to the right after you make a change.

Surgical Cases Denoted on Timeline

If a case involves multi-piece surgery for at least one arch, the post- and Pre-Surgical setups are both labeled and shown.

After you complete the first surgical setup for a case (the post-surgical setup), an <Order setup> task for the pre-surgical setup is added to the **Tasks** tab. If multiple post-surgical plans are created, the most recently finished plan is shown.

Upper and Lower Wires Shown

Since both wires may not always be inserted during the same appointment, wire orders are shown on the timeline with separate selections for upper and lower wires.

Click the eye symbol in the timeline for a wire order to see the upper and lower wires.

Wire insertion dates are categorized as:

- Estimated
- Scheduled
- Inserted
- Not Used

The dates for the upper and lower wires are synchronized as follows:

If ...	Then ...
You change the date for upper wire insertion ...	The lower wire insertion date is also changed.
You change the date for lower wire insertion ...	The upper wire date is unchanged.

Updating the Treatment Timeline

The treatment timeline is visible on patient cards in the clinic overview and on the patient overview. If you have the list selected, the timeline is not visible on these overview pages.

To update a date and its status in the timeline, follow these steps:

1. Choose one of the following:

If ..	Then ..
You are on the clinic overview with patient cards ...	Click the eye in the upper right corner of the patient card to display the timeline.
You are on the patient overview ...	Use the timeline at the top of the page or the full treatment timeline displayed after you click the clock icon.

2. To change a date:
   From the expanded timeline on the clinic overview, click the down arrow to the right of the date that you want to change.
   OR
   From the timeline at the top of the patient overview, click the eye on the right side of the date or product where you want to make the change.
   Result: The event or product expands. Some dates have a date and a status menu.
3. Type over the date in the date field.
   OR
   Click the calendar icon on the right side of the date field and select the date from the calendar.
4. To change the status, click the down arrow and select the appropriate value from the drop-down menu.

   Note: Changes are saved immediately.

Opening a Product from the Treatment Timeline

To open a product from the timeline, follow these steps:

1. Choose one of the following:

If ..	Then ..
You are on the clinic overview with patient cards ...	Click the eye in the upper right corner of the patient card to display the timeline.
You are on the patient overview ...	Use the timeline at the top of the page or the full treatment timeline displayed after you click the clock icon.

2. From the treatment timeline, click the name of the product.
   Result: You are taken directly to the product in the treatment planning workspace, and you can start working on it.

   Note: Some products cannot be directly accessed from the timeline because they are at the Digital Lab or do not yet exist. Names in blue underlined text indicate a product that you can work on.
3. Complete your order as usual.

Using timelines to manage staged models, aligners, IDB trays, printed models and wires

If there are IDB trays, staged models, aligners, printed models or wires associated with a digital model, simulation or plan, these are shown when you first open the timeline and remain displayed until you choose to hide them.

Additional detailed information about each item, (i.e., upper and lower wires showing status and dates, or which trays or models are ordered) is initially hidden. Click the small arrow to the right of each item to show or hide additional information.

Aligners

- Aligners can be expanded on the timeline to show a list of individual items in the order, e.g. U (upper) Aligners for [Staged Models 1].
- The series of all aligners included in the order is listed, e.g. L Aligners for [Staged Models 1] 1: 1, 2, 3, 4, 5

3D Prints

- 3D prints denotes physical staged models or physical 3D study models.
- 3D prints can be expanded on the timeline to show a list of individual items in the order, e.g. U (upper) 3D Prints and L (lower) 3D Prints.
- The series of all printed models included in the order is listed, e.g. L 3D Prints: 1, 2, 3, 4, 5

IDB straight wire simulations

- After trays are ordered, the IDB simulation can be expanded to open individual items included in this order, e.g. U Tray and/or L Tray
- The IDB simulation that was used as the base for designing trays will be listed between brackets, e.g., U Printed Tray for [IDB 1] 1

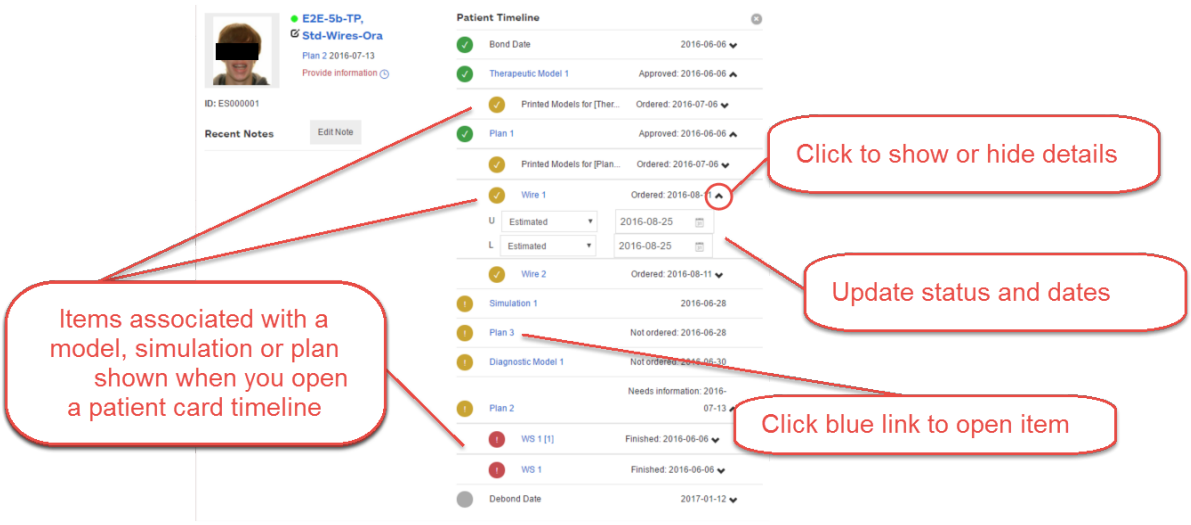
IDB setups (part of Standard w/IDB case package)

- After trays are ordered, the IDB Setup can be expanded to open individual items included in this order, e.g., U Printed Tray and/or L Printed Tray.
- The IDB Setup that is used as the base for designing trays is listed between brackets, e.g., U Printed Tray for [IDB Setup 0] 1.
- Wire 0 can be expanded to list the initial wires included in this order, e.g., U NiTi .016 round

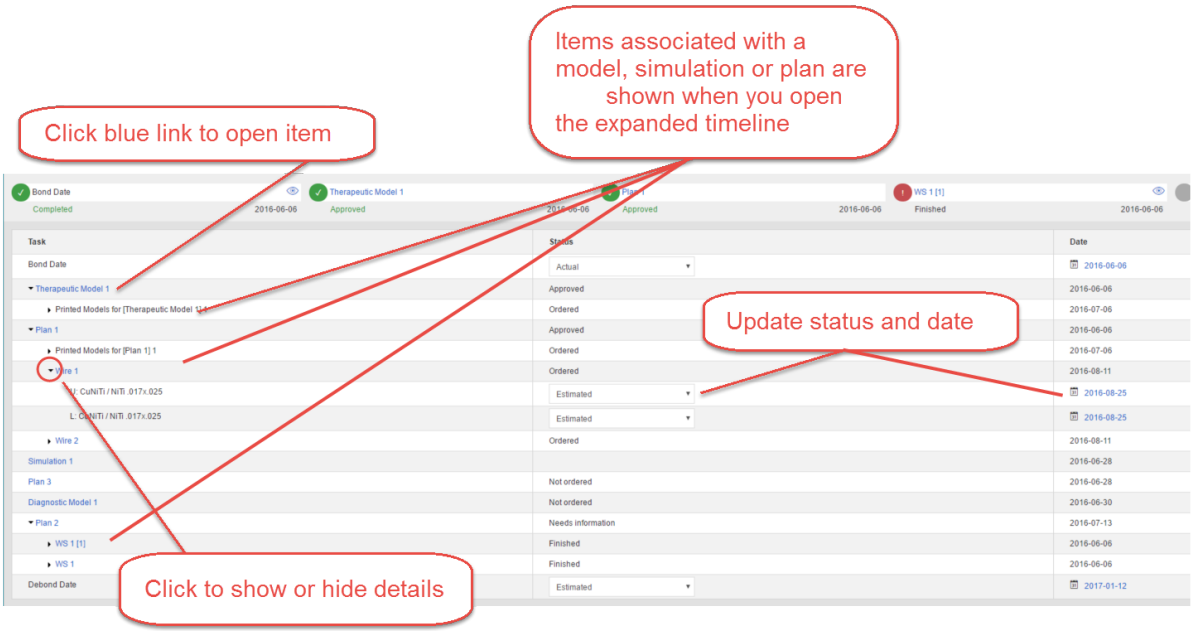
Wires

Wires are at the primary level for ease of access.

Patient Card Timeline



Expanded Timeline on Patient Overview page



Administration

From profile menu, you can access the Practice Settings page which contains the following general information about the practice:

- The **Users** page allows administrators you to manage users, roles, and access rights.
- The **Logo** page allows you to upload your logo so that it appears on reports.
- The **Access Schedules** page allows administrators to restrict the hours that users can log into SureSmile.
- The **Access History** page allows administrators to view user logon activity for the last 90 days.
- The **Custom Reports** page allows you to show, edit, and generate practice reports.
- The **About** page gives you information about the software version, the database, and the geometry engine.

Access the Practice Settings page

To access the practice settings, follow these steps:

1. Click and select **Administration**.
   Results: The Practice Settings page appears.
2. To access any of the practice-settings pages, click the name of the page.

See also...

Create Custom Reports

Define Access Schedules

Identify Software Information

Manage Users

Manage Users

You must be an administrator to manage user accounts. Each user must register (or be registered by an administrator) before a new account can be created.

Video: Add a new user in SureSmile

Steps: Add a new user in SureSmile:

1. Go to https://login.SureSmile.com/login.
2. From the home page, click the **Register** button in the upper-right corner.
   OR
   From the login page, click **Create new account?**
3. Enter a username and email address.

4. Create a password with at least eight characters, including upper and lower case letters, a number, and at least one of the following special characters:
   ~ ! @ # $ % ^ & * ( ) _ - ' " ; : < > , . ? | [ ] \
5. Click **Submit**.

Access the user administration page

To access the page for managing users, follow these steps:

1. Click the icon on the upper-right side of any screen, and select **Administration** from the menu.
   Result: The Practice Settings page appears.
2. Click **Users**.
   Result: The Users page appears with a tab for each SureSmile role:
   - Doctors
   - Staff
   - Administrators

Add a new user to the practice database and assign roles

To add a new user to your practice database and to assign them a role or roles, follow these steps:

1. From the Users page, click the **Add User** button on the right side of the screen.
   Result: The **Add User** dialog appears.
2. Enter the new user's email address.
3. Select the appropriate role for this user.
4. Click **Apply**.
   Result: The user's email appears on the tab for the assigned role.

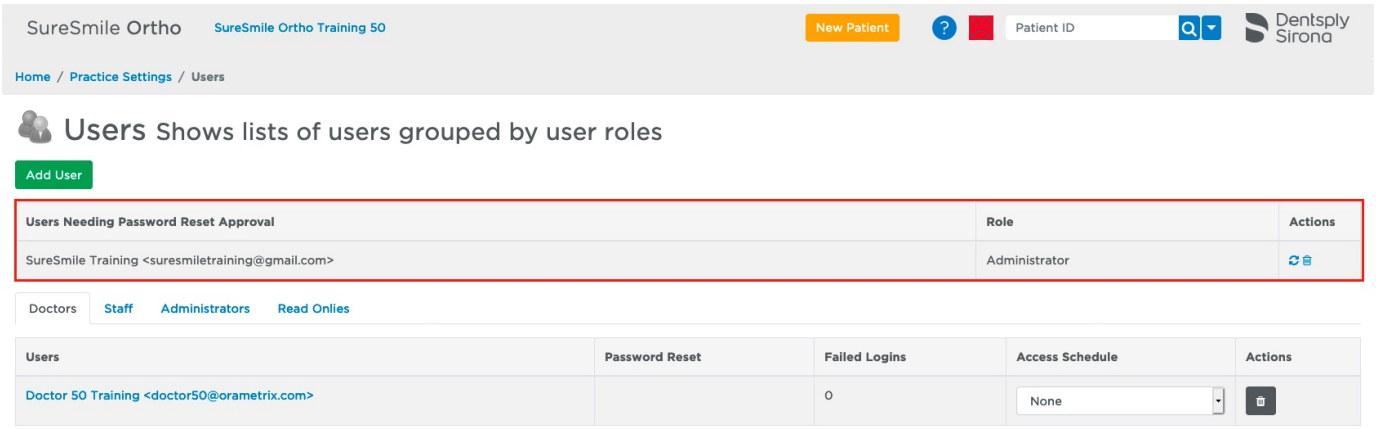
   Note: A user can be assigned to more than one role. Repeat the above steps, selecting the new role.

   Important: Users assigned only to an Administrator role cannot create orders. They must also be assigned to a Doctor or Staff role to create orders.

To reactive a user’s account

When a user resets their password, their user roles are suspended. The practice administrator must reactive the user’s roles.

1. Click the orange settings icon and select **Administration**.
2. Under Practice Settings, select **Users**. (This option is available to Administrators only.)
3. Any user who has rest their password is listed at the top of the page as shown.
4. Click the small refresh button to approve the user’s password reset and allow them access to the practice database.



5. The user will now be able to access the practice database with the same role or roles they were assigned previously.

Delete a user from a role

To delete a user from a role, follow these steps:

1. Go to the tab from which you want to remove the user.
2. Click the trash can on the right side of the screen opposite the user that you want to remove.
   Result: A notice appears at the top of the users page with an Undo button, which you can click to restore the user to the role if you removed the user inadvertently.

Manage Your Logo

Use this page to upload your logo, which will appear on your reports.

To upload your logo

1. Click the **Choose File** button and navigate to the file you want to upload.
2. Click **Upload**.

An image of your logo should be displayed.

Whenever you generate a standard or custom report, your logo will be displayed on the report

Define Access Schedules

You can allow your users 24/7 access to the practice database or you can restrict the hours they have access by defining a schedule.

Create a schedule with restricted access to SureSmile

1. Click the settings icon on the upper-right side of any screen, and select **Administration** from the menu.
   Result: The Practice Settings page appears.
2. Click **Access Schedules**.
3. Click the **New** button.
4. Enter a name for this schedule and select a time zone.
5. For each day of the week, select start and end hours when users are allowed to login to SureSmile.
6. Click **Save** at the bottom of the page.

   Note: If you have users in multiple time zones, you can create a schedule for each time zone.

Assign access schedules to users

1. From the administration page, click **Users**.
2. Select an access schedule from the drop down menu for each user.
3. Select None to provide a user unrestricted access.

Review Access History

Use this page to view user logon activity for the last 90 days.

You must be assigned an Administrator role in the SureSmile software to access this area.

To access the Access History area

1. Log onto SureSmile using your administrator username and password.
2. Click the orange settings icon and select **Administration**.
3. Select **Access History.**
4. If there are more entries than can fit on a single computer screen, click **Next/Previous** buttons on your web browser to move between pages.
5. Use the **Search** field to find a particular user.

Custom Reports

In SureSmile, you can create templates for special reports for your practice.

When you create the template, you can choose to include the following information about a patient:

- Name
- ID
- Date of birth
- Age

You can also add sections for the following information:

- Quality score
- Marginal ridge measurement
- Time treatment

  For each of these, you can include images and or models.

The report template automatically contains the assigned orthodontist and the practice logo if it has been added in the practice profile.

Create a report template

To create a new report template, follow these steps:

1. Click and select **Administration**.
2. Click **Custom Reports** from the Practice Settings page.
3. Click **New Report**.
4. In the box at the top of the page, enter a name for the template.

   Tip: Use a short description of the purpose of the template to remind you later.
5. Uncheck any items you do not want to include.
6. If you do not want to add any sections, click **Save**.
   OR
   If you want to add sections, go to the next topic.

Add Sections

To add sections to your template, follow these steps:

1. Check the type of section you want to include (Quality score, Marginal ridge measurement, or Time in Treatment).
2. Click **Add Section**.
   Result: The section page appears.
3. In the box at the top of the page, enter a name for this section.
4. From the drop down menu, select the appropriate value.

5. To include an image in the report, click **Add Image**.
   OR
   To include a model in the report, click **Add Model**.
6. Make your selections, and then click **Save**.
   Result: The list of images or models appears and you can continue to add images and models.
7. To return to the report template and add additional sections, click the name of the template at the top of the window.
8. To add more sections, uncheck the last section you entered and check the next one that you want to add.
9. When you have finished adding sections, click **Save** on the main template page.
   Result: When you go the patient home page and click Reports, the drop-down list now includes the new template that you created.

Reorder Sections

After you add more than one section, the main template page includes an Order Sections button which takes you to another page that lists all of the sections that you added to the report.

To reorder sections, follow these steps:

1. From the main template page, click **Order Sections**.
   Result: The list of sections appears.
2. Click the up and down arrows in the sequence column to arrange the sections in the order that you want.
   Note: From the page, you can also edit or delete sections using the pencil and trash can icons on the right.
3. When you have finished the reordering, click the name of the report at the top of the page.
4. At the bottom of the main template page, click **Save**.
   Result: The list of custom reports appears.

Edit Custom Report Templates

To edit an existing template, follow these steps:

1. Click and select **Administration**.
2. Click **Custom Reports** from the Practice Settings page.
3. Click the pencil icon to the right on the line for the report that you want to edit.
   Result: The report screen appears.
4. Make changes as needed using the same instructions for creating a new report.
5. When you have made all of your changes, click **Save**.

Delete a Custom Template

To delete an existing template, follow these steps:

1. Click and select **Administration**.
2. Click **Custom Reports** from the Practice Settings page.
3. Click the trash can icon to the right on the line for the report that you want to delete.
4. At the **Are you sure?** prompt, click **OK** or **Cancel**.

Identify Software Information

The About page provides information concerning the software version, the copyright, the database, and the geometry engine. The More button at the bottom lists recent actions or errors.

When you report issues to Dentsply Sirona, this information can help the support staff troubleshoot your problem.

To find information about the software:

1. Click the icon on the upper-right side of any screen, and select **Administration** from the menu.
   Result: The Practice Settings page appears.
2. Click **About**.
   Result: The About page opens to show the software version and copyright, as well as information about the database and the geometry engine.

Cybersecurity Best Practices

To help keep your SureSmile system as secure as possible, please make every effort to follow these cybersecurity best practices:

- Keep your computer's operating system up to date with patches and fixes.
- Install and maintain an anti-virus program.
- Install and maintain a firewall between your LAN and the internet.
- Avoid installing browser add-ins or plug-ins.
- Avoid downloading or installing software from unknown sites
- Create a hard to guess password by using at least 8 characters of mixed case letters, numbers, and symbols.
- Avoid using common words or phrases.
- Do not reuse the same password for any accounts.
- Consider using a password program to manage passwords, such as KeePass or LastPass.
- Do not display your password where others can see it.
- Change your password periodically, every 60 to 90 days.
- Logout or lock your workstation when leaving your desk.
- Avoid clicking on links in email. Instead, go directly to the site and login using your user-id and password.

Preferences

To define preferences for the practice and for your tasks, click in the SureSmile title bar, and select **Preferences** from the menu.

> **Tip:** After setting a preference, if you want to return to the last page you were working on in SureSmile, click the Return to previous page link in the SureSmile bar. The preferences you just set or changed are immediately applied.

Links to the appropriate Preferences tab are placed throughout the software. For example, when selecting a wire sequence for a wire order, you can click a link to go directly to the Wires tab on the Preferences page to modify or create a wire sequence template.

The preferences page has the following tabs for setting preferences:

Preference Tab	Which role can use?			Preference set for?		Description
	Admin	Doctor	Staff	User Only	Entire Practice	
Appearance	✓	✓	✓	✓		Allows you to select your preferences for the appearance of SureSmile pages in your browser.
Prescription*	✓	✓	✓	✓		These are your defaults for new patients. Although you can change these as needed for a particular patient, setting defaults saves time since you do not have to reset them for each patient. SureSmile checks who the treating doctor is for each patient and uses that doctor's preferences to pre-populate the MACROS form.
Wires*	✓	✓	✓	✓		Allows you to set up new wire sequences to use when ordering wires.
Others*	✓	✓	✓	✓		Allows you to set defaults for creating a wire order after setup approval, whether to deliver Diagnostic Models as Finished and the option to hide the Export Trays button for IDB.
Brackets*	✓	✓	✓	✓		Allows you to restrict the bracket list to only the brackets that you use frequently.
Bracket Sets*	✓	✓	✓	✓		Allows you to add, edit, or delete a bracket set.
Bracket Height Sets*	✓	✓	✓	✓		Allows you to add, edit, or delete a bracket height set.
Aligner Constraints*	✓	✓	✓	✓		Allows you to set maximum movement rates per stage for staged model sequencing.
Trim Type & Height*	✓	✓	✓	✓		Allows you to set the trimline type of straight or scalloped and height for your aligners. The trim height range is 0 to 2 millimeters in 0.1 mm increments. Modified trim height applies to newly created Staged Models once the preference is saved. The Straight Trim Height list box is dimmed and inactive whenever the Scalloped option is chosen.
Aligner Overcorrections*	✓	✓	✓	✓		Allows you to specify overcorrections to be included in aligner design beyond the final setup as needed to achieve your treatment goals**.** Overcorrection amounts are cumulative (ex: .2mm overcorrection will result in 2 stages with .1mm in each stage).

Attachment Placement Constraints*	✓	✓	✓	✓		Customize your default attachment placement parameters.
Task Owner	✓				✓	Set which roles in your practice are responsible for common tasks. Setting these task owner preferences determines who will be assigned tasks.
Treatment	✓				✓	Controls the operation of the treatment timeline, task reminders, and the calculation of elapsed treatment time.
Flag Labels	✓				✓	Create labels for your task flags. When you place your cursor on a flag, the labels appear as tool tips to remind you what each flag represents.
Search	✓	✓	✓		✓	Define custom search terms that appear in the menus in the Treatment and Diagnosis sections on the Patient Overview.

See also...

Custom Search Terms Preferences

Treatment Times

Task Owners

Define Setup Preferences

Bracket Preferences

Appearance Preferences

The options on the Appearances tab allow you to select your personal preferences for the appearance of SureSmile pages in your browser.

To set these preferences:

1. Click and select **Preferences**.
2. Click the **Appearance** tab at the top of the page.
3. Make changes to the defaults, which are listed in the table below.

Appearance setting	Possible values
Default Site Selection	Sites to which the user has access
Default Practice Page	Tasks Patients Wire Tracking
Skip User Filters when Searching	No Yes
Display Tasks as	List Cards
Default Tasks Sorting	Task Due Date Debond Date Bond Date Flag Wire Insertion Date Patient Report
Default Task User Filter	*your user name* All Doctors All Staff All
Default Task Type Filter	All types Provide Information Review Order Submit Order Create Order Reminder
Default Task Status Filter	Active Expired Deferred Completed All
Display Patients as	List Cards
Default Patient Sorting	Modification Date Patient Id Debond Date Bond Date Flag Wire Insertion Date
Default Patient User Filter	*your user name* All Doctors All Staff All
Default Patient Status Filter	Active Finished Quit Transferred Cancelled MD [Marked for Deletion] Demo All
Object Navigation with SHIFT	No (keeps translucent bounding box) Yes (requires using Shift key to show bounding box)
Show Favorite Tools	No Yes
Show Checklist	No (hides model checklists as a default) Yes (displays model checklists as a default)

See also...

Define Setup Preferences

Preferences

Prescription Preferences

Use the Prescription tab to set default treatment preferences for your setup prescription or your aligner prescription. Once set, these are your personal defaults for all new patients. Although you can change these as needed for a particular patient, setting defaults globally saves you time since you do not have to reset them each time for a new patient.

When you create a new setup prescription or aligner prescription, SureSmile checks who the treating doctor is for that patient and uses that doctor's preferences to pre-populate the form.

To set preferences for setup or aligner prescriptions:

1. Click and select **Preferences**.
2. Click the **Prescription** tab at the top of the page.
3. Click the:
    - **Standard** tab to set your preferences for your setup prescriptions
    - **Aligner** tab to set your preferences for your aligner prescriptions
4. Select your defaults for each of the MACROS section on each tab.
5. Click **Save Changes**.

See also...

Setup Prescriptions

Using MACROS

Define Wire Sequences

After approving the Setup, many SureSmile doctors order 2-3 initial wire pairs with the same prescription (but different cross-sections) to more comfortably move patients into SureSmile treatment. For example; a doctor may start with 16 x 22 NiTi, and then change to 17 x 25. Since it can be time-consuming to enter wire orders individually, the wire sequencing feature allows you to set up some default sequences and then choose from these sequences when it is time to order wires for a patient.

Setting up your wire sequences

To set up your wire sequences, go to your **Preferences** page and click **Wires**. The wire sequences section is visible and editable by all user types.

SureSmile includes a default labial and default lingual wire sequence.

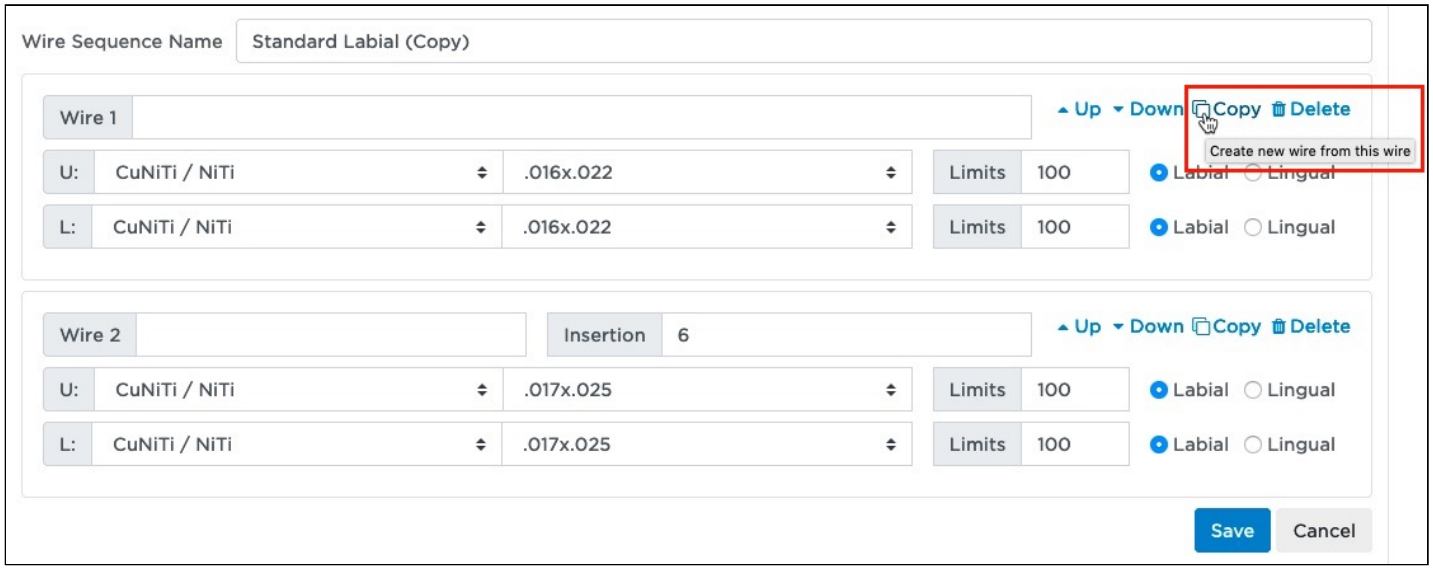
You cannot edit the default wire sequences, but you can copy them, rename and then edit to create your own sequences. Alternately the **New Wire Sequence** button to create a completely new wire sequence.

To start a new wire sequence:

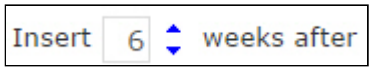
1. Click the **New Wire Sequence** button. An editable section displays for the first wire with tools for adding more wires to the sequence.
2. Enter the first wire into your sequence:
    1. Enter a name for Wire 1.
    2. Select the material and cross-section for the upper and lower wires.
    3. Click Labial or Lingual for the upper and lower wires.
    4. Continue adding wires to your sequence according to the steps on the next page.

To add more wires to your sequence:

1. Under the **Actions** heading, click the “Create New Wire From This Wire” icon.



2. Repeat the same steps to enter Wire 2 or Wire 3 as needed.
3. Enter the timing for inserting the wire (e.g. 6 weeks after prior wire).

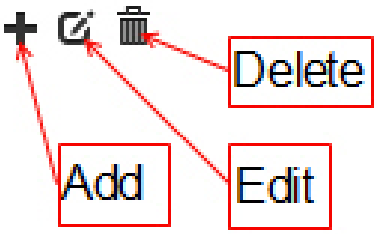


4. Use the icons in the upper right of the wire sections to move wires up/down in the sequence, copy settings, or delete a section.
5. At the top of the sequence, enter a **Wire Sequence Name**.
6. When finished, click **Save Sequence**.

Tip: If you have a partner treating SureSmile patients, enter your own name as part of the sequence name. You and your partner will be able to see each other's wire sequences as you place wire orders.

To copy wire sequences:

1. Click the orange settings icon and select Preferences, and then Wires.
2. Expand a sequence to be copied. If the sequence is not expanded, click the > icon next to its name.
3. Under the Actions heading, click the + sign.
4. Enter a wire sequence name.
5. Make any changes needed, and click Save Sequence.

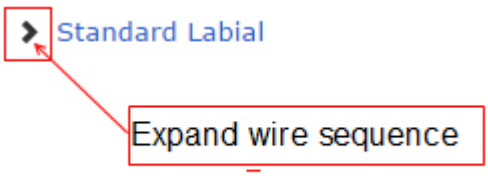


To edit wire sequences:

1. If the sequence is not expanded, click the > icon.
2. Click the edit icon under the Actions heading.
3. Make any changes needed, and click Save Sequence.

To delete wire sequences:

1. If the sequence is not expanded, click the > icon.



2. Click the trash can icon under the **Actions** heading.
3. Click **OK** to confirm.

Others

Allows you to set defaults for creating a wire order after setup approval, whether to deliver Diagnostic Models as Finished, or hide the Export Trays button for IDB.

Bracket Preferences

Because the full list of brackets supported by SureSmile is extensive, setting your bracket preferences allows you to restrict the list to only those brackets that you use frequently.

Set your bracket preferences:

1. Click and select **Preferences**.
2. Click **Brackets** at the top of the page.
3. Set one or more of the following preferences as needed to match the requirements for your practice.
    a. To set **Manufacturer** preferences, click in the box, hold down the Ctrl key and click the names of companies that supply brackets for your SureSmile patients.
    b. To set **Family** preferences, click in the box, hold down the Ctrl key and click the families (from the selected manufacturers) that apply to your SureSmile patients.
    c. To set **Slot** preference, click in the box and select the default width; hold down the Ctrl key if you want to select more than one width.
    d. To set **CBCT approved** preferences, click in the box and select **Yes** or **No.** Selecting **Yes** includes CBCT approved brackets in the list of brackets you use frequently**.** Selecting **No** excludes these brackets from your list.
    e. To set **IDB tray allowed** preferences, click in the box and select **Yes or No.** Selecting **Yes** shows only IDB tray approved brackets in the list of brackets you use frequently**.** Selecting **No** shows both IDB and non-IDB brackets in your list.
    f. To set **Default Pre-bonded contact** preferences, click in the box and select **Full** or **Minimal** contact for labial treatment or for lingual treatment.
        - **Full = 3-point contact**
        - **Minimal = 1-point contact**

    Important: Gold brackets are not acceptable for CBCT products such as CBCT scans or premium models.
4. Click **Save Changes**.

    Tip: Click Reset to clear all of your selections for any of the drop-down lists. If nothing is selected in these Preferences, all supported brackets are available in the Brackets window.

Remove a preference

To remove a selection from the manufacturer, family, or slot lists, click the x following the name of the listing that you want to delete.

See also...

Bracket-Set Preferences

Bracket-Set Preferences

The Bracket Sets tab in the Preferences section allows you to add, edit, or delete a bracket set.

Access bracket sets preferences

To access your bracket set preferences, follow these steps:

1. Click and select **Preferences.**
2. Click the **Bracket Sets** tab at the top of the page.
3. To view, edit, or delete a bracket set, do one of the following as illustrated below.

1. Click the name to open the Edit Bracket Set window and make changes.
2. Click the pencil to open the Edit Bracket Set window and make changes.
3. Click the trash can to delete bracket set.

Add a bracket set

To add a new bracket set, follow these steps from the Bracket Sets tab:

1. Click the **New Bracket Set** button.
   Result: The New Bracket Set window opens.
2. Enter a name for the Bracket set.
3. Click the tooth on which you want to assign a bracket.
   Result: The Bracket Selection window opens with the target tooth identified at the top of the screen.

   Important: Gold brackets are not acceptable for CBCT products such as CBCT scans or premium models.

4. To narrow the list of available brackets, select a vendor, family, a slot width, a quadrant, and/or a tooth from the drop-down menus.

   Note: You can also enter a part number in the Part No. field to further narrow the list.

4. For additional filters:

   Note: As you add filters, the available list in the Bracket Selection window changes immediately.

   - Click **More** and make selections from the Additional Filters window.
   - Click **Close** when you have completed these filters.
   - Click **Clear** to remove the additional filters.

5. Click an available bracket from the list, and then click **OK**.
   OR
   Click **Apply & Next**, and then click the left or right arrow in the Target Tooth box at the top of the window, to select and assign a bracket to another tooth.

   Note: To remove the current filter, locate the Use bracket preference filter box at the bottom of the window, and click in the check box to remove this filtering option.

4. To remove a bracket from the set, click and hold the left mouse button and drag the bracket to the **Drop bracket here** button.
5. After you have made all of your selections, click **Close**.
6. Click **Save Bracket Set**.

Duplicate a bracket set

To duplicate a bracket set, follow these steps from the Bracket Sets tab.

1. Click the name of the bracket set that you want to duplicate.
   OR
   Click the pencil to the right of the name.
   Result: The Edit Bracket Set window opens.
2. Click the green **Duplicate** button that is below the tooth chart.
   Result: The Bracket Sets tab reopens.
3. Scroll down the list until you find the name of the bracket with (copy) at the end of the name.
   Note: If you want to rename the copy, follow the directions in the next section, Rename a bracket set.

Rename a bracket set

1. In the list of bracket sets, locate the one that you want to rename.
2. Click the name of the bracket set.
   OR
   Click the pencil to the right of the name.
   Result: The Edit Bracket Set window appears.
3. In the text box at the top of the Edit Bracket Set window, change the name.
4. Click **Save Bracket Set**.

See also...

Bracket Preferences

Bracket Height Sets

As indicated by the location of the Bracket Height Sets tab in the middle section of Preferences, any user role can create and then edit sets. The bracket height set preferences allow you to designate a bracket height set as your default set. This default bracket height set will automatically be selected by the system anytime you create a set of planned brackets when designing IDB Trays. Bracket height sets save you time as all bracket heights are entered at once.

The system provides two initial bracket height sets based on:

- **FA Point** - shows the positions of the brackets as relative to the FA point. In this set the position of all the brackets are indicated as zero because the bracket position is matched by the system to the FA point of each tooth. However, if you wish, you can change one or more of the default zero values to a positive or negative value if you wish to regularly offset certain teeth.

- **Jig height** - indicates the height of a bracket in millimeters as measured from the middle of a bracket slot to the:

    - incisal edges for central incisors and laterals
    - buccal cusp for canines and premolars
    - most prominent buccal cusp for posterior teeth

Use this tab to:

- designate one of the two bracket height sets provided for your default bracket height set for use as is
- copy and rename a default bracket height set and customize it, or
- create a new bracket height set from scratch.

This default bracket height set can be copied but not edited. To use this set as a basis for your own customized set, just copy and rename it. Bracket Height Sets are visible practice-wide. Like bracket sets, in the tooth chart the tooth numbers count the teeth from 1 to 8. A default bracket height is listed below each tooth number. Use the arrows to copy and mirror the same values to the adjacent quadrant.

Designate one of the two bracket height sets provided for your default bracket height set for use as is

1. Click in the SureSmile title bar, and select **Preferences** from the menu.
2. From the **Bracket Height Sets** tab, click the arrow next to the bracket height set you want to make your default.
3. Click the **Default** check box.

    Important: If you previously selected two default bracket set heights before the 7.3 Commercial Update 3 version, the system displays a dialog box requiring you to select just one default bracket height set. This only happens the first time you select a bracket height set. Ignore this note if you are a new user.

Customize the default bracket height set

1. Click in the SureSmile title bar, and select **Preferences** from the menu.

2. From the **Bracket Height Sets** tab, make sure the SureSmile Defaults - Labial bracket height set is displayed by clicking the arrow to the left of the name so that the arrow points downward.
3. Click **Copy**.
4. Enter a new set name.
5. For each tooth in a quadrant, type or scroll to enter new values as needed.
6. To copy and mirror these values into the adjacent quadrant, click one of the arrows.
7. Repeat these steps to complete all quadrants.
8. (Optional) Use the upper and lower check boxes to create a bracket height set for a single arch.
9. Click **Save**.
9. After saving, notice the actions available for your new set: Copy, Edit, Delete.

   Tip: If you do not see all three of these options, try refreshing your browser.

Create a new bracket height set

1. Click in the SureSmile title bar, and select **Preferences** from the menu.
2. From the **Bracket Height Sets** tab, click the green **New** button. A new set appears with values copied from the default set. Notice the Actions available: Copy, Edit and Delete.
3. Enter a new set name.
4. For each tooth in a quadrant, type or scroll to enter new values as needed.
5. To copy and mirror these values into the adjacent quadrant, click one of the arrows.
6. Repeat these steps to complete all quadrants.
7. Click **Save**.
8. After saving, notice the actions available for your new set: Copy, Edit, Delete.

   Tip: If you do not see all three of these options, try refreshing your browser.

Aligner Constraints

This preference setting is visible to all users.

Use these setting to specify the maximum values for rotation (in degree) and translation (in mm). These limit values define the possible amount of movement between succeeding stages.

If you edit the default limit values for these sets, make sure to click **Save** when finished.

If desired, click **New** to create a new set of values.

Trim Type & Height Preferences

Use this tab to set your default trimline type of straight or scalloped and set height preference for your aligners. The trimline height range for alignersis 0 to 2 millimeters in 0.1 mm increments. Height is measured starting at the mimimum gingival margin at each tooth.

Before you begin: To adjust these preferences you must have a Doctor, Staff or Administrator role. Any changes you make will apply to your user profile only, but will be shown to other users who open patients assigned to you. The default trim height for the straight trim type is changing from 1.0 mm to 0.0 mm for new users. Existing users are not affected. When ordering aligners, you have the option to change your trim type before placing the order. While you will still be able to change from Scalloped to Straight, you will no longer be able to change from Straight to Scalloped. To change your trim type from Straight to Scalloped for a Full-service Aligner case, you will need to request a modification from the Digital Lab. If your case is already approved you will need to submit a refinement. To change the trim type for a DIY case you will need to create a new staged model sequence and change the trim type in the Constraints before creation.

Note: The Straight Trim Height list box is dimmed and inactive whenever the Scalloped option is chosen.

To override these preferences for a particular patient:

For Full-Service cases:

- Go to **Special Instructions** in the patient's MACROS.

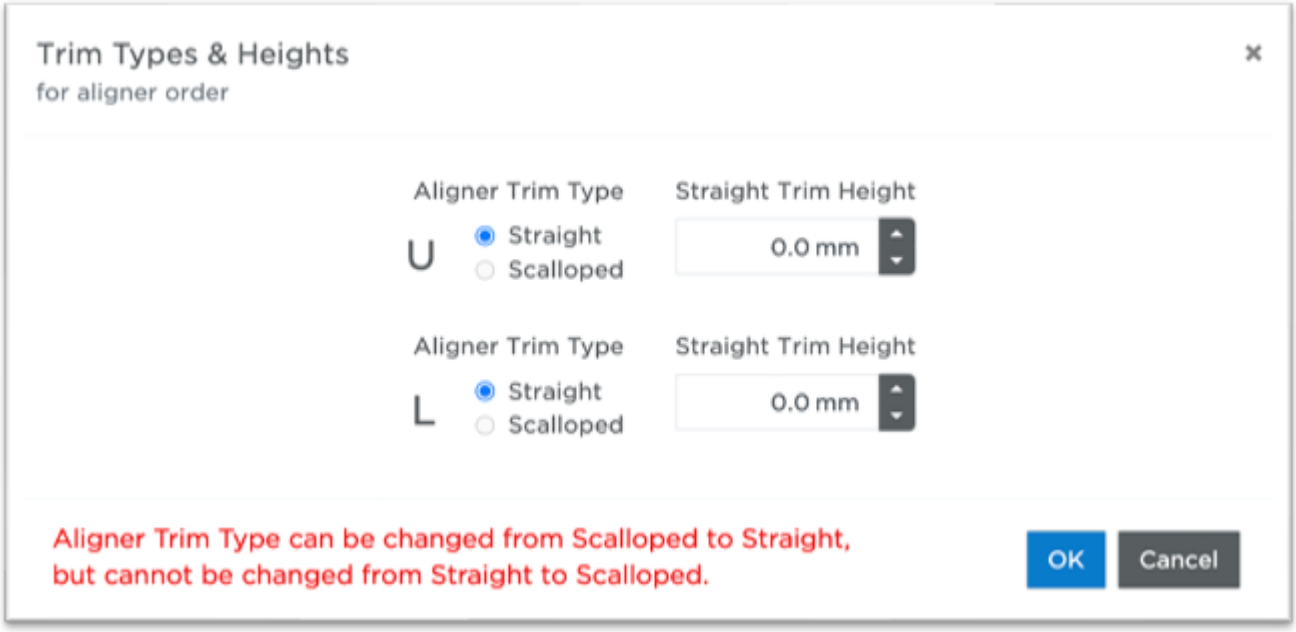
For a DIY case, starting from staged models (Not ordered)

1. Go to **Displacements** tab
2. Click **Recalculate staging.** The **Constraints** dialog box opens.
3. Open **Trim Type** tab and change the trim type.

For a DIY case, starting from a Simulation:

1. Open the **Order** tab.
2. Click **Create Staged Model Sequence.** The **Intersection Resolution** dialog opens.
3. Click either **Resolve by tooth movement** or **Resolve all by IPR.** The Constraints dialog opens.
4. Open the **Trim Type** tab and change the trim type.

   Note: The Straight Trim Height list box is dimmed and inactive whenever the Scalloped option is chosen.


Trim Types & Heights
for aligner order
Aligner Trim Type
Straight Trim Height
U
Straight
Scalloped
0.0 mm
Aligner Trim Type
Straight Trim Height
L
Straight
Scalloped
0.0 mm
Aligner Trim Type can be changed from Scalloped to Straight,
but cannot be changed from Straight to Scalloped.
OK
Cancel

Aligner Overcorrections

Set this preference to specify how much overcorrection should be included in the aligner design beyond the final setup as needed to achieve your treatment goals**.** Overcorrection amounts are cumulative (ex: .2mm overcorrection will result in 2 stages with .1mm in each stage).

Setting aligner overcorrection parameters

1. Indicate whether to display the amount of overcorrection by amount of degrees or millimeters, or by percentage of total of movement from the first stage to the final setup.
2. Next select those movement types which you want to overcorrect.
3. Adjust the thresholds as needed from their defaults.
4. Enter the maximum number of stages you want to use for the overcorrection.
5. Click Save.

Tip: Most doctors limit the maximum number of overcorrection stages to 3.

More about aligner overcorrection

Aligner Overcorrections

Over-Correction Type: (•) Amount ( ) Percent

Include Over	Movement	Threshold	Over Amount
☐	buccal anterior	1.6 mm	0.2 mm
☑	buccal posterior	1.6 mm	0.2 mm
☐	lingual anterior	1.6 mm	0.2 mm
☐	lingual posterior	1.6 mm	0.2 mm
☑	anterior labial torque	6 deg	2 deg
☑	anterior lingual torque	6 deg	2 deg
☑	posterior torque	11 deg	2 deg
☑	rotation incisors	16 deg	2 deg
☑	rotation canines	16 deg	2 deg
☑	rotation posterior	16 deg	2 deg
☐	intrusion anterior	1.1 mm	0.2 mm
☐	intrusion posterior	0.6 mm	0.2 mm
☑	extrusion anterior	1.1 mm	0.2 mm
☑	extrusion posterior	0.6 mm	0.2 mm
☐	angulation mesial	16 deg	2 deg
☐	angulation distal	16 deg	2 deg
☑	mesial movement posterior upper	2.1 mm	0.2 mm
☑	mesial movement posterior lower	2.1 mm	0.2 mm
☑	distal movement posterior upper	2.1 mm	0.2 mm
☑	distal movement posterior lower	2.1 mm	0.2 mm

Apply Stage Count Maximum: 3

Save

Aligner Overcorrections

Over-Correction Type: ○ Amount ◉ Percent

Include Over	Movement	Threshold	Over %
☐	buccal anterior	1.6 mm	20 %
☑	buccal posterior	1.6 mm	20 %
☐	lingual anterior	1.6 mm	20 %
☐	lingual posterior	1.6 mm	20 %
☑	anterior labial torque	6 deg	20 %
☑	anterior lingual torque	6 deg	20 %
☑	posterior torque	11 deg	20 %
☑	rotation incisors	16 deg	20 %
☑	rotation canines	16 deg	20 %
☑	rotation posterior	16 deg	20 %
☐	intrusion anterior	1.1 mm	20 %
☐	intrusion posterior	0.6 mm	20 %
☑	extrusion anterior	1.1 mm	20 %
☑	extrusion posterior	0.6 mm	20 %
☐	angulation mesial	6 deg	20 %
☐	angulation distal	6 deg	20 %
☑	mesial movement posterior upper	2.1 mm	20 %
☑	mesial movement posterior lower	2.1 mm	20 %
☑	distal movement posterior upper	2.1 mm	20 %
☑	distal movement posterior lower	2.1 mm	20 %

Apply Stage Count Maximum: 3

Save

As shown in the screenshots above, if rotation threshold is X, this means that if a tooth has a total movement (of the type for the row) from the malocclusion (therapeutic or diagnostic model) to the final setup of more than X, then automatic overcorrection for that tooth will be triggered.

The amount of overcorrection is set in the Amount or Over % column. If you choose the Over-Correction Type option Amount, the amount is an arbitrary amount that you manually enter. (The default amounts shown in this column are SureSmile's recommendations.)

If you choose the Over-Correction Type option Percent, then the percentage you enter is a percentage of the total amount of the tooth movement type from the malocclusion until the final setup stage. (The default amounts shown in this column are SureSmile's recommendations.)

Let's walk through the first movement shown above in the screenshots, buccal anterior. As you can see, when the Over-Correction Type is set to Amount, the Over Amount is 0.2 mm. This means that if there has been more than 1.6 mm total buccal anterior movement in all the stages from the original malocclusion to the final setup, overcorrection of 0.2mm will be trigged, and additional stages will be added as needed.

As you can see at the bottom of the chart, for this example we have set the maximum number of stages for overcorrection to 2. (Apply Stage Count Maximum). Normally this value is left blank by default.

For the sake of our example, let's say that for our Aligner Constraints preferences we have set the maximum amount of movement per stage for buccal anterior movement to 0.1.

Still following our example, this means that if the tooth has had 2.0 mm of total buccal anterior movement, two overcorrection stages will be automatically added after the final setup. If we leave the defaults as set above:

If you select the Overcorrection Type of Amount, each overcorrection stage will have 0.1 mm of buccal anterior movement.

If you select the Overcorrection Type of Percent, each overcorrection stage will have 10 percent of the total buccal anterior movement from the initial malocclusion to the final setup.

Attachment Placement Constraints

Use the Attachment Placement Constraints on the Preferences page to specify the following parameters:

- Type of attachment (Rectangular or Ellipsoidal)
- Movement threshold and priority to trigger automatic placement
- Which teeth to place attachments on

In the initial attachment placement, all needed attachments will start at the 1st stage and end at the last stage for which they are needed (i.e., the stage at which the planned movement has been achieved.) If there is an indication for multiple attachments for the same tooth (e.g., there is a large rotation, angulation, and extrusion planned for same tooth), the system will place all attachments overlapping each other on the tooth. You must manually determine the sequence for each attachment, that is, on which stage you will remove an attachment and add the next so they do not overlap.

However, SureSmile automatically avoids placing multiple attachments on a single tooth. Use the Priority column to set the priority order among the seven orthodontic movement types. For example, if you give Extrusion a higher priority than Angulation, and there is a conflict regarding which attachments should be placed first on a tooth, an attachment supporting Extrusion movement will be placed on the tooth before an attachment supporting Angulation. You can override these constraints at any time for a particular patient by manually placing multiple attachments on a single tooth as needed.

Task Owners

Use the Task Owner tab under preferences to set which roles in your practice are responsible for common tasks. Setting these task owner preferences determines who will be assigned tasks.

> **Note**: Roles are assigned by the SureSmile administrator. For more information, see *Manage Users.*

Set task ownership:

1. Click and select **Preferences,** then select the **Task Owner** tab. Make changes in these areas:

- **Products**: For each product listed, assign the role responsible for ordering the product and the role responsible for reviewing and approving an order.
  You may want to have the same role perform both functions, or you may want to delegate some of these tasks. For example, you may want staff to order a therapeutic model, but you want only doctors to review and approve therapeutic models.

  > **Note**: If you select none for the Review/Approve assignment for diagnostic or final models, SureSmile automatically sets the *Deliver as Finished* check box on order pages.

- **Tasks**: Use the drop-down lists under **Task Assignments** to determine who will be assigned patient tasks. For example, if you choose **Staff** for all of these items, the task will be assigned to a staff member.
  - If a particular staff person is assigned to a patient on the **Patient Profile** page, then all staff tasks for that patient are assigned to that staff member.
  - If no staff person is assigned to the patient, then staff tasks for this patient are automatically assigned to the first staff member listed on the **Staff** tab under **Users** in the Administration workspace of SureSmile.

  When you change the owner of a task, all future tasks of this type will be assigned to this new owner. Current or past tasks are not affected. If you wish to change the owner of existing tasks, for example if the owner leaves the practices or changes role, contact SureSmile Customer Care for assistance.

  - **Task Assignment Email Notification:** This option is helpful for practices that do not habitually keep the SureSmile Tasks page open and want to be alerted when new tasks appear. It initially defaults to “None”. Email task alerts are sent via the doctor’s and staff member’s email address associated with the user account. You can change this setting at any time. (Administrator access required.) To turn this feature off, select the “None” setting.
  - **Order Appliance or Analyze Records Reminder -** Default is Staff. Other options are *Doctor*, *Both*, or *None*. Use this setting to determine who will be reminded when a diagnostic model is delivered as finished. This reminder offers you four options:
    - Analyze diagnostic model next
    - Begin bracket placement simulation (for IDB tray) next
    - Begin simulation for aligners next
    - Dismiss task

    > **Caution**: Enabling this feature means that email alerts for all tasks assigned to the doctor for each of his/her patients will be sent to the doctor’s email. The same holds true for a staff member assigned to a patient. Email alerts for all tasks assigned to the staff person for each of his/her patients will be sent to the staff person’s email. For mid- to large-size practices, the volume of daily emails could be considerable.

  - **Shipment Email Notification -** Choose this option to receive an email as soon as we ship your orders. This allows you to better track orders and more efficiently schedule your patients. The default setting is for both the Doctor

and Staff assigned to a patient to receive an email notification when Dentsply Sirona ships a product you ordered. Shipment Email Notification default changing from ‘None’ to ‘Doctor’ for new practices moving forward from january 2022. This change will not affect existing practices at this time.

2. When finished, click **Save Changes**.

See also...

Custom Search Terms Preferences

Treatment Times

Treatment Times

Treatment preferences control the operation of the treatment timeline, task reminders, and the calculation of elapsed treatment time.

Set the treatment time and case type preferences:

1. Click and select **Preferences**.
2. Click **Treatment** at the top of the page.

   Enter time values for the following items:

- Reminder expiration time (weeks)
- Estimated scan to setup time (weeks)
- Estimated setup to wire time (weeks)
- Estimated wire to final time (months)
- Default case type ((none), Standard, Standard w /IDB, Aligner, Extended)
- Standard case estimated treatment time (months)
- Aligner case estimated treatment time (months)

3. Click **Save Changes.**

See also...

Custom Search Terms Preferences

Task Owners

Define Flag Labels

Use this tab to create labels for your task flags. After you create your labels, when you place your cursor on a flag, the labels appear as tool tips to remind you what each flag represents.

Custom Search Term Preferences

In addition to the SureSmile built-in search criteria, you can define custom search terms that appear in the menus in the Treatment and Diagnosis sections on the Patient Overview.

Define custom search terms:

1. Click and select **Preferences**.
2. Click **Search** at the top of the page.
3. To define a term in any of the four areas, make sure that the drop down shows <add new>, and then type the term in the empty box below the menu.
4. Click **Add**.

Rename a term:

1. Select the term to be renamed from the drop-down menu.
2. In the box below the drop-down menu, change the name of the term.
3. Click **Rename.**

Remove a term:

1. Select the term to be removed from the drop-down menu.
2. Click **Remove**.

See also...

Task Owners

Managing Patient Information

After you log into SureSmile, the welcome screen lists all of the practices that you can access.

Announcement Bar

At the top of the clinic overview page, you may see an announcement bar that contains information about software and bracket library updates, upcoming training classes, and other information of specific interest to SureSmile users. To close the announcements bar after reading the messages, click the small x in the top right corner. The announcements bar reappears when you receive a new announcement.

Tabs

At the top left of the clinic overview page are five tabs.

Tab	Description
Tasks	Click to list pending tasks for patients. The badge in the upper right corner of the **Tasks** tab indicates the number of pending tasks in the filtered set. Display tasks as either a list or on individual task cards by clicking the small icons in the top left of the list area.
Patients	Click to show patient records. The badge in the upper right corner of the Patients tab indicates the total number of patients in the filtered set. Display patients in a list or on individual patient cards by clicking the small icons in the top left of the list area.
Shipments	Click to view list of all shipped items, including wires, printed models and IDB trays. See Tracking Shipments.
Reports	Click to select and view practice-level reports in a separate browser tab. See Reports.
Add Patient	Click to enter demographics for a new patient. See Add Patient.

Sorting and Filtering

On the right side of the page just below the SureSmile bar are menus for sorting and filtering the information shown under each tab. If you have more patient records that meet the current filter criteria on either tab, page numbers appear at the bottom of the window so that you can move to another screen of patients.

> **Note**: When you log out, SureSmile remembers which tab you were using on the Clinic Overview and takes you to that same location when you log in the next time.

Task List

1. Click the **Tasks** tab.
2. Click in the top left corner to display all due tasks in a list with the following columns. Click the blue column headings to sort data. Sortable columns are indicated in the following table.

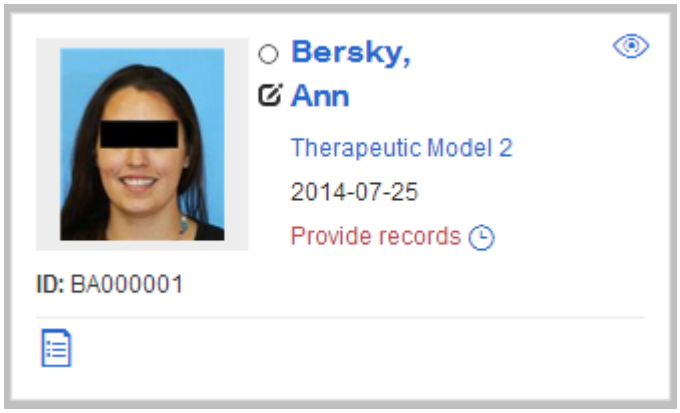
   > **Tip**: Set your default display preferences for both tasks and patients. See Appearance Preferences.

Column	Description/Purpose
Flag (sortable)	Click ○ to set a flag that you can use to mark a task for special attention. For more information see Add and Clear Flags. Sorts in "rainbow" order: 1. red

	2. orange 3. yellow 4. green 5. blue 6. violet
Card	Click to provide quick view of patient's timeline.
Last name	Patient's last name
First name	Patient's first name
Patient ID (sortable)	Patient identification number. Automatically generated by SureSmile when patient added to SureSmile as a new patient. See Add Patient. (Sorts in alphabetical order.)
Owner	The person in the practice assigned to this type of task. See Task Ownership Preferences.
Item	The SureSmile product associated with the task.
Task (sortable)	The standard name for the required action to be performed. For a list of standard tasks in SureSmile, see Sort and Filter Patient Information. Click the small Defer Task icon next to the task to defer the task a specific number of days. the new due date is shown in the **Deferred To** column. When visible, click the **Complete Task** check box to hide a task on the task list. To redisplay the hidden task, use the Show __ Tasks filter, and select *Completed*. Click the check box to clear it and redisplay the task in the task list (Sorts in order of priority. Follows same order shown on **Show...Tasks** menu: Provide Information, Review Order, Submit Order, Create Order, Reminder)
Due Date (sortable)	Due Date for task, typically automatically calculated by SureSmile, but can be edited in patient timeline. See Treatment Time Preferences. If the patient record row is shaded pink/salmon, this means the task is overdue. (Sorts in order by date with oldest date first)
Notes	Click to view, edit, or add notes. See Add (and Edit) Patient Notes.
Setup Approval Date	Calculated from your treatment time preferences on the treatment timeline. See Using the Treatment Timeline.
Wire Insertion Date (sortable)	Manually entered whenever last wire was inserted for patient. (Sorts in order by date with oldest date first)
Status	Manually set on the Patient Profile page, Can be either *Active*, *Quit*, or *Cancelled*.
Deferred to	Date task was deferred, or postponed by clicking next to task name in the **Task** column.

Task Cards

1. Click the **Tasks** tab.
2. Click the blue column headings to sort data. Sortable columns are indicated in the following table. Click in the top left corner to display all due tasks as individual cards.



- Click the patients name or photo to open the patient overview page.
  - Click ○ to set a flag that you can use to mark a task for special attention. For more information see Add and Clear Flags.
- Click to provide quick view of patient's timeline.
- Click to open the patient's profile.
- If a product or item , e.g., therapeutic model 2, is associated with a task,click to open and complete the task.
- The date shown is date task is due. Click to postpone the task a specific number of days. The due date on the card changes to the new date.
- When visible, click the **Complete Task** check box to hide a task on the task list. To redisplay the hidden task, use the Show __ Tasks filter, and select *Completed*. Click the check box to clear it and redisplay the task in the task list
- The name of the task. e.g., Provide records, is below the date. Text in red indicates an overdue task.
- The patient **ID** cannot be changed.
- Click to view the product notes or add a patient note.

Patient List

1. Click the **Patients** tab.
2. Click in the top left corner to display all patients in a list with the following columns.

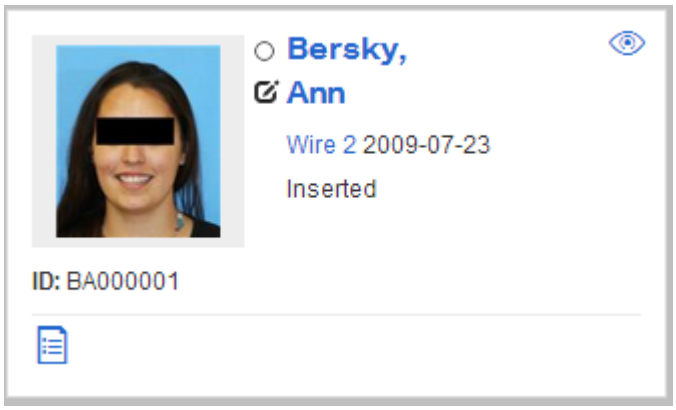
Tip: Set your default display preferences for both tasks and patients. See Appearance Preferences.

Column	Description/Purpose
Flag (sortable)	Click ○ to set a flag that you can use to mark a task for special attention. For more information see Add and Clear Flags. Sorts in "rainbow" order:

	1. red 2. orange 3. yellow 4. green 5. blue 6. violet
Card	Click to provide quick view of patient's timeline.
Last name	Patient's last name
First name	Patient's first name
Patient ID (sortable)	Patient identification number. Automatically generated by SureSmile when patient added to SureSmile as a new patient. See Add Patient. (Sorts in alphabetical order.)
Doctor	The orthodontist assigned to the patient in the patient's profile.
Item	The most recently approved or finished product.
Date (sortable)	Date Item was last changed. (Sorts in order by date with oldest date first)
Note	Click to view, edit, or add notes. See Add (and Edit) Patient Notes.
Setup Approval Date	Calculated from your treatment time preferences on the treatment timeline. See Using the Treatment Timeline.
Wire Insertion Date (sortable)	Manually entered whenever last wire was inserted for patient. (Sorts in order by date with oldest date first)
Status	Manually set on the Patient Profile page, Can be either *Active*, *Quit*, or *Cancelled*.

Patient Cards

1. Click the **Patients** tab.
2. Click in the top left corner to display patient information on individual cards.

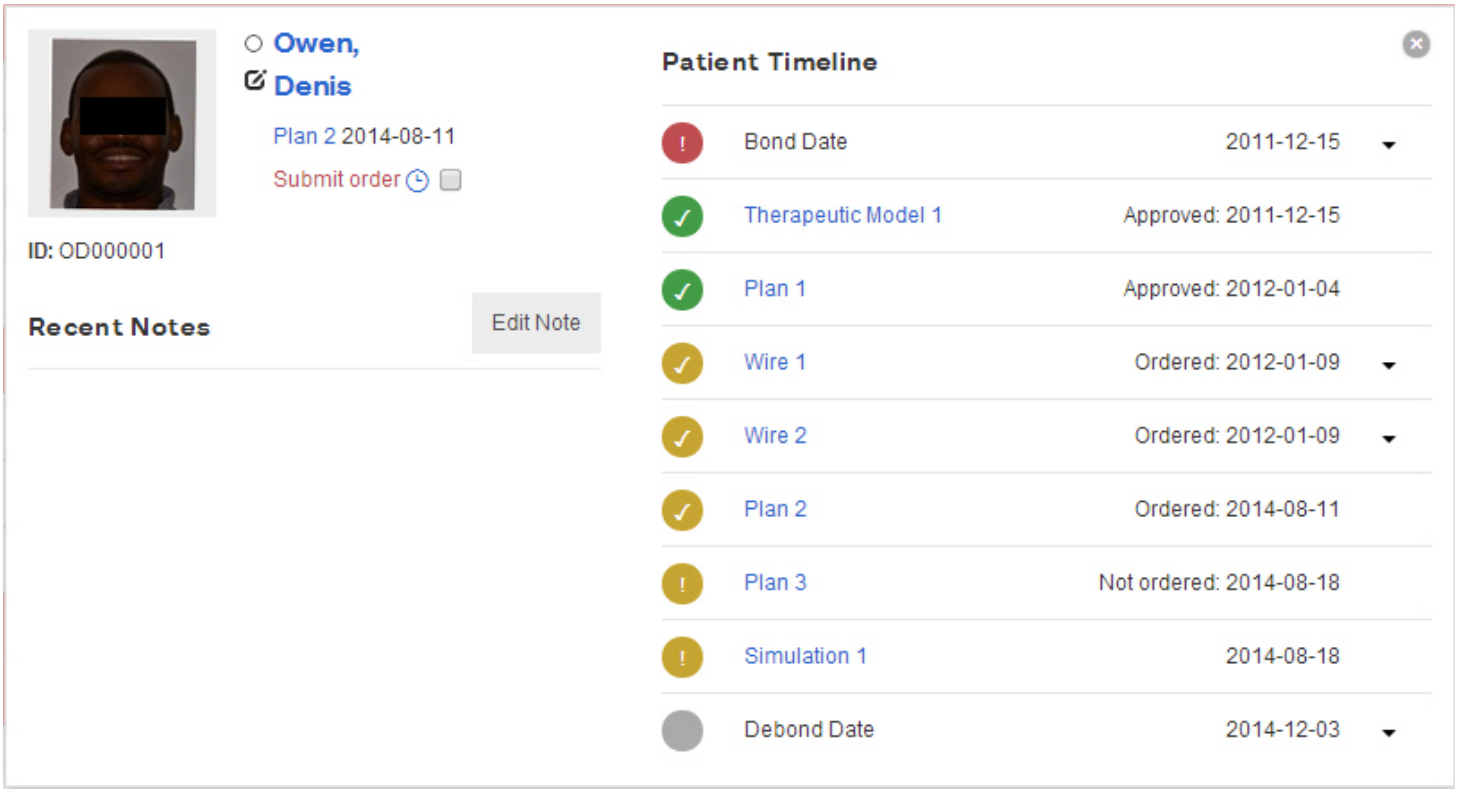


- Click the patients name or photo to open the patient overview page.

- Click ○ to set a flag that you can use to mark a task for special attention. For more information see Add and Clear Flags.
- Click 👁 to provide quick view of patient's timeline.
- Click ✎ to open the patient's profile.
- The most recently finished product is shown, e.g., Wire 2. , followed by the date the product was finished. Click the product name to open.
- Below the product name is the status of the product. this is typically *Approved* for models or plans, and *Inserted* for wires.
- The patient **ID** cannot be changed.
- Click 📝 to view, edit, or add notes. See Add (and Edit) Patient Notes.

Quick View of Patient's Timeline

When you click 👁 to view a patient's timeline, the following window opens. See below for features. For more information about using the patient timeline, see Using the Treatment Timeline.



- Click the patient's name or photo to open the patient overview page.
- Click ○ to set a flag that you can use to mark a task for special attention. For more information see Add and Clear Flags.
- Click ✎ to open the patient's profile.

- Click the product name, e.g., therapeutic model 2, to open the product.
- (Tasks only) The date shown to the right of the product name is when the last task was completed.
- (Tasks only) The name of the task, e.g., Submit order, is below the date. Text in red indicates an overdue task.
- (Tasks only) Click the small Defer Task icon next to the task to defer the task a specific number of days. The new due date is shown in the **Deferred To** column in the Tasks list view.
- (Tasks only) When visible, click the **Complete Task** check box to hide a task on the task list. To re-display the hidden task, use the Show __ Tasks filter, and select *Completed*. Click the check box to clear it and redisplay the task in the task list.
- The patient **ID** cannot be changed.
- Click **Edit Note** to create a new note or edit an existing one. See Add (and Edit) Patient Notes.
- For more information about the patient timeline, see Using the Treatment Timeline.

See also ...

Add (and Edit) Patient Notes

Using Search

Preferences

Sort and Filter Tasks

Using the Treatment Timeline

Update Patient Demographics

The demographics page contains the information entered when you created a new patient.

To complete the demographics information, follow these steps:

1. From the patient overview, click the **Edit** button on the right half of the window under the elapsed treatment time.
   Result: The demographics page opens.
2. From the **Prefix** menu, select an appropriate title for the patient.
3. To add the referring doctor, click **Select Doctor...** to the right of the Referred by Dr. list box.
   Result: A pop-up window opens.
4. Click the doctor's name from the list and click **Apply**.
   OR
   If the doctor's name does not appear in the list, click **New Doctor** and add the doctor's first and last names and email address; then click **Save**.
5. To add a consultant, click **Select Consultant**.
   Result: A pop-up window opens.
6. Click the consultant's name from the list and click **Apply**.
   OR
   If the consultant's name does not appear in the list, click **New Consultant** and add the first and last names and email address; then click **Save**.
7. Add any information that was not entered in the new patient window, and then click **Save**.

Add Diagnosis and Treatment Information

The patient overview has a tab for adding patient diagnosis and treatment information.

SureSmile automatically completes some of the diagnostic or treatment information for you. For example...

- Patient Class based on first model submitted.
- If the doctor makes selections during treatment planning to indicate surgical, lingual and extraction treatment, this information is shown here as well..

Add Diagnostic Information

The Diagnosis section has one drop-down menu for the Angle's class which allows only one selection. The other three categories provide drop-down lists from which you can click multiple items until you have all of the selections that describe this diagnosis.

> **Note**: All selections are saved immediately.

The information categories in the Diagnosis section are listed below:

Category	Notes
Class: (drop-down list for Angle's class): • Class I • Class I/Class II • Class II • Class III • Other	• If you leave this field blank, it may be auto-populated based on an automatic SureSmile analysis of an approved diagnostic or initial therapeutic model. • If you manually select the class, then SureSmile does not automatically update it.
Bite:	• Bite types are defined under the **Search** tab in the Preferences window. • You can make multiple selections by clicking in the field after the previously selected item appears. • If you select Normal, no other items are available. •
Severe: • Asymmetry • Crowding • Impaction • Overjet • Spacing • TMJ	• You can make multiple selections by clicking in the field after the previously selected item appears.
Custom:	• Custom diagnosis items are defined under the **Search** tab in the **Preferences** window. • You can make multiple selections by clicking in the field after the previously selected item appears.

Add Treatment Information

The treatment section contains drop-down menus for each category.

The information categories in the Treatment section are listed below:

Category	Content Parameters
Types: • Aligner • Expansion • Extraction • Interdisciplinary • Lingual • Surgical	• **Expansion** - Can be checked if expansion was part of the treatment plan and if the doctor wants to use this as a search criteria. Because this is an optional selection, it is not automatically populated in the treatment section on the patient overview page. • **Extraction** - Automatically selected if extractions are indicated on the archform tab of the setup. If extraction is detected, you cannot clear this option. • **Interdisciplinary** - Automatically selected if surgical. • **Lingual** - Automatically selected if any brackets are bonded lingually. If lingual brackets are detected, then you cannot clear this option. • **Surgical** - Automatically selected if MACROS have surgery checked on one arch or both. If surgical is detected, then you cannot clear this option.
Appliances:	• Appliances are defined under the **Search** tab in the **Preferences** window. • You can make multiple selections by clicking in the field after the previously selected item appears. •
Custom:	• Custom treatment items are defined under the **Search** tab in the **Preferences** window. • You can make multiple selections by clicking in the field after the previously selected item appears.

Remove a Selection from any Category

To remove a selection from a drop-down menu, click the blank space at the top of the list.

To remove a selection that was not automatically input from a drop-down list, click the x to the right of the selected name.

See also...

Using Search

Add (and Edit) Patient Notes

Patient notes are an internal communication tool to help your team manage this patient's treatment. These notes can be entered and accessed from multiple places:

- The card on the Patient and Task tabs
- Icon in the Patient and Task lists
- Patient overview
- Treatment planning page

On the patient overview, the notes default to the most recent product unless the product is on customer hold or has been rejected, in which case, the customer hold or reject notes appears instead. All notes are listed in reverse chronological order with the most recent notes first.

Add patient notes from the patient overview

To add a patient note from the patient overview, follow these steps:

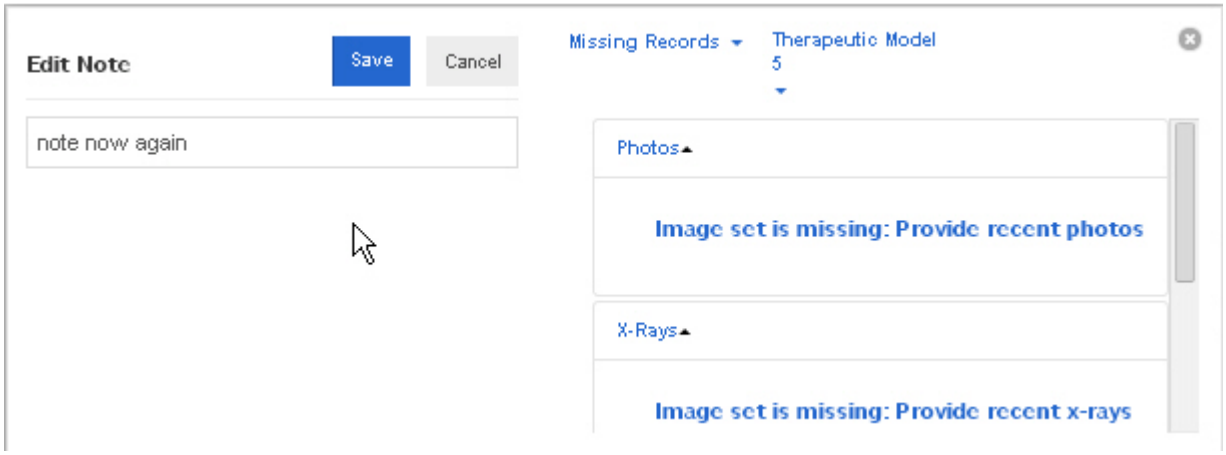
1. If **Patient Notes** label is not visible on the right-side of the page, click the blue drop-down, and select **Patient Notes** from that menu.
2. Click in the text box that shows "Add note here...," and type your notes.
3. When you finish the note, click the **Add Text** button on the right side of the text box.
   Result: The note appears in the shaded portion above the text box where you added the note.

Add patient notes from the notes icon

If you are on the clinic overview or task list, you can add patient notes there.

To add a note from the clinic overview, follow these steps:

1. Click the notepad icon in the lower left corner of the patient card or in the list.
   Result: The card expands with the existing notes on the right side.



2. Click in the text box and type your note,
3. Click the **Save** button.
   Result: The new notes appears on the right only after you close this window.
4. To close the expanded card, click the **x** in the upper-right corner of the card.

Important: The patient notes entered from and displayed on the clinic overview are not encrypted. Do NOT include the patient's name or other identifying information in these notes.

Attach a PDF of the Treatment Card

Dentsply Sirona uses the statistics from your treatment cards – treatment time, number of appointments, and number of wires – to document your treatment efficiency with SureSmile. You can view these statistics at http://*mypractice*.SureSmile.com to help optimize the performance of your clinic. The SureSmile software allows you to attach a PDF of the treatment card to the patient record, which is then automatically uploaded to Dentsply Sirona.

> **Tip**: Use the Tasks filter *Reminder* to display all patients with an *Provide Treatment Card* reminder.

Prerequisites for attaching the treatment card

Before you attach a treatment card PDF, you need to complete the following steps:

1. Debond the patient (standard case). Complete treatment (aligner case).
2. Run a deband report/treatment completion report in your patient management system (PMS).
3. For each patient, produce a PDF of the treatment card from your PMS and store these files in a special folder on your network. Put the patient's name or ID in the filename to find it later.

Upload the PDF

To attach a PDF of a treatment card to a patient record, follow these steps:

1. Open the SureSmile patient record for the first debonded patient in your report.
2. On the right side of the patient overview under Treatment Card, click the **Upload** button.
   Result: The **Upload Completed Treatment Card** dialog box opens with a green **Browse** button and a checked check box indicating the patient's status is *Finished*. (If this is not true, clear the check box by clicking it.) A red warning appears on the dialog box if you try to upload a treatment card before the patient's debond date is set to Actual.
3. Click the **Browse** button and then navigate to the PDF of the treatment card that you saved, and click **Open** to associate the PDF with the patient record.
   Result: The file with an automatically generated filename appears under the Treatment Card label on the right-hand side of the patient overview. The filename is based on the practice ID and the patient's HRID.

Complete the patient record

After attaching the PDF, verify that the following tasks have also been completed:

1. If the patient's estimated debond date has not yet occurred, update the debond date from the timeline:
   a. On the timeline, click on the eyeball to the right of the Debond label.
   b. Change the date, and then select Estimated, Scheduled, or Actual.
2. Change the patient status to Finished:
   a. Click the **Edit** button under the patient's name on the right half of the patient home page.
   b. In the Status field on the Demographics page, select **Finished** from the drop-down menu.
   c. Click the **Save** button.

> **Note:** If you set an actual debond date but do not add the PDF, a reminder, *Add Treatment Card*, appears on the patient card on the Tasks tab when you change the patient status to Finished.

View the Treatment Card PDF

To view the treatment card PDF, follow these steps:

1. Click on the file name.
   Result: The file downloads to your computer and appears at the lower part of your browser window.
2. At the bottom of the window, click the arrow to the right of the file name and choose one of the options: Open, Always open files of this type, or Show in folder.

Delete a treatment card PDF

To delete a treatment card PDF from a patient record, follow these steps:

1. Click the **Delete** button under the treatment card filename on the right side of the patient overview.
2. Click **OK** at the prompt.
   OR
   Click **Cancel** if you do not want to delete the PDF.

Update Patient Status

When a patient is no longer in treatment, follow these steps to update the patient status:

1. Go to the patient overview and click the Edit button under the elapsed treatment time.
   Result: The demographics page opens.
2. Click the Status drop-down menu and select the appropriate item:

Status	Use this when ...	Comments
Active	Patient is currently under your care.	Active is the default status for a new-patient record.
Finished	Patient is no longer under your care; treatment has been completed.	You cannot delete a patient record; however, you can request help from Customer Care if you need to clean out files. The debond date defaults to the date entered on the timeline. If this is not correct, enter the actual debond date.
Quit	Patient is no longer under your care; treatment stopped before completion.	
Transferred	Patient is no longer under your care; the patient transferred to another clinic, which may or may not be a SureSmile clinic.	Contact Dentsply Sirona regarding billing. After a patient is transferred, you cannot return the record to an active state from the Status menu on the demographics page.
Cancelled	Patient is no longer under your care; the patient never initiated SureSmile therapeutics.	This status stops further billing if it is selected within 24 months of submitting the Diagnostic Model and before the therapeutic model is submitted. After a patient is cancelled, you cannot return the record to an active state from the Status menu on the demographics page.
MD (Marked for Deletion)	This is an extraneous record.	After you select and save this option, the record opens only if you use the Show All Patients filter option. You cannot delete a patient record; however, you can request help from Customer Care if you need to clean out files.

Jobs

Use the **Jobs** tab on the clinic overview page to view a list of all current downloads (jobs) for exported staged models ordered by clicking the **Export Staged Models** button on the **Order** tab as the last step of aligner therapy design.

This list shows jobs that:

- are still being downloaded (*Running*)
- have not yet started downloaded (*Queued*)
- did not successfully download (*Failed*)
- have completed downloading (*Succeeded*)

All columns are sortable except for Action. To download a job, click the *Download...* link under the **Actions** column to download a Zip file of the exported models in STL format. The location depends on the type of web browser you are using. Check your browser's help to determine or change the download location.

Use the **Show** drop-down list to filter the list of jobs by:

- Running
- Queued
- Failed
- Succeeded

Reports

You can create clinic reports and patient reports.

Generate a Clinic Report

From the clinic overview, you can print or save the following types of reports:

- **Practice Tasks**: identifies all upcoming tasks.
- **Attention Needed Report**: identifies tasks needing immediate attention.
- **Bracket Template**: use to double-check the brackets you selected for a bracket set or document the templates approved in your office.

To generate a clinic report:

1. On the clinic overview, click **Reports**.
2. From the drop-down menu, select the report you want to view.
   Result: A filter dialog box opens.
3. Complete the filter information, and then click **Apply**.
   Result: The report, PDF format, opens in a new web browser tab or (depending on your Web browser and its settings) is available in your Downloads directory.
4. When you have finished working with the report, click the **x** in the tab to close the report page.

Generate a Patient Report

The patient overview has a **Reports** drop-down menu on the right-half of the page under the elapsed treatment time. Click to display a list of reports available for the patient. The list of reports varies according to the case type selected for the patient. The below table lists all patient reports, what is included in each report, and the typical uses for each report.

To generate a patient report:

1. Open the patient record for which you want to run the report
2. From the patient overview, click **Reports** and then select the report you want to generate.
3. If a filter dialog opens, complete the information and then click **Apply**.
   Result: The report, PDF format, opens in a new web browser tab or (depending on your Web browser and its settings) is available in your Downloads directory.

List of Patient Reports

Patient Report	What's Included	Typical Use
Patient Initial Report	• **Initial photos** • **Initial models**	• **Archival - patient file**
Patient Progress Report	• **Most recent photos, x-rays, and models** • **Previous models**	• **GP progress update** • **Specialist referral** • **Archival - patient file**
Patient Final Report	• **Final photos**	• **GP progress update**

	• Diagnostic or therapeutic model • Final models	• Specialist referral • Archival - patient file

Patient Treatment Timeline Report	• List of treatment timeline events showing:
	  • Event (i.e., bonding appt., therapeutic scan, setup approval, debond appointment, etc.)
	  • Current type (actual or estimated
	  • Due date
	  • Overdue (yes or no)
	• Most recent models
	• Previous models
		• GP progress update
		• Archival - patient file
		• Research
		• Case studies / presentations

Patient X-Ray Report	• All available x-rays (choose the image set you want for the report)	• Specialist referral
Patient Photo Report	• All available photos (choose the image set you want for the report)	• Specialist referral
Patient Photo / X-ray Report	• All available photos & x-rays (choose the image set you want for the report)	• Specialist referral

Patient Bracket Report	• Listed by arch:
	  • Bracket description
	  • CBCT approved (Y/N)
	  • Slot size different from other brackets
		• Archival - patient file
		• Research
		• Patient transfers

Patient Referring Clinician Report	• Most recent photos
	• Most recent x-trays
	• Diagnostic or therapeutic model
	• List of treatment timeline events showing:
	  • Name of Event (i.e., bonding apt, therapeutic scan, setup approval, debond appointment, etc.)
	  • Current type (actual or estimated
	  • Due date
	  • Overdue (yes or no)
		• GP or specialist progress update

Patient Referring Clinician II Report	• Most recent photos • Diagnostic or therapeutic model • Final model	• GP or specialist progress update
Patient IPR Report	• Tooth chart showing which teeth have attachments and where IPR is applied • Wire history	• Chairside aid when performing IPR or inserting wires

	• **Wire name** • **Type** • **Order date** • **Received date** • **Date inserted**	
Patient Study Model Report	• **Study models**	• **Archival - patient file** • **Research**
Patient Pre-Bonded Bracket with IPR Report	• **Tooth Chart with pre-bonded (simulated) brackets shown** • **Interproximal reduction table for current plan showing only pre-bonded brackets and IPR after the IDB was ordered or model exported**	• **Chairside aid when bonding brackets (DB or IDB)**
Patient Bracket Voids Report	• **Lists all brackets with large (> 0.4 mm) voids under pads**	• **Chairside aid when loading IDB trays**
Patient Aligner Report	• **Indicates attachment placement, attachment removal and IPR associated with aligners.**	• Chairside aid when performing IPR or inserting aligners

Exporting 3D Model Files for Lab Use

Use SureSmile's export 3D model feature to create 3D models for printing or study by your lab for a variety of purposes. The most common use is to create indirect bonding (IDB) trays from the 3D models, but the exported 3D models can be printed by your lab's 3D printer to create diagnostic, final or study models as well.

To export one or more 3D models

1. From the patient overview, click the **Exports** button on the right side of the screen, and select **Export 3D**.
2. Click the check box under the model that you want to export.
3. Select or clear the check boxes for additional model objects as needed.
4. Select the appropriate file format. (Check with your lab to determine the format they require.)

Format (Extension)	Description
SLA Interface File 1mm (*.STL)	Standard format for 3D data exchange. Values in millimeters. (default selection)
SLA Interface File– 1m (*.STL)	Standard format for 3D data exchange. Values in meters.
Binary Point Cloud File (*.SYP)	Dentsply Sirona proprietary format.
Object File (*.OBJ)	Graphic format.
Polygon File (*.PLY)	Standard format for 3D data exchange.

5. (Optional) Select or clear the *Unify Objects (for 3d-Printing)* check box.

   Note: If your practice has been enabled by SureSmile customer care for 3D printing optimization, the Unify Objects (for 3d-Printing) check box is shown on the Export 3D Models dialog box and the check box is selected by default. This option combines all of the objects for each model into a single printable object, this allows for more accurate and efficient printing with most 3D printers. If you are interested in this option, please contact SureSmile Customer Care.

6. Click **Export**.

   Result: A zip file containing the compressed files is downloaded to your computer. The location depends on your web browser. Check your browser support to determine location. (Check with your lab to determine the best way to send them the zip file.) The following file format is used for .STL files:

- Upper arch: HRID<name of sim>U.stl

  or

- Lower arch: HRID<name of sim>L.stl

  Example: *LT000003StagedModles1U.stl*

Note: When you export a Maxilla or Mandible arch model, **Up** (upper) is appended to the Maxilla .stl file name and or **Lw** (lower) is appended to the Mandible .stl file name. Tooth roots from CBCT scans or tooth templates are excluded from 3D model print orders.

Order Prints

The Order Prints button gives your practice the ability to order 3D physical models from Dentsply Sirona of any printable product for the patient, even up to 90 days after the patient has been debonded. A fee is associated with each arch in a print order. Please contact your Account Manager or customer care for fee details and estimated shipping times. This function is distinct from the Exports button, which allows you to export STL files of models for printing in house or by your lab.

Limitation:

Models must have gingiva include to be printed. CBCT scans with just roots, bone and teeth but without gingiva cannot be printed at this time.

To order prints of 3D models from Dentsply Sirona

1. Open the patient record and go to the patient overview page.
2. Click the **Order Prints** button. The **Print 3D Models** dialog box opens.
3. Use the check boxes to select the models and arches you wish to print.
3. Click the **Print($)** button.
4. After a moment an Order Confirmation dialog box appears showing a summary of what you ordered. Click **OK** to confirm your order.
5. If you click **OK a progress bar shows that the models are being created.**

   When the system finishes processing the models, the Created Print Models box dialog box appears. You are billed by the system for the models at this time.

7. Click **OK** to close this dialog box.

   Note: Models are billed by the arch. Please contact you Account Manager or Customer Care to determine your fee for printed physical models**.**

Demo Copy

Click the Demo Copy on the Patient Overview page to create a demo copy of an existing patient record. When you create a demo patient, SureSmile appends “Demo” next to the patient's name in parentheses. For example, for demo patient John Smith, the name appears as "John Smith (Demo)".

Patient records classified as Demo are not processed by the SureSmile Digital Lab.

Tracking Shipments

Once you place an order, it is listed under the Shipments tab. Use the Shipments tab of the SureSmile clinic overview page to ensure that all shipped items, including wires, aligners, printed models and IDB trays are on hand for the patient's appointment.

SureSmile lists shipment orders on the Shipments page as soon as you submit the order.

Simulations for IDB trays, aligners and printed models on the timeline do not reflect production or shipping status for actual printed trays or models. The resulting orders are listed in the Shipments area only.

Order Status

Because you are ordering a physical product that will be manufactured by Dentsply Sirona and shipped to you,the statuses for IDB trays, aligners, printed models, and wires are standardized. Once the order status for one of these products is (Finished), you can go the Shipments tab and view the shipping status of the item. Here are the statuses for each physical product:

State	IDB Trays	Aligners	3D Prints	Wires
While designing or creating physical products the status is:	(Not ordered)	(Not ordered)*	(Not ordered)	(Not ordered)
After ordering physical products the status changes to:	(Ordered)	(Ordered)	(Ordered)	(Ordered)
After physical products are shipped the status changes to:	(Finished)	(Finished)	(Finished)	(Finished)

* does not apply to Aligner case types as printed models are created in the Digital Lab.

SureSmile automatically removes order information from the Shipments tab if:

- A shipment is a wire with a status of “Not Used” or “Inserted”
- A shipment is for a patient whose status has been set to “Finished”
- The shipment was shipped 2 or more years ago.

Searching for Shipments

1. Use the Filters to narrow your search:
2. Under the "Show" filter choose the appropriate criteria:
    - **Show All Shipments** - show all orders regardless of status
    - **Show Shipments Received** – the box has been marked as received using SureSmile’s tracking features. After 90 days, shipments received by not checked in are indicated as received by “Automatic.”
    - **Show Shipments in Transit** – the order has been produced and shipped, but not marked as received. To track your order with FedEx, click the link to the Tracking Number.
    - **Pending shipments** – the order is in production
3. Under the "Of" filter, choose the appropriate item type:
    - All types
    - Aligners
    - 3D Prints
    - Physical IDB Trays
    - Physical Print Models

- Wires

4. To filter for cases assigned to you, click the **For All** filter and click your name.
5. If your practice is a multi-site practice, use the filter at the top left to narrow your search to items only being shipped to a specific site.

Estimated Delivery Times

Your wire prescriptions are consolidated into weekly shipments. Aligners, 3D prints and IDB trays are shipped as soon as they are manufactured. Please contact your Account Manager for detailed information.

Check-in Shipments with a Bar Code Scanner

For the most efficient and error-free method of checking-in shipments, scan the FedEx label using a bar code scanner. Each item in the box will be updated in the shipment tracking list.

Important: Shipments not checked in are are automatically transferred from the Shipments In Transit list to the Shipments Received list after 90 days. *Automatic* will be listed instead of a user's name in the **Received By** column.

Tip: You do not need to contact SureSmile Customer Care to set up your bar code scanner with SureSmile. Any Windows-compatible bar code scanner will work immediately upon installation.

1. Make sure you are logged into SureSmile using your own username and password.
2. From the clinic overview page, click the **Shipments** tab.
3. In the *Show* filter, select either **Shipments In Transit** or **All Shipments**.
4. If you have multiple offices, select the location for the appointments associated with the items. See Select Destination Site below.
5. Insert your cursor in the box to the left of the **Receive** button.
6. Use your bar code scanner to scan the bar code on the FedEx label. If you received multiple items in a box, scanning the barcode on the outside of the box captures the information for all of the contents.
7. Click **Receive**.
8. To see the shipments you just received, select **Shipments Received** in the **Show** filter.

Tip: You can click the column headers to sort the list on the columns. For example:

- Click ***Patient ID*** to sort the list alphabetically by patient ID, starting with AA. Click the column header again to reverse the order to start with Z names.
- Click ***Shipped Date*** to sort the list by the date the shipments were sent to you, starting with the oldest shipments. Click the column header again to reverse sorting and list the most recent dates first.

If you have multiple pages of shipments, click the page numbers to move through the entire list.

Manually check-in shipments

If you do not have a bar code scanner, copy and paste the tracking number from the Tracking Number column into the box next to the **Receive** button to receive the shipment. There is no need to type the number.

1. From the clinic overview page, click the **Shipments** tab.
2. In the *Show* filter, select **Shipments in Transit** to display a list of all of your orders that have been shipped but not yet received.
3. Click the **Tracking Number** column header to sort by most recent tracking number. Scroll down to find the number that matches the package label. Drag your mouse across the number to highlight it. Right-click and choose **Copy**.
4. Insert your cursor in the box to the left of the **Receive** button. Right click and select **Paste**.

5. Click **Receive**.

   Tip: To see the shipment you just received, select **Shipments Received** in the filter**.**

Check in a single item manually

If you are checking-in one shipment package, copy and paste the Product ID.

1. From the clinic overview click the **Shipments** tab.
2. Use the quick search feature to filter for the patient ID.
3. If you have multiple offices, select the location for this patient's appointment. (Or you can enter this information later - see Select Destination Site.)
4. Find the item order that matches the prescription package.

   Tip: Click the Product ID column header to sort in ascending order, and then click it again to reverse sort.

5. Drag your mouse across the Product ID number to highlight it. Right-click and choose **Copy**.
6. Click in the box next to the **Receive** button to insert your cursor. Right-click and choose **Paste**.
7. Click **Receive**.

   Tip: To see the shipments you just received, select Show Shipments Received in the filter.

Select destination site for a shipment (multi-site practices only)

If you have multiple offices, Dentsply Sirona ships to the office where you created the patient record. To request that all of your shipments go to a single address only, contact Customer Care. If a patient's appointment is scheduled in a different office than the one that received the package, you will need to transport the items needed for his/her appointment yourself. To help you track moved items, SureSmile allows you to indicate the site location on the **Shipments** page.

1. From the clinic overview page click the **Shipments** tab.
2. Enter the patient ID in the quick search or filter as needed to find the items you are transporting.
3. Use the site drop-down menu to select the location for the item.

   Note: You cannot select a different site for the item until after it ships.

Print Shipment Tracking Information

You can print the page you are viewing using your browser's print function. Follow your browser's procedure for printing a page.

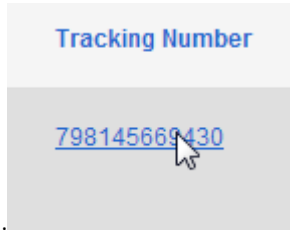
Find missing shipments

If you are preparing for a patient appointment but you do not have the wires, aligners or IDB trays on hand, use the shipments page to determine:

- If the patient's items were ordered.
- If the items shipped.
- When the items are due to arrive
- If they were moved to a satellite office.

1. From the clinic overview, click the **Shipments** tab.
2. In the filters, choose ***Show All Shipments*** and ***For All***.
3. Use the quick search feature to filter for a patient ID, if looking for a specific patient.

4. Refer to the table to find your shipped items:

Check...	... and then do this:
If there are any items listed for this patient. If no items are listed, they were probably not ordered.	Go to the Patient's record and view the full timeline. Check if items were ordered. **Tip:** Items are removed from the Shipments tracking list when the patient record status is changed to *finished* or the shipment timeline status is changed to *inserted*.
The **Received By** column and Site (if applicable). If the item was received, the user who was logged on when the item was received is listed in the **Received By** column.	Look in the location indicated in the Site box and speak to the person who received the item in SureSmile.
The **Shipped Date** column. If this area is blank, the shipments have not yet shipped.	Contact SureSmile Customer Care for your options.
The **Shipped Date** column. If it shows a date, the item was shipped.	Click the tracking number link to show the FedEx web page. Use this page to determine delivery status. 

Transfer Items (multi-site practices only)

To mark an item as transferred to another office location, follow these steps:

1. From the clinic overview click the **Shipments** tab to display a list of all of your shipped orders.
2. Click the Show filter drop-down list at the top right and choose **Shipments Received.** The shipment must be received *before* it can be transferred.
3. Under the **Site** column, use the drop-down menu to select a different location for each shipment.
4. To see the list of shipments marked as transferred, click the **Show** filter drop-down list at the top right and choose **All Shipments Tracked**.

Automatic purging of shipments list

Shipment orders are removed automatically from the shipments list if:

- The status of the patient record is changed to *finished*.
- The wire, aligner, IDB tray or printed models status is updated to *inserted* or *finished*.
- After 730 days (two years), neither of these state changes occur, the software automatically removes shipment orders from the shipment tracking list.

See also...

Ordering a SureSmile Case Type

Organizing Patient Information

SureSmile offers several features to help your office to organize patient records in SureSmile treatment:

- You can sort and filter the patients from either the tasks tab or the patients tab.
- You can add a color-coded flag to mark specific patient records.
- You can write notes for your team or doctor.
- You can search for patients based on diagnosis and treatment characteristics as well as timeline information.

Tip: SureSmile remembers where you were on patient overview the last time you viewed it, so that you can return to the last place you were viewing when working on the case. For example, if you are viewing an image set for a patient on the patient overview, and you close the patient case, when you return later to the Patient Overview page for the patient you return to the image set you last viewed instead of simply seeing the default view of the Diagnosis and Treatment section.

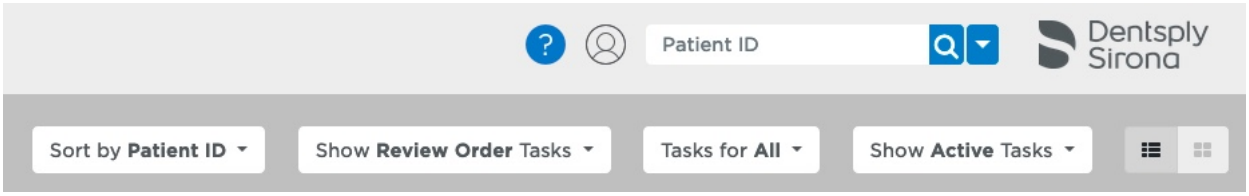
Sort and Filter Tasks

From the clinic overview, you can sort and filter tasks and patient cards using the menus on the top right side of the Tasks tab.

Sort and filter tasks

When you first come to the clinic overview, the active tab is the one you selected in your preferences.

To sort and filter tasks, select from the menu buttons on the top right side of the page:



The following table lists each menu with its options for sorting and filtering on the Tasks tab.

- The default options when you first come to this page are shown in italics unless you have changed the Appearance defaults in your preferences.
- As soon as you make any menu selection, the page changes to narrow the items shown. If you leave and later return to this page, your selections are still in place.

Menu	Options
Sort by ...	*Task* Due Date Debond Date Bond Date Flag Wire Insertion Date (most current dates shown first by default) Patient Report
Show ... Tasks	***All Types*** shows all tasks. **Provide Information** shows items on hold, rejected, and those needing additional information. The filter shows these tasks: **Resolve Hold**, **Provide Information**. **Review Order** shows items needing review. The filter shows these tasks: **Review Order** and **Review Changes**. **Submit Order** shows items to be submitted. This filter shows only **Submit Order** tasks. **Create Order** shows items that are due to be started according to the timeline date. This filter shows tasks such as **Scan & Order therapeutic model**, **Order Setup**, **Order Wires**, and **Scan & Order final model**. **Reminder** shows all patients with past-due actions required by the clinic. The filter shows these tasks: **Provide treatment card, Bond patient, Debond patient, Insert Wire, Complete IPR,** and **Order appliance or analyze records**.
Tasks for ...	*Currently logged in user ** All Doctors (followed by login name of each doctor) All Staff (followed by login name of each staff member) All ** If the currently logged in user has no assigned patients, then all patients are shown.*

Show ... Tasks	*Active* Expired Deferred Completed All

See also...

Appearance Preferences

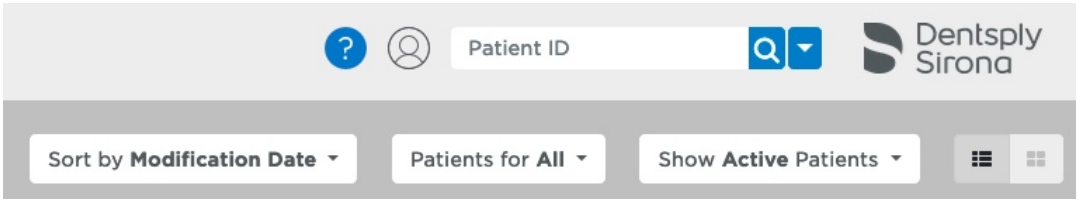
Using Search

Quick Search

Use Advanced Search

Sort and Filter Patients

From the clinic overview, you can sort and filter tasks and patient cards using the menus on the top right side of the Patients tab.

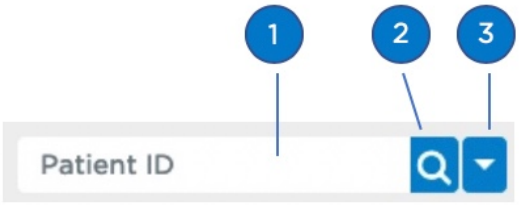


The menus and options on this tab are in the following table.

Menu	Options
Sort by ...	*Modification Date* Patient ID Debond Date Bond Date Flag Wire Insertion Date
Patients for ...	*Currently logged in user ** All Doctors (followed by login name of each doctor) All Staff (followed by login name of each staff member) All * If the currently logged in user has no assigned patients, then all patients are shown.
Show ... Patients	*Active* Finished Quit Transferred Cancelled MD (Marked for Deletion) Demo All

Using Search

On the upper right side of most pages are a text field and buttons for performing searches as shown below.



1 Quick search box

2 Quick search button

Use the quick search to find patients by entering the last and first initials of a patient's name.

3 Advanced search button

Use the advanced search to find patients by additional information.

Using the Quick Search box

Use the Quick Search box to search for the following:

- **Patient ID -** For example if patient ID is *K9M7*, Entering "K9M7", "k9", "M7", "9M", "9m" "k9m7", "k9M", or "9m7" will return the patient associated with the patient ID K9M7.

  Note: All patients added before 7.4 Update 4 (October 4, 2017) will keep their old patient ID in the background indefinitely. It will not be visible in the software, but you can search for the patient using their old Patient HRID. For example, for patient SB000003, enter SB000003 in the search box. Please note that you now must enter all of the zeros in the old patient ID. You cannot just enter "SB03" as before.

- **Patient's Initials** - For example, for patient *Amy Brown*, enter "BA" or "ba" in the search box. (Make sure you put the initial for the last name first.)
- **Patient's first or last name** - For example, for patient *Harold Bishop*, you can search for "Harold", "Bishop", "Har", "Bis", or Bish" etc. (You must enter at least three letters.)
- **Full text search** of patient record (word searches must be full word,for example, "vacation" not "vac"). Patient Notes are included *i*n full-text searches. Product Notes are not included.

  Note: Searches are NOT case sensitive. For example if you input "sm", either "SM" or "sm" could be returned. For queries within the Patient HRID and the patient External Link ID databases, two characters followed by 1 to 6 digits will not be concatenated in the search . The two leading characters will be searched at the beginning of the string, and the subsequent digits will be searched at the end of the content of the field.

Search governed by any filters you've applied

Search results are returned on the tab you have open. Any filters (except the Task Owners filter) that you've selected on the Tasks or Patients tabs are used in conjunction with the search field. For example, if on the Tasks tab you have applied the filter *Show Review Order Tasks* and 20 patients were returned, and you then search for "wn" in the Patient ID field, only those 20 patients will be searched. Even if there is a patient record containing the initials "wn," that record is not found if it is not one of the 20 review order tasks. The Task Owner filter is

overwritten and disabled during any quick searches because SureSmile assumes that you want to search all tasks.

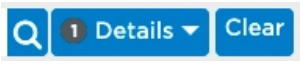
> **Tip:** To quickly search of all your patients, go to the **Patients** tab and select the *Show All* filter.

To use the quick search from any page, follow these steps:

1. Type what you want to search for (patient ID, the patient's last and first initials, or a word or a phrase) in the quick search box in the upper-right corner of the screen. If you have used this term or a similar search term in the past, the term appears in a drop-down list as soon as you start typing, so you do not have to type the entire word.
2. Press the **Enter** key, or click the quick search button .

   Result: Your search results appear in the currently selected tab. Select a different tab (Tasks or Patients) to see the results filtered according to the filter set for that tab.

Clear a Search

After you create a search, the quick search button changes as shown: 

- The white number on the black background indicates the number of search parameters in the current search.
- If there is more than one search parameter, and you wish to view them, click **Details**.
- To clear all parameters from the search criteria, click **Clear**.
  Result: The search box is empty and you see only the magnifying glass and drop-down arrow.

Use Advanced Search

Video: Performing an Advanced Search

To use the advanced search

1. Click the down arrow next to the magnifying glass.
   Result: The Advanced Search window opens with the **Diagnosis /Treatment** tab displayed by default.

   The Diagnosis/Treatment tab contains the same elements available on the Diagnosis & Treatment tab on the patient overview. Each category has a drop-down list from which you can make multiple selections. For example, if you choose to search for **Diagnosis Class:** *Class I* and **Treatment Type:** *Extraction*, the search returns only Class I cases with extractions. It does not return all Class I cases nor all cases with extractions.
   Note: Your selections remain when you switch to a different tab.

2. Click the **Demographics** tab. Select one or more of the following criteria as needed:

- Referring Doctor
- Gender
- A range of age at bond date
- A range of treatment time in months.

For example, you can search for patients with the following characteristics:

- Between 13 and 15 years of age at bonding, or
- At least 13 years of age at bonding. (Leave second box blank.) and
- In treatment for not more than 18 months. (Leave first box blank.)

3. Click **Search** at the bottom of the Advanced Search window.
   Result: Your search results are displayed in the tab from which you initiated the search.

   Note: Your search results are further reduced by any filter already set on the **Tasks** or **Patient** tab, unless there is a direct conflict between a filter set on these tabs and a filter set on the **Advanced Search** page. In this case, the filter set on the **Advanced Search** page overrides the filter set on the **Tasks** or **Patients** tab.

4. To reset the advanced search criteria, click **Clear Filters** at the bottom of the Advanced Search window.
5. Close the Advanced Search window by clicking the x in the upper-right corner.

Sorting Priority

As you sort tasks, the cards are listed according to their priority. Tasks with milestones are created at the time of patient creation (except for the IPR reminder), but these tasks become active only during the time leading up to the planned date as indicated in the table below.

Priority	Task	Notes
1	Resolve hold	Appears as soon as hold occurs
1	Provide information	Appears as soon as information is requested
2	Review changes	Second and later reviews
2	Review order	First review
3	Submit order	
3	Scan and order therapeutic model	Appears in timeline 2 weeks before the scan date.
3	Order setup	Appears in timeline 3 weeks before the setup approval date.
3	Order wires	Appears in timeline 4 weeks before the wire insertion date.
4	Complete IPR	Appears in timeline after the first SureSmile wire is inserted and all planned IPRs are not marked as completed.
4	Scan & order final model	Appears 1 week before the debonding date.
4	Provide treatment card	Appears in timeline 1 week before the debonding date.
5	Bond patient	Appears in timeline 1 week before the bonding date.
5	Debond patient	Appears in timeline 4 weeks before the debonding date.

Add and Clear Flags

The SureSmile software provides a method for flagging patient records to indicate special attention for the patient. These flags are identified by their color so that you can define within your own clinic the meaning of each color.

You can add only one flag per patient; however, that flag is shown on both the tasks tab and the patients tab.

On the clinic overview, a small circle appears to the right of the patient's photo or in the first column of the list. The default is a blank circle, but SureSmile includes six colored circles that you can use to flag tasks or patient records. For example:

- On the Tasks tab, you might flag a patient with an urgent task for the doctor to complete with a high priority.
- On the Patients tab, you might flag a patient record that has an important finish due date, such as an upcoming wedding.
- You might want to add an orange flag to a patient record to indicate that the wires for an upcoming appointment have been received.

To add a flag, follow these steps:

1. From the **Tasks** view or from the **Patients** view, click the task flag next to the patient's photo or from the first column in the list view.
2. Select a colored circle.

To clear a flag, follow these steps:

1. From the Tasks view tab or the **Patients** view, click the **task flag**.
2. Select the blank circle from the menu.

Ordering a SureSmile Case

This section of the online help describes the steps and procedures for ordering SureSmile cases and associated products. Each SureSmile case type is made up of a standard set of SureSmile treatment models and products typically used in treatment. Each product in a SureSmile case type is a component of the SureSmile treatment approach and is ordered at different phases of the patient's treatment.

> **Note:** Do not confuse these SureSmile products with the SureSmile renewable consumable supplies such as extra orascanner mirrors or cases of SureWhite. To order these renewable supplies, please see Reordering Consumable Supplies,

There are four case types, plus a (none) category to order SureSmile products on a fee-per-item basis, or "a la carte."

- Standard
- Standard w/IDB
- Aligner
- Extended

> **Tip:** If most of your cases will always be one of the case types you can set this case type as your default choice for new patient records on the preferences page under the Treatment tab>Default case type option.

Standard case type

The standard case type accommodates the most common treatment approach in SureSmile.

The Standard case type includes:

- 1 therapeutic model from any scan type
- unlimited update models
- 1 setup
- unlimited wires

> **Note**: Some contracts may also include 1 diagnostic model (from optical scan only)

Standard w/IDB case type

The Standard w/ IDB case type bundles a set of IDB trays with a standard SureSmile case. This case type offers a fast-track workflow for starting your patients in SureSmile:

1. You scan the patient, order the initial therapeutic model and provide instructions for a full setup with planned bracket placement, all in a single order.
2. SureSmile Digital Lab technicians create the model, setup, place the brackets, design the IDB trays, and return for your review within 10 business days.
3. You review the setup, bracket placement and tray designs, and order the initial wire pair with the trays.
4. We fabricate and ship the IDB trays and initial wires to you in a single package within 10 business days.

The Standard w/IDB case type includes:

- 1 therapeutic model from any scan type
- unlimited update models
- 1 setup
- unlimited wires, including 1 set delivered with the trays
- 1 IDB tray set

Note: Some contracts may also include 1 diagnostic model (from optical scan only)

Here is a comparison of our two IDB products with a standard case:

	IDB Tray Simulation (a la carte)	*Standard w/IDB* Case Type	*Standard* Case Type
Base Model:	diagnostic model	unbonded therapeutic model	bonded therapeutic model
Bracket Placement based on:	IDB tray simulation	Setup (created by Digital Lab from doctor's instructions)	not included
SureSmile wires	N/A	1st set of wires delivered with trays; unlimited additional wires as per plan	unlimited additional wires as per plan
Cost (USD – for comparison purposes only)	$45 (model) + $60 (trays) = $105	case price + $60 (trays)	case price

Aligner case type

The Aligner case type is for patients who will receive aligners based on SureSmile models, but will not be bonded nor receive wires. This case type includes one unbonded therapeutic model, which should be acquired from an intraoral scan that captures gingiva. For example, you can use your OraScanner, iTero, etc. to capture the scan for the Aligner case. (A supplemental CBCT scan can be used, if desired, to add roots and bone to the model .) The aligner case type also includes one setup and series of staged models with assistance from SureSmile Digital Lab technicians. Select an **Aligner** case type to benefit from the expertise of our Digital Lab technicians in setting up your target for aligner therapy, and then generating and adjusting your series of staged models.

The Aligner case type includes:

- 1 unbonded therapeutic model. Capture this scan at a patient appointment using an optical scan technology that can capture gingiva (such as OraScanner or a recommended third party scanner)
- 1 setup, and any setup modifications as needed
- 1 set of staged models, and any modifications as needed
- Access to your Digital Lab technician to discuss your setup or staged models

Extended case type

The Extended case type is recommended for cases that will need multiple therapeutic scans and/or setups such as:

- **Surgical** - If pre-surgical setups and rescans are part of the doctor's protocol.
- **Preteens** - If a patient is scanned before all teeth are erupted and the doctor's protocol is to do multiple scans/setups.
- **Mixed treatment** - If a patient will be treated with wire therapy and you also plan on ordering additional models/setups to finish with aligner therapy.

The Extended case type includes:

- up to 5 therapeutic models from any scan type
- unlimited update models
- up to 5 setups
- unlimited wires

The extended case type includes the same items as a standard case type, but for a small additional fee, you can order up to a total of five therapeutic models and a total of five setups without incurring a la carte fees.

> **Note**: For specific questions about case fees, please contact your Account Manager.

(none)

Select (none) to order most SureSmile products on a fee-per-item basis, or "a la carte." For example you would use the *None* case type for the following scenarios:

- You only want to order one or more la carte (fee per service) items without ordering a case type.
- You've used all of the products in a case type but you need additional products to complete a patient's treatment.

Fee-per-service products

When a product is not included in a case type, it is considered a fee-per-service product and a separate fee is charged. Here is a list of fee-per-service products:

Fee-per-Item	Use
Diagnostic model	• diagnostic purposes • develop different simulations • aligner therapeutic model design • IDB tray design • marketing purposes
Additional therapeutic model based on CBCT data	• add roots and bone to a therapeutic model from surface scan
Additional therapeutic model based on a surface scan	• as basis of new setup if teeth are not moving as planned • best possible diagnostic model for aligner therapy (unbonded therapeutic model) • best possible diagnostic model for study/analysis (unbonded therapeutic model) • post-surgical planning • mixed treatment (aligner therapy on one arch and brackets on opposing arch)
Premium model	• higher accuracy of crown data from an optical scan combined with the roots and bone from a CBCT scan • tooth crowns modeled to highest standards
Additional setup	• tooth or anatomy updates

	• teeth are not moving as planned
Final model	• quality grading • comparison purposes • record keeping.
Staged Models	• send files to Dentsply Sirona for printing as 3D models • use printed models to create your own aligners
Aligners	• order aligners from Dentsply Sirona
IDB Trays	• send IDB tray simulation for printing and fabrication by Dentsply Sirona

Notes:

There are no case fees if you only order a diagnostic model for storage purposes or to make aligner trays. However an "a la carte" fee for a single diagnostic model will be charged.

Due to the inaccuracy of the data, we do NOT support unbonded therapeutic models based on scans captured from CBCT of a plaster model. (If you attach this data source to an in vivo scan type, it will be rejected.) We will accept an optical scan of a plaster model, however we recommend that you continue to provide Therapeutic Scan data captured at a patient appointment such as in vivo CBCT, intraoral OraScan, or an intraoral scan by a certified 3rd party scanner.

Alternative purpose in Standard cases: The unbonded therapeutic model may also be beneficial in cases where you want as much diagnostic information as possible. Before bonding, order this scan type as a therapeutic model and you will receive tooth models produced to the standards of a Therapeutic along with linkage to the smile photo. (A diagnostic model is linked to the ceph, but not the smile photo.)

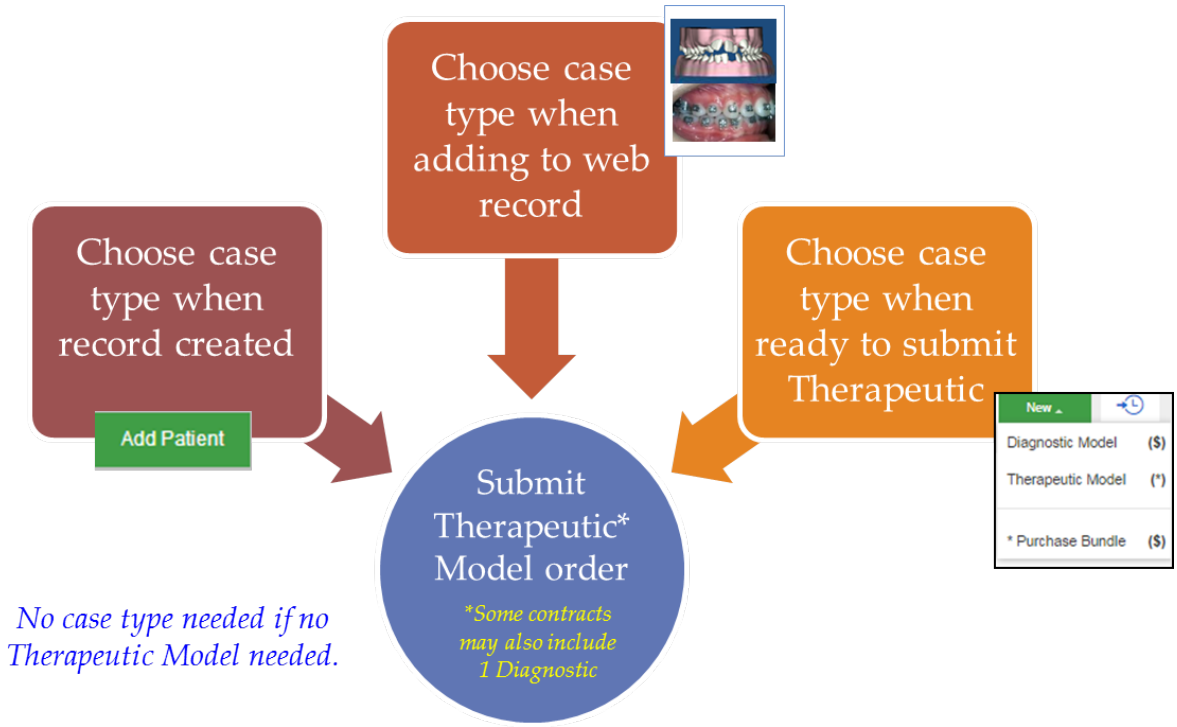
Select a SureSmile Case Type

A SureSmile case includes a pre-selected set of products associated with a patient's treatment. Select the case when you start the patient record, or at any time up to the point you are ordering the therapeutic model. Whether you start the therapeutic model order in SureScan or in SureSmile (on the web), you will NOT be able to submit the order until you select the case for the patient in SureSmile.

If you do not plan to order a therapeutic model for a patient, (e.g.,if you order a diagnostic model and use it to fabricate aligners) you do not need to select a case.

Special considerations for practices with very early contracts

If you are one of the few practices on an early contract that includes diagnostic models, you must determine if you want to order a full case *before* ordering the first diagnostic model. If you are on an early contract and select a standard case before ordering a diagnostic model, the diagnostic model will be included in the cost of the case, and the case fee will be charged as soon as the model order is submitted. If you select a case type of *(none)* before ordering the model, the diagnostic model will be priced as an a la carte item. If you are unsure if you have contract of this case, please contact SureSmile Customer Care.



Choose a case when record created

If you add records to SureSmile using the “Add Patient” button, you will see an option to select a case. You may choose your case now, or wait until you are getting ready to order a therapeutic model.*

1. Click **Add Patient** and fill in the patient’s information. (Do not click **Save** yet if you are also ready to choose your case.)
2. Click **Select Case Type**. A new page offers cases.

   Note: The **Select Case Type** button is unavailable if the Standard case is already in use (i.e. you have already selected this case and ordered a product). This keeps you from incurring unnecessary fees, because with a standard case, you can

order any additional products not included in the standard case separately. This is much less expensive than ordering a second case for the same patient.

The **Change Case Type** button appears after you have selected a case but then cancelled a product that is on that case's menu. This allows you to either change to a different case or start over with the same case.

3. Select a case (Standard, Extended, Aligner, None) from the drop-down list.
4. Click **Save Changes**. The page updates to reflect your choice. A **Change Case** button allows you to switch to the other case at any time up to the point the case is billed (when you submit the Therapeutic Model*). The **Available** column reflects the services available in this case. After you use the service, the counter will decrease (i.e., from 1 to 0).

   Notice this area tracks the products that are available or used since you selected a case:

- **Cases purchased** – lists the cases purchased for the patient, in order by date purchased, along with the user who selected the case.
- **Products included in cases** – tracks the total products available (as a sum across all purchased cases). SureSmile keeps track of the products even if your orders overlap between cases. For example, you may purchase a second case before ordering the Setup for the previous case.

5. When you are finished, click **Save**. The new patient record opens.

* For the few practices on an older contract that includes diagnostic models, the "Change Case Type" button will no longer be available after the first model order (diagnostic model or Therapeutic) is submitted against the case.

Tip: If most of your cases will be the Extended case, you can set this type as your default for new patient records on the preferences page under the Appearance tab.

Choose a case when adding to patient record

If you do not choose a case when the patient record is created, you can use the **Edit** feature on the Patient Overview.

1. Click **Edit**. The Patient Profile page opens.
2. Click **Select Case Type**. A new page offers cases.

   Note: The **Select Case Type** button is unavailable if the Standard case is already in use (i.e. you have already selected this case and ordered a product). This keeps you from incurring unnecessary fees, because with a standard case, you can order any additional products not included in the standard case separately. This is much less expensive than ordering a second case for the same patient.

3. Select a case (Standard, Extended, Aligner, None) from the drop-down list.
4. Click **Save Changes**. The page updates to reflect your choice. A **Change Case Type** button allows you to switch to the other case at any time up to the point the case is billed (when you submit the therapeutic model*).
5. Click **Save**. The software returns to the Patient Overview.

   Note: For the few practices on an older contract that includes diagnostic models, the "Change Case Type" button will no longer be available after the first model order (diagnostic model or Therapeutic) is submitted against the case.

Choose a case when submitting the therapeutic model order

You can wait to choose a case until you submit a therapeutic model order.

1. From the patient overview, click the green **New** button and click **Select Case Type ($)** from the drop-down menu. A new page offers cases.
2. Select a case (*Standard, Extended, Aligner, None*) from the drop-down list.

3. Click **Save Changes**. The page updates to reflect your choice and you are returned to the Patient Overview page:
    - A **Change Case Type** button allows you to switch to the other case at any time before the case is billed (when you submit the therapeutic model).
    - The **Available** column reflects the products available in this case. After you use the product, the counter will decrease (i.e. from 1 to 0).
4. When finished, click **Save**.
5. Click:
    - the *patient's name* in the SureSmile bar to return to the Patient Overview, or
    - the *practice name* in the SureSmile bar to return to the Clinic Overview.

Once you've selected a case, SureSmile uses a **$** sign in the **New** menu to indicate optional products items not included in the case. The **$** indicates there is an addition fee for these products.

Best Practice: For patients who will have a setup, choose your case before ordering a diagnostic or therapeutic model.

Purchase additional cases or products as needed

You can order additional cases or products, as needed (e.g., if you retreat the patient). Once a therapeutic model has been submitted, the **Change Case** button on the Patient Profile page changes to **Select Case Type**. A list of the cases purchased for the patient listed by date purchased with the SureSmile user who selected the case is shown under the **Cases purchased** section of the page.

Note: If you accidentally order a case, you will not incur the case fee if you do not order any products.

The **Products included in cases** section tracks the total products available (as a sum across all purchased cases). SureSmile keeps track of the products even if your orders overlap between cases. For example, you may purchase a second case before ordering the Setup for the previous case.

Tip: It is usually more economical to purchase additional models a la carte instead of incurring a case fee associated with another case.

Rules for selecting cases

If you've already selected…	…you can select one of these cases:
(none)	**Standard** or **Aligner**

Standard (no products ordered yet)	**Extended**, **Aligner** or **None**
Standard (products ordered)	**Extended (Only first therapeutic model and setup from the Standard case are included. All other previously ordered products will not be refunded.)**
Extended (no products ordered yet)	**Standard**, **Aligner** or **None**
Extended (products ordered)	**Standard** (Only first therapeutic model and setup apply. All other previously ordered products will not be refunded.)
Standard or Extended (diagnostic model created/ordered/finished)	**None** (This will cancel the standard or Extended case fee and charge for the a la carte fee for a diagnostic model.)
Aligner (no products ordered yet)	**Extended**, **Standard** or **None**
Aligner (products ordered)	**No other case type can be selected**

Shortcut to Patient Profile page and case information

Use the **Edit** icon shortcut on the patient card to quickly go to case information on the Patient Profile page.

Reminders and Alerts

If you forget to select a case, the system reminds you:

- **Select Case type** option in the green **New** menu.
- Alert on a therapeutic model order. (This alert serves to remind you that you cannot choose a case in SureScan – you must go to SureSmile on the web and select the case.)

Tip: To save an extra click when viewing tasks on the Tasks list, click the **Show Card** icon to open the patient card.

FAQs Cases/Pricing

What do I choose if I plan to treat a patient in braces and start or end with aligner therapy?

Order a Standard case, then order additional services as needed a la carte.

Can I order a therapeutic model as an a la carte item? For example, to take advantage of the unbonded therapeutic model's smile linkage; then proceed with aligner therapy.

The SureSmile system does not allow you to submit the first therapeutic model order until a case is chosen. Subsequent therapeutic models are available a la carte.

Some of my patient records are for storage or diagnostic purposes only. Do I choose a case for these cases?

No. If you plan to simply order a diagnostic model (and you do NOT plan to order a therapeutic model or a set-up) you do NOT need to choose a case. You will be charged on an a la carte basis for any of these products.

> **Tip**: To make sure no case is associated with a patient, go to the Patient Profile page for that patient. Under **Select case**, under **Cases selected**, *(none)* should be listed. If a case is listed, click the **Select case** button and change the case to *(none)*.

If my patient has a Standard case and I order an Update Model with a tooth update, will I be charged for the additional setup required?

Yes, a fee will be charged for each additional setup.

Oops, I ordered the wrong case. Now what do I do?

If you have not ordered a therapeutic model, you may change the case at any time. To find this feature, go to the Patient Overview and click the **Edit** button.

If you have already ordered a therapeutic model, contact Customer Care.

If I cancel a product or case, will I receive a refund?

Refunds depend on what was ordered and whether or not the cancelled case or product has been processed by the Digital Lab or manufacturing. Please contact Customer Care and provide the patient ID for more information.

If I order a pre-surgical setup, is this considered an a la carte setup?

Yes, you will be charged for an a la carte setup. If you anticipate creating two or more setups for a surgical case, we recommend you chose the Extended case which includes up to five therapeutic models and up to five setups for a single extended bundle surcharge. This option is more economical that paying an a la carte fee for each additional therapeutic model or setup.

Which case do I choose for lingual treatment?

Choose the Standard case for lingual treatment. If you need two or more therapeutic models, or two or more setups (e.g., if you plan to continue with aligner therapy after debonding) we recommend selecting the Extended case as this is more economical than purchasing subsequent models or setups a la carte.

I don’t see unlimited update models for the Aligner case. Why not?

To produce update models, we rely on bracket data. Without the need to update bracket positions, there is limited value for this scan case. If a tooth is restored or erupts during aligner therapy, please order a new therapeutic model. This enables the Digital Lab to accurately represent the patient’s anatomy and tooth positions. Remember, a new setup will be required.

Oops, I ordered the wrong case. Can you fix it for me on the back-end?

Unfortunately, we can no longer fix these issues without your help, since we have made some system changes to accommodate case-based and a la carte pricing. The Digital Lab technicians cannot move data between different products without inadvertently causing you to be billed incorrectly. Instead, the Digital Lab technicians will reject the order but provide you instructions about what to do to place the appropriate order and keep your billing correct.

I ordered a diagnostic/therapeutic/final model based on an OraScan, but I meant to order one of these other cases. What do I do?

The Digital Lab will reject the order to allow you to correct the problem. You will be instructed to cancel the rejected order and re-submit using the correct case type. You do NOT need to include new patient data. Instead, scan a piece of white paper to capture several blank frames into each segment and submit. On the back-end, the Digital Lab will move the data stored in your rejected order into your new order.

FAQs - Extended Cases

Can I upgrade from a Standard case to an Extended case?

Yes, however only the first therapeutic model and setup will apply to an Extended case. Items already ordered a la carte will not be refunded.

What if I upgrade from a Standard case to an Extended case but end up not using any additional items? Will I still pay an Extended case fee?

No, an Extended case will not take effect until you order the next included item (i.e., additional therapeutic model, setup, update model, wires).

What if I've already purchased an a la carte item, such as a second therapeutic model, but then I decide to upgrade to an Extended case. Can I get a refund for the a ala carte product or products I've already purchased?

No, once you purchase an a la carte product, you cannot receive a refund for it.

I need to re-treat a patient that was finished with a Standard case. Can I upgrade to Extended even though a couple of years has passed?

Yes. When you order the next item, the patient's record will automatically return to “Active” status.

If I select an Extended case, but then realize I do not need multiple therapeutic models/setups, can I downgrade to a Standard case?

Yes, as long as you have only ordered items normally included in the Standard case (or fewer).

What if I select an Extended case but then realize I should have chosen an Aligner case?

You can change to an Aligner case as long as you have not ordered any products yet.

What if I finish a case with an Extended case, but only use the items that would have been included in a Standard case?

You can downgrade the case to Standard, but this does not occur automatically. Please contact your Account Manager for assistance.

Choose a Treatment Model

Six types of treatment models can be ordered:

- **Diagnostic model** - May be used (not required) during diagnosis as a basis for developing various treatment simulations. Order a la carte. Other uses:
    - Plan bracket placement
    - Aligner treatment planning
    - IDB tray design
    - Communicate with the patient about the diagnosis and the treatment plan.
- **Therapeutic model without brackets -** Use for aligner starts, or for additional diagnostic information. Provides initial 3D model linked to smile photo. Tooth crowns are modeled to the highest standards. This model can also be used for a standard case when the highest quality model is needed for diagnosis or bracket placement planning.
- **Therapeutic model with brackets** - Used for treatment planning. Use as the basis for planning the setup and the SureSmile archwire. One model is included in the standard case type. Additional therapeutic models can be ordered a la carte.
- **Updated Therapeutic model** - Use an update scan to capture rebonded bracket positions, or capture new or changed tooth anatomy. A Standard case type incudes unlimited update models.

  Note: When new teeth are introduced, or existing anatomy changes, you must order a new setup before ordering wires.
- **Premium service for diagnostic, therapeutic or final model** - Order a premium version of a diagnostic, therapeutic or final model if you require the higher accuracy of crown data and gingiva from an optical scan along with the roots and bone from an in-vivo CBCT scan; for example, to create a surgical splint or for aligner therapy
- **Final model** - Order a la carte after treatment is complete and the patient is debonded. Use for quality grading, comparison purposes and record keeping.

Keep the following in mind when ordering treatment models:

- All SureSmile patients must have at least one therapeutic model, which is captured after bonding so that the bracket data can be used in the design of custom archwires.
- An update model is only necessary if changes to bracket positions or tooth anatomy occur AFTER a therapeutic model is requested.
- The Final model is an optional model type that captures finished treatment for evaluation purposes.

  Note: A **Cancel Product** button is available on the Dental Examination page if you need to cancel an *unordered* scan model in SureSmile.

The following table lists the purpose and source for each type of treatment model.

Model Type	Purpose	Records Required?	Source	Included in Standard Case Type/ Quantity	Included in Aligner Case Type/Quantity	Can Order A La Carte
Diagnostic model (optional for labial treatment) (recommended for lingual treatment)	Model the malocclusion, including individual teeth, to support a full dental examination using 3D diagnostic tools. Simulate treatment options Aligner design IDB tray design	No, but highly recommended: - Current Photos (if brackets present, photograph brackets in place but wires removed) - Current Pano;	• CBCT scan of plaster model, or • In-vivo CBCT scan, or • Intraoral optical scan*	NO* **Included in some older contracts.*	NO	YES

	Bracket placement planning.	- Ceph (can be taken anytime before order)				
Therapeutic model	**With Brackets** Required for SureSmile wire treatment. Model the patient's current tooth anatomy and bracket positions. This scan is captured in vivo anytime after bonding in preparation for designing custom archwires. Use after SureSmile or conventional wires to design finishing aligners without having to first debond the patient. Remodel tooth anatomy that has changed; for example, changes could be due to interproximal reductions or newly erupted molars.	Yes: - Current Photos (if brackets present, photograph brackets in place but wires removed) - Current Pano; - Ceph (can be taken anytime before order)	• In-vivo CBCT scan, or • Intraoral optical scan*	YES(1)**	YES(1)**	YES
	Without Brackets Use for aligner starts, or for additional diagnostic information. Provides initial 3D model linked to smile photo. Tooth crowns are modeled to the highest standards. This model can also be used for a standard case when the highest quality model is needed for diagnosis or bracket placement planning. .					
Supplemental scan for therapeutic model **(as needed)**	Use as needed in combination with an in-vivo CBCT scan when large metal fillings or restorations cause distortion or loss of data on CBCT scan. Capture tooth anatomy not captured with CBCT due to distortion Bite scan.	No	• Optical scan* of appropriate teeth and two adjacent teeth (no more than 6 teeth per arch or 10 teeth both arches)	YES (Unlimited)	NO	NO
Premium service for diagnostic, therapeutic or final model (Includes a high-quality optical supplemental scan with an in-vivo CBCT order when needed)	Use as needed in combination with an in-vivo CBCT scan to capture crown data and gingiva.	Yes: Follow guidelines for diagnostic, therapeutic or final models	• Optical scan* of all teeth combined in Digital Lab with in-vivo CBCT scan. (Note that Premium service fee is incurred if you include 7 or more teeth per	NO	NO	YES

			arch or 11 or more teeth for both arches in the scan.)			
Update scan for therapeutic model (as needed)	Used to add tooth models for newly erupted teeth or to update bracket positions. Use this scan when bracket positions have changed, or when new teeth have erupted since the last therapeutic model was ordered. An update scan is taken intraorally to capture the affected area for any of the following: • Bracket rebonds • Newly erupted teeth • Change in tooth anatomy that will affect the setup prescription **Note**: When new teeth are introduced, or existing anatomy changes, you must order a new setup before ordering wires.		• Optical scan* of changed area	YES (Unlimited)	NO	NO
Final model (optional)	The final model captures the finished treatment results for evaluation purposes. This model includes the patient's final tooth positions with individual teeth to support a full dental examination using 3D diagnostic and quality grading tools.		• Optical scan of patient* or • Optical scan of plaster model	NO	NO	YES

* SureSmile-certified scanners must be used for intraoral scans of patients or for any CBCT scan. Optical scans of plaster models may be done with any optical scanner.

** One therapeutic model with or without brackets is included with a Standard or Aligner case.

Choose a Scan Method

The SureSmile system supports a variety of scan technologies for the convenience of you and your patients. Although the availability of each source of scan data depends on the type of model you are ordering, the scan technologies available are described below.

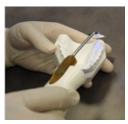
Scanners approved by Dentsply Sirona for use with SureSmile

Handheld intraoral optical scanners:

- CEREC Omnicam (Dentsply Sirona)
- orascanner 2 (Dentsply Sirona)
- iTero orthodontic imaging system (Align Technology, Inc.)
- iOC intraoral scanner (Align Technology, Inc.)
- TRIOS 3, TRIOS Color, TRIOS Standard (3Shape, Inc.)
- 3M True Definition Scanner (3M)

Limitations: All CBCT scanners must be certified by SureSmile before scans can be accepted. Optical scanners used for intraoral bracket scans must be certified. Intraoral non-bracket scans and scans of plaster models may be done with any optical scanner. Follow the instructions on the following forms to have your scanner certified.

- CBCT scanners: CBCT Validation Request Form
- : Therapeutic STL/PLY Activation Request

Technology	Description	Use for
	Optical scan of a plaster model, using either: • orascanner • desktop or handheld scanner	• diagnostic model • final model
	Optical scan of a patient, using a SureSmile-certified handheld scanner: • CEREC Omnicam (Dentsply Sirona) • orascanner 2 (Dentsply Sirona) • iTero orthodontic imaging system (Align Technology, Inc.) • iOC intraoral scanner (Align Technology, Inc.) • TRIOS 3, TRIOS Color, TRIOS Standard (3Shape, Inc.) • 3M True Definition Scanner (3M)	• diagnostic model • Unbonded therapeutic model • Standard therapeutic model • Premium therapeutic model (used in combination with CBCT scan) • Updated therapeutic model (may be used in combination with original therapeutic model CBCT scan) • final model

	CBCT scan of a plaster model at the clinic or an imaging center, using a SureSmile-certified CBCT scanner: • i-CAT - Classic, Next Generation, or FLX • CareStream - CS 8100 3D, CS 9300 or K9500 • Planmeca - ProMax 3D, 3D Mid, or 3D Max	• diagnostic model • final model
	CBCT scan of a patient at the clinic or an imaging center, using a SureSmile-certified CBCT scanner: • i-CAT - Classic, Next Generation, or FLX • CareStream - CS 8100 3D, CS 9300 or K9500 • Planmeca - ProMax 3D, 3D Mid, or 3D Max	• diagnostic model • unbonded therapeutic model • standard therapeutic model • premium therapeutic model (used in combination with optical scan) • final model

Ordering Models from Scans

For detailed instructions for ordering models from CBCT scans, orascans, or optical scans (.STL files) please go to Scanning Protocols and download the protocol for the scanner you are using. You will find detailed step-by-step procedures for ordering each kind of model.

Start a New Order

The New button on the patient-overview timeline allows you to create new products such as therapeutic models, setups, or wire orders.

- When you select **therapeutic model**, the therapeutic order page opens so that you can create an order.
- When you select **Setup**, the **treatment planning workspace** opens so that you can start a new setup prescription.

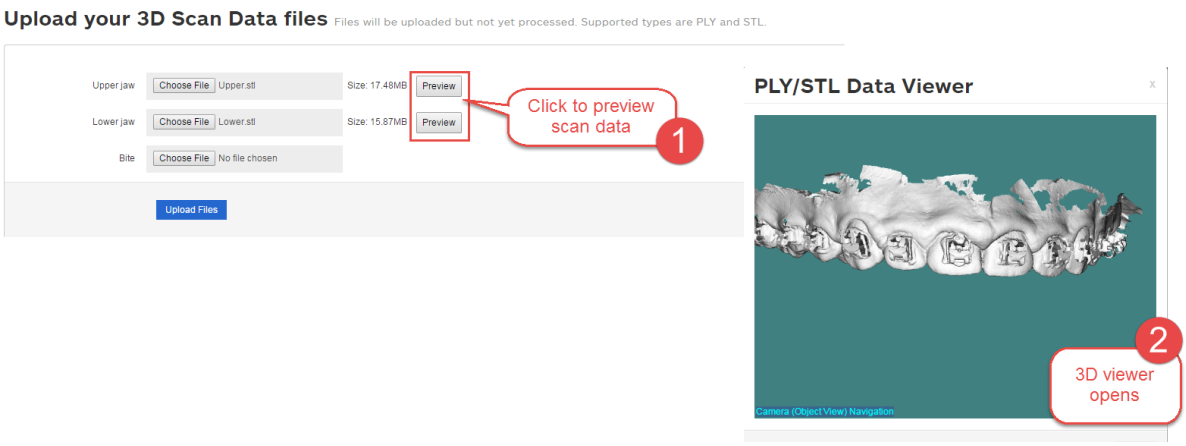
To create a new order in SureSmile

1. Navigate to the patient overview.
2. On the far-right side of the timeline, click the green **New** button, and select one of the following items as appropriate:
    - **diagnostic model** - Opens the Dental Examination page. Go to Enter Dental Exam for Teeth.
    - **therapeutic model** - Opens the Dental Examination page. Go to Enter Dental Exam for Teeth.
    - **update model** - Opens the Dental Examination page. Go to Enter Dental Exam for Teeth.
    - **setup** - Opens the treatment planning workspace. Go to Order a Setup Prescription.
    - **treatment simulation** - Opens the treatment planning workspace. Go to Creating Treatment Simulations.
    - **wire** - Opens the wire order workspace. Go to Order an Archwire.
    - **final model** - Opens the Dental Examination page. Go to Enter Dental Exam for Teeth.

    Note: Not all of the above items may appear in your menu. Only those items that can be created at the current time are shown this menu.
3. Complete your order as usual.

View uploaded STL scan data in SureSmile

Under **Upload your 3D Scan Data file**s, click the **Preview** button for the file you wish to view. (A progress bar indicator appears while the file is loading.)



See also...

Treatment Times

Manage Wires with Treatment Timeline

Using the Treatment Timeline

Enter Dental Exam for Teeth

When you start a new order, the Dental Examination page opens first. Information that you enter on the teeth tab is used by the Digital Lab in combination with a scan to create models. Any additional information you can provide from your observations of the patient helps to improve tooth modeling.

It is critical to Digital Lab processes that the patient's record is updated for missing teeth. The Dental Examination tooth chart is also displayed whenever you order subsequent products after the initial scan. Make changes as needed to keep the chart up-to-date with the patient's current characteristics.

Add information from dental exam

To complete the patient's tooth exam as part of an order, follow these steps from the Dental Examination page:

1. In the tooth chart, click a tooth that you want to change.
2. Select the appropriate tooth option from the list on the left side of the screen: **present**, **missing**, **Unerupted**, or **impacted.**
   Note: If a tooth is missing because it is impacted, choose the impacted option.
3. Just below the option list, click to check additional properties as appropriate: **Partially Erupted**, **Primary**, or **Supernumerary Tooth**.
4. If the patient's selected tooth has no visible contact to the adjacent mesial tooth, click the contact bar between teeth on the tooth chart to remove the bar.
   Note: To remove all contacts click **Clear all contacts**.

   or

   If the patient's selected tooth is in contact with the adjacent mesial tooth, click the space between the teeth on the tooth chart to add the bar.
   Note: To set all contacts at once click **Set all contacts**.
5. Under Miscellaneous, click the appropriate option.

Dental Examination Color Indicators

The color in the dental exam tooth chart indicates the following:

- **White background** = unbonded, no bracket
- **Green background** = labial bonded
- **Blue background** = lingual bonded
- **Red lin**e = bonded upside down
- **Red base** =customer hold
- **Yellow base** = customer hold is resolved

For example, in the above set of teeth:

5 = customer hold is resolved, unbonded, no bracket

4 = customer hold is resolved, labial

3 = customer hold, labial

2 = lingual bonded, upside down, customer hold is resolved

1 = unbonded with bracket, customer hold is resolved

Reset Tooth/Reset Teeth

In the Inter-proximal Properties section of the Dental Examination page, follow these steps to reset one or more teeth.

- To remove the properties of a single tooth, select it and click **Reset Tooth**.
  OR
- To remove the properties of all teeth, click **Reset Teeth**.

For information about the modeling of unerupted teeth with a CBCT scan, see the online help in the SureScan desktop application.

Assign Brackets

The Dental Examination page appears in a new model order until the model has been returned for review.

Although you can view the Brackets/Attachments tab from the patient overview, you must use the **Brackets** tab on the Dental Examination page to record a patient's bracket prescription and manage bracket sets.

You have the option to enter the patient's bracket prescription before or after the bonding appointment. However, the information must be entered or updated prior to submitting the therapeutic model or update scan orders. A current and correct bracket prescription is required by the Digital Lab to process scans and create custom archwires. Each jaw must have a minimum of 6 brackets assigned. Otherwise the order is placed in a *Provide Information* state and cannot be processed until you add the additional brackets.

You can assign one bracket at a time or you can assign a bracket set. If you mix labial and lingual brackets on a single jaw, a warning appears. Select either the Labial or Lingual button to indicate which treatment type you want. Likewise if you mix treatment types between jaws, i.e. if you choose lingual brackets for the upper jaw and labial brackets for the lower jaw, a warning appears, asking if you are certain you want to bond the brackets of each jaw differently. You must click either Yes or No to proceed.

Why is identification of the brackets important to a SureSmile patient's treatment?

The accuracy of each bracket model is critical since brackets are part of the formula for computing the patient's custom wire design. To determine a bracket's position relative to a tooth, Digital Lab software runs a registration process to precisely position the bracket from the bracket library to the scan data.

Different slot size warning

When you add a bracket to a dental exam that already contains one or more brackets (or a bracket set, you get a warning if the slot size of the bracket being added is different from the slot size of those brackets already added.

If you really intend to add a bracket with a different slot size, click **Apply**. If you intend to add more brackets for this case with different slot sizes, select the **Ignore further warnings** check box.

Show intra-oral photos during bracket selection

When you select a tooth on the **Dental Examination** page and click **Apply bracket...,** the **Brackets** window opens and displays an intra-oral photograph appropriate to the tooth selected.

If the tooth selected is..	Then the photograph displayed is..
U or L 2-2	frontal
UR or LR 8-3	right buccal
UL or LL 3-8	left buccal
U or L 8-8 bonded lingually	U or L occlusal

Select a single bracket

To assign a single bracket, follow these steps:

1. From the patient overview, click a product in the timeline or click **New** and select the product you want to create.
2. On the Dental Examination page, click the **Brackets** tab.
3. Double click on a tooth or click the **Assign Brackets** button.
   Result: The Bracket Selection dialog box opens. The list is filtered for the type of tooth selected in the tooth chart. The list contains a picture of the bracket and a textual description including order number and prescription.
4. To filter the list, select from the vendor, family, slot width, quadrant and tooth drop-down lists. Uncheck or check the Use Bracket Preference filter as needed to apply the filter or to temporarily remove the filter to see the full list of brackets.
5. To further refine your search, click the **More …** button.
   Result: The Additional Filter window opens.
   a. Click any of the drop-down arrows to select additional bracket features. Click the **Clear** button in the Additional Filter window to quickly reset all selections to **any**.
      OR
   b. Type the manufacturer's part number in the **Part No.** field.
      Result: As you type, the bracket list narrows to include brackets that match the partial number until you finish typing the number that corresponds to one bracket.

   Note: Gold brackets are not acceptable for CBCT scanning.
6. (Optional) If the patient's images have been uploaded, click the **Show Images** button on the right top of the dialog box to display a patient photo. Click Select Image... to select the appropriate photo. This feature can be very useful as you assign brackets as you can check the bracket you select against the bracket shown in the patient's photo.
7. Click the appropriate bracket in the list at the bottom of the window, and then click **Apply & Next** to continue selecting brackets.

   Tip: You can use your keyboard arrows to navigate the list of brackets, and you can use the keyboard shortcut **ALT+a** (Chrome browser) or **ALT+SHIFT+a** (Firefox or Safari browser) instead of clicking the Apply & Next button.

   The list at the bottom of the window changes as you make each selection.
8. Repeat steps 5, 6, and 7 until you have assigned all of the brackets.
9. Click **OK** to close the Bracket Selection window.

Mark as Bonded or Not Bonded

You can assign brackets to the patient at the beginning of treatment, at the bonding appointment, or at any other time prior to ordering a therapeutic model. The Mark Bonded/Not Bonded buttons allow you to distinguish between the bracket prescription planned for this patient and brackets that are actually bonded.

On the Brackets tab from the patient overview or from the dental examination page, you can distinguish bonded brackets from unbonded by the background of the bracket: a white background indicates not bonded. If it is bonded, a green background indicates labial brackets and a blue background indicates lingual brackets.

The following table explains when to use these buttons on the Brackets tab. To affect a single tooth, you must first select it in the tooth chart.

Button	When to Use
Mark Bonded	The tooth has been bonded with this prescription.
Mark Not Bonded	Prescription has been determined, but the tooth will be bonded later.
Mark All Bonded	The patient has been bonded with this prescription, or the bonding tray has been checked.
Mark All Not Bonded	Prescription has been determined, but the patient is not bonded.

When setting up the bonding tray, check the tray against the brackets assigned for this patient. They must match. If the tooth chart is not current, follow the steps for updating the dental exam and assigning brackets.

If the bracket assignments are correct and the patient is bonded, click **Mark All Bonded**.

Select a bracket set

To assign a bracket set, follow these steps:

1. On the Dental Examination page, select the Brackets tab.
2. Click **Assign Bracket Set(s)**.
   Result: The Bracket Set Selection window opens.
3. Select an existing bracket set from the drop-down list, such as Ormco Mini Diamonds.
4. To modify or remove a single bracket click the **Modify** or **Remove** buttons. When you click the **Modify** button, the Bracket Selection window opens. Make your changes and click **OK** to return to the Bracket Set Selection window.
5. Use the Target drop-down list to apply the bracket set selection to All Teeth, Upper Jaw Teeth, or Lower Jaw Teeth.
6. Click **Apply.**
7. Click **Close** to close the Bracket Set Selection window.

Note: After you apply a new bracket or bracket set and submit the therapeutic model, the changes are logged in the product notes associated with that model.

Important: Gold brackets are not acceptable for CBCT products such as CBCT scans or premium models.

View the 3D model of a bracket

If you want to see different angles in the 3D bracket display, follow these steps to rotate the bracket:

1. In the chart at the top of the page on the brackets tab, click the bracket that you want to rotate.
   Result: The bracket appears in the large view on the left side of the page.
2. Point to the large image of the bracket, and click to drag the bracket until it is in the appropriate position.

Remove a bracket

To remove a bracket, follow these steps:

1. From the Dental Examination page, click the **Brackets** tab.
2. Click to select a bracket that you want to remove.
3. Click **Clear Bracket**.

Remove all brackets

To remove all brackets, follow these steps:

1. Click **Clear All Brackets**.
   A confirmation window opens.

2. Click **OK** to remove all brackets, or **Cancel** to keep the current bracket assignments.

/body> /html>

Submit your Order

When you have completed the dental exam and performed other tasks required by the different types of models, follow these steps to submit the order:

1. From the timeline at the top of the patient overview (or from the expanded timeline on the clinic overview), click the name of the order that you are ready to submit. The Dental Examination opens,
2. Scroll down the page to the **Submit Order** section.
3. Check or uncheck the **Deliver with Brackets** check box as appropriate.
    - **If the model is part of a Standard case type**, then the check box is checked by default. You can still uncheck the check box if you want to order an unbonded therapeutic model.
    - **If the model is part of an Aligner case type**, the check box is unchecked by default. You cannot recheck it, since you cannot order an aligner with a bonded model.
4. Click **Submit**.

    Note: Orders for models from OraScans must be submitted from the scan station used to capture the scan data. Orders for models from CBCT scans must be submitted from SureSmile.

SureSmile Product List

The following table describes each SureSmile product, when it is required, its purpose, what scan type is needed , and which records are required.

[Printable PDF of table]

PRODUCT	REQUIRED	WHY USE	WHEN TO ORDER	SCAN REQUIRED?	WHAT TO SCAN	SCAN METHOD	RECORDS REQUIRED?	NOTES	INCLUDED IN: STANDARD CASE TYPE	STANDARD w/IDB	ALIGNER CASE TYPE	EXTENDED CASE TYPE	NONE CASE TYPE (A LA CARTE- Charge for each order)
Diagnostic Model	(optional for labial treatment) (recommended for lingual treatment)	- Diagnostic purposes - Develop different simulations - Aligner design - IDB tray design - Bracket placement planning - Marketing purposes	Before treatment.	YES	Plaster model	CBCT, OraScan, or STL/PLY data from optical scanner.	Records not required but highly recommended as follows: - Current Photos (if brackets present, photograph brackets in place but wires removed) - Current Pano; - Ceph (can be taken anytime before order)	Gingival data not available for in-vivo CBCT scans, but can be captured in CBCT scan of plaster model, 3rd party STL/PLY scan data, or OraScan scan data.	$	N/A	N/A	$	$
					Patient	*In vivo:* CBCT *Intraoral:* OraScan, or STL/PLY data from suresmile-certified optical scanner.							
					Impression	STL/PLY file from 3rd party vendor.		Root data and bone only obtainable with in-vivo CBCT.					
Therapeutic Model (with brackets)	YES	Use for treatment planning. Use as basis for obtaining the setup that will produce the suresmile archwire.	Anytime after patient is bonded.	YES	Patient	*In vivo:* CBCT scan	- Current Photos (with brackets in place but with wires removed) - Current Pano; - Ceph (can be taken anytime before order)	- Gingival data not available for CBCT scans unless available from prior model. Root data and bone only obtainable from an in-vivo CBCT.	1	1	1	5	N/A
						Intraoral: OraScan or STL/PLY data from suresmile-certified optical scanner.							
Therapeutic Model (without brackets)	NO	- Best possible diagnostic model, as DL sets feature points and registers smile photo. - Aligner design - Bracket placement planning	Anytime before patient is bonded.	YES	Patient	*In vivo: CBCT scan* + *Intraoral: OraScan or STL/PLY data from suresmile-certified optical scan of all teeth.*	- Current Photos (if brackets present, photograph brackets in place but wires removed) - Current Pano; - Ceph (can be taken anytime before order)	Gingival data not available for CBCT scans unless available from prior model.					
						Intraoral: OraScan or STL/PLY data from suresmile-certified optical scanner.		Root data and bone only obtainable from an *in-vivo* CBCT.					
								Type note to DL: "Unbonded Thx"					
Supplemental Scan *(included with therapeutic model order when needed)*	YES if distortion present in CBCT scan	- Use as needed to capture crown tooth anatomy not captured with CBCT due to distortion caused by large metal fillings or restorations. - Use to provide a bite scan.	On same day as therapeutic scan	YES	Patient	*Intraoral:* OraScan or STL/PLY data from suresmile-certified optical scanner of appropriate tooth and 2 adjacent teeth.		Must be submitted as part of a therapeutic model order. May not include more than 6 teeth per arch or 10 teeth total.	✓	N/A	N/A	✓	✓
Premium Service for Diagnostic, Therapeutic or Final Models	NO	Order if you require the higher accuracy of crown data from an optical scan along with the roots and bone from a CBCT scan. Tooth crowns are modeled to highest standards and full gingiva is provided. Typical use case: to create a surgical splint.	Anytime.	YES	Patient	*In vivo:* CBCT scan + *Intraoral:* OraScan or STL/PLY data from suresmile-certified optical scan of all teeth.		Must be submitted as part of a diagnostic, therapeutic or final model order. Extra fee assessed for this optional service. Fee is also incurred if you include 7 or more teeth per arch or 11 or more teeth for both arches in a scan. Contact Customer Care for fee details.	$	$	$	$	N/A
Update Scan	NO	Use to capture re-bonded bracket position due to: - bond failure - bracket repositioning	Anytime after therapeutic model ordered.	YES	Patient	*Intraoral:* OraScan or STL/PLY data from suresmile-certified optical scanner.	Photographs (not required but highly recommended)	New wire order needed for bracket updates.	✓	✓	N/A	✓	N/A
		Use to capture: - newly erupted tooth - changed tooth anatomy											
		CBCT update for brackets added to suresmile bracket library				For bracket library updates: Resubmit original In vivo CBCT scan		New setup order needed for tooth or anatomy updates.					
Treatment Simulation	YES	Explore various treatment alternatives before deciding on a setup prescription.	N/A	NO	N/A	N/A	None	Can be converted into setup prescription model.	✓	✓	✓	✓	✓
Setup Order (also known as Plan)	YES	Plan treatment. Provides a 3D model and a set of detailed treatment planning instructions for achieving the desired treatment result.	Immediately after you approve the therapeutic model.	NO	N/A	N/A	None		1	1	1	5	N/A
Custom Archwires	YES (except for Aligners)	Implement treatment. Your set of detailed instructions tell suresmile how the archwires should be fabricated.	After you approve the setup prescription.	NO	N/A	N/A	None		✓	✓	N/A	✓	N/A
Final Model	NO	- Comparison purposes - Record keeping	After treatment is complete and the patient is debonded.	YES	Plaster model	CBCT, OraScan, or STL/PLY data from optical scanner.	Records not required but highly recommended.	Gingival data not available for in-vivo CBCT scans, but can be captured in CBCT scan of plaster model, 3rd party STL/PLY scan data, or OraScan scan data.	$	$	$	$	N/A
					Patient	*In vivo:* CBCT *Intraoral:* OraScan, or STL/PLY data from suresmile-certified optical scanner.							
					Impression	STL/PLY file from 3rd party vendor.		Root data and bone only obtainable with in-vivo CBCT.					
Staged Models (Physical Models)	YES	Send files to OraMetrix tor printing as 3D models. Use printed models to create your own aligners.	Immediately after you approve your setup or immediatley after your create a treatment simulation you wish to use as your target.	YES	N/A	N/A		Diagnostic model or unbonded therapeutic model required.	$	$	$	$	$
IDB Trays (Physical Trays)	YES	Send IDB Tray simulation for printing and fabrication by OraMetrix.	Immediately after you create your IDB tray simulation.	YES	N/A	N/A		Diagnostic model required.	$	1 set U / L	N/A	$	$

Legend:
✓ = included in case type, no charge
1, 5 = number of products included in case type
$ = separate fee for each prduct ordered

Ordering a Premium Model

Order a premium model if you require the higher accuracy of crown data from an optical scan along with the roots and bone from a CBCT scan. Tooth crowns are modeled to highest standards. An extra fee is charged for a premium model because it requires additional processing time in the Digital Lab. If the number of restored teeth requires premium modeling, we recommend attaching full arch data to obtain the most detailed and complete model of the patient.

> **Important**: Since premium models are a combination of a CBCT model and an OraScan or a 3rd party STL scan, they can only be ordered from SureScan because CBCT orders can only be made from SureScan.
>
> **FYI:** An "optical scan" refers to data acquired with scanner technologies that capture surface anatomy; in other words, the anatomy that can be seen optically. These technologies include the OraScanner and certified 3rd party scanners. The scan may be intraoral (captured at a patient appointment) or of a plaster model.

A typical use case for a premium therapeutic model would be if you wanted to create a surgical splint.

If you scan more than 6 teeth per arch or 10 teeth total for a supplemental scan, SureSmile requires that you order a premium therapeutic model instead of a normal therapeutic model.

If you scan...	..you must order a
• 7 or more teeth per arch or • 11 or more teeth total	premium model

> **NOTE**: The "anchor teeth" used by the Digital Lab to register the data (and shaded in light blue in the tooth chart) are NOT counted to determine premium model orders.

To order a premium model with orascanner data from SureScan:

1. From SureScan, start your therapeutic CBCT order.
2. Click the **Supplemental OraScan** button as usual to open a scan session with the segment dialog.
3. For the upper arch,click the **Model full arch (including gingiva): upper** check box. This option selects all of the upper teeth automatically. When you select the **Model full arch (including gingiva)** upper/lower check boxes, you will receive the most detailed representation of the patient:
    - Tooth crowns and gingiva are modeled from the optical scan.
    - Roots, bone, and impacted teeth are modeled from the CBCT scan.
4. Click **OK** and capture the upper arch.
5. Repeat these steps to capture the scan for the lower arch.
6. It is a best practice to take the bite scan as well to assist the Digital Lab in more accurately setting bite registration.
7. Proceed to submitting the order as usual.

> **Tip:** You can create all three segment windows (upper, lower, bite) and then begin scanning.

To order a premium model with STL data from a certified 3rd party scanner (i.e. iTero, TRIOS) using SureScan:

1. From SureScan, start your Therapeutic CBCT order.
2. Select the **Files PLY/STL** tab in the lower-right.
3. Click the **blue** segment button as usual to open the segment dialog.

4. For the upper arch, click the **Model full arch (including gingiva): upper** check box. This option selects all of the upper teeth automatically. When you select the **Model full arch (including gingiva)** upper/lower check boxes, you will receive the most detailed representation of the patient:

    - **Tooth crowns** and **gingiva** are modeled from the optical scan.
    - **Roots**, **bone**, and **impacted teeth** are modeled from the CBCT scan.

5. Click the folder icon and find the patient's upper arch data, and click **OK**.
6. Click **OK** to close the segment dialog.
7. Click the **New Segment** icon to list another segment.
8. Repeat these steps to attach the data for the lower arch.
9. Proceed to submitting the order as usual.

FAQs - Premium Models

What if I select full arch modeling but don't include enough data?

The Digital Lab will reject the order and request that you correct it. Either:

- Select the teeth that require modeling to supplement the CBCT data (corresponding to the attached data)
- Keep the full arch modeling request and replace the data with complete arch scans

What if I scan both arches but forget to select the full arch/gingiva check boxes?

Call Customer Care immediately to request that the Digital Lab reject the order so that you can correct it.

What if I scan both arches and select enough teeth to incur the premium surcharge. Will you include gingiva?

Call Customer Care immediately to request that the Digital Lab place the model on hold to give you the opportunity to indicate full arches. If you call before the Digital Lab starts work on the order, it can be corrected to include both teeth and gingiva for full arches. However, if modeling has already begun, the Digital Lab can only add teeth (not gingiva).

I previously scanned a diagnostic model. What happens to that gingiva?

- If you attach full arch data AND incur the premium service (by requesting full arch/gingiva modeling or selecting enough teeth), the current gingiva is displayed in the new model (effectively replacing the previous gingiva from the diagnostic model).
- If you do NOT attach full arch data, the previous gingiva from the diagnostic model is displayed with your new model.
- If you attach full arch data but do NOT incur the premium service (e.g., you do not request full arch/gingiva modeling or select more than 6 teeth per arch or 11 teeth total), the previous gingiva from the diagnostic model is displayed with your new model.

What if a tooth is impacted? Will you model it when I select the full arch/gingiva option?

Yes, an impacted tooth will be modeled from the CBCT data and the gingiva (covering the tooth) will be modeled from the optical scan.

We typically order two models to capture gingiva + roots/bone. Should I switch to ordering a premium model?

To help you decide, here are the advantages of each approach.

Two models:

- The first model can be a diagnostic model (lower fee, records not required).
- Extra cost for additional model to combine all anatomy is $45-$55 (U.S.)

Premium model:

- Receive more up-to-date gingiva by including optical scan with CBCT scan
- Just one order to submit – no issue with which model ordered first, less steps for staff
- Supplemental scans as required for restorations are included
- Just one model for the doctor to view means no confusion about which model is the reference model
- Highest modeling accuracy for tooth crown data (taken from optical scan)

- Extra cost for service to produce highest quality complete model is $100 (U.S.)

  Note: If you are ordering a diagnostic model for the purposes of creating a simulation (not just acquiring gingiva) then you may want to continue with your current routine.

I don't need a premium model, but the patient has tooth restorations in every quadrant. How do I avoid the premium model fee?

If there are less than 7 teeth per arch or less than 11 teeth in total that contain metal restorations, selection of only those teeth to be replaced by the supplemental data will not incur a premium model fee.

When 7 or more teeth per arch or 11 or more teeth in total contain metal restorations or the restorations present are large, we recommend submitting an intraoral optical scan instead of CBCT scan data due to "noise" from the restorations distorting the adjacent teeth.

If you have already started a CBCT scan with full arch supplemental orascan data of the Upper and Lower, to avoid rescanning the patient, follow these two steps:

1. **Create another product**, Diagnostic or Therapeutic, selecting OraScan as your data type. In SureScan, scan a few frames of a piece of paper into each designated area for the Upper Jaw, Lower Jaw and Bite. Submit this order to the Digital lab with notes to use the OraScan data from the supplemental scan.

2. **Continue with the original CBCT** with supplemental order by submitting it to the Digital Lab with notes that the supplemental OraScan data should be transferred into the other product ordered.

Once the OraScan data has been transferred, the Digital Lab will cancel the CBCT with supplemental order, which will reimburse any extra fees incurred.

What if I capture extra teeth in my scan data. Will I be charged?

The modeling request is determined by the teeth you select in the tooth chart, not by the teeth captured in your scan data.

Should I scan the bite into the Supplemental area as well?

The bite scan is not needed for the premium service. However, you may add it to any models based on CBCT scans to improve bite registration.

What if I order a second therapeutic model? Do I pay a premium fee again?

Yes, if you scan both arches again into the Supplemental area. If you scan teeth with restorations only and do not exceed the tooth model limit, the order will be treated as an a la carte therapeutic model only.

Can I order a Premium therapeutic model without brackets?

Yes. In SureSmile, it is called a premium unbonded therapeutic model.

Managing Photos and X-rays

Photos and x-rays are required to optimize 3D modeling accuracy and should be taken at the patient's scan appointment.

> **Tip**: If you cannot take records at the scan appointment as recommended, make sure you take them no more than 4 weeks before the scan or no longer than 2 weeks after the scan. Any delay beyond 2 weeks after the scan will extend overall treatment time.

A standard photo set consists of:

- Extraoral
  - Shows the natural jaw position.
  - Shows the patients' natural smile line; needed for global registration.
- Intraoral
  - Used for tooth anatomy
  - Bite registration
  - Bracket placement

Specific requirements for SureSmile records are listed below.

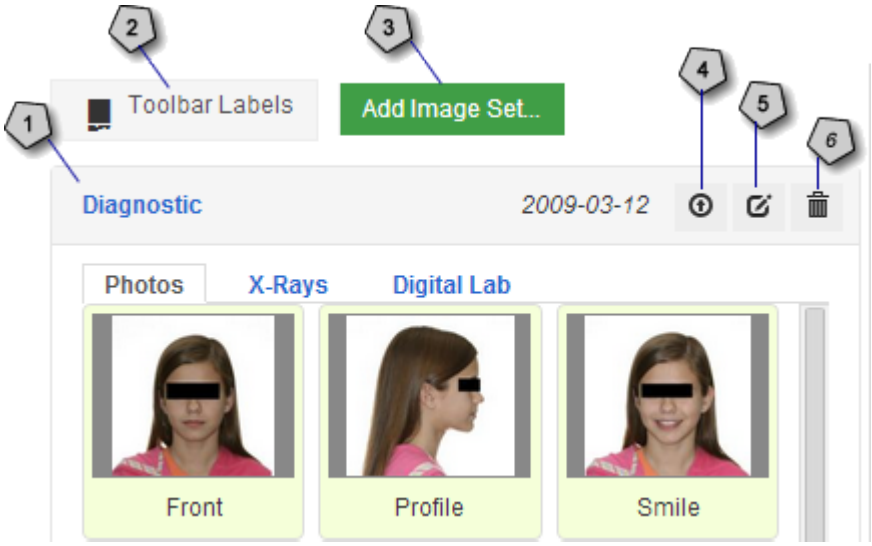
	Photos	X-Rays
Initial Records		
Strongly recommended	Five standard intraoral, three facial Full mouth intraoral photo	Panorex, ceph
Progress Records		
Required for a therapeutic model	Five standard intraoral + three facial	Panorex + initial or current ceph
Strongly recommended	Full mouth + overjet	
Final Records		
Strongly recommended	Five standard intraoral, three facial + full mouth	Panorex, ceph

See also...

Edit Images

Manage Image Sets

The right panel in the image editor allows you to add and view images. Shown below is the top part of that panel:



1. Name of image set. Date of image set is in italics to the right. Click to expand or collapse view of images in the set.
2. Toggle the toolbar labels in the left panel on and off.
3. Use this button to add a new image set from this page.
4. Upload images icon
5. Edit image set icon
6. Trash can icon to remove the selected image set.

Create a new image set

1. On the patient overview, click **Image Sets** and then select **Add Image Set...**
   OR
   In the image editor, click the green button at the top of the panel on the right side of the page.
   Result: The New Image Set page opens.
2. Enter the name for the image set.
3. If you need to change the date, type the date or click the calendar icon and select the date that the records were taken.
4. Click **Save**.

Change the image-set name and date

To change the name and/or date of an image set, follow these steps:

1. From the patient overview, click **Image Sets** and then select the image set for which you want to change the name or date.
2. Click the edit button to the right of the image set name.
3. Click the edit icon , and select the name of the set that you want to change.
4. Change the name and/or date.
5. Click **Save**.

Add images to the image set

When you click edit for an image set on the patient overview, you go to the image set page, which has a large pane on the left for viewing an image and a pane on the right for adding and showing images.

The pane on the right has three tabs:

1. **Photos** where you can add nine pre-labeled images plus 15 additional photos.
2. **X-Rays** where you can add six pre-labeled images plus 15 additional x-rays.
3. **Digital Lab** where nine images can be added by the Digital Lab.

To add images to an image set, follow these steps:

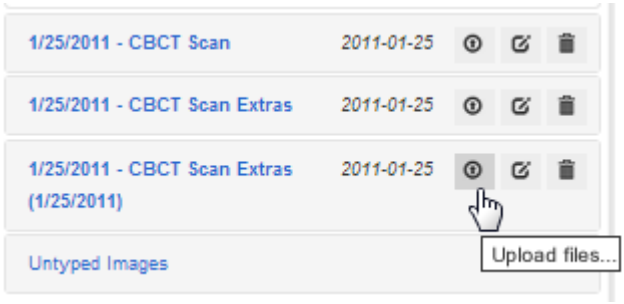
1. From the patient overview, click **Image Sets** and then select the image set into which you want to add photos or x-rays.
2. Click the Edit button to the right of the image set name.
   Result: The image set page opens.
3. On the right pane of the screen, click the appropriate tab for the images you want to add: **Photos** or **X-Rays**.
4. Click the upload icon on the thumbnail view that you want to add.
   Result: The New Image box opens.
5. Enter a title.

   Note: The type and image set are default values that you cannot change.
6. Click **+ Add Files...;** select the image from the dialog window, and then click **Open**.
   Result: As soon as you click Open, the image is added to the set in the place that you selected in Step 4.
7. Repeat steps 4 through 7 until you have added all of the images for this set.

Upload multiple images

To add multiple photos or x-rays at one time, follow these steps:

1. Click the **Upload Files** button for the image set.



2. Select multiple image files from the Open dialog, and click **Open**.
   Result: The selected files appear in the Untyped Images area below the montage.
3. Drag and drop the image into their correct position in the montage.

Move an image in the image set

To move an image to another location in the image set, follow these steps:

1. Click and hold down the mouse button on the image that you want to move.

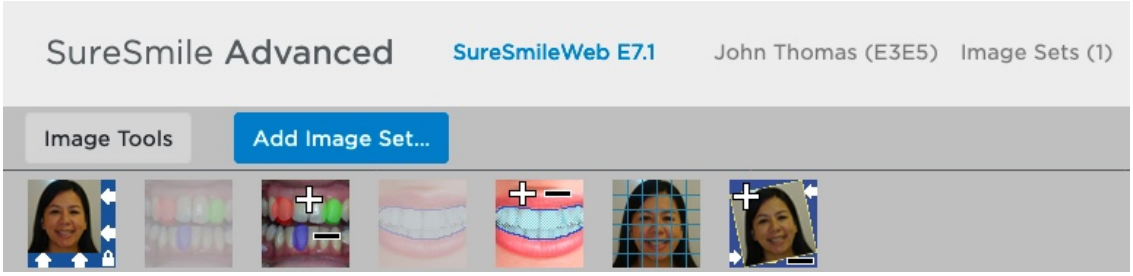
2. Drag the image to the new location in the set.
   Result: The image in the original location disappears and then appears in the new location. If an image was already in the new location, it exchanges places with the image that you moved.

Delete an image set

1. From the patient overview, click **Image Sets** and then select the image set that you want to remove.
2. Click the Edit button to the right of the image set name.
3. Click the trash can icon to the right of the set that you want to delete.
4. Click **OK** or **Cancel** at the "Are you sure?" prompt.
   Result: If you click OK, the image set name disappears from the list.

Edit Images

The photos and X-rays pages both have the same image editing tools. The image editor has icons at the top of the page just above the large image area as shown below:



Change the size of the image

To change the zoom factor on an image, follow these steps from the image editor page:

1. Click on an image in the pane on the right side of the screen.
   A preview image appears in the Image Editor on the left side of the screen.
2. Put your mouse cursor over the square in the middle of the image.
3. Hold down the left mouse button and do one of the following:
   - Move the cursor up to zoom out and reduce the image size.
     OR
   - Move the cursor down to zoom in and increase the image size.

♦ top of page

Turn on the grid

1. Click on an image in the pane on the right side of the screen.
   Result: A preview image appears in the Image Editor on the left side of the screen.
2. Click the **Grid** icon to toggle the grid on and off.

♦ top of page

Change the photo quality

The tools menu (last icon on the right) provides options for you to do the following:

- Change brightness
- Change contrast
- Restore view
- Reset view
- Mirror (flip) the view horizontally

To make changes to your image, follow these steps:

1. Click on an image in the pane on the right side of the screen.
   Result: A preview image appears in the Image Editor on the left side of the screen.
2. Click on the image tools icon .
   Result: The Image Tools window dialog box appears.

3. Choose from the options listed below to change the image:

If you want to ...	Do this ...
Increase the brightness ...	Drag the Brightness slider bar to the right or enter a number between 1 and 99.
Decrease the brightness	Drag the Brightness slider bar to the left or enter a negative number between -1 and -99.
Increase the contrast	Drag the Contrast slider bar to the right or enter a number between 1 and 99.
Decrease the contrast	Drag the Contrast slider bar to the left or enter a negative number between -1 and -99.
Restore the view to its last state	Click the Restore View button.
Reset the view to the original image	Click the Reset View button.
Flip the image horizontally	Click the Mirror Horizontally button.

4. When you have made all of your changes, click the gray x in the upper right corner of the Image Tools dialog to close that window.
   Result: Your changes are saved automatically.

♦ top of page

Rotate the image

To rotate the image, follow these steps:

1. Click outside the circle.
2. Press the left mouse button and then drag the mouse in a circular pattern to rotate the image.

Move an image

To move an images, follow these steps:

1. Click inside the circle.
2. Press the left mouse button and then drag the mouse change the position of the image in the editing area.

Save a view

After you make changes to an image, you can retain the changes to the view.

To save changes to your image, click the **Keep View** icon above the large image area.

Delete an image

To delete an image, follow these steps:

1. In the right panel, place your cursor over the thumbnail image that you want to delete.
2. Click the trash can icon in the thumbnail to delete the image.

♦ top of page

Region Markup Tool

The region tool allows you to create a shaded region around three areas of concern on a photograph or x-ray. You can then refer to the region in your notes to the Digital Lab so that the technician knows which area you want to reference for a particular matter.

Use the Region Tool to Add an Area

To mark a region on a photograph or x-ray, follow these steps:

1. Navigate to the photograph or x-ray that you want to mark.
2. Click the **Regions...** icon.
   A drop down list appears to the left of the large image.
2. Click **Region #1** (red), **Region #2** (green), or **Region #3** (blue), and then click **Add Region Area.**

   Result: The pointer turns into a cross hair.

4. Click and drag the pointer around the area you want to highlight. When finished, release the mouse button.
   Result: As you trace, a shape masks the area in the photograph or x-ray in the color you selected.

5. To save your changes, click the **Keep View** icon in the toolbar at the top of the large image window.

Use the Subtract Region Area Tool to Modify an Area

Follow the steps below to remove a region on a photograph or x-ray.

1. Open a model and in the menu bar, click Image.
2. Click the Select... icon, and click the image on which you want to change a region.
3. Click **Region #1 (red)**, **Region #2 (green)**, or **Region #3 (blue)**.
4. Click **Subtract Region Area**.
   Result: The pointer turns into a cross hair.
5. Click and drag the cross hair to subtract or remove a portion of the colored area. When finished, release the mouse button.
   Result: A portion of the area is erased.

6. When finished, click **Keep View** icon to save your changes.

Export 2D Images

Video: Exporting 2D Images of Models or X-rays

To export a single image

1. From the patient overview, click the **Exports** button on the right side of the screen, and select Export 2D or Export 3D.
2. Click the down arrow next to the image that you want to export and select the appropriate file format.
   Result: The file is downloaded immediately to the download directory on your computer.
3. Repeat step 2 for other images that you want to export.

To export the entire image set

1. Click the down area next to the **Download Group** button at the top of the page.

2. Select the appropriate format from the menu.
   Result: SureSmile downloads a zip file to the download directory on your computer.
3. Move or save the zip file to a more appropriate location.

IDB Trays - Overview

SureSmile's labial indirect bonding (IDB) trays are a fast, inexpensive labial IDB solution. The unique tray design has individual jigs that are combined into a sectionable tray that enables more predictable delivery. SureSmile's powerful simulation software allows you to visualize straight-wire treatment and highlight potential interferences. You can then create custom-printed trays based on your simulation using a 3D printing process that allows for more accurate bracket positioning than traditional methods.

> **Note:** At this time, SureSmile only offers IDB trays for labially bonded bracket treatment.

IDB features and kit:

- Malocclusion simulation to view and adjust brackets on a diagnostic model.
- Straight-wire simulation to visualize the effects of tooth/bracket movements, including inter-arch effects.
- Upper and/or lower labial IDB trays manufactured by Dentsply Sirona and shipped to your practice.

Design and Order IDB Trays (Straight Wire Simulation)

This procedure shows you how to create upper and lower labial Indirect bonding (IDB) trays using a straight wire simulation.

Process Overview

Step 1. Order diagnostic model with gingiva

1. Order a diagnostic model by taking an optical scan of the malocclusion, (i.e. OraScan or a third party STL scanner to capture teeth and gingiva). **Strongly recommended:** scan should be intraoral (plaster models are NOT recommended).

2. Before you click the **Submit** button, make sure the ***Deliver as Finished*** check box is checked .The diagnostic model will be delivered in an *Approved* state with a new workflow task called *Order appliance or analyze records.* The task links to next steps for diagnostic models, which may be used for several purposes as described below.

Step 2. Select workflow task: Begin IDB tray simulation

1. From the clinic overview page click the **Tasks** tab

2. Find the patient record you want with an **Order appliance or analyze records** task.

3. Click the **Order appliance or analyze records** task link. The **Select an action** dialog box opens.

4. This dialog box provides several choices for what to do next with a diagnostic model:

    - **Analyze diagnostic model next** - equivalent to using the review order task

    - **Begin bracket placement simulation (for IDB tray) next** - this workflow step opens the IDB bracket simulation workspace

    - **Begin simulation for aligners next –** this workflow step sends you to a simulation referencing the diagnostic model

    - **Dismiss task** – marks the task as completed and removes it from the task list**.**

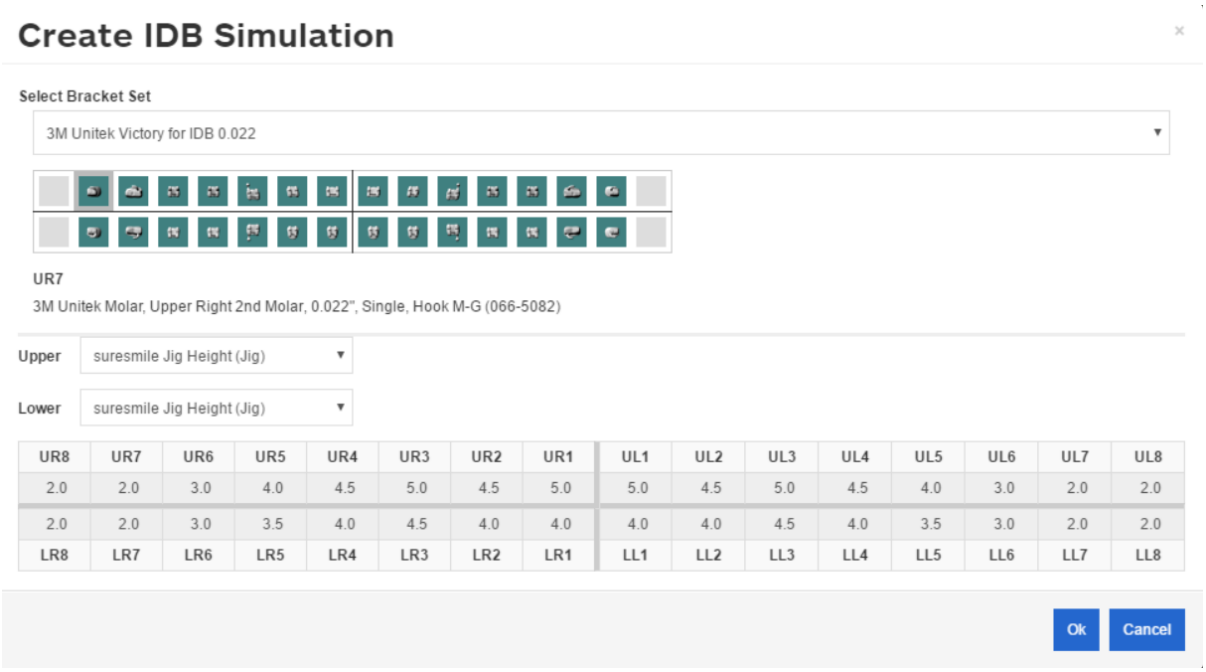
5. Click **Begin bracket placement simulation (for IDB tray) next.**
   Note: The **Order appliance or analyze records** workflow task disappears under the following conditions:

   - When you select *Analyze diagnostic model next*, the task disappears without any further action.
   - When you begin an IDB tray simulation and apply the brackets, the task disappears after you click the **Apply** button.
   - When you begin a simulation for aligners and create a staged model sequence, the task disappears after you click the **Create Staged Model Sequence** button.

Select bracket set and assign bracket height sets

The Create IDB Simulation dialog box opens and you are prompted to select the bracket set and bracket heights set when you begin the IDB tray simulation.

1. From the **Select Bracket Set** menu, select a bracket set supported by elemetrix for use with IDB trays.
2. Select a bracket height set for the Upper, then for the Lower. You will be able to modify bracket heights on the model later as well.



3. Click **Ok**. A progress bar appears while the system creates the IDB Tray simulation.

Note: SureSmile measures the bracket height from the middle of the bracket slot to the:

- incisal edges for central incisors and laterals
- buccal cusp for canines and premolars
- most prominent buccal cusp for posterior teeth

Step 4. Follow checklist to design & order IDB trays

The IDB workspace opens with its own checklist and two new tools in the Guide Tools palette: **Planned Bracket** and **Bracket Heights** . These tools offer options for changing an individual bracket, assigning a different bracket set or changing the bracket height set.

- Use the **Planned Bracket** tool to toggle the planned brackets on or off. Use the tooth chart on the Brackets tab in conjunction with the four buttons on the tab to add or remove brackets and adjust bracket heights as follows:

Button	How to Use
Assign Bracket	Click to open the Bracket Selection dialog box to change brackets for one or more teeth. Use only brackets that are indic as "IDB approved".Failure to do so will prevent the IDB trays from being generated. Only IDB approved brackets are liste default.
Remove Bracket	Click a tooth in the 3D model or in the tooth chart to remove a bracket.
Assign Bracket Set	Click to open the Bracket Set Selection dialog box to change brackets for one or more teeth.
Select Bracket Heights	Click to open the Bracket Height Set Selection dialog box to modify individual bracket heights.
Report	(Optional) Click the **Report** button on the Brackets/Attachment tab to create a printable PDF of the list of planned brack and a table showing the planned, applied and completed IPR for the IDB simulation.
Bracket Voids	(Optional) Click to create a printable PDF list of those brackets where additional adhesive is needed to fill voids betweer bracket base and the tooth surface.

Tip: Remember, if you change a bracket by mistake, just click the **Undo** button in the lower right corner to bring the bracket back.

Note: If you select a bracket set that includes brackets that are not yet available for use with SureSmile IDB trays, you will receive a notification that the bracket set is not supported and the system will not allow you to generate the upper or lower trays. The same is true if you select a non-supported single bracket while in the IDB tray simulation. If a bracket or set of brackets you use is not in the bracket library, please send an email to brackets@DentsplySirona.com.

- Use the **Bracket Heights** tool to open the Bracket heights dialog box. Use the tooth table on this dialog box to change the heights of the planned brackets. You can select multiple cells in the Bracket Heights dialog box and then adjust the values for all of them simultaneously.

To change multiple brackets heights at once:

1. Click the first cell in the range to highlight.
2. Press and hold the **Shift** key, and click in the last cell in the range.
3. Under the Edit Selection controls to the right of the chart, type a new value.
   OR
   Click the small up and down arrows (first set) to change to the number required.

4. Click the equal button to apply the typed value to the highlighted cells.
   OR
   Click the large up arrow (second set) to increase the typed value in each of the highlighted cells.
   OR
   Click the large down arrow (second set) to decrease the typed value in each of the highlighted cells.

Confirm Bracket Placement

1. Click the first step in the IDB checklist: **Confirm Bracket Placement**. (If the checklist is not shown on the left side of the workspace click the **Open Checklist** button.) The Bracket Placement tab is selected.

2. Take a moment to review the bracket placement on each tooth. Adjust brackets as needed in the bracket placement tab (see below) or by clicking the bracket in the main window to activate the navigation controls for the bracket and then clicking and dragging the bracket to adjust its location.

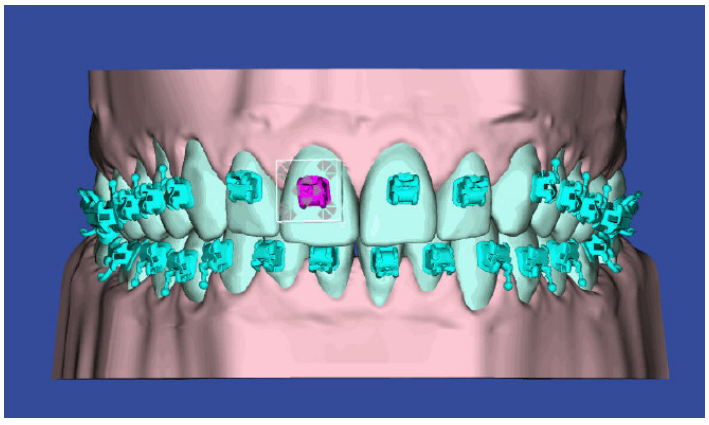
   Note: Brackets maintain a three-point contact with teeth in IDB simulations.

3. (Optional) View the straight-wire simulation (active model) to position brackets to achieve treatment goals. (NOTE: There is no Displacements tab since the straight-wire simulation is an estimate for visualization purposes only.)

4. (Optional) Use the Toggle Active/Reference model tool to view the reference model to check that brackets do not impinge on the gingiva or interfere with other brackets or teeth.

Adjusting Bracket Placement

To make adjustments to the brackets, click the bracket in the 3D window to activate the navigation controls, then click the arrows on the bounding box to adjust the bracket position.



You can also adjust bracket positions using the cells in the Bracket Placement tab. See Using the Bracket Placement Tab for more information.

(Optional) Use the FA point to provide a reference for bracket placement

When designing IDB trays using the IDB Tray Simulation, you have a tooth feature point – the facial axis (FA) Point. The system draws vertical and horizontal lines based on the axes to provide a reference for bracket placement. See Using the FA Point When Placing Brackets for more information.

Optional: Coordinate Arches and Check Interferences

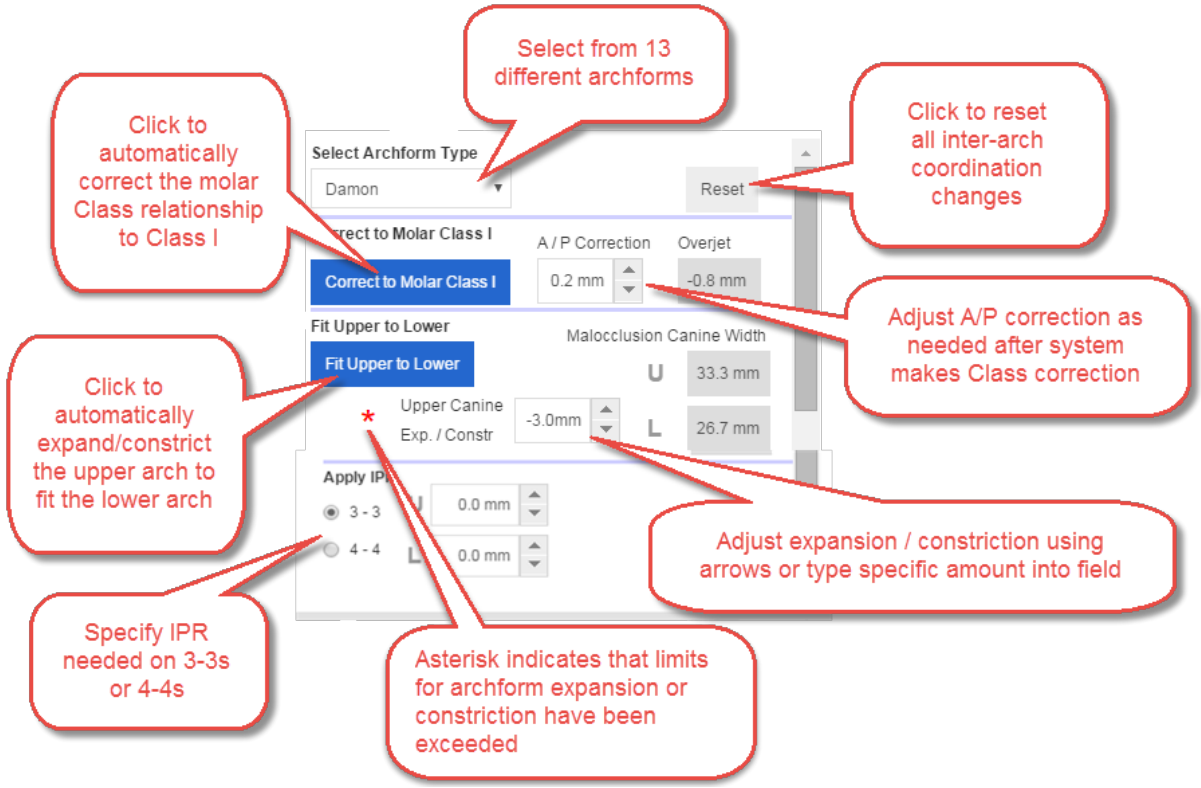
Use this step to help you identify potential inter-arch interferences and determine if treatment mechanics are needed. Clicking the step displays a set of controls on the Brackets tab. These controls allow you to view and manipulate both arches to identify potential bracket or tooth inter-arch interferences. You can see color shading where there are interferences on the active model (white teeth). Previously you could only see the interferences on the reference model (blue teeth).

Use the inter-arch controls on the Brackets tab to:

- select different archforms
- adjust position of the lower to upper arch to achieve approximation of a molar Class I relationship
- automatically adjust the upper arch width to fit the lower arch
- set and view IPR on the 3D model

Watch Video

Use the controls on the Brackets tab as shown. Each control is described in detail below.



Here is more information about the inter-arch controls and how to use them:

Select a different archform

Specify the desired archform from a selection of 13 predefined archforms. The selected archform applies to both the upper and lower arches and is automatically scaled according to the canine arch-width of the malocclusion. The default archform type shown is either Brader or an archform type you specified under Setup preferences

Use the Slideline tool in the Tools menu palette during IDB tray simulations to help select the best archform for the patient.

Reset

Click **Reset** to remove all of your inter-arch coordination changes.

Correct to Molar Class I

Click the **Correct to Molar Class I** button to use an algorithm to correct the Anterior/Posterior relationship of the lower arch so that the upper mesial labial cusp tip of the first molar matches the buccal groove feature point of the lower first molar. This algorithm complies with the ABO Class measure standard. The movement is applied as global movement to the lower arch. The corrective movement is split between the right and left sides of the arch. For example, if there is a tooth size discrepancy between both sides of the arch, one side will be off a little mesially, the other side will be off a little distally. SureSmile then displays the amount of the A/P correction in millimeters. Click in the box or use the up/down arrows to further adjust the correction. SureSmile also displays the amount of current overjet. When you apply class correction, the amount of overjet is updated. If, after making other adjustments, you select a different archform, the system resets the overjet to the malocclusion.

Fit Upper to Lower

Click this button to fit the upper arch to the lower arch in occlusion based on the feature points. The system does this by calculating the amount of expansion/constriction required for the upper arch to fit the lower arch. The amount of expansion or constriction shown is the change in the upper canine width from the reference (malocclusion) model. If you need to adjust the amount of the upper canine width, type values directly into the editable field or click the up/down arrows next to the Upper Canine Exp. / Const. field to change the width in 0.1 mm increments. The field has built-in safeguards. The minimal and maximal expansion is controlled by the lingual and labial expansion of the arches so that upper-lower contact is ensured. The value you enter can never cause the arch to expand more than 120% of its original width or less than 80% of its original width. If you enter a value that would cause the value to exceed these limits, a red asterisk appears as a warning and then the value reverts to the original value previously displayed.

The Arch Width tool in the Guide Tools shows the arch width distance on both the simulation (white teeth) and reference model (blue teeth).

Apply IPR

Use the options and controls in this section to specify the amount of interproximal reduction (IPR) to apply as needed to the 3-3s or 4-4s. Click the Buildup/Cuts tool in the Guide Tools to toggle the color shading on or off. Red indicates surfaces where anatomy was removed in the model. This IPR information is automatically added to a table with planned, applied and completed IPR for your IDB simulation at the bottom of the *Patient Bracket/Attachment with IPR Report. C*lick the **Report** button on the **Brackets tab** to generate this report. You can also view the IPR portion of this report from the Patient Overview page. Click Reports > Patient IPR Report.

Zoom synchronized in upper and lower side windows

When working in step 2, the zooming of the upper and lower side windows is synchronized. When you use the zoom navigation control (small rectangular box) to zoom in or out in either the upper or lower side window, the zoom is applied to both windows. The position or display of the model in the other window does not change. Only the zoom level changes.

Generate Upper Tray & Resolve Interferences

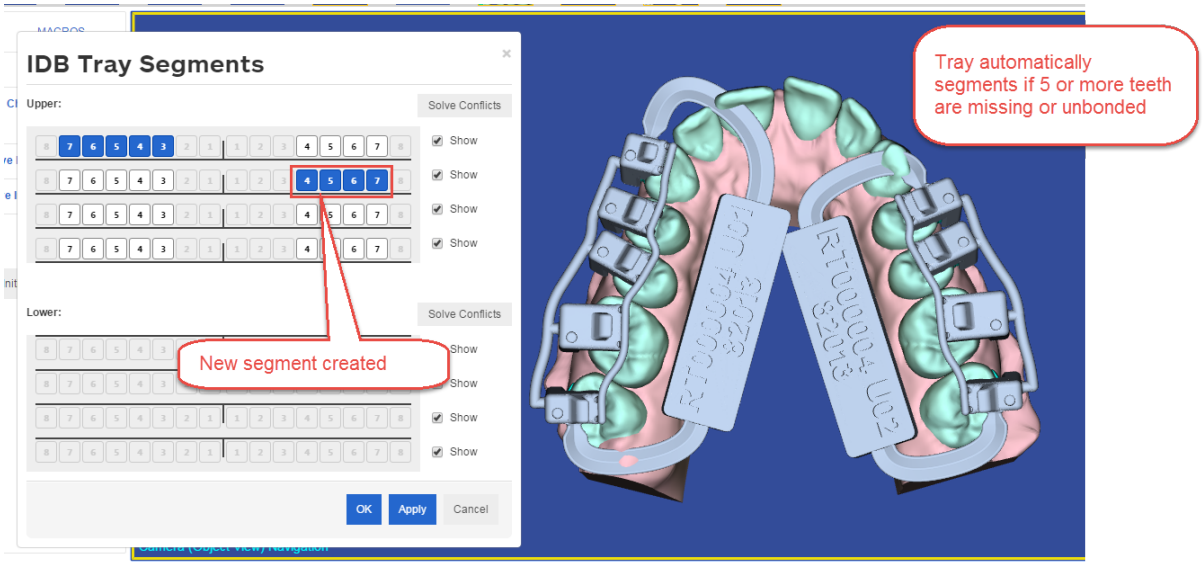
Click the third checklist step **Generate Upper Tray & Resolve Interferences** to generate a model of the upper IDB tray in the main window. Two additional icons also appear in the Guide Tools: **Show/Hide IDB trays** and **Create Tray Segments** .

Automatic Tray Segmentation and Conflict Solver Logic

When the IDB tray simulation is created for the first time and you click the *Generate Upper/Lower Tray & Resolve Interferences* steps in the checklist, the system applies automatic segmentation and automatic conflict solver logic, and the IDB Trays Segments dialog box opens showing the results. Brackets with conflicts are excluded and are shaded yellow.

Since some conflicts in an IDB tray design can be solved if the cap size is reduced, SureSmile automatically reduces cap size whenever feasible. The system restricts these reductions so that the reduced caps remain stable. After reducing cap size the system also ensures the caps can still be removed from the bracket without being blocked by other caps or teeth.

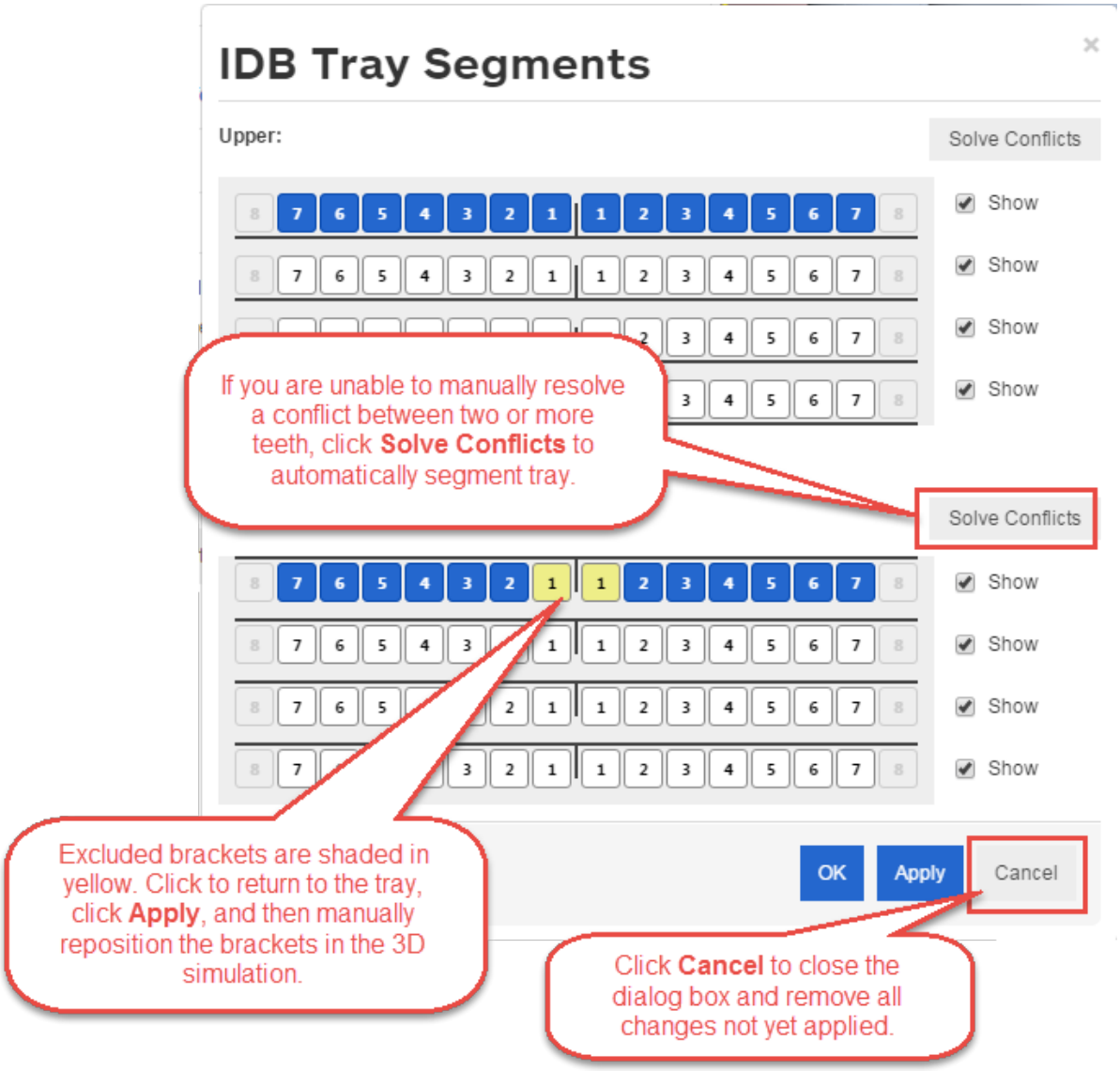
If there is a gap of five or more adjacent teeth in an arch the system generates a warning recommending that you create two segments to eliminate the gap.



SureSmile automatically segments a tray if:

- neighboring IDB tray caps or brackets impinge on other IDB tray caps, brackets, teeth or gingiva,
- a group of five or more adjacent brackets are excluded from a tray, or
- there are issues with how the tray spline will be constructed.

SureSmile creates a maximum of two segments per arch. If you need more than two segments you must segment the arch manually. See Segmenting Trays Manually below. Brackets or caps with conflicts are excluded and are shaded yellow as shown.



You can choose to order the trays with the segmentation and brackets excluded as indicated in the IDB Tray Segments dialog box, or you can:

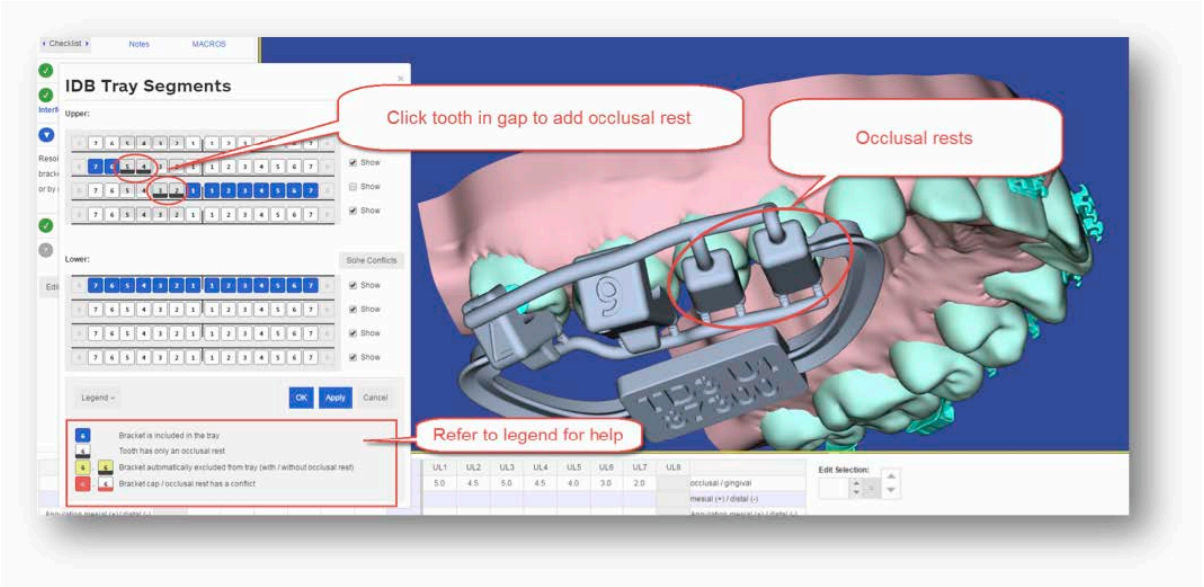
- Attempt to resolve the conflicts yourself in the software by making adjustments in the 3D model or on the Bracket Placement tab.
- Click the Solve Conflicts button on the IDB Tray Segments dialog box to exclude the tooth from the tray.
- Ignore the warning and order the IDB trays as designed.

Occlusal Rests

When segmenting a tray, the system will display a message asking you if you want to automatically add occlusal rests for unbonded or excluded teeth. These rests provide more stability and increase the structural integrity of the tray. This results in more precise placement and lower rebond rates. Add the occlusal rests as needed when you are generating each tray. When the IDB Tray Segments dialog box opens, click the unbonded or excluded teeth for which you want to add occlusal rests. Click each tooth repeatedly until the tooth displays the appropri-

ate symbol code to indicate an occlusal rest. Expand the legend at the bottom of the dialog box to help you until you become familiar with the symbols.

Note: Occlusal rests are not added for partially erupted teeth.



Generate Lower Tray & Resolve Interferences

Open the fourth checklist step **Generate Lower Tray & Resolve Interferences**. Follow the same instructions as for the upper arch.

More on Automatic Tray Segmentation

You can use these segments or you can choose to override them and segment the trays on your own. The system tries to devise segments that avoid as many conflicts as possible. The automatic segmentation and conflict solver logic works to resolve intersection of neighboring caps with each other or with the gingiva, and problems with spline-construction.

You can order the trays with the segmentation and brackets excluded as indicated in the dialog box, or you can choose to override the automatic segmentation or conflict solver logic and attempt to resolve the conflict or conflicts manually yourself.

To resolve conflicts manually:

1. Click on an excluded bracket in the 3D window and reposition it to eliminate any conflicts.
2. Click on the excluded bracket (shaded yellow) in the IDB Tray Segments dialog box to return it to the IDB tray. (To open the IDB Tray Segments dialog box, click the Guide Tools menu and click the Create IDB Tray Segments tool.) Shading will

change to blue to indicate the bracket is back in the tray. Change the segmentation at this time if this helps resolve the conflict.

3. Click **Apply** to save your changes and have them reflected in the 3D simulation.
4. Click in the simulation and manually reposition the brackets in the simulation.
5. Click back in the IDB Trays Segments dialog box and make any further changes as needed.
6. If you are still unable to solve all of the conflicts, click the **Solve Conflicts** button for each arch with conflicts. This applies automatic segmentation and the conflict solver logic to the arch. This will not be the same solution as when you started because now those brackets for which the conflicts were resolved are included.

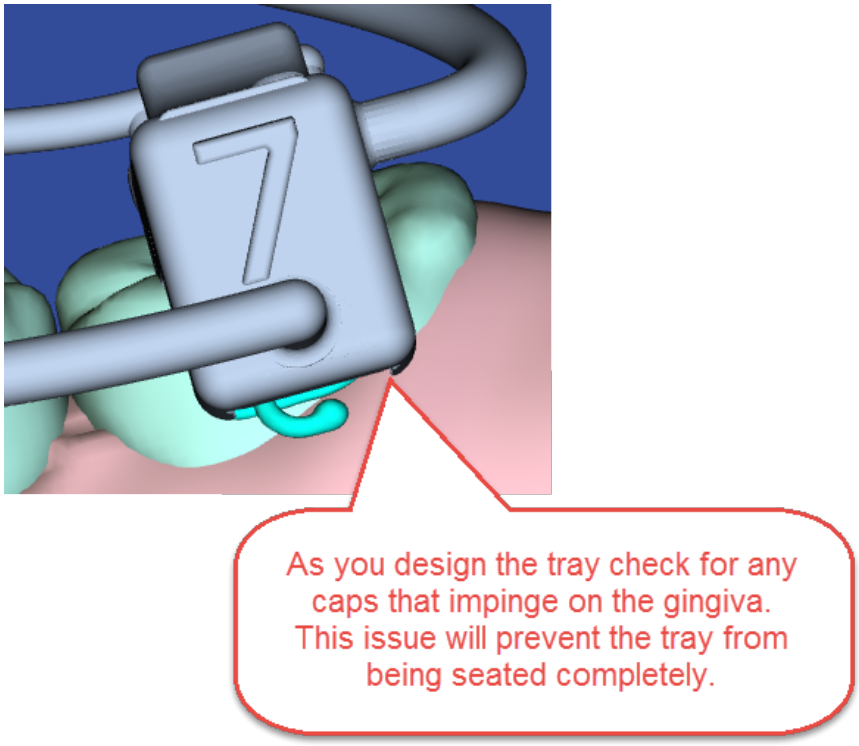
When there are bracket/teeth interferences, the Order Trays button is not disabled, but the following message appears:

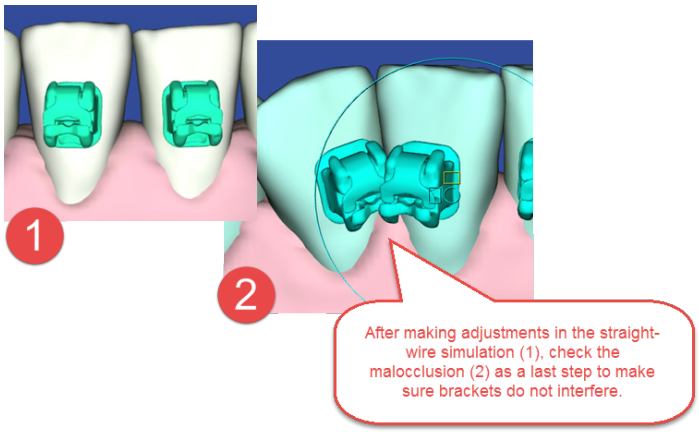
> *Resolve any bracket / tooth interferences as necessary, by excluding brackets from this tray design when sequential bonding is needed.*

The minimal required distance between IDB tray caps and other IDB tray caps, teeth, or brackets is 0.1 mm.

The interferences are color-coded as follows:

- Overlapping caps are shaded in green.
- IDB tray caps, IDB tray lingual spline, or brackets impinging on other IDB tray caps, brackets, teeth or gingiva are shaded in green/yellow/red to indicate the severity of the intersection:
    - Red when distance is less than 0.1 mm
    - Yellow when distance is between 0.1 and 0.25 mm
    - Green when distance between 0.25 and 0.50 mm





Tip: To avoid unnecessary delays, please resolve all interferences and design issues before placing your order.

You have several options for resolving interferences:

- Rely on the automatic segmentation provided by SureSmile, as described earlier in this topic.
- Segment the tray manually. (See Segmenting Trays Manually in this help topic.)
- Exclude a tooth by leaving the tooth unselected in the Segment dialog box.
- Adjust bracket positions and re-generate the trays by clicking the Confirm Upper Bracket Placement step in the checklist again.

*Y*ou can use these segments or you can choose to override them and segment the trays on your own. The system tries to devise segments that avoid as many conflicts as possible. The automatic segmentation and conflict solver logic works to resolve intersection of neighboring caps with each other or with the gingiva, and problems with spline-construction.

You can order the trays with the segmentation and brackets excluded as indicated in the dialog box, or you can choose to override the automatic segmentation or conflict solver logic and attempt to resolve the conflict or conflicts manually yourself.

To resolve conflicts manually:

1. Click on an excluded bracket in the 3D window and reposition it to eliminate any conflicts.
2. Click on the excluded bracket (shaded yellow) in the IDB Tray Segments dialog box to return it to the IDB tray. (To open the IDB Tray Segments dialog box, click the Guide Tools menu and click the Create IDB Tray Segments tool.) Shading will change to blue to indicate the bracket is back in the tray. Change the segmentation at this time if this helps resolve the conflict.
3. Click **Apply** to save your changes and have them reflected in the 3D simulation.
4. Click in the simulation and manually reposition the brackets in the simulation.
5. Click back in the IDB Trays Segments dialog box and make any further changes as needed.
6. If you are still unable to solve all of the conflicts, click the **Solve Conflicts** button for each arch with conflicts. This applies automatic segmentation and the conflict solver logic to the arch. This will not be the same solution as when you started because now those brackets for which the conflicts were resolved are included.

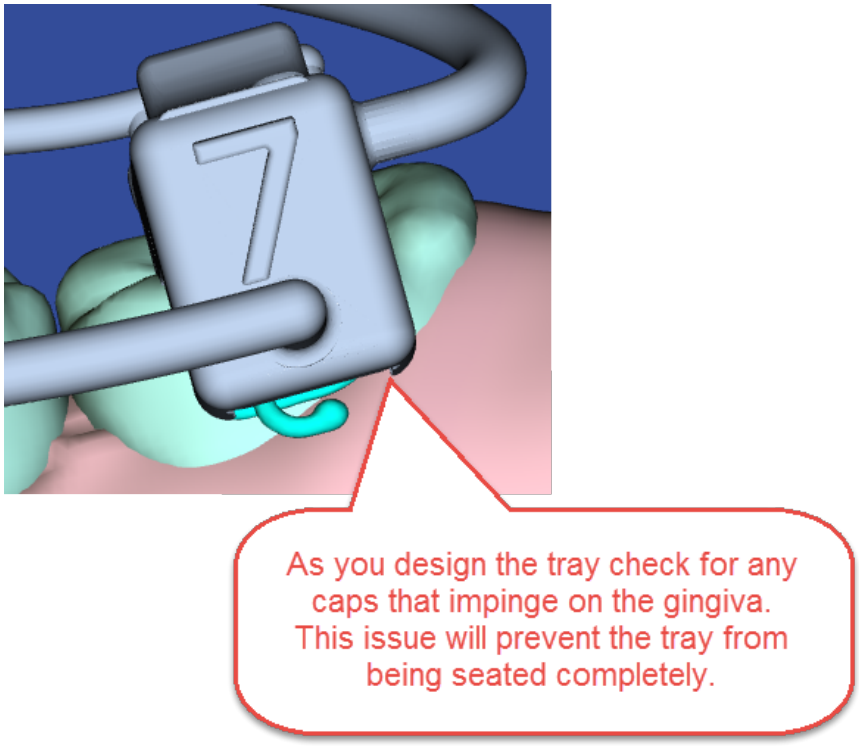
When there are bracket/teeth interferences, the Order Trays button is not disabled, but the following message appears:

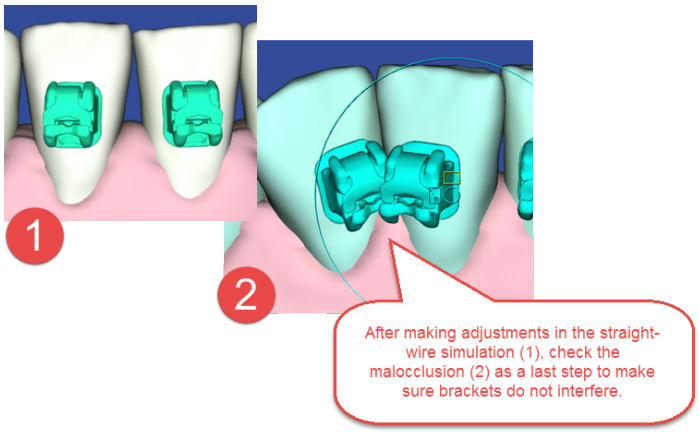
> *Resolve any bracket / tooth interferences as necessary, by excluding brackets from this tray design when sequential bonding is needed.*

The minimal required distance between IDB tray caps and other IDB tray caps, teeth, or brackets is 0.1 mm.

The interferences are color-coded as follows:

- Overlapping caps are shaded in green.
- IDB tray caps, IDB tray lingual spline, or brackets impinging on other IDB tray caps, brackets, teeth or gingiva are shaded in green/yellow/red to indicate the severity of the intersection:
    - Red when distance is less than 0.1 mm
    - Yellow when distance is between 0.1 and 0.25 mm
    - Green when distance between 0.25 and 0.50 mm





Tip: To avoid unnecessary delays, please resolve all interferences and design issues before placing your order.

You have several options for resolving interferences:

- Rely on the automatic segmentation provided by SureSmile, as described earlier in this topic.
- Segment the tray manually. (See Segmenting Trays Manually in this help topic.)
- Exclude a tooth by leaving the tooth unselected in the Segment dialog box.
- Adjust bracket positions and re-generate the trays by clicking the Confirm Upper Bracket Placement step in the checklist again.

Segmenting Trays Manually

*Y*ou may need to manually segment a tray to:

- avoid an interference between adjacent teeth as indicated by red color coding in the **IDB Tray Segment**s dialog box.
- bond the arch in separate segments for stability, bond strength or similar reasons.

To create tray segments manually:

1. Click the Guide Tool **Create IDB Tray Segments** . The **IDB Tray Segments** dialog opens with tooth charts to allow you to create up to four separate segments per arch.
2. In the second tooth chart or an arch, select the teeth to be included in this tray segment. These teeth are automatically deselected in the first tooth chart. If you choose non-adjacent teeth in an arch, they will be connected by a spline.
3. Click the *Show* check box for every segment you want to display in the main window. (When there are interferences between segments, you may want to uncheck one of the segments to get a clearer view.)
4. Repeat for a third or fourth tray segment if necessary.
5. Click **Apply** to view a 3D model of your segments or click **Cancel** to close the dialog box and remove all changes not yet applied.
6. (Optional) If you wish to abandon your manual segmentation of the trays for an arch and revert to SureSmile's automated segment, click the **Automatically Segment** button for that arch.
7. After you are finished designing your segments, click **OK**.

NOTE: Although the software allows you to make a single segment or a "jig" for one tooth, the segment will be more stable with a minimum of three teeth in the segment.

Tip: When you create new segments, click **Show/Hide IDB trays**

to show the all the new segments so than any conflicts are apparent.

Identify and reduce bracket voids

Identify those brackets where additional adhesive will be needed to fill voids between the bracket base and the tooth surface, and make adjustments to the bracket positions to reduce the voids if desired. See Identifying Bracket Voids for more information.

Order Tray

The fifth and last checklist step, **Order Tray**, is for final review before ordering. Click through the guide tools menu icons and carefully review the trays one last time before ordering. Choosing this step displays the Order tab and also another menu icon: *Toggle Upper/Lower Arch.* Click to switch between views of the arches.

After you finish your review and are ready to submit the order, follow these steps:

1. (Optional) Select the order name and rename it if you wish.
2. Click the **Order Trays** button or the **Export Trays** button on the Order tab. A confirmation message appears.

FYI: What's the difference between **Order Trays** and **Export Trays**?

- Clicking **Order Trays** sends the digital files to Dentsply Sirona for processing and printing. One set of printed IDB trays is shipped to your practice. (A separate fee applies to each arch.)
- Clicking E**xport Trays** downloads the IDB tray digital files locally so you can print your own IDB trays in-house or at a local lab. (One-time charge per arch.)

Note: If there are any interferences, the **Order Trays** and **Export Trays** buttons are disabled until you resolve the interferences.

3. Click **OK** to complete the order. SureSmile puts the IDB tray simulation into an Ordered state and it becomes read only. An Order Submitted confirmation message opens.

4. Click OK to acknowledge that the order was successfully created and submitted to Dentsply Sirona for processing. The Order Trays button is now disabled. To reorder trays, click **Copy** under **IDB Tray Simulation** and reorder the trays.

Step 5. Track production & shipping

On the Clinic Overview, the Shipments tab lists all shipped items including IDB trays. Use the Shipments tab to track when the IDB trays will be delivered to your practice. For more information, see Tracking Shipments.

Step 6. Bond Patient at IDB appointment

Refer to the SureSmile IDB Tray Protocol for clinical protocol and safety information.

Copy an IDB Tray

Use the Copy button to create a duplicate of both the upper and lower tray simulations. This function is useful if you need more than four tray segments.

Remove an IDB tray order

The Remove Order button is only available before you submit an order. Click the Remove Order button to remove the IDB tray simulation, close the IDB workspace, and return to the Patient Overview.

Design and Order IDB Trays (Treatment Simulation)

To create labial (3-point contact, typically used for a labial approach) IDB trays based on a treatment simulation, access the IDB tools as follows:

1. Start a new treatment simulation. Align teeth using the setup workflow tool. See Using the Setup Workflow Tool to Create a Simulation. We recommend this because placing brackets in a Treatment Simulations is best done by using the bracket plane on aligned teeth.

2. Click the **Brackets** tab. Click the **Apply Brackets Set** button and click the *Assign Brackets Set...* option. The Brackets Set Selection dialog box opens. Select a bracket set from the list. The list is automatically filtered to list only bracket sets supported by SureSmile for use with IDB bonding trays. SureSmile default bracket sets approved for IDB use have "For IDB" in their description. Ormco IDB approved bracket sets have just "IDB " in their description.

3. **Tip:** To quickly determine if a bracket is IDB approved, hover your mouse over the bracket in the tooth chart to display a pop-up box with details about the bracket.

4. (Optional) Click the Assign Bracket button on the Brackets/Attachments tab and to replace single brackets in a bracket set as necessary. Brackets approved for IDB use are indicated in the bracket list on the Bracket Selection dialog box. Make sure you only select IDB approved brackets. Otherwise you will not be able to generate the IDB trays.
5. (Optional) Use the tools on the Bracket Placement tab to adjust the position of the brackets and use the Bracket Plane and Align Brackets tools to align the brackets with the bracket plane. See Using the Bracket Placement Tab .
6. (Optional) Identify and reduce bracket voids. Identify those brackets where additional adhesive will be needed to fill voids between the bracket base and the tooth surface, and make adjustments to the bracket positions to reduce the voids if desired. See Identifying Bracket Voids for more information.
7. Click the **Brackets** tab. Click the **Tray Tools** menu in the menu bar. Use the icons to generate trays/segments as needed.
8. Click the **Order Trays** button or the **Export Trays** button on the **Order** tab. A confirmation message appears.
9. Click **OK** to complete the order. SureSmile puts the IDB tray simulation into an (Ordered) state and it becomes read only. The Order Trays button is now disabled. To reorder trays, click the **Copy** button under Straight Wire Simulation and reorder the trays.

   Note: The Order Trays button remains available after you submit your order so you can reorder the trays in case of breakage or loss.

   FYI: What's the difference between **Order Trays** and **Export Trays**?

   - Clicking **Order Trays** sends the digital files to Dentsply Sirona for processing and printing. One set of printed IDB trays is shipped to your practice. (A separate fee applies to each arch.)
   - Clicking E**xport Trays** downloads the IDB tray digital files locally so you can print your own IDB trays in-house or at a local lab. (One-time charge per arch.)

Order a Standard w/IDB Case type

The Standard w/IDB case bundles a set of IDB trays with a standard SureSmile case. This case offers a fast-track workflow for starting your patients in SureSmile:

1. You scan the patient, order the initial therapeutic model and provide instructions for a full setup with planned bracket placement, all in a single order.
2. SureSmile Digital Lab technicians create the model, setup, place the brackets, design the IDB trays, and return for your review within 10 business days.
3. You review the setup, bracket placement and tray designs, and order the initial wire pair with the trays.
4. We fabricate and ship the IDB trays and initial wires to you in a single package within 10 business days.

The Standard w/IDB case includes:

- 1 therapeutic model from any scan type
- unlimited update models
- 1 setup
- unlimited wires, including 1 set delivered with the trays
- 1 IDB tray set

  Note: Some contracts may also include 1 diagnostic model (from optical scan only)

Here is a comparison of our two IDB products with a standard case:

	IDB Tray Simulation (a la carte)	*Standard w/IDB* Case Type	*Standard* Case Type
Base Model:	diagnostic model	unbonded therapeutic model	bonded therapeutic model
Bracket Placement based on:	treatment simulation	Setup (created by Digital Lab from doctor's instructions)	not included
SureSmile wires	N/A	1st set of wires delivered with trays; unlimited additional wires as per plan	unlimited additional wires as per plan
Customers	SureSmile, elemetrix	SureSmile	SureSmile
Cost (USD – for comparison purposes only)	$45 (model) + $60 (trays) = $105	case price + $60 (trays)	case price

Ordering a *Standard w/IDB* case

To order a *Standard w/IDB* case that includes a setup, bracket placement simulation, and design of IDB trays all created by our Digital Lab technicians (based on your instructions), along with an initial set of SureSmile wires, follow these steps:

1. From the patient overview page, click **Edit**.
2. From the **Patient Profile** page, click **Change Case Type**.
3. From the **Select Case Type** page select ***Standard w/IDB*** from the drop-down list and then click **Save Changes**.
4. Click **Save** on the Patient Profile page to return to the Patient Overview page.
5. Take an optical scan of the malocclusion, (i.e., use an orascanner or a third party STL scanner to capture teeth and gingiva). **Strongly recommended:** scan should be intraoral (plaster models are NOT recommended).

   Note: The following procedure is for PLY or STL scan data only. Only STL files from a SureSmile-certified optical scanner (i.e., IOC iTero, 3Shape, CS3500, 3M True Definition) can be uploaded from the SureSmile web browser. For orascanner data files, you must use SureScan. CBCT scans will only be accepted if full supplemental scans from the orascanner or a SureSmile-certified optical scanner are also included with the order. CBCT scans with supplemental scans must be ordered from SureScan. If you attempt to order a therapeutic model for a *Standard w/IDB* case without a supplemental scan, the Submit button will be unavailable until you provide supplemental optical scan data. For more information see Ordering a therapeutic model from SureScan for a Standard w/IDB case in the SureScan online help.

Ordering the therapeutic model from SureSmile

1. Click the **New** button and then click **Therapeutic Model**. The Order page opens.

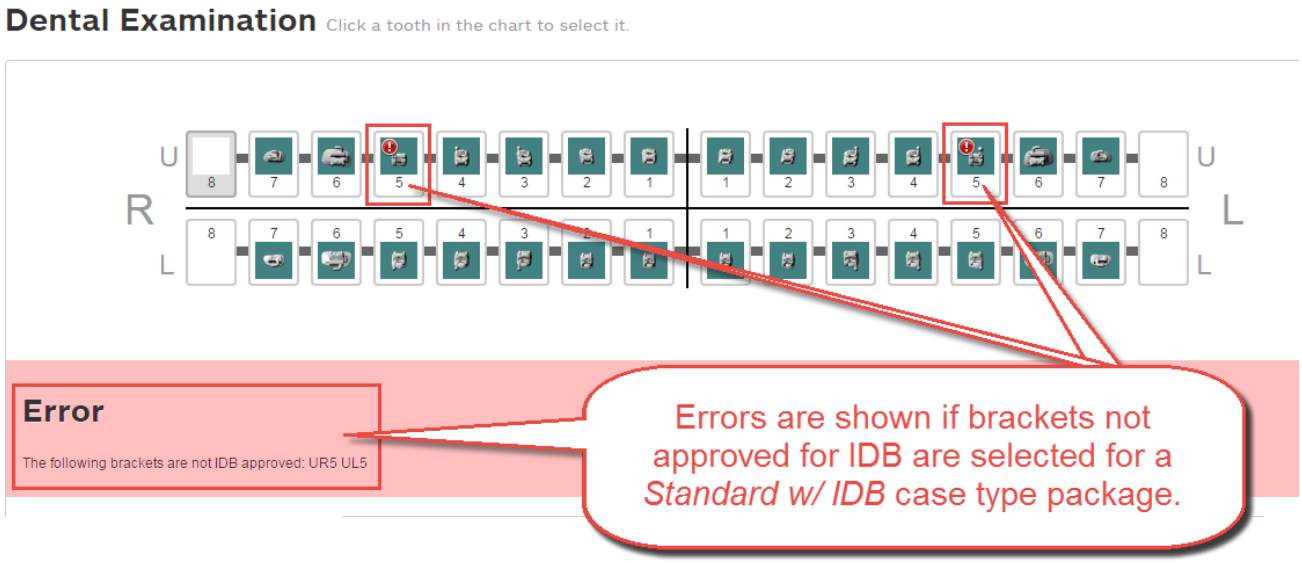
   Note: If you are working with a *Standard w/IDB* case and you have already ordered a therapeutic model for this case, a dollar sign ($) appears to the right of the Therapeutic Model option in the New menu. This indicates that there is a fee associated with any additional therapeutic models ordered beyond the one model included in the standard case.

2. On the Order page under the Dental Examination, click the **Brackets** tab and assign brackets, as a set or individually. Brackets must be IDB approved, as indicated in the description in the Bracket Selection or Bracket Set/Attachments Selection dialog boxes. Note even though the brackets have been assigned, the teeth are marked as unbonded in the tooth chart.

   Tip: To quickly determine if a bracket is IDB approved, hover your mouse over the bracket in the tooth chart to display a pop-up box with details about the bracket.

Automatic Error Detection

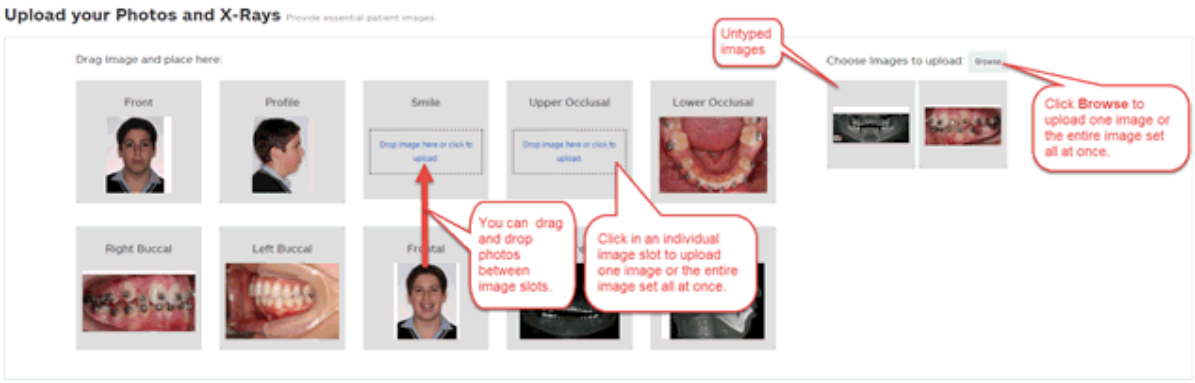
Before you can submit the therapeutic model, SureSmile checks the selected brackets to make sure that all brackets are IDB approved. If any brackets are found that are not IDB approved, SureSmile marks each non-IDB approved bracket with a red exclamation mark, and an error message appears as shown. You cannot submit the therapeutic model until you replace brackets with IDB-approved brackets.



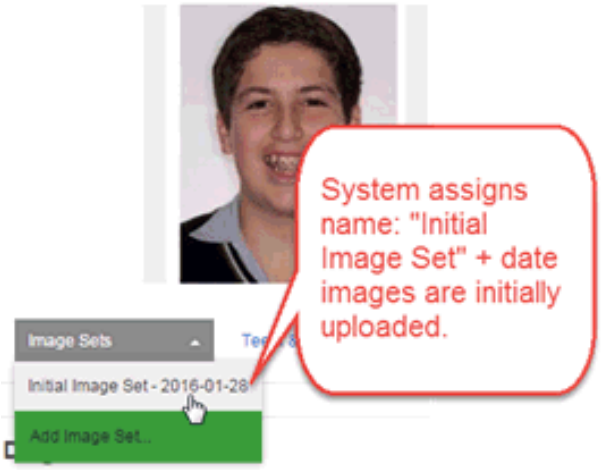
3. Fill out the prescription area. As you make changes or click in each section of the form, each letter of the MACROS progress indicator is shaded dark blue. All letters except for the S must be shaded blue before you can submit your order.

Tip: If you don't need to change a section of the form, just click a letter in the MACROS progress indicator to turn on the shading and mark that section complete.

4. Under **Upload your photos and x-rays** click **Browse** to find and upload the images for the patient. You can upload one image or upload the entire image set all at once. You can also drag and drop photos between image slots, and you can re-import photos at any time.



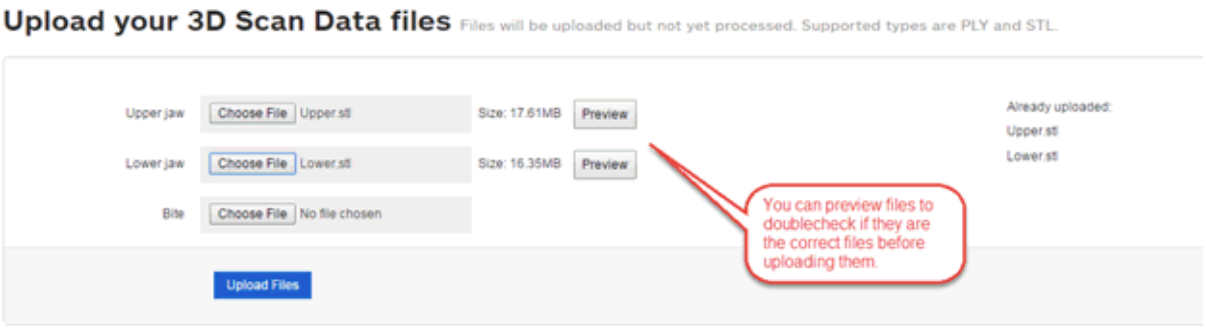
After you upload images the system assigns the image set the name: "Initial Image Set" + the date the images are initially uploaded.



Note: This is NOT the date the images are taken but the date they are uploaded into SureSmile or SureScan.

Delete photos by hovering over an image and clicking the small trash can icon.

5. Under **Upload your 3D Scan Data files**, click **Choose File** to browse and open each file for: Upper Jaw, Lower Jaw and (optional) Bite. Once you have chosen all of the files, click **Upload Files**.



6. Under Submit Order, add notes if needed in the Order Notes text box and then click **Submit Product.**

Reviewing your IDB Setup

1. After you submit the product, check your tasks list for the completed IDB setup to come back to you for your review. Allow 10 business days for the setup to be processed and returned to you. Click the *IDB Set-up* link on the timeline to open the IDB workspace and begin your review.

2. Click each of the steps in order and make modifications as needed.

3. When you click the *Select Initial Wires* step, the Wire tab is selected and the wire design workspace opens with the reference model (therapeutic model with blue teeth) displayed in the left pane and the current (i.e., the active plan displayed with white teeth) in the right pane. Select the wire cross-section and materials you want and enter any wire overrides needed.

4. Click last step, *Order Trays and Initial Wires*. The Order tab opens.

5. Click **Approve Setup and Submit Order (Trays & Wires)** to approve the setup and receive your IDB trays and wires. Please plan a minimum of 10 business days to receive your shipment of the trays and wires for the patient in a single kit.
   or
   Click **More** to approve only the setup or to create a staged model sequence.

   If you wish, the **Approve Setup (IDB not needed)** option under the **More** button on the **Order** tab also allows you to continue with SureSmile wires without having to order IDB trays or without having to start a new standard case.

   There are two scenarios where it makes sense to choose this option:

- **Scenario A** - You've already exported the IDB tray digital files for printing in-house or at a 3rd party lab and you no longer need to order printed trays from Dentsply Sirona. In this scenario, after you select the Approve Setup (IDB not needed) option, you can now continue with designing and ordering SureSmile wires.

- **Scenario B** - You decide not to use IDB at all but instead bond the patient directly. In this scenario, after you select the Approve Setup (IDB not needed) option, you will first need to submit a bracket

update scan of the directly bonded brackets to reflect the actual bracket positions. You can then continue with designing and ordering your SureSmile wires.

6. If you clicked **Approve Setup**, the Approve Setup dialog box opens. Review your order one last time, and then click **Approve**.

Adjusting Bracket Placement

To make adjustments to the brackets, click the bracket in the 3D window to activate the navigation controls, then click the arrows on the bounding box to adjust the bracket position.

You can also adjust bracket positions using the cells in the Bracket Placement tab. See Using the Bracket Placement Tab for more information.

Create Staged Model Sequence button for IDB setups

If you have selected a *Standard w/ IDB* case and you want to finish the case with aligners, you can reuse the IDB setup for your staged models. Similarly if you are treating the patient with bonded appliances on one arch and aligners on the other arch (combination therapy) you can reuse the IDB setup to create staged models on the single arch.

When you are ready to begin planning aligner therapy, open the patient record and navigate to the IDB Setup. Open the **Order** tab. Click the **Create Staged Model Sequence** button under **IDB Setup** to open the Constraints for Staged Models dialog box.

Set your constraints as needed, then click **OK**.

The staged models workspace opens with the new staged models simulation. Create your staged models as usual. For more information see Aligner Therapy Treatment Steps - (none) case.

Using the Bracket Placement Tab to Adjust Bracket Positions

The Bracket Placement tab has three rows, each for a movement type:

- occlusal (+) / gingival (-)
- mesial (+) / distal (-)
- angulation crown mesial (+) / distal (-)

Both the Upper and the Lower tooth charts are shown on the tab.

For an IDB tray simulation the reference points for the initial values in the table cells are as follows:

- occlusal (+) / gingival (-) values correspond to those in the Bracket Height sets you applied when you started the simulation
- mesial (+) / distal (-) all initial values are set to 0
- angulation crown mesial (+) / distal (-) all initial values are set to 0

These values change from their initial starting values as you adjust bracket positions.

Note: To prevent erroneous values that can distort your IDB straight wire simulation, we've added restrictions to the values you can enter for each tooth. Translation cannot exceed 10 millimeters per tooth. Angulation cannot exceed 90 degrees per tooth.

Multiple ways to adjust bracket positions

Up/down arrows in each table cell or **up/down arrows on your keyboard** - Select a bracket on the 3D model or in the tooth chart in the Bracket Placement tab. Place your cursor over the movement type cell on the tab and then click the up or down arrow next to the cell or on your keyboard to reposition the bracket in increments of 0.1 mm (horizontal or vertical) or 1 deg.(angulation).

> **Tip**: Click the **Undo** button to reverse your changes incrementally.

Use the 3D model - Use the controls on the bounding box for a bracket to adjust its position. The values for the three movement types in the tooth table on the Bracket Placement tab change accordingly.

> **Tip:** Click the Undo button to move the bracket back to its previous position.

Type directly into the tooth chart - Enter a value for a movement type directly into the appropriate cell on the Bracket Placement tab.

> **Tip:** Click the Undo button to revert the cell to its previous value.

To move multiple brackets occlusally / gingivally at once:

1. Locate the cell of the table at the intersection of the tooth number column with the row for occlusal / gingival movement.
2. Click the cell to highlight.
3. Press and hold the **Shift** key, and click in another cell in the same row to achieve the same movement for multiple teeth.
4. Under the Edit Selection controls to the right of the chart, type a new value.
   OR
   Click the small up and down arrows (first set) to change to the number required.

5. Click the equal button to apply the typed value to the highlighted cells.
   OR
   Click the large up arrow (second set) to increase the typed value in each of the highlighted cells.
   OR
   Click the large down arrow (second set) to decrease the typed value in each of the highlighted cells.

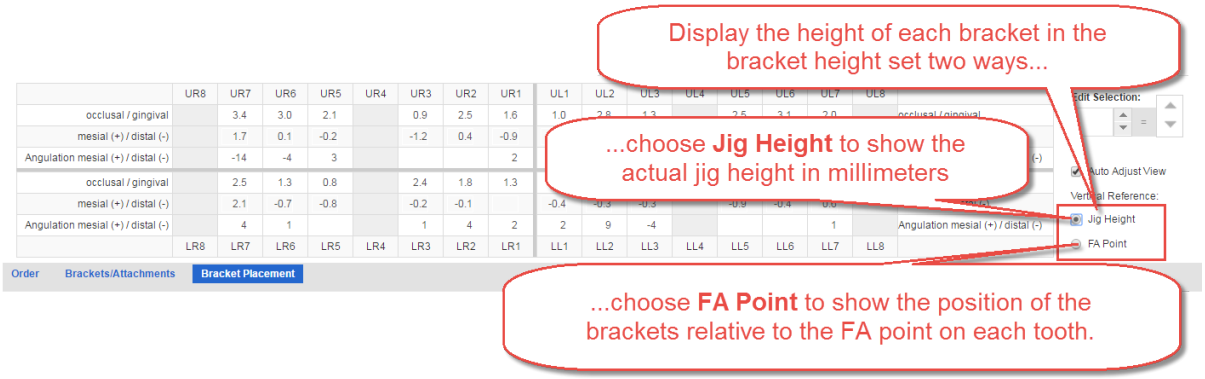
Measurement options for bracket height sets

When you are adjusting the height of the brackets in a bracket set from the Brackets/Attachments tab you can toggle between:

- **Jig Height** - indicates the height of a bracket in millimeters as measured from the middle of a bracket slot to the:
  - incisal edges for central incisors and laterals
  - buccal cusp for canines and premolars
  - most prominent buccal cusp for posterior teeth

  Distance to the slot is expressed as a positive number.

- **FA Point** - shows the height of the bracket relative to the FA (Facial Axis) point. The system expresses movements in an occlusal direction relative to the FA point as positive numbers. Movements in a gingival direction relative to the FA point are expressed in negative numbers.



Keyboard shortcuts

Use the following keyboard shortcuts to help you work faster when on the Bracket Placement tab

- **Arrow Up** or **Down** increment or decrease cell values by:
  - 0.1 mm
  - 1 degree
- **CTRL+arrow** moves the cursor from one cell in all four directions to another cell.
- **Tab** selects the cell to the right. If you are in the last cell of a row, cursor jumps down to next row.
- **SHIFT+Tab** selects the cell to the left. If you are in the last cell of a row, cursor jumps up to next row.
- **Pg Up** selects the cell above.
- **Pg Dn** selects the cell below.

Auto-adjust view

The Auto-Adjust View check box on the Bracket Placement tab automatically repositions the model when you select a cell in the Bracket Placement tab.

This check box works as follows:

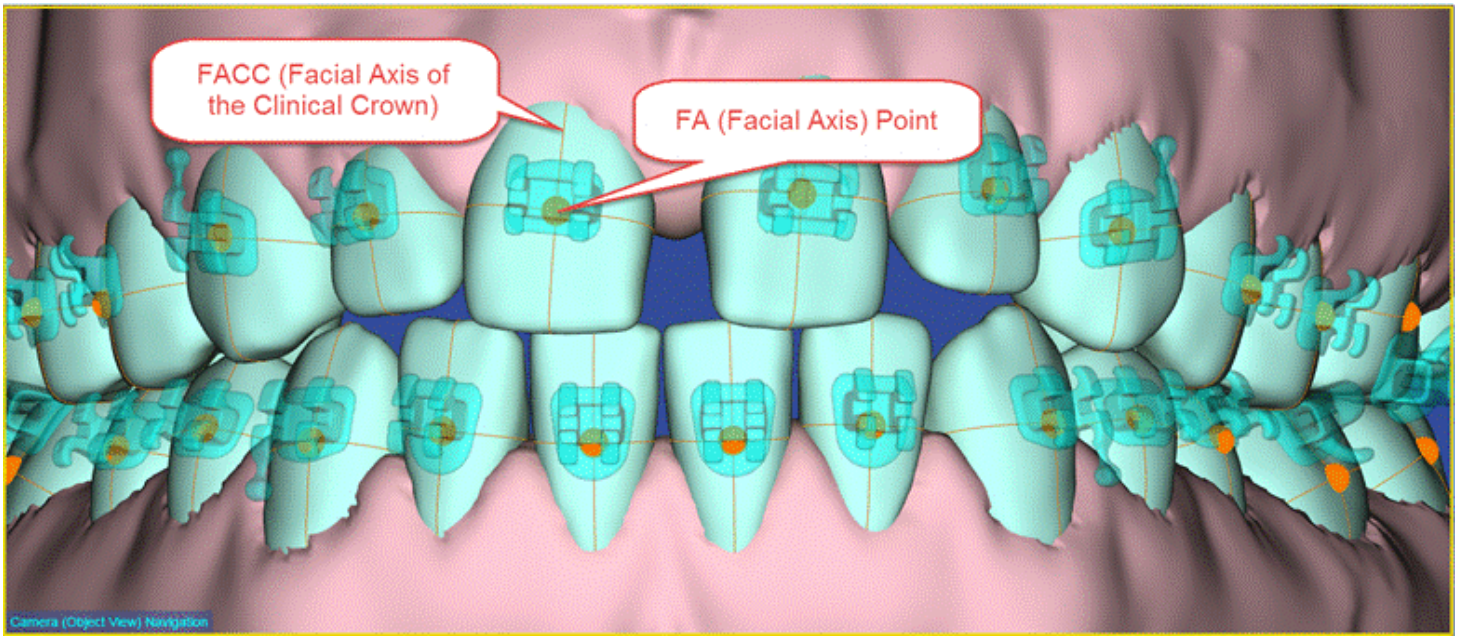
- If you are adjusting mesial/distal bracket movements, an occlusal view of the arch is displayed and the selected tooth is shown in the center of the screen.
- If you are adjusting angulation or occlusal (+) / gingival (-) movements, a labial view of the arch is displayed for the anteriors, a buccal view is displayed for the posteriors, and the selected tooth is in the center of the screen.
- If you uncheck the check box, and then check it again, it remembers the last tooth previously selected and returns to that position.

Using the FA Point when Placing Brackets

When designing IDB trays using the IDB Tray Simulation, you have a tooth feature point – the facial axis (FA) Point. The system draws vertical and horizontal lines based on the axes to provide a reference for bracket placement.

The intersection of the lines is initially set to the FA Point of the tooth. The FA Point is the point on the facial axis that separates the gingival half of the clinical crown from the occlusal half. You can fine-tune the position of the lines as needed and the position of the bracket will adjust automatically if the bracket height set you select is based on FA points instead of bracket heights.

Use the Facial Axis System icon in the guide tools to toggle the FA Point on or off.



Note: If you apply a bracket height set based on FA points, when you open the Bracket Placement tab, instead of seeing only zero in the Occlusal/Gingival row, you may occasionally see some small values instead. These small values each represent a deviation from the absolute value of zero for the FA point. The system creates these deviations as it seeks a secure 3-point contact for each bracket. Slight deviations may be caused if the curvature in the labial surface changes the distance of the bracket from the FA point for the tooth.

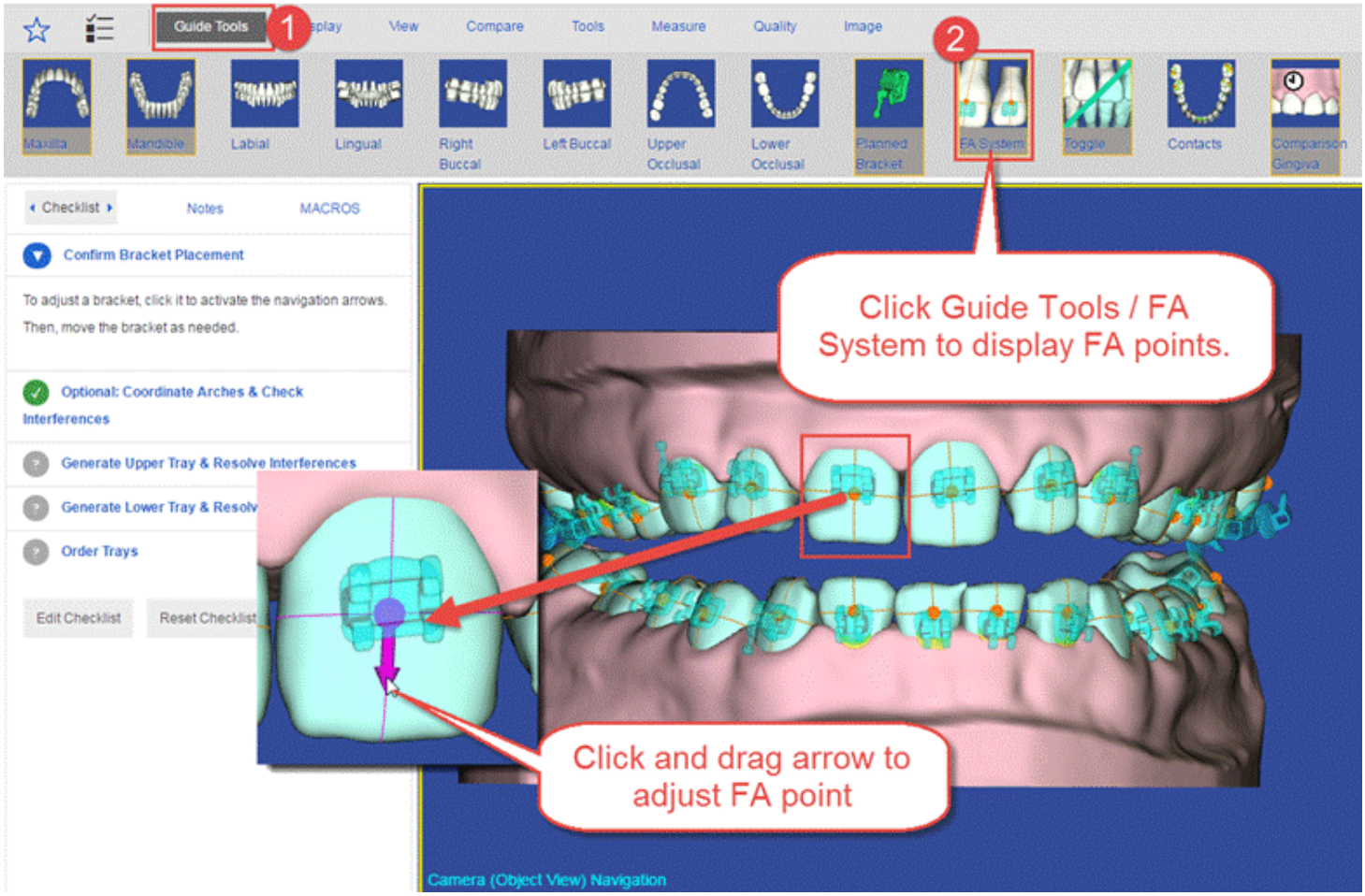
Similarly, when relying on FA points to place brackets, results may be unsatisfactory if:

- the FA Point is manually moved from its ideal position, or
- the tooth surface is not smooth.

How to use the FA Points

Here is a typical use case for using this new feature during an IDB tray simulation

1. Go to the Confirm Bracket Placement step in the IDB checklist.
2. Click the Guide Tools menu and click the FA System tool to display the FA Points on the teeth in the 3D window.
3. In the 3D window, click and drag the FA points/orientation lines as needed. After you move the FA point, the bracket automatically snaps to the new FA point position.
4. Make minor adjustments to fine-tune the bracket positions as needed



IDB FAQs

Am I charged for the number of segments I create?

No, there is just one charge per arch.

Am I charged for shipping?

No, the IDB fee includes standard shipping.

Are lingual IDB trays available?

Not at this time.

Can I order SureSmile wires with my IDB trays?

Yes. To order SureSmile wires with your IDB trays, order a Standard w/ IDB case type. Click here for more information.

Can I export IDB tray files and have trays produced myself?

Yes, you have the option to export your IDB tray digital files and print your own IDB trays in-house or at your local lab. Just go to the Order tab of your IDB tray simulation and click the **Export Trays** button. There is a one-time charge for this service, which varies by country/region.

I have created an IDB simulation, but it is missing the steps to generate trays. What is wrong?

You have not selected a supported bracket set. Go to https://www2.suresmile.com/bracket-library/ to determine if your bracket set is supported.

To assign the correct brackets:

1. Select the **Brackets** tab.
2. Click the A**ssign Bracket Set** button.
3. Choose a supported bracket set (make sure to check the slot size)
4. Click **Apply**.

Can I display straight wires on my IDB tray simulation?

Not at this time.

Can I design and order IDB trays from the treatment simulation workspace?

Yes. Go to Design and Order IDB Trays (Treatment Simulation) for more information.

Identifying Bracket Voids

Use the Bracket Voids tool and the Bracket Voids report during IDB design and during the bonding appointment to identify those brackets where additional adhesive is needed to fill voids between the bracket base and the tooth surface.

Using the Bracket Voids tool

- **During IDB design**, click the icon on the Guide Tools to display the Bracket Voids tool.
- **During the bonding appointment**, click the Bonding Appointment step in the checklist to display the Bracket Voids dialog box. This step becomes visible after the IDB is ordered.

Brackets with bracket/tooth voids larger than 0.4 mm are highlighted on the tooth-cross in the Bracket voids tool. Review bracket/tooth voids by:

- clicking a highlighted tooth on the tooth-cross, or
- using the left-right arrows to move along the arch to the next bracket with a bracket/tooth void.

Clicking a tooth on the tooth-cross displays the corresponding bracket in the 3D main window from the occlusal view. You can review each bracket from other views (options are: occlusal, gingival, mesial, and distal) by clicking the arrows around the tooth in the dialog box.

Viewing the Bracket Voids Report

Click the **Bracket Voids** button on the Brackets tab to display the Bracket Voids report as a PDF in a new tab in your browser. Print the report to use chairside as a guide when applying adhesive to the brackets.

Aligner Treatment Planning

Automated Model Design for Aligners

SureSmile aligner design is ideal for cases requiring moderate tooth movement. Designed to your treatment plan, a series of aligners or 3D prints of your staged models can be ordered from Dentsply Sirona or printed by a local laboratory of your choice.

SureSmile's aligner treatment features allow you to

- create a t**reatment simulation** or **setup** as the target for aligner therapy
- generate and adjust a **series of staged 3D models**
- have Dentsply Sirona print aligners or staged models and ship to your practice
- export the 3D models as .STL formatted files to send to your lab

SureSmile accommodates several aligner treatment approaches:

- **Aligner only treatment** - usually for patients with simple corrections or for relapsed patients.
- **Combination treatment** - treat patients with a combination of fixed and removable appliances.
- **Finishing in aligners** - augment your fixed appliance treatment by making minor finishing corrections in aligners as you move the teeth into position for the final retainer.

Overview of Process

Here is a quick overview of the process for designing aligners in SureSmile.

1. Capture Model with Gingiva

When the patient is ready for aligner therapy, capture a model with gingiva to provide your lab with an intact physical model that can be used for appliance production. This may be a diagnostic, therapeutic or final model. The scan technologies that can provide gingiva for use by SureSmile are:

- OraScanner
- Scan from a 3rd party scanner (such as CEREC Omnicam, iTero, TRIOS)
- CBCT scan of a plaster model (Diagnostic or Final only). This scan type is the least accurate and is not recommended.

2. Create a Treatment Simulation or Setup

If you captured a diagnostic or final model, the next step is to create a simulation of your treatment target for aligner therapy. If you captured a therapeutic model as part of an aligner case, order a setup from the Digital Lab. This simulation or setup represents the target, or desired treatment outcome of the aligner treatment.

3. Create Staged Models yourself (DIY) or have Dentsply Sirona Digital Lab techs create your staged models (full-service)

Use SureSmile's automated model design tools to create a series of staged models that start with the reference model captured in step 1 above -- a diagnostic, final or therapeutic model -- and finish with the treatment simulation or setup you created in step 2. You can control the number of stages used, you can limit or exclude specific movements, and designate specific teeth as fixed.

4. Order aligners, printed models or export STL files for your Lab

After all of the staged models are generated for aligner therapy, order aligners, 3D printed models or export staged models to create 3D files to send to your lab for appliance production.

Aligner Therapy Options

SureSmile allows you to offer the following combinations of aligner therapy:

Full treatment in aligners only

None Case Type (DIY) - If the patient will be treated with aligners only and you do not need assistance from our Digital Lab, select None for your case type and just create a simulation based on a diagnostic model. Use this simulation as your target, create the staged model sequence and then export the 3D data files for fabricating your aligner trays. No fee is charged for this. (Your only cost is the original fee for the diagnostic model.) For more information, go to **Aligner** Therapy Treatment Steps - (none) case type.

Aligner Case Type- Use this case type for:

- patients who will receive aligners based on SureSmile staged models, but who will not be bonded nor receive wires.
- patients who will receive aligners based on SureSmile staged models after they have completed or are near completion of SureSmile fixed appliance treatment.

Select the Aligner case type to benefit from the expertise of our Digital Lab technicians in setting up your target for aligner therapy, and then generating and adjusting your series of staged models. Services included with this product bundle:

- 1 unbonded therapeutic model. Capture this scan at a patient appointment using an optical scan technology that can capture gingiva (such as CEREC Omnicam, iOC™ Scanner/iTero®, 3Shape TRIOS®, CS 3500, or 3M True Definition scanners.)
- 1 setup created by the Digital Lab technicians per your instructions (includes any modifications as needed)
- printed aligners
- 3D prints of staged models
- STL exports of staged models
- Aligner refinements
- Attachments may be included per the Doctor's instructions.
- Access to your Digital Lab technician to discuss your setup or staged models

  For more information, go to Aligner Therapy Treatment Steps - Aligner Case

Combination treatment approach

Use a **Standard Case** bundle If the patient will be treated with aligners before or after SureSmile treatment with custom archwires. To deliver a combination treatment approach, select a **Standard Case** bundle. See Combination Therapy for more information.

Additional products available a la carte

When a product is not included in a case type, it is considered an "a la carte" product and a separate fee is charged. Products that can be ordered "a la carte" include:

a la carte Product	Use
Diagnostic model	• diagnostic purposes • develop different simulations • aligner design • IDB tray design • marketing purposes
Additional therapeutic model based on CBCT data	• add roots and bone to a therapeutic model from surface scan
Additional therapeutic model based on a surface scan	• as basis of new setup if teeth are not moving as planned • best possible diagnostic model for aligner therapy (unbonded therapeutic model) • best possible diagnostic model for study/analysis (unbonded therapeutic model) • post-surgical planning • mixed treatment (aligner therapy on one arch and brackets on opposing arch)
Premium model	• higher accuracy of crown data from an optical scan combined with the roots and bone from a CBCT scan • tooth crowns modeled to highest standards
Additional setup	• tooth or anatomy updates • teeth are not moving as planned
Final model	• quality grading • comparison purposes • record keeping.
Lingual retainers	• post-treatment alignment maintenance

Aligner Pricing Options

Aligners produced in conjunction with full-service aligner cases are offered with two different pricing options:

- Select (per piece)
- Complete (per patient)

When ordering a Full-Service Aligner case, you choose the *Select* or *Complete* appliance pricing option:

- *after* the customer approves the model, setup and staging, but
- *before* ordering aligners

Here is a table that shows the differences between the Select and Complete pricing options. Please note that any prices shown vary from region to region and are subject to change.

	Select	Complete
Aligners	$30 each*	Unlimited for 3 years
Refinements (Aligner Cases Only)	$110 each*	Unlimited for 3 years
Replacement Aligners	$30 each*	Unlimited for 3 years

* US dollars shown for illustrative purposes only. Please contact your Clinical Implementation Specialist (CIS) for pricing details.

Here is some additional information about each pricing option.

Select Pricing Option

- Customers will continue to have the choice to purchase 3D printed models (even for stages previously purchased as aligners) and to export staged models when ordering this package.
- This option includes a therapeutic model, a setup and staging created by the Digital Lab (with review and approval by the customer).
- Aligners are available for purchase based on the Digital Lab-designed and doctor-approved staging in any quantity (up to the number of planned stages) and are priced on a per-aligner basis.
- The minimum order size is one stage (a single aligner or a pair of aligners).
- It is not possible to combine SureSmile wires with this offering for concurrent mixed treatment (i.e. one arch treated with aligners, one arch treated with archwires) .

Complete Pricing Option

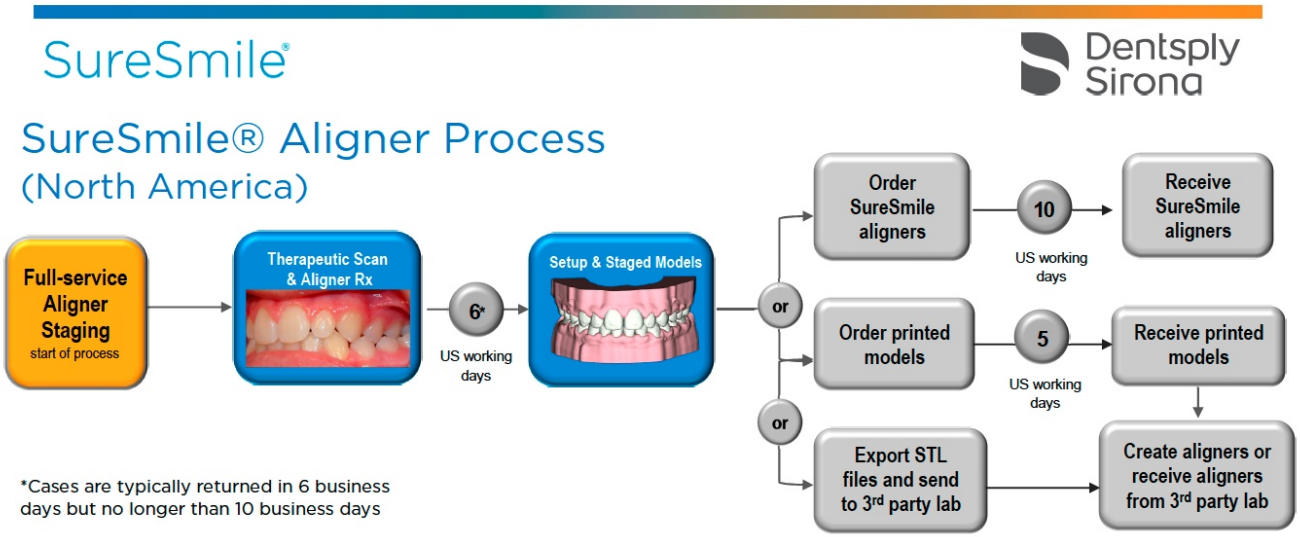
- This option offers a single fixed price for a particular patient. It includes an unlimited number of refinements, in addition to the associated aligner appliances needed for aligner therapy, all to be ordered within a 3-year period.
- The models, setups and stages are created by the Digital Lab, with review and approval by the customer.
- Once approved, the customer can order aligners based on the planned treatment.
- The 3-year period begins with the submission of the first order for a model.

Aligner Therapy Treatment Steps - Aligner Case

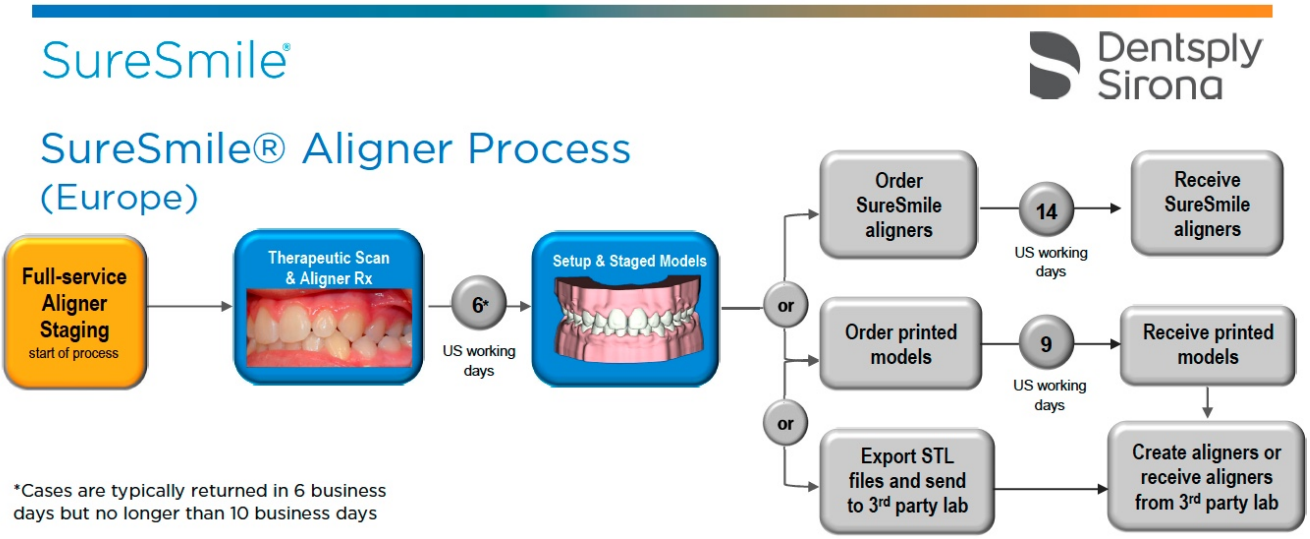
Select an Aligner Case to benefit from the expertise of our Digital Lab technicians in setting up your target for aligner therapy, and then generating and adjusting your series of aligners or staged models.

Here is an overview of the Aligner Case process for each region.

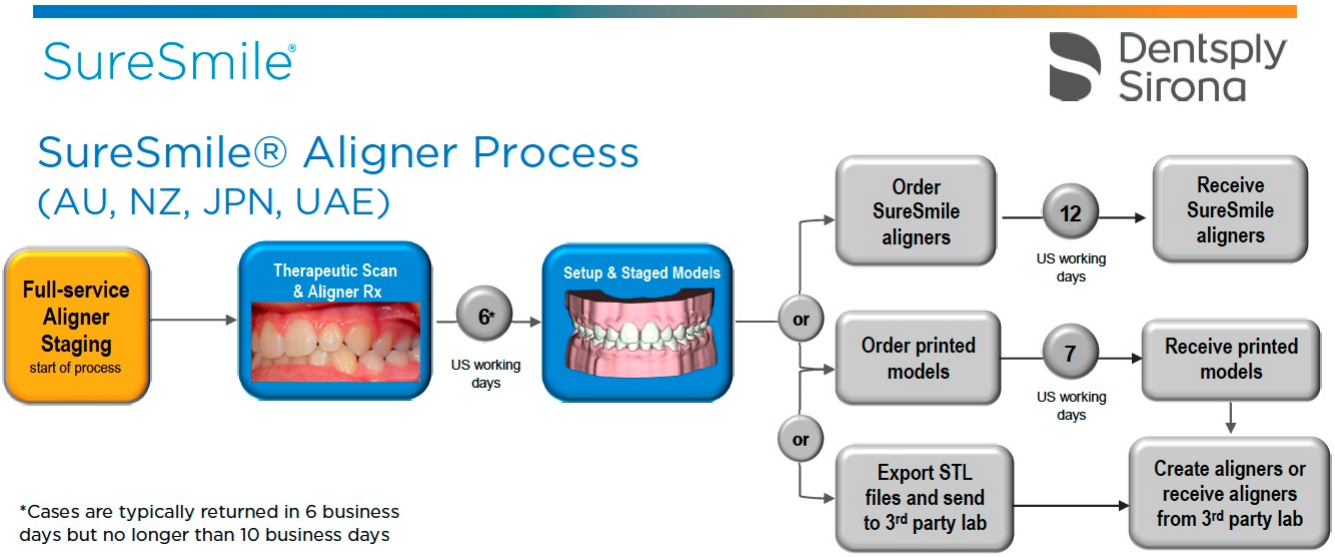
Aligner Case (Full-Service) Process for United States and Canada



Aligner Case (Full-Service) Process for Europe



Aligner Case (Full-Service) Process for Australia, New Zealand, Japan and United Arab Emirates



Task Overview: Aligner Case

Here is a task overview of the Aligner Case followed below with step-by-step instructions.

1. Scan Dentition with Gingiva

When the patient is ready for aligner therapy, capture an unbonded therapeutic model with gingiva. Capture this scan at a patient appointment using the CEREC® Omnicam or a third party scanner that can provide surface data in .STL format, such as the iOC™ Scanner/iTero®, 3Shape TRIOS®, CS 3500, or 3M True Definition scanners.

2. Complete the Aligner Prescription and Order the Therapeutic Model

Once the dentition has been scanned, you will need to complete the aligner prescription (MACROS), upload the scan data into SureSmile, and order the therapeutic model. The Digital Lab will produce the therapeutic model, setup and staged models and send them back for your review within 6-10 business days.

> **Note**: You will not need to approve the therapeutic model, as the Digital Lab does this for you as part of the Aligner case type.

3. Review the Setup and Staged Models

This setup represents the target, or desired treatment outcome of the aligner treatment. SureSmile's automated staging tools create a series of models that start with the therapeutic model and finish with the setup created in step 2. You can control the rate of movements, limit or exclude specific movements, and designate specific teeth as fixed.

4. Order aligners, printed models or export STL files for your Lab

After all of the staged models are generated for aligner therapy, order aligners, printed models or export staged models to create 3D files to send to your lab for appliance production.

Step-by-Step Instructions

The topics in this section give detailed step-by-step instructions for aligner therapy using a SureSmile Aligner Case.

Step 1: Start Patient

Step 2: Submit the aligner prescription and scan data

Step 3: Review the Setup

Step 4 Review the staged model sequence

Step 5: Assign Attachments Manually

Step 6: Order aligners or printed models or export .STL files for your lab

Step 1 - Start Patient

Once you have decided on the Aligner case type for the patient, you are ready to proceed:

1. Open the SureSmile patient record.
2. Select the case type prior to submitting the first model order:

- If you use the **Add Patient** button to create records manually, click the **Select Case Type** button on the right side of the page.
- If the record is already created, click the **Edit** button on the Patient Overview and click the **Change Case Type** button on the right side of the page.

  Note: The case fee is not incurred until you order a model.

3. Adjust your treatment timeline for the estimated start date (the appointment where the patient receives the first set of aligners) and the finish date.

Step 2: Submit the aligner prescription and scan data

1. At the scan appointment, take an intraoral scan for gingiva and teeth along with the same photos/x-rays required for any therapeutic model order. You can also take an in vivo CBCT scan at this time if you want to add roots and bone to a therapeutic model.

   Note: The scan for the reference model must be intraoral, which means the patient is present and you are using an optical scan technology (Ex: CEREC® Omnicam). If you also take a CBCT scan of the patient and the patient has restorations, type a note in the order telling the Digital Lab to refer to the optical scan for supplemental data.

2. Complete the aligner prescription either from the patient overview or from the therapeutic model order page.
3. Submit the therapeutic model order.

Step 3: Review the setup

Once the Digital Lab processes your order, you will need to review the setup just as you would for the Standard case type. If you want any changes made, you will need to send the case back to the Digital Lab so that the staged models can be regenerated. If you do not want any changes made, proceed to the next step.

After the Digital Lab creates the Setup and Staged Models, the system generates the "Review setup and staged models" task. When you click this task, the setup (plan) opens in the 3D workspace in a "to review" stage.

Review the setup. If the setup needs to be modified, you can either:

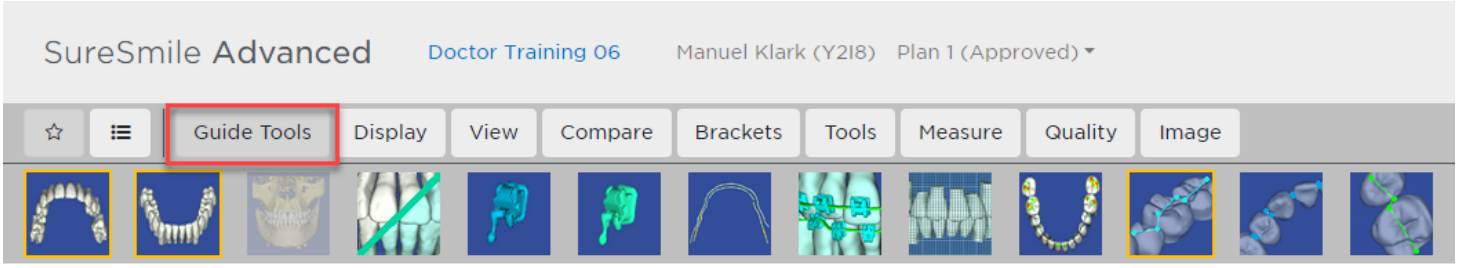
- Apply corrections and send the setup back to the Digital Lab, or
- Request that the Digital Lab technicians modify the setup by typing instructions in the Edit Notes text box.

Review the setup:

1. From the **Tasks** tab , find the *Review setup and staged models* task for the patient's plan.
2. Click the *Plan* link under the Item column to open the plan.
3. Click the Checklist tool in the top left of the page to open the review checklist for the **setup**. Follow the instructions in the setup review checklist to carefully review the setup. Each step includes a description of the step's purpose. Each time you select a step in the checklist, the 3D model in the main screen reorients to the ideal position for the step. the photos and x-rays in the two smaller side panes change as well.
4. Click the **Notes** tab in the guide to review standard or user notes. You can also type a note for the Digital Lab in the text box. If during your review, you wish to start over and discard your notes, click the **Revert Modifications** button on the Order tab.

Using the Guide Tools

The Guide Tools palette in the menu bar contains tools needed for the step you are currently on. the palette changes to display the necessary tools for each step. click the corresponding tool to turn them on or off as needed.

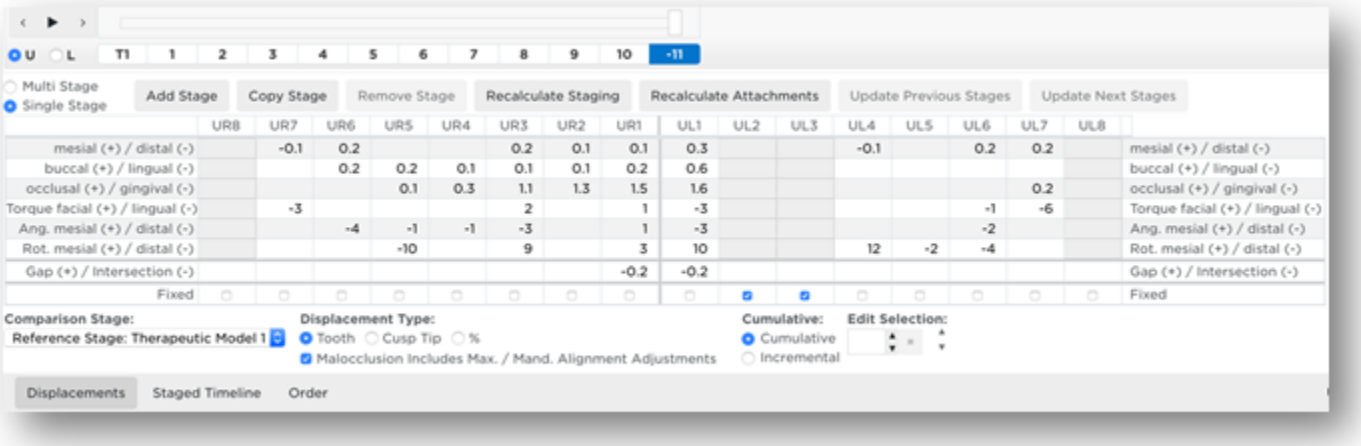


Reviewing IPR in the Setup

SureSmile does not determine when IPR should be applied. IPR is performed at the doctor's discretion. To review or update the IPR in the setup, go to the Displacements tab and check the amount of space needed to achieve the setup. If IPR is needed, the system displays a negative value for each affected tooth in the **Intersection (-) / Gap (+)** row in the displacements tab table. The IPR shown is always for the mesial of the affected tooth.

Step 4: Review the staged model sequence

Next, you need to review the staged models. Go to the Displacements tab and verify that the series is feasible and meets your treatment objectives.



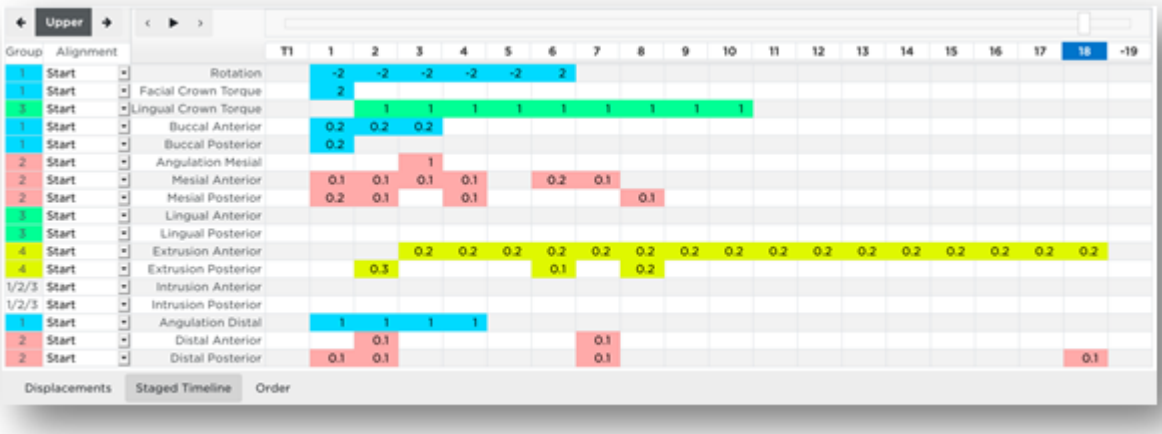
The stages are automatically numbered 1, 2, 3, etc. and are listed across the top left as small tabs within the Displacements tab. When this area first appears, the displacement values are displayed as cumulative amounts and the last stage is selected. It contains the total displacements. You have many options for viewing displacements to ensure that the values are appropriate.
Stages that have an asterisk indicate that manual changes were made in that stage.
Cells highlighted indicate the following:

- If you removed stages and/or modified any of the movements, any values that exceed your constraints are highlighted in yellow.
- As the teeth move linearly to the next stage, interferences can occur. Values that represent an interference are highlighted in orange in the Gap (+)/Intersection(-) tab. You can resolve these interferences by:

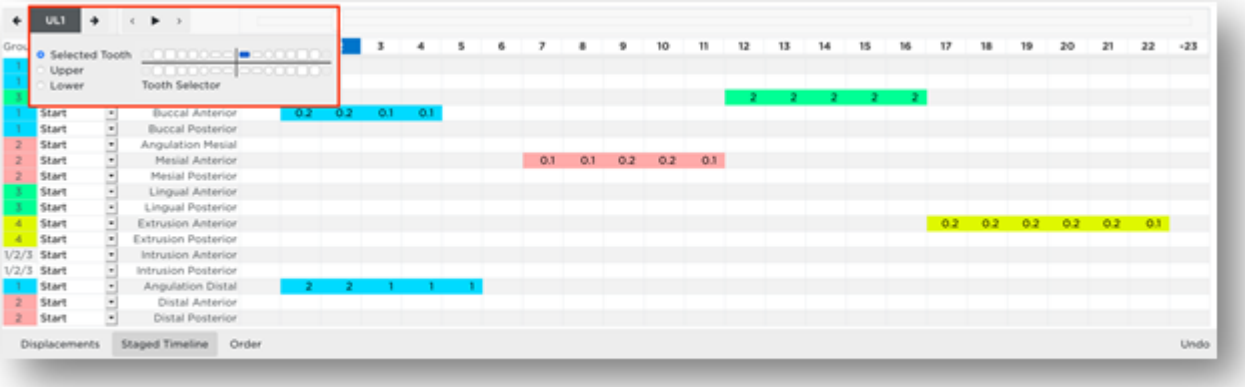
  - Adjusting movements in the previous or next stages

  - Adding stages as needed

The **Staged Timeline** tab shows the starting and ending stages for each group of movements. The system shows the maximum actual movement per stage in each cell.

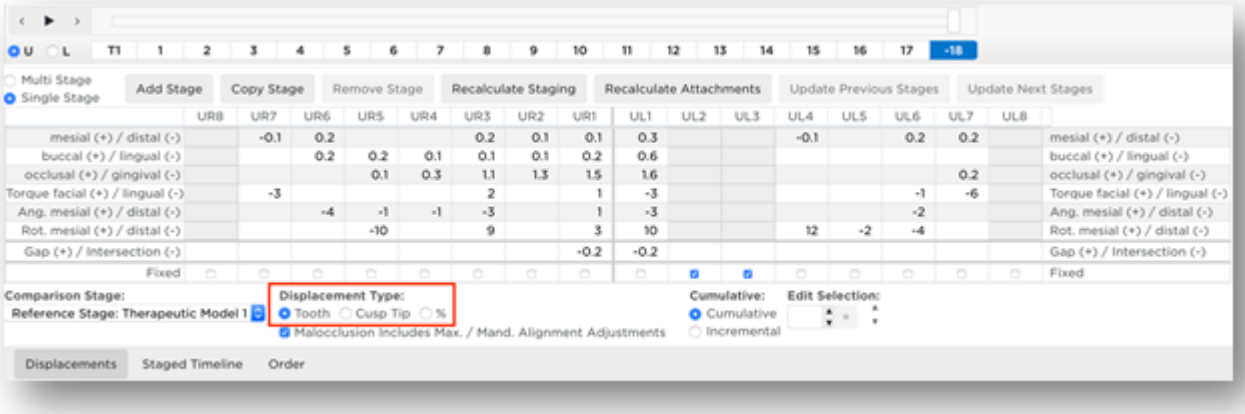


You can also view the movements by tooth. Switch between upper, lower or select individual teeth at the top left of the **Staged Timeline** tab.



You can change the starting (first stage) or ending point (last stage) for each set of movements by choosing **Start** or **End**, or choose **Spread Out** to spread the movements throughout the stages. Start and ending stages for a movement type can extend over multiple groups.

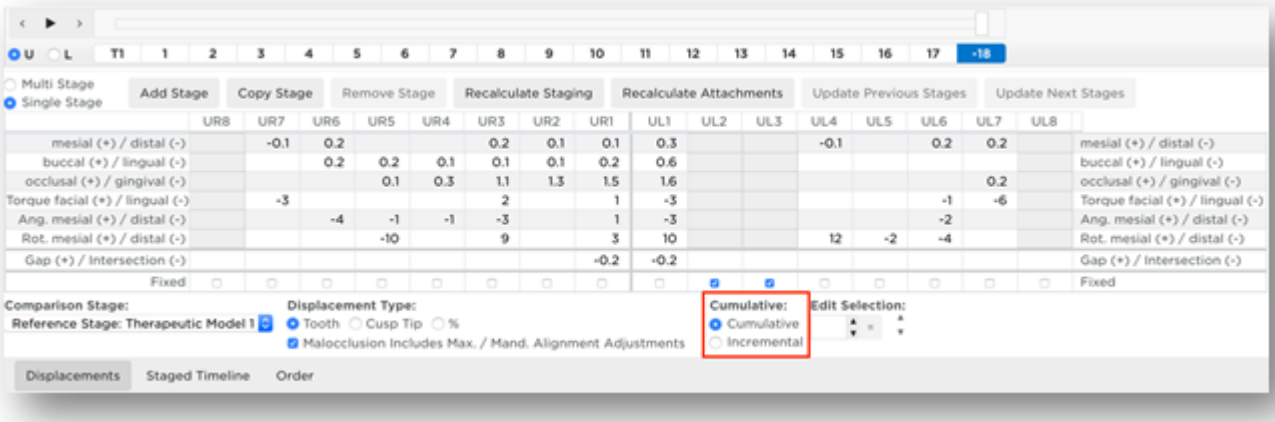
Choose a Displacement Type



- **Tooth** - Click the Tooth option to see displacements calculated from the center of each crown.
- **Cusp Tip** - Choose the Cusp Tip option to see displacements calculated relative to the cusp.
- **%** - Choose this option to see displacements calculated as a percentage of movement, with the target represented as 100%.

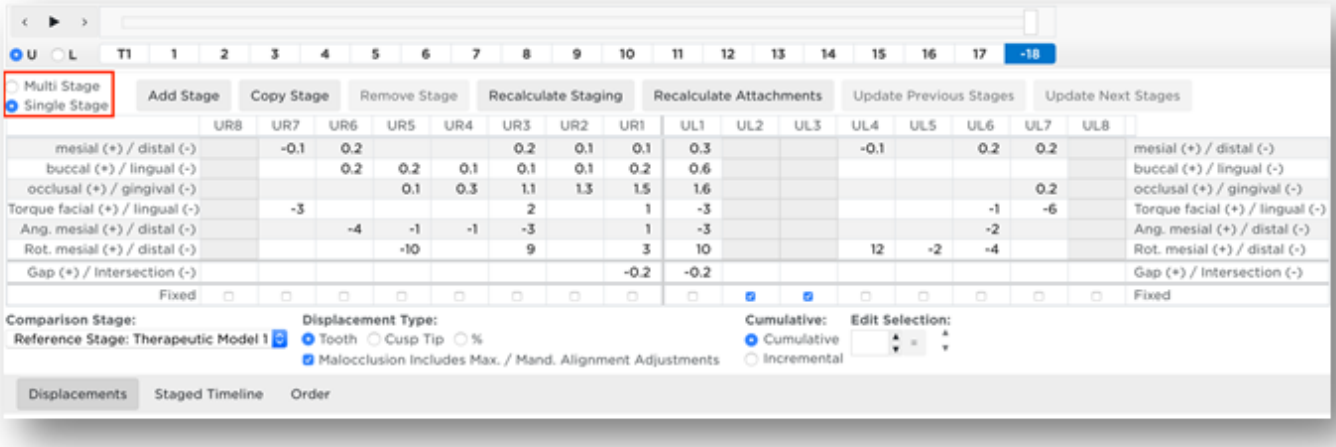
Choose whether to view values cumulatively or incrementally:

- **Cumulative** – The displacements of each stage are added together to show the total movement planned through the current stage.
- **Incremental** – The displacements of each stage show the amount of movement planned between the previous stage and the current stage.



Check model movements in Single Stage view:

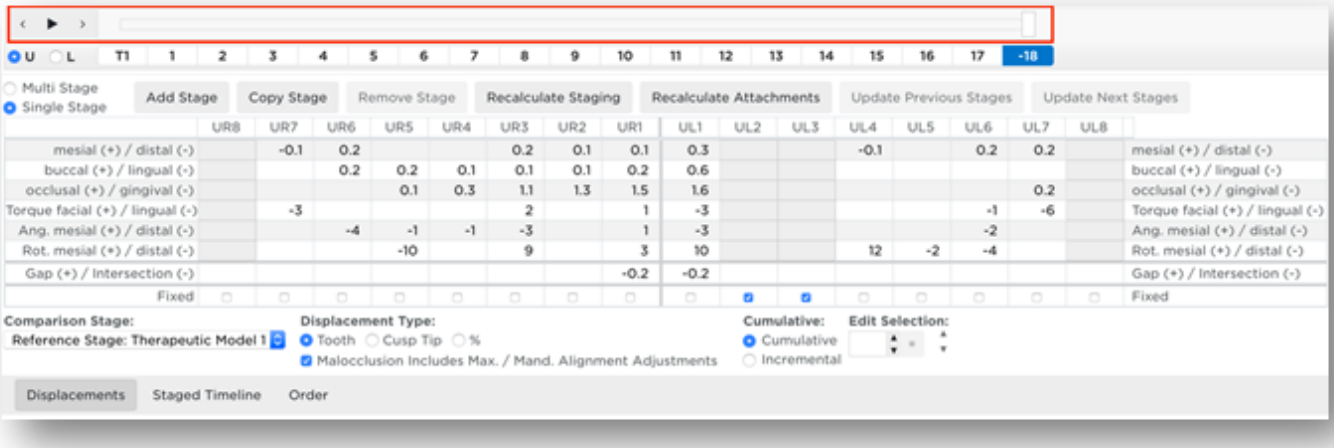
1. Select the **Displacements** tab then select the upper or lower arch.
2. Display and view the 3D model as needed so that you can watch the model as it changes from stage to stage.
3. Select the **Single Stage** view. Click the model numbers in the small tabs (or use the animation player discussed in the next section). The displacements are shown for each model in the sequence.



4. Examine the displacement values. If needed, adjust the numbers using the table.
5. Repeat for the opposing arch.

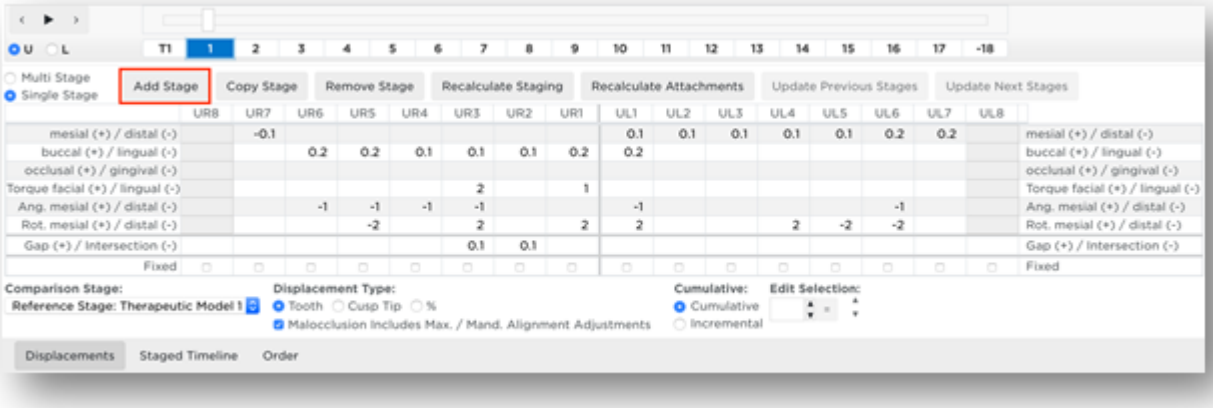
Animation player:

Use the animation player to view the movements in the staged model sequence. It is available on both the **Displacements** tab and the **Staged Timeline** tab. The animation player runs an animation of the entire treatment plan, showing tooth movement from the initial state to the final tooth position.



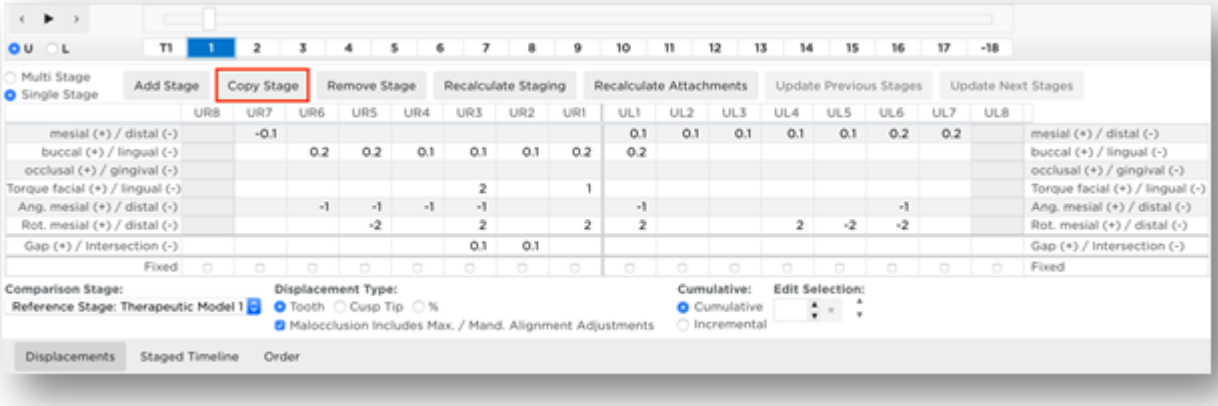
Add stages as needed:

1. Select the upper or lower arch.
2. Select a model number to follow the new stage you are adding.
3. Click the **Add Stage** button to insert a new stage. The displacements for the new stage are set to a midpoint between the preceding stage and the following (new) stage.



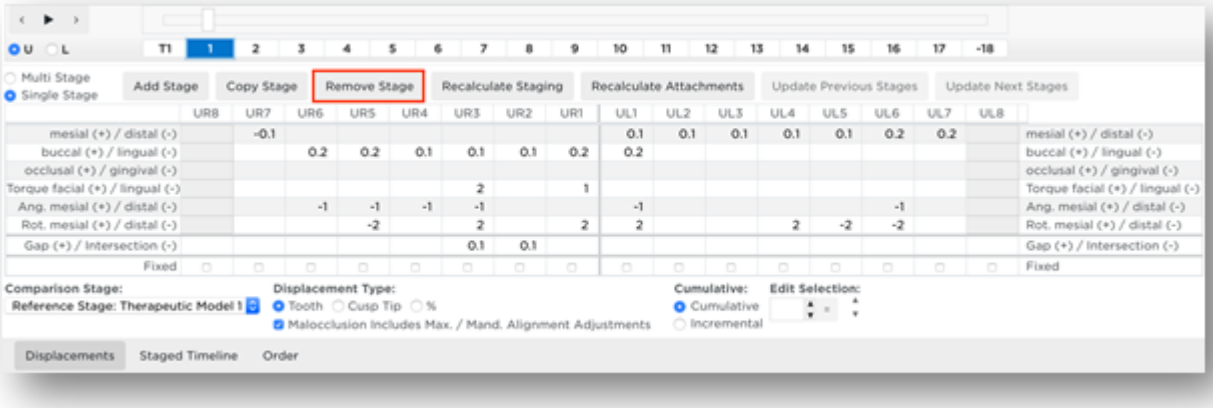
Copy stages as needed:

1. Select the upper or lower arch and select a model number.
2. Click the **Copy Stage** button. A new copy of the selected stage is created following that stage.



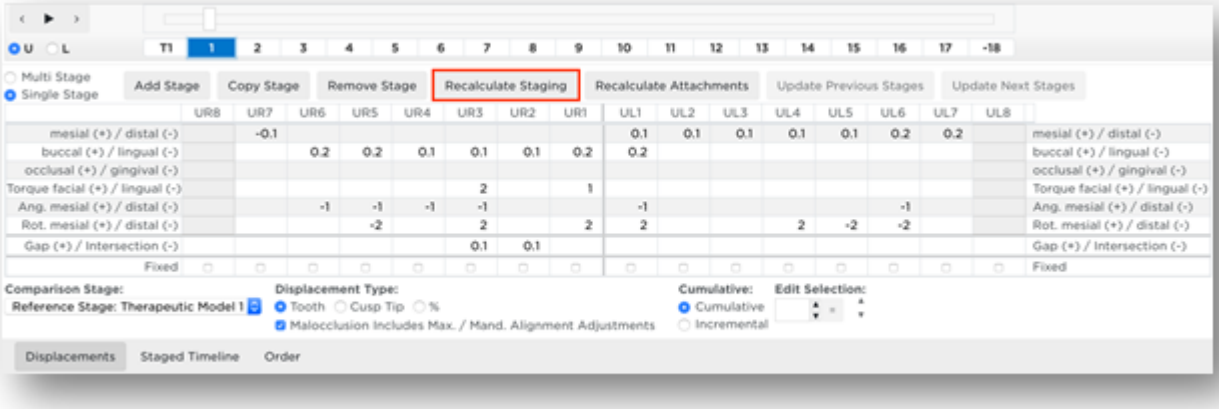
Remove stages as needed:

1. Select the upper or lower arch and select a model number.
2. Click the **Remove Stage** button. The incremental movements for the subsequent stage are recalculated to include the movements that took place in the removed stage.



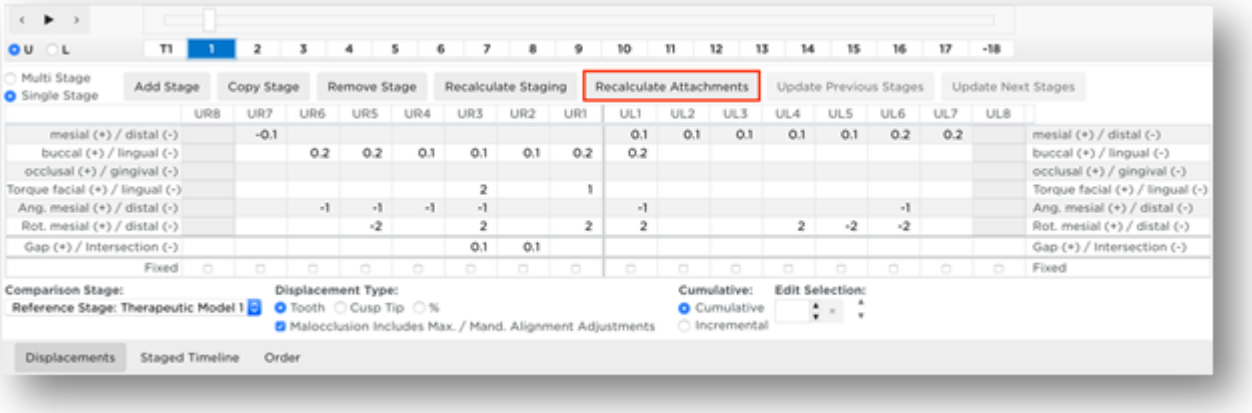
Recalculate staging as needed:

1. Select the upper or lower arch and select a model number.
2. Click the **Recalculate Staging** button. The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the groups and/or maximum rates of movement for this patient.



Recalculate attachments as needed:

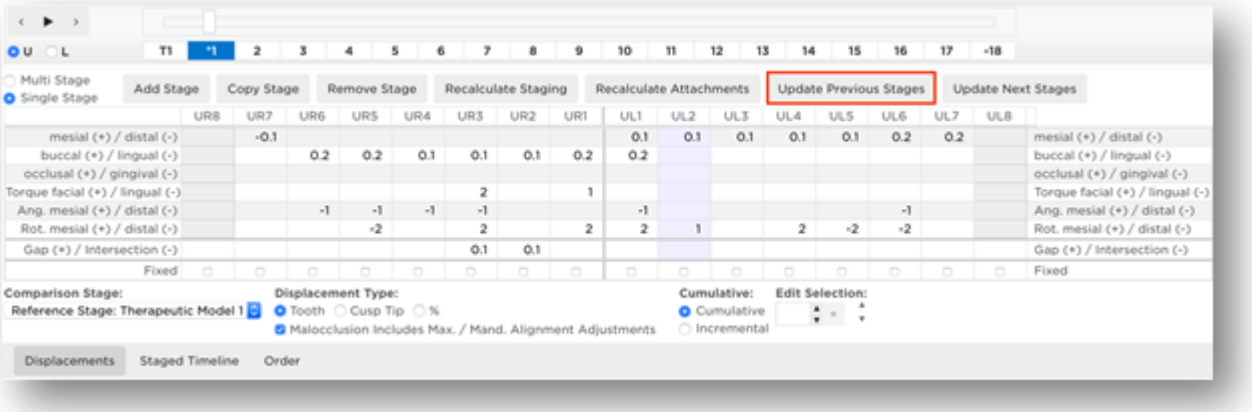
1. Select the upper or lower arch and select a model number.
2. Click the **Recalculate Attachments** button.



The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the automatic attachment placement for this patient.

Update Previous Stages as needed:

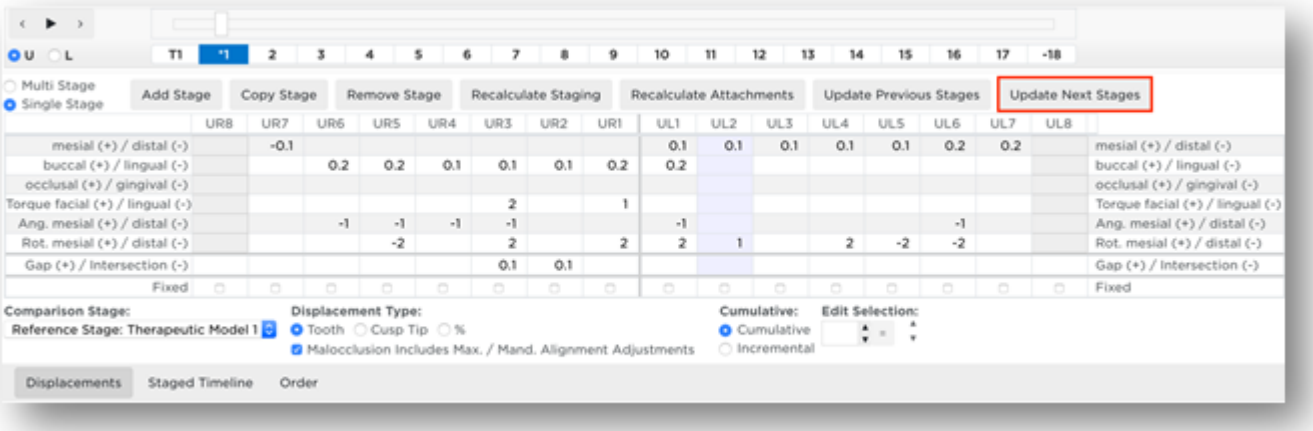
1. Select the upper or lower arch and select a model number.
2. Click the **Update Previous Stages** button.



The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the groups and/or maximum rates of movement for the stages previous to the selected stage. If no edits are needed, click **OK**.

Update Next Stages as needed:

1. Select the upper or lower arch and select a model number.
2. Click the **Update Next Stages** button.

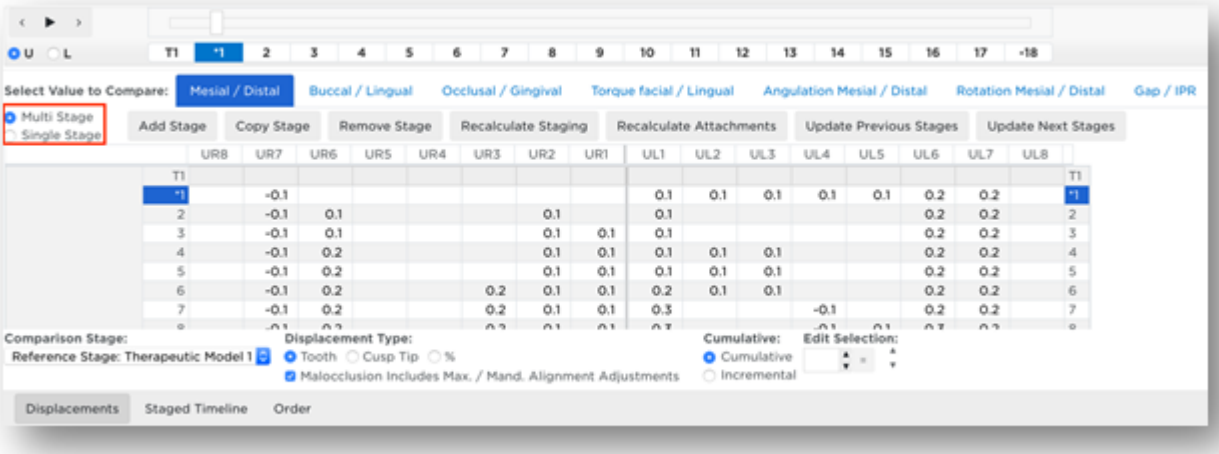


The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the groups and/or maximum rates of movement for the stages after the selected stage. If no edits are needed, click **OK**.

Re-check movement with multi-stage view

Now examine the movements per tooth through the stages:

1. Select the Multi Stage view.



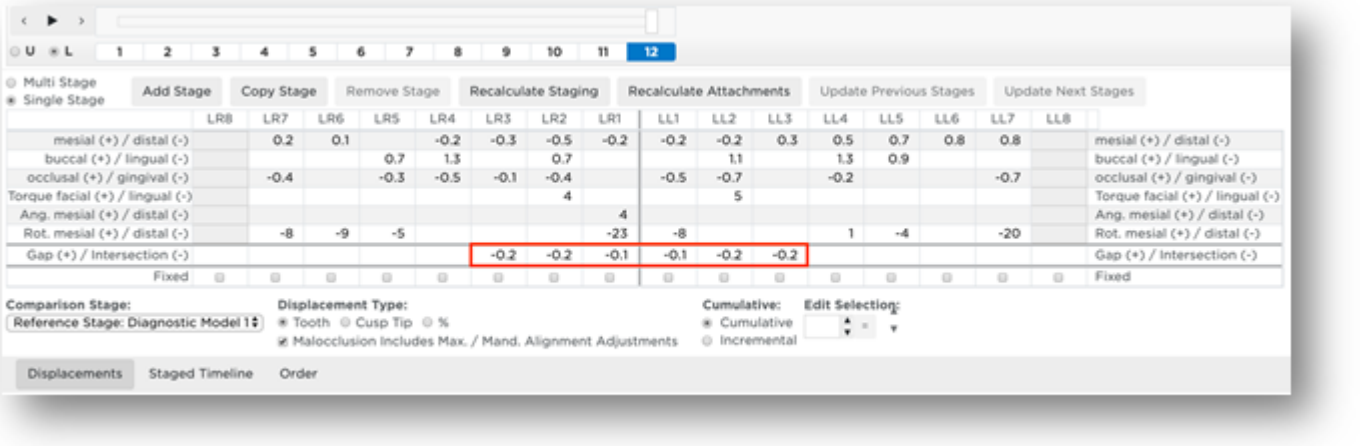
2. Select the upper or lower arch.
3. Select the tabs as needed to view types of movements (Mesial/Distal, etc.).
4. Repeat these steps for the opposing arch.

Adjust displacements manually:

1. Select the upper or lower arch.
2. Select the **Cumulative** or **Incremental** option as needed.
3. Enter new values according to your clinical judgment.
4. If you have manually changed values that affect previous or later stages, click the **Update Previous Stages** or **Update Next Stages** buttons to adjust the numbers.

Check IPR

From the **Displacements** tab, click on the last stage and check the **Gap (+) / Intersection (-)** row for the amount of IPR planned in the target simulation or setup. If IPR is needed, the system displays a negative value for the mesial of each affected tooth. Although you may see IPR at each stage, you only need to apply the total amount shown in the last stage. Most SureSmile doctors typically apply the IPR needed at the first appliance appointment.

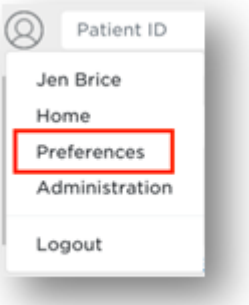


> **Note**: If the IPR needed on any stage is more than the amount in the target model, the conflict must be resolved, as additional IPR should not be applied.

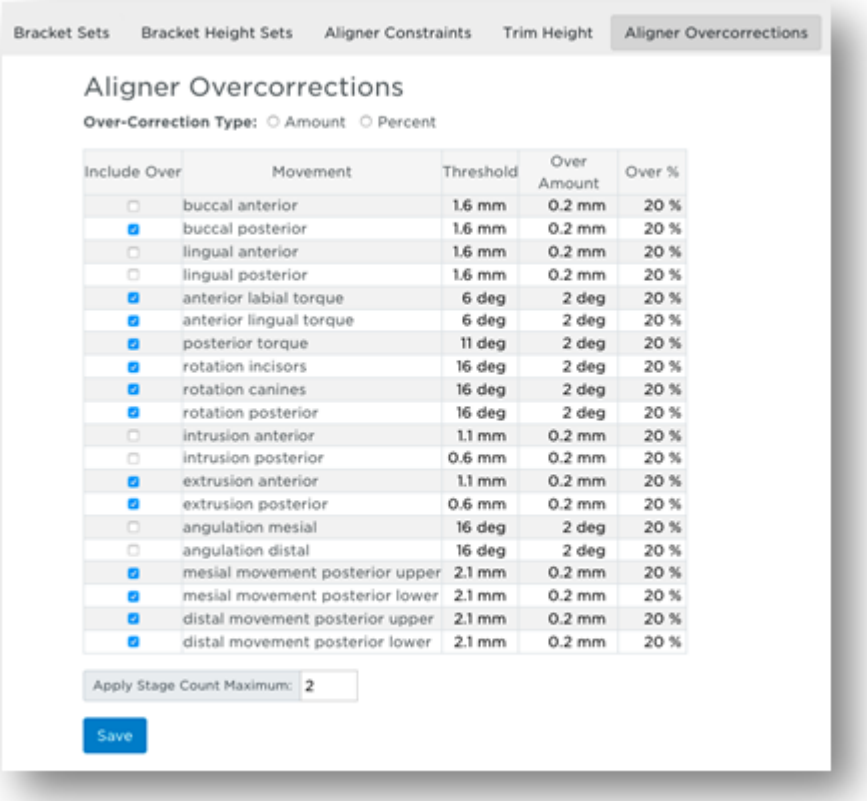
Over-correction

Over-correction can be applied to the staged model sequence. You can specify in your Preferences how many Over-correction stages to apply as well as thresholds for particular movements.

Click the icon to the left of the Patient ID search box, then click **Preferences**.



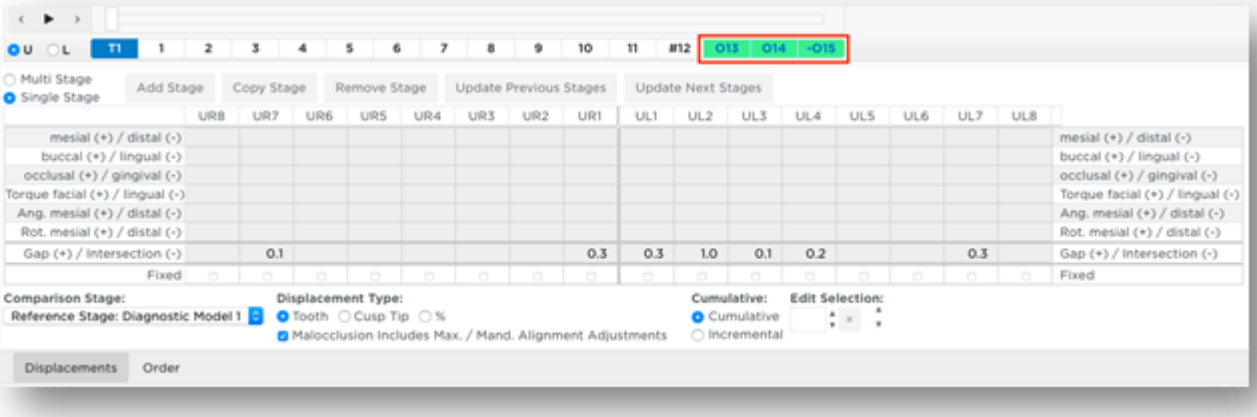
Click the **Aligner Overcorrections** tab. Next to Over-Correction Type choose Amount or Percent. Use the check boxes under Include Over to include or exclude particular movements. Change the movement thresholds under Threshold as needed. Change over-correction values under Over Amount or Over % (depending on which over-correction type you chose). Choose how many over-correction stages to apply next to Apply Stage Count Maximum. Click **Save**.



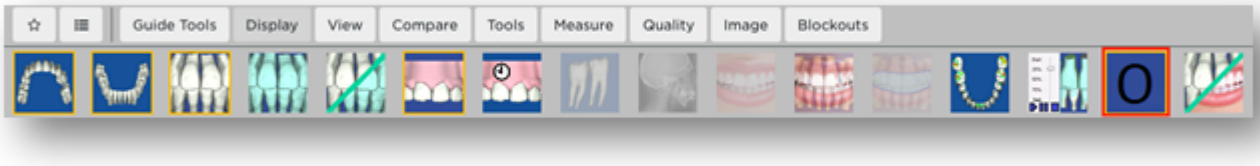
Over-correction stages

Over-correction stages are applied to the end of the staged model sequence and are highlighted in green with

the letter “O” before the stage number. The last stage before the over-corrections is denoted with a “#” before the stage number.



The **Overcompensation Stages** icon found in the Display palette can be used to hide/show the over-correction stages.



Blockouts

Blockouts are automatically applied to block out undercuts. Blockouts may need to be applied to the staged models when there is spacing, gingival recession, exposed roots, black triangles and/or lingual retainers. The system provides automated aligner tray blockouts as a post-processing step.

Using Aligner Tray Cut-outs

For Class II or Class III cases, the Digital Lab places aligner tray cut-outs for elastics as specified in your prescription or notes.You can manually adjust these aligner tray cutouts placed by the Digital Lab. You can also add new cutouts or remove cutouts . Make sure you review the placement of the cutouts as part of your review of the staged models.

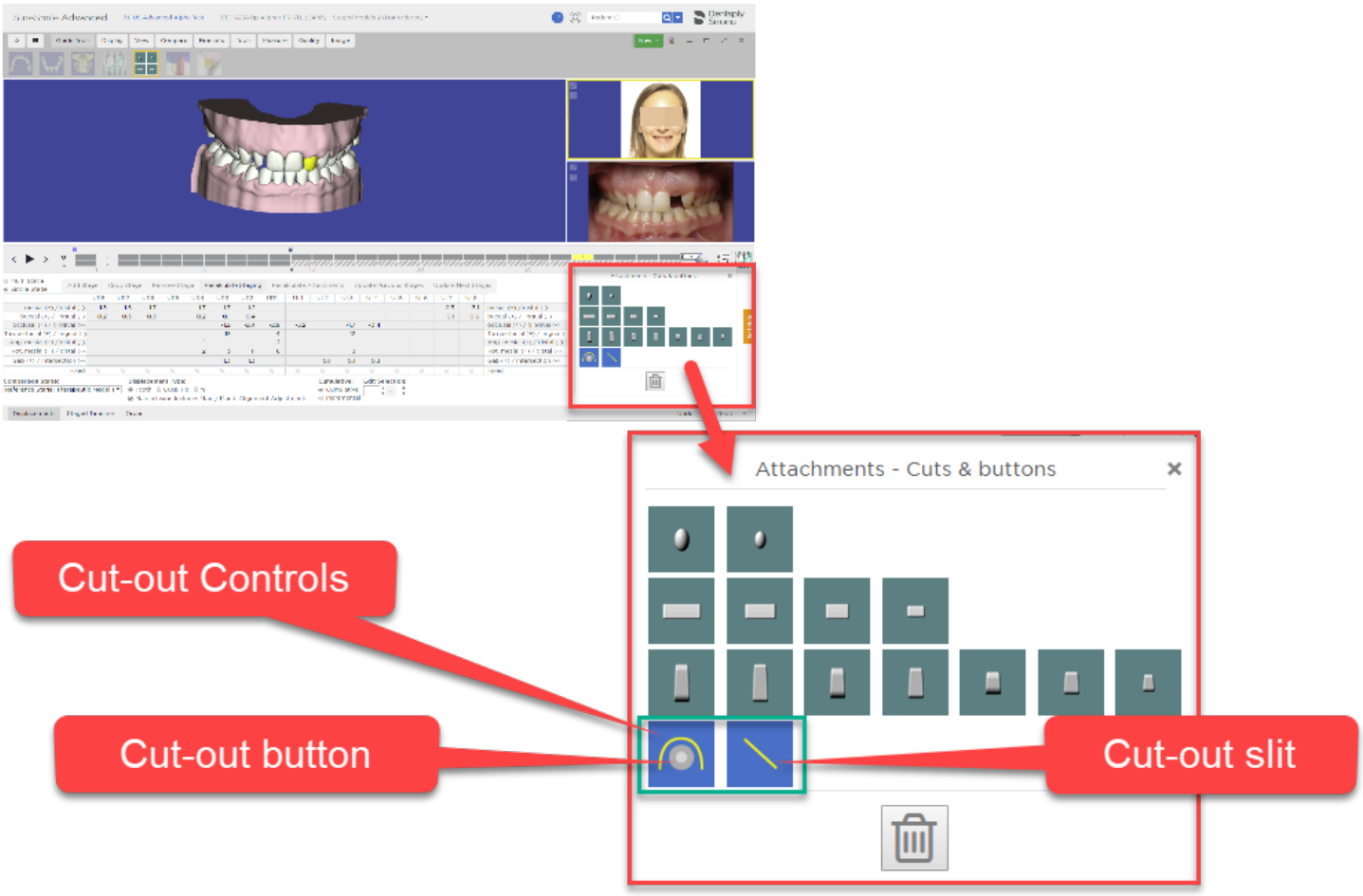
Attachments - Cuts & buttons panel

Use the **Attachments - Cuts & buttons** panel to add or remove cut-outs to your aligner trays. This panel is displayed by default when the Staged Models workspace if the staged model are in a not ordered state.

You can place a slit or a button with a button cutout in any quadrant and in any combination to cover different clinical scenarios such as Class II, Class III, Upper, Lower, Lingual, and Labial elastics. You can place cutouts on labial and lingual surfaces.

In addition, to help improve aligner retention, you can place an attachment on the same surface as a cutout.

When placed on a tooth, the cut-out will be oriented automatically based on the segment where it was placed. The system uses basic placement rules for Class II labial elastics. You can adjust the placement of your cut-outs and slits as needed by moving and the rotating cut-outs in the 3D window.



Tip: Show or hide the Attachments/Cut-outs panel by clicking on the Assign Attachments icon located in the Aligners menu.

Cut-outs are only visible on the Staged Models. The cut-out slit is placed on the tooth at a 45-degree angle by the system. You have several preset sizes to choose from when placing cutout buttons and slits;

If cutouts can only be visible with the whole trim line being shown, the user will show/hide them as they show/hide trim line. The user shouldn't be able to resize them. For now, we will keep resizing and reevaluate this mm for default button and 1 mm or 1.5 mm for slit.

To Add Cut-outs and Slits to an Aligner Tray

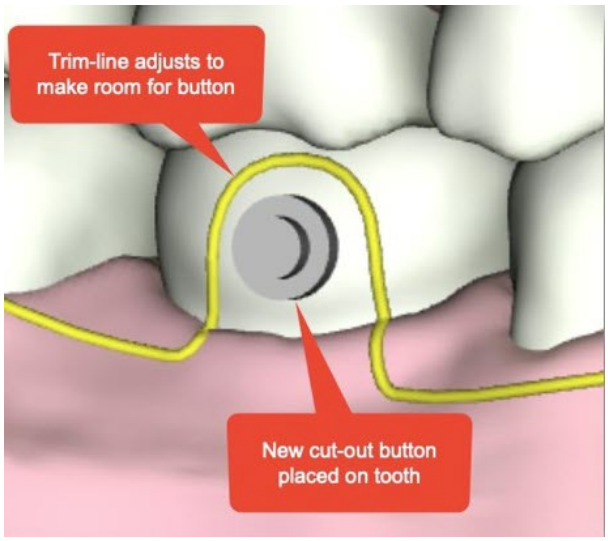
Before you begin:

- Make sure you are in the staged models workspace and your staged models are in a Not Ordered state.

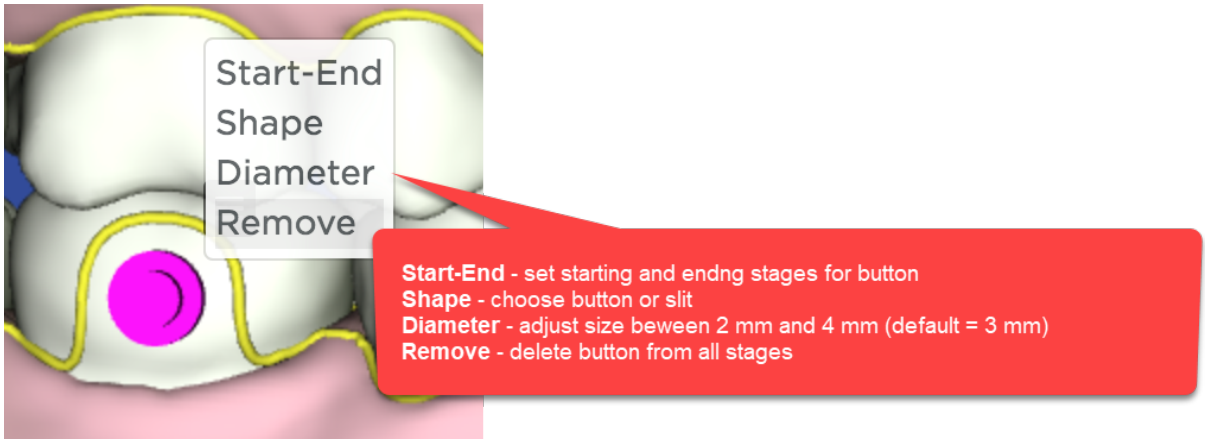
- The Attachments - Cuts & buttons panel should be open in the bottom right of the workspace. If the panel is not open, go to the Aligners menu and click the Assign Attachments icon.
- The yellow trim-line for the aligners tray should be visible. If it is not visible, open the Aligners menu and click the Trim-line icon.
- Position in the model in the 3D workspace so that the tooth for which you want to add the button cut out or slit is visible and large enough to work with.

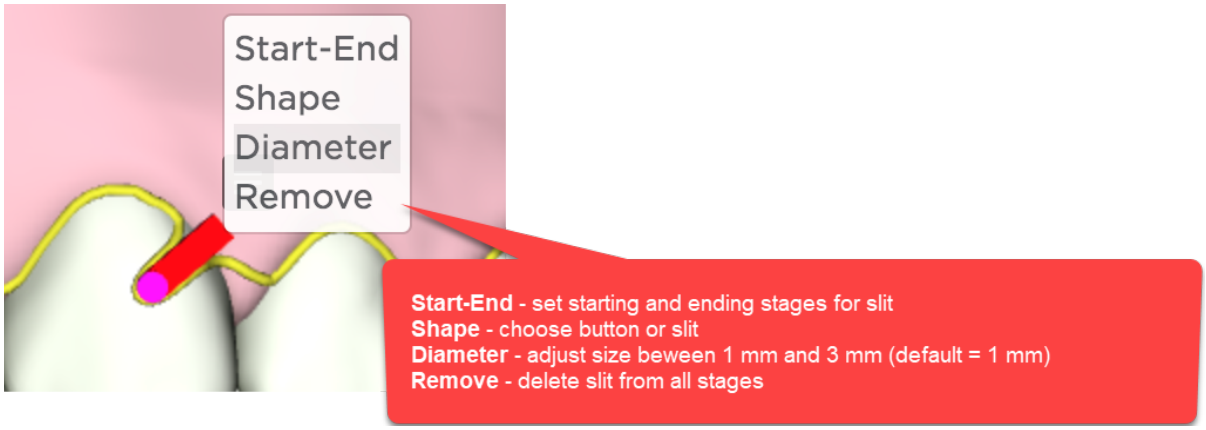
To place the cut-out button or slit:

1. Click the Cut-out button in the bottom row of the Attachments - Cuts & buttons panel. Your cursor should turn into a cross.
2. Position your cursor on the tooth and click. A button is placed on the tooth. Note that the yellow trimline has been automatically adjusted to make room for the button.



3. Click and drag the button or slit to adjust its position.
4. Click the button or slit and then click the small menu icon to make other changes.



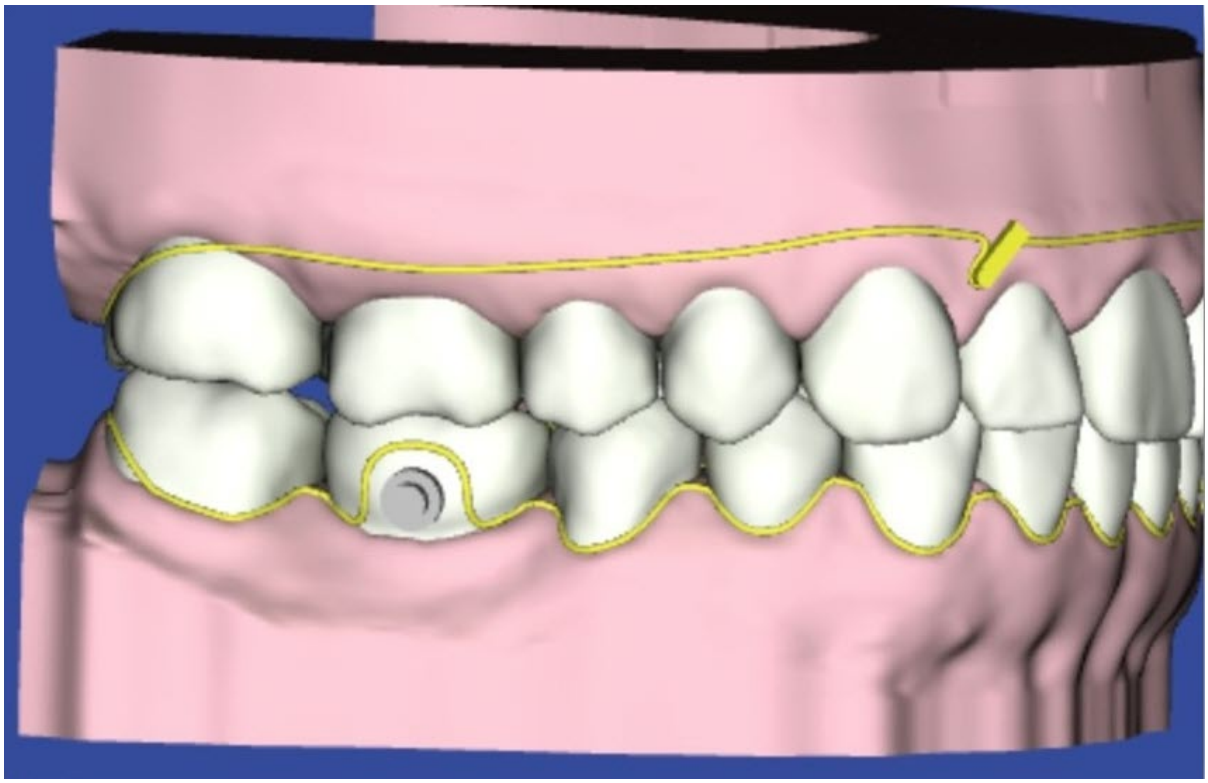


5. To remove the button just from the stage displayed, click the button or slit once to highlight it, then click the trashcan icon on the Attachments - Cuts & Buttons panel.

Class II Correction with Straight Trimline

For elastic cut-outs on U3s with straight trim-line, slit is placed:

- on gingiva
- interproximal between lateral/cuspid
- deepest portion of the slit aligned vertically with the contact point
- 2 mm length distal tab
- approx. 45 deg

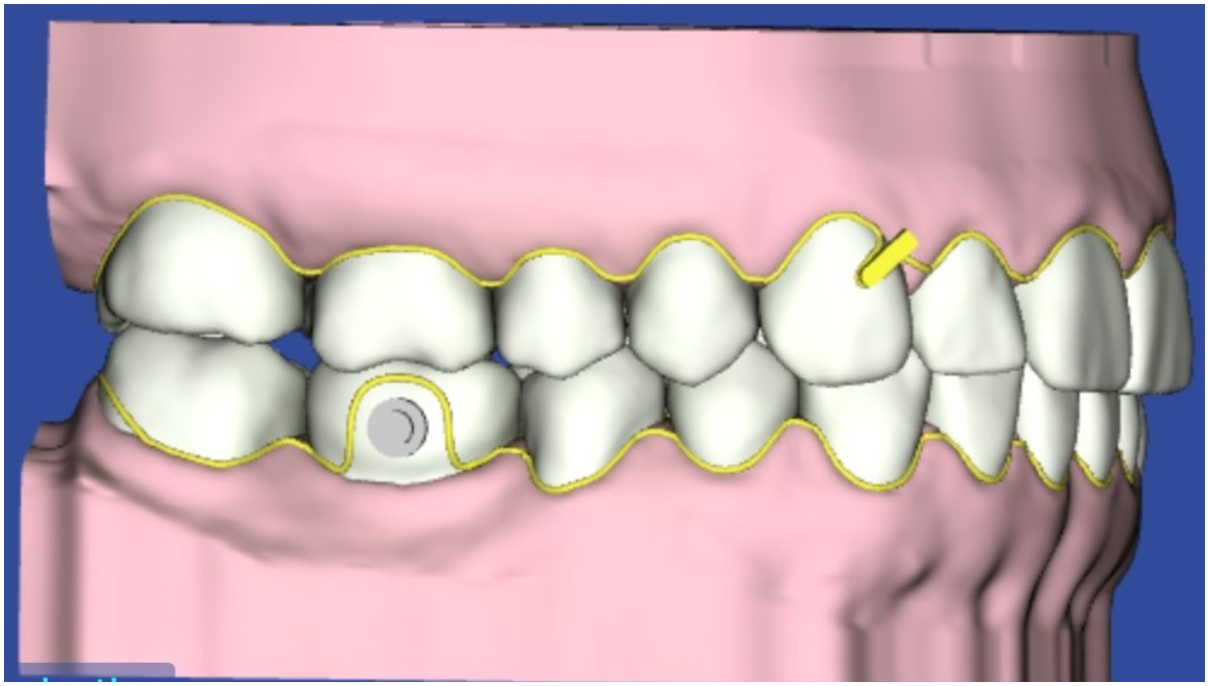


Class II Correction with Scalloped Trimline

For elastic cut-outs on U3s with scalloped trim-line, the slit is placed:

- mesial/gingival third of labial surface

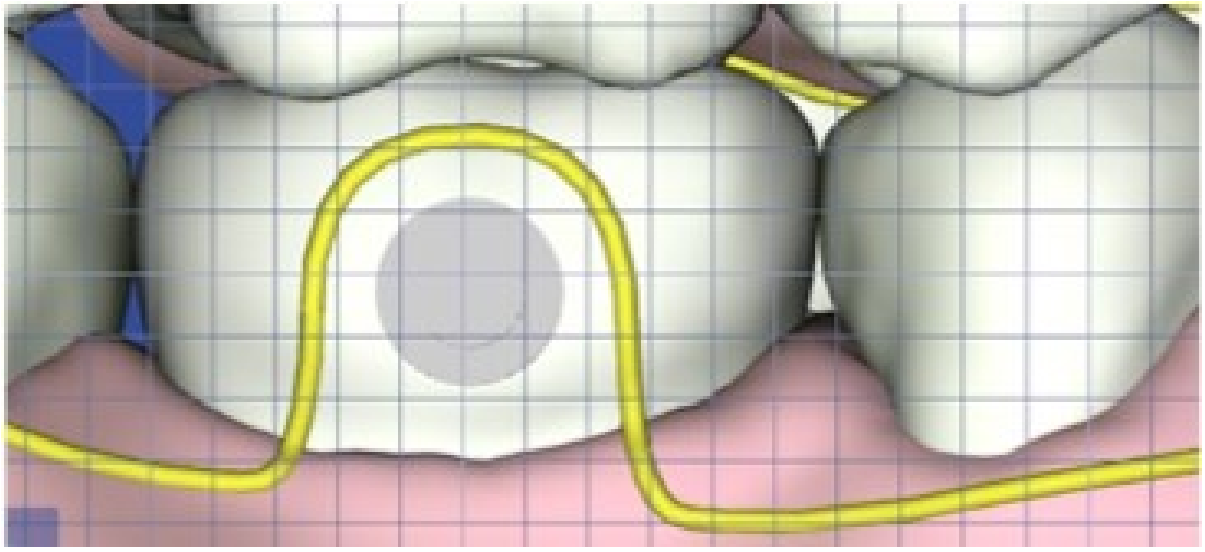
- 2mm length distal tab
- approx. 45 deg



Button Cut-outs

For button cut-outs on L6s, button is placed:

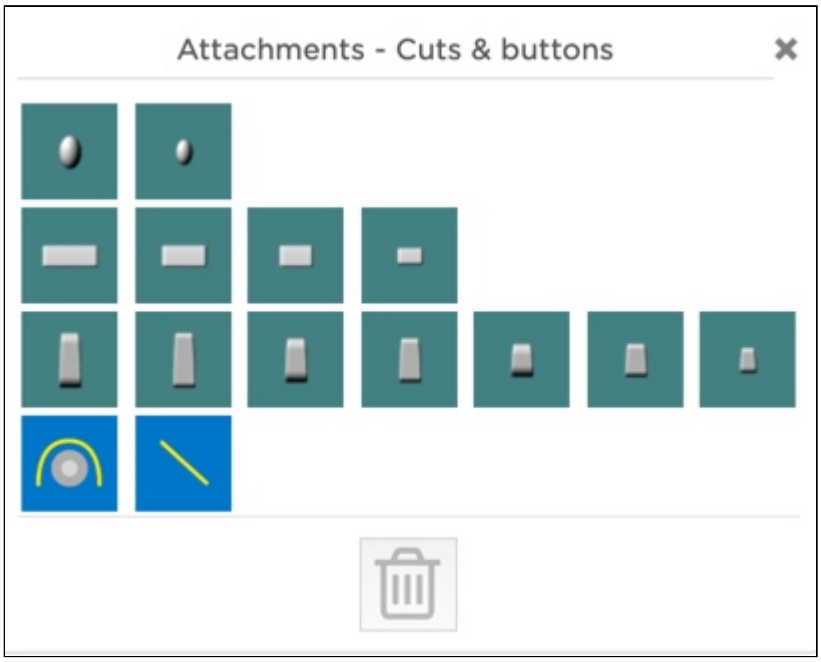
- centered mesial/distal
- gingival 1/3
- approx. 1mm from gingival margin



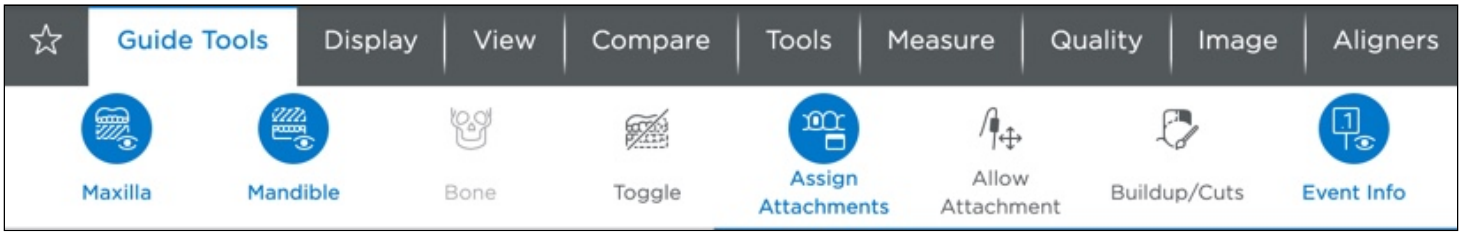
Step 5: Assign Attachments Manually

Assign attachments manually

If you chose not to apply attachments automatically or want to add additional attachments you can do this from the **Attachments** panel found in the **Displacements** tab.



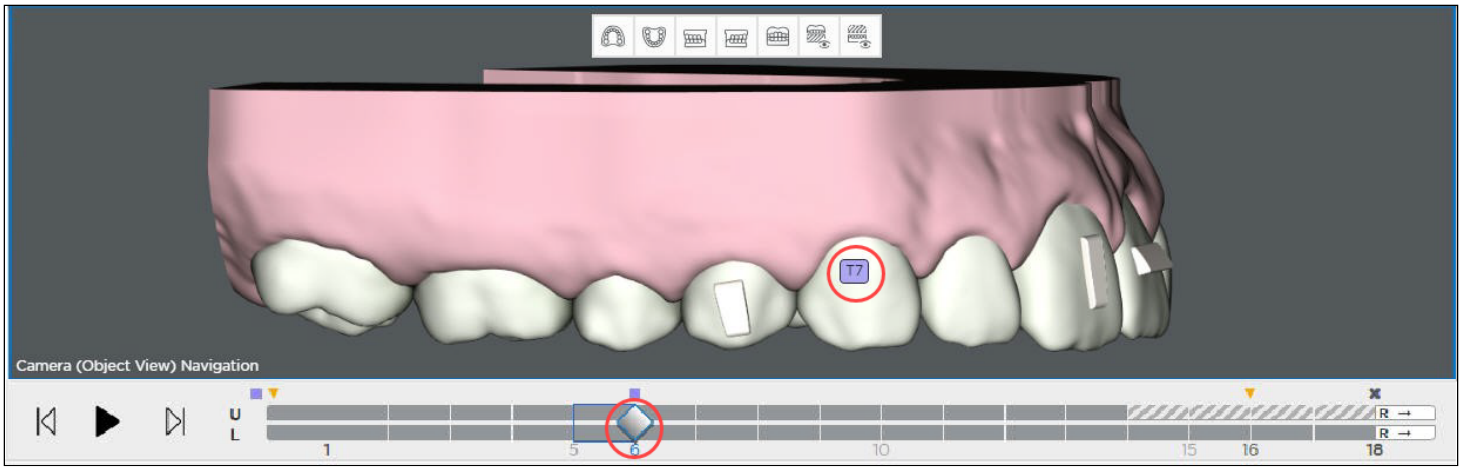
If the **Attachments** panel is not shown you can turn it on from the **Tools** palette.



Now click on the tooth on the 3D model where you would like to place the attachment.

> **Tip**: Click on the part of the tooth where you would like the attachment to be placed. For example, for lingual placement click on the lingual surface of the tooth.

The system automatically generates a template stage, for the placement of attachments, immediately prior to any stage with newly added attachments. The teeth remain in the same position as the prior stage but the new attachments are added to the stage. Any previously placed attachments are also included.



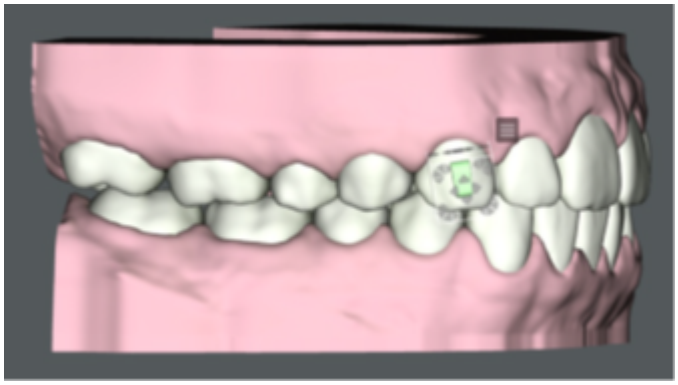
Each template stage is designated by a ‘T’ and the number of the next stage; e.g. T2 would be placed before stage 2.

The software automatically removes the attachment(s) at the end of the sequence and places a minus “-“ in front of it. This last stage with a minus sign is a passive copy of the previous stage but without attachments. Because it doesn’t have movements or attachments, it can be printed for the retainer.

When you don’t have attachments, the last stage still can be used as a retainer since it is the last stage with the last set of movements.

White means the attachment is an active attachment in the current stage.

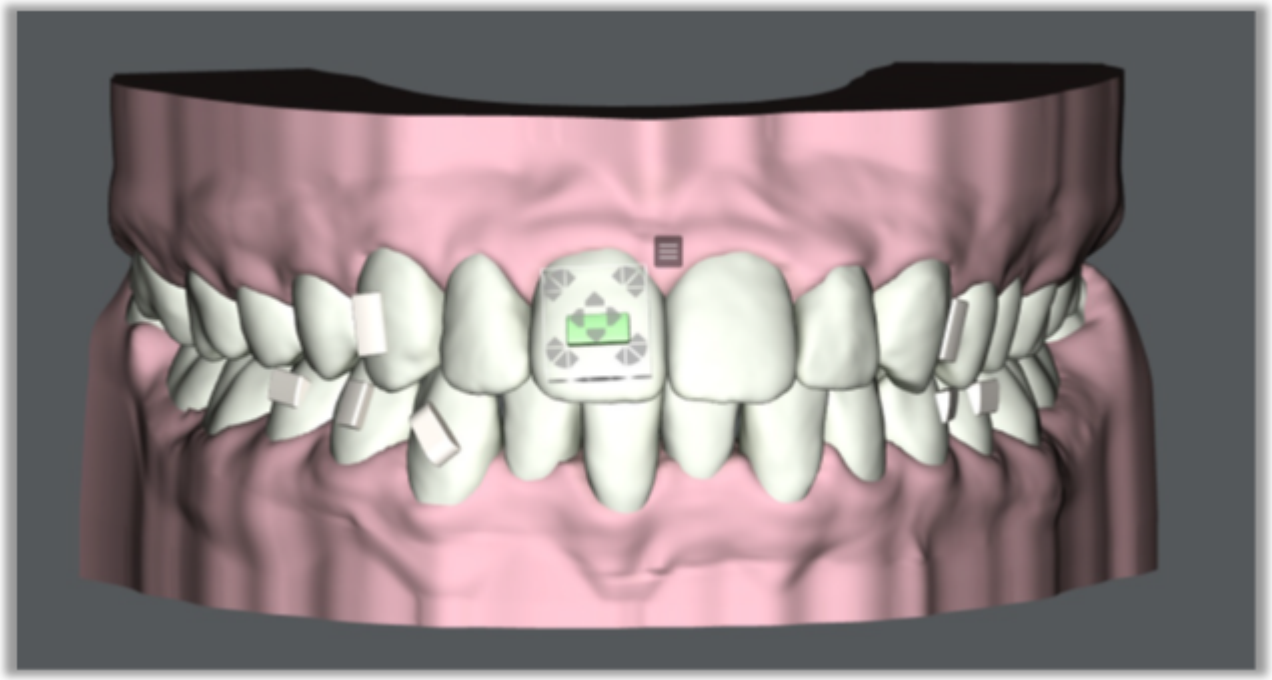
Green means the attachment has been click-selected and the position can be adjusted in the current stage. (To adjust an attachment: click the attachment; you will then see a box appear around it with arrows you can use to move the attachment.)



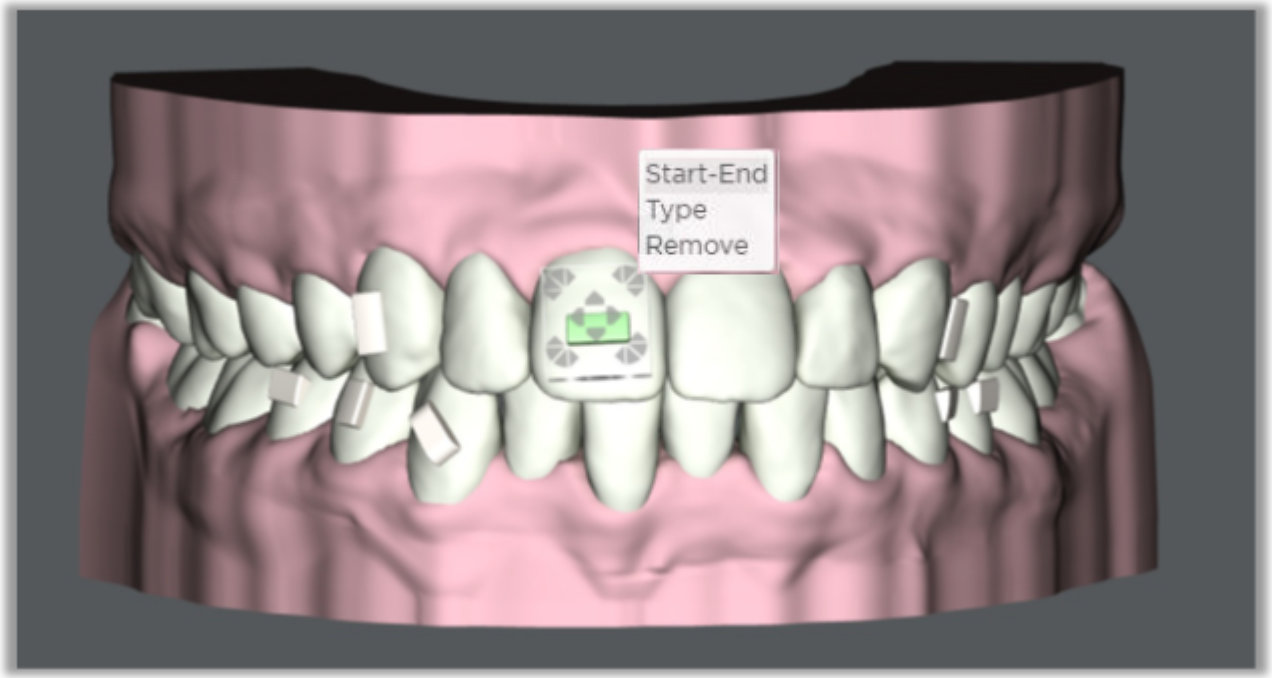
Black means that the attachment is on its last stage. Remove the attachment after this stage.

Adjusting Attachments

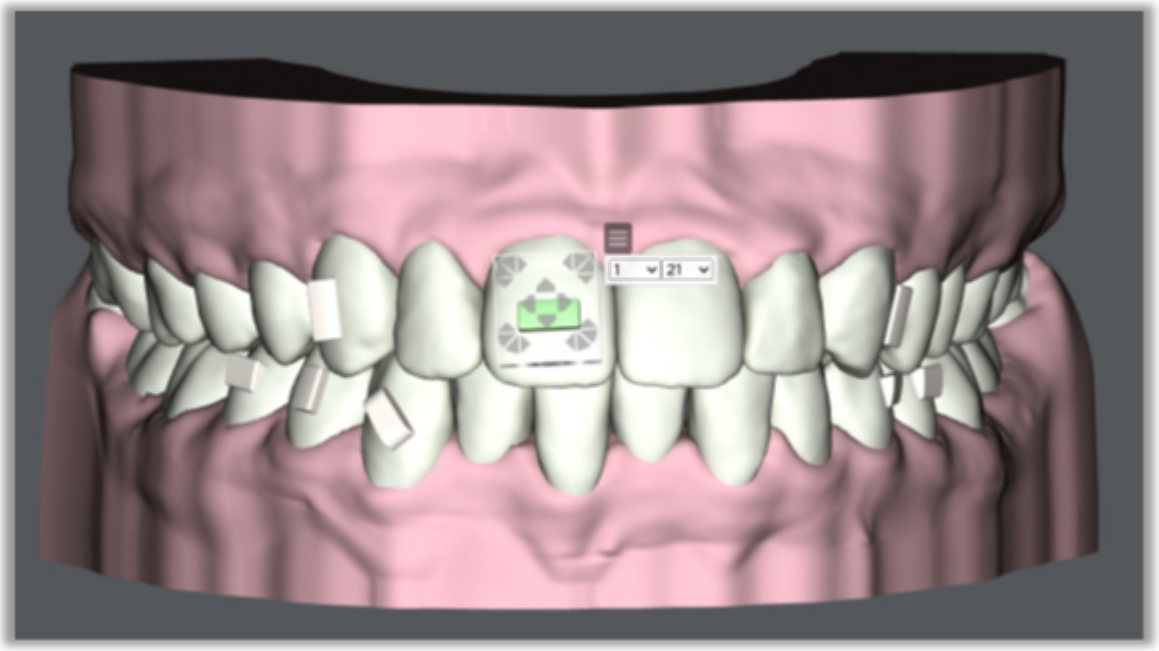
To adjust the attachment, select the attachment on the 3D model. The bounding box appears. Drag the handles of the bounding box to move the attachment. The attachment will maintain 3-point contact with the tooth surface.



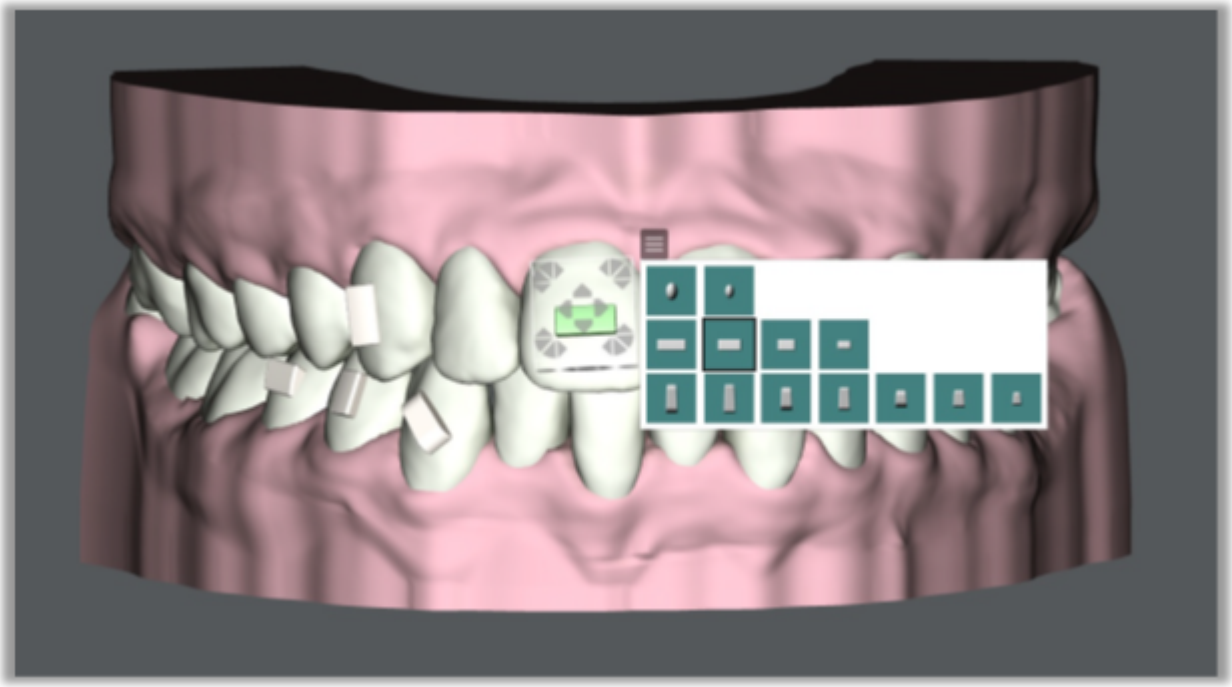
Use the menu to the top right of the attachment to make additional changes.



Click **Start-End** to change the start and/or end stages for the attachment.



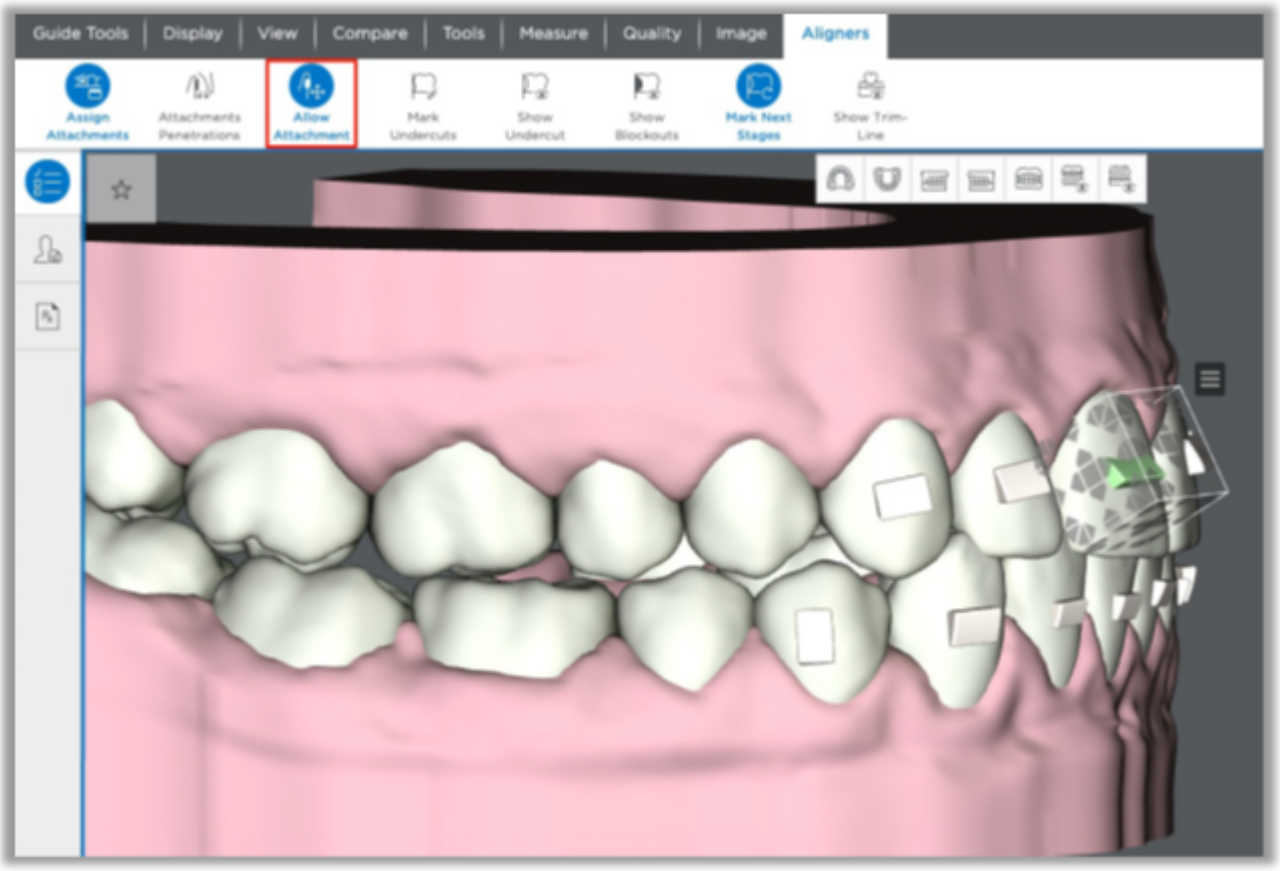
Click **Type** to change the shape of attachment for that tooth.



Click **Remove** to remove the attachment.

Embedding Attachments

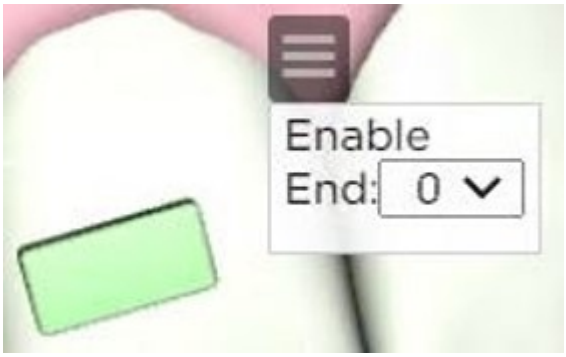
To embed the attachment into the tooth, click the Allow Attachment Inside Tooth icon in the Aligners palette. Then click the attachment and use the arrows on the bounding box to adjust the attachment.

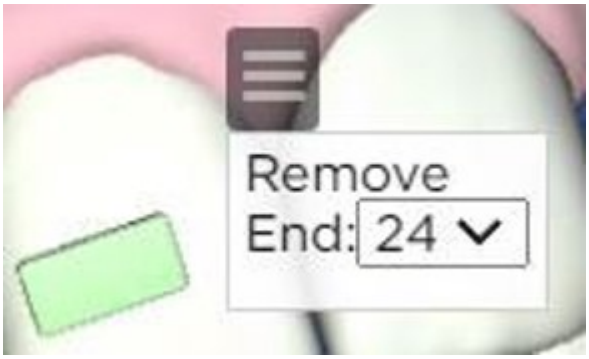


Enable/Disable Attachments

It is now possible to enable/disable scanned attachments during the staging.
Previously when scanned attachments are kept on the model, it was not possible to remove them for the retainer order. These kept attachments can now be removed at any stage. You can ask the Digital Lab to remove them, or you can do it on your own as shown on the right.

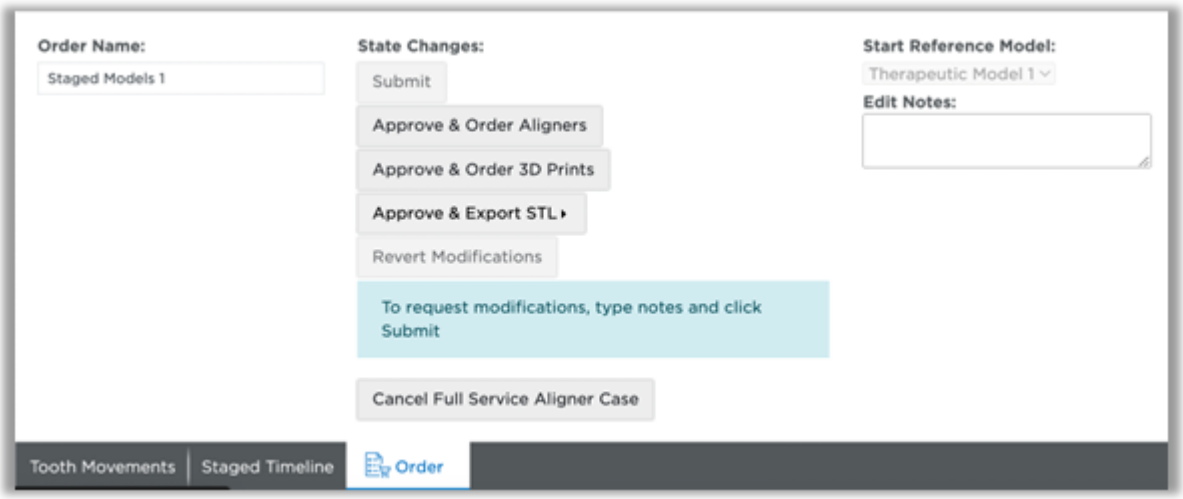
The scanned attachments will always be visible in malocclusion (stage 0). They will be disabled by default for all other stages. If you select the attachment, the pop-up menu will be displayed to enable the attachment. Once enabled, you can select the last stage where the attachment appears on the model from the 'End' drop-down menu. You can also remove the attachment but it will always remain in the malocclusion (stage 0).





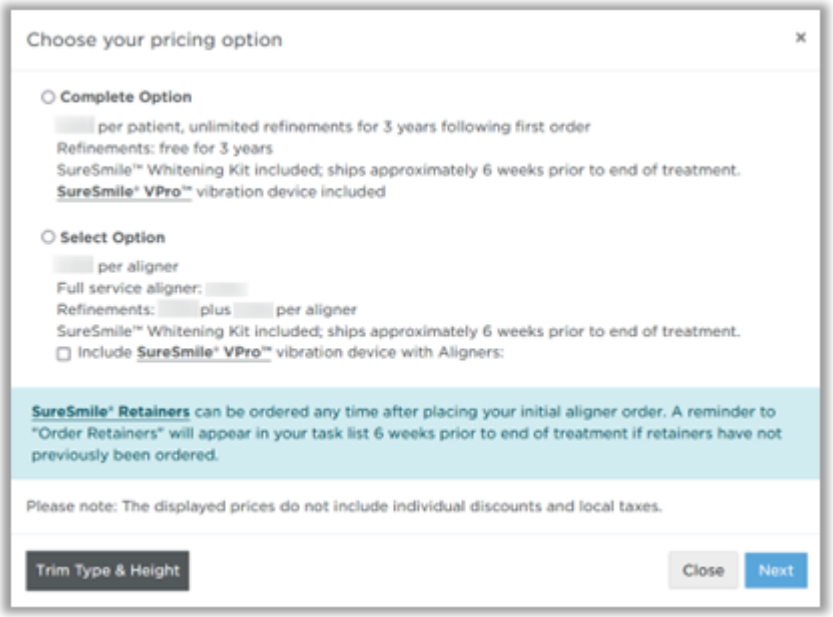
Step 6. Order aligners or printed models or export .STL files for your lab

If you are satisfied with the staged models after review, you are ready to approve the staged models, then either order aligners, printed models or export the .STL files. Navigate to the Order tab to see your options.



Approve & Order Aligners Option

If you choose the Approve & Order Aligners option, a dialog box opens to choose your pricing option:



Choose either Complete or Select.

Whitening Kit* is included in both case packages. It will ship approximately 6 weeks prior to the end of treatment.

SureSmile® VPro* is included in the Complete case package; it is optional for the Select case package.

Note: Whitening Kit and SureSmile® VPro may not be available in all regions

Complete Pricing Option

Single fixed price for a particular patient.

All Aligners and attachment templates are boxed and shipped to your practice at once.

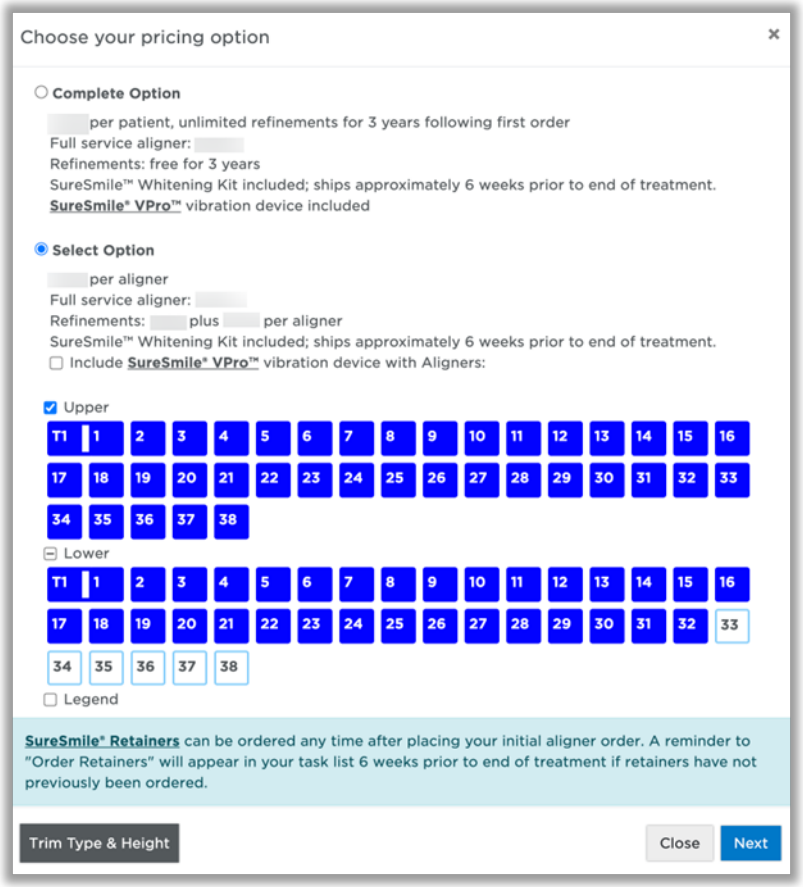
Includes an unlimited number of refinements within a 3-year period, beginning with the first Aligner order.

Select Pricing Option

Aligners can be purchased in any quantity up to the total number of planned stages. Aligners are priced on a per-Aligner basis. Aligners are boxed and shipped to your practice in the quantity ordered.

All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you want to order passive Aligners, select the desired stages and click Next.

In subsequent orders for this patient, you will see a small printer icon placed on each stage already ordered.



Note: The system only prompts you to choose between **Select** and **Complete** the first time you order Aligners for a patient. This choice applies to future orders for Aligners for this patient.

Click Trim Type & Height to change the trim type and/or trim height for your Aligner orders.

Please note that you can change the trim type from scalloped to straight, but you cannot change from straight to scalloped. If you want scalloped, you will need to send a modification to the Digital Lab so they can restage the staged models with the scalloped trim type.

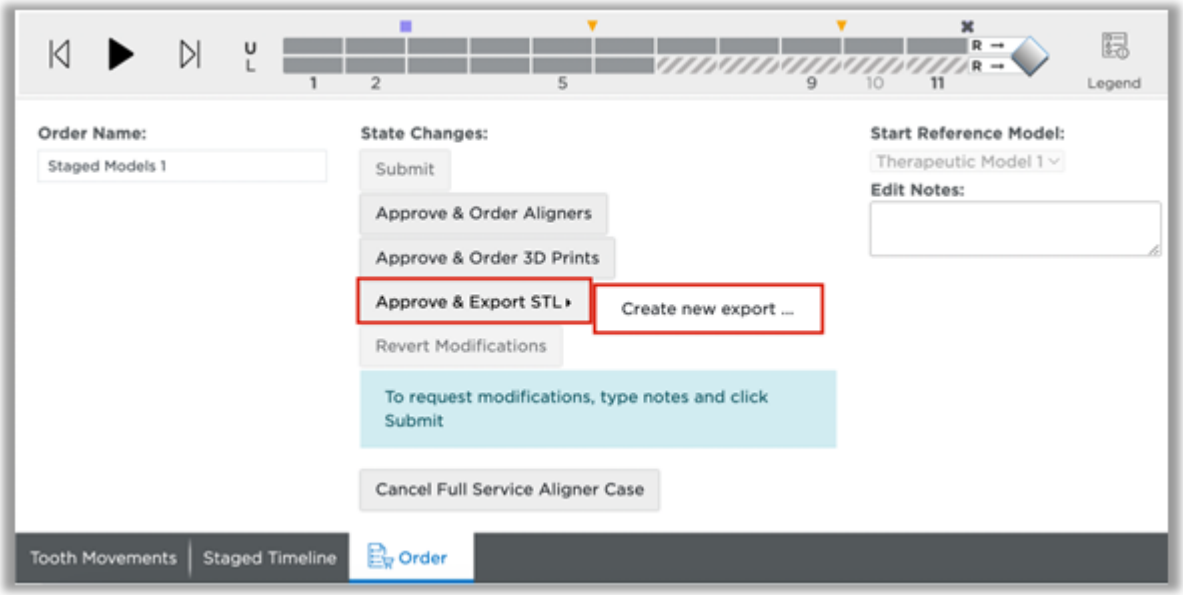
Important: At this time, SureSmile® does not support a scalloped trim line for partially erupted teeth. If the case has a partially erupted tooth, please select the straight trim type.

Approve & Order 3D Prints Option

If you choose the **Approve & Order 3D Prints** option, the **Order 3D Prints** dialog box opens. All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you do not want to order all models at this time, deselect unwanted models and click **Next**.

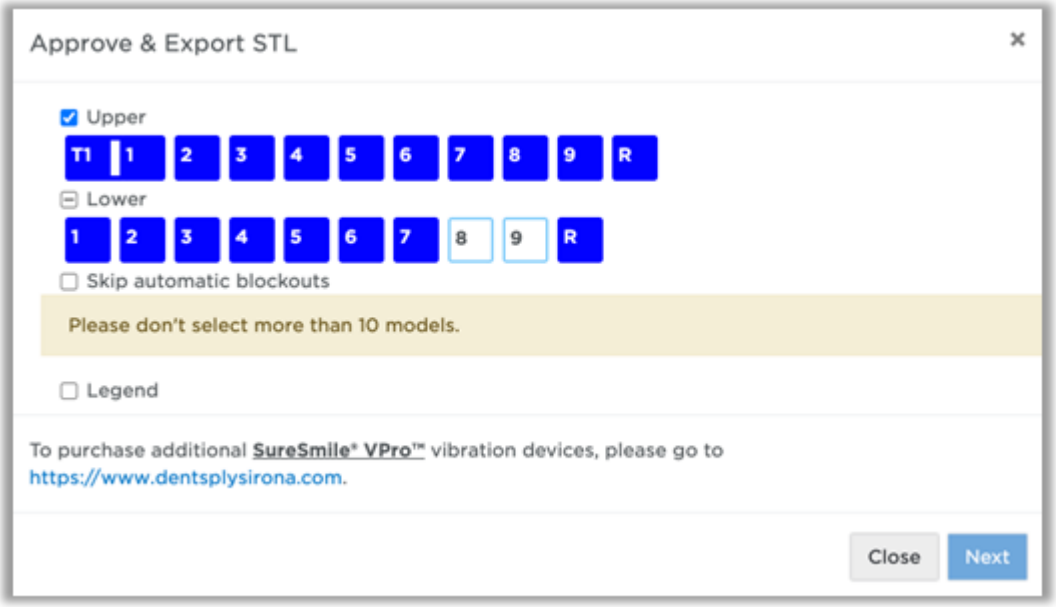
Approve & Export STL Option

Click the **Approve & Export STL** button, then click **Create new export…**



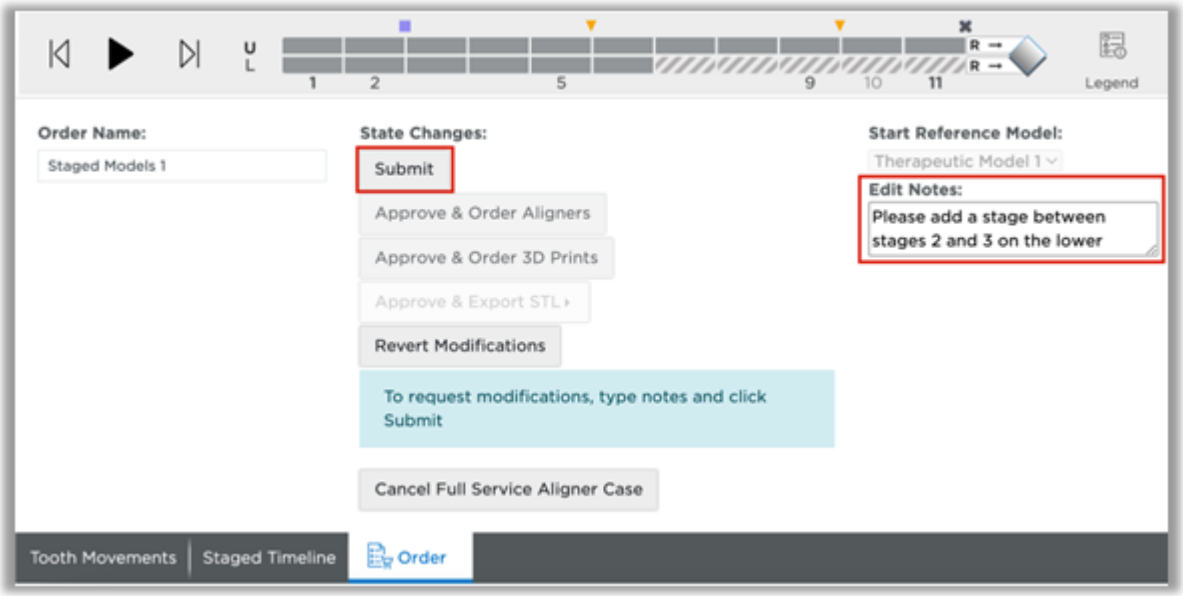
The Approve & Export STL dialog box opens. All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you do not want to export all models at this time, deselect unwanted models and click **Next.**

Note: only 10 models can be exported at one time. To export more than 10 models you will need to create a new export to export subsequent models.



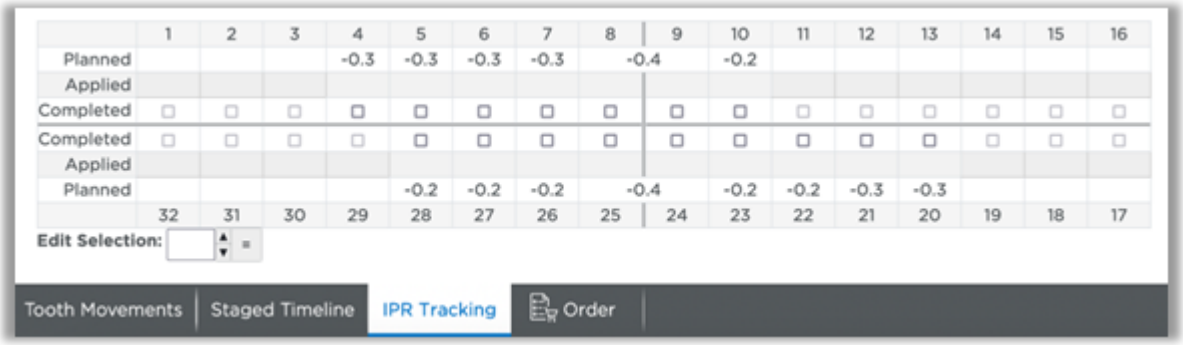
Requesting Modifications to Staged Models

To request a modification to the staged model sequence, return to the plan and enter notes in the Edit Notes box on the Order tab. Once you have completed your notes to the Digital Lab, click the Submit button to send the case back to the Digital Lab. You will receive the setup and staged model sequence back for another review.



IPR Tracking Tab

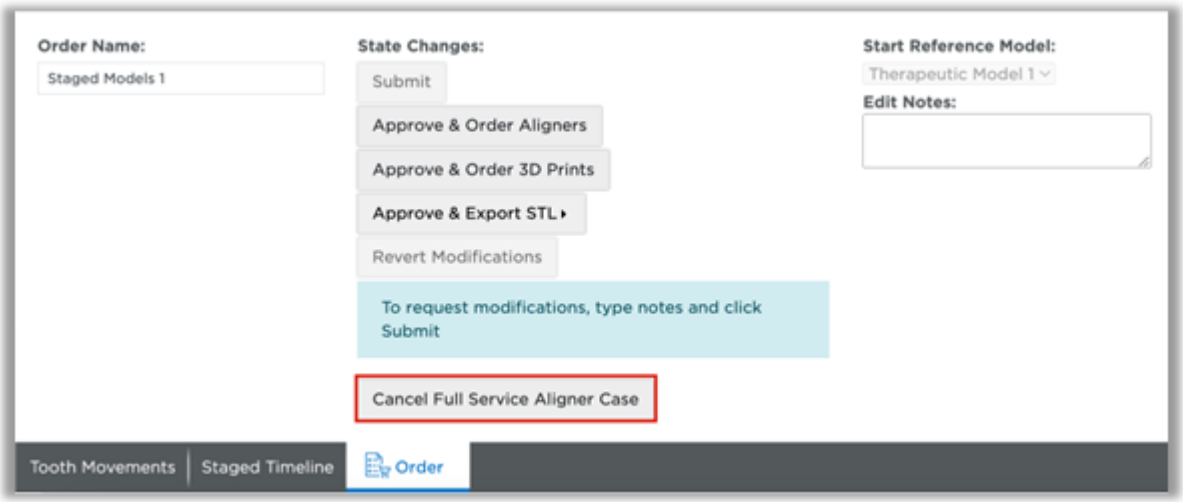
The IPR Tracking tab is displayed once the staged models are in an 'Approved' state. This tab allows you to see and track the amount of planned and completed IPR. You can use this tab to enter newly performed IPR and track completed IPR while in the Staged Models.



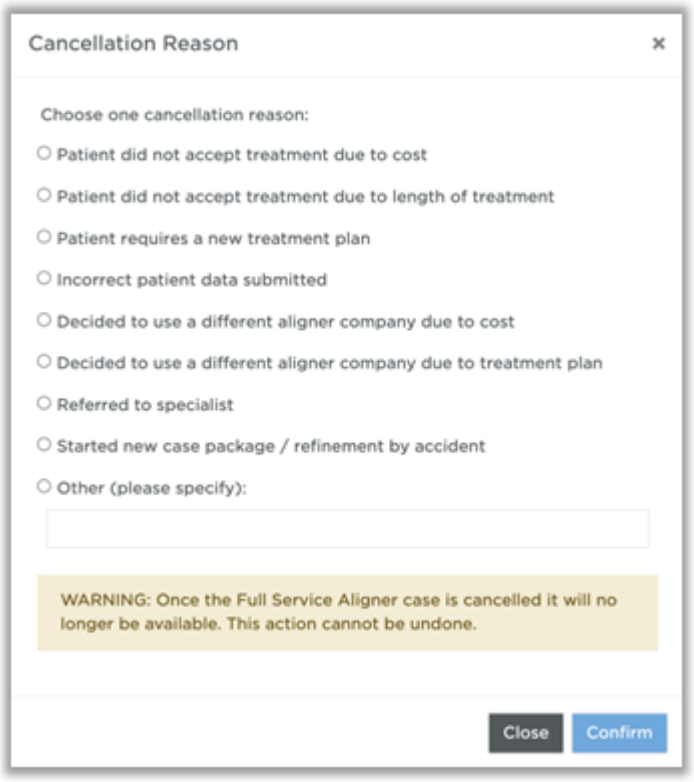
Cancel a Full-Service Aligner Case

To cancel a case, click on the Cancel Full-Service Aligner case button at the bottom left of the screen on the Order tab.

After the initial order is placed, the **Order Refinement** button appears on the Staged Models **Order** tab. You can also order refinements by clicking the **New** button at the top right of the page.



A dialog box with a list of reasons for cancellation will appear. Choose the most applicable reason and click Confirm.



Please note cancellations cannot be undone. Once cancelled you will no longer have access to the treatment plan. However, you will be able to order a new case if needed.

Note: CBCT cases cannot be cancelled at this time.

Refinements

If aligners are not tracking, you can request an aligner refinement. You must submit a new scan of the current malocclusion. The Digital Lab will create a new therapeutic model as well as a new setup and staged model sequence.

After the initial order is placed, the **Order Refinement** button appears on the Staged Models **Order** tab. You can also order refinements by clicking the **New** button at the top right of the page.

To order an aligner refinement:

Click the:

Order Refinement button on the Staged Models **Order** tab

or

Aligner Refinement option from the **New** drop-down menu

Either action opens the therapeutic model order page. Fill out the **Special/Refinement Instructions** section of the MACROS.

Note: Even though the other MACROS instructions are prepopulated from the current plan, you must enter instructions in this Special/Refinement Instructions section before the system can process the order

Upload scan of the current malocclusion.

Upload current records.

Submit order.

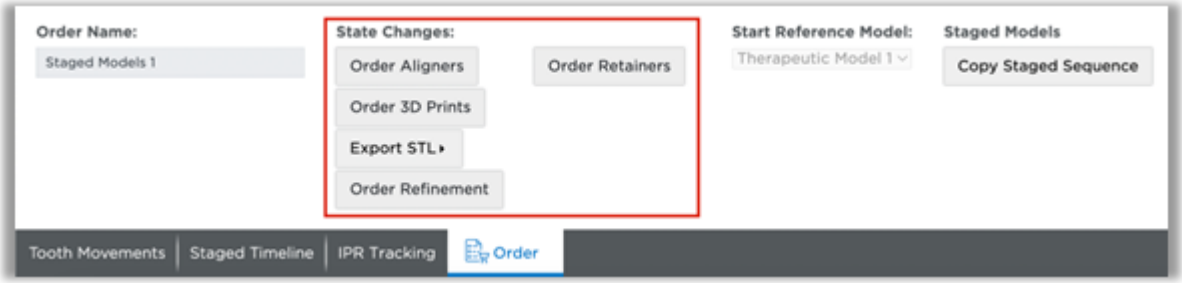
After the setup and staging is ready for review, repeat the review process for the refinement and order Aligners or printed models or export STL files.

Reordering lost or damaged aligners and models

You can order replacement aligners, 3D prints or STL exports through separate orders. After you first order aligners or models or export STL files, the Approve & Order buttons change to:

- **Order Aligners**
- **Order 3D Prints**
- **Export STL**
- **Order Retainers**

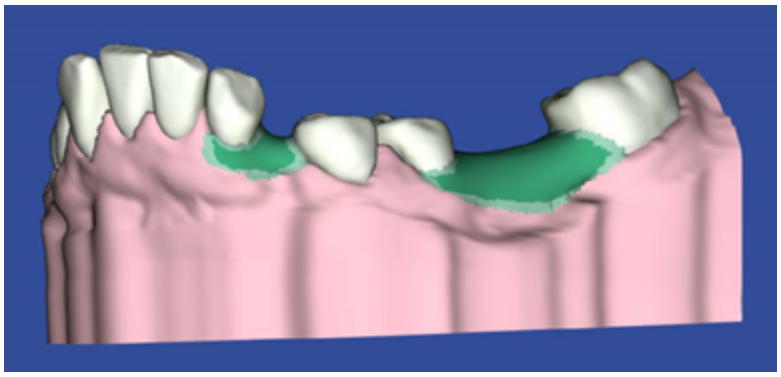
You can reorder any of these items for the patient without having to resubmit a scan or updated records.



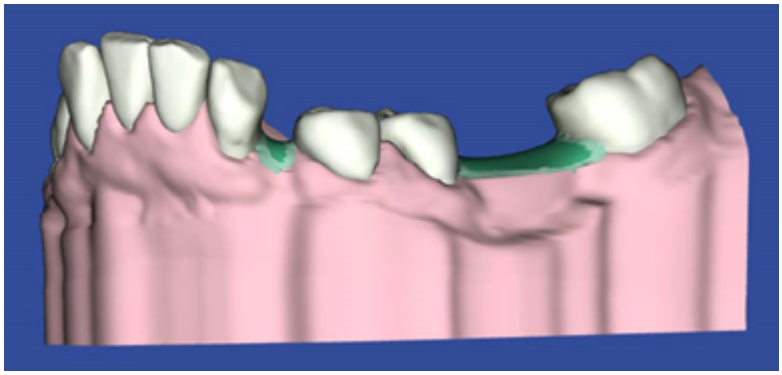
Extending Aligner Treatment - DIY (none) Case

If all the aligners based on the staged model sequence have been used, but you want to make additional corrections before finishing treatment, you can use the last model stage as a new starting point.

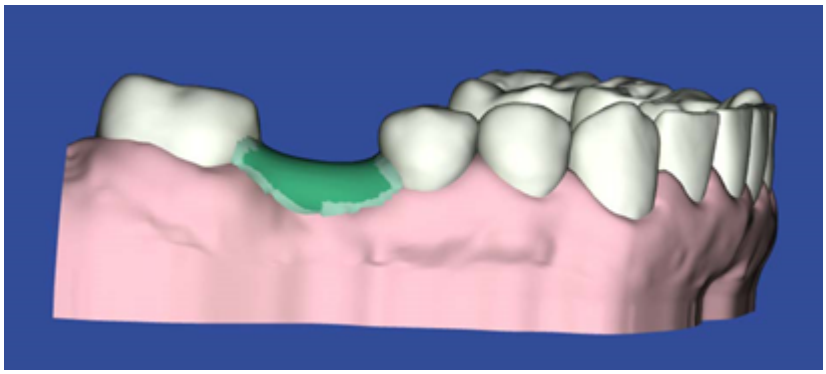
1. From the **Order** tab of the last staged model sequence, click **Copy Staged Sequence**.



2. Click **OK** in the confirmation box. This makes an exact copy of the previous staged model sequence.
3. Go to the **Displacements** tab, make sure the last stage is open and then click **Copy Stage**. This will make an exact copy of the last stage.



Result: The newly copied stage automatically becomes the selected active stage. This is the stage to which you should apply your modifications



4. Select the **Incremental** option under **Cumulative** at the bottom of the page to view only modifications for this stage. Make your modifications.

Note: If you want to modify both the upper and lower arch, select the opposing arch and repeat this step.

5. After you make your modifications, if the software detects a conflict, click **Add Stage**. A new stage is added to allow the conflicts to work out. Keep adding stages until all conflicts are resolved.
6. Once all modifications are completed, go to the **Order** tab to place a new order for the added stages.

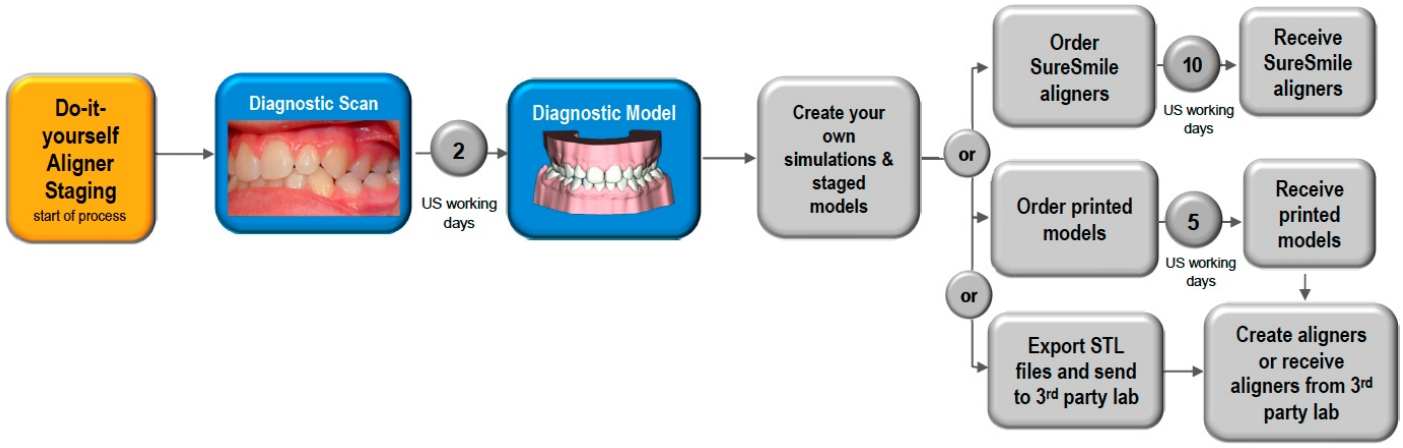
Aligner Therapy Treatment Steps - DIY (none) Case

If the patient will be treated with aligners only and you do not need assistance from our Digital Lab, select **None** for your case type and just create a simulation based on a diagnostic model. Use this simulation as your target, create the staged model sequence and then either:

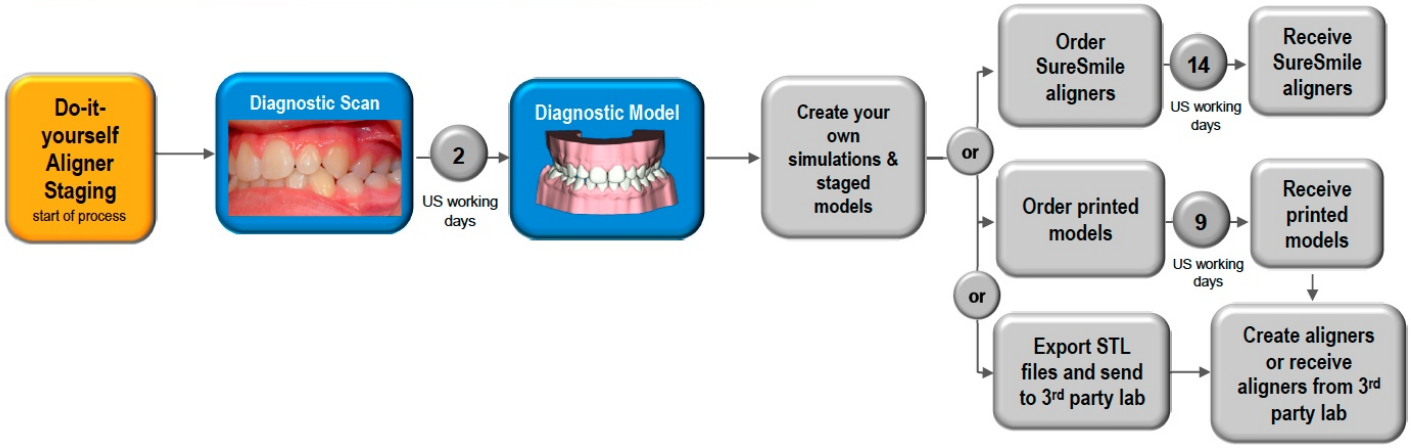
- Order the aligners from Dentsply Sirona - Aligners are bagged and shipped to your practice. A fee is charged for each aligner.
- Order the staged models from Dentsply Sirona - Printed 3D models are boxed and shipped to your practice. A fee is charged for each stage in the series.
- Export the 3D data files for the staged models to your local lab. No fee is assessed. Your only cost is the original fee for the diagnostic model.

Here is an overview of the DIY process for each region.

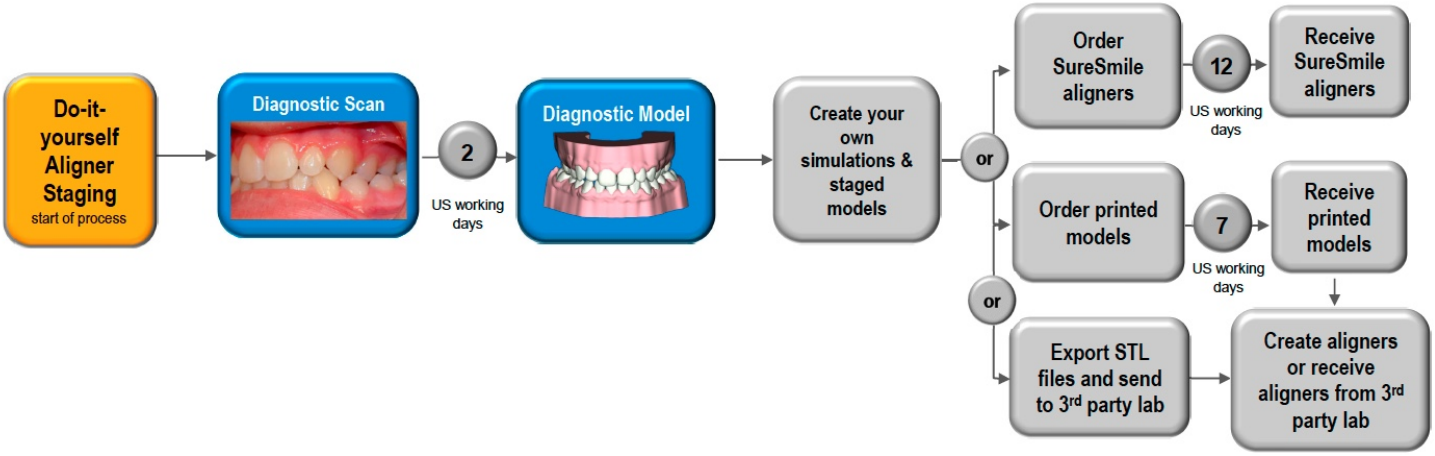
DIY Aligner Process for United States and Canada



DIY Aligner Process for Europe



DIY Aligner Process for Australia, New Zealand, Japan and United Arab Emirates



Task Overview: DIY (none) Case

Here is an overview of the process for ordering the (none) case type.

1. Scan Dentition with Gingiva

When the patient is ready for aligner therapy, capture an unbonded therapeutic model with gingiva. Capture this scan at a patient appointment using the CEREC® Omnicam or a third party scanner that can provide surface data in .STL format, such as the iOC™ Scanner/iTero®, 3Shape TRIOS®, CS 3500, or 3M True Definition scanners.

2. Order the Diagnostic Model

Once the dentition has been scanned, you will need to upload the scan data into SureSmile and order the diagnostic model. The Digital Lab will produce the diagnostic model and send it back for your review within 2 business days.

3. Create a Treatment Simulation

This simulation represents the target, or desired treatment outcome of the aligner treatment.

4. Create Staged Models

Use SureSmile's automated staging tools to create a series of staged models that start with the diagnostic model produced in step 2 above and finish with the treatment simulation you created in step 3.

5. Order printed models or export STL files for your lab

After all of the staged models are generated for aligner therapy, order aligners, printed models or export staged models to create 3D files to send to your lab for appliance production.

Step-by-Step Instructions

The topics in this section give detailed step-by-step instructions for aligner therapy using a SureSmile Aligner Case.

Step 1: Start Patient

Step 2: Submit the scan data

Step 3: Create the target model

Step 4 Generate the staged model sequence

Step 5: Review the staged model sequence

Step 6: Assign Attachments Manually

Step 7. Order aligners or printed models or export .STL files for your lab

Step 1: Start Patient

Once you have decided the on the (none) case type for the patient (see the Aligners topic), you are ready to proceed:

1. Start the SureSmile patient record.
2. Select the **(none)** case type prior to submitting the first diagnostic or therapeutic model order:
    - If you use the **Add Patient** button to create records manually, click the **Select Case Type** button on the right side of the new patient page and select the (none)case type.
    - If the record is already created, click the **Edit** button on the Patient Overview, click the **Select Case Type** button on the right side of the page and select the **(none)** case type.
    - If you are ready to submit a therapeutic or diagnostic model and you have not yet selected a case type, click the New button and select the **(none)** case type from the drop-down list.

    Note: The case fee is not incurred until you order a therapeutic model.
3. Set the estimated start date on the treatment timeline to the date you expect the patient to receive the first set of aligners. Adjust the timeline estimated finish date as needed.

Step 2: Submit the scan data

1. At the scan appointment, take an intraoral scan for gingiva and teeth along with the same photos/x-rays required for any diagnostic model order. You can also take an in vivo CBCT scan at this time if you want to add roots and bone to a diagnostic model.

   Note: The scan for the reference model must be intraoral, which means the patient is present and you are using an optical scan technology (Ex: CEREC® Omnicam). If you also take a CBCT scan of the patient and the patient has restorations, type a note in the order telling the Digital Lab to refer to the optical scan for supplemental data.

2. Submit the model order.
3. When the diagnostic model is returned from the Digital Lab, review and approve the model as usual, or continue to the next step if you chose to have the model Delivered as Finished.

DIY Step 3: Create the target model

You are now ready to create a simulation of your treatment target for aligner therapy. Begin a treatment simulation and apply tooth movements as needed.

A treatment simulation in SureSmile is a 3D model of the patient's treatment objective representing a specific treatment approach. This simulation will represent the target occlusion.

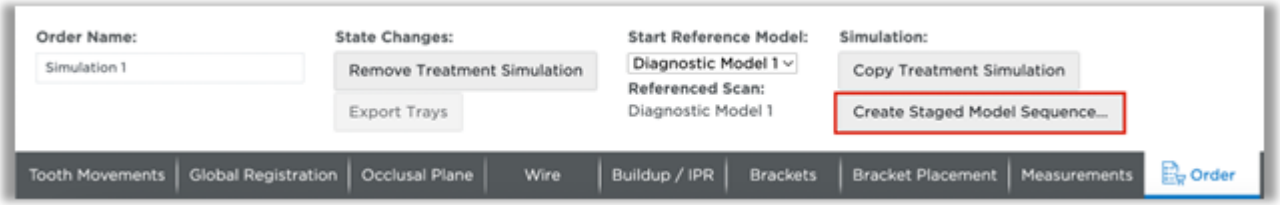
Create a simulation of your treatment target for aligner therapy, just as you would for a case with fixed appliances.

> **Tips**:
>
> You can move the teeth individually on the model. See Performing Manual Tooth Movements.
>
> Make sure you choose your preferred displacement type.
>
> Don't forget to apply IPR.
>
> To save time, use the setup workflow tool to create your treatment simulation.

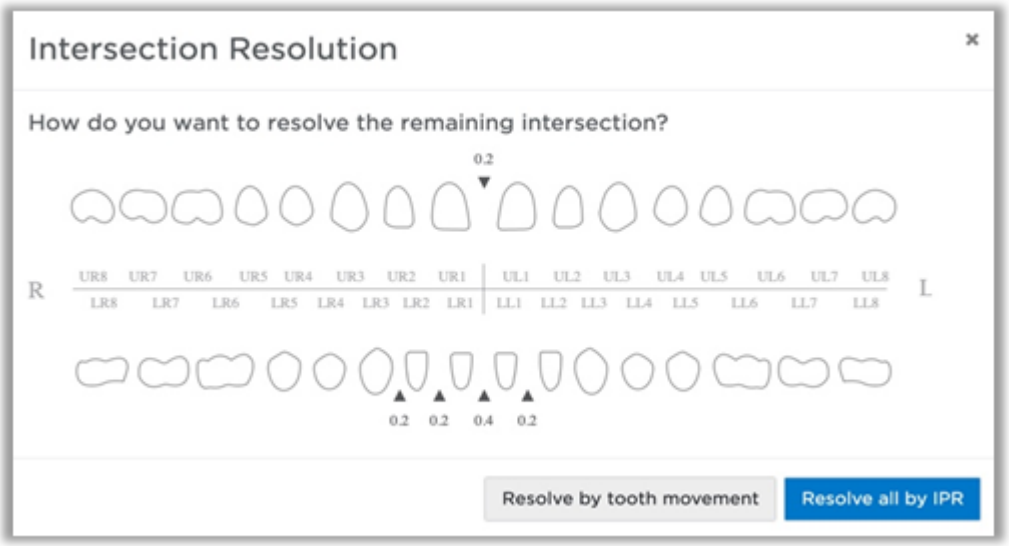
Step 4 - Generate the staged model sequence

Once you are satisfied that your treatment simulation is suitable for use as the target model, you are ready to create a series of staged models that start with the reference diagnostic model and finish with your treatment target model.

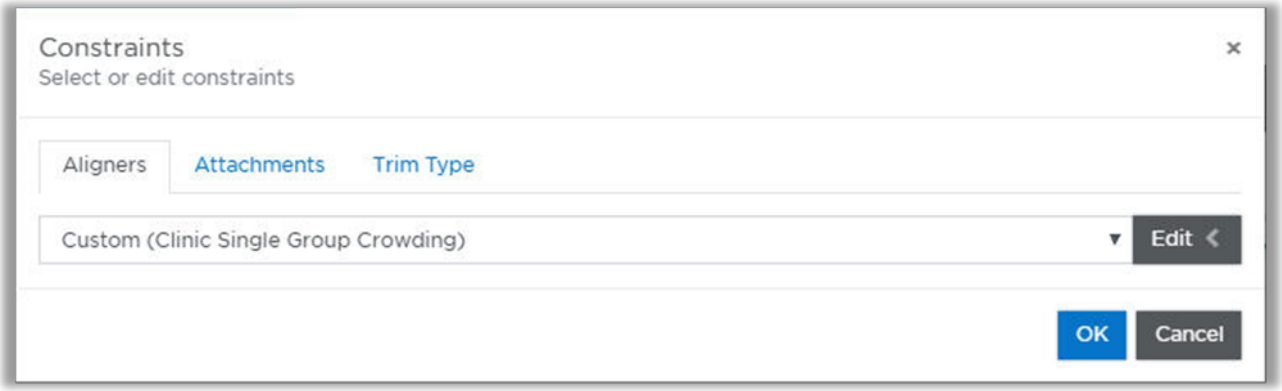
Go to the Order tab of the treatment simulation you just created. Click the Create Staged Model Sequence... button.



If there are intersections in the simulation the Intersection Resolution box will display. If you want to resolve the intersections with IPR, click Resolve all by IPR to continue. If you want to remove the intersections in the simulation click Resolve by tooth movement to adjust the simulation.

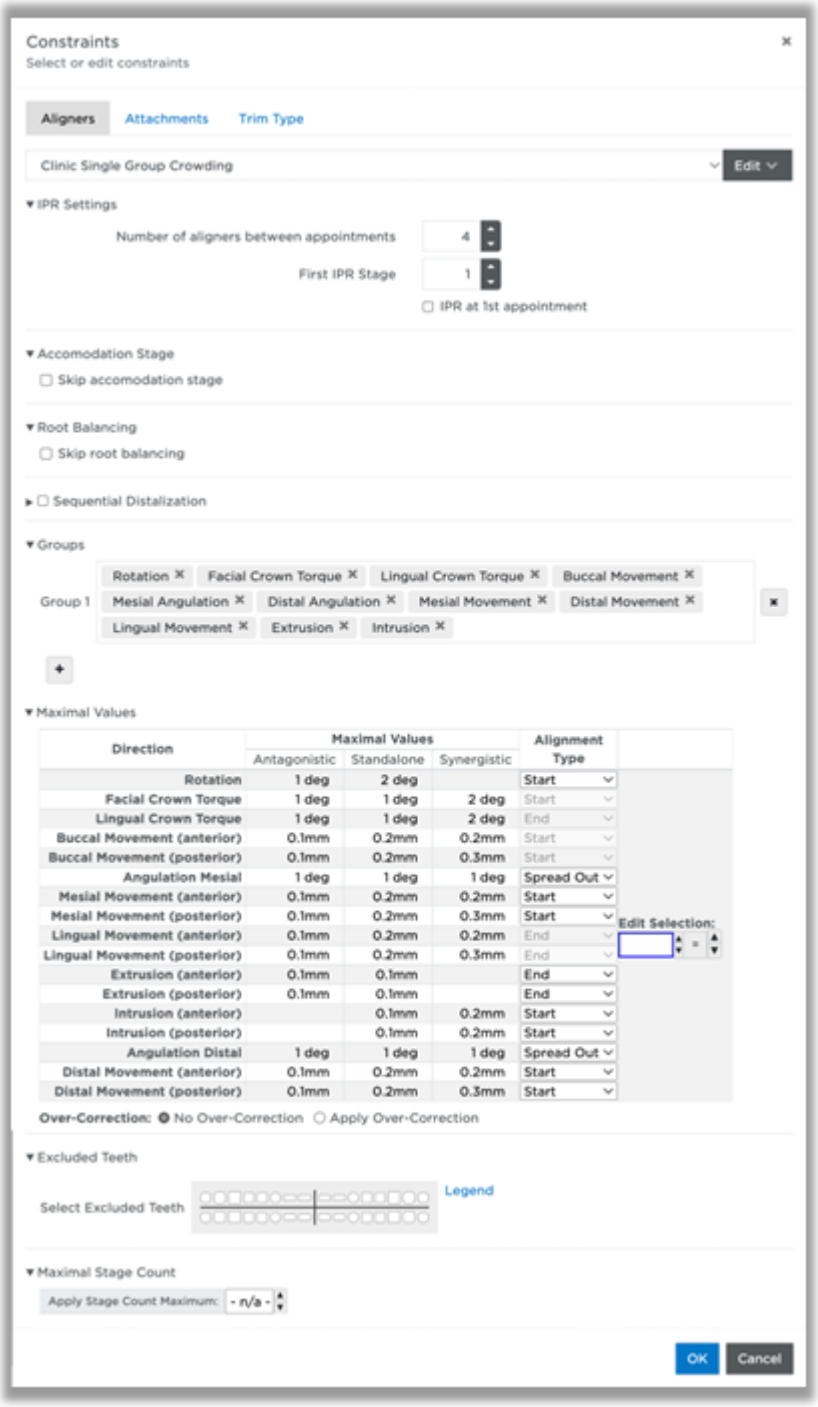


The Constraints window opens. Choose the constraint set from the drop-down menu. If needed, click Edit to edit the constraints for this patient.



Constraints
Select or edit constraints
Aligners
Attachments
Trim Type
Custom (Clinic Single Group Crowding)
Edit
Custom (Clinic Single Group Crowding)
Clinic Multi Group Crowding
Clinic Multi Group Spacing
Clinic Single Group Crowding
Clinic Single Group Spacing
Cancel

Click OK



IPR Settings

Use the Aligner Constraints preferences to indicate the number of Aligners to be worn by the patient between appointments and/or the first stage where IPR should be applied.
Select the IPR at 1st appointment option to calculate all IPR before the first Aligner. Leave this option unchecked to allow SureSmile® to determine when it is optimal to apply the IPR.

Accommodation Stage

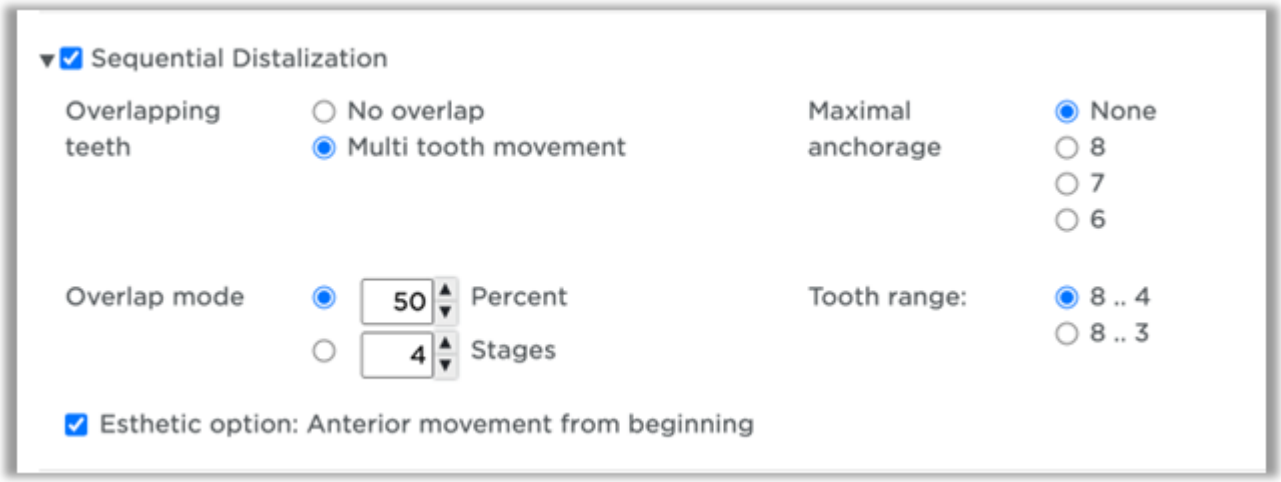
The accommodation stage is the first stage in the staged model sequence and is automatically generated with minimal movements to ease the patient into treatment. The Skip accommodation stage check box allows you to skip this accommodation stage in the staged model sequence.

Root Balancing

Root balancing will automatically be applied unless you check the checkbox to skip root balancing. Root balancing will balance the torque and labial/lingual movements so that both directions are realized with the same number of stages.

Sequential Distalization

Sequential Distalization is a method to move posterior teeth one tooth at a time in a controlled manner without loss of anchorage. The benefit of this is you are able to create space for front teeth movement without causing flaring to achieve a more aesthetic smile and functional bite.



Overlapping teeth: how many teeth may distalize at the same time

- No overlap: one tooth distalizes at a time
- Multi teeth: teeth may distalize according to the overlap mode even if more than two teeth are being distalized

Overlap mode: Defines the start of distalization of the next mesial tooth. It can be defined as percentage of distalization movement or in number of stages. How many teeth move in the selected overlap mode depends on the max anchorage selection. If none is selected, then all teeth of the selected tooth range move according to the overlap mode.

Maximal anchorage: Allows for None, 8, 7 and 6.
6 means that the first molar and all distal teeth would move one at a time until final distal position is achieved. The overlap mode consequently only affects the bicuspids and the canine, depending on the tooth range selection.

Tooth range: Defines the group of teeth which will be affected by sequential distalization.

Esthetic option: Anterior movement from beginning: The range of teeth is defined by the tooth range of distalization and can be 2-2 or 3-3. When checked, the anterior teeth start beginning with stage 1 with opening

movements and all movements which do not have a lingual or distal effect, such as buccal, rotation, mesial, labial torque, intrusion or extrusion.

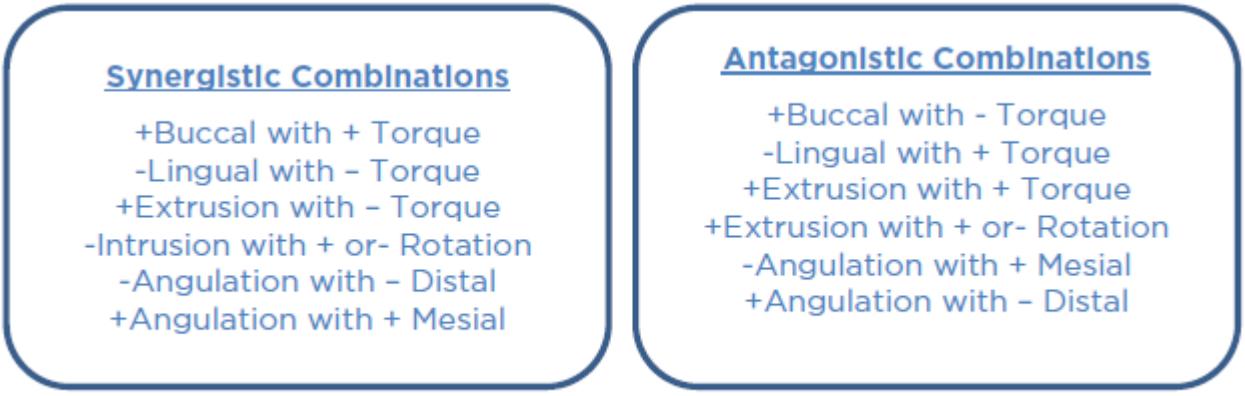
All other movements (distal, distal angulation, lingual, lingual torque) wait until the distalization group has achieved its final distal position.

If the esthetic option is not selected, the anterior group will not move until the distalization group has achieved its final distal position.

Maximal Values

Change the maximal values as needed.

- Antagonistic movement rate – when a combination of movements slows down the typical tooth progress as expected with standalone movement.
- Standalone movement rate – the movement rate expected when the tooth moves independently of antagonistic or synergistic combinations. Standalone movement is the default preference for all teeth.
- Synergistic movement rate – when the combination of movements improves the typical tooth progress compared to standalone staging.



Note: Intrusion does not have an antagonist

Alignment Type

Choose where the movement is placed in the sequence: Start, Spread Out or End.

Note: Root balancing overrides this feature; you may need to skip root balancing to change the sequence of certain movements.

Overcorrection

Choose whether to apply over-correction stages for this patient.

Note: Over-correction settings are in Preferences.

Excluded Teeth

Select Excluded or Fixed teeth here. Click once to exclude a tooth, click twice to mark a tooth as fixed.

- - Exclude: When a tooth requires a large amount of correction (e.g., a very large rotation correction), you can exclude this tooth from staging to avoid increasing the total number of stages.

- Fixed: Movements made to selected tooth will be removed from staging and placed in the last stage

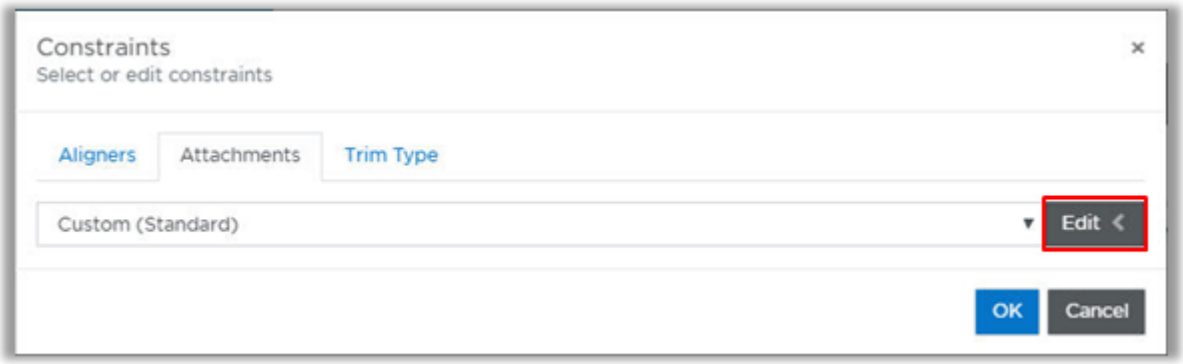
Maximal Stage Count

Choose a maximal stage count if needed. The movements in your simulation will be spread out among the number of stages chosen. Please note that this may override the Aligner constraints and allow more movement per stage depending on the movements needed and the number of Aligners selected.

Automatic Attachment Placement

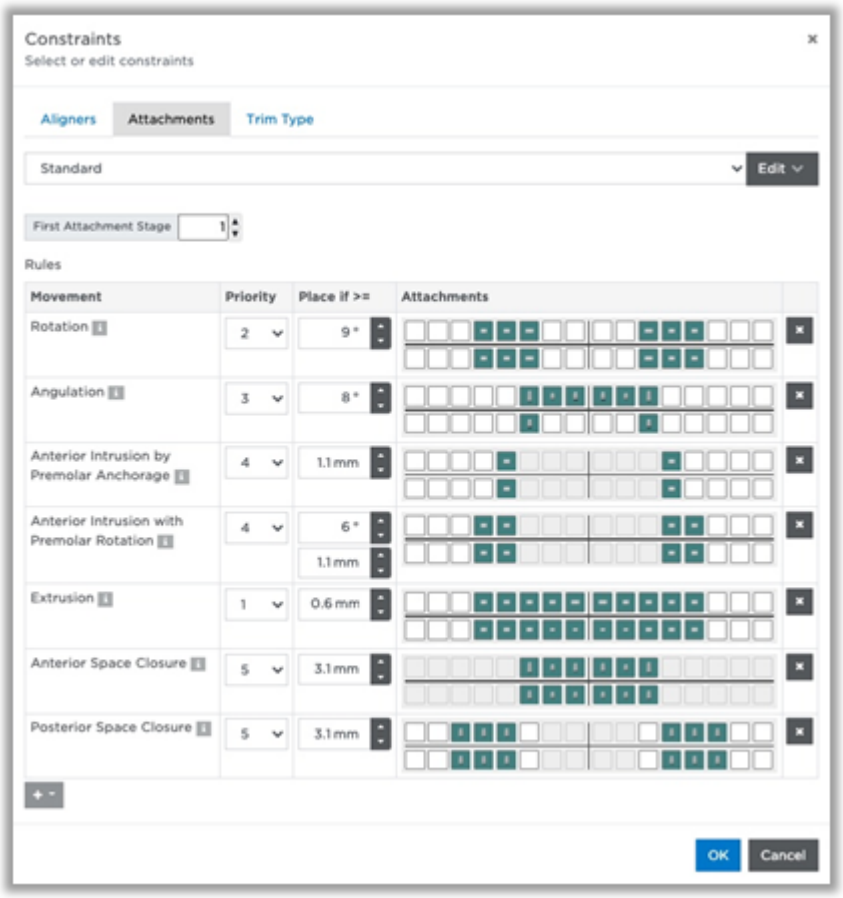
From the drop-down menu select the Standard attachment set to apply attachments automatically or choose No Automatic Attachment Placement to skip automatic attachment placement.

To edit the Standard set for this patient, click Edit.



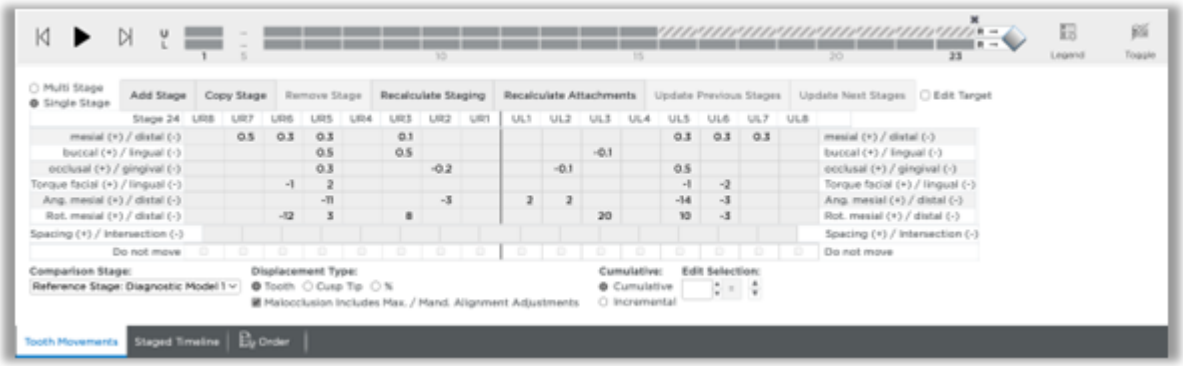
Indicate the first stage in which attachments should be applied and modify the attachment settings for this patient as needed. Change the priority for each movement under Priority. Change the thresholds for which attachments are placed under Place if >=.
Change, add or remove an attachment by clicking on the tooth in the tooth chart and selecting a new attachment from the pop-up menu.

Note: You can change or add attachments manually in the staged model sequence.


Constraints
Select or edit constraints
Aligners
Attachments
Trim Type
Standard
Edit
First Attachment Stage
1
Rules
Movement
Priority
Place if >=
Attachments
Rotation
2
9 °
Angulation
3
8 °
Anterior Intrusion by Premolar Anchorage
4
1.1 mm
Anterior Intrusion with Premolar Rotation
4
6 °
1.1 mm
Extrusion
1
0.6 mm
Anterior Space Closure
5
3.1 mm
Posterior Space Closure
5
3.1 mm
OK
Cancel

Step 5: Review the staged model sequence

Once the staged model series has been generated, go to the Tooth Movements tab and verify that the series is feasible and meets your treatment objectives.



Within the target simulation, the Tooth Movements tab expands to accommodate the model series.

When this area first appears, the tooth movement values are displayed as cumulative amounts and the R stage is selected. It contains the total tooth movements. You have many options for viewing tooth movements to ensure that the values are appropriate.

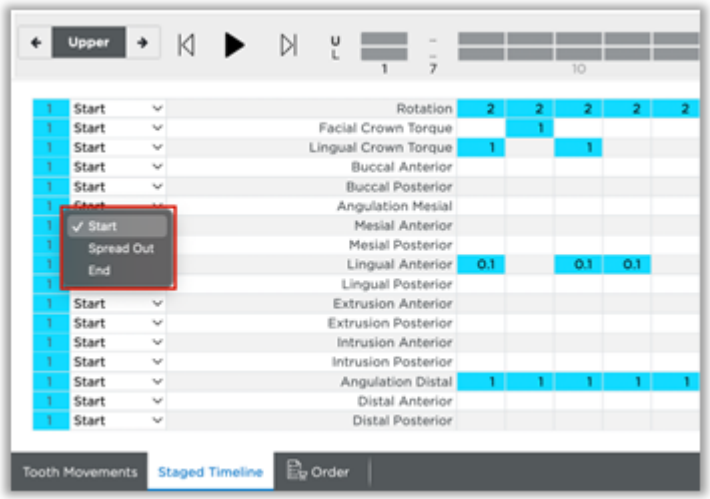
Cells highlighted indicate the following:

- If you removed stages and/or modified any of the movements, any values that exceed your constraints are highlighted in yellow.
- As the teeth move linearly to the next stage, interferences can occur. Values that represent an interference are highlighted in orange in the Spacing (+)/Intersection (-) tab. You can resolve these interferences by:
    - Adjusting movements in the previous or next stages
    - Adding stages as needed

The Staged Timeline tab shows the starting and ending stages for each group of movements. The system shows the maximum actual movement per stage in each cell.

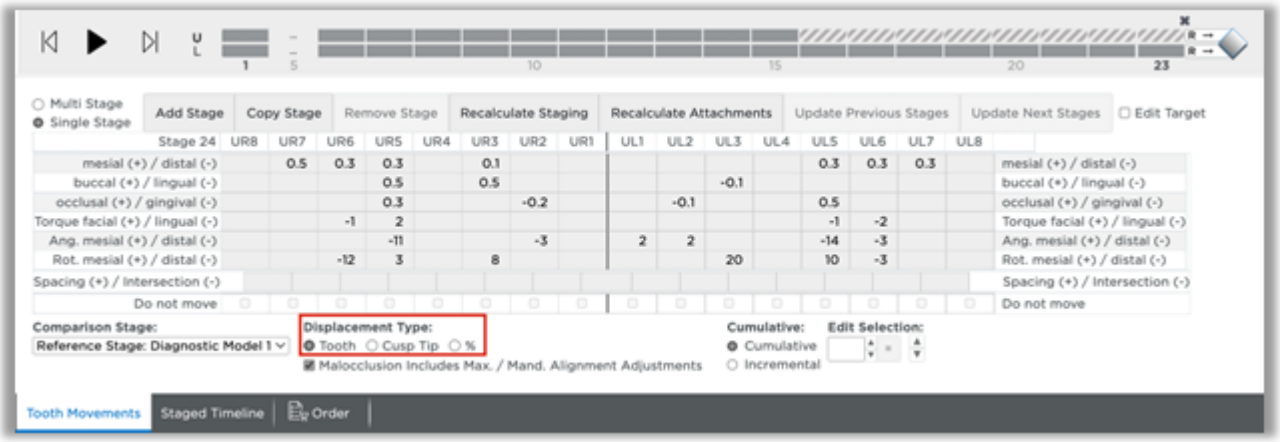
You can also view the movements by tooth. Switch between the upper or lower arch at the top left of the Staged Timeline tab.

You can change the starting (first stage) or ending point (last stage) for each set of movements by choosing Start or End, or choose Spread Out to spread the movements throughout the stages. Start and ending stages for a movement type can extend over multiple groups.



You can change the starting (first stage) or ending point (last stage) for each set of movements by choosing Start or End, or choose Spread Out to spread the movements throughout the stages. Start and ending stages for a movement type can extend over multiple groups.

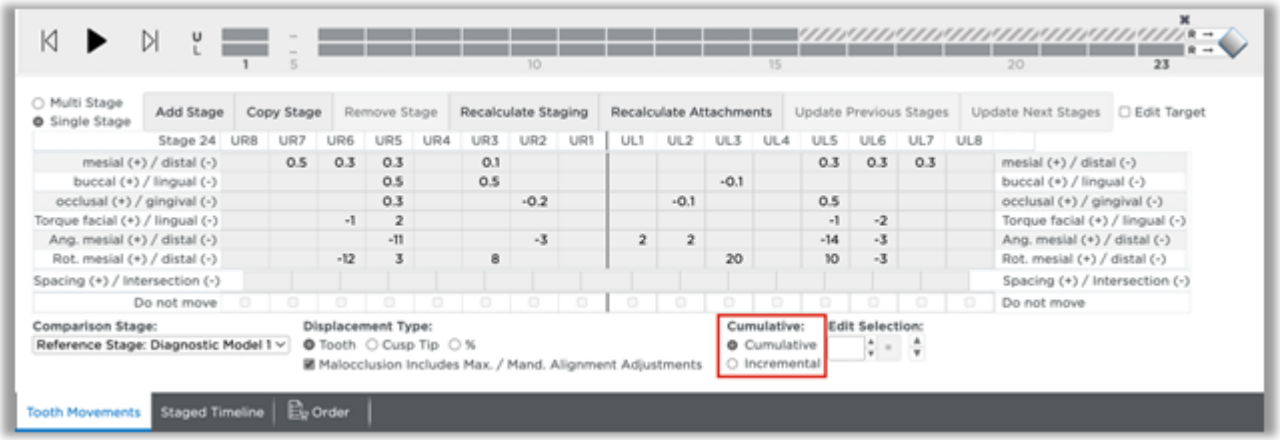
Choose a Displacement Type



- **Tooth** - Click the Tooth option to see displacements calculated from the center of each crown.
- **Cusp Tip** - Choose the Cusp Tip option to see displacements calculated relative to the cusp.
- **%** - Choose this option to see displacements calculated as a percentage of movement, with the target represented as 100%.

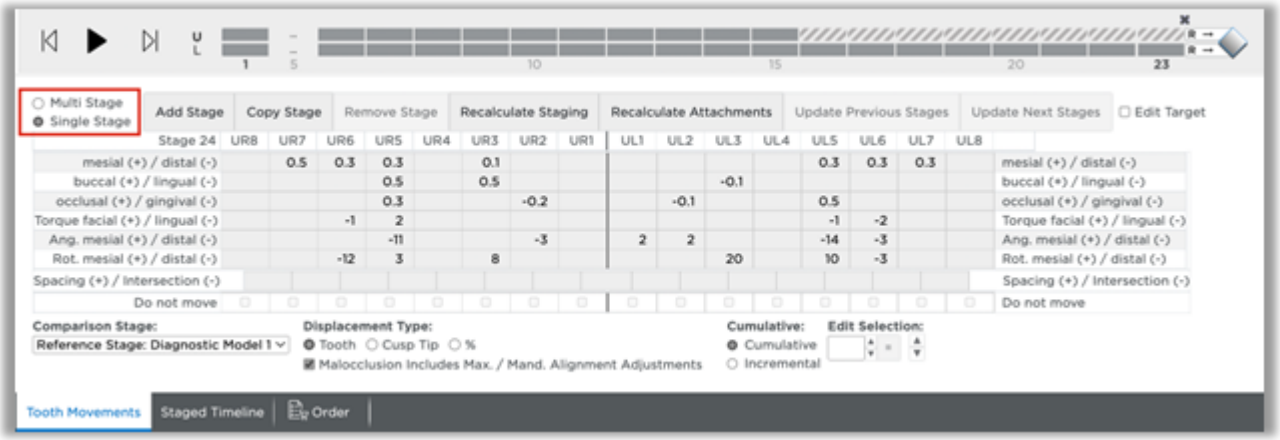
Choose whether to view values cumulatively or incrementally:

- **Cumulative** – The displacements of each stage are added together to show the total movement planned through the current stage.
- **Incremental** – The displacements of each stage show the amount of movement planned between the previous stage and the current stage.



Check model movements in Single Stage view:

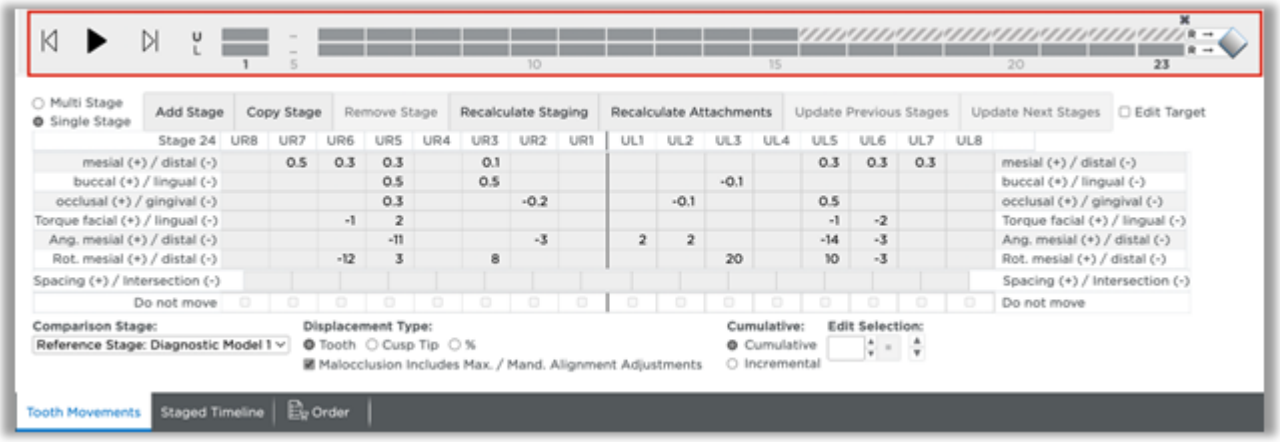
1. Select the Displacements tab.
2. Select the upper or lower arch.
3. Display and view the 3D model as needed so that you can watch the model as it changes from stage to stage.
4. Select the Single Stage view. Click the model numbers in the small tabs (or use the left/right arrows on the screen). The displacements are shown for each model in the series.



5. Examine the displacement values. If needed, adjust the numbers using the table.
6. Repeat for the opposing arch.

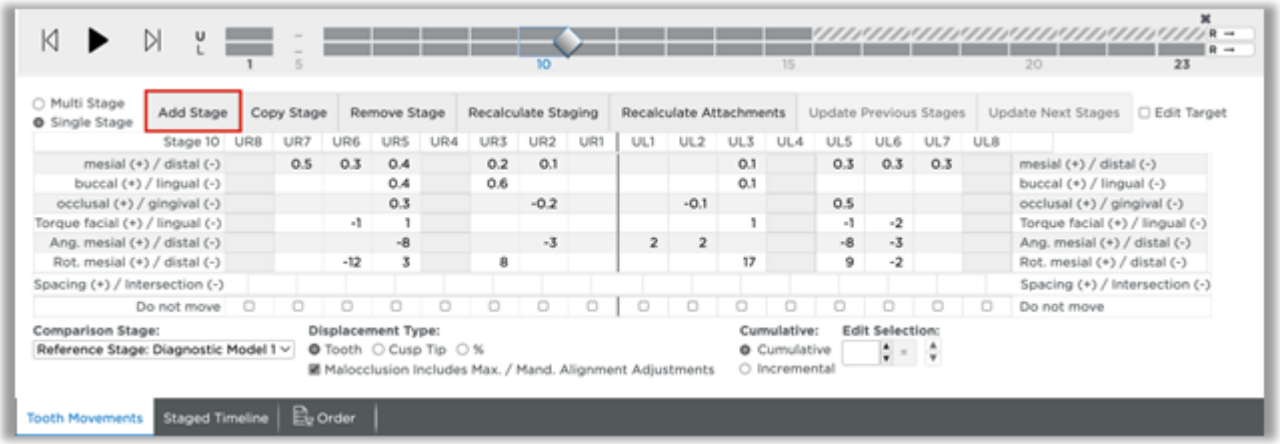
Animation player

Use the animation player to view the movements in the staged model sequence. It is available on both the Displacements tab and the Staged Timeline tab. The animation player runs an animation of the entire treatment plan, showing tooth movement from the initial state to the final tooth position.



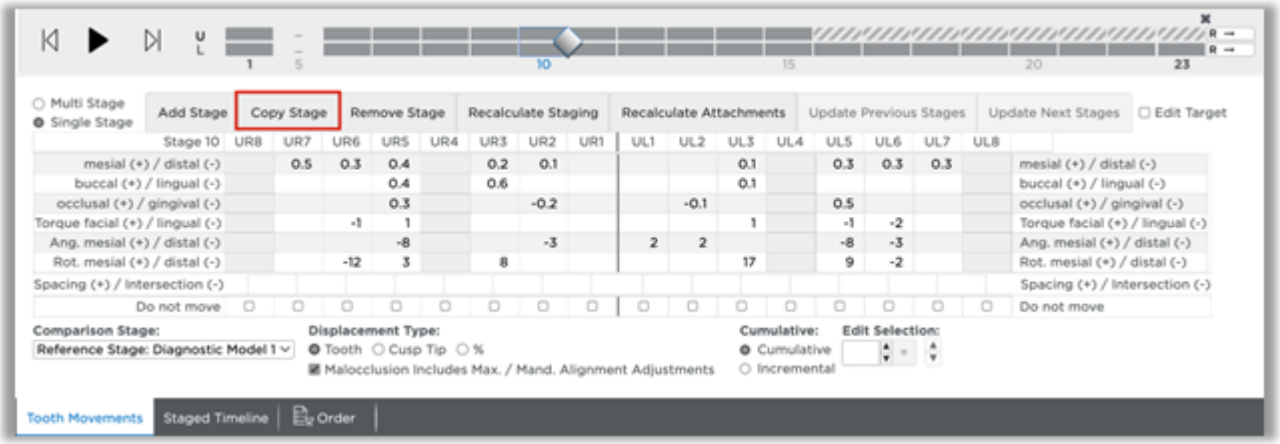
Add stages as needed:

1. Select the upper or lower arch.
2. Select a model number to follow the new stage you are adding.
3. Click the **Add Stage** button to insert a new stage. The displacements for the new stage are set to a midpoint between the preceding stage and the following (new) stage.



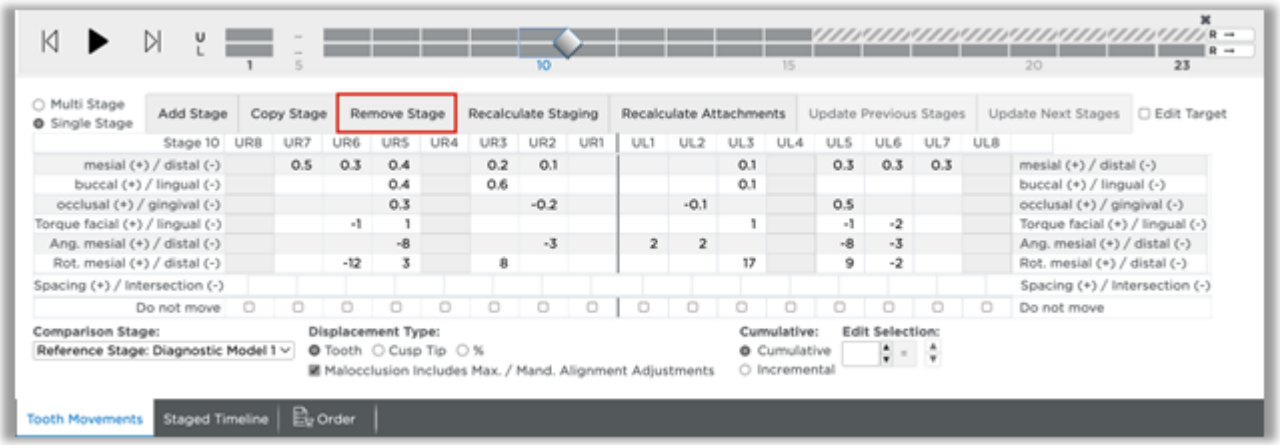
Copy stages as needed

1. Select the upper or lower arch and select a model number.
2. Click the Copy Stage button. A new copy of the selected stage is created following that stage.



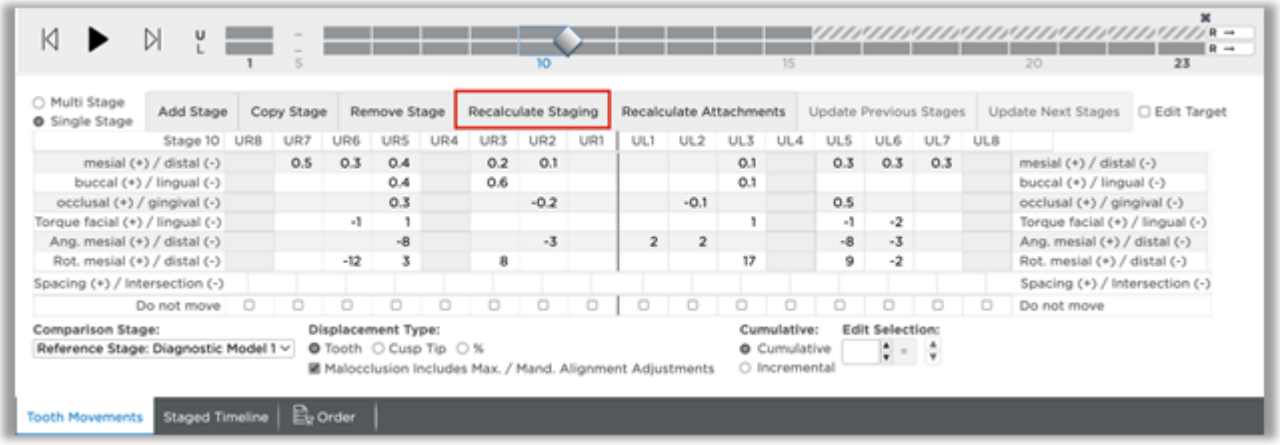
Remove stages as needed:

1. Select the upper or lower arch and select a model number.
2. Click **the Remove Stage** button. The incremental movements for the subsequent stage are recalculated to include the movements that took place in the removed stage.



Recalculate staging as needed:

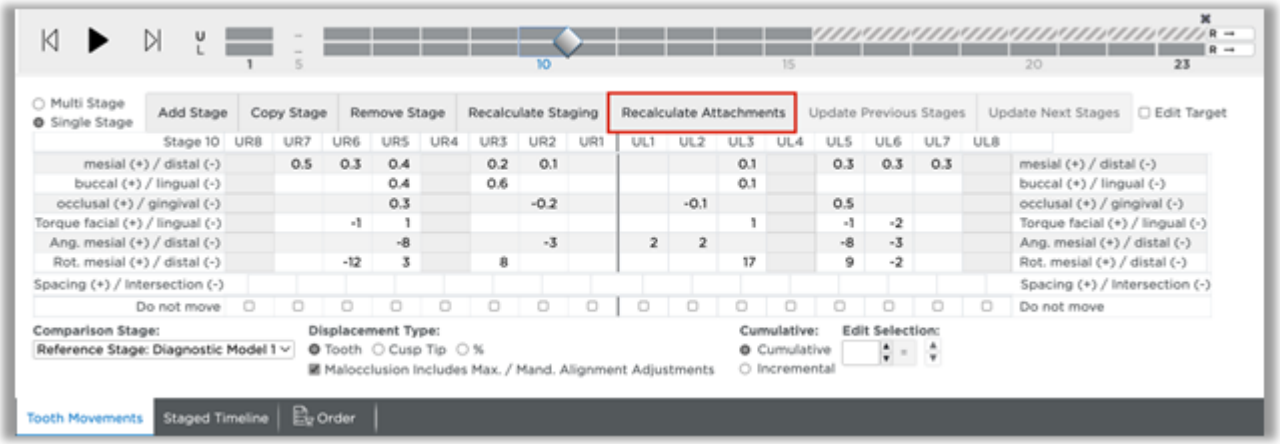
1. Select the upper or lower arch and select a model number.
2. Click the Recalculate Staging button.



The Constraints dialog box opens. You can change the constraints setting from the drop-down menu and/or click Edit to modify the groups and/or maximum rates of movement for this patient.

Recalculate attachments as needed:

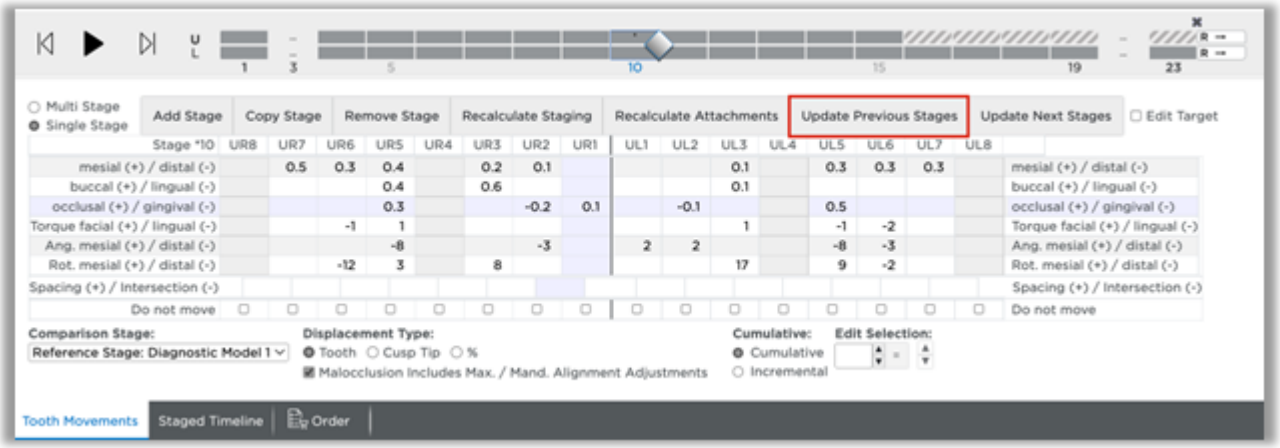
1. Select the upper or lower arch and select a model number.
2. Click the **Recalculate Attachments** button.



The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the automatic attachment placement for this patient.

Update Previous Stages as needed

1. Select the upper or lower arch and select a model number.
2. Click the **Update Previous Stages** button.

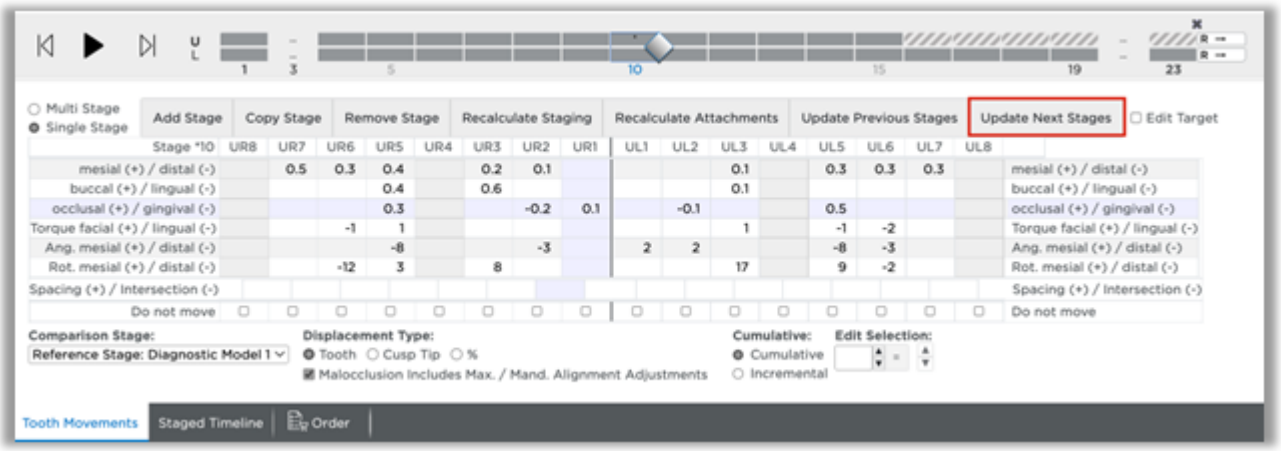


The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the groups and/or maximum rates of movement for the stages previous to the selected stage. If no edits are needed, click **OK**.

Update Next Stages as needed

1. Select the upper or lower arch and select a model number.

2. Click the **Update Next Stages** button.

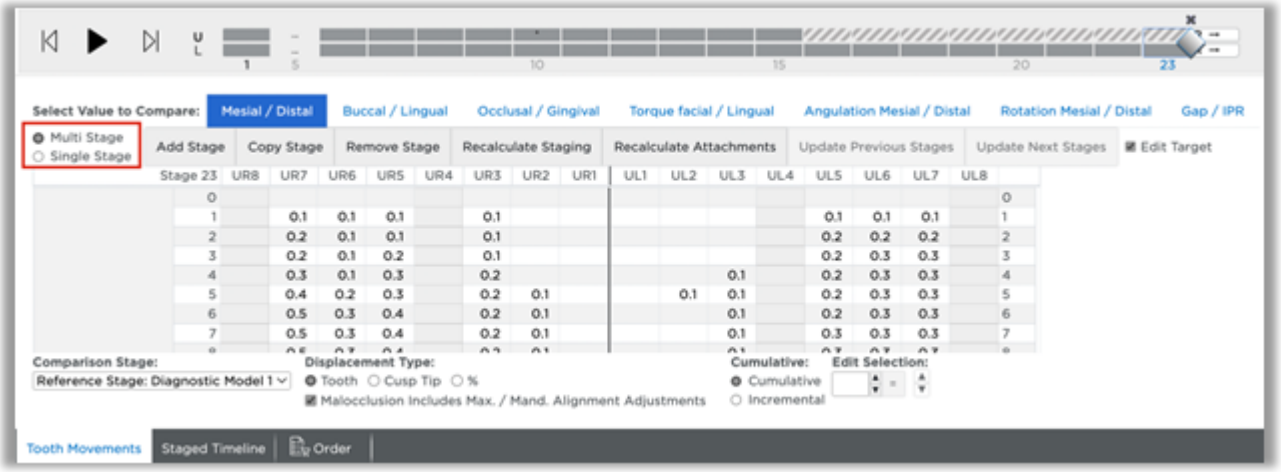


The **Constraints** dialog box opens. You can change the constraints setting from the drop-down menu and/or click **Edit** to modify the groups and/or maximum rates of movement for the stages after the selected stage. If no edits are needed, click **OK**.

Re-check movement with multi-stage view

Now examine the movements per tooth through the stages:

1. Select the **Multi Stage** view.



2. Select the upper or lower arch.
3. Select the tabs as needed to view types of movements (Mesial/Distal, etc.).
4. Repeat these steps for the opposing arch.

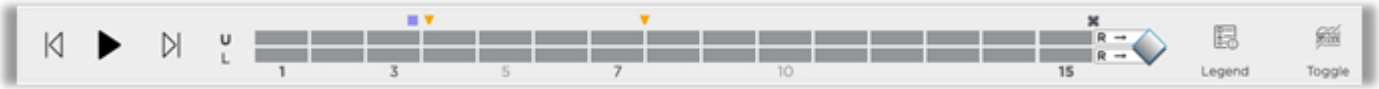
Adjust displacements manually

1. Select the upper or lower arch.
2. Select the Cumulative or Incremental option as needed.
3. Enter new values according to your clinical judgment.

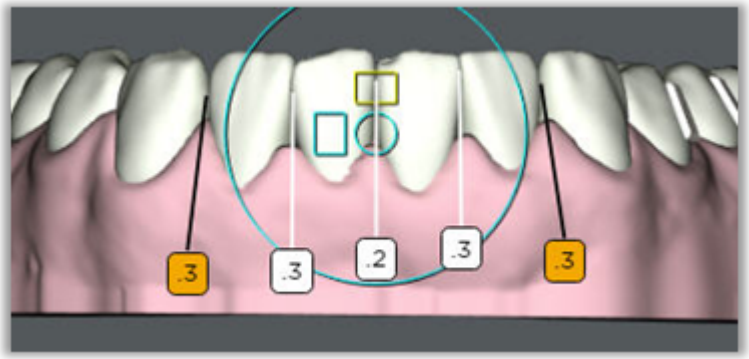
4. If you have manually changed values that affect previous or later stages, click the Update Previous Stages or Update Next Stages buttons to adjust the numbers.

Check IPR

SureSmile® automatically inserts an indicator (orange triangle) to show when to apply IPR.

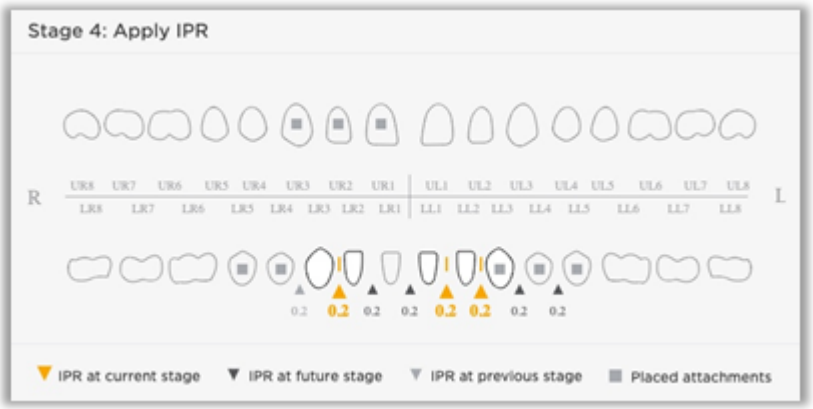


IPR is indicated on the 3D model with a small gold label with a number indicating the amount of IPR proposed by the system.



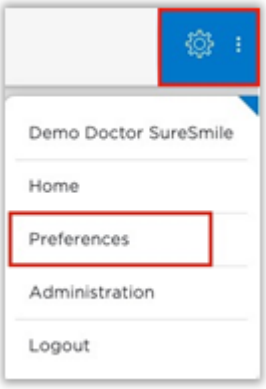
To turn these labels on/off go to Guide Tools and click the IPR/Attachments icon.

The IPR indicators are shown on the timeline and on the 3D model. Hover over the gold inverted triangle on the timeline with your mouse to display the IPR pop-up for the stage shown in the 3D window.

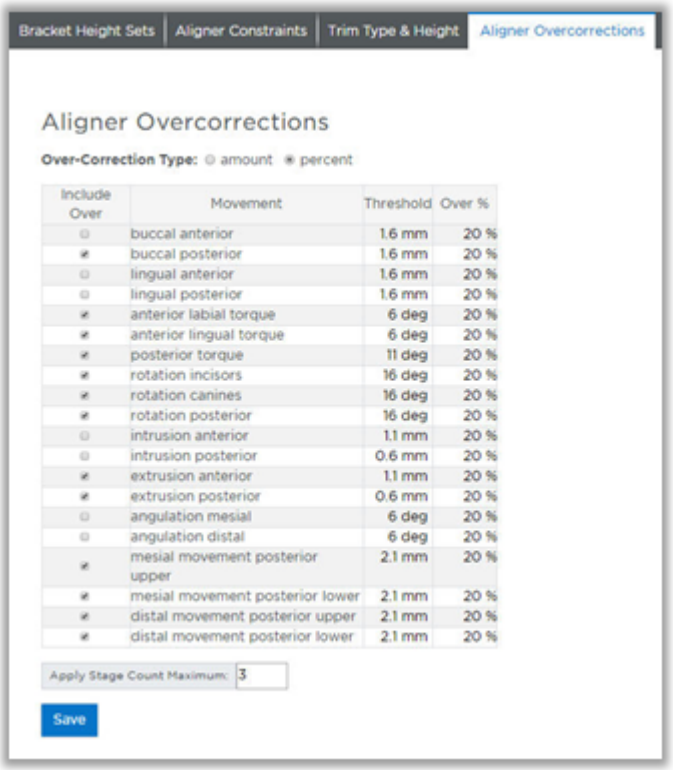


Over-correction

Over-correction can be applied to the staged model sequence. You can specify in your Preferences how many Over-correction stages to apply as well as thresholds for particular movements.
Click the icon to the left of the Patient ID search box, then click **Preferences**.

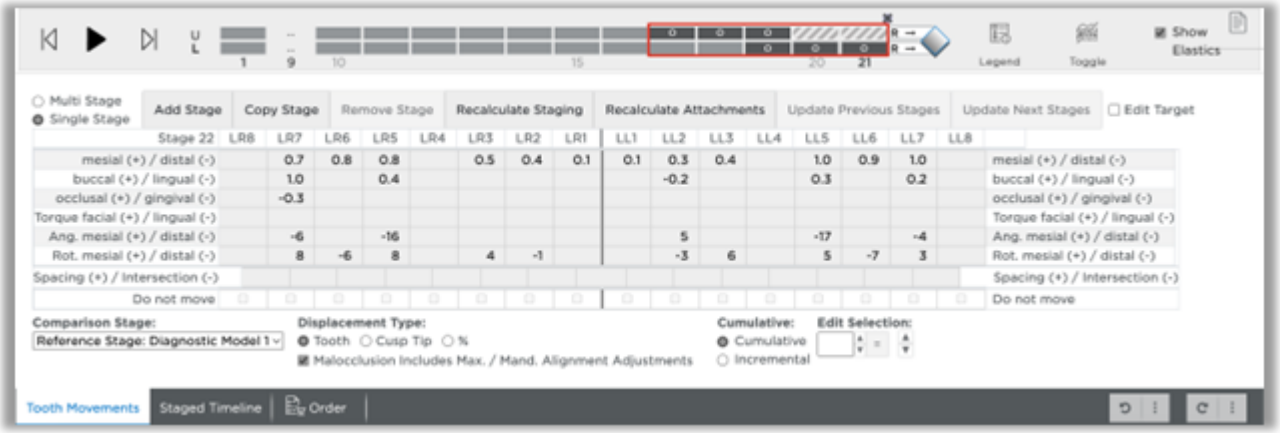


Click the **Aligner Overcorrections** tab. Next to Over-Correction Type choose Amount or Percent. Use the check boxes under Include Over to include or exclude particular movements. Change the movement thresholds under Threshold as needed. Change over-correction values under Over Amount or Over % (depending on which over-correction type you chose). Choose how many over-correction stages to apply next to Apply Stage Count Maximum. Click **Save**.



Over-correction stages

Over-correction stages are applied to the end of the staged model sequence and are highlighted in green with the letter “O” before the stage number. The last stage before the over-corrections is denoted with a “#” before the stage number.

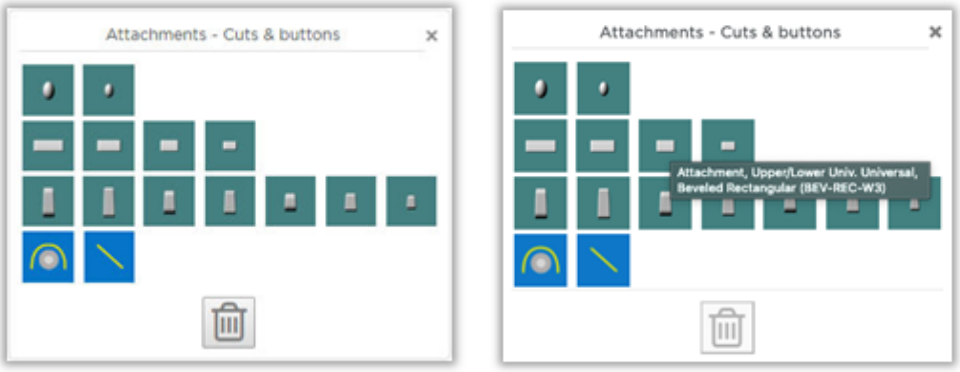


The **Overcompensation Stages** icon found in the Display palette can be used to hide/show the over-correction stages.

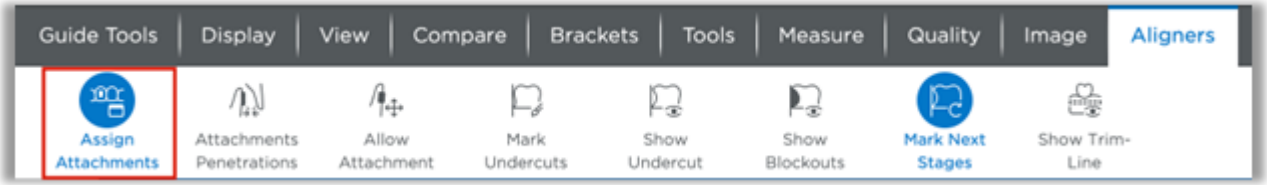
Step 6 - Assign Attachments Manually

If you chose not to apply attachments automatically or want to add additional attachments, you can do this from the Attachments panel found in the Tooth Movements tab.

You can hover over the attachment in the panel to see the attachment description and size. In this example, you see “BEV-REC-W3” which means it is a beveled rectangular attachment with a 3 mm width.



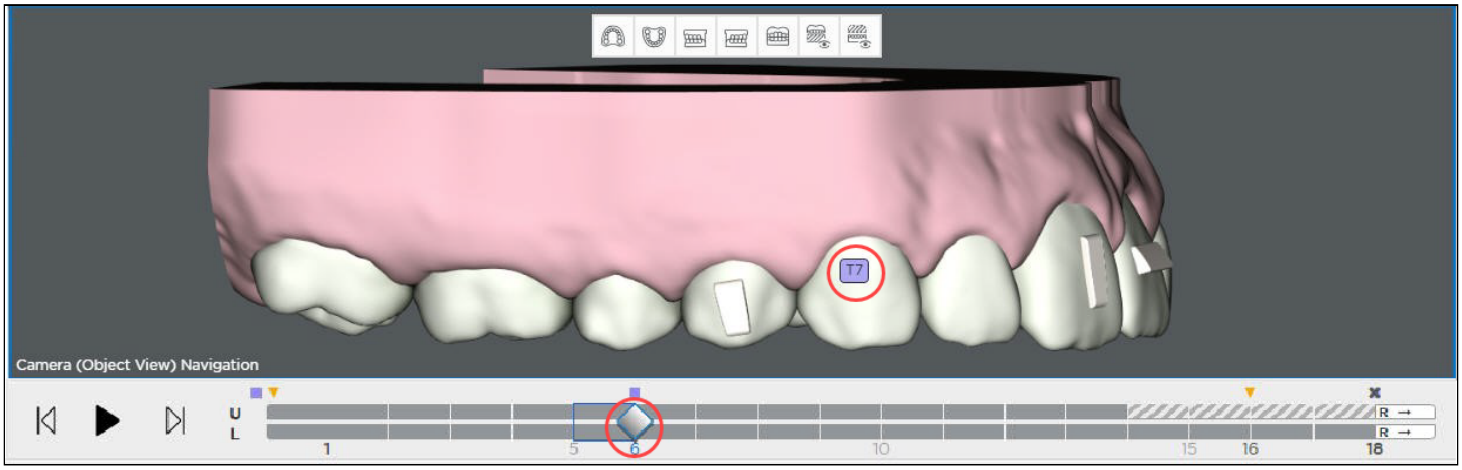
If the **Attachments** panel is not shown you can turn it on from the **Tools** palette.



Now click on the tooth on the 3D model where you would like to place the attachment.

> **Tip**: Click on the part of the tooth where you would like the attachment to be placed. For example, for lingual placement click on the lingual surface of the tooth.

The system automatically generates a template stage, for the placement of attachments, immediately prior to any stage with newly added attachments. The teeth remain in the same position as the prior stage but the new attachments are added to the stage. Any previously placed attachments are also included.

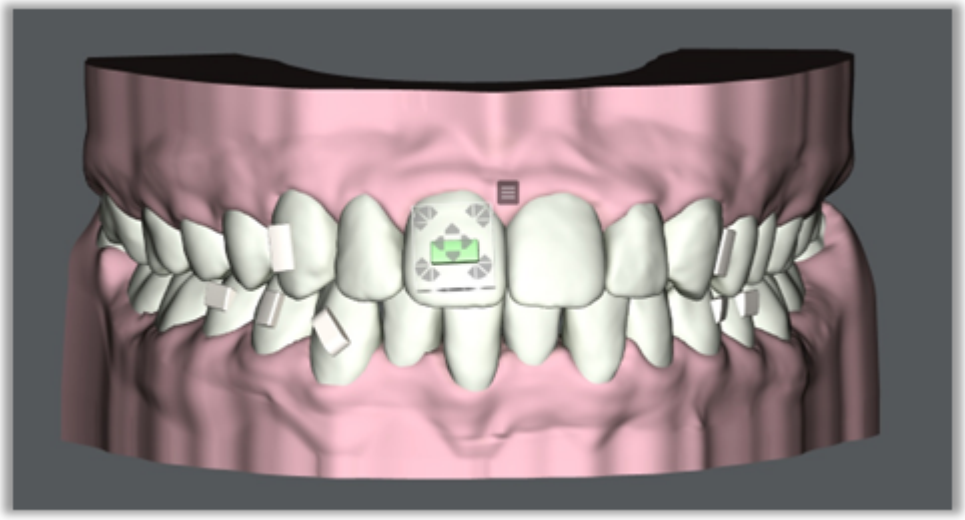


Each template stage is designated by a ‘T’ and the number of the next stage; e.g. T2 would be placed before stage 2.
The software automatically removes the attachment(s) at the end of the sequence and places a minus “-“ in front of it. This last stage with a minus sign is a passive copy of the previous stage but without attachments. Because it doesn’t have movements or attachments, it can be printed for the retainer.
When you don’t have attachments, the last stage still can be used as a retainer since it is the last stage with the last set of movements.

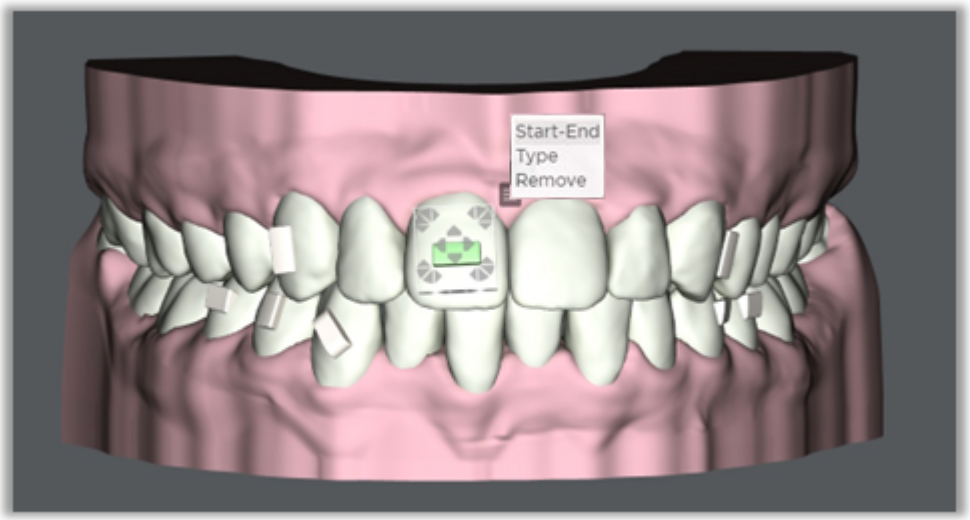
	White means the attachment is an active attachment in the current stage.
	Green means the attachment has been click-selected and the position can be adjusted in the current stage. (To adjust an attachment: click the attachment; you will then see a box appear around it with arrows you can use to move the attachment.)
	Black means that the attachment is on its last stage. Remove the attachment after this stage.

Adjusting Attachments

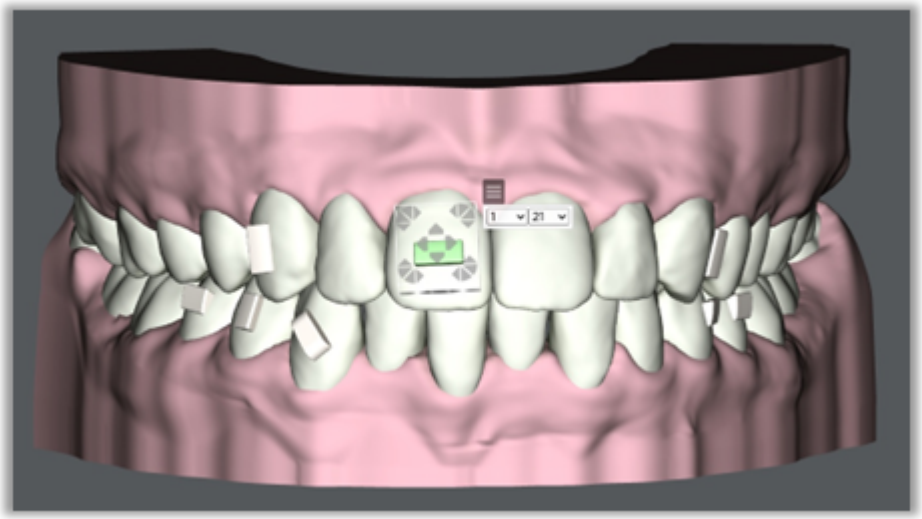
To adjust the attachment, select the attachment on the 3D model. The bounding box appears. Drag the handles of the bounding box to move the attachment. The attachment will maintain 3-point contact with the tooth surface.



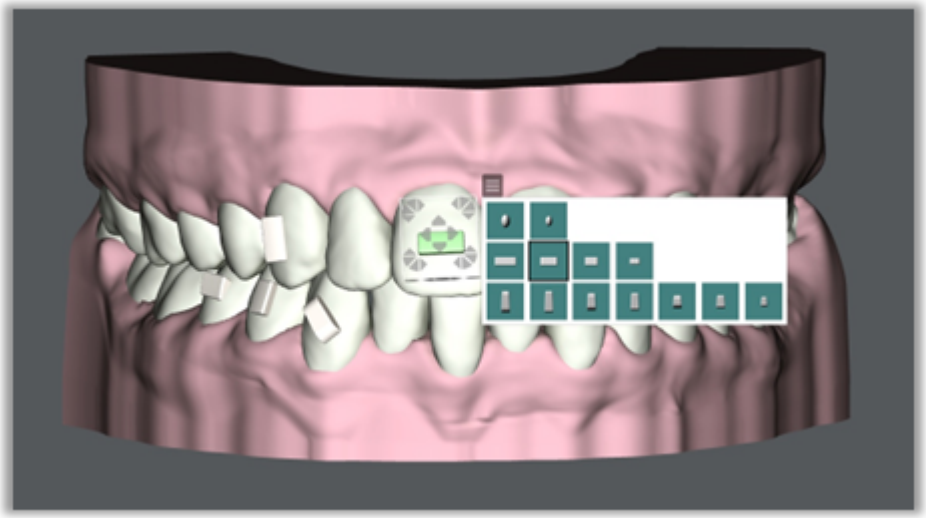
Use the menu to the top right of the attachment to make additional changes.



Click **Start-End** to change the start and/or end stages for the attachment.



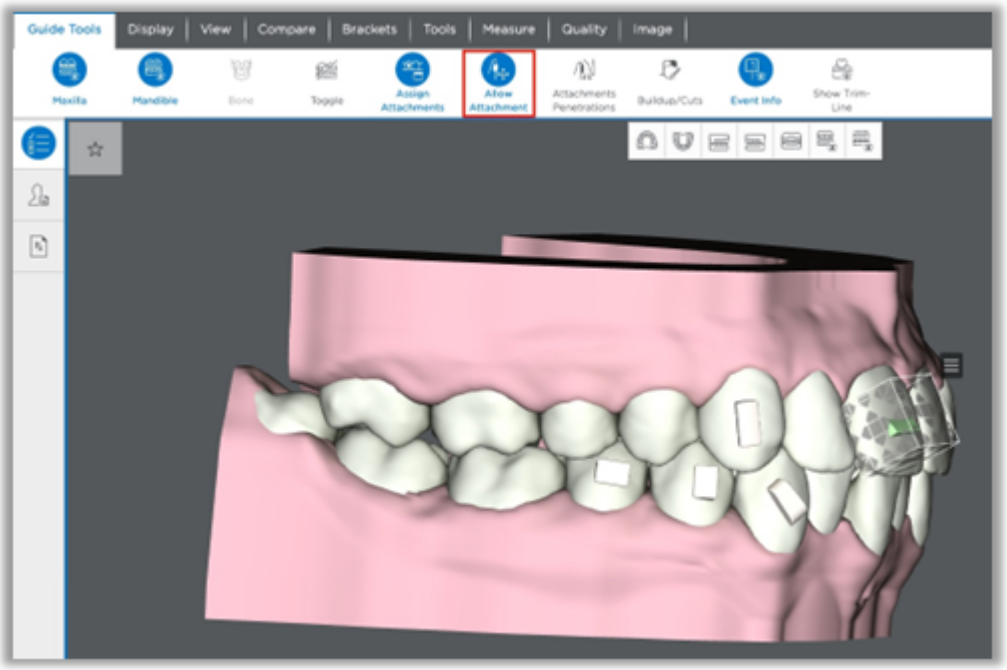
Click **Type** to change the shape of attachment for that tooth.



Click **Remove** to remove the attachment.

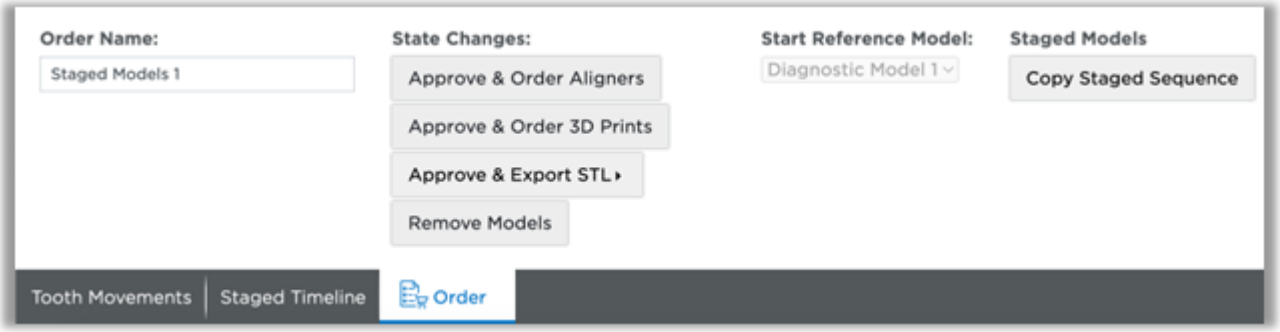
Embedding Attachments

To embed the attachment into the tooth, click the Allow Attachment Inside Tooth icon in the Aligners palette. Then click the attachment and use the arrows on the bounding box to adjust the attachment.



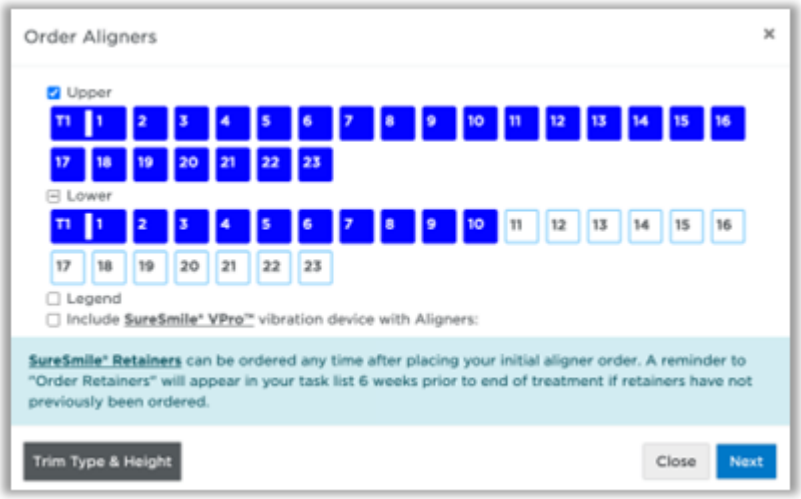
Step 7. Order aligners or printed models or export .STL files for your lab

After you finish reviewing the staged models, you have the option to order aligners or printed models from SureSmile or export 3D files to send to your lab for appliance production. Navigate to the Order tab to see your options.



Approve & Order Aligners Option

If you choose the Approve & Order Aligners option, the Order Aligners dialog box opens. All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you want to order passive Aligners, select the desired stages and click Next.
In subsequent orders for this patient you will see the small print icon placed on each Aligner already ordered.



Click Trim Type & Height to change the trim type and/or trim height for your Aligner orders.

Please note that you can change the trim type from scalloped to straight, but you cannot change from straight to scalloped. If you want scalloped, you will need to recalculate your staged models with the scalloped trim type.

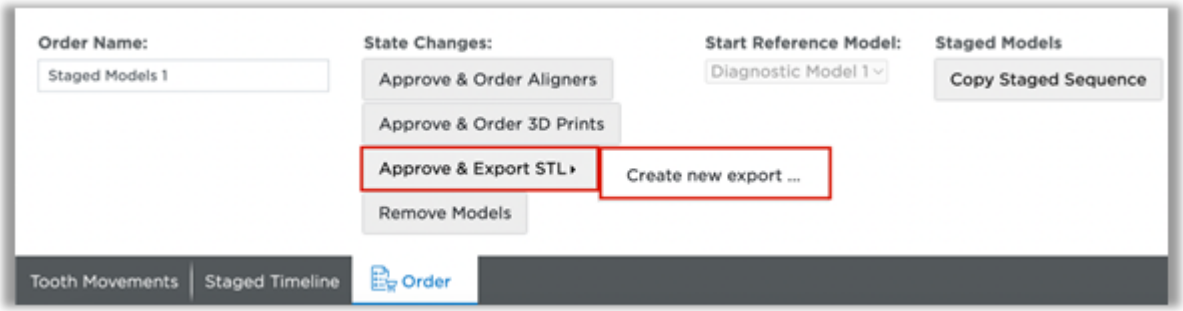
Important: At this time, SureSmile® does not support a scalloped trim line for partially erupted teeth. If the case has a partially erupted tooth, please select the straight trim type.

Approve & Order 3D Prints Option

If you choose the **Approve & Order 3D Prints** option, the **Order 3D Prints** dialog box opens. All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you do not want to order all models at this time, deselect unwanted models and click **Next**.

Approve & Export STL Option

Click the **Approve & Export STL** button, then click **Create new export…**



The **Approve & Export STL** dialog box opens. All active stages are selected by default; passive stages are deselected by default. Active stages are marked dark blue; passive stages in light blue. If you do not want to export all models at this time, deselect unwanted models and click **Next.**

Note: only 10 models can be exported at one time. To export more than 10 models you will need to create a new export to export subsequent models.

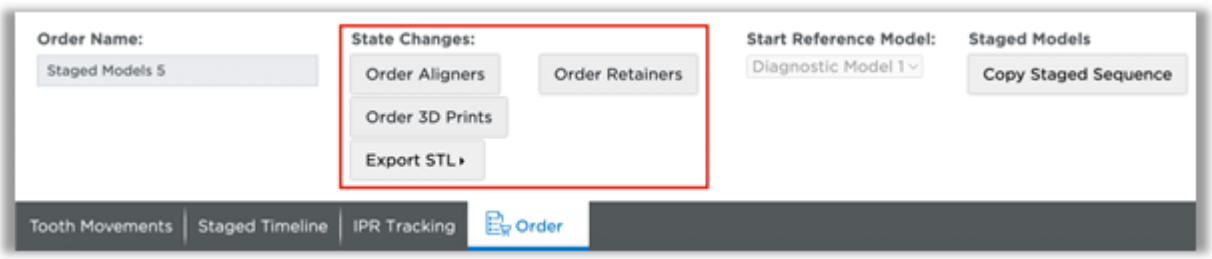
The IPR Tracking tab is displayed once the staged models are in an 'Approved' state. This tab allows you to see and track the amount of planned and completed IPR. You can use this tab to enter newly performed IPR and track completed IPR while in the Staged Models.

Reordering lost or damaged aligners and models

You can order replacement aligners, 3D prints or STL exports through separate orders. After you first order aligners or models or export STL files, the Approve & Order buttons change to:

- **Order Aligners**
- **Order 3D Prints**
- **Export STL**
- **Order Retainers**

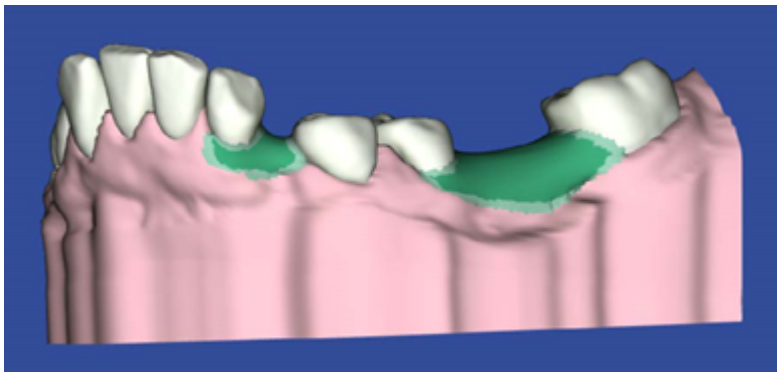
You can reorder any of these items for the patient without having to resubmit a scan or updated records.



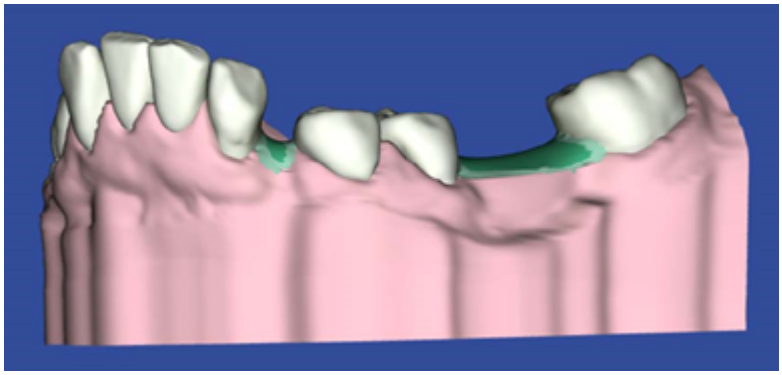
Extending Aligner Treatment - DIY (none) Case

If all the aligners based on the staged model sequence have been used, but you want to make additional corrections before finishing treatment, you can use the last model stage as a new starting point.

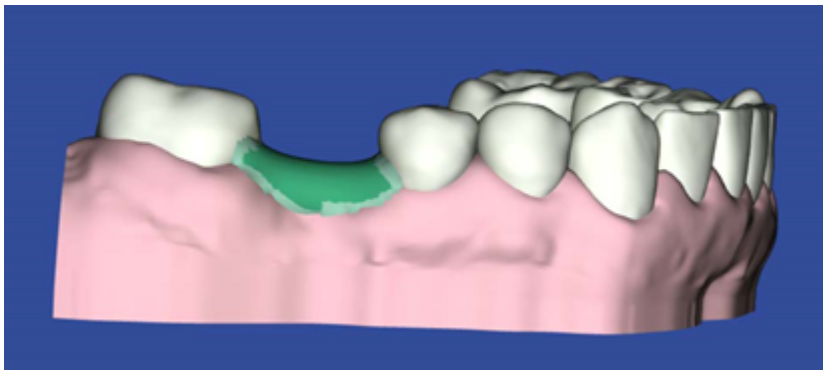
1. From the **Order** tab of the last staged model sequence, click **Copy Staged Sequence**.



2. Click **OK** in the confirmation box. This makes an exact copy of the previous staged model sequence.
3. Go to the **Displacements** tab, make sure the last stage is open and then click **Copy Stage**. This will make an exact copy of the last stage.



Result: The newly copied stage automatically becomes the selected active stage. This is the stage to which you should apply your modifications



4. Select the **Incremental** option under **Cumulative** at the bottom of the page to view only modifications for this stage. Make your modifications.

Note: If you want to modify both the upper and lower arch, select the opposing arch and repeat this step.

5. After you make your modifications, if the software detects a conflict, click **Add Stage**. A new stage is added to allow the conflicts to work out. Keep adding stages until all conflicts are resolved.
6. Once all modifications are completed, go to the **Order** tab to place a new order for the added stages.

Setting Aligner Constraints for DIY Staged Models

When you create a sequence of staged models for an Aligner DIY case (None Case Type), chose either of SureSmile's default staging groups **Clinic Multi-Group** or **Clinic Single-Group**, or define your own staging group.

You can edit these constraints from the Constraints dialog for the current case or you can edit and set your default from the new Aligner Constraints tab under preferences. These preferences are set only for the doctor that is logged in. They are not set at the practice level.

Multi-Group Staging Controls

SureSmile allows you to group movement types and to set the maximum rate of movement for each stage. SureSmile's automatic conflict solver algorithms run whenever you change the starting or ending stages for each group of movements on the Staged Timeline tab.

There are two default constraint selections provided in the software:

- **Clinic Multi Group Crowding** – recommended for comprehensive cases with crowding
- **Clinic Multi Group Spacing** – recommended for comprehensive cases with spacing
- **Clinic Single Group Crowding** – recommended for relapse cases with crowding, finishing aligners
- **Clinic Single Group Spacing** – recommended for relapse cases with spacing, finishing aligners

For Clinic Multi-Group: The movements in Group 1 are applied first in the sequence of Staged Models. Movements in Group 2 are applied next, group 3 next, etc.

Add movement types in each group by clicking the plus sign. Remove by clicking the "X". Select the Default check box to have this set of constraints listed first in the Constraints dialog.

The pre-defined maximum rates of movement per stage are listed. You can modify these rates of movements as desired.

Single Group Staging Controls

For Single Group staging, all movement types are applied to all of the Staged Models simultaneously.

The pre-defined maximum rates of movement per stage are listed and you can modify these rates of movements as desired. You can also select teeth you do not want to be moved at all under Fixed Teeth.

You can edit these from the Constraints dialog for the current case or you can edit and set your default from the new Aligner Constraints tab under Preferences.

Warning Message if Movement Types are Missing

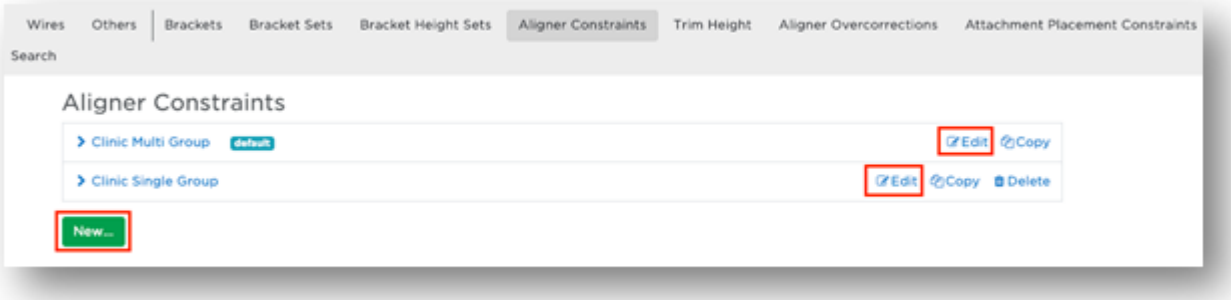
Since it is possible to set aligner constraints that do not include all movement types, SureSmile will display a warning message when you try to save an aligner constraint set with one or more movement types missing, just in case you've done this in error. You can ignore the warning and save the aligner constraints set as is, or you can return to the aligner constraints set and add the missing movement types. If you do not include all move-

ment types, you may see a step up or jump in the last stage of a staged model series as the stage conforms to the target setup.

Aligner Constraints Preferences

Use the Aligner Constraints tab in the Preferences to set your personal preferences for aligner staging.

1. From the settings menu icon at the top right of the screen, select Preferences, and then select the Aligner Constraints tab.



2. Click Edit next to the constraints setting to be edited or click New to create new set of constraints.
3. Change the groups and/or maximum limits for each setting as needed.
4. Click Save/Create when finished.

Using the Timeline/ Animation Player with Staged Models

Whenever you open a staged model in the treatment planning workspace, a timeline and player appears along the top of all tabs.

This timeline/player shows each stage for both arches of a model. The values shown in the Displacements tab or the Staged Models tab are for the arch selected. Showing both arches is helpful if the movements in one arch are fully expressed before the movements in the opposing arch are expressed, as the new timeline allows you to see at a glance how many aligners in total are needed for the case.

> **Note:** SureSmile uses slower movement rates in the early stages to treatment to improve patient comfort and habituation.

In addition, if the movements in one arch are fully expressed before the opposing arch, passive aligners with no movement are supplied for this arch equal to the number of remaining aligners needed for the opposing arch. This is to prevent relapse in the fully expressed arch and to help the patient stay on track in the final stages of treatment.

Click and drag the diamond shaped slider to manually progress the model to a particular aligner. Click any aligner (rectangle) on the timeline to display it in the 3D window.

> **Note:** If you select U (upper arch) or L (lower arch) and you select an aligner from the opposing arch, the numerical values for the movements shown in the tables on the Displacements and Staged Models tabs will be for the aligner you just selected. For example, if you select U on the timeline, and then you click an aligner rectangle on the bottom row on the timeline, the values shown in the Displacements and Staged Timeline tabs will be for the lower arch aligner you just selected.

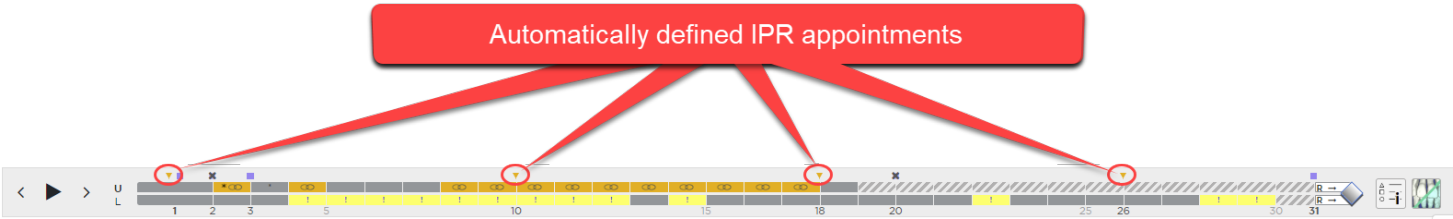
Aligners are numbered in increments of five, e.g., 1, 5, 10, 15, etc. Aligners which have events associated with them such as adding/removing attachments or applying IPR are also numbered.

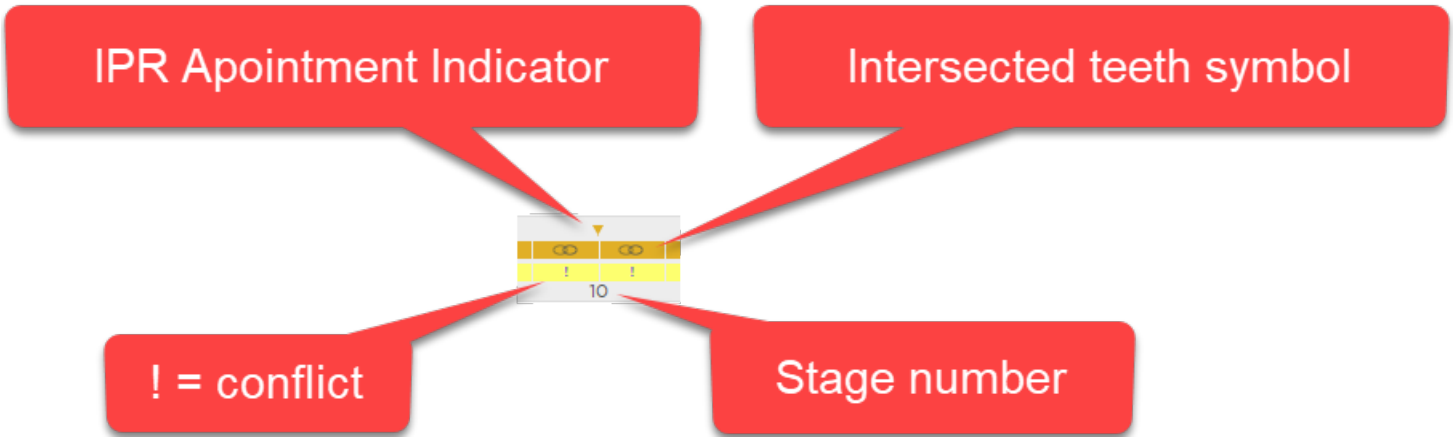
Controls:

- **>** Click forward stage by stage
- **<** Click backward stage by stage
- ▶ Run animation through all stages
- **II** Pause the animation at a particular stage

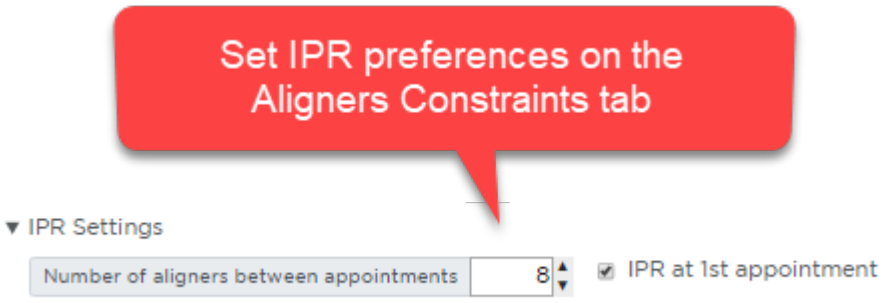
Automatically Defined IPR Appointments

SureSmile automatically inserts an inverted golden triangle as an indicator to show when to apply IPR. By default SureSmile's algorithm indicates when the teeth are in the best position to plan for the IPR appointment event.

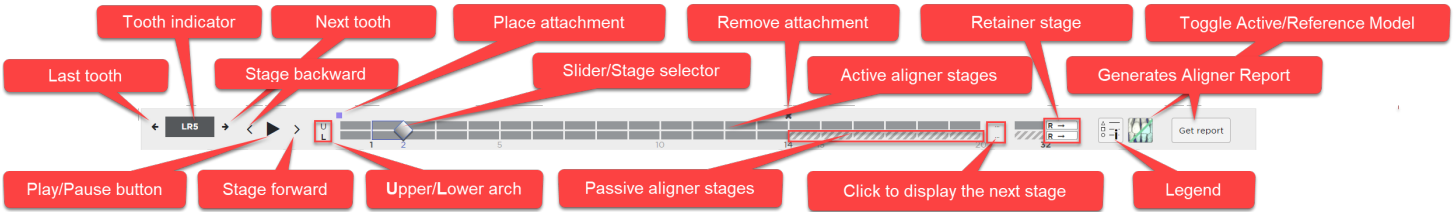




Use the Aligner Constraints preferences to indicate the number of aligners to be worn by the patient between appointments. Select the IPR at 1st appointment option to calculate all IPR before the first aligner. Leave this option unchecked to allow SureSmile to determine when it is optimal to apply the IPR.



Timeline /Player Features



General

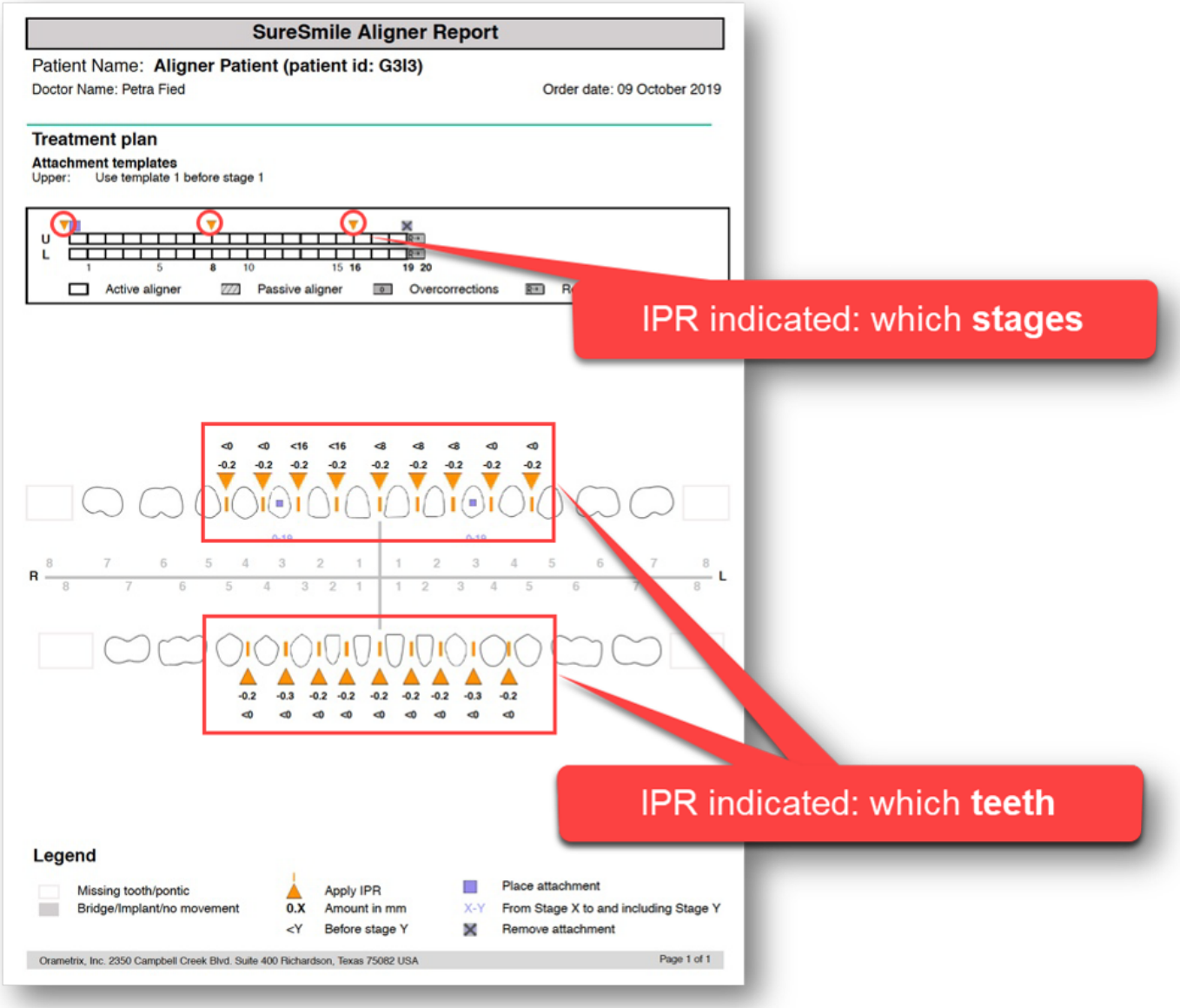
- Click a single tooth in the 3D window to show movements across aligners for a single tooth. Click the tooth indicator again to show all movements for the complete arch.
- Click the small arrow on the left to move to the next distal tooth.
- Click the small arrow to the right to move to the next mesial tooth.
- Click the Play/Pause button to automatically move the slider through the stages. Click again to pause the slider. Click the arrow on the left to move the slider back one stage, move the arrow on the right to move the slider forward one stage.
- Click the small U to show movements in the table on the tab for the upper arch. Click the L to show movements for the lower arch.
- Click and drag the slider to display movements for another stage.
- Click the ellipse (three dots) to display the next aligner.

- Click the Toggle Active/Reference model to switch between the Active and the Reference model.

- Aligner Report

  Click Get Report on the timeline to generate the Aligner Report. This button is only visible after the Staged Model has been approved.The aligner report shows the timing and placement of IPR. It also shows when to add and remove attachments. Print the report and refer to it chairside during the patient appointment.

  Note: You can also access this report on the Patient Overview. Click Reports and select it from the list.



IPR in 3D

- A white label indicates IPR planned for future stages
- A grayed number and no label indicates IPR planned in previous stages
- A gold label indicates that IPR is planned for the current stage.

Attachments in 3D

- A purple label with the template number is shown on the 3D model at the time of the bonding appointment.
- A white attachment indicates an active attachment already placed for this aligner.
- A black attachment indicates that the attachment will be removed after this aligner. (This aligner is the last with this attached placed.)

Stages on timeline

- Solid gray = Active aligner
- Striped timeline = a passive aligner-no movement
- R = A retainer stage (however aligner material is not thicker for these stages)
- Black with white O = Overcorrection Aligner
- Yellow with ! = too much movement
- Gray with a * = a stage that has been changed after the staged models were automatically generated
- Orange with an overlapping teeth symbol = an intersection of two adjacent teeth

Actions on Timeline

- A gold inverted triangle indicates where IPR has been planned by the system. Tip: Place your mouse over this symbol to display a tooth chart showing all planned and applied IPR.
- A purple box indicates that an attachment should be bonded before the next aligner.
- A black x indicates at which stage the attachment is removed.
- Click the legend button for explanations of all of the above.

Finishing a standard case with aligners

If using the “Standard” case type and finishing a patient in aligners, you will need an up-to-date reference model, which can be:

- an additional therapeutic model while the patient is still bonded (to save an appointment) or
- a diagnostic or final model

Therapeutic Model Advantages	**Diagnostic/Final Model Advantages**
most accurate model type	lower model fee
includes 2D/3D linkage to the smile photo	intraoral scan and current records not required (but recommended)
option to order a setup as your target for aligner therapy	

If you order a therapeutic model (based on a scan of the patient with brackets still on), make sure you:

- uncheck the *Deliver with Brackets* option
- type a note to the Digital Lab to disregard brackets

If you order a diagnostic or final model, please note:

- The patient may still be bonded. If so, type a note to the Digital Lab to disregard the brackets.

Using Attachments

Attachments allow greater control of tooth movement during aligner therapy. You can custom place attachments on the labial and/or lingual surface. You can add attachments using the automatic attachment placement constraints when creating staged models or after the staging has been calculated. You can apply attachments to all stages or just a subset of stages.

> **Note**: Attachments are only visible on staged models. They are not shown on setups or simulations.

Automatic Attachment Placement Constraints

Place attachments using the attachment placement constraints in the Constraints dialog when creating a staged model sequence.

Choose the SureSmile 'Standard' default or create your own set under the Attachment Placement Constraints tab in Preferences.

If you do not want the attachments placed automatically, select the No Automatic Attachment Placement option in the Constraints dialog.

Attachments panel

Place attachments manually by selecting them from the Attachments panel and placing them on a single tooth.

The Attachments panel initially appears when the Displacements tab is opened in the Staged Model Sequence and can be moved anywhere on the screen. You can also display the panel by clicking the Assign Attachments icon on the Tools palette.

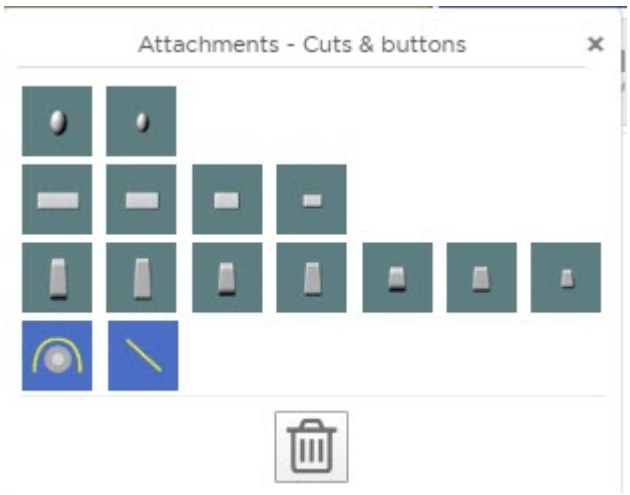
In the Attachments panel, attachments are displayed left-right from largest to smallest:

- **Row 1:** Ellipsoid attachments
- **Row 2:** Rectangular attachments
- **Row 3:** Rectangular beveled attachments
- **Row 4**: Aligner tray cutouts for for cuts & buttons
- **Row 5:** Trash can for deleting attachments

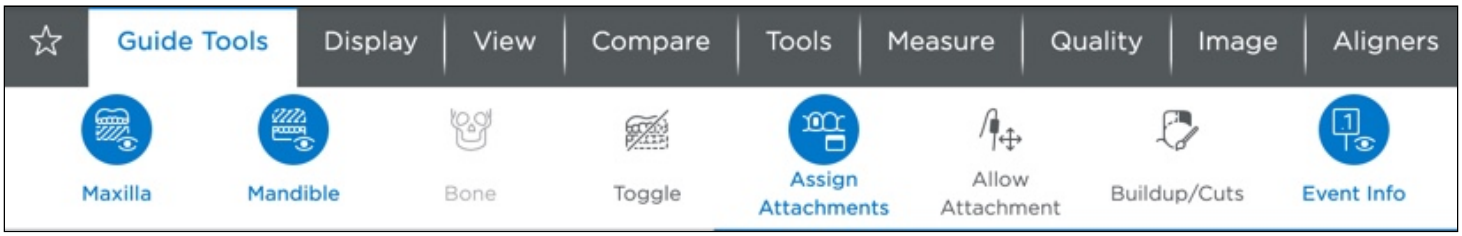
How to place attachments

Attachments allow greater control of tooth movement during aligner therapy. You can custom-place attachments on the labial and/or lingual surface.

1. From the **Displacements** tab, select an attachment from the **Attachments** panel.



If the Attachments panel is not shown you can turn it on from the Tools palette.



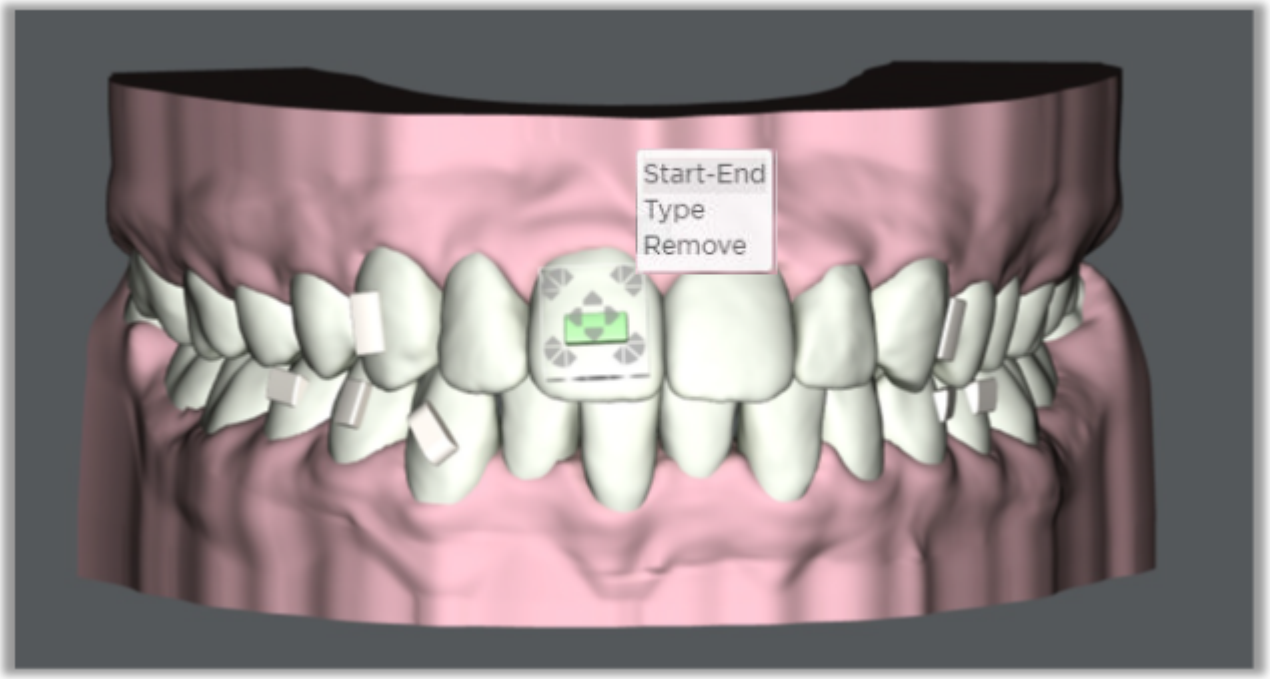
2. Now click on the tooth on the 3D model where you would like to place the attachment.

   Tip: Click on the part of the tooth where you would like the attachment to be placed. For example, for lingual placement click on the lingual surface of the tooth.

Adjusting Attachments

1. To position the attachment, select the attachment on the 3D model. The bounding box appears.
2. Drag the handles of the bounding box to move the attachment. The attachment will always maintain 3 points of contact with the tooth surface. The system automatically generates a new aligner for the placement of attachments. The teeth remain in the same position as the previous aligner and the new attachments are added to this aligner. Any previously placed attachments are also included.

3. Use the small menu next to the attachment in the 3D window to make additional changes.



4. Click **Start-End** to change the start and/or end stages for the attachment.
5. Click **Type** to change the shape of attachment for that tooth.
6. Click **Remove** to remove the attachment.

Selecting Attachments

While adding or removing attachments in the Single Stage view, refer to the values on the Displacements tab to decide which attachment to use and where to place it on the tooth surface.

You can place multiple attachments on a tooth, and you can place attachments on labial and lingual surface of the same tooth.

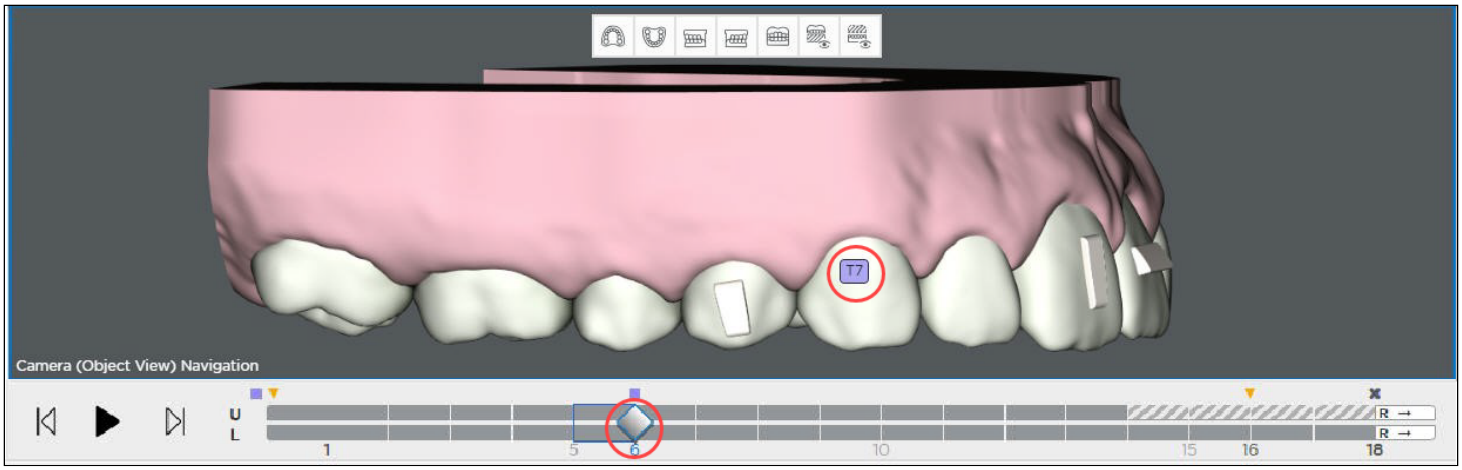
When you select and place your attachments, take into consideration the amount and direction of movement desired. To undo a particular movement just made, click the **Undo** button at the bottom right of your screen.

You can apply or remove attachments to or from a tooth at different stages. You can choose which stage to place an attachment and which stage to remove an attachment.

> **Note**: Attachments are only displayed on staged models. They are not visible on setups or simulations.

Attachment Aligners

The system automatically generates a new aligner for the placement of attachments before any aligner with newly added attachments. The teeth remain in the same position as the prior stage and the new attachments are added to the stage. Previously placed attachments still on the teeth are also included in this new aligner stage.

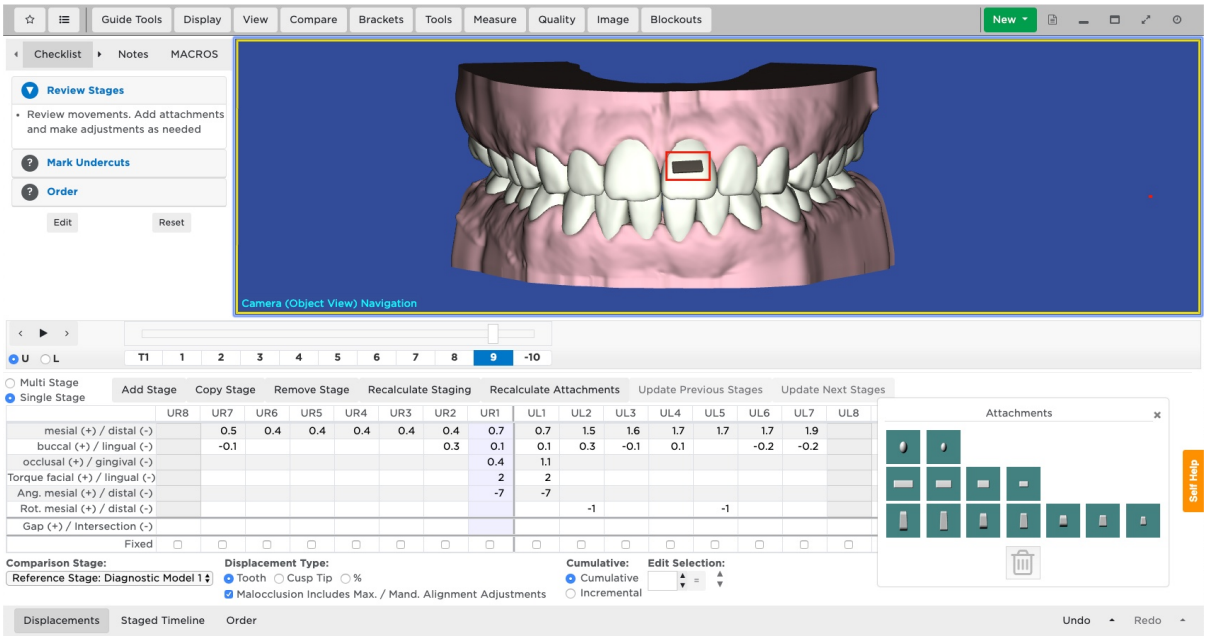


Tip: The patient's last aligner is a passive copy of the previous aligner without attachments. Because this aligner does not contain any movements or attachments, it can be printed and used as a retainer.

To remove an attachment:

Click the attachment on the tooth to select it and then click the trash can.
OR
Click **Remove** from the small menu in the 3D window.

Attachment Removal Indicators



A black attachment indicates the last stage for an attachment.

A minus sign shown on the next stage tab to remind you that the attachment was removed. For instance, if prior to stage 9 (after stage 8) the attachment was removed, “–“ will display on the stage 9 tab.

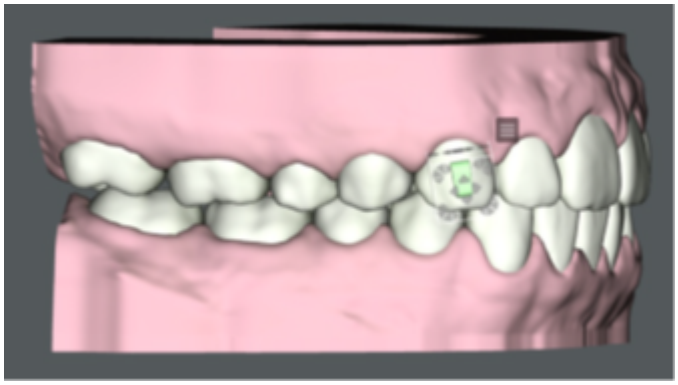
Attachments are automatically removed from the last stage, and a minus sign is shown before the stage number tab to indicate that the attachment has been removed.

Attachment Colors

Attachments are colored in the 3D model to indicate the following:

White means the attachment is an active attachment in the current stage.

Green means the attachment has been click-selected and the position can be adjusted in the current stage. (To adjust an attachment: click the attachment; you will then see a box appear around it with arrows you can use to move the attachment.)



Black means that the attachment is on its last stage. Remove the attachment after this stage.

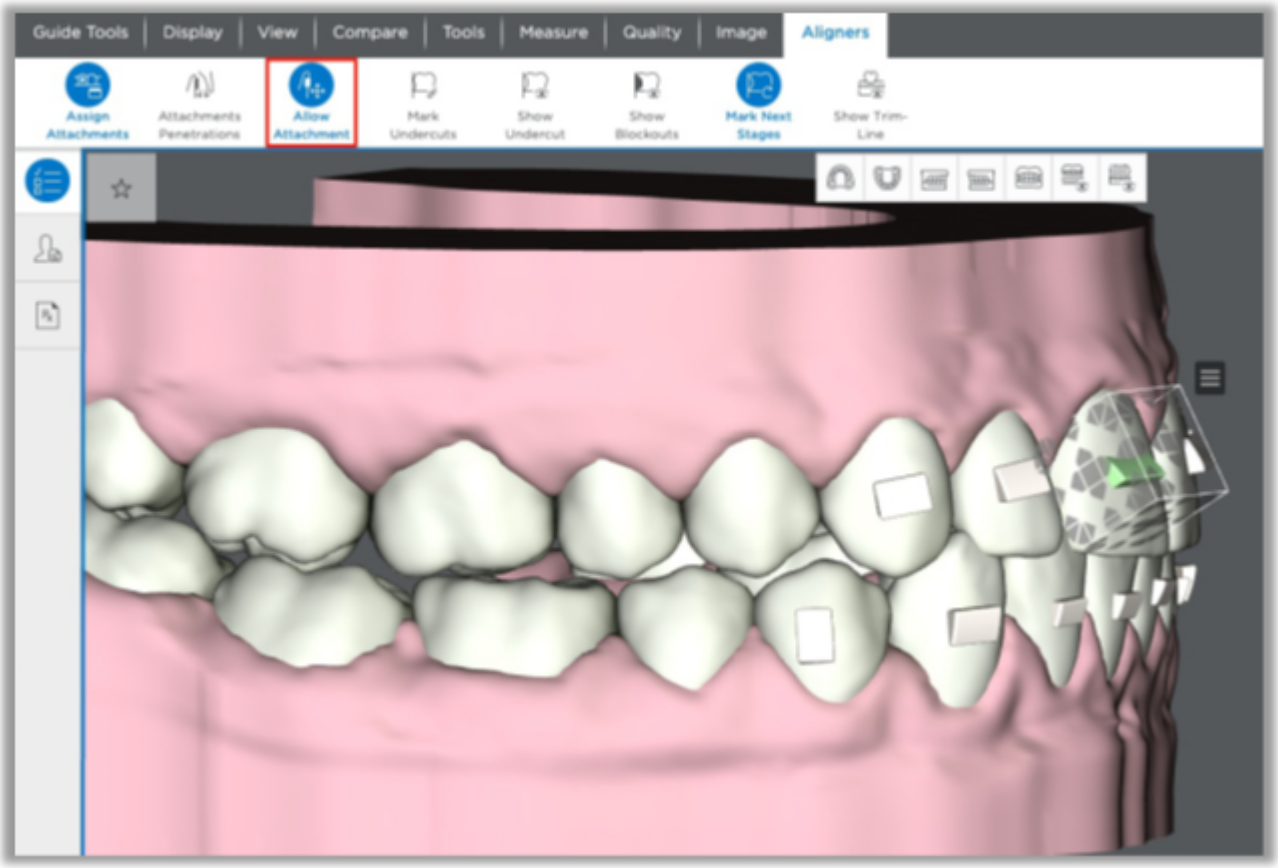
Embedding Attachments

You can “embed” attachments into teeth as a way of modifying their size and position on the surface of the tooth to control the shape of the active surface of the tooth. For example, you can partially embed a beveled attachment to change its size and angle.

Attachments can be rotated 360 degrees on their X and Y axes. If one edge of the attachment's base is in contact with the tooth surface, the base of the attachment can be tilted away from the surface of the tooth up to about 30 degrees. SureSmile will fill up to a maximum 3 mm gap between the attachment and the surface of the tooth. Attachments always need to maintain at least one point of contact with the surface of the tooth so they stay attached.

To embed an attachment:

1. Click Aligners on the menu bar to open the Aligners palette.
2. Click the Allow Attachment Inside of Tooth icon.
3. Click to highlight the attachment in the 3D window.
4. Using bounding box controls to embed the attachment into the tooth surface.



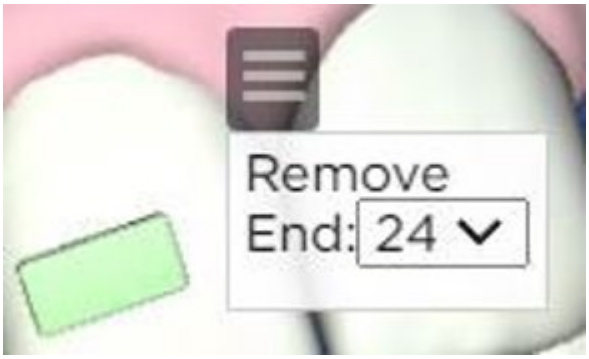
To reset the placement of an attachment:

1. Click to unselect the Allow Attachment Inside of Tooth icon.
2. Click the attachment so that the bounding box appears.
3. Click and drag slightly any of the bounding box controls, and then release your mouse.
4. After a moment, the attachment will reset to its original position.

Enable/Disable Attachments

It is now possible to enable/disable scanned attachments during the staging.
Previously when scanned attachments are kept on the model, it was not possible to remove them for the retainer order. These kept attachments can now be removed at any stage. You can ask the Digital Lab to remove them, or you can do it on your own as shown on the right.

The scanned attachments will always be visible in malocclusion (stage 0). They will be disabled by default for all other stages. If you select the attachment, the pop-up menu will be displayed to enable the attachment. Once enabled, you can select the last stage where the attachment appears on the model from the 'End' drop-down menu. You can also remove the attachment but it will always remain in the malocclusion (stage 0).



Using Aligner Tray Cut-outs

For Class II or Class III cases, you may want to place cut-outs on your aligner trays to permit use of elastics.

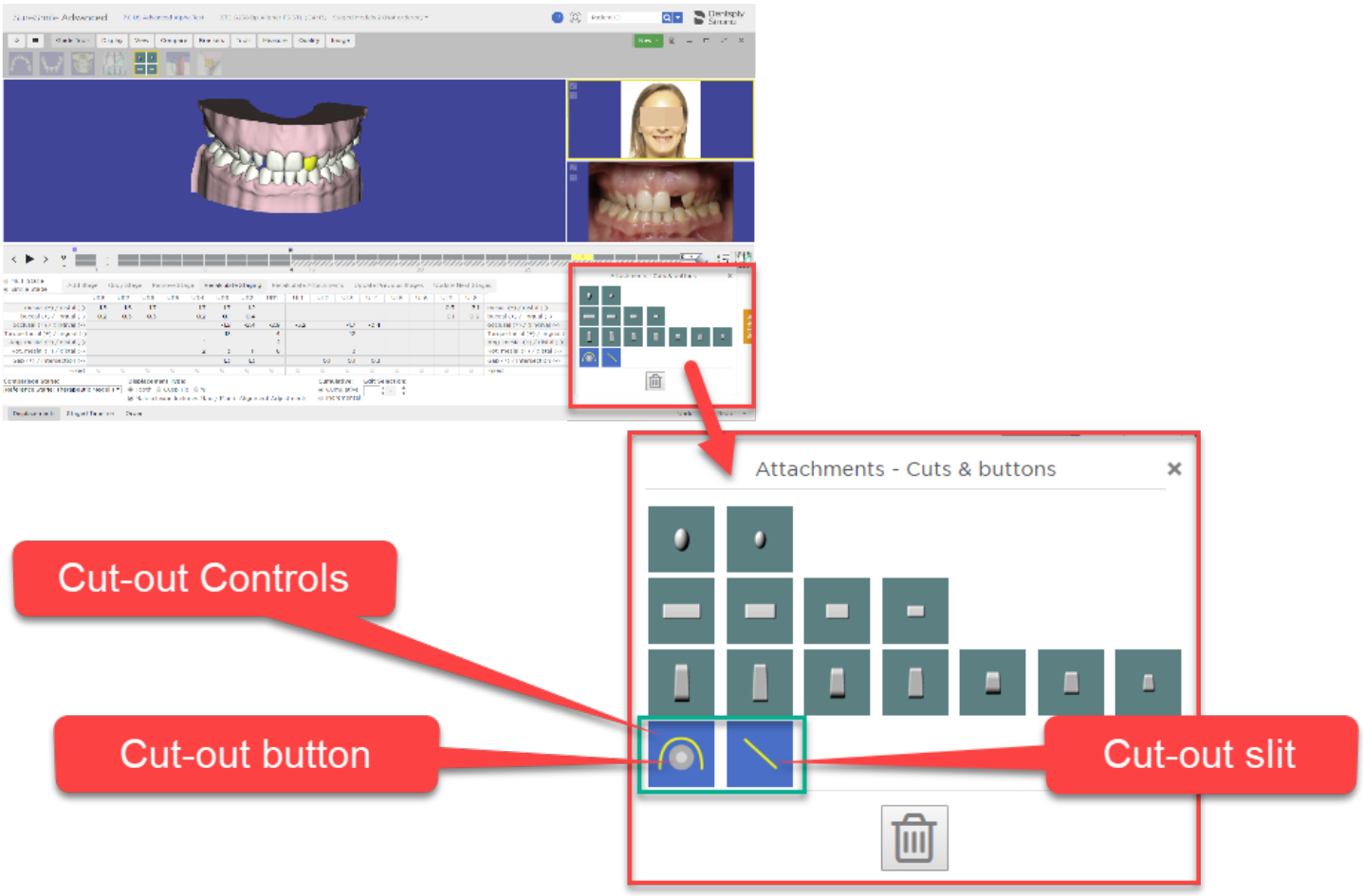
Attachments - Cuts & buttons panel

Use the **Attachments - Cuts & buttons** panel to add or remove cut-outs to your aligner trays. This panel is displayed by default when the Staged Models workspace if the staged model are in a not ordered state.

You can place a slit or a button with a button cutout in any quadrant and in any combination to cover different clinical scenarios such as Class II, Class III, Upper, Lower, Lingual, and Labial elastics. You can place cutouts on labial and lingual surfaces.

In addition, to help improve aligner retention, you can place an attachment on the same surface as a cutout.

When placed on a tooth, the cut-out will be oriented automatically based on the segment where it was placed. The system uses basic placement rules for Class II labial elastics. You can adjust the placement of your cut-outs and slits as needed by moving and the rotating cut-outs in the 3D window.



Tip: Show or hide the Attachments/Cut-outs panel by clicking on the Assign Attachments icon located in the Aligners menu.

Cut-outs are only visible on the Staged Models. The cut-out slit is placed on the tooth at a 45-degree angle by the system. You have several preset sizes to choose from when placing cutout buttons and slits;

If cutouts can only be visible with the whole trim line being shown, the user will show/hide them as they show/hide trim line. The user shouldn't be able to resize them. For now, we will keep resizing and reevaluate this mm for default button and 1 mm or 1.5 mm for slit.

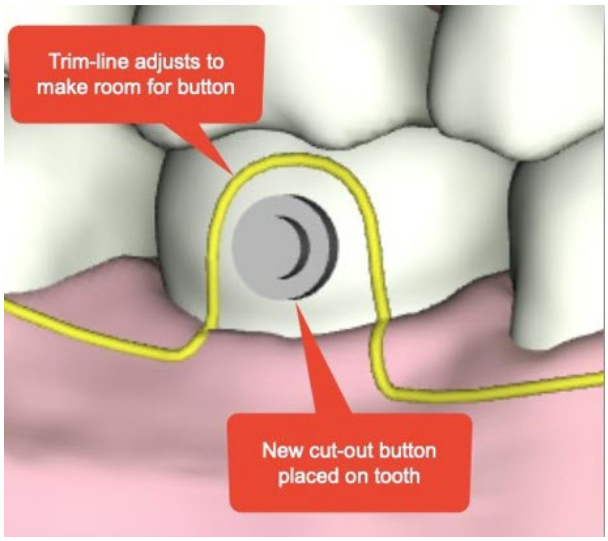
To Add Cut-outs and Slits to an Aligner Tray

Before you begin:

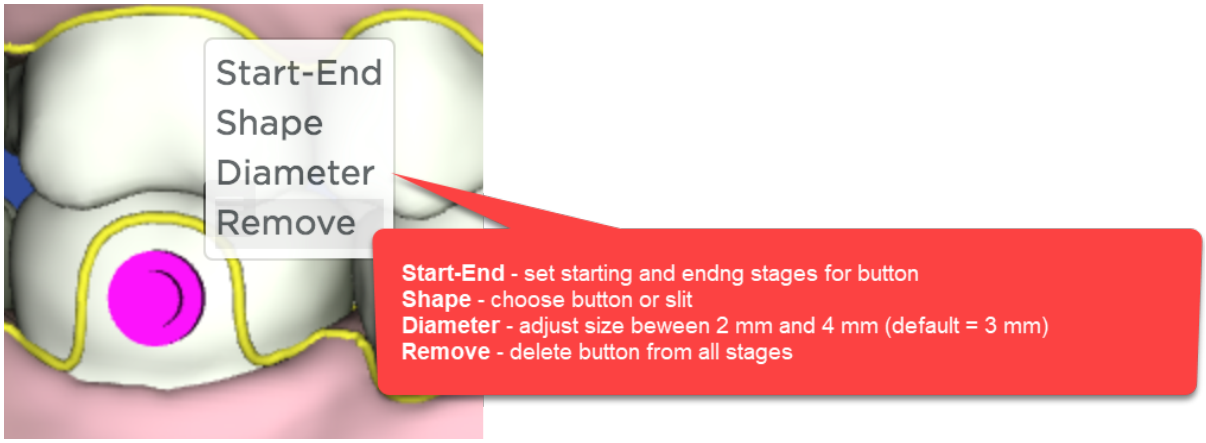
- Make sure you are in the staged models workspace and your staged models are in a Not Ordered state.
- The Attachments - Cuts & buttons panel should be open in the bottom right of the workspace. If the panel is not open, go to the Aligners menu and click the Assign Attachments icon.
- The yellow trim-line for the aligners tray should be visible. If it is not visible, open the Aligners menu and click the Trim-line icon.
- Position in the model in the 3D workspace so that the tooth for which you want to add the button cut out or slit is visible and large enough to work with.

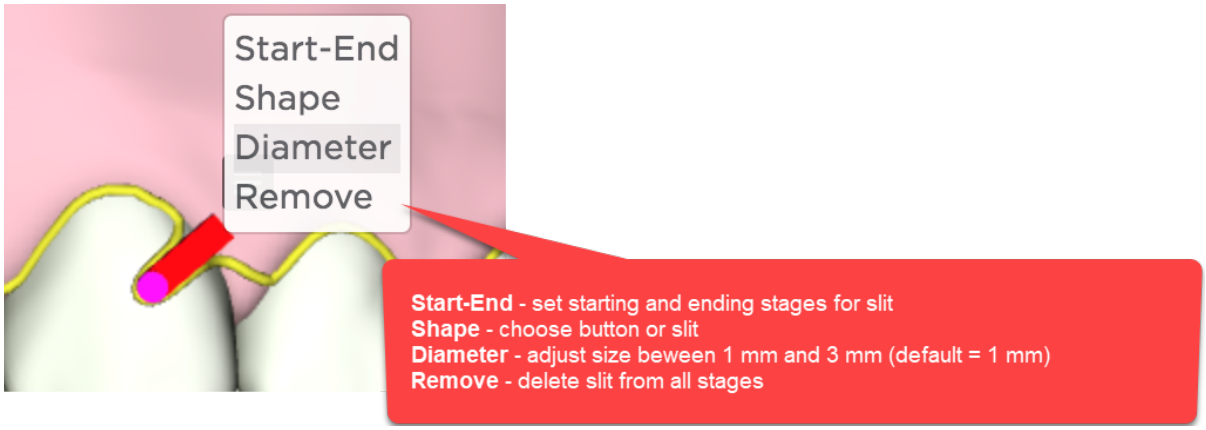
To place the cut-out button or slit:

1. Click the Cut-out button in the bottom row of the Attachments - Cuts & buttons panel. Your cursor should turn into a cross.
2. Position your cursor on the tooth and click. A button is placed on the tooth. Note that the yellow trimline has been automatically adjusted to make room for the button.



3. Click and drag the button or slit to adjust its position.
4. Click the button or slit and then click the small menu icon to make other changes.



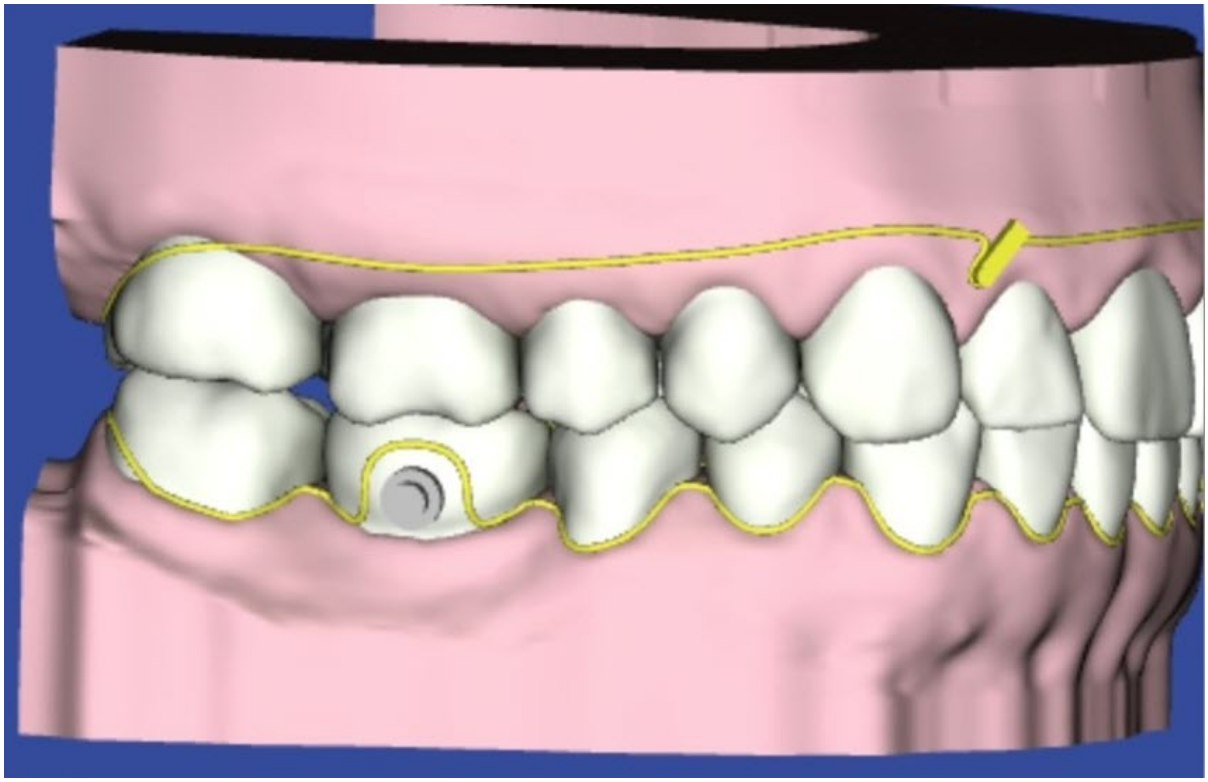


5. To remove the button just from the stage displayed, click the button or slit once to highlight it, then click the trashcan icon on the Attachments - Cuts & Buttons panel.

Class II Correction with Straight Trimline

For elastic cut-outs on U3s with straight trim-line, slit is placed:

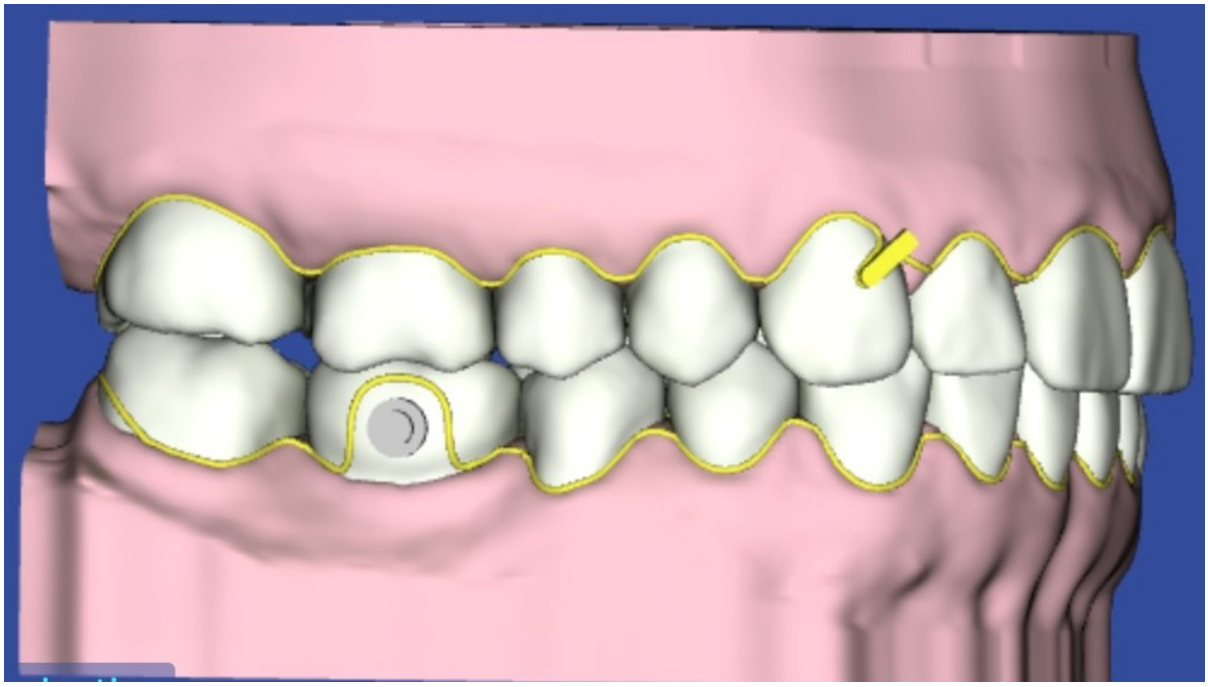
- on gingiva
- interproximal between lateral/cuspid
- deepest portion of the slit aligned vertically with the contact point
- 2 mm length distal tab
- approx. 45 deg



Class II Correction with Scalloped Trimline

For elastic cut-outs on U3s with scalloped trim-line, the slit is placed:

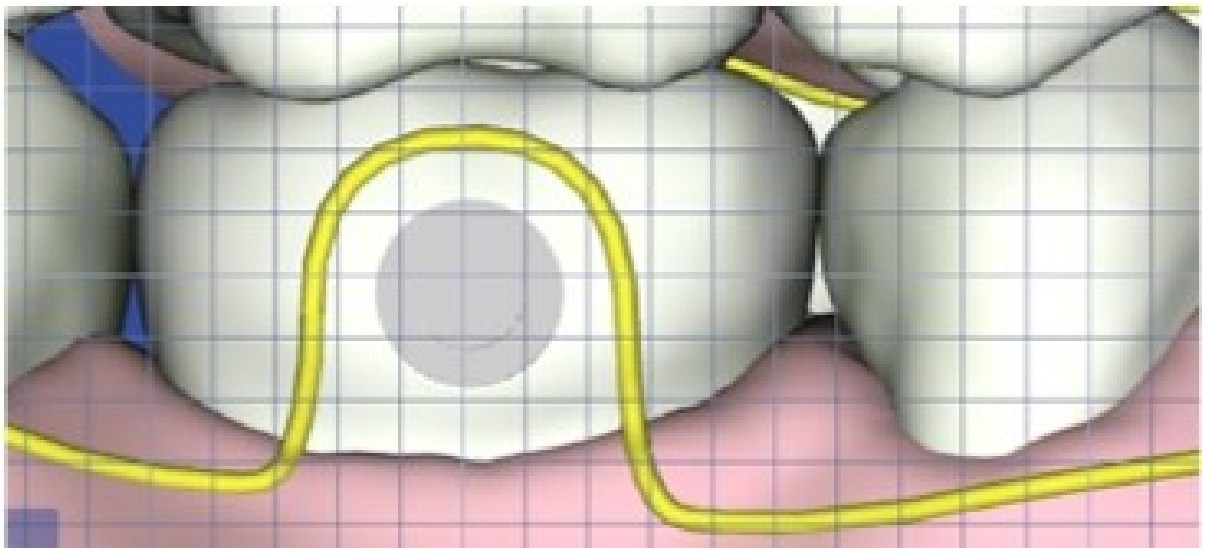
- mesial/gingival third of labial surface
- 2mm length distal tab
- approx. 45 deg



Button Cut-outs

For button cut-outs on L6s, button is placed:

- centered mesial/distal
- gingival 1/3
- approx. 1mm from gingival margin



Guidelines for Reviewing Staged Models

You have many options for viewing displacements to ensure that the values are appropriate. This topic contains best practice guidelines and procedures to help you conduct a quick, efficient and thorough review.

Before Starting: Choose a Displacement Type

- **Tooth** - Click the **Tooth** option to calculate movements from the center of each crown. A positive number indicates mesial, buccal/facial or occlusal movement of the crown. A negative number indicates the opposite movements. When moving teeth by entering values in the Displacements tab table, the center of the crown is the point of reference.
- **Cusp Tip** - Choose the **Cusp Tip** option to move teeth relative to the cusp. When you click this option the cusp tips tooth feature points are shown. This tool is designed to: 1) align teeth without bonded brackets, or 2) align teeth that have compromised anatomy. This option is also helpful when aligning the torque to the anteriors while maintaining the arch-form. It is also useful for applying torque while maintaining the occlusal plane.
- % - Choose this option to see displacements calculated as a percentage of movement, with the target represented as 100%.

  Note: the Bracket option is not displayed for aligner cases.

Choose whether to view values cumulatively or incrementally:

- **Cumulative** – The displacements of each stage are added to show all movement achieved up to the current stage.
- **Incremental** – The displacements of each stage show the amount of movement achieved between the previous stage and the current stage.

Check model movements in Single Stage view:

1. Select the **Displacements** tab.
2. Select the **Upper** or **Lower** arch.
3. Display and view the 3D model as needed so that you can watch the model as it changes from stage to stage.
4. Select the **Single Stage** view. Click the model numbers in the small tabs (or use the left/right arrows on the screen). The displacements are shown for each model in the series.
5. Examine the displacement values. If needed, adjust the numbers using the table.
6. Repeat for the opposing arch.

Add stages as needed:

1. Select the **Upper** or **Lower** arch.
2. Select a model number to follow the new stage you are adding.
3. Click the **Add Stage** button to insert a new stage. The displacements for the new stage are set to a midpoint between the preceding stage and the following stage.

Remove stages as needed:

1. Select the **Upper** or **Lower** arch.

   Caution: Even though you select the upper or lower arch, the models for both arches will be removed.

2. Select a model number.
3. Click the **Remove Stage** button.

NOTE: If you remove a stage, the displacements for the subsequent stages are adjusted to include the movements which took place in the removed stage.

Adjust displacements manually:

Use this procedure when there is too much overlap (more space is needed than what is available) and the automated staging tool cannot resolve the conflicts with a biologically feasible set of stages.

1. Select the **Cumulative** or **Incremental** option as needed.
2. Enter new values according to your clinical judgment.
3. If you have manually changed values in stages that will affect later stages, click the **Update Next Stages** button to recalculate the values in the subsequent stages.

   When you manually change displacement values in a stage, only the tooth positions in that stage are affected. Tooth positions in previous and subsequent stages remain unchanged. If your changes in a stage create a large step between the prior or next stages, use the **Update Previous Stages** or **Update Next Stages** buttons to spread out the movements or add the required stages.

   For example, if there are five intermediate stages between a reference model and a target model, and you change the displacement values for the second stage, if you click the **Update Next Stages** button, the displacement values for staged models 3, 4, and 5 are recalculated. Note that the number of stages does not change, so that your displacement limits may be exceeded for one or more recalculated stages, and a warning may appear.

   Note: If you make changes in the last stage in the staged model series, the **Update Next Stages** button is unavailable because no subsequent stages are affected.

   Now you can easily add multiple values in the multi-stage views as shown. This is the same functionality you're used to on the Displacements tab.

Re-check movement with multi-stage view

Now examine the movements per tooth through the stages.

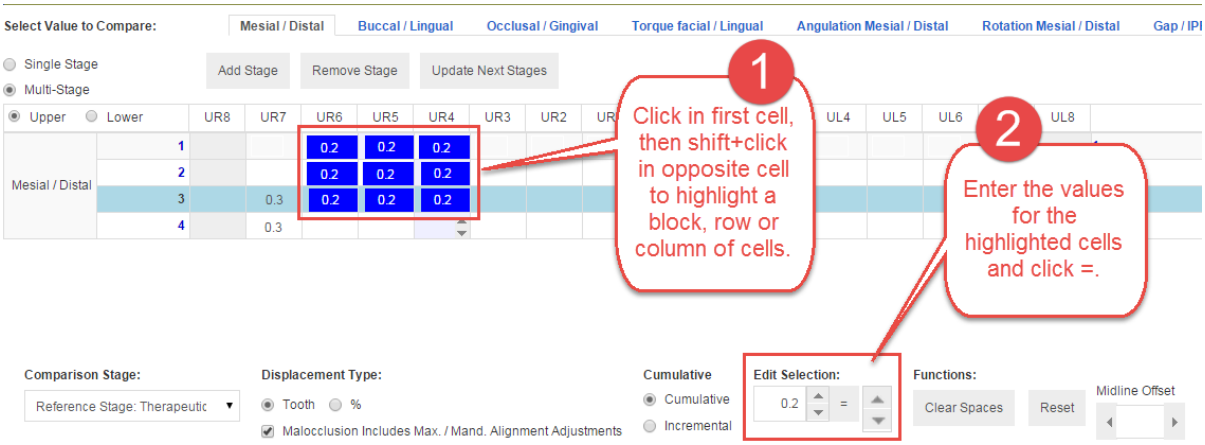
1. Select the **Multi-Stage** view.
2. Select the **Upper** or **Lower** arch.
3. Select the tabs as needed to view types of movements (Mesial/Distal, etc.).
4. Repeat these steps for the opposing arch.

Adjust displacements manually:

1. Select the **Upper** or **Lower** arch.
2. Select the **Cumulative** or **Incremental** option as needed.
3. Enter new values according to your clinical judgment.
4. Repeat for the opposing arch.
5. If you have manually changed values that affect later stages, click the **Update Next Stage**s button to adjust the numbers.

Add the same values to multiple model stages

You can quickly add multiple values in the multi-stage views as shown. This is the same functionality you're used to on the Displacements tab.



Add stages if needed:

1. Select the **Upper** or **Lower** arch.
2. Select a model number (click inside the row) to follow the new stage you are adding.
3. Click the **Add Stage** button to insert a new stage. The displacements for the new stage are set to a mid-point between the preceding stage and the following stage.

Remove stages if needed:

1. Select the **Upper** or **Lower** arch.
2. Select a model number (click inside the row).
3. Click the **Remove Stage** button.

Check Space

On the **Displacements** tab, check the amount of space needed to achieve the target simulation or setup. If more space is needed, the system displays a negative value for each affected tooth in the **Intersection (-) / Gap (+)** row in the **Displacements** tab table. Although you can see the space needed per stage by clicking the tab for each stage, most SureSmile doctors typically apply the IPR needed at the first appliance appointment.

> **NOTE:** If the IPR needed on any stage is more than the amount in the setup, the conflict must be resolved by staging the movements differently. The additional IPR should not be applied.

> **TIP**: The system generates the arches independently. If needed, use the **Contacts** tool on the **Display** menu to determine if there are any interferences with the opposing arch.

FAQs - Aligners and other Removable Appliances

If I plan to create appliances for only one arch, do I need to scan both arches?

Yes, you must scan both arches. Since we need to model the teeth in occlusion, you should include a bite scan using an optical scanner. Follow the protocol for that scanner.

May I bond “attachments” to the teeth?

- You may add composite buildups to the teeth since these shapes resemble tooth anatomy; however, the SureSmile Digital Lab cannot model manufactured items such as buttons.
- To avoid removal during modeling, type notes to the Digital Lab to indicate the location of added composite.

Can I scan the patient while they are still in brackets, so that aligners can be ready in time for the debond appointment?

Yes. Submit the scan as an a la carte unbonded therapeutic model order. Additional considerations:

- Current photos must be included to support tooth modeling.
- You can use x-rays from the previous therapeutic scan appointment; however, you will need to type a note to the SureSmile Digital Lab such as “use the previous Thx records for reference per the doctor.” Also add a note, “model for aligners”

What if I am debonding the upper arch to continue treatment with aligners, but am still treating the lower arch with wires?

Order an a la carte therapeutic model to produce the staged models. However you must follow existing protocols when submitting the a la carte therapeutic model:

- The scan should be intraoral using a SureSmile-supported optical scanner
- Update the dental exam for debonded teeth to correspond to the scan data.
- Current photos must be included to support tooth modeling.
- You can use x-rays from the previous therapeutic scan appointment; however, you will need to type a note to the Digital Lab such as “use the previous Thx records for reference per the doctor.”
- Do NOT create a separate patient record for this model.

  Caution: Once you order a new therapeutic model, you will not be able to order custom archwires referencing this model unless you also first order a new a la carte setup for an additional cost. If you think you may have more than one additional setup, you may consider upgrading your Standard case type to an Extended case type, which allows up to five therapeutic models and five setups for no extra cost.

Can I design vacuum-formed retainers?

Yes. Take a scan for a diagnostic or final model, but you do not need to create a simulation. Export .STL files from the final model.

Can I use the setup as a model for vacuum-formed retainers?

In theory, it is possible to export an .STL model of the setup (that includes gingiva) to produce an appliance for retention. In practice, however, due to biology and other factors, the setup does not completely match to the patient's final occlusion . A model produced from scan data provides the most accurate representation of the patient's anatomy.

If the gingiva is available from an earlier model, can I take a CBCT scan to design staged models for vacuum-formed retainers?

Even if you plan to trim the trays to the gingival margins, we recommend an intraoral scan. We have found that the intraoral scan will result in a better fit for appliances.

How many appliances can I produce?

There is no limit to the number of models you can export from SureSmile for appliance production.

What if an appliance breaks?

Keep your exported .STL files so you can re-send them to your lab as needed. If you cannot find the files, you can always export them again from SureSmile.

What if an appliance does not fit?

You may open the patient's SureSmile record and design additional models as needed.

How will I keep track of aligner orders?

Since this order is between you and your lab, there are no SureSmile features for managing the physical appliances.

FAQs - Order Staged Models

It looks like attachments are not contoured to fit the tooth surface—won't they break off of printed models?

No, when preparing to print, SureSmile fills in any gaps between the attachment and tooth.

Can I print other models such as a setup?

Yes. Use the **Order Prints** button on the patient overview page to order 3D models directly from SureSmile. See Order Prints for more information. Use the **Exports>Export 3D** button on the patient overview page to export the 3D files in STL format locally for printing in house or at a 3rd party lab. See Exporting 3D Models for Lab Use for more information.

Can I continue to export models for my lab?

Yes, but there are several advantages to ordering your printed models from SureSmile:

- **Convenience/Efficiency** – eliminate steps of exporting models from SureSmile, then importing them into your lab's software
- **Reduced cost** – less labor to order, includes service to prepare file for printing (model objects are merged and "print ready")
- **Easily identifiable** - All printed models have the patient ID and a serial number printed on the model, so they are easier to identify and store.

Can I use the 3D Export feature on the Patient Overview page?

Yes. However the Export feature on the Staged Models page is specifically intended for exporting models for aligners and is easier to work with.

> **Note**: Exported models do not include attachments.

Do you have instructions for making trays/aligners?

The steps vary depending on the materials, equipment and process you plan to use. Please refer to the material and equipment manufacturers for instructions. Here are some common mistakes to avoid:

- It is especially important to avoid dropping or chipping SureSmile printed models. In addition to the added expense, it is inconvenient to re-order and wait for replacement models to be shipped.
- Remember to spray the model with a non-stick spray before forming the tray. Both the model and the tray material are made of plastic and will stick to each other, especially when warm. If you try to pry off the tray to try again, most likely you will damage the model around cusps and incisal edges.

I have an in-house 3D printer. Has the Export Staged Model feature been enhanced to merge objects?

No, but talk to your Account Manager about your export options.

Can I use the Export Visible Shells button on the Order tab?

Yes you can, but this button is primarily intended for doctors who are creating lingual IDB trays from a diagnostic bracket placement simulation.

We would like to offer mixed treatment and deliver a wire for the lower and an aligner for upper. What is the workflow?

1. Select the Standard case type for the patient.
2. Take therapeutic scan with gingiva – patient is NOT bonded on upper
3. Order setup
4. Review and approve setup. Create staged models.
5. Order aligners or printed models - select upper only
6. Order lower wire using New menu, proceed as usual

Combination Therapy

When treating a patient with combination therapy, that is conventional therapy for one arch and aligner therapy for the other, do NOT create a separate patient record for this model. Instead order a new a la carte therapeutic model following the steps below.

To produce the staged models for one arch only while treating the other arch conventionally:

1. Order a new a la carte therapeutic model.

   Note: Once you order this new therapeutic model, you will not be able to order custom archwires referencing this model unless you first order a new setup.

2. Use an intraoral scan with a SureSmile certified optical scanner for the a-la-carte therapeutic model.
3. Update the dental exam for the unbonded arch to correspond to the scan data.
4. Include current photos to support tooth modeling. You can use x-rays from the previous therapeutic scan appointment, but if you do this, type a note to the Digital Lab such as “Please use the previous Thx records for reference per the doctor.”
5. Once the a la carte therapeutic model is approved, proceed to create a setup or simulation and generate your series of staged models as usual, and adding the attachments to the model as needed. (For detailed procedures for creating staged models and adding attachments, please see the online SureSmile help topics: Treatment Planning> Aligners.)

See also ...

Aligner Therapy Treatment Steps - (none) Case

Using Attachments

Automatic Pontics for Aligners

For both Full-Service and DIY cases, SureSmile automatically places and resizes pontics for space closure or space openings during a sequence of aligners. Pontics are automatically inserted when a tooth is extracted and the remaining space is greater than or equal to 3 mm. The pontics are view-only in the 3D window and cannot be adjusted. Adjustments can be made by the Digital Lab if so instructed by the doctor when the setup or staged models are returned to the Digital Lab for modifications.

SureSmile also models and morphs gingival tissue during large tooth movements and with pontics.

Limitations: The system will not automatically place a pontic in the Staged Models if:

- **The patient is missing the same tooth on each side of the arch.** The automatic pontic placement tool places a copy of the same tooth of the adjacent quadrant in the space. So, if each quadrant is missing the same tooth (for example the UR2 and the UL2), there is nothing for the software to copy and place in the open spaces. However, the Digital Lab does have the option to place template pontics in the Setup for Full-Service Aligner cases in this type of scenario.
- **The space is located between sequentially numbered teeth.** For example: If the space is located between the UR3 and UR4 the software cannot make up a tooth number to place in between them so no pontic gets placed. The Digital Lab cannot place a template pontic in this type of situation either.
- **The space is created manually by moving a tooth out of that area to create space. For example:** When a patient is missing a lateral tooth and the cuspid tooth is in its place, a space can be created by moving the cuspid distally in the setup. There is no room to place a pontic in the first stages.

Troubleshooting Orders

In some cases, you may need to return to orders that have issues with missing, incomplete, or incorrect information.

Every product order has requirements that must be met in order to process it. If the Digital Lab does not receive all of the required information, they stop working on the order and put it on hold. The system creates a task to remind you to provide the required information. Respond to holds as quickly as possible to get the patient's care back on track.

Types of Holds

The most common hold types are problems with records or brackets.

- Standard hold messages for photos:
    - Provide recent photos
    - Provide missing photos
    - Bite shift photos
    - Bite scan
    - Wrong patient's photos/models

  Tip: If you cannot take records at the scan appointment as recommended, make sure you take them no more than 4 weeks before the scan or no longer than 2 weeks after the scan. Any delay beyond 2 weeks after the scan will extend overall treatment time.

- Standard hold messages for brackets:
    - Complete DE and mark all missing teeth
    - Apply brackets for all bonded teeth
    - Verify and correct brackets: the selected brackets appear to be included
    - Verify and correct brackets II
- Standard hold messages for x-rays:
    - Provide recent x-rays
    - Provide missing x-rays

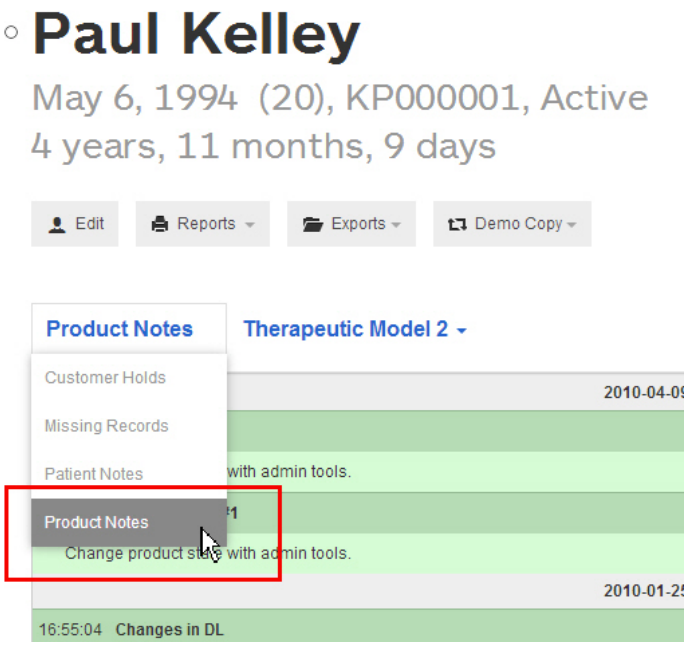
Reviewing Product Notes

Review the product notes for a patient to find out detailed information about an order. Product notes are color coded and can be sorted by type:

- Practice-side notes are purple.
- Dentsply Sirona-side notes (including messages from Digital Lab technicians) are green.

To review product notes for a patient

1. From the patient overview page under Product Notes, select **Product Notes**.
2. Filter the notes to view:
    - **Standard Notes** - Shows only Notes automatically generated by the SureSmile software and messages from the Digital Lab technicians.
    - **User Notes Only** - Manually typed notes between the practice and the Digital Lab
    - **All Notes** - shows a chronological list of all notes



Provide Information or Resolve Hold

When you select the Tasks tab on the Clinic Overview page, and you apply the Show Provide Information Tasks filter, all patients with a Provide information or Resolve hold task are shown. A patient's order cannot be processed until you resolve these issues.

Resolve a Customer Hold

1. **Open the clinic overview, and select the Tasks tab.**
2. **T**o show tasks for patients with orders that are on hold, rejected, or that require additional information, apply the **Show...Tasks** filter. Select **Provide Information.**
3. To:
   - View information about the customer hold, click the **Notes** icon in the Notes column to display the product notes.
     OR
   - Go directly to the page that needs resolution, click the product.
4. To go to the appropriate page to resolve the hold, click the blue name on the link for the customer hold in the list. For example, if the hold is **LR3: Verify and correct brackets,** you will be taken to the Brackets/Attachments tab on the Dental Examination page.

   Note: If you are a CBCT user and your scan is rejected, you can cancel the order without having to go to SureScan. If the patient refuses another CBCT scan, however, to receive a refund for the rejected model, you must cancel the patient.
5. Enter the missing information and return to the Patient Overview page.
   Result: The Done box is checked automatically after you supply the missing information. If you need to redisplay the customer hold task, uncheck the Done box.
6. (Optional) Click **Respond** to type a note to the Digital Lab technician.
7. When finished resolving all issues, click the **Release Hold** button at the top of the customer hold list on the patient overview.

   Note: The **Release Hold** button is disabled (dimmed) until all issues are resolved.

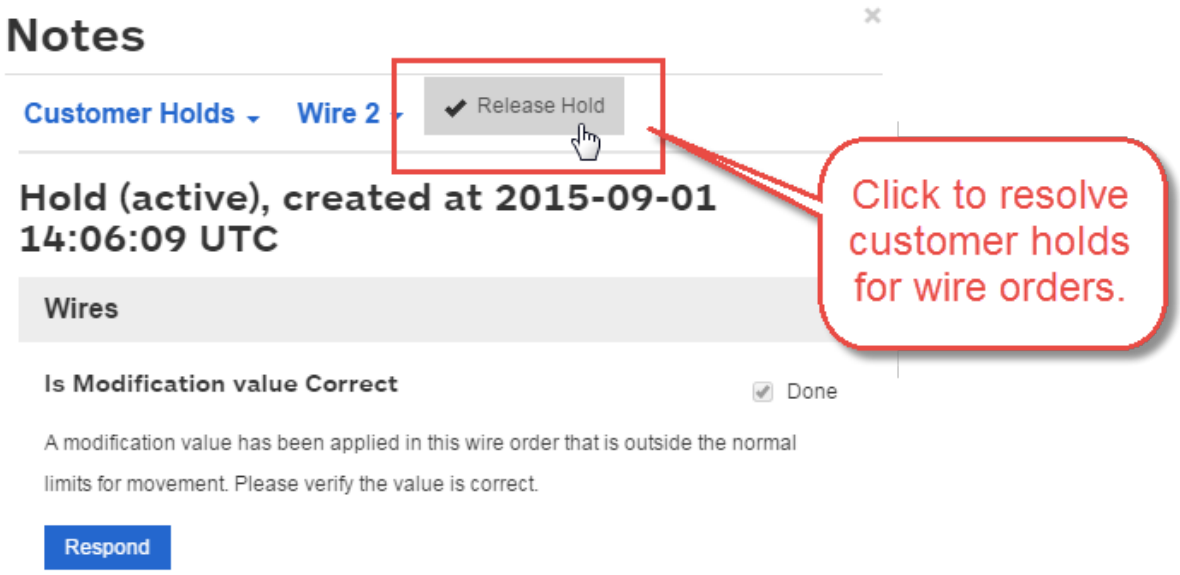
   Result: The *Provide Information* task no longer appears under the Tasks tab on the Clinic Overview page.

   Tip: You can also resolve a customer hold starting from the Patients tab on the Clinic Overview page. Just click the name on the patient card with a **Provide information** message in red. When the patient overview opens, continue with step 4 above.

Resolve customer holds for wires in the wire design workspace

A Release Hold button for customer holds has been added to the notes tool in the wire design workspace.

1. Open the Notes tool from the wire design workspace to display any customer holds for the wire order.
2. When you have resolved the issue causing the customer hold, click the **Release Hold** button in the notes to release the customer hold.


Notes
Customer Holds
Wire 2
Release Hold
Hold (active), created at 2015-09-01 14:06:09 UTC
Wires
Is Modification value Correct
Done
A modification value has been applied in this wire order that is outside the normal limits for movement. Please verify the value is correct.
Respond
Click to resolve customer holds for wire orders.

Correct a Bracket

> **Note**: If you are resolving a bracket hold by selecting a different bracket, you must do so in the dental examination associated with the scan. Do not use the dental examination on the patient overview because only the dental examination associated with the scan is used to process the scan.

1. From the treatment timeline on the patient overview, click a product for which you want to correct the brackets (usually the therapeutic model).

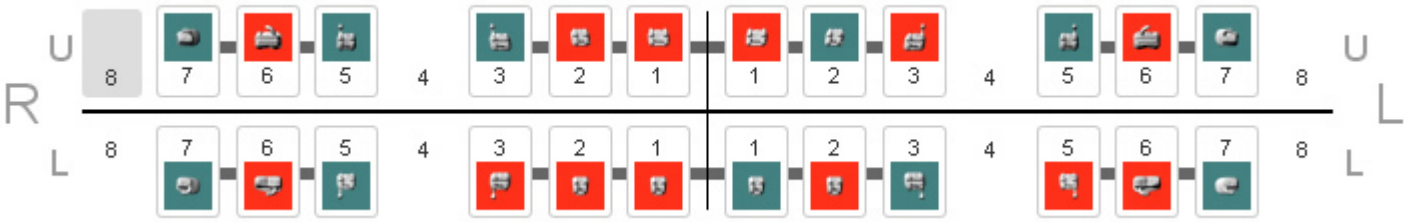
2. From the Dental Examination page, click the **Brackets** tab, and select a tooth number in the tooth chart.

3. Double click a tooth or click the **Select Bracket** button.
   Note: The tooth associated with a customer hold item is already selected for you if it is identified in the hold. Brackets on hold are highlighted in red.

4. Click **Select Bracket** and change to the correct bracket.

Restrictions on Bracket Changes with a Customer Hold

When a product is on hold with bracket to-do items that refer to specific teeth, only the specific tooth/bracket which is on hold can be edited. The buttons for teeth or brackets that are not on hold are dimmed and unavailable. Even though the **Select bracket sets…** button is available in case an incorrect bracket set was previously selected, only the brackets on hold will be changed. All other brackets assigned to the patient will remain unchanged. Brackets on hold have a red background as shown below.



Exploring the Treatment Planning Workspace

Treatment planning in SureSmile encompasses the overall treatment approach for a specific patient. It is broader than just the SureSmile setup prescription, as it includes specific protocols and any additional appliances needed such as TADs, elastics, and auxiliaries. In SureSmile, treatment planning generally begins with a setup prescription that is used to create a setup model. The doctor then derives a prescription for archwires from the setup prescription. The process for developing a treatment plan based on the patient's therapeutic model is described in the following topics.

SureSmile's treatment planning workspace contains powerful visualization tools for precision diagnosis, treatment simulation and customized appliance design.

SureSmile's treatment planning workspace contains powerful visualization tools for precision diagnosis, treatment simulation and customized appliance design.

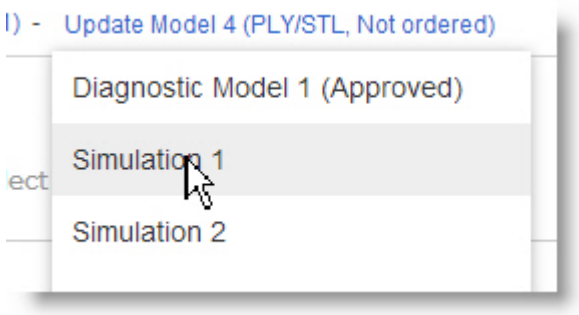
Click a product on a patient card or on the patient's treatment timeline to display the product in the treatment planning workspace.

Top of Window

At the very top of the window, to the right of the SureSmile logo, are a series of links that lets you backtrack:

- name of the practice
- number of tasks for the logged in user (gray) and for the practice (black),
- patient name and ID
- name and status of product displayed in main window

Tip: Click and hold product name to see a list of all products for patient. Slide down list and click the product you want to open.



Help, Profile, Search

To the right of the series of links is the help button . Clicking opens a drop-down menu where you can select the Help Center (this online help), sure u, Contact Us, News, and Marketplace. The settings icon contains several menus for administering your own account. See Change your Profile for more information. To the right of the setting icon is a search box that allows to you to search across your entire patient database without closing the current patient.

Favorites Palette

The star icon on the left of the middle, taupe colored ribbon display displays a list of your favorite icons, those that you use most frequently as you treat patients. This list is saved and is available each time you are logged on.

An option in the Appearance preferences allows you to specify that you want the Favorites Palette to open automatically when you are in the treatment workspace. In the Favorites Palette, you can also drag and drop icons to put in your preferred sequence. See Appearance Preferences.

Checklist

The checklist icon toggles on/off the automated workflow guide for the product displayed. See the following topics for information about specific checklists:

- Diagnostic Models and Treatment Planning
- Reviewing therapeutic models

- Ordering Setup Prescriptions
- Using Simulations
- Reviewing Setup Prescriptions
- Evaluating and modifying archwires

Menu Bar

When you click any of the menus in the menu bar, the menu bar expands to display a row or palette of icons related to the menu. Place your cursor over each icon for a brief description of its function. Help topics provide a detailed description of each menu palette icon.

Window Display Controls

The controls on the right side of the menu bar control the display of the page:

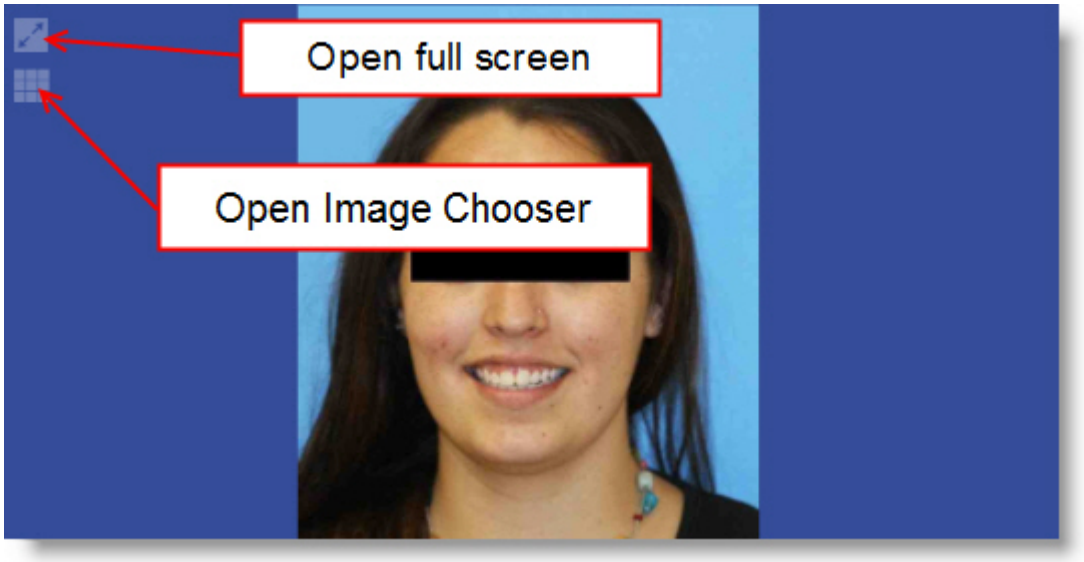
- Click to open a window to view product notes, patient notes, and customer holds. Patient notes are displayed by default.
- When the row of icons is displayed for a menu, click to toggle the labels on/off for each of the icons.
- Click to toggle on/off the two side windows.
- Click to expand the main window to fill the screen.
- Click to toggle on/off a detailed view of the treatment timeline. Once open, click the black clock button to hide the timeline detail and keep the high level timeline view. Once the detail is hidden, click the gray clock icon on the menu bar to completely hide the timeline

Main Window

The large window with a center circle and a smaller circle and square inside is your main window. The circle with the smaller circle and square inside it are your camera navigation controls. Click in and around the circle and then drag to get an idea of how to use these controls to manipulate a 3D model. See the Viewing the Model for detailed instructions on how to use these controls.

Side Windows

Use these two side windows to assist you as you plan treatment, or rely on the images automatically displayed by the SureSmile guides. In the top left corner of photos and X-rays in the side windows are two buttons as shown below:



- Click the top button to display the image full-screen in a separate browser window . You can drag this window to a second monitor if available. This window has tools for cropping or annotating the image or select other images. See Edit Images for more information.
- The bottom button opens the Image Selection window from which you can select another image for that position.

Treatment Planning Tabs

The bottom portion of the workspace contains a series of tabs. Each of these tabs contains detailed controls and functions for further manipulating the 3D model as you plan and prescribe patient treatment. The tabs shown will differ according to the product displayed in the main window.

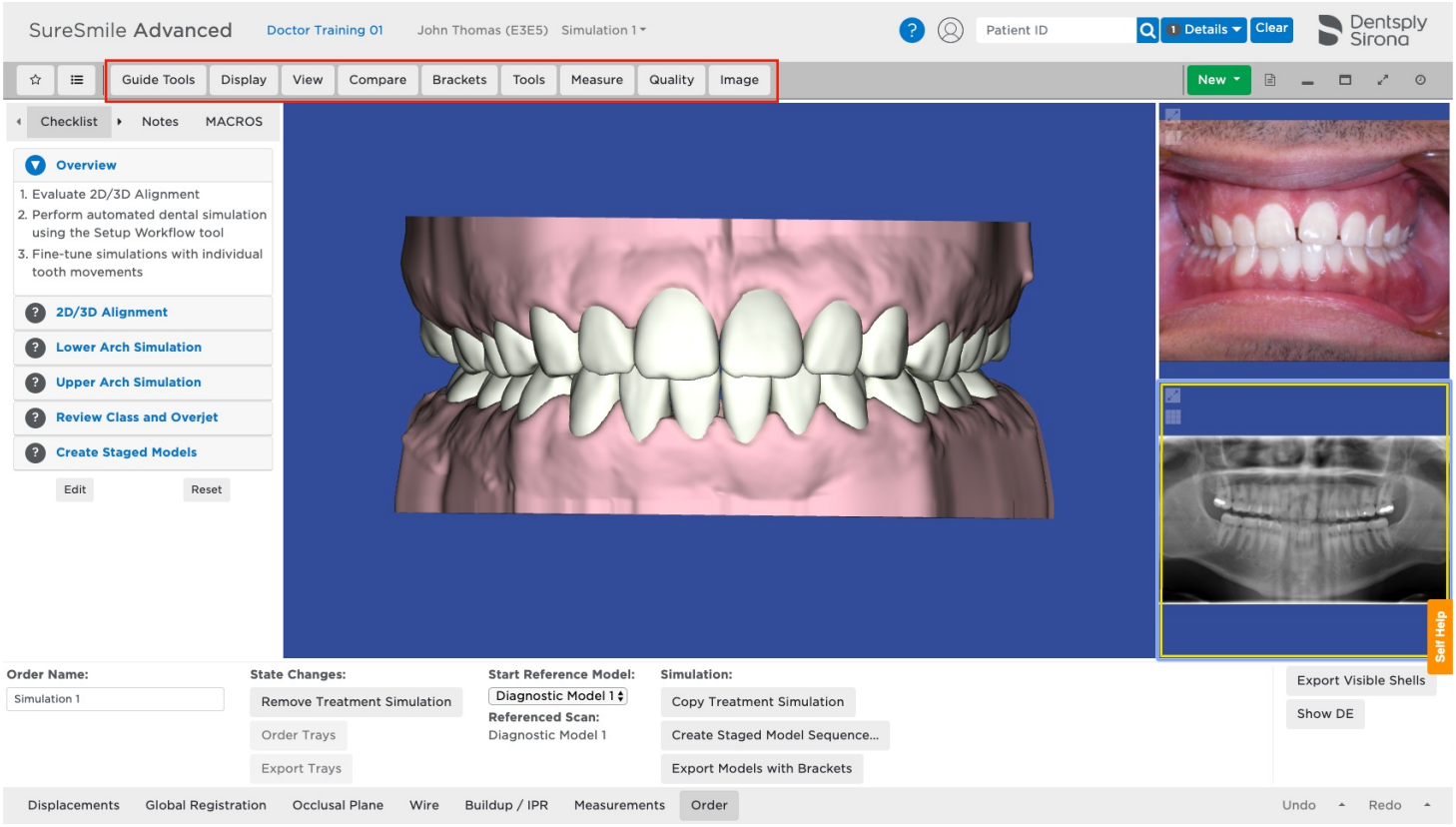
See also ...

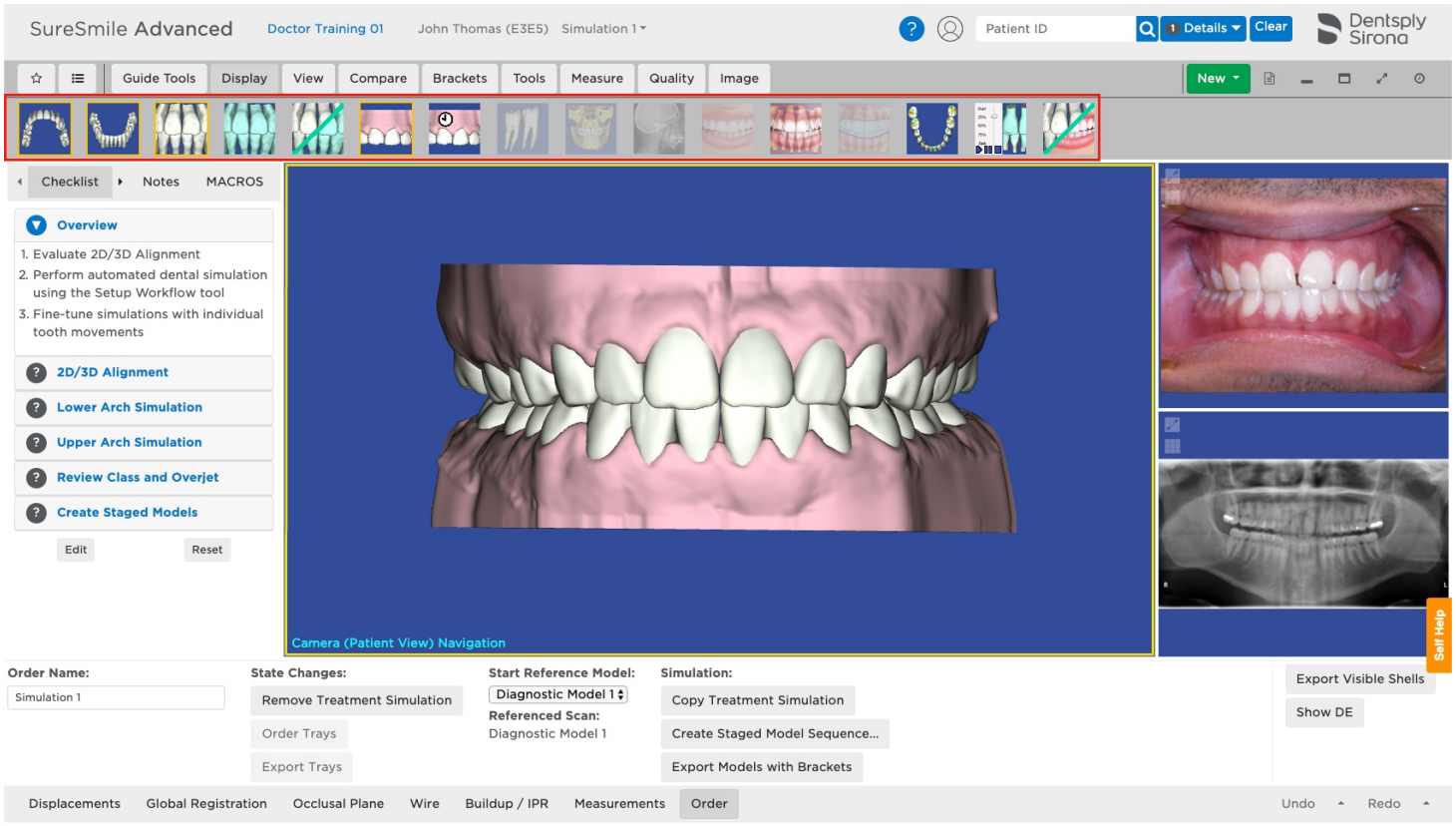
Viewing the Model

Menu Bar

When you click any of the menus in the menu bar, the menu bar expands to display a row or palette of icons related to the menu. Place your cursor over each icon for a brief description of its function. Help topics provide a detailed description of each menu palette icon.

Please note that some of the icons may not be available according to the contents of the selected window. For example, if you have a 2D photograph displayed, the Bone icon will not be available.




SureSmile Advanced
Doctor Training 01
John Thomas (E3E5)
Simulation 1
Patient ID
Details
Clear
Dentsply Sirona
Guide Tools
Display
View
Compare
Brackets
Tools
Measure
Quality
Image
New
Checklist
Notes
MACROS
Overview
1. Evaluate 2D/3D Alignment
2. Perform automated dental simulation using the Setup Workflow tool
3. Fine-tune simulations with individual tooth movements
2D/3D Alignment
Lower Arch Simulation
Upper Arch Simulation
Review Class and Overjet
Create Staged Models
Edit
Reset
Camera (Patient View) Navigation
Self Help
Order Name:
Simulation 1
State Changes:
Remove Treatment Simulation
Order Trays
Export Trays
Start Reference Model:
Diagnostic Model 1
Referenced Scan:
Diagnostic Model 1
Simulation:
Copy Treatment Simulation
Create Staged Model Sequence...
Export Models with Brackets
Export Visible Shells
Show DE
Displacements
Global Registration
Occlusal Plane
Wire
Buildup / IPR
Measurements
Order
Undo
Redo

Favorites Palette

The star on the menu bar is your favorites palette. Use to make your own palette of tools to keep on the left side of your workspace. The palette is associated with your login and is specific to you.

To build your favorites palette

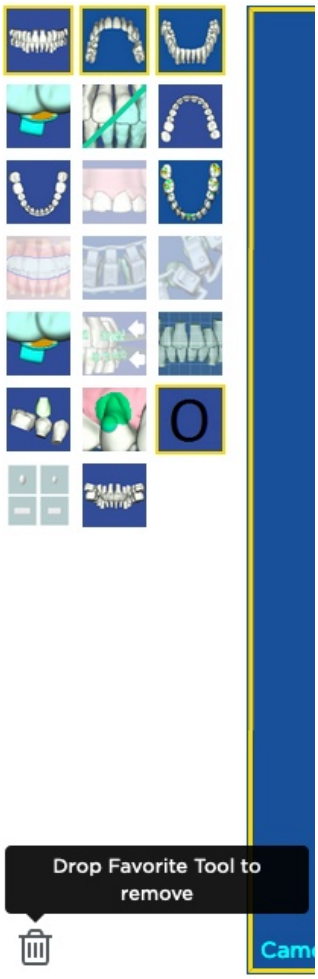
1. Click the star at the top left of the menu bar to open the favorites palette to the left of your workspace.
2. To add a menu icon to the palette, display the menu so that the icons are shown.
3. Place your mouse over the icon you wish to add. Do Not click. Look closely and you will see a small star in the top left corner of the icon. Click the star to add the icon to the favorites palette.

Result: A copy of the icon is placed in your favorites palette.

4. Drag and drop the icons in the favorites palette to rearrange them to best suit your working style.

To remove an icon from the palette

- Click the small star in the top left corner of the same icon in the menu ribbon.
  OR
- Drag the icon to the trash can at the bottom of the palette.

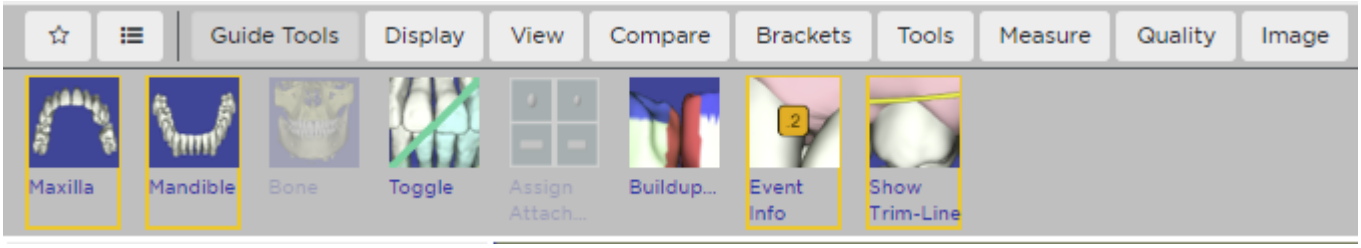


Tip: On the Preferences page under the Appearance tab, there is a *Show Favorite Tools* drop-down list. If you select:

- **Yes**, the Favorites Palette opens automatically when the treatment planning workspace is open.
- **No**, you have to click the **Open Palette** button to display your favorite icons.

Guide Tools

The Guide Tools palette contains icons used in the checklist for the step you are currently on. These icons change with each step to display the necessary icons for that step.



The Event Info tool is unique to the Guide Tools. All other tools can be found in their "home" menu as well.

	Event Info Click to toggle on/off the event info labels. • White label = IPR planned in future alligner(s) • Gold label = IPR planned for the current aligner • Dimmed label = IPR planned in a previous aligner • Purple label = Place attachment in ths aligner

Checklists

Click to open or close the checklist associated with the displayed 3D model. Checklists guide you through a step-by-step standardized review of the model displayed in the main window of the treatment planning workspace.

There are checklists for diagnostic models, therapeutic models, treatment simulations, setup models, staged models, IDB tray simulations, final models, and wire prescriptions. SureSmile allows you to customize each checklist to better match your treatment preferences.

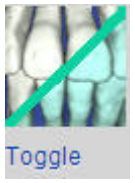
Customize checklists to match your treatment preferences

1. Open a product so that the treatment planning workspace is open
2. Click the **Checklist** icon in the menu bar.
3. Scroll to the bottom of the checklist and click **Edit Checklist**.
4. Click a step you want to edit.
5. Result: the **Edit Checklist Step** opens.
    - To change the order of the step, click the **Up** or **Down** button.
    - To create a new step, click the **New** button. Highlight the words *New Step* and type a new name.
    - To remove a step, click the **Delete** button.
    - Make other changes as indicated.
6. When finished, Click **OK** to save your changes.
7. Repeat for other steps in the checklist.

    Note: The Progress Evaluation Guide is not customizable.

Display Palette

The Display palette provides tools for controlling what you want to show on the model.

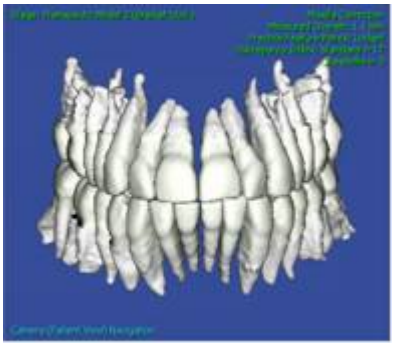
	To display the maxilla or mandible, click the appropriate icon. Click the icon again to deselect it and hide the arch. Display the selected elements of the respective arch including teeth, gingiva, brackets, and wires.
	Click to show the 3D active model, depicted with white teeth, that corresponds to the selected product. The active model is based on the reference model. It is the model you are currently manipulating for a treatment simulation or setup. Click the icon again to hide the model.
	Click to show the 3D reference model, depicted with blue teeth. The reference model is the latest model of tooth positions used for comparison in a treatment simulation and setup. The reference model is typically the most recent diagnostic model or therapeutic model. Click the button again to hide the model.
	Click to toggle between the active and reference models.
	Click to show the patient's gingiva in the active model (i.e., a setup or a simulation). Click again to hide the gingiva. **Note:** In-vivo CBCT scans cannot be used for gingiva modeling. To show simulated gingiva in a CBCT case, you must also have a diagnostic model in SureSmile from an optical, intra-oral scan of the patient or from a scan of a plaster model. The gingiva is simulated (morphed) based on the tooth movement between the diagnostic and therapeutic models. Depending on the amount of movement and any extractions, the simulated gingiva may not be accurate. It may extend beyond actual scan data.
	Click to show the patient's gingiva from the reference model (i.e., a diagnostic or therapeutic model based on the malocclusion). Click again to hide the gingiva.

Roots

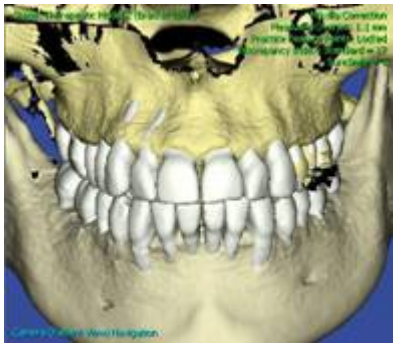
Click to show roots on therapeutic models processed from in-vivo CBCT Scans. Click again to hide.

Bone

Click to toggle on/off bone modeled from a CBCT scan.

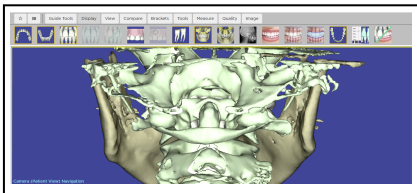


Teeth only displayed

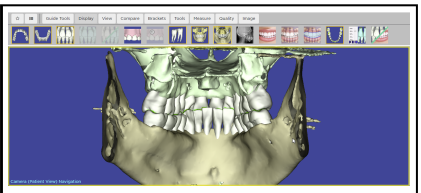


Teeth and bone displayed

Click to show or hide spine



Show Spine



Hide Spine

Lateral Ceph

Click to toggle on/off the ceph during your setups and simulations. The tooth model turns to a right buccal position and overlays the ceph. This feature is particularly useful during surgical treatment planning when you are establishing the skeletal horizontal plane.

Note: Unlike the other standard views available from the View menu, this is a toggle on/off view. When toggled on, all other views are linked to and superimposed upon the lateral ceph view as shown below:

The Fade control is now active for the displayed, linked ceph. Use it to adjust the opacity of the ceph as shown below.

Adjust the Horizontal inclination and the Facial Axis inclination (make sure you display the Facial Axis tool) from the Global Registration tab or (if a surgical case) from the Surgery tab. The ceph will be adjusted to maintain a set parallel horizontal line.

Smile Photo

Click to toggle on/off the smile photo superimposed on the 3D model

Click to display the fade control tool. This allows you to adjust the transparency of the smile photo to allow the 3D model to show though.

Click to display a smile photo with the photo teeth removed with the lip trace tool superimposed on a model. See the Use the Lip Trace Tool topic for instructions on how to perform a lip trace.

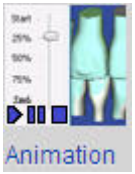
Click to visually evaluate contacts between the upper and lower teeth. Click again to hide the contacts.

In general, areas shaded in green are nearly in contact, yellow indicates ideal contact, while areas in red are heavy contacts. If a tooth is not shaded in any color, it is not close to contacting the opposing arch.

The green or red shading is determined by the distance between upper and lower teeth as follows:

Upper/Lower Distance	Color
Farther than 0.45 mm	No color (no contact)
0.45 mm to 0.15 mm	Green
0.15 mm to -0.2 mm	Yellow indicates contact
Deeper than -0.2 mm	Red indicates intersection that must be alleviated or equilibrated

Note: This feature does not address contact points within the same arch. See *Build Up/IPR Tab* for more information.



Click to observe the movements of both the teeth and the brackets. This allows you to analyze the planned movements occurring between your reference model and your setup. You can also use Automatic Tooth Animation to help inform a patient about their treatment plan.

To run animation:

1. Open a setup or any other model with a reference model available.
2. Click the **Animation** icon. The Animation window opens and begins running.
3. Allow the animation to play automatically, or click Stop and use the slider bar to manually advance movement.

   Tip: Turn on brackets and the clipping plane, and then zoom in to watch how bracket slots move.
4. When you are finished, click the **Close** button (x in the corner) to close the animation control or click the icon in the tool bar again.

When Smile photo and 3D image are linked, switches between 2D (photo) and 3D image (model).

Overcompensation Stages

Click to show/hide the overcorrection stages on the staged timeline.

View Palette

The View palette icons allow you to show the model in a particular position or perspective. When you change standard views using the menu ribbon icons, the image is re-centered in the window but the zoom level is not changed. If you chose Object View mode in the last view by zooming in, the view mode changes back to the default Patient View mode when you select another standard view, or if you re-select the current standard view. See Camera Navigation Models for more information about Object View and Patient View modes

> **Note:** When you change a view by going from one step to another in the guide, the image stays at the same zoom level as in the previous step. The image does not re-center, but stays in the same position as in the previous step. If you zoomed in and changed the default Patient View mode to Object View mode in the previous step, the Patient View mode returns when you change steps.

Labial	Orients the teeth in a labial view.
Lingual	Orients the teeth in a lingual view.
Right Buccal	Orients the teeth in a right buccal view.
Left Buccal	Orients the teeth in a left buccal view.
Lower Occlusal Upper Occlusal	Orients the teeth in an upper or lower occlusal view. To move a tooth interactively in an occlusal view: 1. Click a tooth to select it. The selected tooth displays shaded in green encased in a white bounding box. 2. Click the Upper Occlusal View icon or Lower Occlusal View icon from the View menu palette as appropriate. 3. Point to a control arrow in the bounding box until it turns from white to another color, then press and drag to position the tooth. 4. To make an in/out movement, drag from one of the two green arrows in the center of the tooth. 5. To rotate, drag clockwise or counter-clockwise from one of the four blue arrows at the corners of the bounding box. 6. To move mesially-distally, drag from one of the two red arrows in the center of the tooth. You can also drag from other arrows to produce other types of movement in this view as illustrated below.
Upper Oblique	Orients the teeth in an upper oblique view.

Lower Oblique	Orients the teeth in a lower oblique view.
Window Fit	Resizes the model so that all of the teeth are visible in the window.
Perspective	Allows you to change from the default orthogonal (parallel) projection for 3D models to a perspective projection. This feature is useful for doctors who want to see a view of a 3D model that is consistent with a photograph, and who want a smoother transition from the Facial Smile view to a 3D view when using SureSmile's 2D/3D superimposition features in the Therapeutic Model Review Guide and Setup Prescription Guide. After perspective is turned on, it remains on for all standard and custom 3D views for the current patient. After perspective is turned off, the default orthogonal (parallel) projection will remain on for all 3D standard and custom views for the current patient EXCEPT when using the 2D/3D superimposition features, which require perspective projection. Perspective On Perspective Off (Default Orthogonal Projection On) The disadvantage of Perspective mode is that teeth are not displayed at their actual size. Teeth toward the front of the display appear larger than ones toward the back. In addition, measurements using grids are not accurate in Perspective Projection mode.
Tooth View	Displays the selected tooth and the opposing teeth but does not change the orientation of the view as you select additional teeth. To navigate among teeth, follow these steps: 1. In the 3D viewer, click on the tooth you want to view. 2. Select Tooth View icon. The selected tooth is magnified in the current view. All of the other teeth in both arches are hidden, except for the three closest teeth in the opposing arch. Notice these teeth are shaded in the Single Tooth View. SureSmile switches automatically to Object view mode. Tip: To view only the selected tooth, click Display Maxilla or Display Mandible to hide the opposing arch. 3. Select another tooth in the tooth chart. The selected tooth appears from the same view orientation. When you are finished, choose another view control or close the Single Tooth View window.

Tooth Distal

Displays a tooth interactively in a distal view:

1. In the 3D viewer click on the tooth you want to view.
2. Click the Tooth Distal icon. The selected tooth is magnified in a standard distal view. All teeth in both arches distal to the selected tooth are hidden. Mesial teeth are shown.

   Tip: To view only the selected tooth, go to the Display menu and click Display Maxilla or Display Mandible to hide the opposing arch.

Distal View

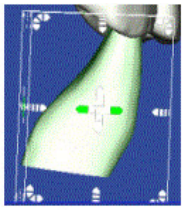
Moves a tooth interactively in a distal view:

1. Click a tooth to select it. The selected tooth displays shaded in green encased in a white bounding box.
2. Select the Tooth Distal icon.
3. Point to a control arrow in the bounding box until it turns from gray to another color, then click and drag to reposition the tooth.

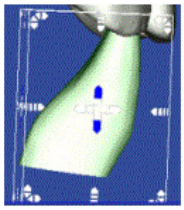
- To torque, drag clockwise or counter-clockwise from one of the four red arrows at the corners of the bounding box.
- To make an in/out movement, drag from one of the two green arrows in the center of the tooth.
- To make a vertical movement, drag from one of the two blue arrows in the center of the bounding box.

You may also drag from other arrows to produce other types of movement in this view as shown below.

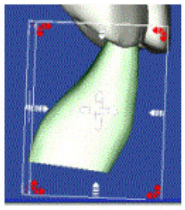
Tip: You can continue to make tooth adjustments in a magnified view. Use Camera Navigation to move the view to display another tooth on the screen requiring an adjustment. Once the tooth is visible, you can select it and continue following the steps above to move the tooth.



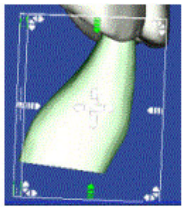
Torque or Buccal/Lingual (wher Crown Torque Navigation is off)



Occlusal/Gingival



Torque (must turn off Crown Torque Navigation)



Angulation

Rotation

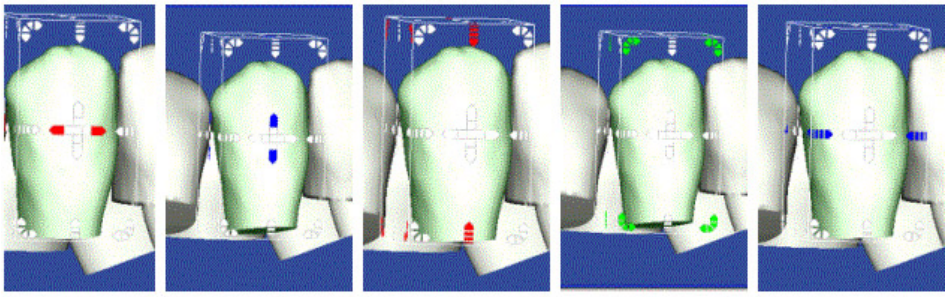
Buccal View

Moves a tooth interactively in a buccal view:

1. Click a tooth to select it. The selected tooth displays shaded in green encased in a white bounding box.
2. Click the Buccal View icon from the menu ribbon.
3. Click a control arrow in the bounding box until it turns from white to another color, then click and drag to position the tooth.

- - To make a vertical movement, drag from one of the two blue arrows in the center of the tooth.
  - To angulate, drag clockwise or counter-clockwise from one of the four green arrows at the corners of the bounding box.
  - To move mesially-distally, drag from one of the two red arrows in the center of the tooth.

4. Release the mouse button when the tooth is in position.
5. Drag the other arrows to produce types of movement in this view as shown below.

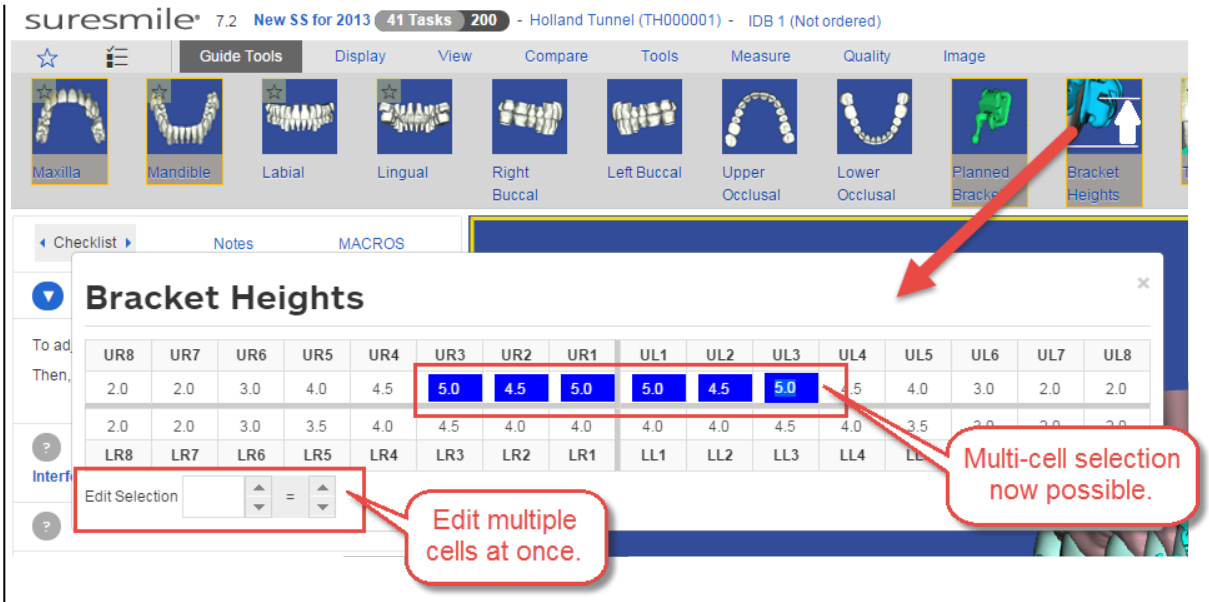


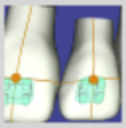
Mesial/Distal | Occlusal/Gingival | Torque | Angulation | Rotation

IDB Tools

When you start an IDB tray simulation, the following three menu tools become available in the guide tools. Use these tools as you work though the steps in the IDB tray simulation checklist.

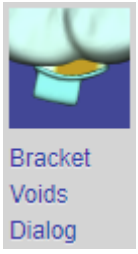
IDB Trays	This tool appears when you select the third or fourth IDB checklist steps, **Generate Upper/Lower Tray & Resolve Interferences**. Use to display or hide the IDB tray on the model.
Segments	This tool appears when you select the third or fourth IDB checklist steps, **Generate Upper/Lower Tray & Resolve Interferences**. Use to open or close the IDB Tray Segments dialog box to add or remove segments.
Toggle Upper/Lower Arch	This tool appears when you select the last IDB checklist step, **Order Trays**. Use to toggle between the upper and lower arches as you review the tray simulations before placing your order.
Planned Brackets	When you are simulating bracket placement, click this icon to display planned ("prebonded") brackets. These are prebonded brackets positioned relative to the teeth in the diagnostic model. When viewed on the 3D model, prebonded brackets are shaded green.
Bracket Heights	Click to show or hide the Bracket heights dialog box. Use the tooth table on this dialog box to change the heights of the planned brackets. You can select multiple cells in the Bracket Heights dialog box and then adjust the values for all of them simultaneously. Click in the first cell in the range and then shift-click in the cell at the end of the range of cells. As soon as you do this, the Edit Selection control box appears. If you want to maintain the current range of values but just want to increment/decrement the values by 0.1 mm, click the second set of up/down arrows to the far right. If you want to apply the same values in all of the cells, click in the field and type the value you want to apply, then click the = sign. If you want to increment the value you've entered for all of the cells by 0.1 mm, click the up or down arrows immediately to the right of the field. You can now select multiple cells in the Bracket Heights dialog box and adjust the values for all of them simultaneously. Just click in the first cell in the range and then shift-click in the cell at the end of the range of cells. As soon as you do this, the Edit Selection control box appears. If you want to maintain the current range of values but just want to increment/decrement the values by 0.1 mm, click the second set of up/down arrows to the far right. If you want to apply the same values in all of the cells, click in the field and type the value you want to apply, then click the = sign. If you want to increment the value you've entered for all of the cells by 0.1 mm, click the up or down arrows immediately to the right of the field.





Click to show or hide the Facial Axis (FA) tooth feature points. The system draws vertical and horizontal lines based on the axes to provide a reference for bracket placement.

The intersection of the lines is initially set to the FA Point of the tooth. The FA Point is the point on the facial axis that separates the gingival half of the clinical crown from the occlusal half. You can fine-tune the position of the lines as needed and the position of the bracket will adjust automatically if the bracket height set you select is based on FA points instead of bracket heights. This tool is included in the Guide Tools palette when you are working on an IDB Tray Simulation.



Click to open the Bracket Voids dialog. Brackets with bracket/tooth voids larger than 0.4 mm are highlighted on the tooth-cross in the Bracket voids tool. Review bracket/tooth voids by:

- clicking a highlighted tooth on the tooth-cross, or
- using the left-right arrows to move along the arch to the next bracket with a bracket/tooth void.

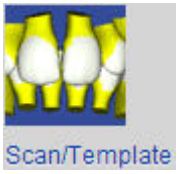
Clicking a tooth on the tooth-cross displays the corresponding bracket in the 3D main window from the occlusal view. You can review each bracket from other views (options are: occlusal, gingival, mesial, and distal) by clicking the arrows around the tooth in the dialog box.

Compare Palette

When a model, simulation, or setup is selected (regardless of order status), the Comparison palette menu icons become available. Use these icons to compare versions of setups to check your requested changes, or observe treatment progress by comparing any model taken throughout treatment to any other model.

When you click the Comparison icon, the reference model becomes the model selected from the list of Comparison Stages on the Displacements tab and the teeth are shaded in green.

Tip: Use the Comparison brackets icon on the Brackets palette to view the brackets associated with the reference model.

	Toggle between the active model (white teeth) and the most recent previous model (blue teeth).
	Show the movements from the comparison model to the active model. A slider control allows you to adjust the speed of the animation.
	Shows the areas of the teeth modeled from scan data as white. Areas that are modeled without scan data are highlighted in yellow.
	Shows the patient's gingiva for the diagnostic model on the current active model. Note: This icon is enabled only when the gingiva is already displayed.
	Compares the active model (white teeth) with a comparison model (green teeth). Select the comparison model on the Order tab from the drop-down list under Start Reference Model.
	Click to compare bends between the currently active wire and another previously approved wire.

Brackets Palette

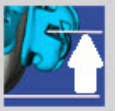
Use the Brackets palette icons to simulate the placement of brackets.

 Bonded Brackets	Bonded Brackets Click to display bonded brackets. **Note**: This option is only available if a scan with brackets has been processed.
 Comparison Brackets	Comparison Brackets Comparison brackets are shaded light blue. They are associated with the reference model. Click icon to display juxtaposed with the bonded brackets to analyze bracket movement.
 Wire	Wire Click to display a fully expressed wire. If viewing a model with a finished archwire, then the archwires shown represent the archwires shipped to you.
 Activated Wire	Activated Wire Click to simulate wire insertion and evaluate the activated wire. The activated, or reference wire is the full expression wire as it is tied into the brackets on the reference model. It is in an activated state as it applies force to the teeth. **Note**: This option is only available for setup models and wire prescriptions.
 Intersections	Check Wire and Bracket Intersections with Teeth Click to display interferences between brackets and teeth, which are color-coded to indicate the severity of the interference. To check for interferences: 1. Display the diagnostic model, gingiva, and brackets. 2. Make bracket adjustments as needed to avoid interferences with gingiva, other brackets, or maloccluded teeth. After adjusting bracket positions on the diagnostic model, switch to the straight-wire simulation (active model with white teeth) to see the effects.
 Planned Brackets	Planned Brackets When you are simulating bracket placement, click this icon to display planned ("prebonded") brackets. These are prebonded brackets positioned relative to the teeth in the diagnostic model. When viewed on the 3D model, prebonded brackets are shaded green.

Release Contact

Release Contact for Brackets

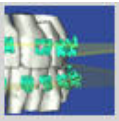
When you are simulating bracket placement, click this icon to release the bracket from the surface of the tooth. This feature is typically used when you wish to build up the base of a bracket.



Bracket Heights

Bracket Heights

Click to show or hide the Bracket heights dialog box. Use the tooth table on this dialog box to change the heights of the planned brackets. You can select multiple cells in the Bracket Heights dialog box and then adjust the values for all of them simultaneously. Click in the first cell in the range and then shift-click in the cell at the end of the range of cells. As soon as you do this, the Edit Selection control box appears. If you want to maintain the current range of values but just want to increment/decrement the values by 0.1 mm, click the second set of up/down arrows to the far right. If you want to apply the same values in all of the cells, click in the field and type the value you want to apply, then click the = sign. If you want to increment the value you've entered for all of the cells by 0.1 mm, click the up or down arrows immediately to the right of the field. You can now select multiple cells in the Bracket Heights dialog box and adjust the values for all of them simultaneously. Just click in the first cell in the range and then shift-click in the cell at the end of the range of cells. As soon as you do this, the Edit Selection control box appears. If you want to maintain the current range of values but just want to increment/decrement the values by 0.1 mm, click the second set of up/down arrows to the far right. If you want to apply the same values in all of the cells, click in the field and type the value you want to apply, then click the = sign. If you want to increment the value you've entered for all of the cells by 0.1 mm, click the up or down arrows immediately to the right of the field.



Bracket Plane

Align Brackets

Bracket Navigation Plane and Align Brackets on Bracket Plane

The Bracket Plane allows you to move the brackets of an arch as a group. Position the Bracket Navigation Plane where you want to align the slots of the brackets. The plane may be flat or curved.

Align brackets to a flat bracket plane

1. Click the Bracket Plane icon.
2. Click the bracket plane. Use the arrows on the bounding box to drag the plane into the desired position.
3. Click the Align Brackets icon to move the brackets into alignment with the Bracket Navigation Plane.
4. Click to hide the bracket plane icons if no longer needed.

Align brackets to a curved bracket plane

1. Click the Bracket Plane icon. By default, the plane in the upper arch is selected.
2. Select the sphere on the anterior or posterior end of the plane. When selected, it is highlighted in yellow and turns to an arrow..
3. Drag the arrow up or down to change the curvature of the plane. The anterior arrow changes the curve of Spee. The posterior arrow affects the posterior teeth only.
4. Click the Align Brackets icon to move the brackets into alignment with the Bracket Navigation Plane.
5. Click to hide the bracket plane icons if no longer needed.

Slot Axis

Slot Axis

Click the Slot Axis to show or hide the horizontal and vertical slot axis.

Use this feature to judge the position of the bracket including its angulation and its alignment relative to adjacent brackets.

Tip: Make sure the brackets are displayed on the model before using this feature.

Prebonded Wire

Use Planned Brackets for Wire

This tool is intended for use when the Digital Lab rejects a lingual wire order because the wire as designed cannot be bent by the SureSmile robots. In such cases the doctor must reposition the brackets so that the resultant wire is bendable. Use this tool to compare the actual bonded brackets and wire against the prebonded (planned) placement of brackets and wire.

Prerequisites:

A setup (plan) or treatment simulation in an editable state based on a bonded model (typically a therapeutic model)

Purpose:

- Determine if there are any discrepancies between planned versus actual placement of brackets.
- Guidance when repositioning a bracket to allow the wire to be bendable by SureSmile robots.

To use the tool to evaluate a rejected wire:

1. Create a new simulation based on the setup used for the rejected wire.
2. Go to the Order tab and check the Show Planned Bracket Page check box to display the Brackets/Attachments tab.
3. Go to the Brackets/Attachments tab. Click the **Apply Bracket Set/Attachments** button and then click the **Assign Bracket Set/Attachments** option.
4. Click the Brackets Menu at the top of the screen and click the **Wire** tool to display the full expression wire.
5. Click the **Use Planned Brackets for Wire** tool. This forces the current wire into the planned bracket slots.
6. Adjust the Planned Brackets as needed to a bendable wire.
7. Rebond the brackets as needed in the patient's mouth
8. Submit an update scan and order a new wire.

Tools Palette

Use the Tools palette icons to help you determine an ideal setup for the patient.

Facial Axis

Show/Hide Horizontal and Vertical Axis

When you use the facial axis tool to change the rotation of the facial smile photograph or ceph, the adjustments are also shown in the side windows.

How does this feature work?

When you use the facial axis tool to change the rotation of the facial smile photograph, a confirmation box with an Apply button opens in the upper left portion of the main window. Clicking Apply saves the rotation by copying the rotation factor to the facial smile photograph or ceph. As a result, the changes are shown in the images in the side windows.

Using the Facial Axis tool overwrites any previously saved rotation factors made to the photograph or ceph via the Keep View button.

If you use the Keep View button to provide a new rotation factor for the facial smile photograph or ceph, then SureSmile retains that rotation factor in the image set just as in previous SureSmile releases.

When should I use this feature?

Use this feature anytime you are adjusting the rotation of the facial smile photograph or the ceph; for example when working on steps 2. and 3. of the therapeutic model Review Guide, or step 2. of the Setup Prescription Guide.

Apply rotation using the facial axis tool

The procedure for applying rotation using the facial axis tool usually occurs during model review.

1. Proceed to Step 3 in the Model Review Guide.
2. Make an adjustment to the facial axis of the photograph in the main window.

   Result: The change is made in the side window as well.

Note: This change will overwrite any adjustments you made to the image rotation. However, adjustments you make in the side window will NOT update the main window.

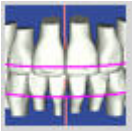
Occlusal Plane

Show/Hide Occlusal Plane

The occlusal plane is a tool which helps to define the occlusal plane for the setup. It is set for the upper arch during the production of the model.

1. From the View menu, click the Right Buccal or Left Buccal icon as to position the model.
2. From the View menu, click the Occlusal Plane icon.
3. To move the entire occlusal plane, click to select it. When selected, it displays in magenta and is surrounded by a bounding box with gray controls at the corners and edges. Click and drag to move the occlusal plane.

Note: This function is only available for treatment simulations and setups. It is not available for models produced from scans.



Slideline

Display Slideline

Click to show the curve that is used when moving single teeth mesially or distally and in the archform simulation. The Slideline is a spline curve calculated from the vertical tooth axis, and projected to the labial surface (ideal bracket positions). The shape of the slideline represents either the natural arch form of the patient, or a standard arch form selected from the Archform tab.

Note: This function is only available for treatment simulations and setups. It is not available for models produced from scans.

Group Navigation

Distal Tooth Group Navigation

When one tooth is selected, click the Group Navigation icon to move all teeth distal to the selected tooth along the slideline when you move the selected tooth.

To use Distal Tooth Group Navigation:

1. Click a tooth to select it. The selected tooth displays shaded in green.
2. Select Distal Tooth group navigation in the Tooth Movement Controls drop-down list.
3. If needed, click the Distal Intersections or Mesial Intersections icon to prevent tooth intersections.

4. Use your mouse to position the selected tooth.

Note: This function is only available for treatment simulations and setups. It is not available for models produced from scans.

Distal Intersections

Mesial Intersections

Prevent Distal or Mesial Tooth Intersections

Click the Distal Tooth Intersections or Mesial Tooth Intersections icon to prevent tooth intersections. When you select either of these icons the selected tooth can move into contact with the adjacent distal or mesial tooth but no further.

Note: This function is only available for treatment simulations and setups. It is not available for models produced from scans.

Note/TAD

Set Tooth Pin Note or TAD Marker

Use the Notes/TAD icon to set a tooth note pin or a marker for Temporary Anchorage Devices (TADs). You can place the marker on bone or gingival surfaces on any model in any state. When you place it on gingiva or bone, it defaults to a 1.4. mm TAD.

IMPORTANT: You or your practice must set TAD markers yourselves. SureSmile Digital Lab technicians are not permitted to set the locations of TAD markers.

The Note/TAD marker feature is useful for:

- Providing a visual reminder to the Digital Lab technicians of the presence of a Note/TAD during setup.
- Offering a convenient place to quickly enter and retrieve information about a particular TAD when treating a patient.

NOTE: Whenever an actual TAD is present at the moment of taking a CBCT scan, the TAD will not be detected in the scan. Instead, a small hole in the gingival tissue or bone will appear.

To set a Note/TAD marker on gingiva or bone:

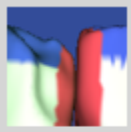
1. From the Tools menu palette, click and drag the Note/TAD icon to the spot on the gingiva or bone where you want the TAD marker located. Release the mouse to place the TAD marker.

   Result: A green Note/TAD marker with a label is attached to the model. To change the size of the TAD change it to a pin, add notes or remove the TAD, click the TAD label. After you make your changes, click the small x in the top right to close the box. Your changes are saved.
2. To move a Note/TAD after you place it, click on the marker in the main window until it changes from green to pink, and then drag it to a new location. Click anywhere in the main window off of the TAD so that it turns green again in its new position.

Surgical Segments

Show/Hide Surgical Segments

Click to turn on/off the surgical segments.



Buildup/Cuts

Colorize Buildups / Cuts

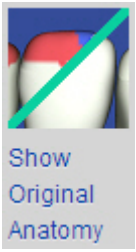
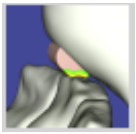
Use to turn on color shading for changed teeth. Blue shading indicates added tooth surface. Red indicates anatomy removed.

To turn on colorization to indicate restorative changes:

1. Open or start a setup plan or a Treatment Simulation.

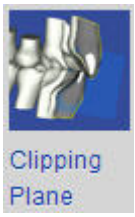
   Result: The Treatment Planning workspace opens with the 3D model displayed in the main window.
2. Select either the Buildup/IPR tab or the IPR Tracking tab.

   Note: The Colorize Buildups/Cuts icon is inactive until you select the Buildup / IPR or IPR Tracking tab.
3. Show one or both arches, and make your restorative changes or plans as needed.

	4. As you work, click the Buildup / Cuts icon to show or hide shading on the areas you change. **Tip:** After you finish your restorative work and before you save the case, make sure you click the Colorize Buildups/Cuts icon so that the restorations are colorized. The color shading serves as an important visual reminder to your practice and to the Digital Lab technicians that the restoration features are for visualization purposes only. **Limitation:** Restorative modeling in SureSmile is primarily for space management purposes. It may not reflect the final tooth shape as determined by the restorative dentist.
	Show Original Anatomy Use to hide restorative changes and view the original tooth anatomy.
	Assign Attachments Click to open the attachments panel.
	Check the Intersections of Attachments Click to turn on/off collision detection: • tooth/attachment • attachment/attachment • attachment/tray • includes inter-arch collisions

Measure Palette

Use the **Measure** palette tools to precisely gauge the parameters of your setup.



Clipping Plane Tool

The Clipping Plane is a powerful diagnostic tool for examining cross-sections of a 3D model. The clipping plane opens automatically during certain review steps. You can also open it whenever you want by clicking the Clipping Plane icon on the Measure menu palette.

When the clipping plane is activated, the Clipping Plane Navigation tool opens and "floats" over your workspace. You can drag the tool anywhere on your workspace that you prefer as you work.

The Clipping Plane Navigation tool has several controls that allow you to manipulate the clipping plane and the 3D model to get exactly the cross section you need:

- A **drop-down menu** with a number of preset orientations related to the screen or the dentition, plus an Advanced mode for arbitrary control over the orientation.
- Two controls for position – **tooth cross** and **slider**. Tooth cross is available when the clipping plane is oriented to move along the arch or through a particular tooth (buccal/lingual). The slider is always available. The scale on the slider changes based on the orientation. Sometimes it is in millimeters, and sometimes it indicates teeth.
- A **Flip** check box allows you to flip the side of the clipping plane to see the opposite side of your model.
- A **Synchronize** check box, available in certain orientations, locks the clipping plane to the screen and allows you to move the model through the selected orientation.

Using the Clipping Plane

1. Click to open the Clipping Plane tool.

   Note: Several steps in the review guides automatically open the Clipping Plane tool. If the Clipping Plane was started by a guide, you can skip the next optional step as the appropriate orientation is already selected.

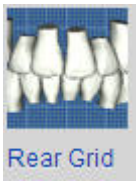
2. (Optional) Select an appropriate model orientation from the View menu on the left side of the Clipping Plane Navigation tool.

   Note: See the help topic Clipping Plane Orientations for descriptions of the clipping plane orientations and guidance on their usage.

3. Use the slider to move the clipping plane in a direction determined by the selected orientation. In some orientations, you may also use the tooth cross to move the clipping plane to the selected tooth.

Clipping Plane Tips

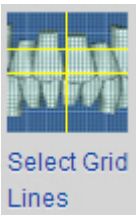
- Change the selected orientation at any time if you want to move the clipping plane in a different direction.
- Click the Flip check box to show the other side of the model (and hide the side being shown).
- Click the Synchronize check box, available in the Screen In/Out, Jaw - Mesial/Distal, and Jaw - Buccal/Lingual orientations, to lock the clipping plane with the screen and then move the model through the clipping plane.



Measurement Grid in Front/Rear

Click these icons to display the measurement grid in front of or behind the 3D model. The size of the grid remains constant as you zoom in or out; however as you zoom

in, more horizontal and vertical lines are added.



Select Grid Lines

To highlight grid lines

1. Turn on the grid by clicking the **Front Grid** (Measurement Grid in Front**)** icon or **Rear Grid** (Measurement Grid Behind) icon.
2. Click the **Select Grid Lines** (Grid Line Selection) icon to turn on cross hairs.
3. Point to a line or intersection you want to highlight and pause until the cross hairs turn red, then click. The line or intersecting lines turn yellow.
4. To hide highlighted lines, either:
    - Click the **Select Grid Lines** icon or
    - Hide the grid. The highlights are hidden, but are saved for future viewing.

To remove grid highlighting:

1. Point to a line or intersection that is highlighted. When you have positioned your pointer and no longer see the red cross hairs, click. The line turns red. the highlighting is removed as soon and you move you mouse away from the highlighted line.
2. When you are finished,and you want to turn off this feature, either:
    - Click the **Select Grid Lines** icon or
    - Click the **Front Grid** or **Rear Grid** icon to hide the grid.

NOTE: Grid line highlighting is NOT retained when you switch models or close the patient record.

Graph Paper

Click to display or hide graph paper against the 3D model. Click the graph paper and use the bounding box controls to adjust its orientation with the model.

Note: If you reposition the graph paper as needed for a particular view, and then you hide the graph paper to make other adjustments, when you show the graph paper again for that view, the graph paper retains the position you set. Similarly, if you change views, and then return to the view where you repositioned the graph paper, the graph paper remains in the same position you set.

Graph Paper from Anterior/Posterior

Click to orient the graph paper vertically midway between the anterior and posterior teeth.

Graph Paper from Left/Right

Click to orient the graph paper vertically between the upper and lower anterior centrals.

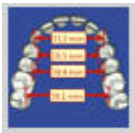
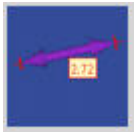
Graph Paper from Top/Bottom

Click to orient the graph paper horizontally between the upper and lower arches.

Arch Depth

Click to measure the arch depth from an average of the ideal bracket positions on both central incisors to the most posterior vertex position of the first molar models. (This measurement is not equivalent to intermolar width.)

Note: Arch Depth lines cannot be moved.

 Arch Width	Arch Width Click to measure from lingual cusp to lingual cusp for the posterior teeth and labial cusp to labial cusp for the canines.
 Add Arrow Remove Arrow	Add/Remove Measurement Arrow Click to use or remove the measurement arrow tool. To use this tool: 1. Click the Add Arrow icon. **Result**: A magenta arrow symbol appears in the center of the arch. 2. Move your mouse over the beginning location on a tooth where you want to begin measuring from and click. 3. Move your mouse to the measurement end point and click. **Result**: A two-headed arrow appears with the distance between the two points indicated..

Quality Palette

Use the Quality palette icons to evaluate a treatment simulation or setup using several grading criteria.

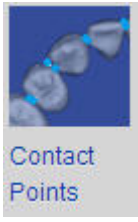
Quality Scores

1. Click to open the quality scoring tool and perform a quality review. The Quality tab is displayed by default. Use the Discrepancy Index tab to measure the difficulty of a case based on the diagnostic model's tooth feature points.
2. Select the feature points you want to evaluate:

Placed by	Purpose	Characteristics
System	Fixed points for consistent grading	Points are created with model and cannot be moved
Digital Lab	Adjust system points to best reflect actual tooth anatomy	Points are editable by Digital Lab only
Practice	Set points to aid simulations and grade based on doctor’s clinical judgment	Points are editable by Practice only

3. Choose a grading system from the drop-down list.
4. The white teeth in the tooth chart shows which teeth are included in the grading criteria. Teeth not included are gray. The entire tooth may be considered in the criteria (the whole tooth will be white) or just the relationship between two teeth (each half tooth will be white).
5. To reorient the 3D view to the area to be examined, click on a tooth in the tooth chart. The tooth turns red and the 3D view is reoriented so that the select tooth is in the center of the screen.
6. Click the Labels check box to turn on/off the measurement labels in the 3D view
7. Click the Ref. Arch check box to turn on/off the reference arch, which appears in the 3D viewer as a thin red line.
8. To exclude the distal half of one or more upper molars in the Occlusal Contacts [Standard] grading system, click a tooth you want to exclude, then click the Exclude check box. The excluded tooth turns dark blue initially and remains shaded light blue when another tooth is selected.

   Note: The Occlusal Contacts [Standard] is the only grading system that allows you to exclude teeth.
9. When you are finished reviewing the quality of a model, click the X in the upper-right corner to close the quality scoring tool.



Contact Points

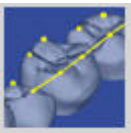
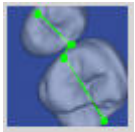
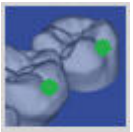
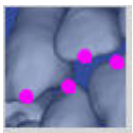
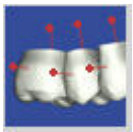
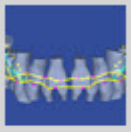
Click to display the contact points marked in dark blue. To change the position of a contact point click on it. It changes from blue to magenta. Drag it to a new position and then release your mouse button. Your changes are saved.

Note: Before moving markers, keep in mind that tooth features are used in the quality and measurement calculations.

Tooth Widths

Click to display the Tooth Width calculations on the model along with the contact points.

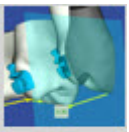
Note: The calculated tooth width is based on your feature points. Ensure the features points are accurate before using the tooth width measurements.

 Cusp Tips	Cusp Tips Click to display the cusp tips marked in yellow. Click on a cusp tip marker to adjust as needed. The marker changes from yellow to magenta. Drag it to a new position and then release your mouse button. Your changes are saved.
 Marginal Ridges	Marginal Ridges Click to display the marginal ridge contact points marked in light blue. Click on a point to adjust as needed. The marker changes from light blue to magenta. Drag it to a new position and then release your mouse button. Your changes are saved.
 Central Grooves	Central Grooves (upper arch only) Click to display the central grooves marked in light green. Click on a point to adjust as needed. The point changes from light green to magenta. Drag it to a new position and then release your mouse button. Your changes are saved.
 Buccal Grooves	Buccal Grooves (lower arch only) Click to display the buccal grooves marked in dark green. Click on a point to adjust as needed. The point changes from dark green to magenta. Drag it to a new position and then release your mouse button. Your changes are saved.
 Incisal Edges	Center of Incisal Edges Click to display the incisal edges marked in magenta. Click on a point to adjust as needed. Drag it to a new position and then release your mouse button. Your changes are saved.
 Tooth Axis	Vertical Tooth Axis Click to display the long axis of the crown indicated by red posts extending from the root and buccal aspects. Click and drag the markers at each end of a post, to adjust a post as needed.
 Hide Features	Hide Tooth Features Click to hide all displayed tooth features. click again re-display all the features that were hidden.
 Manage Features	Manage Tooth Feature Sets To manage the varying uses for feature points over the life cycle of a case, SureSmile keeps track of three sets of feature points for each model, setup and treatment simulation. The grade calculations are based on the feature point set selected with the Quality Tool. See Quality Scores above. **Note**: The Manage Tooth Features icon is only available for models still being modified. Approved models are in a read only state and the tooth feature point set cannot be changed.

To change tooth feature sets:

1. Open a model in the treatment planning workspace, so that it is displayed in the 3D viewer.
2. From the Quality menu, click the Manage Tooth Feature Sets icon to open the Manage Feature Points dialog box.
3. If you prefer the features in the System Set, click **Reset to System Set**. The Practice Set is updated to match the System Set.
   or
   If you have made changes but now prefer the Digital Lab set to your own choices, click **Reset to Digital Lab Set**. The Practice Set is updated to match the Digital Lab Set, which is always your starting point when a model is delivered to your practice.
4. Close the dialog box and edit the tooth features as appropriate, using the tools described in this topic.
5. When you are finished making changes. Click the Manage Tooth Feature Sets icon to reopen the Manage Feature Points dialog box.
6. Click **Lock** to store your new feature point positions and prevent accidental changes and then close the dialog box.

Note: The Practice feature points are unlocked with the initial delivery of a model or a set-up, but are locked by default after a modification is submitted.


Clipping Plane

Show/Hide Clipping Plane

1. Click to open the Clipping Plane Navigation tool.

   Note: Several guide steps automatically open the Clipping Plane for you.

2. (Optional) Select an appropriate model orientation from the View menu on the left side of the Clipping Plane Navigation tool. See the help topic *Clipping Plane Orientations* for descriptions of the clipping plane orientations and guidance on their usage.

   Note: If the Clipping Plane was started by a guide, you can skip this step as the appropriate orientation is already selected.

3. Use the slider to move the clipping plane in a direction determined by the selected orientation. In some orientations, you may also use the tooth cross to move the clipping plane to the selected tooth.

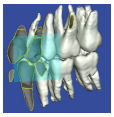
Clipping Plane Tips

- Change the selected orientation at any time if you want move the clipping plane in a different direction.
- Click the Flip check box to show the other side of the model (and hide the side being shown).
- Click the Synchronize check box, available in the Screen In/Out, Jaw - Mesial/Distal, and Jaw - Buccal/Lingual orientations, to lock the clipping plane with the screen and then move the model through the clipping plane.

Clipping Plane Orientations

Use this table as a guide when selecting a clipping plane orientation.

Menu Choices	Orientation	Movement Rules	Primary Purpose
Screen – In/Out		Moves forward/backward from the perspective of the window regardless of model position	Easily move plane through model after positioning it

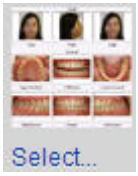
Jaw – Mesial/Distal		Plane moves mesial/distal along the archform	Dissect occlusion
Jaw – Mesial/Distal (Dual)		Two planes move along archform in opposite directions	Compare sides
Jaw – Occlusal/Gingival		Plane moves in occlusal or gingival direction	Examine cusps/contacts
Jaw – Buccal/Lingual		Plane moves in buccal or lingual direction	Examine posterior occlusion
Jaw – Transverse		Plane moves transversely	Dissect contacts
Advanced		Displays bounding box	Freely navigate clipping plane (press the SHIFT key for Camera Navigation)

Enable Clipping Pane Navigation

Click to activate clipping plane navigation when the Quality/Discrepancy dialog box is open.

Image Palette

Use the Image palette icons to edit 2D images in the main window of the treatment planning workspace.



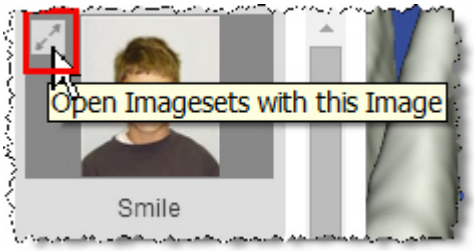
Select Images

Click to access a patient's photos or x-rays. The Image Selection window opens showing a collage of photographs from the most image set that is currently displayed. Use this icon to change an image in the main window or in one of the side windows in the 3D viewer as follows:

1. Click anywhere on the image that you want to change in the 3D main viewer or side windows.
   Result: A yellow border appears around the image
2. Click the Image menu to expand the menu ribbon.
3. Click the Select Images icon to open the Image Selection window.
4. Click the image you want to use to replace the image in the 3D main viewer.
   Result: The image is replaced and the Image Selection window closes.

To open an image on the Image Selection window in a separate window:

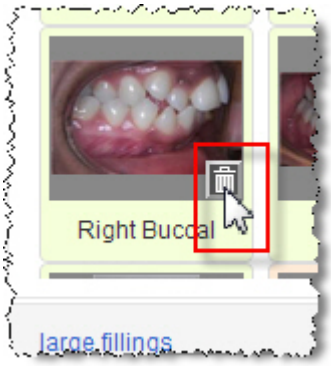
1. Click the Image menu
2. Click the **Select Images** icon.
3. The **Image Selection** window opens. Click to highlight the image you want to open in a separate window, and then click the small icon in the top left corner.



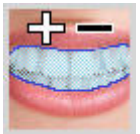
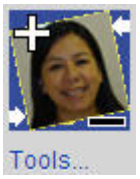
4. The image opens in a new window about ¼ the size of your computer screen. The camera navigation controls on top of the image allow you to move, rotate, spin or zoom the image as needed. Click and drag a corner of the window to make it larger or smaller. Click the small black arrowhead in the top right of the window to display the image menu icons.
5. To keep the image or images displayed as you work on the case, click and drag the image to your secondary monitor.
6. Repeat steps 3 and 4 to display additional images.

To delete an image from the Image Selection window:

Click the small trash can icon in the bottom right corner of the image.



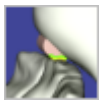
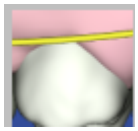
IMPORTANT: If you are using SureSmile with a single monitor only, when you click off the image and back onto the main SureSmile page, the main SureSmile page comes to the forefront and the image is hidden behind it. To retrieve the image, press **Alt+Tab** on your computer keyboard repeatedly until the image you want appears on your screen.

	Keep View Click to save your changes to an image.
	Show Regions Click to show any regions added with the region markup tool.
	Regions Tool Click to open the regions tool to add, modify or delete a region to an image. The region tool allows you to mark up to three areas of concern on a photograph or x-rays with a color shaded area or region. You can then refer to the area in your notes to the Digital Lab so that the technician knows exactly the area you want to refer to regarding a particular matter. **See Also** Region Markup Tool
	Show Lip Trace Click to turn on/off a lip trace cutout. **See Also** Design the Smile Line with the Lip Trace Line Tool
	Lip Trace Tools Click to open/close the lip trace tools. The lip trace tools allows you to cut out the portion of a photograph corresponding to the area inside the lips. The 3D model is then completely visible when overlaid with the facial photograph. This tool is available in the side windows and on the Photos page. Use this feature to superimpose the patient photo over the model to see how much intrusion or extrusion is needed to design the smile line. **See Also** Design the Smile Line with the Lip Trace Line Tool
	Grid Click any image in the 3D workspace to display the grid in front of the image. The size of the grid remains constant as you zoom in or out; however as you zoom in, more horizontal and vertical lines are added.
	Image Tools Menu Click to open the Image Tools controls to adjust image brightness and contrast. 1. Click anywhere on the image you want to adjust. 2. To decrease/increase the brightness of the image, drag the slider to the right or enter a number between -50 and 50. 3. To decrease/increase the contrast of the image, drag the slider to the right or enter a number between -50 and 50.

	4. Click Restore View to return the image to its orientation the last time you selected the Keep View option. 5. Click Reset View to return the image to its original settings.
	3D/2D Switch Click to toggle between the 3D model and the 2D image. **Note**: This icon is unavailable if the 3D model and the 2D image have not been linked by the Digital Lab.

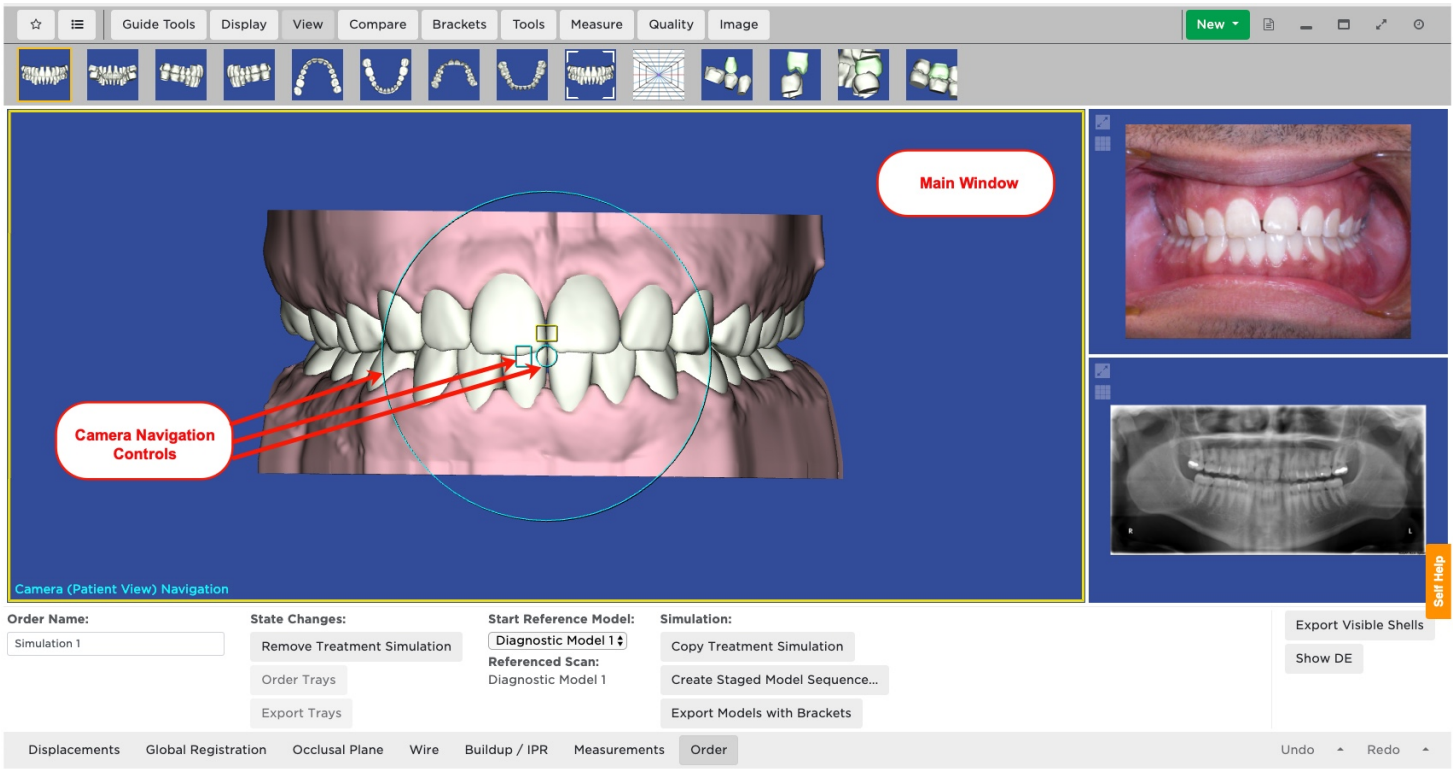
Aligners Palette

Use the Aligners palette icons to when working with staged models in the main window of the treatment planning workspace.

	Assign Attachments, Cut-outs and slits Click to open the Attachments, cut-outs and slits panel.
	Check the Intersections of Attachments Click to turn on/off collision detection: • tooth/attachment • attachment/attachment • attachment/tray • includes inter-arch collisions
	Allow Attachments Inside Tooth Click to show any regions added with the region markup tool.
	Mark Undercuts Select for tool to mark undercuts (use Ctrl key to erase)
	Show Undercut Marks Selected by default when Mark Undercuts is selected; shows the green markings where undercuts have been marked
	Show Blockouts Select to show the blockout on the model
	Mark Next Stages Selected by default; applies marked undercuts to following stages in staged model sequence
	Show Trim-Line Click to toggle the aligner tray trim-line on or off. The display of the trim-line in the 3D window is just a rough preview of the actual trim-line. At this point, the preview does not take into account plastic material properties, block-outs and the high resolution geometries of teeth and gingiva. SureSmile will take all of these into consideration when the final trim-line is calculated during final processing of the order.

Main Window

The large window with a center circle and a smaller circle and square inside is your main window. The circle with the smaller circle and square inside it are your camera navigation controls. Click in on and around the circle and then drag to get an idea of how to use these controls to manipulate a 3D model. See the *Viewing the Model* for detailed instructions on how to use these controls.



Viewing the Model

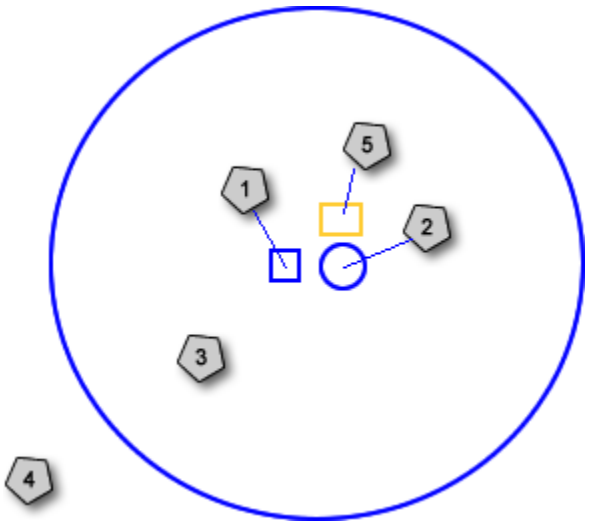
When you first come to the main window in the treatment planning workspace, the text in the lower-left corner shows *Camera (Patient View) Navigation*. When you point to the image, the camera-navigation controls appear as a large blue circle with a small circle and square in the center of the image.

The idea behind the camera navigation controls is that when using them, you should feel like you are looking through the lens of a camera than move in any direction horizontally and vertically in space 360 degrees around the model, so that you can look down on the model from above, up at the model from below, or straight at the model from any angle.

To Use Camera Navigation:

- To use camera navigation, point and click anywhere inside the large circle.
  Result: The camera navigation controls display. The text in the lower-left corner changes to *Camera (Object View) Navigation*.

- Point to a control, then press and drag to change the view of the model according to the following illustration.



1	To zoom out from the model/image, click inside the square and drag the mouse up.
	To zoom into the model/image, click inside the square and drag the mouse down.
2	To move the model up/down or right/left, click inside the small circle, and drag the mouse in any direction.
3	To rotate a 3D model in three dimensions from a fixed central axis in the center of the viewing window, click inside the large circle, and drag the mouse in any direction. Imagine that the circle represents a sphere or a globe that you can spin in any direction.
4	To rotate an image/model clockwise or counter-clockwise, click outside the large circle and drag the mouse up/down or right/left.

5	The shading tool allows you to apply a virtual single point of light source on the model to provide shading and a better sense of dimensionality when viewing the model.

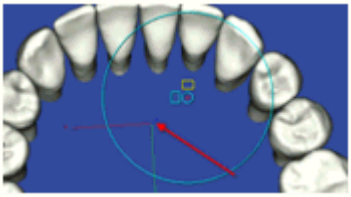
Camera Navigation Modes

SureSmile has two camera navigation modes:

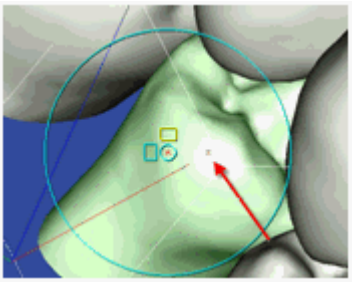
- Camera (Patient View) Navigation
- Camera (Object View) Navigation

The Camera Navigation indicator in the lower left hand corner of the screen shows which mode is operational.

In Patient View mode, the center of rotation is the center of the model. Patient View is the default camera navigation mode for all views. It is best for viewing the entire model at a glance. To return to the Patient View mode from the Object View mode, click any of the standard view icons under the **View** menu.



In Object View mode, the center of rotation is a point on the surface of the object at the center of the screen. Object view mode is automatically selected when you zoom in. Object view is appropriate for looking at the details of an object without losing orientation when moving the model.



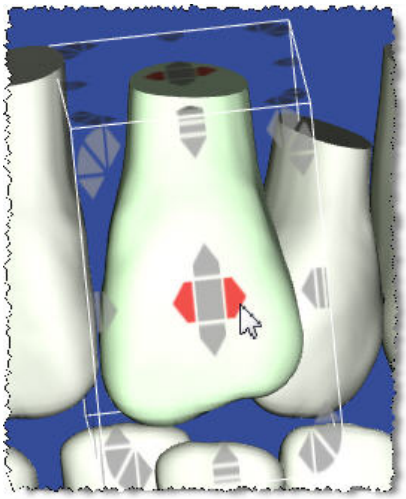
> **Note**: When you move a 3D object in the main window, the camera navigation controls are hidden. The controls reappear as soon as you release your mouse button.

Performing Manual Tooth Movements

You have the ability to make manual adjustments to individual teeth or multiple teeth at one time. If you are viewing a 3D model in a side window, if you click at tooth. the tooth will be highlighted on the tooth model in the main window as well. There are four options for moving a tooth:

Option 1

Click once on a tooth model. It will turn green and a bounding box will appear around it, with arrows around the bounding box. Click on the arrow pointing in the direction you would like to move the tooth. Notice that the movements you make will be displayed as values on the Displacements tab table.



The controls appear as arrows that are color and location coded for the type of movement as follows:

- Mesial/Distal—Red arrows in the center of the bounding box
- Buccal/Lingual—Green arrows in the center of the bounding box
- Occlusal/Gingival—Blue arrows in the center of the bounding box
- Torque Facial/Lingual—Red arrows at the outside edge of the bounding box
- Angulation Mesial/Distal—Green arrows at the outside edge of the bounding box
- Rotation Mesial/Distal—Blue arrows at the outside edge of the bounding box

All outside handles on the bounding box are displayed in front of 3D objects. As you move the tooth, note that the bounding box disappears to avoid obstructing your view.

> **Note:** There are two options for displaying the bounding box controls. The default option displays the controls when you click a tooth. Press the Shift key to hide the controls. You can change this option so that the bounding box controls are only displayed when you shift-click the tooth. To change the current option, click the settings icon and select the **Preferences** menu. On the Preferences page, click the **Appearance** tab and then change the **Object Navigation with SHIFT** option according to your preference by selecting either *Yes* or *No* from the drop-down list.

Option 2

Go to the Displacements tab and click in a cell for the tooth and movement you want to display. Use the arrows at the bottom right corner to increase/decrease the values.

Option 3

Go to the Displacements tab and click in the cell for the tooth movement you want to display. Use the controls at the bottom right (the arrows) in the box to increase/decrease the value of a single tooth or range of teeth, then click the = button. Use the + or – buttons to increase/decrease the values for the selected teeth by the amount shown in the box. You can also manually type a value into a cell, and then adjust the value as necessary using the controls previously described.

Option 4

Go to the Displacements tab and click in the box for the tooth and movement you would like to see. Enter a value into the box press the Enter key on your keyboard, or click anywhere on the blue workspace to apply the value you entered.

To move multiple teeth at once:

Go to the Displacements tab and click in the box for the tooth and movement you want displayed. Hold the shift key then click on the last tooth to highlight the teeth to be moved. For example, if you want to extrude UR2-UL2, click in the UR2 Occlusal/Gingival box, hold your shift key, and then click in the Occlusal/Gingival box for the UL2. Enter the amount of movement you want in the box at the bottom right, then click the = button.

Tip: When moving teeth, spaces and intersections will be created and shown in the Mesial Gap/IPR row. To clear these spaces and intersections all at once, click the Clear All Spacings/Inters. button at the bottom of the screen. In SureSmile, spaces are closed mesially and intersections are removed distally.

Keyboard Shortcuts

Use the following keyboard shortcuts to move the 3D models and 2D images in the treatment planning work-space without having to rely on your mouse. The arrow keys on your keyboard control the direction of rotation of the model. You can also select a window containing a 2D image and use the arrow keys to move it.

To Toggle to/from Camera (Object View) Navigation to Camera (Patient View) Navigation

- Press the **Control + period keys** to toggle from **Camera (Object View) Navigation** to **Camera (Patient View) Navigation**.
- Press the **period key** to toggle from **Camera (Patient View) Navigation** to **Camera (Object View) Navigation**.

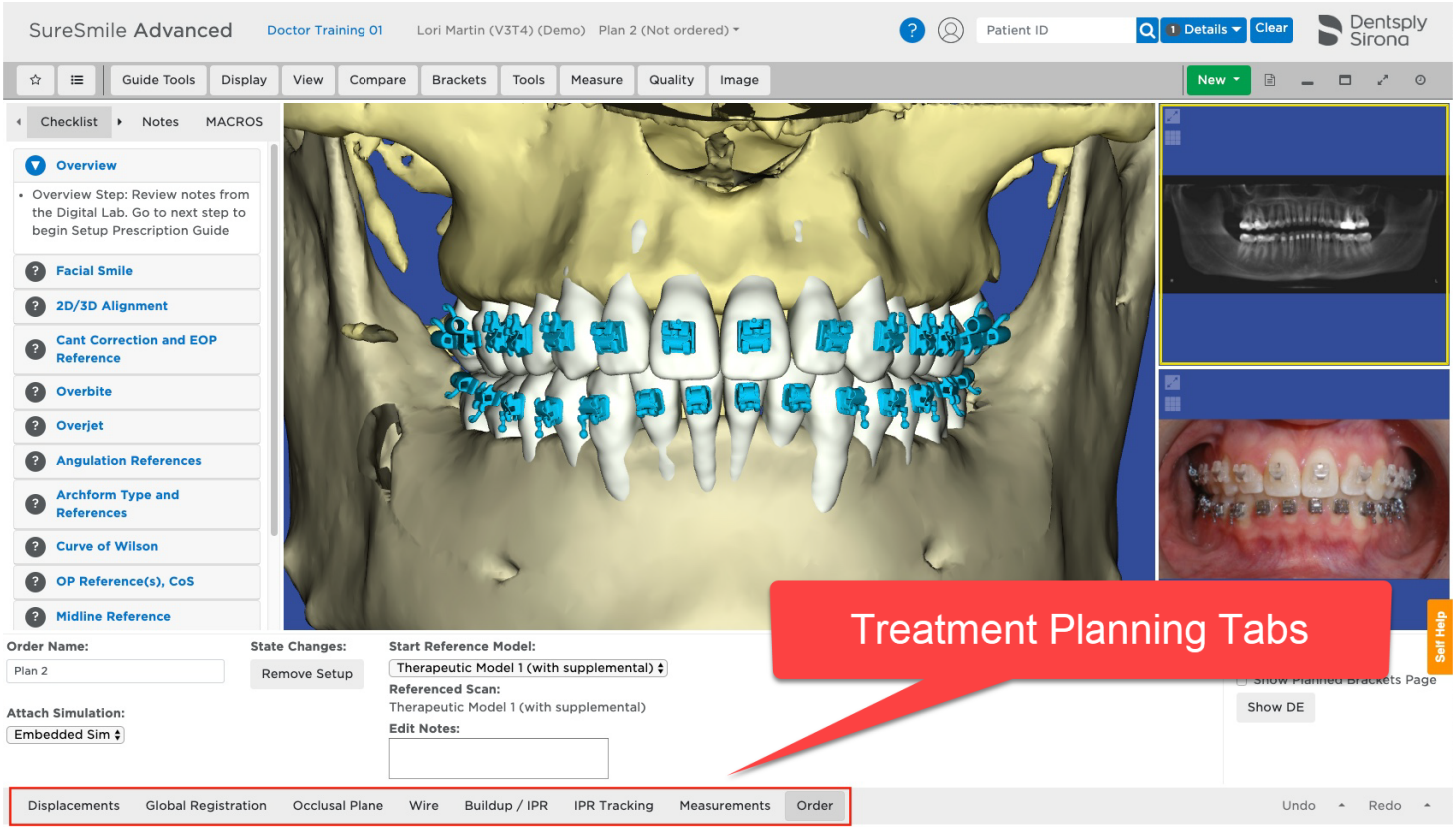
When you choose **Camera (Patient View) Navigation**, the model rotates around a center point. When you choose **Camera (Object View) Navigation**, select an object (such as a tooth) and it becomes the center point.

Keyboard Shortcuts

Keyboard Ar-row Key	3D Function	2D Function
UP	Rotate model upward	Translate image upward
DOWN	Rotate model downward	Translate image downward
LEFT	Rotate model towards left	Translate image towards left
RIGHT	Rotate model towards right	Translate image towards right
Ctrl+UP	Translate model upward	Translate image upward
Ctrl+DOWN	Translate model downward	Translate image downward
Ctrl +LEFT	Translate model towards left	Translate image towards left
Ctrl + RIGHT	Translate model towards right	Translate image towards right
Ctrl +. (period key)	Switch from **Camera (Object View) Navigation** to **Camera (Patient View) Navigation**	
Period key on-ly	Switch from **Camera (Patient View) Navigation** to **Camera (Object View) Navigation**.	

Treatment Planning Tabs

The bottom portion of the workspace contains a series of tabs. Each of these tabs contains detailed controls and functions for further manipulating the 3D model as you plan and prescribe patient treatment. The tabs shown will differ according to the product displayed in the main window.



The following table indicates which tabs appear on each product page.

Tab/Model	Diagnostic	Therapeutic	Update	Setup	Treatment Simulation	IDB	Wire	Final	Progress
Displace-ments	X	X		X	X		X	X	X
Global Regis-tration	X	X		X	X		X	X	X
Occlusal Plane				X	X				X
Surgery				X	X				
Wire	X	X		X	X		X	X	X
Buildup/IPR				X	X				X
Brackets/ At-tachments				X	X	X			

Bracket Placement						X			
IPR Tracking				X	X (Staged Models)		X		
Measure-ments	X	X		X	X	·	·	X	X
Order	X	X		X	X	X	X	X	X

Order Tab

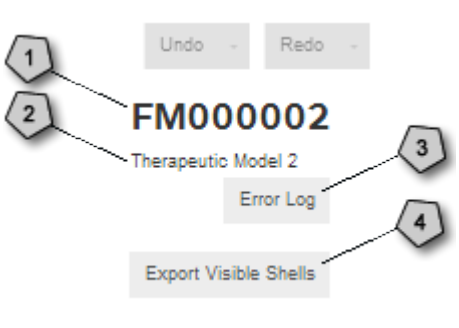
Use the Order tab to submit or remove orders. See the following table for more information:

<table>
<tr><th>Field</th><th>Information/Action Required</th></tr>
<tr><td>Order Name</td><td>Click in box and type over default name with a name for the product. For example you may want to include the patient's name or today's date.</td></tr>
<tr><td>State Changes:</td><td>Click one of the buttons to change the state, or status, for the order. The buttons displayed depend on the current state of the product as shown in following table:
<table>
<tr><th>If the Current State is</th><th>And you click</th><th>...this is the Result</th></tr>
<tr><td>To Review</td><td>Approve</td><td>State changes to Approved. You are now able to proceed in the treatment plan with the next step, such as a setup or wire order.</td></tr>
<tr><td>Not ordered</td><td>Submit</td><td>State changes to Ordered. You cannot modify the product until it is returned from Digital Lab in a To Review state.</td></tr>
<tr><td>Not ordered</td><td>Remove Order</td><td>Order is deleted.</td></tr>
<tr><td>Not ordered</td><td>Revert Modifications</td><td>Removes all modifications made to product in Review state.</td></tr>
</table></td></tr>
<tr><td>Attach Simulation (setups only)</td><td>Choose embedded simulation to reference the simulation shown in the main window, or choose a previously created simulation as the reference for the setup.</td></tr>
<tr><td>Start reference model</td><td>Chose from the drop-down list the model from which the product is based. In other words if the therapeutic model references an earlier diagnostic model, or if the setup is based on the therapeutic model, or if the 2nd setup (plan 2) is derived from the first setup (plan 1).</td></tr>
<tr><td>Referenced Scan</td><td>Indicates which scan was used for the reference model or wire.</td></tr>
<tr><td>Simulation:</td><td>

Click New Setup Modification Wire to use the currently displayed simulation as a basis for a new wire prescription. Clicking this open opens the wire design workspace. See Wire Design.
Click Copy Treatment Simulation to copy and rename the currently displayed simulation. This allows you to keep the current simulation,and use a copy as a basis for a new simulation.
Click Remove Treatment Simulation to permanently delete the currently displayed simulation.
Click Create Staged Model Sequence to create a sequence of staged models with the current simulation as the target and the referenced scan as the reference model.
Click Convert to Post Surgical to convert a pre-surgical simulation or setup to a post-surgical simulation or setup.
</td></tr>
<tr><td>Edit Notes</td><td>Enter any specific notes here about the order that you wish to communicate to the Digital Lab technician. The Submit button becomes available after you enter notes, or if you make any other modifications.</td></tr>
</table>

Product order information and functions

Just beneath the Undo and Redo buttons on the right side of the order tab for all products, contains the information and functions as illustrated below.



1. Patient ID
2. Product name
3. Click this button to open the error log.
4. Click this button to export 3D images.

Export Visible Shells

The Export Visible Shells button is primarily intended for doctors who are creating lingual IDB trays from a diagnostic bracket placement simulation. Use the **Export Visible Shells** button to export the data files of the 3D image shown in the main window for use by another software application or to send to a lab for3D printing.

Important: Do not use the **Export Visible Shells** button to send files to Dentsply Sirona for printing. Instead for:

- **IDB Trays** , click the **Order IDB Trays**. See Design and Order IDB Trays. (Labial IDB trays only)
- **Staged models for aligners**, click **Export Staged Models**. See Aligner Therapy Treatment Steps

To export the data files of the 3D image displayed in the main window:

1. Click the **Export Visible Shells** button to open the Export 3D dialog box.
2. Choose which file format to use from the drop-down list at the top. Here is a list and brief description of the available formats.

Format (Extension)	Description
SLA Interface File 1mm (*.STL)	Standard format for 3D data exchange. Values in millimeters. (default selection)
SLA Interface File– 1m (*.STL)	Standard format for 3D data exchange. Values in meters.
Binary Point Cloud File (*.SYP)	Dentsply Sirona proprietary format.
Object File (*.OBJ)	Graphic format.
Polygon File (*.PLY)	Standard format for 3D data exchange.

3. (Optional) Check one of the check boxes:
    - **Save in separate files** - Check the first check box to save each image in a separate file. Depending on which arch model you export, either *Up* (upper) or *Lw* (lower) is appended to each file name.
    - **Transform to CBCT reference coordinate system -** This option is used to exchange files between SureSmile and the Dolphin® CBCT-based Surgery Planning tool. The Dolphin tool works with CBCT coordinates, while SureSmile

works within an arbitrary jaw coordinate system. This special export function converts SureSmile coordinates into Dolphin's CBCT coordinate system by exporting geometric data.

4. Click **Export** to download a zipped folder of all of the files to your computer.

Show Planned Bracket Page

Check this check box to display the Brackets/Attachments tab when simulating bracket placement in a treatment simulation or a setup.

Show DE

Click the **Show DE** button on the Order tab to view the dental exam for approved wires.

Tooth Movements Tab

The Tooth Movmenets tab displays a table showing each tooth's movement in all dimensions in degrees or millimeters relative to its original position in the most recently captured model of tooth positions. The bottom table row, separated from the others by two heavy horizontal lines, shows the amount of intersection or gap between teeth. As you enter or change values in any of the table cells, the model teeth move correspondingly in the treatment planning main window directly above the table. Similarly, if you move the teeth using your cursor in the main window by clicking on a tooth and using its bounding box control, the values in the corresponding cells in the table are updated.

> **Note**: The Palmer Notation system is used to identify teeth: teeth in each quadrant are numbered 1-8 (central incisor to third molar).

Change displacement value in a single cell

To enter a displacement value, follow these steps:

1. Click **Upper** or **Lower** to select the arch you wish to view or adjust.

   > **Tip**: You do not have to pinpoint the small button with your cursor. Just click **Upper** or **Lower** to make your selection.

2. Locate the cell of the table that intersects the tooth number with the type of movement needed.
3. Double click in the cell to highlight the value, and then type a new value in an increment of .1mm or 1 degree. Enter a negative sign in front of the number if appropriate.
   OR
   Click in the cell and use the up and down arrows to change the value.

Setup Constraint

Use the Setup / Constraint slider controls in the right column to quickly align all teeth in an arch based on the placement of feature points. The SureSmile system has basic knowledge of tooth alignment as defined by the placement of your feature points, and the slider controls on the displacement tabs allow you to manually set how much movement you want to allow. This feature is very useful when starting a treatment simulations, when you want to quickly simulate desired changes in alignment within a specific range of values.

> **Tip**: Since setup /constraint calculations are based on the location of tooth feature points, correct any placement issues *before* using the Setup / Constraint slider controls. If you want to manually move teeth, set the constraints first and then make additional adjustments.

To constrain values:

1. Start a Setup Prescription or a simulation.
2. Go to the displacements tab and click the Upper or Lower option.
3. Go to far right column of the row for the movement type you want to constrain. Note that the slider control is set be default to the left or zero. This indicates that no deviance from the tooth feature point for this type of movement is performed. To all a range of permitted movement, slide the control to the right. The amount of permitted movement, in either degrees or millimeters, is shown on the right side of the control. When you have specified the amount of movement you want to permit, release the mouse. Note that none of the values in the row exceed the absolute value shown on the

slide control. For example if you chose a maximum range of 1 mm for occlusal (+) / gingival (-) movement, none of the values will exceed 1 mm or -1 mm.

Note: If you need to return to previous values, click the **Undo** button.

Comparison Stage:

To compare tooth displacements at different stages of the treatment plans, follow these steps:

1. In the **Comparison Stage** drop-down menu, select another model, such as the previous simulation.
2. Click the **Compare** menu to open the palette and click the Comparison icon.

Note: If you are comparing to the reference model, which is typically the therapeutic model, the comparison teeth are blue. If you are comparing to any other model, the comparison teeth are green. If you choose the same model in the Comparison Mode list as was already selected in the list of products, you will not see a comparison in the treatment planning workspace main window.

Naming Conventions for Setups

Each generation of a setup model is called a stage. Each stage corresponds to a version of a setup submitted to SureSmile or saved by the Digital Lab. A naming convention is applied to each stage.

For example, the name **Plan 2 [1.2 Digital Lab] [Small OverJet]** indicates that the doctor has submitted a setup called Plan 2", and the Digital Lab has returned the model for review with a short description. The name Plan 1 [2.2 Digital Lab] [] indicates that the doctor has submitted a Setup modification and received a modified Setup from the Digital Lab.

The key below explains the naming convention for this example in greater detail.

Part of the Setup Name	Meaning
Plan Name Plan 2 [1.2 Digital Lab] [Small OverJet]	The Setup name begins with the name of the setup prescription. Plans are named "Plan #" by default, where # is incremented for each additional plan created following "Plan 1". The doctor may also rename a plan.
Practice Stage Counter Plan 2 [1.2 Digital Lab] [Small OverJet]	The Practice Stage Counter is the model number of the setup started by the doctor when the setup is submitted to Dentsply Sirona. The first value will be "1." Each time the doctor modifies the model, this number will be incremented to 2, 3, etc.
Digital Lab Stage Counter Plan 2 [1.2 Digital Lab] [Small OverJet]	The Digital Lab Stage Counter is the revision number of the Setup that corresponds to changes made by the Digital Lab per the doctor's instructions. The Digital Lab may save multiple revisions to depict various scenarios. The first value will be "1." Each time the Digital Lab saves a stage, this number will be incremented to 2, 3, etc.
Creator of Stage Plan 2 [1.2 Digital Lab] [Small OverJet]	One of three values are possible for the Creator of Stage: Practice - the stage was created at the practice (in other words, by the doctor) Digital Lab - the stage was inserted automatically by SureSmile for use by the Digital Lab. Digital Lab Manual - the stage was inserted manually by a Digital Lab Technician, usually to allow the technician to try a different approach while preserving the previous version
Description entered by Digital Lab Plan 2 [1.2 Digital Lab] [Small OverJet]	If the doctor submits multiple setup prescriptions (e.g. Plan 2), the Digital Lab will type a description to help distinguish plans

Displacement Type

- Click the **Tooth** option to calculate movements from the center of each crown. A positive number indicates mesial, buccal/facial or occlusal movement of the crown. A negative number indicates the opposite movements. When moving teeth by entering values in the Displacements tab table, the center of the crown is the point of reference.
- Click the **Bracket** option to calculate movements from the center of each bracket slot.
- Click the **Cusp Tip** option to navigate about the cusp tips axis. When you click this option the cusp tips tooth feature points display. This tool is designed to:1) align teeth without bonded brackets, or2) teeth that have compromised anatomy. This option is also helpful when aligning the torque to the anteriors while maintaining the arch form. It is also useful for applying buccal torque together while maintaining the occlusal plane.

Applying IPR

On the **Tooth Movements** tab, check the amount of space needed to achieve the target simulation. When IPR is applied, the system displays a negative value for each affected tooth in the **Intersection (-)/Gap (+)** row in the **Displacements** tab table. The IPR shown is for the mesial of the affected tooth.

Follow the steps below to enter IPR.

- Select the T**ooth Movements** tab and locate the cell of the tooth chart for which you want to enter a value.
- Click in the cell.
- Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to add the same IPR value for multiple teeth.

  Result: All selected cells are highlighted.

- Enter the value you want for all of the highlighted cells by typing the new value or using the Edit Selection controls at the bottom of the tooth chart.

Malocclusion Includes Max. / Mand. Alignment Adjustments

Checked by default in the Tooth Movements tab, because you are focusing on tooth movements. Toggling the check box toggles the tooth displacements just between tooth movements, or tooth movements plus global movements.

Edit Selection:

To apply a displacement value to multiple cells:

1. Locate the cell of the table that intersects the tooth number with the type of movement needed.
2. Click the cell to highlight.
3. Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to achieve the same movement for multiple teeth.
4. In the Edit Selection box below the chart, type a new value.
   OR
   Click the small up and down arrows (first set) to change to the number required.
5. Click the equal button to apply the typed value to the highlighted cells.
   OR
   Click the large up arrow (second set) to increase the typed value in each of the highlighted cells.

OR
Click the large down arrow to decrease the typed value in each of the highlighted cells.

Clear Spaces/Reset:

- To clear all Gaps or intersections in the setup or simulation, click **Clear Spaces**. All values in the G**ap (+) / Intersection (-)** row of the table are removed.
- To permanently remove all displacement values of your setup or simulation so that you can completely start over, click **Reset.**

> **Caution:** Use the **Reset** function as a last resort only. Once you remove these displacement values, they cannot be retrieved. You will have to start your setup or simulation from the beginning.

Keyboard shortcuts

Use the following keyboard shortcuts to help you work faster when on the Tooth Movements tab

- **Arrow Up** or **Down** increment or decrease cell values by:
  - 0.1mm
  - 1 degree
- **CTRL+arrow** moves the cursor from one cell in all four directions to another cell.
- **Tab** selects the cell to the right. If you are in the last cell of a row, cursor jumps down to next row.
- **SHIFT+Tab** selects the cell to the left. If you are in the last cell of a row, cursor jumps up to next row.
- **Pg Up** selects the cell above.
- **Pg Dn** selects the cell below.

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Automatic Pontics for Aligners

For both Full-Service and DIY cases, SureSmile automatically places and resizes pontics for space closure or space openings during a sequence of aligners. Pontics are automatically inserted when a tooth is extracted and the remaining space is greater than or equal to 3 mm. The pontics are view-only in the 3D window and cannot be adjusted. Adjustments can be made by the Digital Lab if so instructed by the doctor when the setup or staged models are returned to the Digital Lab for modifications.

SureSmile also models and morphs gingival tissue during large tooth movements and with pontics.

Limitations: The system will not automatically place a pontic in the Staged Models if:

- **The patient is missing the same tooth on each side of the arch.** The automatic pontic placement tool places a copy of the same tooth of the adjacent quadrant in the space. So, if each quadrant is missing the same tooth (for example the UR2 and the UL2), there is nothing for the software to copy and place in the open spaces. However, the Digital Lab does have the option to place template pontics in the Setup for Full-Service Aligner cases in this type of scenario.
- **The space is located between sequentially numbered teeth.** For example: If the space is located between the UR3 and UR4 the software cannot make up a tooth number to place in between them so no pontic gets placed. The Digital Lab cannot place a template pontic in this type of situation either.
- **The space is created manually by moving a tooth out of that area to create space. For example:** When a patient is missing a lateral tooth and the cuspid tooth is in its place, a space can be created by moving the cuspid distally in the setup. There is no room to place a pontic in the first stages.

Global Registration Tab

Use the Global Registration tab to adjust the position of the upper and lower arch models relative to the 3D space.

You can also use this tab to simulate movements from mechanics used, such as elastics.

Translation [mm] / Rotation [deg] Controls

Click in the table cell to adjust translation and rotational movements for the upper and lower jaws.

> **Note:** Global movements for surgical cases can only be made from the Surgery tab. The table cells are unavailable for any arch which has been marked surgical in the Special Instructions of the MACROS form.

Use Common Rotation Axis

Default is checked. Uncheck if you do not want both arches to use a common axis of rotation.

> **Note:** Using the common axis in the center of the model does not change the bite, as both jaws are moved together.

When checked, the whole model with both jaws uses a common coordinate system with the xyz axis always in the middle of the model.

When unchecked, each arch moves independently on its own axis.

> **Note:** Global and surgical movements can only be made using the common rotation axis.

Demonstration: Common Rotation Axis

If you want to experience the difference between the common and single rotation axis, perform the following exercise:

1. Open a Plan in production without tooth movements.
2. Go to the **Global Registration** tab.
3. Display the **Lower Occlusal** view.
4. Show the upper/lower contacts.
5. Check the **Use Common Rotation Axis** check box.
6. Type **20°** into the upper and lower cell for rotation around the sagittal axis.
7. Observe the location of the contacts.
8. Click **Reset**. The location of the contact areas is exactly the same.
9. Click **Redo** to verify that the location of the contacts is always the same when using the Common Rotation Axis feature.

10. Now uncheck the **Use Common Rotation Axis** check box.

11. Repeat steps 2-9.

12. Note that this time the location of the upper/lower contacts change, because each jaw uses its own rotation axis.

Sync U/L

Check to synchronize both the upper and lower arches together when making global adjustments.

Use Condyle Axis

Check to simulate the natural movement of the lower jaw rotating around the condyle axis. When you rotate the bone segment, the axis of rotation is relative to the condyle.

When checked, all other cells are grayed out. Clearing the check box adds movements to the other cells, such as anterior/posterior or vertical movement. This is due to the different rotation axis.

Malocclusion Includes Max. / Mand. Alignment Adjustments

When checked, the therapeutic model includes planned global movements. In the Global Registration Tab the default is unchecked, because typically you want to see the global movements back and forth between white and blue teeth.

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Horizontal incl. AP

Use the controls or enter values directly to rotate the model anteriorly /posteriorly to adjust its position with the ceph.

Facial axis inclination

Use the controls or enter values directly to rotate the model left or right to adjust the cant.

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Articulation

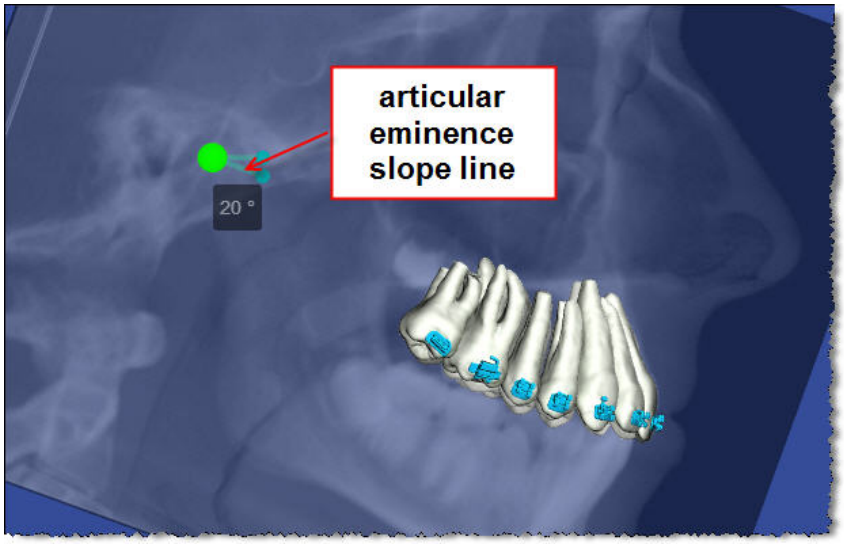
Check to open the Articulation window. Use the Articulation tool to check if there are any tooth collisions or other problems during chewing, and to adjust the angle of the articular eminence as necessary .You can also adjust the angle of the articular eminence to more accurately display the patient's chewing motion.

> **Tip:** You can use the Articulation tool anytime, but a good point in your workflow would be during therapeutic model review.

To adjust the angle of the articular eminence during the therapeutic model review:

1. Click the Checklist icon in the menu bar and click the Ceph Review step.

Result: The articular eminence slope line is shown by default in the ceph view, as this is the recommended view for setting the articular eminence slope.

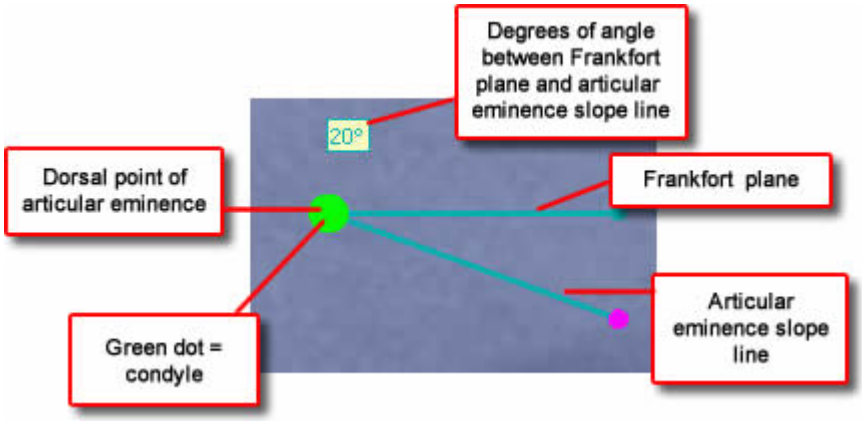


Tip: Zoom the model out to educe the view so that you can see the condyle.

The anatomical points display in a default position—the top line is the horizontal plane, which is parallel to the Frankfort plane. The left most point is initially set by the Digital Lab to mark the dorsal point of the articular eminence. The other point is the handle for changing the slope of articular eminence. It is set to a default angle of 20 degrees.

Note: In some CBCT scans, the condyle may appear less clear than expected. This is due to the condyle being less dense than the surrounding bone mass.

2. Select the slope line handle by clicking on it. It turns pink when selected. Drag it up or down to define the slope of articular eminence relative to the horizontal (Frankfort) plane. Drag anteriorly or posteriorly to shorten or lengthen the line. Notice that the angular value (in degrees) changes as you move the point. The slope of the articular eminence determines how the mandible slides forward and moves excursively as it opens. The length of the line of articular eminence determines how wide the bite will open in the chewing simulation.



The large green dot corresponds to the condyle. It moves along the line of articular eminence when you run an articulation animation.

Note: The horizontal plane is defined on the Ceph. Adjust as needed using the Horizontal Inclination control under the **Global Registration** tab.

3. Click **Apply** in the articular eminence slope confirmation box to save your changes

   or

   Click **Undo** to discard your changes.

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View and Test the Articular Eminence Slope

Use the Articulation tool to check if there are any tooth collisions or other problems during chewing.

Note: It is not necessary to view articulation when you set the articular eminence slope, but the feature is available if needed.

1. Under the **Global Registration** tab, click **Articulation**.

   Result: The **Articulation** window opens.

   In the side windows, view the upper and lower 3D models occlusally with contacts on.

2. On the **Animation** control box:

   - Click the upper **Run Animation** button to run the articulation simulation

     or

   - Click and drag the slider control to manually operate the animation.

   Result: The jaws open and close. Notice that the green condyle indicator moves along the line of articular eminence.

3. In the side windows, check for any collisions.

4. On the **Animation** control box:

   - Click the lower **Run Animation** button to run the excursive simulation.
     OR

   - Click and drag the slider control to manually operate the animation.

   Result: The left-to-right movement (lateral excursion) is animated.

   Note: Because the virtual articulator does not consider cuspid rise, multiple tooth collisions will be seen.

5. In the side windows, check for any collisions.

6. Click either **Run Animation** button a second time to stop the animation.

Surgery On/Off check box

The Surgery On / Off check box allows doctors who have an approved surgical setup to create a new non-surgical setup or simulation. This check box becomes visible on the Global Registration tab for a setup or simulation in work if the previous setup for the case is a finished surgical setup.

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Staged Timeline Tab

The **Staged Timeline** tab is located next to the **Displacements** tab at the bottom of the page. It is only visible if you are viewing a staged model.

Use the **Staged Timeline** tab to view the starting and ending stages for each group of movements for a staged model. The system shows the maximum actual movement per stage in each cell. You can change the starting (first stage) or ending point (last stage) for each set of movements. Starting and ending stages for a movement type can extend over multiple groups.

Stage number tabs with movements that exceed your aligner constraints are highlighted in yellow.

> **Note:** The stages are numbered in sequential order independently of each other. For example, if there are 10 stages for the upper arch and 5 stages for the lower arch, the software shows 10 stages for the upper arch and 5 stages for the lower arch, instead spreading the lower arch movements across 10 aligners just to match the upper arch.

Occlusal Plane Tab

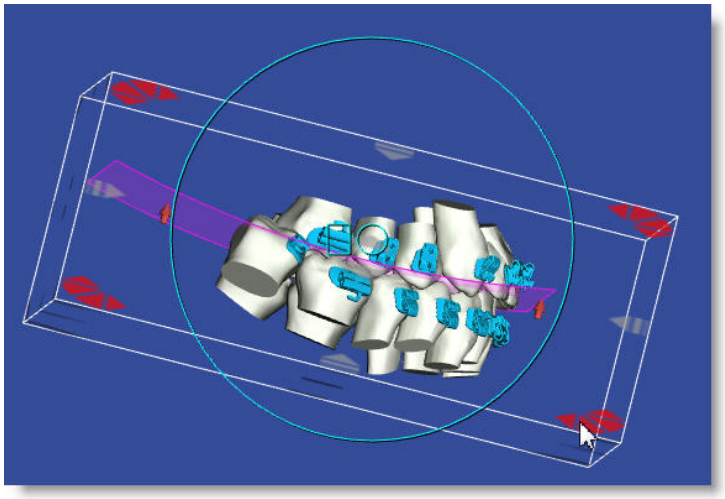
Use the occlusal plane tab to indicate which teeth represent the correct location for the patient's occlusal plane. When you open this tab all teeth in the upper jaw are selected by default. The upper 3s have default occlusal offset values applied in millimeters.

Change SureSmile's default occlusal plane values

1. Under **Occlusal plane reference arch**, click **Upper**, **Lower** or **Independent** to indicate the arch driving the occlusal plane. You can select the arch on the tooth chart. If you click **Independent**, you can select both arches.
2. Click the check boxes in the tooth chart to select or clear teeth. A minimum of three teeth is required per arch.
3. Change the Curve of Spee or Curve of Wilson as needed.
4. Move the occlusal plane as needed. See the next procedure for detailed instructions.

Move the occlusal plane using 3D tools:

1. Click the **Left Buccal** or **Right Buccal** icons in the View menu palette to position the model as needed.
2. Go to the **Tools** menu palette and click the **Occlusal Plane** icon.
3. To move the entire occlusal plane, click to select it. When selected, it turns magenta and is encased by a bounding box with navigation controls.
4. Use the bounding box controls to adjust the position of the occlusal plane as needed.



Surgery Tab

If you selected surgical treatment options during the therapeutic model review, the plan will automatically have the Surgery tab displayed.

Defining Surgical Segments

1. The color-coded surgical segment handles (or bone segments if bone is modeled) are shown on the 3D model in the main window of the treatment planning workspace.
   The system default displays one segment per jaw.

2. If you are planning multi-piece surgery, indicate the number of segments in the maxilla or mandible in the segment selection area under the Surgery tab.
   Click and drag the surgical cut vertical indicators on the teeth diagram to mark the cuts. The segment alignment area is updated to display a tab for each new segment you create. The color-coding for each tab matches each bone segment in the model.

3. Move the surgical segments by typing translation and rotation values in the segment alignment area or by clicking and dragging the segment in the main window.

   Note: If you move a single segment and then split it into two or more segments by changing the number of segments on the Surgery tab, the new segments retain the same adjustment as the original single segment.

Use Common Rotation Axis

Check if you want both arches to use a common axis of rotation. Uncheck if you want the jaw segments to rotate around a separate rotation axis for each jaw.

Use Condyle Axis

Check to simulate the natural movement of the lower jaw rotating around the condyle axis. When you rotate the bone segment, the axis of rotation is relative to the condyle.

Malocclusion includes surgical adjustments

- When **checked** (default), the therapeutic model includes planned surgical movements. The tooth displacement values only includes movements due to dental corrections.
- When **unchecked**, the Therapeutic Model does not include planned surgical movements. The tooth displacements will include both dental and skeletal corrections.

  Note: There is no dependency between the Surgery and Displacements tabs. You must check or uncheck the check boxes on each tab separately.

Horizontal incl. AP

Use the controls or enter values directly to rotate the model anteriorly /posteriorly to adjust its position with the ceph.

Facial axis inclination

Use the controls or enter values directly to rotate the model left or right to adjust the cant.

Articulation

Check to open the Articulation window. Use the Articulation tool to check if there are any tooth collisions or other problems during chewing, and to adjust the angle of the articular eminence as necessary .You can also adjust the angle of the articular eminence to more accurately display the patient's chewing motion. See the *Global Registration Tab* help topic for more information.

Show Pre-Surgical

When checked for a Post-Surgery setup, shows the setup dental movements without any skeletal corrections.

Hold Teeth

When checked, holds teeth in place, allowing additional surgical movements to be made without changing absolute tooth positions.

Show Segment Cutters

Click to display in the 3D model the mesial and distal cutter planes for a segment. Click anywhere on either cutting plane to display its bounding box. Click on the bounding box to activate its controls and move as needed.

> **Note**: This feature is only available when bone has been modeled.

Show Upper Horizontal Cutter

Click to display the upper horizontal cutter. Click anywhere on the cutter plane to display its bounding box. Click on the bounding box to activate its controls and move the cutter as needed.

Wire Tab

The Wire tab has a table for you to define individual tooth settings for upper and lower wires. Use the Upper and Lower option buttons in the first row of the chart to switch between upper and lower wires. The top half of the table consists of check boxes. The bottom half of the table has cells in which you can enter data. The Wire tab is available throughout the treatment planning process so that you can create simulated wires as needed as you develop your treatment planning strategy.

The left side of the wire tab provides the following options for modifying the wire design. Before you make changes, check the Upper or Lower setting at the top of the chart to be certain you are changing values for the correct wire.

Wire Material/Cross Section

Select the wire material and the wire cross-section from the drop-down lists. See SureSmile Archwire Inventory for more information.

Simulate tooth movements

Click the Simulate Tooth Movement check box if you want to see the tooth movement (based on the full expression of the wire) simulated for your wire changes. Keep in mind that this is a simulation of the full expression of the wire and may not be actionable. The setup is not affected.

> Note: Slot filling torque is not simulated in Simulate tooth movements.

Show wire for prebonded brackets

When you are working in a Bracket Placement simulation, click this check box to display a wire inserted into planned brackets ("prebonded" brackets) positioned relative to the teeth in the diagnostic model.

When viewed on the 3D model, the prebonded brackets have a generic shape and are shaded green.

This check box is the same as the Brackets menu icon **Use Prebonded Brackets for Wire**. It just toggles an already visible wire for bonded brackets, to change its shape so that it fits into the prebonded brackets.

This is a tool for doctors who want to compare the shape of the actual wire with the shape of the prebonded brackets wire as it was planned before bonding.

Curve of Spee or reverse Curve of Spee

To adjust the Curve of Spee or Reverse Curve of Spee, use the up/down arrows to enter the appropriate values, or click in the box and type the value you want.

Molar expansion or constriction

Select molar expansion or constriction as needed and enter the amount in increments of tenths of millimeters. Amount entered is divided between the right and left sides.

Distal slots

Select the Add Distal slots right and/or left option.

Calc Slot Filling Torques

When using an undersized wire, click the Calc Slot Filling Torques button to automatically add torque for all teeth.

Use the Wire tab table to calculate torque for individual teeth.

Click a check box a tooth in the selected arch from the **Automatic Slot Filling/Lingual Torque** or **Automatic Slot Filling/Facial Torque** row. The amount of torque needed is calculated automatically and displays in the **Filling Torque Facial/Lingual** row of the table. A positive number indicates facial torque. A negative number indicates lingual torque.

Edit Selection

To apply a displacement value to multiple cells:

1. Locate the cell of the table that intersects the tooth number with the type of movement needed.
2. Click the cell to highlight. Cells without teeth are shaded in gray, but are still active.
3. Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to achieve the same movement for multiple teeth.
4. In the Edit Selection box below the chart, type a new value.
   or
   Click the small up and down arrows (first set) to change to the number required.
5. Click the equal button to apply the typed value to the highlighted cells.
   or
   Click the up large up arrow (second set) to increase the typed value in each of the highlighted cells.
   or
   Click the large down arrow to decrease the typed value in each of the highlighted cells.

Wire Sequence Tab

Use the Wire Sequence tab when ordering a predefined sequence of archwires. See Ordering a Sequence of Wires for more information. See Define Wire Sequence for more information about setting up your predefine wire sequences.

The wire sequence tab includes all of the features and functionality of the Wire tab, but expands to allow display of a sequence of wires in a single order.

Using the Wire Sequence tab

1. Select the either the **Single Wire** or **Multi-Wire** option.
    - **Single Wire** - Similar view to the Wire tab for a single wire -- allows you to make all movements to a single wire.
    - **Multi-Wire** - Allows you to view values for a single movement type for all of the wires in a sequence.
2. To display a particular wire in the sequence, select the corresponding small numbered tab to the right of **Select Model:**
3. Select the **Upper** or **Lower** arch to which you want to apply over-corrections, and then select the wire material and cross-section.
4. Enter wire override values in the table as needed.
   Result: The archwire on the model on the right side of the screen will reflect the values you enter.
5. (Optional) Click in the **Order Name** box and rename the archwire order to indicate the changes just made (e.g., Wire2 - RCOS/EXP/TORQUE].
6. Click **OK** to save the new name.
7. Click the **Multi-Wire** option, to easily compare movements between wires. Select small tab for each type of movement .
8. Switch between **Upper** and **Lower** as needed.
9. Change default cross-sections and materials for each wire as appropriate.
10. Select additional wire options as needed:

Wire Material/Cross Section

Select the wire material and the wire cross-section from the drop-down lists. See SureSmile Archwire Inventory for more information.

Simulate tooth movements

Click the Simulate Tooth Movement check box if you want to see the tooth movement (based on the full expression of the wire) simulated for your wire changes. Keep in mind that this is a simulation of the full expression of the wire and may not be actionable. The setup is not affected.

> Note: Slot filling torque is not simulated in Simulate tooth movements.

Show wire for pre-bonded brackets

When you are working in a Bracket Placement simulation, click this check box to display a wire inserted into planned brackets ("prebonded" brackets) positioned relative to the teeth in the diagnostic model.

When viewed on the 3D model, the prebonded brackets have a generic shape and are shaded green.

This check box is the same as the Brackets menu icon **Use Prebonded Brackets for Wire**. It just toggles an already visible wire for bonded brackets, to change its shape so that it fits into the prebonded brackets.

This is a tool for doctors who want to compare the shape of the actual wire with the shape of the prebonded brackets wire as it was planned before bonding.

Curve of Spee or reverse Curve of Spee

To adjust the Curve of Spee or Reverse Curve of Spee, use the up/down arrows to enter the appropriate values, or click in the box and type the value you want.

Molar expansion or constriction

Select molar expansion or constriction as needed and enter the amount in increments of tenths of millimeters. Amount entered is divided between the right and left sides.

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Edit Selection

To apply a displacement value to multiple cells:

1. Locate the cell of the table that intersects the tooth number with the type of movement needed.
2. Click the cell to highlight.
3. Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to achieve the same movement for multiple teeth.
4. In the Edit Selection box below the chart, type a new value.
   or
   Click the small up and down arrows (first set) to change to the number required.
5. Click the equal button to apply the typed value to the highlighted cells.
   or
   Click the up large up arrow (second set) to increase the typed value in each of the highlighted cells.

or

Click the large down arrow to decrease the typed value in each of the highlighted cells.

Buildup/IPR Tab

The Buildup/IPR tab table contains functions for planning treatment for cases with planned restoration work. Use the Upper and Lower option buttons in the top left of the table to switch between the upper and lower arches.

The following table describes the restorative functions in the Buildup/IPR Tab table.

Function	Description
IPR (-)/Buildup (+)	Scales a tooth model mesially or distally according to the value you enter. The minimum increment allowed is 0.1. mm. A negative number denotes IPR and is depicted in red on the tooth model. A positive number denotes buildup and is depicted in blue on the model when you click the Colorize Buildups/Cuts icon on the Tools menu.
Auto m/d Size	When you select the mesial/distal check box for a tooth, this feature automatically fills spaces or removes intersections as needed to close gaps with adjacent teeth. Keep in mind, however, that by enabling this function subsequent changes in the interproximal gaps will cause the software to recalculate the buildup or IPR for all teeth selected for automatic mesial/distal sizing. **Tip:** To avoid later recalculation, you can remove the check mark after placing it. The IPR/buildup value is retained no matter what happens to the gap/intersection. You can prevent recalculation by entering a fixed, defined IPR or buildup value for a tooth or set of teeth in the IPR (-)/Buildup (+) row. This value will not change, even if the automatic IPR or build up is applied to the rest of the arch.
Intersection (-) / Gap(+)	This read-only row shows the mesial/distal overlap or gap between teeth. The amount of overlap is indicated by a negative number. The amount of gap is indicated by a positive number.
Vertical Offset	Use this feature to add or remove crown length to a single tooth. The amount of reduction or buildup in millimeters for each tooth is measured from the occlusal plane. Except for the incisors (2-2), which can be reduced/built-up distally or mesially, the vertical reduction/buildup is applied to the entire tooth. The minimum increment allowed is 0.1 mm. A negative number denotes polishing/reduction and is depicted in red on the tooth model. A positive number denotes buildup and is depicted in blue on the model.
Auto Vertical Buildup	Use this feature to automatically add length to multiple teeth, using the occlusal plane as the boundary condition. When you select a check box in this row, this feature automatically levels the tooth to the occlusal plane, building up or reducing the tooth as necessary. Keep in mind however, that by enabling this function, subsequent changes in the occlusal plane will cause the auto-vertical buildup/reduction function to recalculate the height of all teeth selected for automatic vertical buildup/reduction. You can prevent this recalculation by entering a fixed, defined offset or buildup value for a tooth or set of teeth in the Vertical Offset row. This value will not change even if the automatic vertical buildup/reduction function is applied to the rest of the arch.
Labial Offset/Lingual Offset (two rows)	The amount of labial or lingual reduction anticipated by polishing is denoted by a negative number. The amount of buildup anticipated by veneers is denoted by a positive number. Although lingual and labial reductions or buildups can help to improve the aesthetic alignment, keep in mind that the position of the brackets does not move with the built-up or reduced surfaces. The buildup or reduction is calculated from the point of maximum buccolingual convexity of the tooth, and then tapers gradually to the gingival and incisor edges. The gingival edge is estimated for each tooth even if the gingival tissue is modeled. In cases where the gingival tissue is modeled, the buildup will at times butt into the gingival edge if the actual gingival edge is more occlusal than the computer estimate of the gingival edge.

	An extra buildup or reduction of 0.1 mm is added to any value entered to provide a visual “buffer zone” and soften any sharp angles. When setting labial or lingual reduction values, keep in mind that any model reduction cannot go beyond the central axis of the tooth.
Change Model	Allows you to replace a modeled tooth with a template, or repair an asymmetric tooth by mirroring it with the mesial or distal side tooth. See Changing Models below for more information.
Reset / Set All buttons	The Reset button removes all the values in a row and resets the model accordingly. The Set All button selects all of the check boxes in a row.

Brackets Tab

This tab is shown for setups, treatment simulations for diagnostic models, and IDB tray simulations. Use this tab to assign different brackets or bracket sets in your simulation. Keep in mind however, that the Dental Examination page is not updated by any bracket selections you make here.

The tab lists a description and illustration for each bracket or attachment (aligner treatment only) you assigned to the patient. Any brackets already assigned in the bracket set appear in the bracket placement simulation.

Each bracket is shown on the tooth chart. Click a bracket in the chart to see its description and a moveable 3D model of it in thee thumbnail at the left of the tab. Click the large image of the bracket on the left to rotate and view the bracket from different angles.

As on the Dental Examination page, click **Apply bracket** to assign a specific bracket. Click **Apply bracket sets** to assign a bracket set. Alternatively, click **Remove bracket** to remove a bracket.

Buttons on Brackets/Attachments Tab

Button name	**Use to:**
Assign Bracket	select and assign specific brackets to teeth.
Remove Bracket	remove bracket from specific teeth, one at a time. First click to highlight the tooth in the tooth chart on the tab or in the 3D model, then click the this button.
Apply Bracket Set (menu) >	(Click arrow on button to display menu options)
> Re-initialize Selected Bracket	reset the selected bracket to its default position
> Re-Initialize Upper Brackets -	reset all of the brackets on the upper arch to their default position
> Re-Initialize Lower Bracket	reset all of the brackets on the lower arch to their default position
> Assign Bracket Set	assign a predefined bracket set. See Bracket Set Preferences for more information.
Select Bracket Heights	select a bracket height set. See Bracket Height Sets for more information.
Align on Bracket Plane	align the slot of the brackets to the bracket plane.
Init Bracket Plane	reset the bracket plane to its default position

Vertical Reference	When you are adjusting the height of the brackets in a bracket set from the Brackets/Attachments tab you can toggle between:
	• **Jig Height** - indicates the height of a bracket in millimeters as measured from the middle of a bracket slot to the:
	  • incisal edges for central incisors and laterals
	  • buccal cusp for canines and premolars
	  • most prominent buccal cusp for posterior teeth
	Distance to the slot is expressed as a positive number.
	• **FA Point** - shows the height of the bracket relative to the FA (Facial Axis) point. The system expresses movements in an occlusal direction relative to the FA point as positive numbers. Movements in a gingival direction relative to the FA point are expressed in negative numbers.

Use the **Lingually Bonded** check boxes to indicate if one or both arches will be lingually bonded. If you have brackets bonded labially, all the brackets on the arch will be moved to the lingual aspect.

Select the **Bracket Contact** options to indicate whether you want **Minimal Contact** (1-point contact, typically used fora flat wire treatment approach) or **Full Contact** (3-point contact, typically used for a bent wire treatment approach).

Bracket Placement Tab

Use the tools on the Bracket Placement tab to plan bracket placement. The Bracket Placement tab has controls for three movement types:

- occlusal (+) / gingival (-)
- mesial (+) / distal (-)
- angulation crown mesial (+) / distal (-)

Both the Upper and the Lower tooth charts are shown together on the tab.

For an IDB tray simulation the reference points for the initial values in the table cells are as follows:

- occlusal (+) / gingival (-) values correspond to those in the Bracket Height sets you applied when you started the simulation
- mesial (+) / distal (-) all initial values are set to 0
- angulation crown mesial (+) / distal (-) all initial values are set to 0

These values change from their initial starting values as you adjust bracket positions.

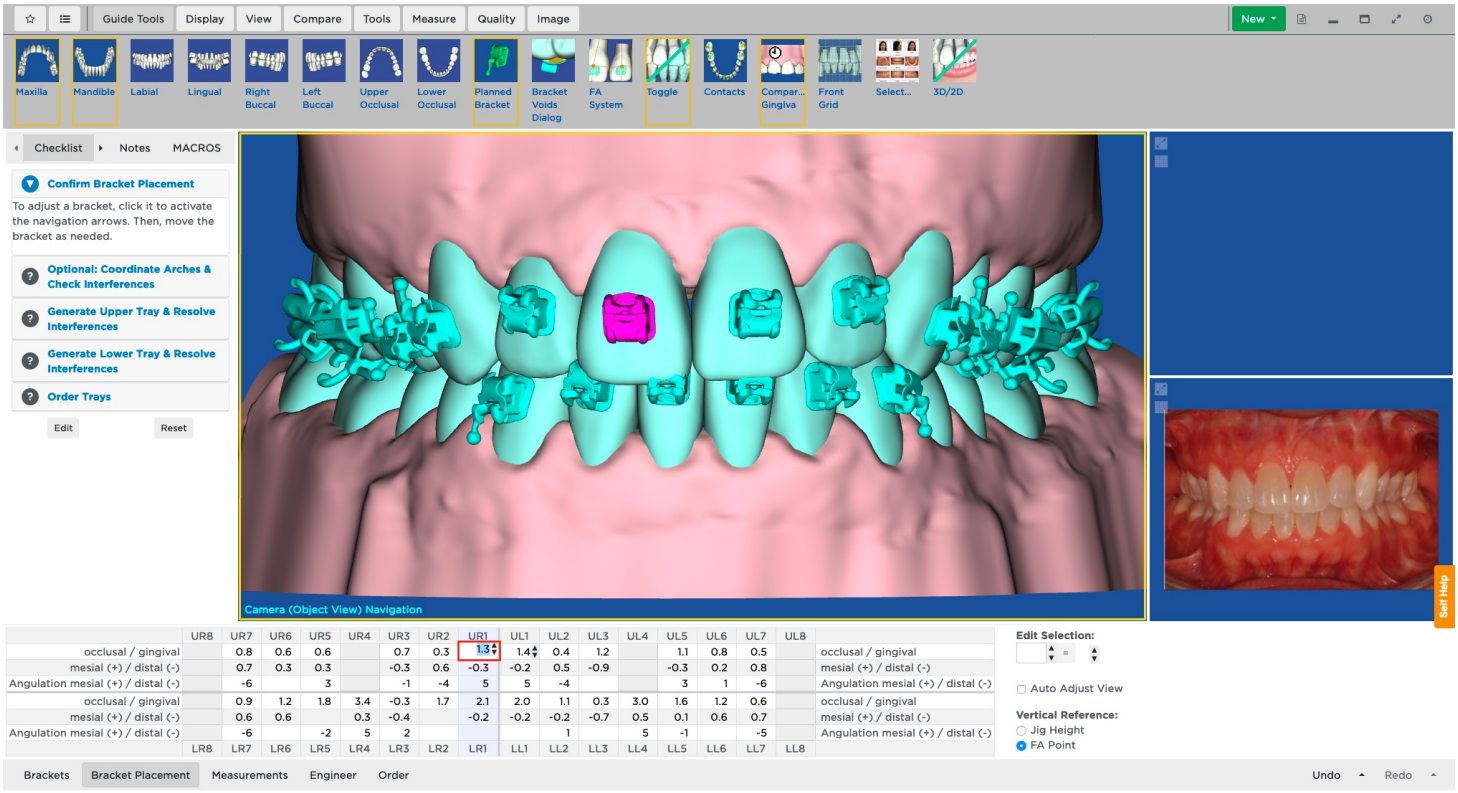
Multiple ways to adjust bracket positions

There are several ways to adjust bracket positions:

- Use the up/down arrows next to each table cell
- Use the up/down arrows on your keyboard
- Move the bracket on the 3D model
- Type directly in the tooth chart on the tab
- Select multiple table cells and change several cells at once

Up/Down arrows in each table cell - Select a bracket on the 3D model or in the tooth chart in the Bracket Placement tab. Place your cursor over the movement type cell on the tab and then click the up or down arrow next to the cell to reposition the bracket in increments of 0.1 mm (horizontal or vertical) or 1 deg.(angulation).

> **Tip**: Click the **Undo** button to reverse your changes incrementally.



Use the 3D model - Use the controls on the bounding box for a bracket to adjust its position. The values for the three movement types in the tooth table on the Bracket Placement tab change accordingly.

> **Tip:** Click the Undo button to move the bracket back to its previous position.

Type directly into the tooth chart - Enter a value for a movement type directly into the appropriate cell on the Bracket Placement tab.

> **Tip:** Click the Undo button to revert the cell to its previous value.

To move multiple brackets occlusally / gingivally at once:

1. Locate the cell of the table at the intersection of the tooth number column and the occlusal / gingival movement row.
2. Click the cell to highlight.
3. Press and hold the **Shift** key, and click in another cell in the same row to achieve the same movement for multiple teeth.
4. Under the Edit Selection controls to the right of the chart, type a new value.
   OR
   Click the small up and down arrows (first set) to change to the number required.
5. Click the equal button to apply the typed value to the highlighted cells.
   OR
   Click the large up arrow (second set) to increase the typed value in each of the highlighted cells.
   OR
   Click the large down arrow (second set) to decrease the typed value in each of the highlighted cells.

Keyboard shortcuts

Use the following keyboard shortcuts to help you work faster when on the Bracket Placement tab

- **Arrow Up** or **Down** increment or decrease cell values by:
  - 0.1 mm

- 1 degree

- **CTRL+arrow** moves the cursor from one cell in all four directions to another cell.
- **Tab** selects the cell to the right. If you are in the last cell of a row, cursor jumps down to next row.
- **SHIFT+Tab** selects the cell to the left. If you are in the last cell of a row, cursor jumps up to next row.
- **Pg Up** selects the cell above.
- **Pg Dn** selects the cell below.

Auto-adjust view

The Auto-Adjust View check box on the Bracket Placement tab automatically repositions the model when you select a cell in the Bracket Placement tab.

This check box works as follows:

- If you are adjusting mesial/distal bracket movements, an occlusal view of the arch is displayed and the selected tooth is shown in the center of the screen.
- If you are adjusting angulation or occlusal (+) / gingival (-) movements, a labial view of the arch is displayed for the anteriors, a buccal view is displayed for the posteriors, and the selected tooth is in the center of the screen.
- If you uncheck the check box and then check it again, it remembers the last tooth previously selected and returns to that position.

IPR Tracking Tab

The IPR Tracking tab allows doctors and staff to see the amount of planned and completed IPR. These IPR values can be viewed throughout treatment planning, wire design/modification, and wire insertion.

This tab is useful when you want to compare the amount of IPR originally planned for the patient in the setup against how much IPR has been completed. This tab allows you to enter newly performed IPR and to track completed IPR to date while you are still viewing the finished wire order.

Measurements Tab

Use the Measurements tab to view a snapshot of key measurements of the 3D model in the main window.

Bolton Analysis

The Measurements tab includes a Bolton analysis. The sum of the mesial-distal tooth measurements is listed from the first molars (6-6) and from the canines (3-3).The **Bolton Ratio**, expressed as a percentage, is calculated for both the first molars (6-6) and the canines (3-3) by dividing the Mandible sum by the Maxilla sum.

SureSmile compares the actual measurements to an ideal and lists a **surplus amount**.

SureSmile uses the "ideal" upper/lower width relation **0.913 with a tolerance +/- 0.0026** for the overall ratio (6-6) and **0.772 with a tolerance +/- 0.0022** for the anterior ratio (3-3). If the Bolton Ratio exceeds this constant value (plus the tolerance) a **mandible surplus** will be listed. Conversely, if the ratio is less than the constant value (minus the tolerance) a **maxilla surplus** will be listed. If the ratio is within the tolerance there is **no surplus**.

Here is an example:

	6…6	3…3	Calculation
Bolton Ratio	92.1	76.6	Mandible sum/Maxilla sum 87.6/95.1 = 92.1% 36.9/48.1 = 76.6%
Maxilla Sum	95.1	48.1	Sum of tooth widths in the Maxilla
Mandible Sum	87.6	36.9	Sum of tooth widths in the Mandible
Mandible Surplus	.8mm		The actual overall ratio is .921 Ideal = 95.1 *0.913 which is 86.8 The surplus is 87.6 - 86.8 = .8
Maxilla Surplus		.4mm	The actual anterior ratio is .766 Ideal = 36.9/ 0.772 which is 47.7 The surplus is 48.1- 47.7 = .4

Arch Length Discrepancy

Positive numbers indicate excess space, and negative numbers indicate inadequate space. These measurements are updated whenever you make changes to the 3D Model.

Using Diagnostic Models as the Basis for Treatment Planning

A diagnostic simulation in SureSmile is a treatment simulation based on a diagnostic model. The end result of a diagnostic treatment simulation is a 3D model of the patient's treatment objective representing a specific treatment approach. The diagnostic treatment simulation allows you to explore treatment alternatives before deciding on a specific setup prescription. With SureSmile, you can create and store numerous treatment simulations for a patient before deciding on a specific treatment plan.

In order to begin a diagnostic simulation, the status of the diagnostic model must be *Approved*.

You can also create treatment simulations from a therapeutic model that has been approved if you wish to consider other treatment alternatives. However, when using a therapeutic model for a treatment simulation, keep in mind that you must be more aware of the clinical feasibility of the tooth movements, since the therapeutic model is the basis for the SureSmile wire, while the diagnostic model is not.

Review Diagnostic Model

The treatment planning workspace provides a checklist that you can use to review a diagnostic model for accuracy and completeness before approving the model. This 9-step checklist has associated views and tools that you can use to methodically evaluate the diagnostic model.

To review a diagnostic model, follow these steps:

1. From the clinic overview, identify a patient with a diagnostic model that needs to be reviewed and open the model in the treatment planning workspace.

2. In the upper-left corner of the treatment planning workspace, click the checklist icon on the menu bar. A description of each step and guidelines are provided with each step.

Approve or Modify a Diagnostic Model

After reviewing a diagnostic model you may need to make adjustments to the model so that the it accurately matches both your records and what you observed during your patient's examination. For example, you may need to make minor changes to several tooth feature points, to the global position, or to the bite registration.

1. Open the diagnostic model.
2. (Optional) Make any necessary changes, and/or write notes to the Digital Lab to request modifications.
3. Go to the **Order** tab, and click one of following three options:

    - **Approve** accepts the model with your modifications and with no further changes required by the Digital Lab. In this case, the Digital Lab does not see the diagnostic model again.
    - **Submit** sends the diagnostic model to the Digital Lab for additional modifications that you have requested in your notes and instructions.
    - **Revert Modifications** discards any changes that you made to the model. (**Note**: If you choose this option, you still need to **Approve** or **Submit** the therapeutic model.)

Order Diagnostic Models from .PLY or .STL Files

You can create a diagnostic model from numerous data sources. To provide the broadest support for your needs, the SureSmile system includes support for digital files in either .PLY or .STL formats. These are standard file formats that a variety of scan technologies, such as tabletop laser scanners, can produce. Many commercially available 3D scanners, including many tabletop laser scanners, can output digital files in one of these two standard formats. Staged Models STL Exports can now be exported in quantities of 1 to 10. Separate exports will need to be initiated for additional STL files. Exported STL files can be downloaded in the Jobs tab.

You may also upgrade a study model or an OrthoCAD model to a diagnostic model to convert a patient to SureSmile treatment.

> **Note**: Submitting diagnostic models for lingual treatment is strongly recommended.

To order a diagnostic model from .PLY or .STL files

1. From the upper-right corner of the patient overview, click **New** and select **Diagnostic Model**.
   Result: The Dental Examination page opens.
2. Scroll down to the section labeled **Upload your 3D Scan Data files**.
3. Click **Choose File for** the upper jaw and navigate to and select the corresponding PLY/STL file on your local PC.
4. Click **Open**.
5. Repeat steps 2 and 3 for the lower jaw.
6. (Optional) Repeat steps 2 and 3 for the bite files.
7. Click **Upload Files**.
   Result: The selected files are uploaded.

Ordering Models with Gingiva, Teeth, Roots and Bone

If you are using CBCT with SureSmile, you have the option of providing an additional model to capture patient roots/bone for treatment planning purposes. A CBCT scan cannot capture gingiva; therefore, an optical scan is also needed. The Digital Lab can combine the two scans to provide a model that presents gingiva with teeth, roots and bone. Because of processing procedures in the Digital Lab, the two scan orders must be submitted in a specific sequence to allow the data to be easily combined. Notice the sequence differs by model type.

Order a diagnostic model with gingiva, teeth, roots and bone

1. Submit the optical scan of the patient or a plaster model.
2. Submit the CBCT scan.

Order a therapeutic model with gingiva, teeth, roots and bone

To produce a therapeutic model with gingiva, SureSmile recommends taking an intraoral scan to capture the patient's current gingiva. However, if a diagnostic model with gingiva was previously captured, the doctor has the option to allow the gingiva from the diagnostic model to carry forward (no action is needed other than submitting the CBCT scan). For a Therapeutic Model where current gingiva is needed along with bone and roots, submit two therapeutic model orders as follows:

1. **Therapeutic model 1** - Submit the optical scan of the patient.
2. **Therapeutic model 2** - Submit the CBCT scan.

Order a final model with gingiva, teeth, roots and bone

To produce a final model, SureSmile recommends scanning a plaster model to capture gingiva and final tooth positions. If the doctor requires final root positions with gingiva, submit two scans in the following order:

1. Submit the optical scan of the patient or a plaster model.
2. Submit the CBCT scan.

Requirements

- Scan data must contain at least two teeth in both posterior segments (3s-8s) and at least two teeth in the anterior segment (2-2)
- Submit the order for the optical scan before the order for the CBCT scan.

Notes:

Because they are different products, you may submit a Therapeutic Model 1 and a diagnostic model 1 in either sequence. Gingiva will be retained.

When taking a Diagnostic or Final scan for aligners, remember it is a best practice to take the scan intraorally at a patient appointment. You may submit an optical scan of a plaster model, but the quality is not equal to an intraoral scan. We will process a CBCT plaster model scan but we strongly recommend that you use this model for storage and diagnostic purposes only and not for therapeutics since it may not provide enough accuracy.

If you are capturing an optical scan and CBCT scan at the same appointment, you may type a note for the Digital Lab in the CBCT order to refer to the optical scan for supplemental data. (Note that there is need to scan patients with restorations a third time.) Please note the optical scan must be captured intraorally to serve as a supplemental scan..

There is no CBCT plaster scan option for a therapeutic model even if the patient is unbonded. A therapeutic scan must be taken at a patient appointment.

Pre- and Mid-Treatment Diagnostic Models

After ordering an initial diagnostic model or therapeutic model, you have the option to order another diagnostic model and use it for mid-treatment or pre-treatment diagnosis.

Even if you have already approved a diagnostic model, a therapeutic model, or a treatment plan, you can order a pre-treatment or mid-treatment diagnostic model. These diagnostic models can be produced from either an intraoral or CT scan.

Pre-treatment Diagnostic Models

A pre-treatment diagnostic model can be used to complete a full set of records for a patient. For example, if you took a scan or made impressions of the patient's malocclusion at the beginning of treatment, you can add these to the SureSmile patient record at any time, regardless when you submit it during SureSmile treatment.* If you designate the scan as the basis for a pre-treatment diagnostic model, it will be registered by the system as the initial scan for the patient's records.

You can also submit an intraoral scan as the basis for a Pre-Treatment Diagnostic Model if you want to add gingiva to a previously processed CT scan.

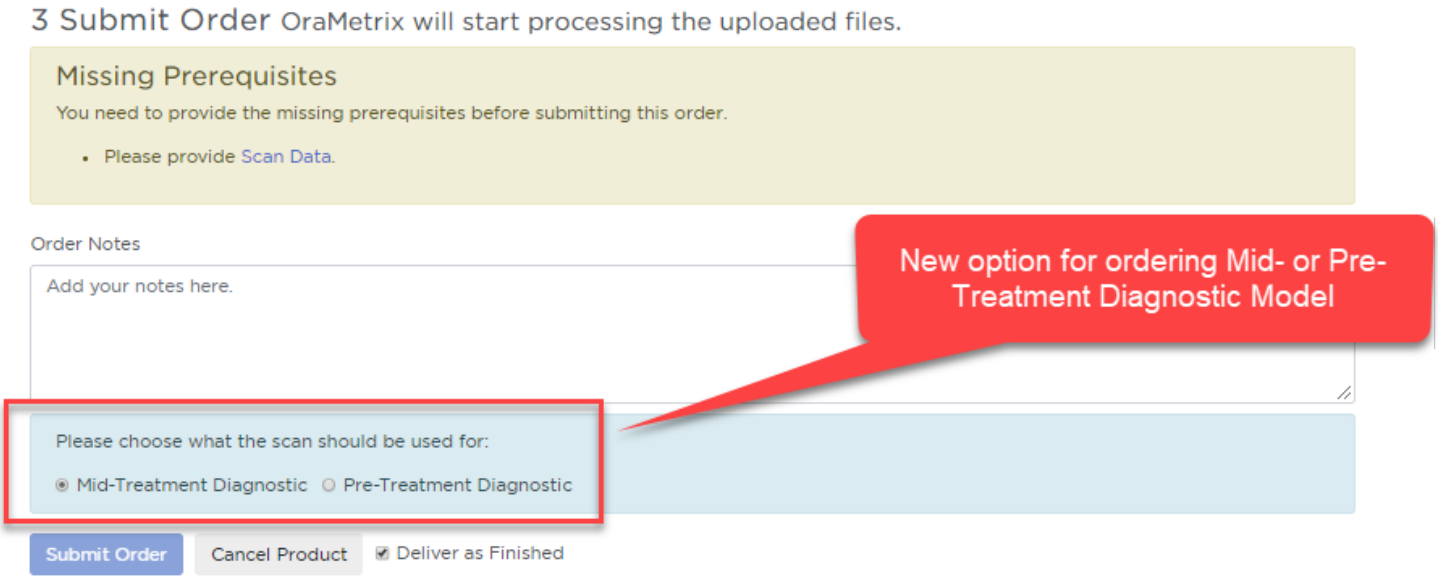
** Scan of plaster model of impressions is required.*

Mid-Treatment Diagnostic Models

Mid-treatment diagnostic models can be used for:

- Finishing wire therapy with aligners
- Checking treatment progress
- Planning aligner refinements (DIY only)

> **Note:** The SureSmile system places the mid-treatment diagnostic model in the patient's timeline in sequential order. That is, if a therapeutic model, plan and then wires have already been ordered, and you order a mid-treatment diagnostic model, this diagnostic model order will be shown as being ordered last. By contrast, pre-treatment diagnostic models are always listed as the first model ordered.



Therapeutic Models and Treatment Planning

In SureSmile, a therapeutic model is a 3D model of the patient’s individual tooth anatomy and bracket positions. This model is created from an intraoral scan and/or an in-vivo CBCT scan in combination with photos and x-rays.

Here is the typical process for ordering and reviewing a therapeutic model:

1. Level and align the patient's teeth using conventional treatment methods.
2. When you are ready to start treatment with SureSmile custom archwires, remove the conventional wires and take an intraoral or CBCT scan.
3. Take photos and X-rays to update records to the current state.
4. Create and order a therapeutic model in SureSmile.
5. After you submit the order, the Digital Lab processes your scan data and, using the photos and x-rays as references, creates a 3D model of the patient’s current dentition. Depending on the type of scan that you performed, the model may include gingiva and/or bone.
6. When the Digital Lab completes the therapeutic model, you receive the model in a digital format so that you can review it for accuracy.

After you review and approve the output from the Digital Lab, this therapeutic model is the basis for your treatment planning.

Why review the therapeutic model?

The therapeutic model is a 3D representation of the current dentition of the patient created by the Digital Lab based on the raw scan data, records and other information you provided. Moving forward, this therapeutic model will be used as the basis for your treatment planning. It is very important that you conduct a systematic and careful review of this therapeutic model to verify its accuracy before you start treatment planning. Any small errors or inconsistencies in the model can adversely affect your treatment plan.

Review Therapeutic Model

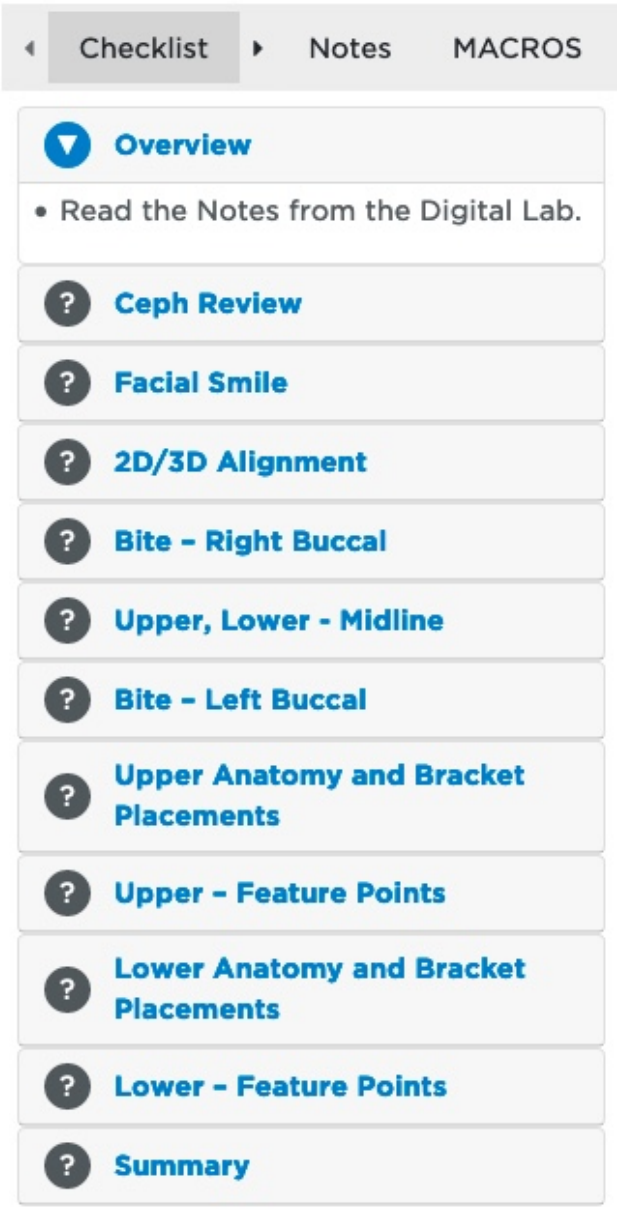
The treatment planning workspace provides a checklist that you can use to review a therapeutic model for accuracy and completeness before submitting the model. This checklist guides you through a step-by-step standardized review of the therapeutic model displayed in the main window of the treatment planning workspace. This 12-step checklist has associated views and tools that you can use to methodically evaluate the therapeutic model.

To Review a Therapeutic Model

1. From the clinic overview, identify a patient with a therapeutic model that needs review and open that patient's record.

2. In the upper-left corner of the treatment planning workspace, click the checklist icon on the menu bar to open the checklist for the therapeutic model.

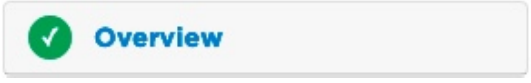
3. Click the **Checklist** button.
   Result: The 12 steps are displayed with a question mark icon next to each.



4. Click the question mark or the text of the step to expand the step.
   Result: The instructions for the step are displayed, and the appropriate images are displayed in the main window and the two side window.

5. Follow the instructions for the step.

6. When finished, use your cursor to click on the next step. Note that the question mark icon on the preceding step changes color from gray to green and the question mark is replaced by a check mark.



7. Repeat steps 4 and 5 until you complete the guide. See the help topic *Approve or Modify a therapeutic model* for next steps.

Approve or Modify a Therapeutic Model

After reviewing a therapeutic model you may need to make adjustments to the Digital Lab model so that the it accurately matches both your records and what you observed during your patient's examination. For example, you may need to make minor changes to several tooth feature points, to the global position, or to the bite registration.

1. Open the therapeutic model, make any necessary changes, and/or write notes to the Digital Lab to request modifications.
2. Go to the **Order** tab, and click one of following three options:
    - **Approve** accepts the model with your modifications and with no further changes required by the Digital Lab. In this case, the Digital Lab does not see the therapeutic model again.
      Note: If no changes have been made, only the **Approve** button is visible.
    - **Submit** sends the therapeutic model to the Digital Lab for additional modifications that you have requested in your notes and instructions.
    - **Revert Modifications** discards any changes that you made to the model.
      Note: If you choose this option, you still need to **Approve** or **Submit** the therapeutic model.

Treatment Simulations

A treatment simulation in SureSmile is a 3D model of the patient's treatment objective representing a specific treatment approach. It allows you to explore treatment alternatives before deciding on a specific setup prescription. In SureSmile you can create simulations based on a diagnostic model, a therapeutic model (mid-treatment model just prior to SureSmile treatment) and a final model. Each of these simulations is described in detail below.

The Treatment Simulation features are available when the patient record includes a diagnostic or therapeutic model. Start a new treatment simulation to examine the current malocclusion and evaluate treatment alternatives. You can create and save multiple treatment simulations. To use the most efficient steps for producing a simulation, simulate your treatment objectives based on the following boundary conditions:

- Midline
- Archform
- Class
- Resolutions
- Occlusal plane

When you are ready to order a setup prescription, you can select the simulation that represents your treatment objectives.

See also ...

Setup Prescriptions

Creating Treatment Simulations

A treatment simulation allows you to explore treatment alternatives before deciding on a specific setup prescription. The end result of a treatment simulation is a 3D model of the patient's treatment objective representing a specific treatment approach. You can create and store numerous treatment simulations for a patient before deciding on a specific treatment plan.

In order to begin a treatment simulation, there must be a model in an *Approved* or *Finished* state.

You can create treatment simulations based on diagnostic, therapeutic or final models. When you create a simulation based on a diagnostic model, keep in mind that you must be more aware of the clinical feasibility of the tooth movements, since unlike a therapeutic model, a diagnostic model is not the basis for the SureSmile wire.

Create a Treatment Simulation

1. Open a case with an Approved or Finished model. On the patient overview, click **New** and select **Treatment Simulation**.

   Tip: If the approved or finished model is already open, just go to the Order tab and click the **Create Simulation** button to save a few clicks.

2. Click the **Order** tab. Under Order name, enter a meaningful name for the simulation, e.g. *John Smith tx simulation 1*
3. Click **Save Name**.
4. Click the **Displacements** tab.
5. Make manual tooth adjustments as needed. See the help topic *Performing Manual Tooth Movements*.
6. Apply global movements as needed. You have the ability to simulate elastics and/or other global mechanics in the Global Registration tab. For example, CII/CIII elastics can be simulated under Translation a (+) / p (-).
7. When your treatment simulation is complete, close the patient case or start working on another model. Your changes are automatically saved, and you can reopen the simulation anytime from the patient's expanded timeline.

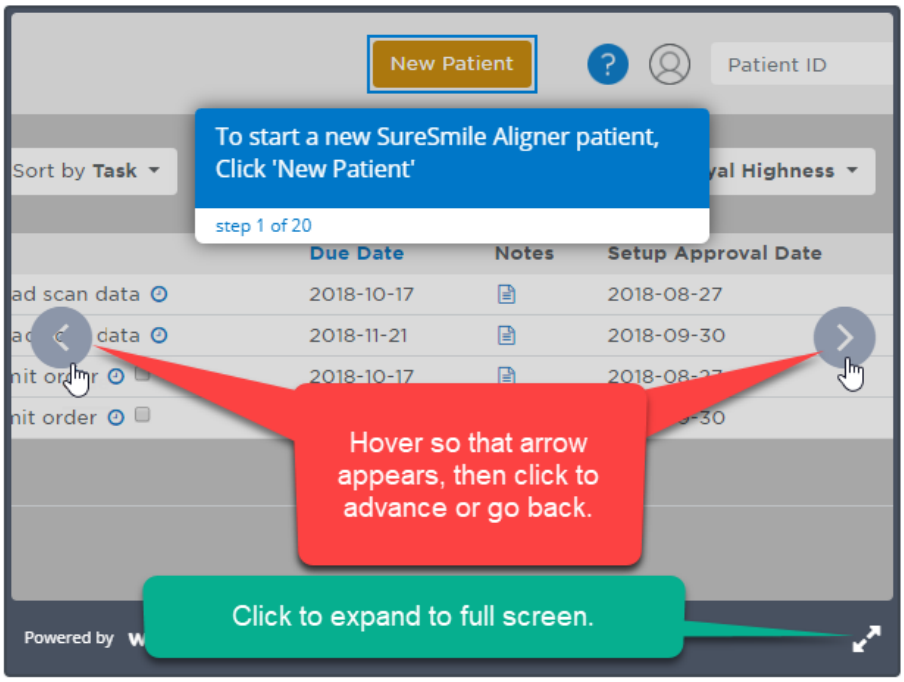
Using the Setup Workflow Tool for Simulations or Setups

The Setup Workflow tool enables you to rapidly simulate treatment outcomes that approach the quality of a high-fidelity setup. The tool uses an integrated workflow with automatic tools for basic alignment for all movements except torque. It provides an intuitive and workflow guided toolset for setups and simulations. Instead of moving teeth manually, you can set several teeth in each arch as reference teeth, and then allow the software to quickly build a treatment simulation for the entire arch based on the position of these reference teeth. You still maintain complete control of the simulation or setup. The automation features allow you to save substantial time, while the integrated workflow ensures a consistent approach to simulate treatment options. Use the Setup Workflow tool to quickly:

- Develop simulations from diagnostic models for aligners.
- Develop multiple simulations to explore treatment options.
- Create an embedded simulation in your setup.

Here are step-by-step instructions for using the setup workflow tools with a simulation or a plan in a "Not Ordered" state.

How to use slideshow

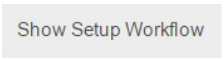


To use the Setup Workflow tool

Start the Setup Workflow tool from the Displacements tab for any new or unordered setup or treatment simulation. Each time you click a step in the Setup Workflow, the corresponding row in the tooth table on the Displacements tab is highlighted in blue, and the corresponding view in the 3D viewer is shown. The necessary treatment planning tools for processing that step are activated. At any time during the setup workflow, you can still make manual movements of any other teeth in the tooth table or in the 3D viewer.

> **Caution**: Moving the slider overrides the position of all manually re-positioned teeth, except for reference and fixed teeth.

1. Start a new setup or simulation, or open an existing setup if it is not yet ordered.
2. Go to the **Displacements** tab and click the **Show Setup Workflow** button in the lower right of the tab.

   The **Setup Workflow** checklist opens.

3. Start with whichever arch is your reference arch as determined by the patient's MACROS instructions.

4. Click the first setup work step, **Buccolingual**. The buccal/lingual row in the tooth table is highlighted in blue and the Occlusal view of the arch is displayed with the slideline in the 3D viewer.

    a. **Choose the appropriate archform**. The Natural archform with the **Symm**. (Symmetrical) option is selected by default. If you keep the default Natural archform, you can choose the **Asymm.** (Asymmetrical) option if you wish. As all other standard archforms are symmetrical, these two options are unavailable (dimmed) for any other arch choice. Click the **Arch form** list to see all available archforms.

    b. **Choose the reference teeth** for your buccolingual movements under **Archform References**. Choose any teeth you do not want to move buccolingually under **Buccolingual Fixed**. When you select a tooth as a reference tooth, it is also automatically selected as a fixed tooth. However, when you select a fixed tooth, it is *not* automatically selected as a reference tooth.

    c. **Move the reference teeth** buccally or lingually as needed to adjust the archform and then click the **Initialize Archform** button.

    d. **Go to the Amt. to Target slider** (right side of tooth table) for the highlighted buccal/lingual row and adjust the slider as appropriate. If you leave the slider in its default position at the right, this means that you do not want any additional movement besides that already shown in the tooth chart for this type of movement. Moving the slider to the left moves all of the teeth in the arch closer to the same relative position as your archform reference teeth. As you move the slider to the left, note that larger movements in the row are made first, smaller movements made later. This is in accordance with general orthodontic practice.

    Note: Millimeters are used for Mesial/Distal, Buccal/Lingual, Occlusal/Gingival movements. Degrees are used for Angulation and Rotation movements. Values closer to zero indicate the amount of movement is closer to the selected reference tooth, or to the tooth feature points if no reference tooth or teeth are selected.

Caution: If you are at a specific step in the work flow, and you wish to restore the reference or fixed teeth to their defaults, DO NOT click the **Defaults** button. Clicking this button restores the default reference and fixed teeth for ALL of the steps in the Setup Workflow. Instead, to reset a fixed or reference tooth position for this step only, use the **Undo** feature in the lower right of your screen.

Key to the colors of the teeth in the small tooth crosses:

Color	Meaning
	A reference or rotation symmetric tooth
White	• **Reference tooth cross:** Unselected teeth that are available for selection as reference teeth. When you pick another reference tooth, the previous reference tooth turns from pink to white. • **Fixed tooth cross:** Unselected teeth that are available for selection as fixed teeth.
Dark red	A fixed tooth that is also a reference tooth
Bright red	A fixed tooth
Gray	Gray indicates: • Teeth in the inactive arch • Teeth in the active arch that cannot be used as reference or fixed teeth for this kind of movement • Teeth that are missing

Green	**Green** ndicates teeth that are not available for angulation movements. Green is only used in the Angulation I and Angulation II steps to distinguish these steps from the other steps.
Teal	• Reference teeth in the inactive arch, or • Reference teeth in one angulation step that are consequently unavailable in the other angulation step
Purple	A fixed tooth in the inactive arch

5. Click the **Rotation** step. The **Rot. mesial/distal** row in the tooth table is highlighted in blue. The Occlusal view of the arch is displayed in the 3D viewer. There are no preselected reference teeth. If you do not select any reference teeth, the software will define the alignment by the tooth feature points.
    a. (Optional) Choose reference teeth under **Rotation Symmetric**. Pick teeth in good rotational alignment so that when you click the **Symmetrize Rotation** button, the rotation of the respective tooth in the other quadrant rotates into the same position relative to the slideline. Click **Symmetrize Rotation** to mirror rotation.
    b. Choose any teeth you do not want to rotate under **Rotation Fixed**.
    c. Go to the **Amt. to Target** slider for the **Rot. mesial/distal** row and adjust as needed. Moving the slider aligns rotation along the slide line using the tooth axis (5-5), marginal ridges (lower molars) and central grooves (upper molars).
6. Click the **Angulation I** step. The **Ang. mesial/distal** row in the tooth table is highlighted in blue. The Right Buccal view of the arch with marginal ridges is displayed in the 3D viewer. If the model was derived from CBCT scan data, roots are displayed.
    a. (Optional) Choose your reference teeth under **Angulation references**. The 5s are the defaults. If no tooth is in proper alignment yet, angulate your favorite tooth to the desired position and select it as a reference tooth. Choose any teeth you do not want to angulate under **Angulation Fixed**. The 1s (centrals) are disabled (green) for this step as they will be adjusted in the next workflow step.
    b. Go to the angulation **Amt. to Target** slider and adjust the slider as needed. Movement for angulation is indicated by degrees of mesial or distal deviation from the tooth long axis. Positive values indicate mesial angulation, negative values indicate distal angulation.
7. Click the **Angulation II** step to adjust the 1s (centrals). The **Ang. mesial/dista**l row in the tooth table remains highlighted in blue and the Labial view of the arch is displayed in the 3D viewer. If the model was derived from CBCT scan data, roots are displayed. Note that in the small tooth cross, only the 1s are available as indicated by their white color.
    a. Choose your reference teeth under **Angulation references**. If no tooth is in proper alignment yet, angulate your favorite tooth to the desired position and select it as a reference tooth.

        Note: There are no default reference teeth for this step.

    b. Go to the angulation **Amt. to Target** slider and adjust the slider as needed.
8. Click the **Vertical** step. The **occlusal/gingiva**l row in the tooth table is highlighted in blue. The Right Buccal view of the arch with the occlusal plane is displayed in the 3D viewer.
    a. Choose your reference teeth under **Occlusal Plane References**. The reference tooth cross allows three reference teeth per arch. The default reference teeth are the R1 and the 6s. Check the labial view to make sure the Occlusal Plane is horizontally level before and after making changes to the reference teeth.
    b. (Optional) If you choose another reference tooth and reset the occlusal plane, click the new reference tooth in the tooth cross, click the cell for the reference tooth in the occlusal/gingival row of the tooth table and then intrude or extrude the tooth as needed. Click the **Initialize Occlusal Plane** button to reset the occlusal plane to the tooth you just moved.
    c. Go to the occlusal/gingival **Amt. to Target** slider and adjust the slider as needed. Dragging the slider to the left moves the teeth toward the occlusal plane.

N**ote:** Occlusal offsets (overbite) are considered by the software when the Occlusal Plane is recalculated. The Curve of Spee can be levelled by selecting two molar teeth. The software immediately calculates a balanced position for the Occlusal Plane, maintaining the reference teeth and levels the Curve of Spee by a combination of intrusion and extrusion.

9. To clear any spaces in the **Gap/Intersection** row, click the **None** workflow step, then:
   - Click the **Clear Spaces** button,
     or
   - Go to the Gap/Intersection **Amt. to Target** slider and move the slider completely to the left.

     Either method functions correctly.

10. Go to the opposite arch and repeat the **Setup Workflow** steps for that arch.

Design the Smile Line with the Lip Trace Tool

The lip trace tool allows you to cut out the area inside the lips on a facial smile photo and then superimpose the patient photo over the model to see how much intrusion or extrusion is needed to design the smile line.

Use this tool during the therapeutic model review to get the image ready before you start the setup. You can also use this tool during setup or treatment simulation.

Automatic Lip Tracing

SureSmile automatically draws the lip trace for your Full-service cases.

Lip tracing cuts out the area inside the lips on a facial smile photo and then superimposes the patient photo over the model to see how much intrusion or extrusion is needed to design the smile line. Use this feature during review of the setup and staged models. The lip tracing is automatically applied once the Digital Lab creates the setup. Once the setup has been created by the Digital Lab and sent to you for review, you can view the lip trace cutout on the setup, staged model (if applicable) and the therapeutic model.

To turn on lip trace:

1. Open the setup or staged models to be reviewed.
2. Click the **Display** menu.
3. Click the **Lip Trace** tool.
4. Click the **Fade image control** tool.
5. Adjust the **Fade image control slider** as needed.

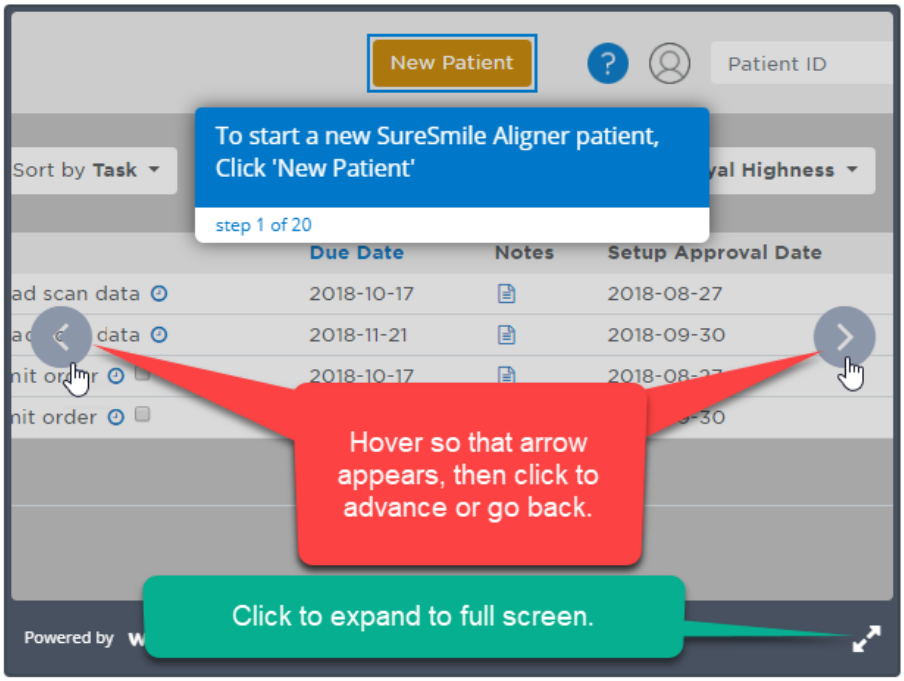
Additional info:

- You can also view the lip trace on approved setups, staged models, or therapeutic models.
- The automatic lip trace is not applied to the therapeutic model until a submitted setup is in production at the Digital Lab. The automatic lip trace function occurs when the setup is opened in setup design at the Digital Lab only. Since this feature is only applied when the setup is processed, it is not available in a treatment simulation.
- The practice may utilize this feature when reviewing the patient's setup or aligners. The automatic lip trace feature can be viewed in the approved therapeutic model and a previously created treatment simulation only after a setup or aligners are in a To Review or Approved State.
- If the practice wants to view the Lip trace feature in the therapeutic model or in a treatment simulation without a setup or staged models in a review state, they have to apply the lip trace manually using the lip trace tools.

Manual Lip Tracing

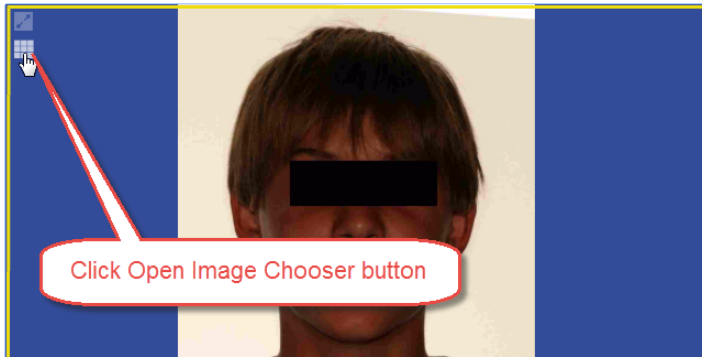
Slide Show: Here are step-by-step instructions for manually using the lip trace tool with a therapeutic model.

How to use slideshow

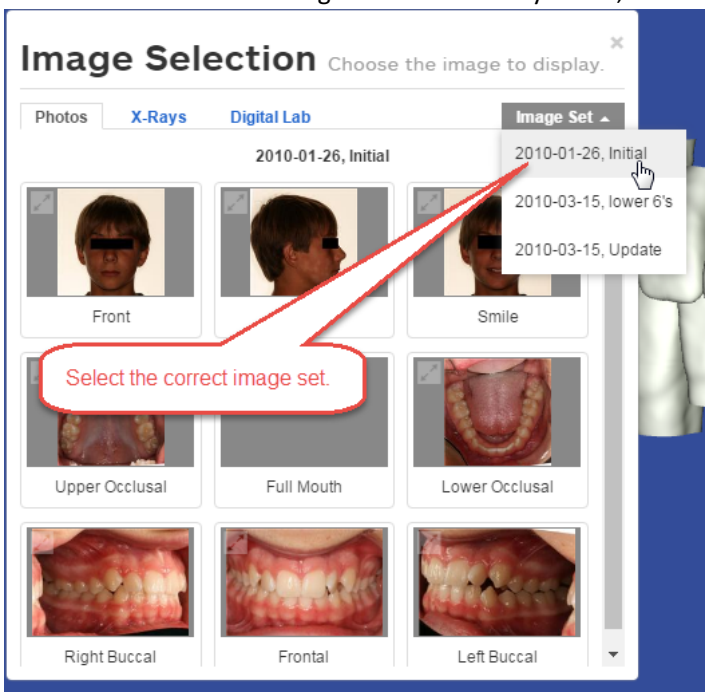

New Patient
Patient ID
To start a new SureSmile Aligner patient, Click 'New Patient'
step 1 of 20
Sort by Task
Due Date
Notes
Setup Approval Date
ad scan data
2018-10-17
2018-08-27
data
2018-11-21
2018-09-30
2018-10-17
nit order
Hover so that arrow appears, then click to advance or go back.
Click to expand to full screen.
Powered by

To use the lip trace tools:

1. Open the model or treatment simulation you want to work with. Make sure the smile photo from the correct image set on which you want to perform the lip trace cutout is displayed in one of the side windows. *How do I do this?* Click in the side window to make it active. (Yellow frame indicates window is active.)
2. Click the Open Image Chooser button in the top or bottom side window where you want to display the smile photo.



3. The Image Selection dialog box opens. Make sure the correct image set is selected by clicking the Image Set drop-down list arrow. If the correct image set is not already select, select the correct one now.



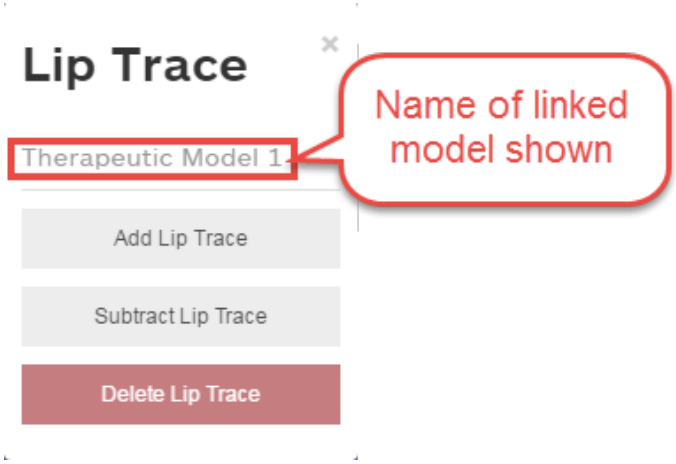
4. Once the correct image set is displayed in the Image Selection dialog box, click on the thumbnail of the photo you want to display in the side window of the treatment planning workspace. This will cause the Image Selection dialog box to close and the photo you clicked on will appear in the side window.
5. Click the **Image** menu to display the image tools, and click the **Lip Trace Tools** icon.
6. In the menu bar, click **Display**. Toggle the tools as listed and shown below:

Click Display Menu tools....	...to show
Maxilla and Mandible	both arches in main window
Toggle Active /Reference Model	Active or Reference Model in main window
Gingiva	Gingiva for more lifelike appearance

Smile Photo	Smile photo in main window

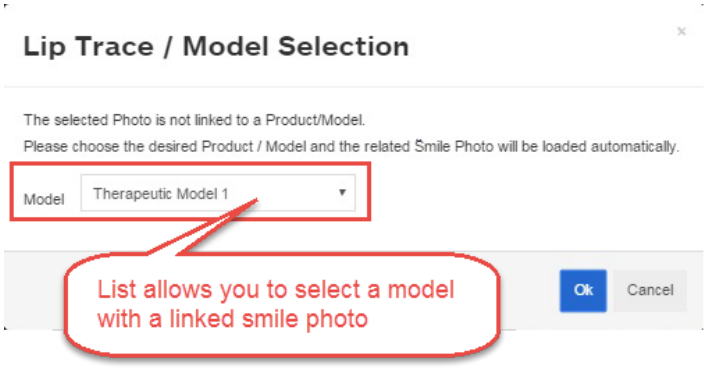
Manually dreating a lip trace cutout on a linked facial smile photo:

1. Click the **Image** menu in the treatment planning workspace or in the menu bar on the Image Management page and then click the **Lip Trace Tools** icon. The software checks for a linked model. If the photo shown is linked to a model, the lip trace control panel appears to the left of the photo. Note the name of the linked model is shown.



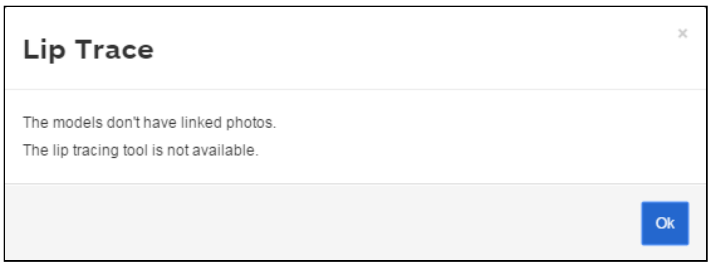
What happens if the photo is not linked to a model?

- If there is one model with a linked smile photo other than the one shown, then the smile photo linked to that model replaces the photo on the image management page and the lip tracing tools are activated.
- If there are multiple models with linked smile photos other than the smile photo shown, the software displays a message box with the option to choose one of the models with a linked smile photo. If you select one of the models in the list, the smile photo linked to that model replaces the photo shown and the lip tracing tools are activated.



- If there are no models with linked images, the software displays a message indicating this and stating that the lip tracing tool is not available. If you want to link an image with a model, do one of the following
    - If the **therapeutic or setup model is in a review status**, in the **Edit Notes** text box on the **Order** tab add a note which photo should be linked to the model, and submit the model with modifications.
    - If the **therapeutic or setup model is already approved**, please contact SureSmile Customer Care. Be prepared to tell them which image set the smile photo belongs to and which model you want linked.

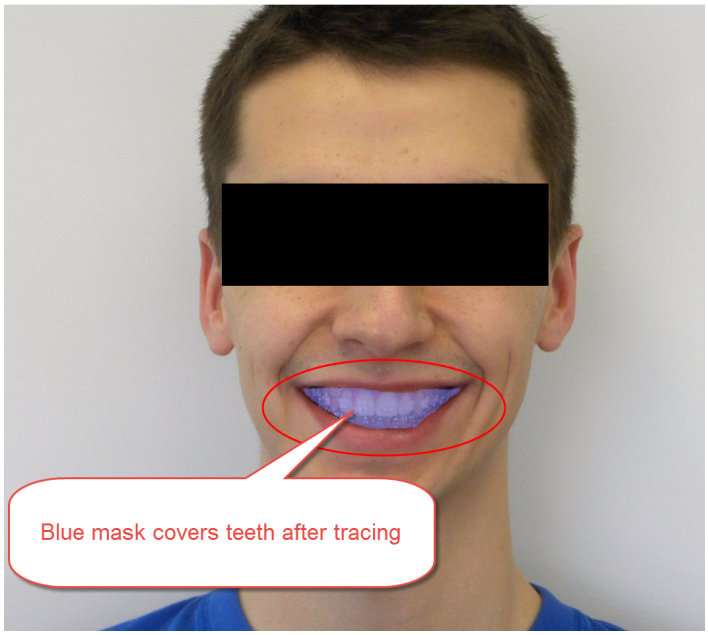
- For **treatment simulations**, please contact Customer Care. Be prepared to tell them which image set the smile photo belongs to and which reference model you want linked.



2. If the smile photo is linked to a model and the Lip Trace control panel is available, then you are ready to begin the lip trace. Click one of the three buttons as appropriate on the Lip Trace Control panel:

   - **Add Lip Trace** - Use this tool to draw the lip trace cutout or add cutout areas to a lip trace cutout. Click and drag your mouse to trace the lip line. Your cursor turns into a cross-hair X to help your accuracy.
   - **Subtract Lip Trace** - Move the mouse to erase a portion of the lip trace. Useful when you are fine-tuning a lip trace cut out.
   - **Delete Lip Trace** - Completely removes the lip trace. Use when you want to remove the lip trace and start over.

   Result: After you complete a trace, a blue mask covers the teeth in the photograph.



   The teeth in the smile photograph in the main window are simultaneously cut out so that the model behind the photo shows through.

View the Lip Trace Cutout

Follow the steps below to overlay the facial smile photograph on top of the 3D model in the main window so that the teeth of the model appear in the cut out area of the photo.

1. Open the model you wish to view with the smile photo superimposed.
2. Click the checklist icon and select the **Facial Smile** step.

3. Make sure the facial smile photograph with the cutout is displayed in the main window or in one of the side windows.
4. In the menu bar, click **Display**. Toggle the tools as listed and shown below:

Click Display Menu tools....	...to show
Active	Active model in main window
Toggle Active /Reference Model	Active or Reference Model in main window
Gingiva	Gingiva for more lifelike appearance
Smile Photo	Smile Photo in Main window
Fade	Fade Image slider control - adjust transparency of photo
Lip Trace	Lip trace on or off
3D/2D	Linked smile photo on or off

5. When finished, click the next step in the checklist to continue your review.

How to subtract or add to lip trace area

1. Click the image in the top right panel and use the zoom controls to enlarge the patient's smile.
2. Click the **Image** menu.
3. Click the **Lip Trace Tools** icon to display the tools.
4. Click **Add**, **Subtract** or **Delete** and make your changes.
5. Click to highlight the large 3D window.
6. Click the **Display** menu.
7. Click the **Lip Trace** icon.
8. Your changes will be shown in the large 3D window and will be visible in the patient's therapeutic model, treatment plan, staged models or simulation.

Setup Prescriptions

Outline your setup prescription by entering your choices in the MACROS form, either manually or by using the Setup Prescription Guide. Type any additional explanations needed in the product notes. Digital Lab Setup technicians will produce a finished setup that can be used for therapeutics based on the instructions in your setup prescription.

See also...

Create and Order a Setup Prescription

Remove Setup Prescription

Create and Order a Setup Prescription

When you create a setup prescription, a 3D model is presented as you move through the steps of the setup prescription checklist. Since the setup model acts as a simulation, it is called an *embedded simulation*.

> **Tip**: Before you start the setup prescription, you may find it useful to perform one or more treatment simulations to observe multiple treatment scenarios.

To create and order a setup prescription, follow these steps:

1. From the practice home page, open the record of the patient for whom you need to order a new setup.
2. Click **New**, and select **Setup** from the drop-down menu.
   Result: A new setup appears.
3. Click the checklist icon on the menu bar to display the setup prescription checklist.
4. Follow the steps in the checklist. As you go through the steps, you will be directed to enter treatment instructions in the MACROS. Whenever you click in a section of the MACROS, corresponding images and models display automatically on the treatment planning workspace to assist you.
5. After you complete the checklist, go to the **Order** tab.

   Note: if you wish to use another treatment simulation as the basis for your setup instead of the embedded simulation (the simulation currently displayed in the main window), select the simulation from the A**ttach Simulation** list. If aspects of the attached simulation conflict with instructions in the setup order or in the doctor's typed notes, these aspects of the simulation will be ignored by SureSmile.

6. Click **Submit** to order the setup model.
   Result: The state of the setup changes to *Ordered* in the status bar at the top of the page**.**

Remove Setup Prescription

To remove a setup prescription that has not been submitted, follow these steps:

1. Open the patient's record and click on the setup that you want to remove.
2. Go to the **Order** tab, then click **Remove Order**.
   Result: A pop-up window opens asking "Are you sure?"
3. If you are sure you want to delete the setup prescription and all of the information you have entered, click **OK.**
   OR
   Click **Cancel** to keep the setup prescription.

   Note: To cancel a setup prescription already submitted, contact SureSmile Customer Care.

Review a Setup

Before custom archwires can be produced, SureSmile must receive a setup prescription, return the finished set-up to you (the treating doctor) for approval, and receive your approval.

Within SureSmile is a set of automated workflow steps, collectively called the setup review checklist, that helps you quickly ensure that your prescription has been precisely implemented as you intended. If you find something in the setup that is not correct, or if you decide you want to make another change, you can modify the setup and communicate your changes to the Digital Lab.

When you open a setup in a *To Review* state, the setup model opens in the treatment planning workspace. In the upper-left corner of the treatment planning workspace, click the checklist icon on the menu bar to open the checklist for the setup. Each time you select a step in the checklist, the 3D model in the main screen reorients to the ideal position for the step. The photos and x-rays in the two smaller side panes also change as appropriate.

If the delivered setup reflects your treatment objectives, approve the setup and use it to order archwires. If the setup does not represent planned treatment,or if the plan has changed, submit to the Digital Lab a detailed request for modifications or simply make the adjustments yourself.

> **Note**: If you decide to start again with an entirely new setup prescription, you will need to approve the current setup and start another plan with the new prescription.

Review Setup with Checklist

Designed with the input of doctors who are expert SureSmile users, the setup review checklist takes you step-by-step through a review that helps you complete this task faster and to find issues more easily. Each step in the checklist automatically sets up the screen with the information you need to review an aspect of the setup.

To use the setup review checklist, follow these steps:

1. Open a setup that needs review.
2. Click the Checklist icon .
   Result: The setup review checklist expands to a list of steps revealing three buttons: Checklist, Notes, and Macros. You can use either of the following methods to work through the list.
   - Click steps directly in the checklist.
   - Click the left and right arrows on the **Checklist** button to move back and forth in the list.

   Note: The steps are checked off for you to help you keep track of your progress.
3. In the first step (Overview), click the **Notes** button at the top of the guide to read the notes from the Digital Lab.
4. To filter the notes, select Standard, User or All from the drop-down menu just above the list in the Overview section.
5. If you want to check your entries, click the **MACROS** button to view your setup prescription form.
6. When you have completed your setup review, follow the steps for approving or modifying the setup.

See also ...

Global Registration Tab

Occlusal Plane

Modify a Setup and Return it to the Digital Lab

While reviewing the setup, you can make modifications at any time. You can also request changes from the Digital Lab by entering instructions in the Edit notes box.

After all changes have been applied and/or specific notes have been provided to request modifications, follow these steps:

1. Open the setup, and click on the **Order** tab.
2. Select one of the following:
    - **Approve** - approves the model with any modifications that were made.
    - **Submit** – sends the model to the Digital Lab along with any modifications made. Be sure to type any notes or instructions to the Digital Lab before submitting the model for modifications. (This is the recommended method during implementation.)
    - **Revert Modifications** – discards any modifications that were made to the model. You still need to either approve the model or modify it again, as the model is still in a To Review state.

    Caution: If you choose the Approve option, the Digital Lab will be unaware of your modifications. This creates the potential for uneven IPR or uneven spacing in the setup.

    Result: After you submit the setup, the order status changes to **Ordered**. After the Digital Lab technician reviews and/or makes your changes, the model will be moved to the *To Review* product status again.

Approve a Setup

Before you can process a custom archwire order, you must approve the setup.

After reviewing the setup and finding that everything correctly reflects your treatment goals, follow these steps:

1. Open the setup, and click the **Order** tab.

2. Click the **Approve** button.

3. The Approve Setup dialog box opens. The **Create Wire Order Next** check box is selected by default. Click **Approve**.
   Result: The wire design workspace opens with the reference model (blue teeth, typically the therapeutic model,) displayed in the left pane and the current (i.e., active) plan (white teeth) displayed in the right pane. See Designing, Ordering and Inserting SureSmile Archwires for information on ordering wires .

   Note: You can review the setup after your approve it, but you cannot change it. If you have approved an order you would like to cancel or change, contact SureSmile Customer Care. If your treatment plans change and the setup no longer reflects your objectives, or if there is a significant change in the patient's tooth anatomy, you should submit a new setup prescription.

Using MACROS

SureSmile organizes the information required for a setup prescription into six categories:

- **M** - Midline
- **A** - Archform
- **C** - Class
- **R** - Resolutions
- **O** - Occlusal Plane
- **S** - Surgery (or Special Instructions for Aligner cases)

We refer to these six categories by the acronym MACROS. Think of MACROS as an organizational tool to help you with your treatment planning and to convey your treatment instructions to the Digital Lab. We require all SureSmile doctors to provide treatment objectives, specifications and instructions for the desired treatment set-up using the MACROS sections of the setup prescription guide. For example, when working on the Midline section, you might consider some of the following questions. Do I like the patient's midline? If not, how much will I change it? Which teeth should I move to achieve the desired result? What mechanics should I use in conjunction with the SureSmile arch wire to move the teeth? You can record the answers to these and other questions in the MACROS. This provides the Digital Lab setup technician with the detailed instructions they need to process your plan.

The MACROS are embedded in the SureSmile interface for every product. You can choose to skip using a checklist by clicking the MACROS button at the top of the checklist and just entering your instructions directly into the MACROS. However, making selections under each of the six MACROS categories listed in the setup prescription guide is required by the Digital Lab for your setup technician to process your setup order. If all of the MACROS categories are not filled out, or if the Digital Lab has questions regarding the treatment plan, the setup order is returned to you with an associated task to provide in the product notes the information requested by the Digital Lab.

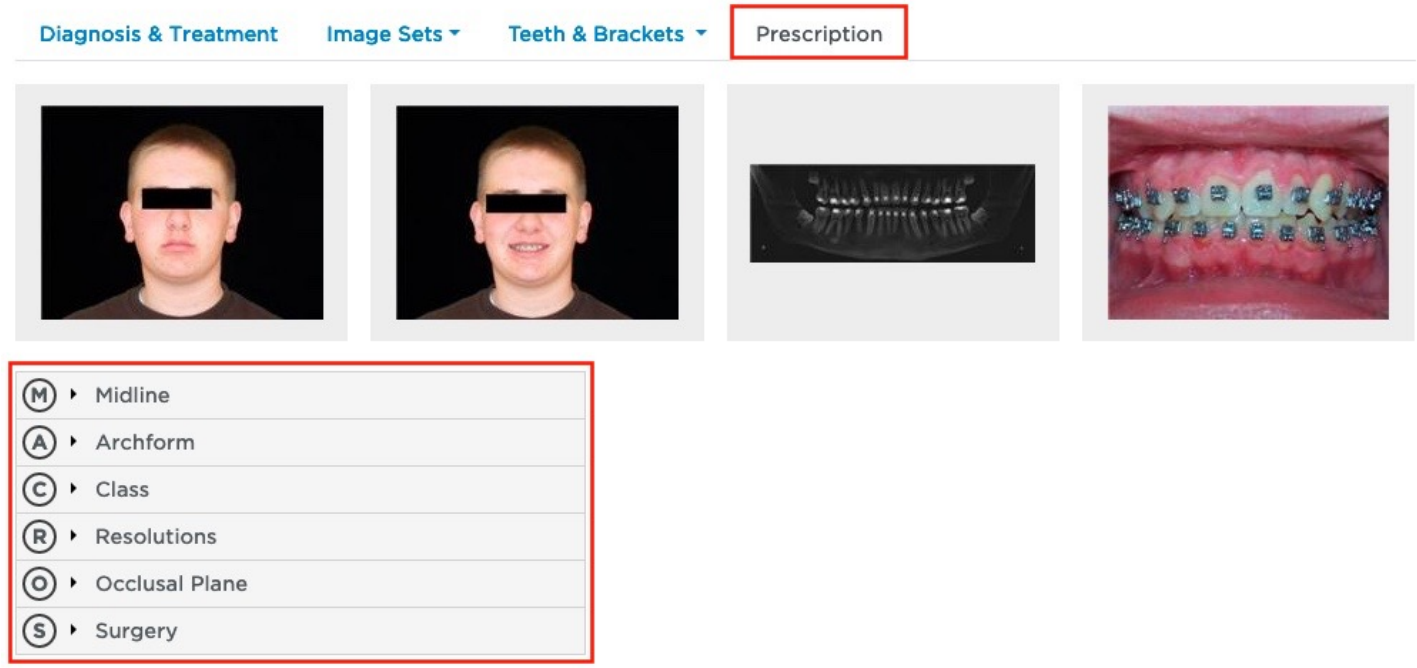
The remaining topics in this chapter of the online help detail each category of the MACROS.

> **Tip:** Use the SureSmile preferences setting to pre-set common default values and preferences for MACROS for all patients to save time when entering specific patient instructions in the MACROS form. See below for instructions.

Entering MACROS from the Patient Overview Page

MACROS allows you to note treatment decisions at any point in the care cycle. For example you can open MACROS from the Patient Overview to enter preliminary diagnostic and basic treatment planning information before you begin in depth treatment planning.

1. From the Patient Overview screen, click the **Prescription** tab to display the MACROS below. The Midline section photos are shown by default.
2. Click each section to expand and enter your instructions. Note the images change to match the section you've clicked in.



Entering MACROS from a checklist on the Treatment Planning Workspace

After you have approved a therapeutic model, you are ready to create and order your setup prescription. (See Create and Order a Setup Prescription for full instructions.)

1. Click the checklist icon on the menu bar to display the setup prescription checklist.
2. Follow the steps in the checklist. Whenever you click in a section of the MACROS, corresponding images and models display automatically on the treatment planning workspace to assist you. As you enter your instructions in each section of the MACROS, the letter corresponding to that section changes color. (See What do the MACROS/Prescription button colors mean? below.)

Directly entering MACROS on the Treatment Planning Workspace

1. Click the **Open Checklist** toolbar icon.
2. Click **MACROS** at the top of the list.
3. Click each section title to expand the list and enter your instructions.

TIP: If you use the same instructions for most of your cases, you can make them your default selections so that every time you start a new prescription the MACROS fields are pre-populated with these selections. You can then change any of the fields as needed for each patient. See Prescription Preferences for instructions.

What do the MACROS/Prescription button colors mean?

Midline	Section has not been opened or clicked in.
Midline	More information is needed.
Midline	All needed information has been provided.

Note: Even though you may have set pre-defined defaults for your MACROS or prescriptions under prescription preferences, all buttons appear white when you first begin to order or review a product.

Midline

Use this section of the MACROS to specify to the Digital Lab the following details of your treatment plan:

- Whether midline will be maintained or corrected.
- Whether you are treating to the upper or lower dental midline
- Whether you want to achieve midline correction with global movements or dental movements or both
- Maximum amount of IPR in conjunction with dental movements

To make selections in the Midline section:

1. Click the **Midline** section to open it and display the facial photo in one of the side windows and frontal view of the 3D model in the main window.

2. Select one of the following options. Depending on which option you select, the remainder of the midline section changes dynamically. Make the rest of your selections for an option as indicated.
    - **Maintain** - Maintain the patient's midline.
    - **Move Upper to Lower** - Select the method of dental movement from the list and add additional notes as needed.
    - **Move Lower to Upper** - If the midline correction will be achieved by global movement (e.g. arches repositioned using elastics), click the **Global** check box and select the class change from the list.
      or
      If the midline will be achieved by tooth movement, click the **Dental** check box and select the method from the list.
    - **Independent (Move both)** - Use the controls shown to indicate movement and/or indicate the amount of movement in the notes.
3. If you are planning IPR, enter the maximum amount of IPR planned in the Notes box.

Archform

Use this section of the MACROS to specify to the Digital Lab the following details of your treatment plan:

- Whether to treat to upper or lower archform
- Archform type preference
- Which are the reference teeth for the archform
- Maximum amount of expansion and/or constriction allowed

To make selections in the Archform section:

1. Click the **Archform** section to open. SureSmile automatically displays the upper and lower occlusal photos in the side windows and the labial view of the 3D model in the main window.

2. Select one of the following options. Depending on which option you select, the remainder of the Archform section changes dynamically. Make the rest of your selections for an option as indicated.
    - **Maintain Relationship** - Maintain the patient's archform. Select the archform from the list and enter additional expansion or constriction if needed. Type notes as needed.
    - **Adjust to Upper/Adjust to Lower** - Select the archform from the list and enter additional expansion or constriction if needed. Set the archform reference teeth and type notes as needed.
    - **Independent (Move both)** - Select the archform from the list and enter additional expansion or constriction if needed for each arch. Set the archform reference teeth and type notes as needed.

Class

Use this section of the MACROS to specify to the Digital Lab the following details of your treatment plan:

- Whether to maintain or correct the molar class and the canine class
- Achieve correction by global movement or dental movement or both
- Select whether the overjet should be ideal or if a gap is permissible

To make selections in the Class section:

1. Click the **Class** section to open it and display the right and left buccal photos in the side windows, and the labial view of the 3D model in the main window.

2. **Maintain Molars and Cuspids Bilaterally -** Select one of the following options. Depending on which option you select, the remainder of the Class section changes dynamically. Make the rest of your selections for the option you select as indicated.
    - **Maintain -** Select whether the overjet should be **Ideal** or a **Gap** is permissible. Add notes as needed
    - **Correct -** Choose the correction for the right and left molars and canines. Select whether the overjet should be **Ideal** or a **Gap** is permissible. Add notes as needed.

Resolutions

Use this section of the MACROS to resolve tooth size issues and to specify to the Digital Lab the following details of your treatment plan:

- Which segments will need IPR
- Space closure requirements
- Special instructions for restorations
- Whether to accept *overjet* or *class* as the priority if both are not obtainable when resolving tooth size issues
- Tooth movement restrictions (fixed teeth)

To make selections in the Resolutions section:

1. Refer to the Tooth Size Discrepancy Chart and then, if necessary, select one of the three options under **Resolve Tooth Size Issues:**
    - **IPR** - Under **Location**, indicate which segments will need IPR and specify limits.
    - **Restorations** (No IPR) - Under **Resolve Restorative Issues,** type your instructions, e.g. regarding prosthetics or if a bridge is planned.
    - **Accept Best** (No IPR) - Under **Prioritize** choose either *Overjet* or *Class*.
2. Under **Space Closure Requirements** select one of three choices: *Reciprocal*, *Max. Anchorage*, *Min. Anchorage*
3. Under **Tooth Movement Restrictions** select teeth for which movement is restricted.
4. Add notes as needed.

Occlusal Plane

Use this section of the MACROS to indicate which teeth represent the correct location for the patient's occlusal plane. You can also type notes regarding the leveling needed for the posterior, functional, and anterior regions of the plane. Specify to the Digital Lab the following details of your treatment plan:

- Whether to treat to the upper occlusal plane, the lower occlusal plane, or independently
- Indicate the occlusal plane reference teeth
- Instructions for correcting cant
- Amount in millimeters of anterior overbite
- Instructions for adjusting the Curve of Spee and the Curve of Wilson

To make selections in the Occlusal Plane section:

1. Under R**eference Arch**, select the **Upper**, **Lower** or **Independent** option to indicate the arch driving the occlusal plane.
2. Click the check boxes in the tooth chart to select or clear teeth. If necessary, click teeth in the chart to deselect them. Deselected teeth appear white.
3. Under **Cant Correction**, indicate the region(s) to extrude or intrude.
4. Under **Anterior Overbite**, choose the range you want to treat to.
5. Adjust the Curve of Spee or Curve of Wilson as needed using the menu selections.
6. Add notes as necessary.

Surgery

Use this section of the MACROS to indicate if a case is a surgery case. Specify to the Digital Lab the following details of your treatment plan:

- Which jaws will have surgery
- Any special instructions related to the surgery

To make selections in the Surgery section:

1. If the case is a surgical case, indicate under **Surgery On** which jaws will have surgery. Indicate under each jaw if the surgery will be 1, 2 or 3 pieces.
2. Add any special instructions or notes as necessary. For example enter instructions to indicate the type of surgery such as mandibular, set back or LeFort II.

Designing, Ordering and Inserting SureSmile Archwires

This section of the help guides you through the wire design and order process. As part of this process, you may apply limit values and over-corrections to your wires as needed.

Generally, patients are ready for SureSmile custom archwires when they are somewhat leveled and aligned. For most patients, this occurs within the first 3-6 months of conventional orthodontic treatment.

The following minimum treatment conditions should be met before SureSmile wires are used:

- Spaces are closed to 3 mm per arch
- Less than 10 degrees of rotation remains
- Vertical steps are all under 1.5 mm

As the treating doctor, it is up to you to determine when each patient is ready for SureSmile archwires. These recommendations are only guidelines. They are not intended to override your clinical expertise.

Although you can start a request for an archwire anytime, SureSmile requires a therapeutic model and an approved setup to create custom archwires.

Components of Wire Design

After you make adjustments to your archwire design and order archwires, SureSmile combines the information outlined in the following table to produce custom-bent archwires.

Product	Based On
Therapeutic model and any partial scan updates	Current tooth anatomy and positions, bracket type, and bracket position relative to each tooth
Setup	Desired tooth positions
Order information	Cross-section, material, and modifications

> **Limitations**: SureSmile archwires are effective in terms of providing correct intra-arch relationships only. SureSmile depends on the Orthodontist's clinical judgment to manage inter-arch relationships and space. Dentsply Sirona does not determine patient care. Dentsply Sirona only provides therapeutics as directed by the doctor.

Tip: When you receive an archwire package, Dentsply Sirona recommends that you check the archwires against your plan.

Wire Design Options

1. **Full Expression Archwire (setup wire)** - a wire designed to move the teeth to the planned final positions based on the setup. This is the wire based on the setup and created automatically by SureSmile if you do not specify any overrides,

2. **Full Expression Archwires (with overrides)** - this is the wire based on the setup AND your overrides. Overrides are over-corrections made to a SureSmile archwire prescription automatically generated by SureSmile from the setup. Examples of these are:

    - Overcorrected wires
    - Undercorrected (undersized) wires
    - Limit wires with passive (0%) segments
    - Limit value % wires (e.g., 75%, 50%, 25%)
    - Straight archwires

3. **Modification Wires** - these are wires based on a new archwire prescription created by you, when the original wire or wires are not expressing the setup as originally planned.

- **Setup Modification Wire** (based on treatment simulation) - A new wire based on a new treatment simulation. This new wire includes overrides from the last inserted wire plus the modification values derived from the new treatment simulation.

- **Compensation Wire** (based on progress model) - An archwire derived from a progress model that is intended to get a patient back on track and achieve the treatment objectives of the setup plan.

Order an Archwire

Before custom archwires can be processed, you must have approved the setup for the patient. Place the order for a wire after selecting the cross-section and material, entering any needed overrides, and typing relevant notes.

You can review a wire order at any time, but after submitting it to the Digital Lab, it is in a read-only state, and you cannot change it. To remove or cancel a wire that has already been submitted, see *Cancel a Wire* Order.

SureSmile calculates the estimated wire insertion date for 3 weeks from the date you order the wire. Dentsply Sirona allots 3 weeks for wire production and delivery to accommodate international customers

To order an archwire

1. From the patient overview, on the **New** menu, click **Wire**.
   Result: The wire design workspace opens with the reference model (therapeutic model with blue teeth) displayed in the left pane and the current (i.e. the active plan displayed with white teeth) in the right pane..

   Note: If this is not the first wire for the patient, the **Create New Wire** window opens. See *Apply Over-Corrections to Wires* for more details, then return to step 2 of this topic.

2. Click the **Wire** tab.

3. (Optional) Go to the **Order** tab. Click in the **Order Name** box and type a new name. Click out of the box to save the name. By default, the order is named *Wire 1*, but you can give it a new name. Wires that have been ordered and shipped will display **Label** and **Serial Number** information on the right.

4. From the **Wire** tab, to make selections for the upper archwire, select **Upper**.

5. Click the Wire Material/Cross Section drop-down list and choose an option. (You can also do this from the **Order** tab.)
   OR
   Choose - **no wire -** to order a lower wire only.

   Note: By default, SureSmile selects the largest shape memory alloy wire that can go into your brackets.

6. To make selections for the lower archwire, select **Lower**.

7. Click the Wire Material/Cross Section drop-down list and choose an option.
   OR
   Choose - **no wire -** to order an upper wire only.

8. If you need to type any notes regarding your order, click the **Checklist** button and select **Notes**, and then enter your notes in the white box.

9. Click **Submit**.
   Result: After an order is placed, the wire order is moved from *Not Ordered* status to *Ordered* status. When you open the wire order in the wire design workspace after you submit a wire order, the Order tab is selected by default.

   NOTES:

   - If you try to order a wire that is potentially unbendable by the SureSmile robots, the following message appears on the **Submit Wire** dialog box: "Note: the Robots may not be able to bend the [upper/lower] wire. The Digital Lab will contact you if adjustments are required."
   - When a wire order has an in-production status, the **Cancel** button is unavailable. You no longer have the option to cancel that order.

View Dental Exam from Order tab

Click the **Show DE** button on the Order tab to view the dental exam for approved wires.

Show/Hide Bone on Wire Orders

If bone has been modeled, you can view a wire order with bone displayed.

Click the **Display** menu, then click the **Bone**

icon from the image palette to show or hide bone modeling in a wire order.

Global Registration Tab on Wire Orders

You can view the **Global Registration** tab in a read only state in wire orders. This allows you to check for planned class or midline corrections without changes to the setup.

The **Global Registration** tab is viewable in a read-only state from the wire order.

When ordering wires, view the read-only **Global Registration** tab to determine if the midline was corrected dentally or with global movements.

Order an Archwire with a Staged Prescription

The SureSmile software allows you to order a wire that has a percentage of the full expression in its design, such as a 50% staged wire. Here are several reasons that you might need staged wires:

- You anticipate difficulty in wire insertion due to the severity of the malocclusion.
- A tooth or teeth are periodontally involved.
- Root resorption has occurred.
- The patient has a low tolerance for discomfort.

You can also order a wire that has passive segments (that is, 0% staged). Here are several reasons that you might need a wire with passive segments:

- You need stabilization archwires to maintain a group of teeth (for example,, to keep them periodontally involved).
- You need to maintain the alignment of the teeth segment/group.
- You need to increase anchorage.

Note: When ordering staged wires, do not forget to submit the order for the 100% full expression wire at the same time.

To order an archwire with a staged prescription

1. From the **New** drop-down menu, select **Wire**.
   Result: The wire prescription appears.
2. Click to open the **Wire** tab.
3. Select the upper or lower arch option.
4. Select the wire material and cross-section.
5. Go to the **Limits [%]** row at the bottom of the table, and change the value from the default 100% for the tooth or teeth that you want to stage.
6. Click anywhere on the blue screen to apply.
7. Repeat steps 3-5 on the opposite arch as needed.

Ordering a Sequence of Archwires

After approving the setup, many SureSmile doctors order two or three initial wire pairs with the same prescription but different cross-section to more comfortably move patients into SureSmile treatment. For example; a doctor may start with 16 x 22 NiTi, and then change to 17 x 25. Since it can be time-consuming to enter wire orders individually, the wire sequencing feature allows you to set up some default sequences and then choose from these sequences when it is time to order wires for a patient.

Pre-define your wire sequences

Since many practices use the same sequence of wires for most patients, SureSmile allows you to pre-define your wire sequences under preferences. Go to your **Preferences** page and click the **Wires** tab. The wire sequences section is visible and editable by all user types. SureSmile includes a default labial and default lingual wire sequence. You cannot edit the default wire sequences, but you can copy a default wire sequence, rename it and then edit it to create your own wire sequence. Alternately, click the **New Wire Sequence** button to create a completely new wire sequence. For detailed instructions, go to Define Wire Sequences.

Order a sequence of wires

As you order wires for each patient, you can apply one of the SureSmile default wire sequences, or you can apply one of your own wire sequences.

1. Start a wire order using one of the following methods:
   - From the **New** menu, select **Wire**.
     or
   - Create a wire copy. (see Copy a Wire Order.)
     or
   - Select the *Create Wire Order Next* option after you approve the setup.

   The **Create New Wire** window opens.

2. (Optional) If you want to change the plan which the wires will be based on, select from the list.
3. (Optional) Copy overrides from previously ordered wires to the upper and lower arches.
4. Click **Apply Wire Sequence**. The **Wire Sequence** window opens with the default pre-defined wire sequence displayed.
5. Click the **Select Wire Sequence** drop-down and choose the appropriate pre-defined wire sequence for this patient.

   NOTE: If the patient has a combination lingual/labial treatment and you select a wire sequence that has labial or lingual wires for both arches, a new warning will be displayed: **Warning**: Labial/Lingual conflict.

6. Make any necessary changes to the wire sequence for this patient. After you are finished reviewing and editing the wire sequence per the procedures detailed in the Wire Sequence Tab topic, you are ready to submit the order. When finished, click **Apply Sequence**.

   Result: It takes about the same time to generate the wire sequence as it does to generate a single wire order. When the wire sequence finishes generating, the name of the sequence appears in the links (bread crumbs) at the top of the window. The sequence of wires is shown at the top of the **Wire Sequence** tab to the right of **Select Model:**. The cross-section and wire materials options are not available on the Order tab for a wire sequence. Instead, to make any changes to wire materials or cross-sections, you must use the Wire Sequence tab.

7. (Optional) To make changes to particular wires in a sequence, for example to select a different cross-section or add over-corrections, go to the **Wire Sequence** tab and select the **Single Wire** or **Multi-Wire** option.

- **Single Wire** - Similar view to the Wire tab for a single wire. Allows you to make all movements to a single wire.
- **Multi-Wire** - Allows you to view values for a single movement type for all of the wires in a sequence.

Tips for making changes on the Wire Sequence tab:

- To display a particular wire in the sequence, select the corresponding small numbered tab to the right of **Select Model:**
- Select the **Upper** or **Lower** option to select the wire material and cross-section for each arch.
- Enter the values in the table as needed for each arch.
  Result: The archwire on the model on the right side of the screen will reflect the values you entered.
- (Optional) Click in the **Order Name** box and rename the archwire order to indicate the changes just made (e.g., Wire2 - RCOS/EXP/TORQUE].
- (Optional) To rename the individual wires in a wire sequence, go to the Wire Sequence tab and click the small tab for the individual wire. Highlight the old name in the Order Name box and type the new name over it. Click out of the Order Name box and the new name is shown on the tab for the individual wire. Click **OK** to save the new name.

See the Wire Sequence Tab topic for more details.

8. To order your wire sequence, select the **Order** tab. and click the **Submit Wire Sequence** button.

   Result: The sequence splits into individual wire orders. Notice the wire names appear in the product drop-down list and in the timeline. (Prior to being submitted, the Wire sequence is shown in the timeline as one element, but after the order is submitted, the wires are listed individually.)

   NOTE: If you try to order a wire that is potentially unbendable by the SureSmile robots, the following message appears on the **Submit Wire** dialog box: "Note: the Robots may not be able to bend the [upper/lower] wire. The Digital Lab will contact you if adjustments are required."

Wire Sequence order naming conventions

Wire sequence orders follow this naming convention:

<name of setup/simulation wire is based on><name of wire in sequence> <limit % (if not 100%)><patient's initials>

For example: *WS 1 Wire 1 - 60% AW*

TIP: If you start a wire order without choosing the sequence option, but then decide to order a sequence of wires instead, just click the **Wire Sequence** button on the **Order** tab before you order the wire.

Copy changes to subsequent wires in a sequence

If you make wire design changes such as entering overrides or adding Curve of Spee, you can copy these changes to subsequent wires in the sequence.

1. From the **Wire Sequence** tab, enter your wire design changes in the earliest wire applicable in the sequence.
2. Click **Update Next Wires**.

Result: The changes are copied to all subsequence wires in the sequence.

Add a wire to a sequence in single wire view

1. From the **Wire Sequence** tab, select the **Upper** or **Lower** arch.

2. Select the **Single Wire** view. Click the small tab for the wire you want to duplicate.
3. Click **Add Wire**. A new wire appears in the sequence preceding the selected wire.
4. If you wish to modify the new wire, see Order a sequence of wires with overrides.

Add a wire to a sequence in multi-wire view

1. From the **Wire Sequence** tab, select the **Upper** or **Lower** arch.
2. Select the **Multi-Wire** view. Click in any cell in the table row to highlight the row for the wire you want to duplicate.
3. Click **Add Wire**. A new row for the new wire appears in the table above the selected wire.
4. If you wish to modify the new wire, see Order a sequence of wires with overrides.

Remove a wire from a sequence in single-wire view

1. From the **Wire Sequence** tab, select the **Upper** or **Lower** arch.
2. Select the **Single Wire** view. Click the small tab for the wire you want to remove.
3. Click **Remove Wire**.

Note: When you display the last wire in a sequence, the Remove Wire button is dimmed and cannot be clicked.

Remove a wire from a sequence in multi-wire view

1. From the **Wire Sequence** tab, select the **Upper** or **Lower** arch.
2. Select the **Multi-Wire** view. Click in any cell in the table row to highlight the row for the wire you want to remove.
3. Click **Remove Wire**.

Note: You cannot remove the last wire in a wire sequence, as this wire represents the target or "setup" of the sequence. Tor remove a wire sequence completely, go to the **Order** tab and click the **Remove Wire** button.

Ordering Additional Sets of Wires

When you order an additional set of wires, the **Create New Wire** window opens for wire orders and wire copies to help you quickly continue where you left off.

To order an additional set of wires

1. From the patient overview, click **New** and then select **Wire**.
   Result: The Create New Wire dialog box appears.
2. Select the base model.
   Note: A set of wires may be based on any setup or any treatment simulation based on a setup, but you can only choose one base model for both upper and lower wires.
3. For the upper wire, select a previous wire order to copy.
   OR
   Select **- no overrides -** for a new wire order that is not a copy.
   OR
   Select - **no wire -** if you need only a lower wire order.
4. For the lower wire, select a previous wire order to copy.
   OR
   Select **- no overrides -** for a new wire order that is not a copy.
   OR
   Select - **no wire** if you need only an upper wire order.
5. Click **OK**.

Choosing the correct copy overrides for wire orders

Use the following table to determine which copy override option to choose when ordering new wires.

Option	Rule
New Setup Modification Wire	Select the last inserted wire(s)
Compensation Wire	Select the last inserted wire(s)
New Wire	Select the last inserted wire(s)
Straight Wire	Select No Overrides

Copy a Wire Order

The Create Copy wire function is designed to help you save time. Instead of re-entering the original prescription each time you order a new wire for a patient, you can simply copy the current wire and then modify the prescription as needed.

The Create Copy button is in the center of the Order tab under Wire Order. You can copy a current wire before or after you submit a wire order.

You can also copy a wire by clicking the clock icon in the top right of the screen to display the timeline then click **Wire** from the **New** menu.

If you have more than one plan, the Create New Wire box allows you to change the plan upon which the wires will be based (Base Model) to a different plan. Under copy overrides, you can copy the prescription overrides from the current wire as shown above, or you can choose –no overrides – and instead have SureSmile configure an unaltered full expression wire from the base model. Choose –no wire– for an arch if you do not need a wire for an arch.

To create a copy of an archwire from the Order tab

1. Open the wire you would like to copy.
2. Go to the **Order** tab.
3. Under the **Wire Order** section, click **Create Copy** to start a copy of the existing wire.
   The **Wire Copy window** opens
4. In the **Copy Overrides** section, you can copy the prescription overrides from the current wire as shown above, or you can choose *–no overrides* – and instead have SureSmile configure an unaltered full expression wire from the base model. Choose –no wire– for an arch if you do not need a wire for an arch.
5. Click **OK** when finished.

To create a copy of an archwire using the New button

1. Open the wire you would like to copy.
2. Expand the timeline by clicking the clock icon in the top right corner.
3. Click the green **New** button, and click **Wire.**
   The **Create New Wire** window opens.
4. (Optional) If you have more than one plan, and want to change the plan upon which the wires will be based, select a different plan from the Base Model drop-down list.
5. In the **Copy Overrides** section, you can copy the prescription overrides from the current wire as shown above, or you can choose *–no overrides* – and instead have SureSmile configure an unaltered full expression wire from the base model. Choose –no wire– for an arch if you do not need a wire for an arch.
6. Click:

- **Continue...**to display a single wire in the wire design workspace. Go to Order an Archwire for instruction about completing your wire order.
- **Apply Wire Sequence** to open the **Wire Sequence** window with the default pre-defined wire sequence displayed. Go to Order a Sequence of Archwires for further instructions.

Apply Straight Wire Segments and Add Distal Slots

When the bend section between two slots is too long (i.e., due to missing teeth), SureSmile automatically adds an auxiliary slot. SureSmile automatically bends this section of the wire 1-2 mm in a gingival direction.

> **Note**: Note: Auxiliary Slots are generated for all TiNb and Elgiloy wires, but not for NiTi, since this material allows large bend sections.

Using straight segments

When you click a check box in the Straight row of the table on the Wire tab, all teeth distal to the one you selected are automatically checked as straight segments. Uncheck the boxes for teeth you want to remove from the straight segment. The check box visually indicates its current condition:

- **Empty** – wire is fully expressed.
- **Box checked** – values are automatically set for a straight segment.

Adding Distal Extension of Wire

When a tooth is bonded after the therapeutic scan, normally you take an update scan to include this tooth in the prescription. However, if you decide to skip the update scan, you have the option to run a straight wire to this tooth.

Use this feature when you need a wire extending to a distal tooth that was not erupted, bonded, or included when the patient was scanned.

If you choose the Add distal slots option from the Wire tab during a wire order, SureSmile automatically extends the wire from the most distal modeled tooth.

If the tooth is present in the model, but for some reason it was not bonded (or if the bracket used was not in the SureSmile library and therefore does not appear in the scan), then SureSmile places a slot handle in the center of the tooth, where it can be used to manipulate the wire as if it were an actual bracket.

> **Note**: This feature does not eliminate the need for a new update scan and an additional wire order.

After you select the *Add distal slots* check boxes, SureSmile extends the length of the wire based on an estimate of the location of the missing tooth if the tooth is present in the scan but not bonded.

> **Note:** If a tooth is missing and you place a restorative model in the missing tooth space, SureSmile places a virtual facsimile of a bracket as a placeholder for the extended wire.

Apply straight wire segments and add distal slots

1. From the patient overview page, on the **New** menu click **Wire**.
   Result: The Create New Wire dialog box appears.
2. In the Create New Wire dialog, select - **no overrides** – for the upper, lower, or both, as appropriate, and then click **OK**.
   Result: The wire design workspace opens.
3. Click the **Wire** tab.
4. Click the **Upper** option to start with the upper wire.
5. Select the **Add Distal Slots** check boxes for right and left as needed.

6. On the **Straight** row in the table, click the check box corresponding to the tooth where you want straight wire. SureSmile automatically also sets the teeth distal to the current selection to straight segments.
7. (Optional) If you do not need a straight segment distal to a specific tooth, click the check box to deselect the tooth.
8. Select the **Lower** option to switch to the lower wire.
9. Repeat steps 5-7 as needed.
10. Manipulate the 3D model to verify the distal slots were added. Click on the slot handles to adjust the wire. Move the slot handles to place a bend in the wire, or to shorten the length of the extended wire.
11. When you are finished adjusting the distal slot, select the **Order** tab and click the **Submit** button.
12. The status of the wire at the top of the page should now be *Ordered*.

Apply Overrides to Wires

SureSmile automatically configures an unaltered full expression archwire based on an approved setup model. However, many times the doctor chooses to apply over corrections to the archwire to compensate for various factors such as:

- Biological considerations have not been fully taken into account by SureSmile, e.g., finestration (thinness) of bone in the maxilla above the anteriors
- The setup is not working out as expected
- Wire materials are not working as expected (or doctor is inexperienced working with a certain wire material)
- Mechanics are not taken into account
- Patient is not cooperating as expected
- Doctor wishes to override a certain aspect of the SureSmile archwire prescription based on her/his experience
- Collectively, in SureSmile these over-corrections are referred to as overrides, as they override elements of the SureSmile-generated archwire prescription.

New SureSmile doctors typically do not apply overrides to the initial SureSmile archwire prescription. It is only as the patient progresses that new doctors will apply overrides to the second and subsequent archwire prescriptions as they respond to how the patient's treatment is actually working out.

Experienced SureSmile doctors will tend to be more proactive and will typically apply overrides to the patient's initial wire prescription to anticipate common issues associated with the doctor's preferred treatment approach.

Use the Wire tab in the wire design workspace to alter the design of the archwires. Entering values or selecting options on this tab alters the design of the archwire that is automatically determined by SureSmile from the base model. Collectively, these changes are referred to in SureSmile as overrides.

Slot Filling Torque

The slot filling values are automatically calculated based on the corrections applied in the setup and added to the Automatic Slot Filling cells. The torque direction Facial or Lingual is applied according to the setup movements.

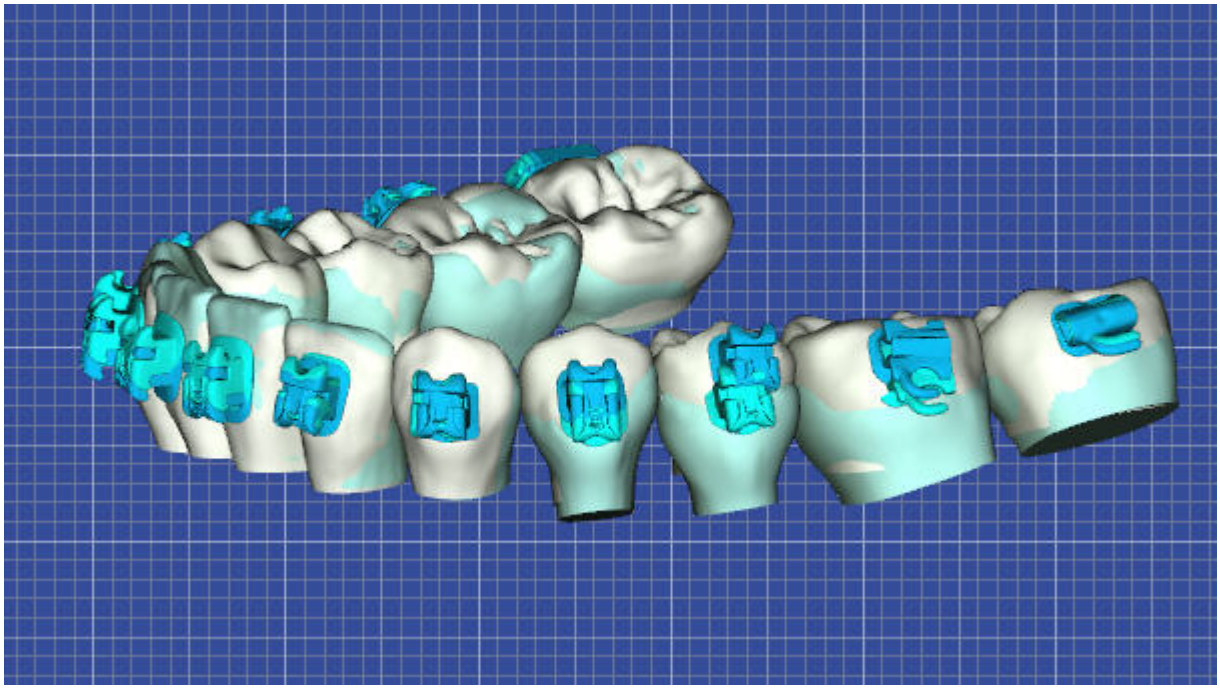
> **Note**: SureSmile's automatic slot filling feature does not overwrite any torque numbers you type in the Torque Facial (+) Lingual (-) [deg] row in the Upper Wire or Lower Wire tabs.

Applying Curve of Spee/Reverse Curve of Spee and Expansion/Constriction

SureSmile automatically derives the correction built into the SureSmile archwire from the setup. However, you can manually apply additional over-correction as needed to achieve your treatment goals. Some SureSmile doctors routinely use over-correction to augment the movements in the setup.

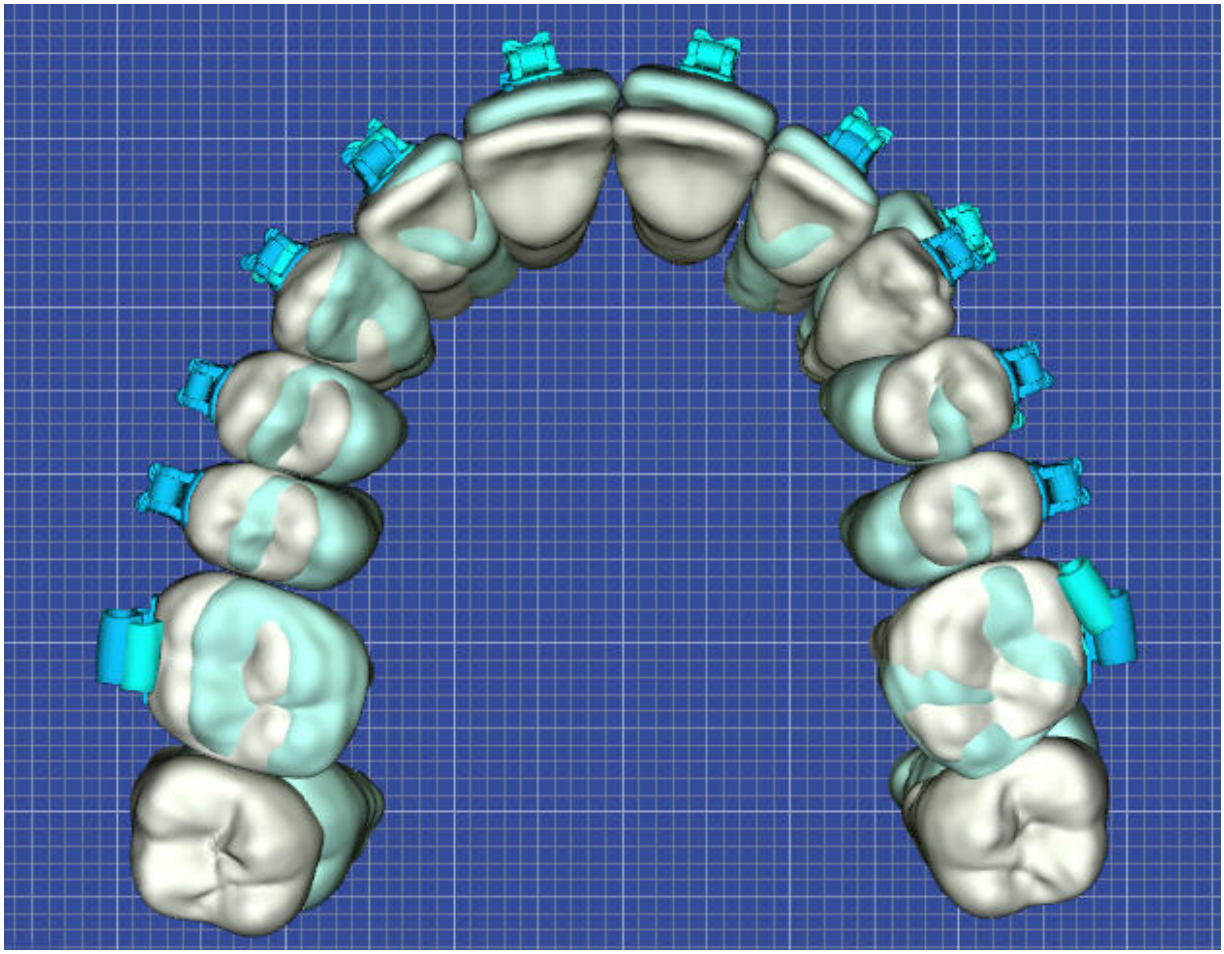
If you choose to use this approach, you can determine how much Curve of Spee/Reverse Curve of Spee or expansion/constriction to apply to the SureSmile archwire, by overlaying the active model (the plan, shown in white) over the reference model (the therapeutic model, shown in blue) in the 3D viewer. Then display the grid behind both models and use the grid to gauge how much movement has been applied in the plan. Each square

on the grid represents a millimeter. The doctor can then apply his/her clinical judgment and decide if she/he wants to apply additional overcorrection.



Curve of Spee is applied between the last bonded molar and the central. The apex of the curve is in the most cases the second bicuspid, where you can see the amount of applied COS as a distance to the bracket slot.

When considering additional expansion/constriction, keep in mind that expansion/constriction is applied to the entire arch. For example if you apply 2.0 mm of expansion, 1.0 mm of expansion is applied to each side of the arch.



To apply overrides to wires

1. From the patient home page, click **New** and then select **Wire**.
   Result: The **Create New Wire** dialog box opens.
2. If necessary, change the default values, and then click **Continue**. After a moment, the wire design workspace opens.
3. Click the **Wire** tab.
4. Select the arch to which you want to apply over-corrections, and then select the wire material and cross-section.
5. Enter the values in the table as needed.
   Result: The archwire on the model on the right side of the screen will reflect the values you entered.
6. (Optional) Click in the **Order Name** box and rename the archwire order to indicate the changes just made (e.g., Wire2 - RCOS/EXP/TORQUE].
7. Click **OK** to save the new name.
8. Click **Submit** to place the archwire order.

Remove Archwire Order

If an archwire has been created (but not yet submitted) and is no longer needed, you have the option to remove the wire prescription. To remove or cancel a wire that has already been submitted, see *Cancel an Archwire Order*.

1. Open the wires so that it is displayed in the wire design workspace.
2. Click the **Order** tab to open.
3. Click the **Remove Order** button.
4. A confirmation box opens.
5. Click **OK** to delete the archwire prescription and all of the information you have entered.

Cancel a Wire Order

If an wire order has been submitted by the doctor but is not yet in production, it can be cancelled.

To cancel an archwire order

1. Open the archwire you want to cancel. Look at the top of the screen to make sure the archwire is still in an *Ordered* state, e.g. Wire 1 (Ordered).
2. From the **Order** tab, click the **Cancel Wire Production** button.
   Result: A confirmation box appears. Click **OK** to proceed with canceling the order**.** Click **Cancel** to stop the cancellation.
3. (Optional) To verify the order has been cancelled view the product notes with the *All Notes* or *Standard Notes* filters applied,

   Note: If the **Cancel Wire Production** button is unavailable, this indicates that the wires are in production or shipped and cannot be canceled. At this point you must contact SureSmile Customer Care for further assistance.

SureSmile Archwire Inventory

Here is a table of the range of SureSmile's inventory of archwires. The slash mark between wire material types indicates that one of the two material types shown will be used to fill the wire order, depending on inventory.

NiTi	Beta-Ti	Elgiloy	Cross-Section (inches)
X	X		.016 round
X	X		.016 x .016
X			.018 x .018
X	X	X	.016 x .022
X	X	X	.017 x .025
X	X	X	.019 x .025

Wire Stiffness

The following graphic shows the relative stiffness of SureSmile custom archwires by material and cross section.

Stiffness	Type of Material	Cross-Section
Low	NiTi	.016 round
	NiTi	.016 x .016
	Beta-Ti	.016 round
	Beta-Ti	.016 x .016
	NiTi	.016 x .022
	Beta-Ti	.016 x .022
	NiTi	.017 x .025
	NiTi	.018 x .018
	NiTi	.019 x .025
	Beta-Ti	.017 x .025
	Beta-Ti	.019 x .025
High	Elgiloy	.016 x .022
	Elgiloy	.017 x .025
	Elgiloy	.019 x .025

Key:

- NiTi = Nickel Titanium
- Beta-Ti = Beta Titanium

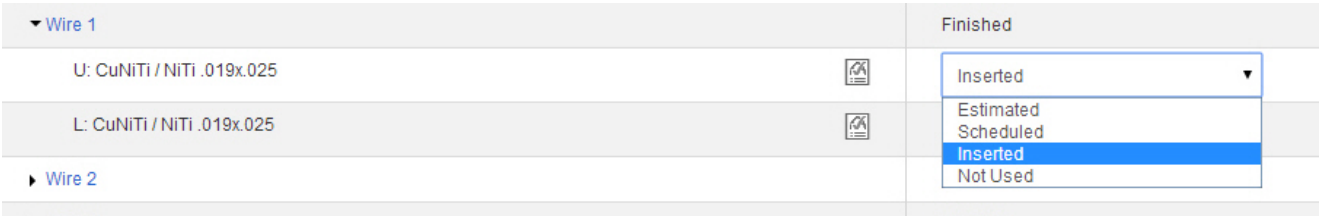
Managing Wires with the Treatment Timeline

Once a wire has been ordered, you can use the treatment timeline to assign each wire an estimated, scheduled or inserted date, or indicate that the wire was not used or to indicate if no wire was ordered (for instances where a wire was ordered for only one arch). Assigning dates and statuses to your wires this way triggers reminders in the Task tab and helps you keep each patient's treatment on track.

> **Note:** When you mark a wire as ***Not Used***, SureSmile removes it from the timeline.

To assign an estimated, scheduled or inserted date to a wire using the treatment timeline:

1. From the patient overview, select the clock to expand the timeline.
2. From the status column, assign a status to the wire from the drop-down list as shown.



> **Tip:** Use the following shipping arrival date guides when scheduling a date for wire insertion:

If your practice is located in...	**Allow this number of *working* days for your wires to arrive after placing your wire order**
United States or Canada	**10**
Europe	**15**
Australia, Japan, New Zealand, or the United Arab Emirates	**20**

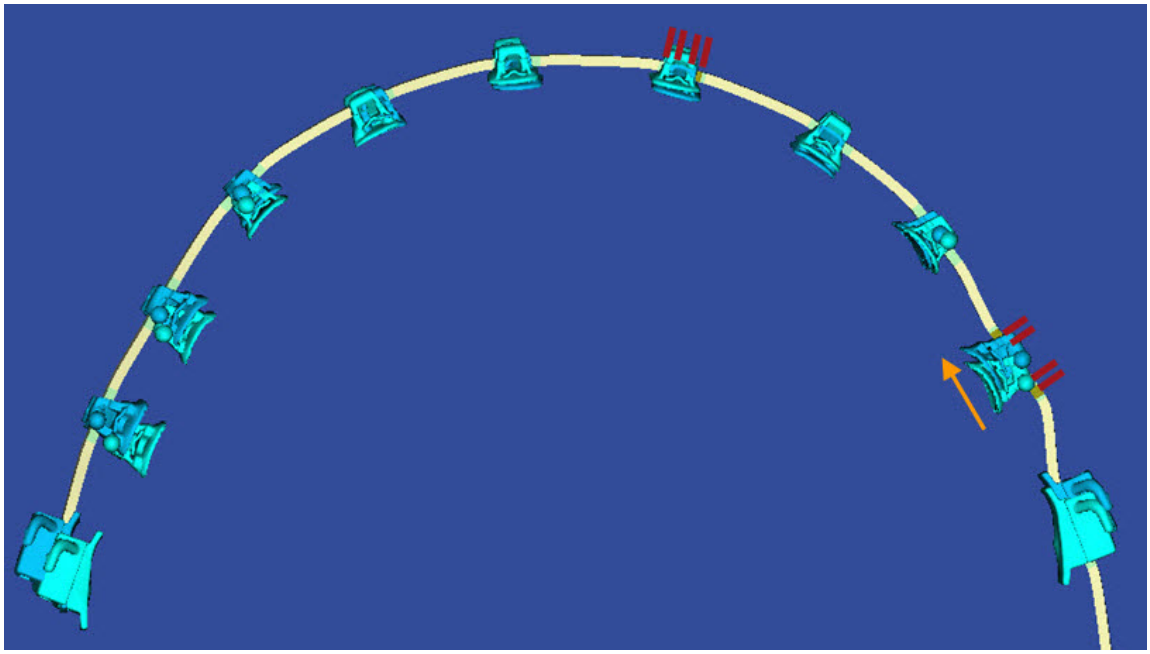
Inserting Archwires

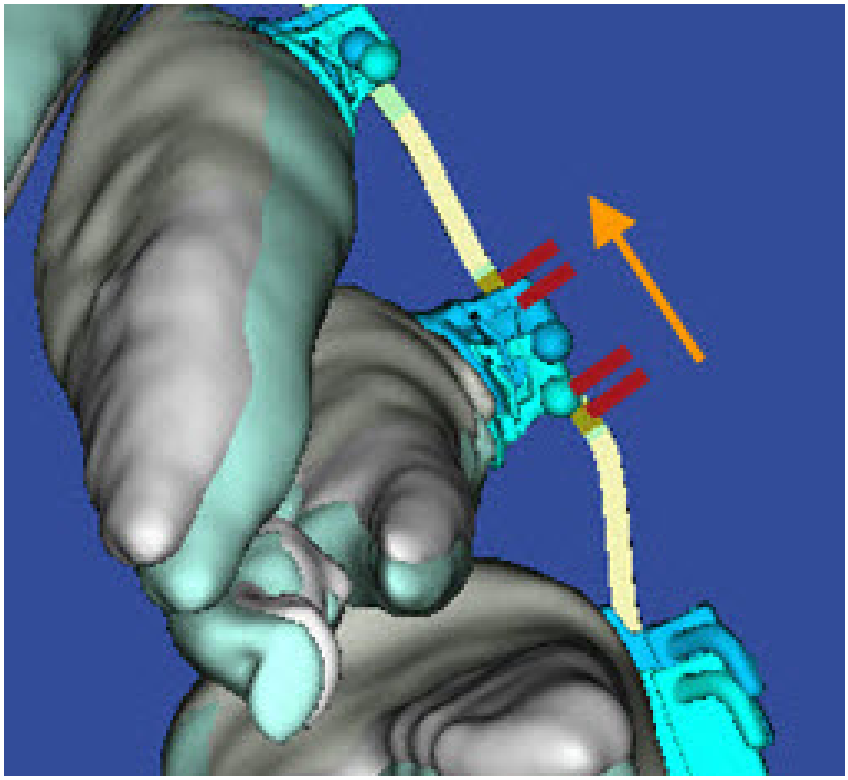
Keep the following in mind when inspecting inserted archwires:

- Wires are designed with straight (unbent) and bent wire segments
- Outer laser markings are at the ends of straight segments
- Brackets should always fit in straight segments
- Markings and straight segments reflect planned mesial/distal movements from the comparison bracket (therapeutic model) to the bonded bracket (setup)
- Make sure you engage a wire at a mark at or near the therapeutic bracket location, allowing room to move to the setup bracket location
- Upper wire markings face gingivally; lower wire markings face occlusally

Archwire Reference Diagrams

Use the following illustrations as a reference:



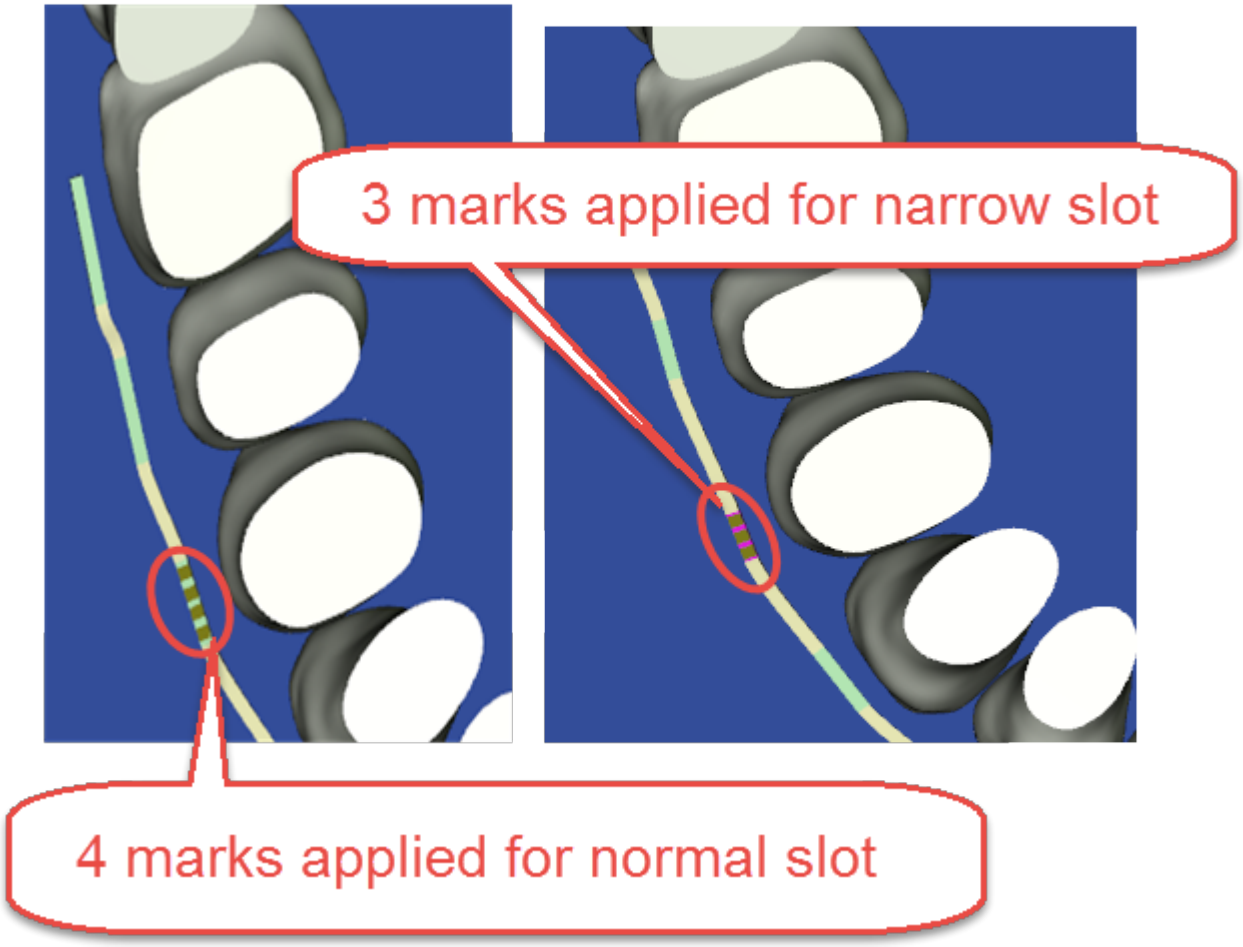


Show Wire Laser Markings

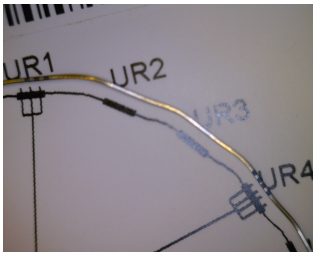
You can view the planned locations of the laser markings on wires directly in the model. This is helpful when inserting wires, especially with patients with substantial midline shifts. With these patients you can directly refer to the finished wires in SureSmile and use the 3D model to determine how the wires should be inserted.

The planned position of the laser markings are depicted on the 3D model of the wire order.

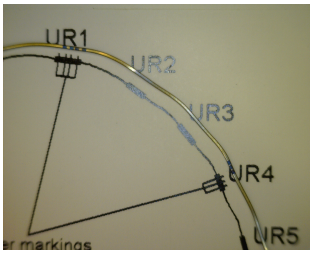
The laser marks (outer pair on uppers) on the wires correspond to ends of the straight wire segments. When you place a SureSmile wire, ensure that the brackets are inside of these marks. If your treatment plan includes space closures or a shift, consider the movement of the brackets and place the wire to accommodate that movement.



Case "A" - Three markers used for narrow slot at UR1



Case "B" - Three markers used for narrow slot at UR4



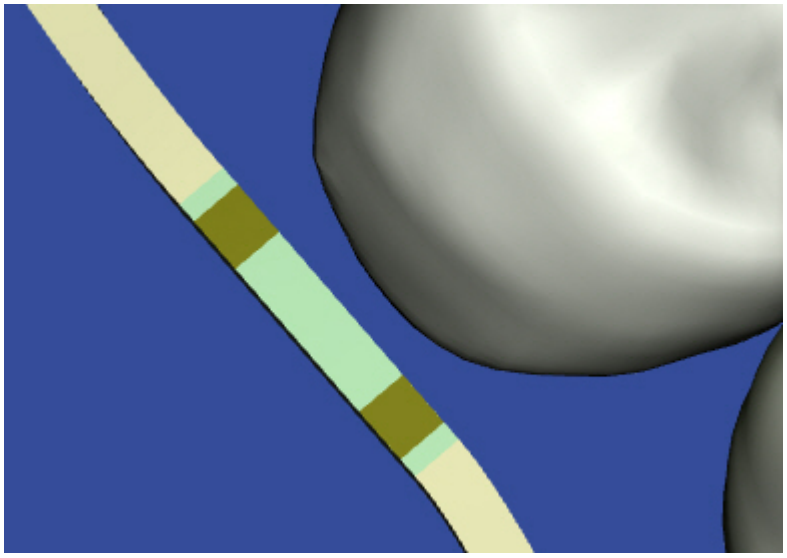
When should I view laser markings on the wires?

It is always useful to refer to the 3D model when inserting wires to ensure precise placement during wire insertion. This feature is especially helpful with patients with substantial midline shift, where you may not be able to match the markings to the center of the brackets.

View laser markings

Follow the steps below to view laser markings:

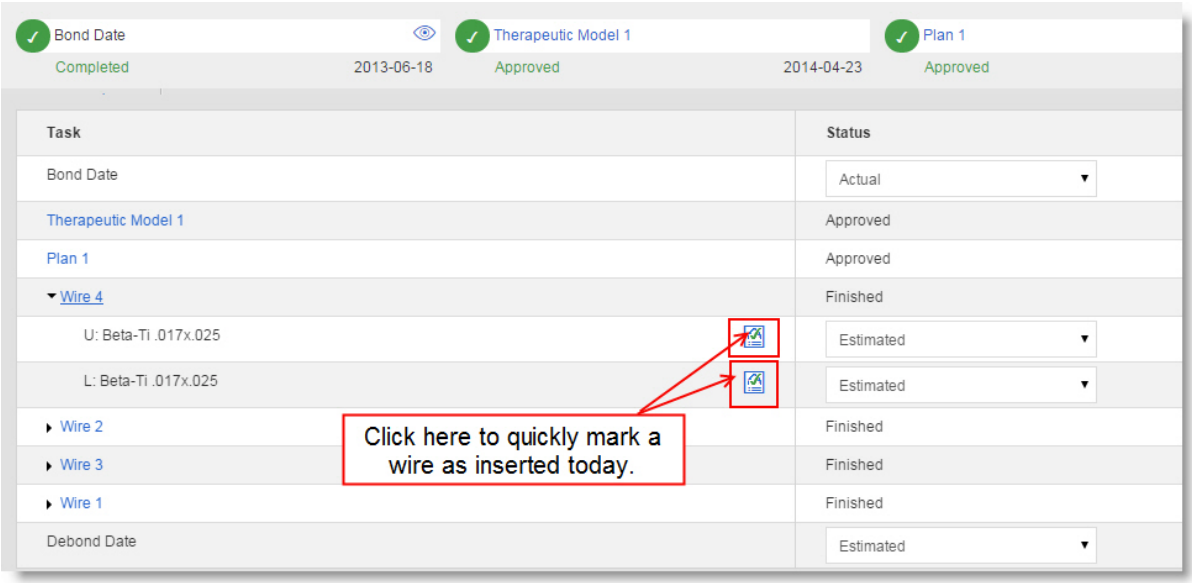
1. Open in SureSmile the wire you are planning to insert.
2. Use the displays as guides for inserting the wire. The laser markings are visible on the wires in 3D displays as shown.



Update Wire Order after Wire Insertion

To update wire orders at the installation appointment:

1. With the wire open in the wire design workspace, click the full treatment timeline icon (clock) to expand the timeline.
2. Find the wire you have just inserted and change status to Inserted by clicking the Wire Inserted Today icons on the Wire tab next to the wire material selectors .



Tip: Make sure you change the status for both arches if you insert two wires.

Performing this step updates several other areas of the software:

- The wire Insertion task reminder is removed from the Patient Overview Task list.
- The patient overview timeline is updated.
- These wire orders are removed from Wire Tracking lists.

Evaluating an Installed Wire/Modifying an Archwire Prescription

Occasionally you will find during patient progress check appointment that a wire prescription is not achieving the desired treatment outcome.

When this is the case, use SureSmile's progress evaluation checklist to methodically analyze the problem and decide what to do .

It is a checklist of 4 or 5 evaluation steps (5 steps if the wire is not a full expression [100%] wire see *Order an Archwire with a Staged Prescription* for more information) that is displayed in the wire design workspace when you open a finished wire. It is intended to help you step through a checklist of typical issues and take action as you proceed to resolve the problem.

As you will not always need to go through every step for each progress evaluation; the guide is designed to allow you to proceed with the appropriate method and make the appropriate correction as soon as the problem is identified, without having to go through the remaining steps.

The SureSmile default setting is to display the Progress checklist automatically each time a finished wire is opened.

To diagnose wire issues during the patient exam

1. At chairside, open the wire order that corresponds to the inserted wire.

   If the progress evaluation checklist is not already open, click the checklist icon .
2. Click the **Checklist** button to display the checklist**.** To step back and forth through the checklist, use the small arrows on each side of the checklist button, or just click one of the steps in the list to open it. Each step in the checklist includes instructions and options you can choose as described in the following sections.

Confirm that the currently inserted wire is a full expression wire.

This step appears only if the currently opened wire is not a 100% wire. If a full expression wire already has been ordered, the checklist will show four steps instead of five.

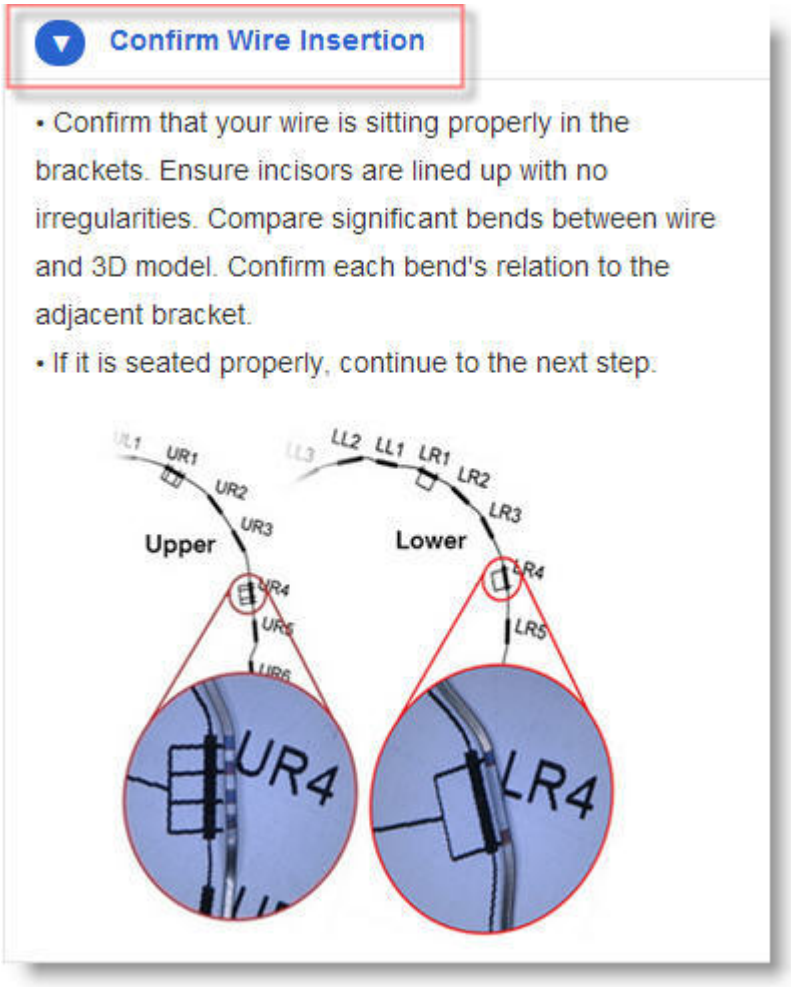
Confirm that inserted wire has all 100% bends. If you have not ordered a 100% wire, order it now.

See also...

Order an archwire with a Staged Prescription

Confirm Wire Insertion.

Examine the patient and confirm that your wire is sitting properly in the brackets. See the help topic *Archwire Insertion Essentials* for more information. If the archwire is seated properly, continue to the next step.



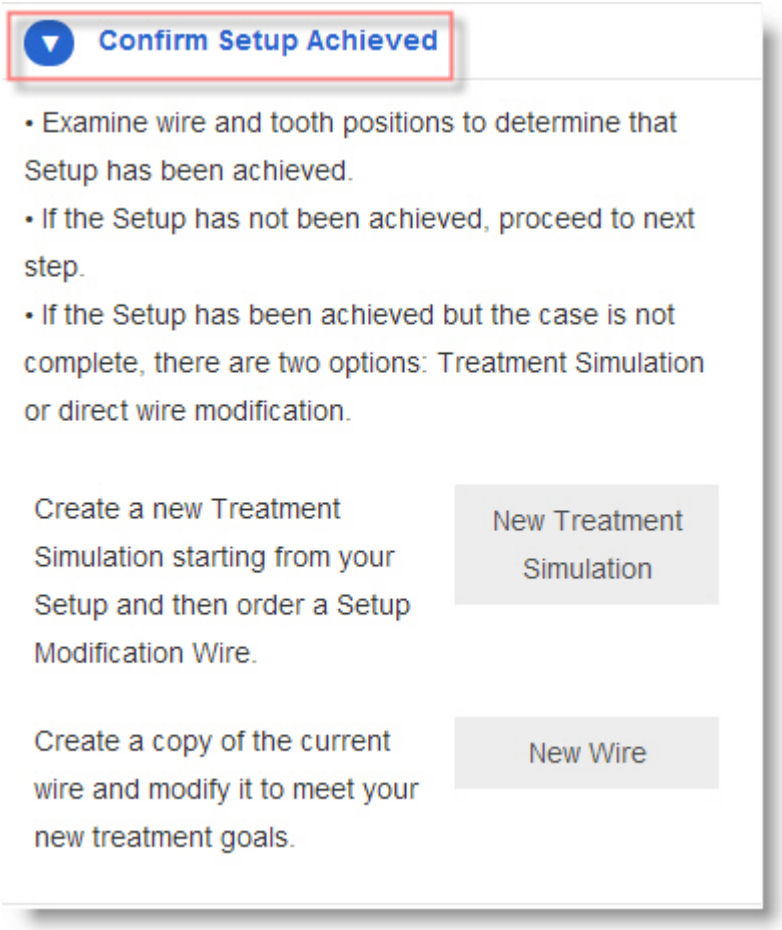
Confirm Setup Achieved.

Examine wire and tooth positions to determine that a setup has been achieved.

- If the Setup has not been achieved, proceed to the Check for Interferences step.
- If the Setup has been achieved but the case is not complete, there are two options:
  - **Option 1: New Treatment Simulation** – Create a new treatment simulation starting from your setup and then order a new wire based on the simulation. This is the recommended option for all new SureSmile users as it gives a visual representation that helps users determine the amount of correction. See detailed steps in the help topic *Create New Treatment Simulation and Order Wire*.

    OR

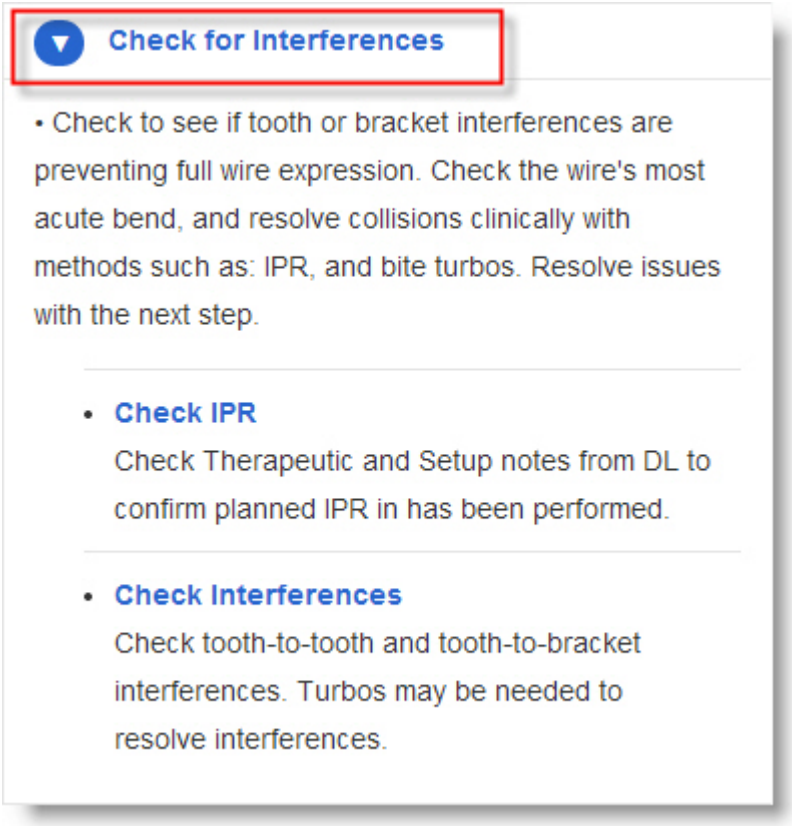
  - **Option 2: New Wire** – Create a new wire based on the one in use and modify it to meet your new treatment goals. See detailed steps in the topic, "Create a copy of the current Wire and Make Adjustments."



Check for Interferences

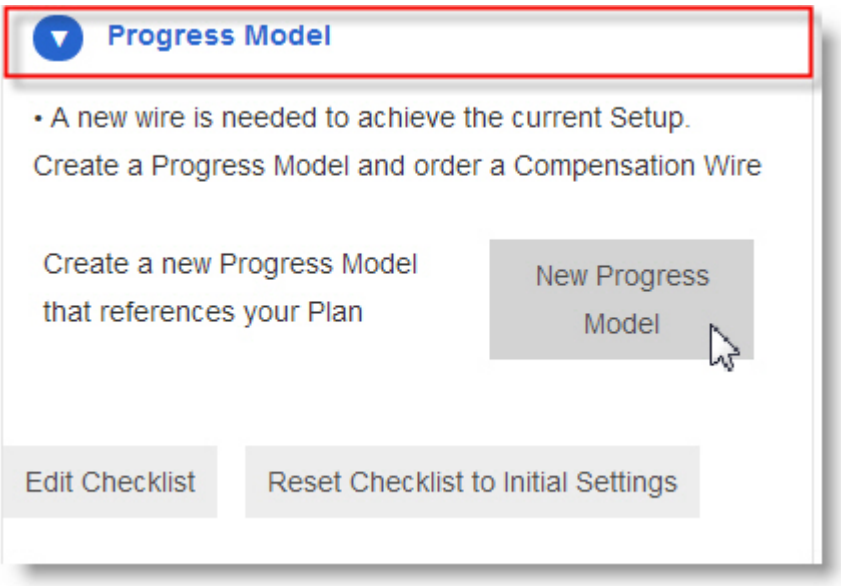
Check to see if the tooth or bracket interferences are preventing full wire expression. Check the most acute bend of the wire, and resolve collisions clinically with methods such as IPR and bite turbos.

- **Check Upper IPR** – Check therapeutic and setup notes for Digital Lab to confirm that planned IPR has been performed.
- **Check Lower IPR** – Check therapeutic and setup notes for Digital Lab to confirm that planned IPR has been performed.
- **Check Interferences** – Check tooth-to-tooth and tooth-to-bracket interferences. Turbos may be needed to resolve interferences.



Create Progress Model

If you determine a new wire is needed to achieve the current setup, use a progress model to design a new wire with overcompensations to achieve the setup. See detailed steps in the topic, *Ordering a Compensation Wire from a Progress Model*.



Option 1: New Treatment Simulation

Use this option to create a new treatment simulation that is based on your setup, and then order a new wire based on this simulation. This new wire is called a setup modification wire.

Using a treatment simulation to design a new wire allows you to virtually move the teeth to new positions and visualize their positions without having to estimate correction amounts.

This new wire includes overrides from the last inserted wire, plus the simulated modification values.

Make sure you select the last inserted wire from the Copy Overrides drop-down boxes in the Wire Selection window to include its values.

Before creating a new treatment simulation, review the progress photos and setup closely.

- If the misalignment found during the clinical evaluation is also present in the setup, then a new treatment simulation is recommended.
- In order to increase archwire accuracy, a full set of current (progress) photos is also recommended.

To create the new treatment simulation and order a new wire

1. From the progress evaluation checklist, step 2 or 3, click **New Treatment Simulation**.
2. Click the **Order** tab and select the plan used to create the last inserted archwire.
3. If you do NOT want relative extrusion or intrusion, click the **Displacements** tab and select **Bracket** as the Displacement type.
   OR
   Click the **Displacements** tab, and select **Tooth** as the Displacement type, and then move the teeth or enter the values manually into the Displacements tooth chart until the misalignment of the affected teeth is corrected.
4. Click the **Order** tab and click **New Setup Modification Wire**.
   Result: Values from the treatment simulation are automatically transferred to the Displacements tab in the wire order.
5. From the **Order** tab, in the Order Name box, enter a name for the new modification archwire, such as *Wire X – based on simulation Y*. Click **OK** to save the name.
6. In the **Wire** tab, choose the desired archwire material and cross-section.
7. Click **Submit** to order the modified archwire.

Option 2: New Wire

Use this option to create a copy of the current wire and then modify it to meet your new treatment goals. The modified archwire is designed based on overrides from the selected wire plus the values entered into the Wire tab for the upper and lower arches. Any changes you make are simulated in the 3D wire model in he right window.

This option allows you to directly manipulate the wire and rapidly create a solution to meet your treatment objectives.

> **Important:** This option is not recommended for new SureSmile users, as it requires experienced 3D visualization skills to determine the required correction.

Create a Copy of the Current Wire and Make Adjustments

1. From the progress evaluation checklist, step Confirm Setup Achieved, click the **New Wire** button.
2. From the Create New Wire window, copy the wire overrides from the current wire.
3. Enter the new wire values manually into the wire tab until the wire has the desired shape.
4. From the **Order** tab, name the new archwire and click **Submit** to order the archwire.

Order a Compensation Wire from a Progress Model

If you determine a new wire is needed to achieve the current setup, use a progress model to design a new wire with overcompensations.

A progress model is a simulation of the estimated current tooth position based upon your clinical observations. It includes the misalignment now present in the mouth which was not present in the original setup.

> **Note:** The clinical evaluation of the misalignment can be done chairside, but it is recommended that you take updated photos of the patient's current condition as a reference for these modifications.

You may need a compensation wire:

- To compensate for the side effects of other appliances.
- If you have discovered a misalignment not present in the setup.

Order a Compensation Wire Based on a Progress Model

SureSmile uses the reversed values from this simulation to correct the misalignment with a compensation wire. The compensation wire design is based upon the last inserted wire and the applied reversed progress model displacements, i.e., the differences between the setup and the progress model. SureSmile transfers the reversed displacements from the progress model to the compensation wire prescription.

1. Click the Progress Model checklist step to open.
2. Click the **New Progress Model** button to open the progress model in the treatment planning workspace.
3. On the **Order** tab, under S**tart Reference Model**, select the base plan used to create the last inserted archwire.
4. Click the **Displacements** tab, under **Displacement Type** select *Tooth* , and then move the teeth in the main window or enter values manually into the Tooth Displacements chart until the tooth position *represents the misalignment present on the progress photo* (or in the patient’s mouth if the simulation is done chairside).
5. Under the **Order** tab, click in the Order Name box and type a new name, if needed.
6. Click **OK** to apply the new name.
7. Click **Create Compensation Wire.** The wire design workspace opens.
   The values entered in the progress model are carried over to the wire order in reverse to accomplish the movement needed to achieve the setup, and are added to any overrides from the copied wire. These values can be seen on the Wire and Displacements tab.
8. From the **Order** tab, click **Submit** to order the archwire.

Order a New Setup Modification

If you want to order a new setup modification wire without using the Progress Evaluation Checklist, you may do so by going directly to a new treatment simulation.

To order a new setup modification wire, follow these steps:

1. On the patient overview page, click the **New** menu and select Treatment Simulation.
2. On the **Order** tab, from the **Start Reference Model** list, choose the plan that is a base for the evaluated wire.
3. Click the **Displacements** tab and correct the setup.
4. Return to the **Order** tab, enter a descriptive name in the Order Name box, and then click **OK**.
5. Click **New Setup Modification Wire**.
   Result: A new wire order opens.
6. Add to your wire design as needed, and then click the **Submit** button under the **Order** tab to order wires based on your simulation.

   Tip: You can start a setup modification wire and change it to a lingual retainer order. This feature is recommended for advanced users only.

Comparing Bends Between Wires

Just as you can compare changes to bracket and tooth positions, you can compare design changes between wire orders. The Wire Displacement Type option on the Displacements tab on a wire order allows you to compare bends between the current wire and a previously approved wire. When you select the Wire Displacement Type option,select another wire as a comparison wire under Comparison Stage.

You can show both wires on the screen overlaid on the same base model for comparison purposes.

The available approved wire orders are based on the same scanned model that the current wire is based on.

The default wire in the list is always the currently active wire. You can tell that the currently active wire is selected because there is no change in the 3D models, and the cells in the tooth chart are blank, indicating the system is comparing the current wire to itself.

When you select a comparison wire, the tooth chart on the Displacements tab shows the difference between the slot positions of the two wires. These values include displacements calculated from tooth displacement bends calculated automatically from the base model by SureSmile, and from any overrides you entered manually. All of these values are for display only. They are read-only and cannot be changed.

Whichever comparison wire you select in the drop-down is overlaid on the blue active model in the left pane and on the full-expression model in the right pane.

The active model or final simulation is white and is in the right pane. The open, current wire order is tan/gold (depending on the color settings of your monitor), and the comparison wires are blue.

When should you use wire comparison?

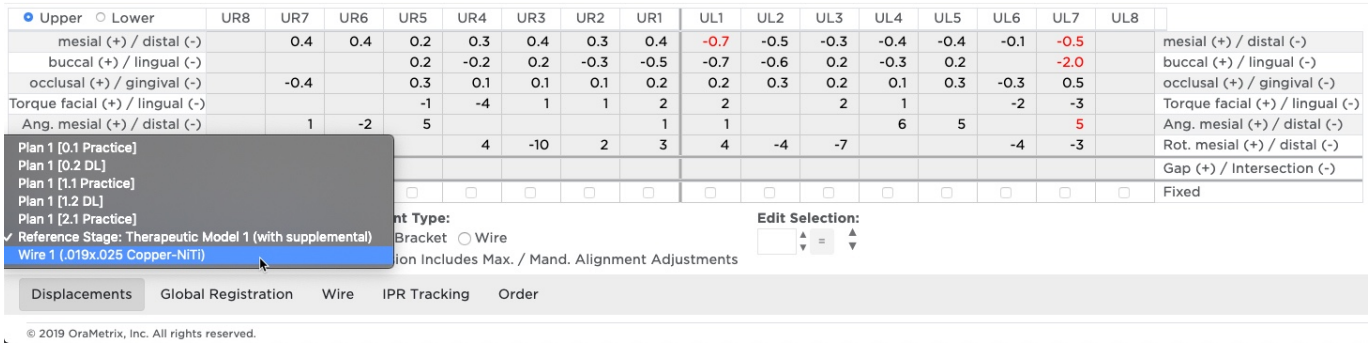
When:

- You are designing a new wire and you want to compare the new wire against a previous wire.
- You want to evaluate an already completed wire at the insertion appointment against the wire already in the patient’s mouth.

How Does Wire Comparison Work?

The Wire option under **Displacement Type** on the Displacements tab on a wire order allows you to compare bends between a wire and another, previously approved, wire.

When you select the Wire option, the Comparison Stage drop-down menu is available so that you can select another wire as a comparison wire.



> **Note**: The available approved wire orders are based on the same scanned model that the current wire is based on.

The default wire in the list is always the currently active wire. You can tell that the currently active wire is selected because there is no change in the 3D models and the cells in the tooth chart are blank indicating that the system is comparing the current wire to itself.

When you select a comparison wire, the tooth chart on the **Displacements** tab shows the difference between the slot positions of the two wires. These values include displacements calculated from both tooth displacement bends and overrides. These values are read-only and cannot be changed.

Whichever comparison wire you select in the drop-down menu is overlaid on the active model on the left and overlaid on the full-expression model on the right.

The model in the left window changes to the green comparison model (the base model for the comparison wires), which could be the same plan, a different plan, or a simulation.

The full expression model or final simulation is white and is on the right side.

The open wire order is tan/gold, and the comparison wires are blue. The comparison wire shown for the active model is the same as shown for the full expression model.

Compare Bends Between Wires

To compare wire designs, follow these steps:

1. Open the wire order that you want to compare against another wire.

2. Click the **Displacements** tab and select the **Wire** option under **Displacement Type** at the bottom of the screen.
   Result: The model in the left window changes to the green comparison model (the base model for the comparison wires), which could be the same plan, a different plan or a simulation. The wire order you have open is tan/gold.

3. From the **Comparison Stage** drop-down menu, select the wire you want to compare against.

4. Select the **Comparison Wire** icon from the **Compare** menu.

The values in the tooth chart are the difference between the comparison model and the active (open) wire. These values are expressed in 0.1 mm and 1 degree increments.

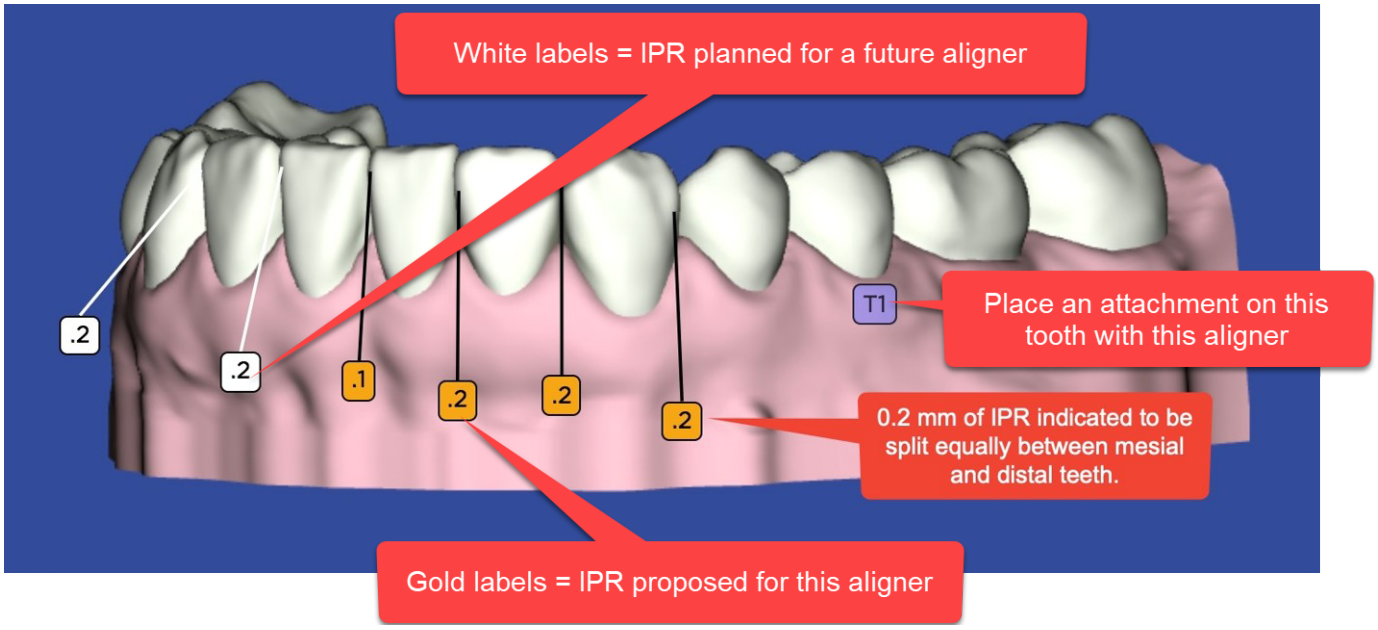
Tracking IPR

Using the IPR Tracking tab

The IPR Tracking tab on the treatment planning workspace allows doctors and staff to see the amount of planned and completed IPR. These IPR values can be viewed throughout treatment planning, staged model design and modification, and during aligner therapy. Use this tab to enter newly performed IPR at each patient appointment to track completed IPR as therapy progresses.

IPR labels in 3D Window

To help you quickly find patients with incomplete IPR, a task reminder "Complete IPR" is shown on a patient card on the **Tasks** tab in the Patient Overview page. You can control who sees this reminder in the **Preferences** window under the **Task Owner** tab. The reminder appears after you order your staged models if all planned IPR is not marked completed.



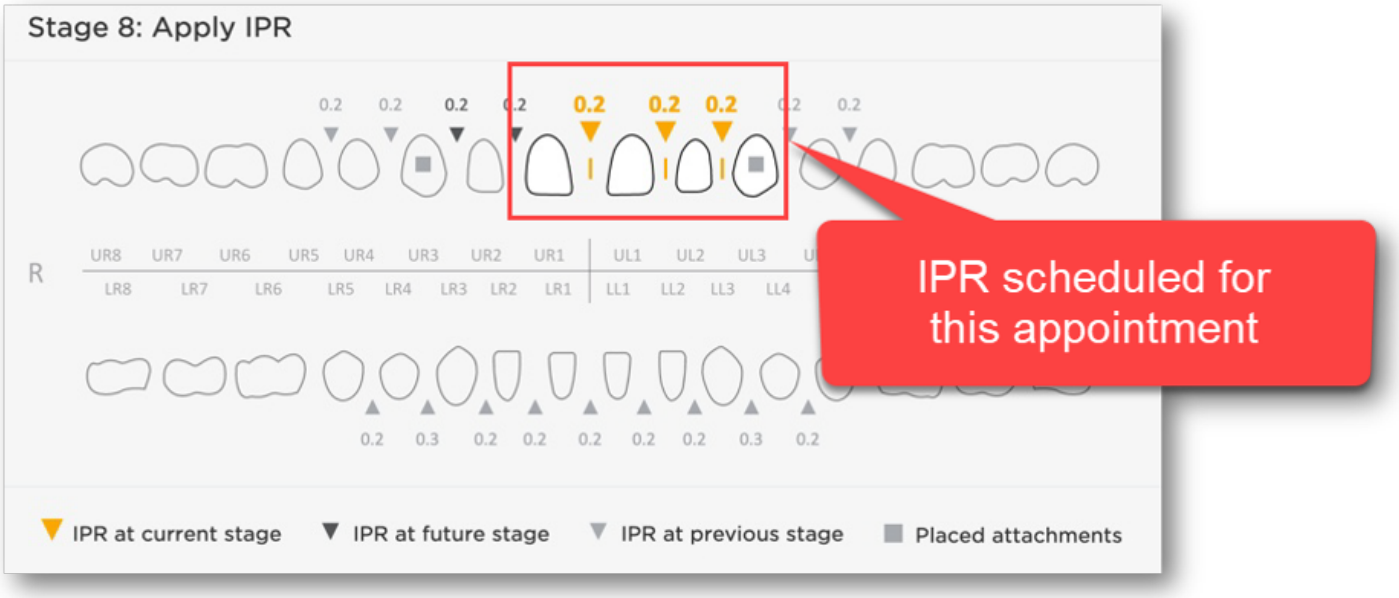
Proposed IPR is indicated on the 3D model with a small gold label with a number indicating the amount of IPR proposed by the system. The amount of proposed IPR is always split equally between the two adjacent teeth. The amount of IPR is determined by the amount of intersection shown for the two adjacent teeth in the setup or simulation. The amount of remaining IPR is distributed equally throughout the aligners until the teeth are in the correct position (i.e., there is no longer any intersection of the teeth).

Label Key

- Gold - IPR planned for current stage
- White - IPR planned in a future stages
- Translucent - IPR planned in a previous stage
- Purple/Blue - Place attachment on tooth indicated with this aligner

One-click IPR Pop-up window

The IPR indicators are shown on the timeline as well as n the 3D model. Hover over the gold inverted triangle on the timeline with your mouse to display this IPR pop-up for the stage displayed in the 3D window.



How Does the IPR Tracking Tab Work?

A tooth chart on the **IPR Tracking** tab allows you to track and update a patient's IPR**.** The tooth chart has three rows each for the upper and lower arches. The rows are Planned, Applied, and Completed. Here is a brief description each row.

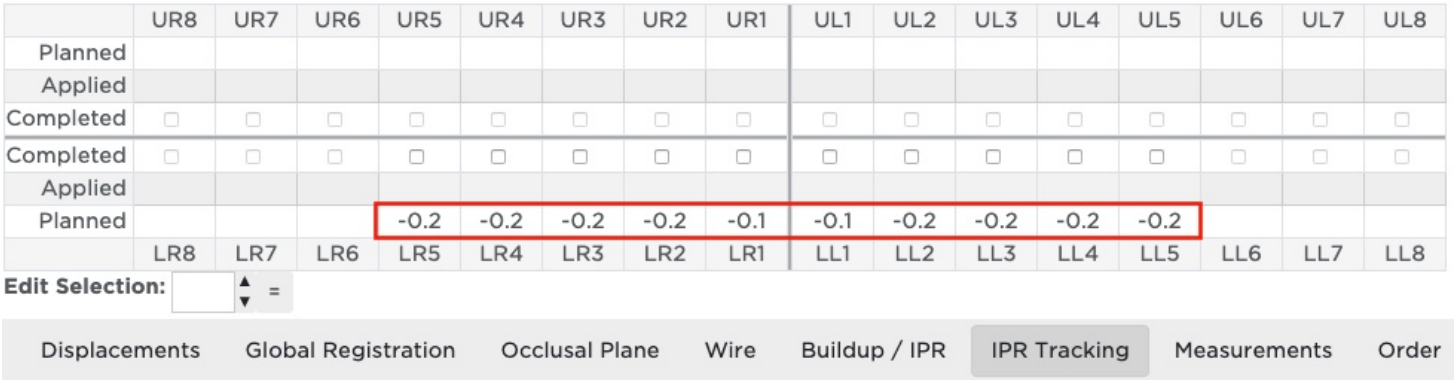
- **Planned** – The cells in this row contain read-only values in millimeters. These values represent the amount of planned IPR based on the setup plan and starting from the reference model (usually the therapeutic model) of the archwire. The cells in this row are read-only. These planned values are entered on the Displacements tab in the Mesial Gap(+) IPR (-) [mm] row on the tooth chart, or from the IPR (-)/Buildup (+) row on the Buildup/IPR tab. If a wire is displayed, the value comes from the setup associated with the wire.
- **Applied** – Use the cells in this row to indicate how much IPR has actually been applied. A set of controls at the bottom right of the tooth chart allows you to quickly increment the value of a cell in the Applied row higher or lower by .1 mm, up to the amount of planned IPR. If the amount of completed IPR is equal to or higher than the planned amount, you can also manually type a value in a cell.
- **Completed** – You cannot directly enter values into cells in the Completed row. An empty check box is displayed for a tooth in the Completed row if you enter values into the Planned cell for the tooth. Check the **Completed** check box to indicate all IPR has been completed. If no value has been entered in the **Applied** row for the tooth when you check the check box, the value in the **Planned** row is copied into the **Applied** row.

  Note:

  If you:

  1. perform IPR on a patient based on a setup and track it using the IPR Tracking tab;
  2. indicate that all planned IPR has been completed by checking one or more of the Completed check boxes;
  3. subsequently create another setup (or a treatment simulation) that has a greater amount of Planned IPR than you have already Applied; then
  4. SureSmile will clear the Completed check boxes where additional IPR is required (but does not change the amount of Applied IPR).

- In this example, the **IPR Tracking** tab of a setup shows the planned IPR:



	UR8	UR7	UR6	UR5	UR4	UR3	UR2	UR1	UL1	UL2	UL3	UL4	UL5	UL6	UL7	UL8
Planned																
Applied																
Completed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Completed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Applied																
Planned				-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2			
	LR8	LR7	LR6	LR5	LR4	LR3	LR2	LR1	LL1	LL2	LL3	LL4	LL5	LL6	LL7	LL8

Edit Selection: =

Displacements | Global Registration | Occlusal Plane | Wire | Buildup / IPR | IPR Tracking | Measurements | Order

Below, the user has checked the Completed check box for all teeth with planned IPR. If less or more IPR was applied than originally planned, enter the values in the Applied row. For example in the LR4 and LR5 shown below, 0.2 mm IPR was planned, but 0.1 was actually applied.

	UR8	UR7	UR6	UR5	UR4	UR3	UR2	UR1	UL1	UL2	UL3	UL4	UL5	UL6	UL7	UL8
Planned																
Applied																
Completed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Completed	☐	☐	☐	☐	☐	☑	☑	☑	☑	☑	☑	☑	☑	☐	☐	☐
Applied				-0.1	-0.1											
Planned				-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2			
	LR8	LR7	LR6	LR5	LR4	LR3	LR2	LR1	LL1	LL2	LL3	LL4	LL5	LL6	LL7	LL8

Edit Selection: ▲ ▼ =

Displacements | Global Registration | Occlusal Plane | Wire | Buildup / IPR | IPR Tracking | Measurements | Order

Check IPR

Follow the steps below to determine how much IPR has been done on a patient:

- Open the patient's finished wire
- Select the **IPR Tracking** tab
- Review the tooth chart
- Choose one of the options below:

If ...	Then ...
You want to enter additional completed IPR (can be equal to, less than, or more than planned)	Manually enter the values for each tooth in the **Applied** row. OR Use the Edit Selection controls at the bottom tooth chart to enter the values.
Mark IPR as done for a tooth Select the check box for the tooth in the **Done** row.	Mark IPR as done for a tooth Select the check box for the tooth in the **Done** row.

Entering IPR Values

Follow the steps below to use the controls at the bottom of the tooth chart to enter IPR.

- Select the **IPR Tracking** tab and locate the cell of the tooth chart for which you want to enter a value.
- Click in the cell.
  Result: The cell is framed by a dotted line.
- Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to add the same IPR value for multiple teeth.
  Result: All selected cells are highlighted.
- Enter the value you want for all of the highlighted cells by typing the new value or using the Edit Selection controls at the bottom of the tooth chart.

Use the Edit Selection controls to enter values

- Highlight a cell or range of cells in the tooth chart.
- Click in the Edit Selection box and type a value or use the up down arrows to change a value already in the box to a greater or lesser value.
- Choose one of the options below:

If you want to ...	Then ...
Apply the typed value to one or more highlighted cells.	Click the equal button.
Increment or reduce a cell value by 0.1 mm	Click the up/down arrows.

Find Orders with Incomplete IPR

Follow the steps below to find order with IPR not completed:

1. From the clinic overview page, select the **Tasks** tab.
2. From the **Show All Types Tasks** menu, select **Reminder**.
3. Patient cards are sorted by the reminder type, so all that all cards with a Complete IPR reminder will be sorted together.
4. Open each case as needed and complete IPR.

Set Complete IPR Reminder

Follow the steps below to set preferences for who is shown the *Complete IPR* reminder:

1. Click and select **Preferences**.
2. Select the **Task Owner** tab.
3. Find the C**omplete IPR Reminder** settings towards the bottom of the page..
4. Select one of the options:
    - Doctor
    - Staff
    - Both
    - None
5. Click **Save Changes**.
   Result: When a patient record has wires marked as inserted, but IPR is not yet complete, a reminder, *Complete IPR appears* on the Patient card under the Tasks tab.

Tip: From the **Show All Types Tasks** menu, select **Reminder** to display all patients with task reminders.

Treatment Planning for Restorations

Although not required for every case, it can be helpful to add restorations to the 3D model to:

- Provide you with a rough idea of what restored or reshaped teeth will look like so you can more easily plan care that includes restorations
- Provide the consulting/referring doctor or patient with a visual image of the final result of his/her orthodontic treatment combined with a dentist's restorative work.

How do the restorative features work?

When you open a setup or simulation, the **Buildup / IPR** tab contain the restoration and IPR features. these features are available regardless of the state of the product.

Use the Buildup / IPR tab tooth chart to adjust tooth shape by manually entering values, or use the tab's automatic features to calculate several types of changes.

Change tooth shapes to simulate:

- Restorations such as implants, crowns, and buildups.
- Orthodontic procedures such as polish, equilibration, and IPR.

A tooth chart on the Buildup / IPR tab has rows for each of the restorative functions as described in the help topic *Restorative Functions on the Buildup / IPR Tab.* These rows represent the amount of buildup or reduction applied to a tooth.

- Positive numbers indicate buildup.
- Negative numbers indicate reduction.

Buildup can be used to represent planned composite enhancements or other restorations adding material to a tooth. Reductions can be used to represent planned removal of tooth structure (IPR), polishing or equilibration, and other similar techniques. Changes to each tooth model are made in increments of 0.1. mm.

- A positive number indicates mesial, distal, buccal, lingual, or vertical buildup of the tooth model.
- A negative number indicates mesial or distal IPR, lingual or buccal polishing (usually prior to receiving veneers), or vertical polishing.

To depict buildups in blue and IPR and other reductions in red, click the **Colorize Buildups/Cuts** icon on the **View** menu palette..

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When should I use the restorative features?

You can use the restorative features in a simulation submitted with the setup prescription to help with the visualization of space requirements. By using the features at this time, the Digital Lab can deliver a complete setup that is ready for approval.

> **Important**: Remember to toggle on the colorization of buildups and cuts during the setup review to remind you which tooth shapes are simulated.

You can also use these features to improve communication with the dentist and patient. You can order the set-up and then add the restorations during the setup review/modification cycle.

Notes:

- The restoration values are not editable in finished models.
- The Digital Lab will not simulate changes in tooth anatomy based on planned restorations.
- These restorative modeling enhancements are intended for orthodontic treatment planning only, and should not be used for the actual modeling of restorations. It is better to think of SureSmile's restorative models as space holders than as precise renderings of restorations. Confine your use of these SureSmile restorative modeling enhancements to space planning only.

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Restorative Functions on Buildup / IPR Tab

The following table describes the restorative functions in the tooth charts on the Buildup / IPR tab.

Function	Description
IPR (-)/ Buildup (+)	Scales a tooth model mesially or distally according to the value you enter. The minimum increment allowed is 0.1. mm. A negative number denotes IPR and is depicted in red on the tooth model. A positive number denotes buildup and is depicted in blue on the model.
Auto m/ d Size	When you select the mesial/distal check box for a tooth, this feature automatically fills spaces or removes intersections as needed to close gaps with adjacent teeth. Keep in mind, however, that by enabling this function subsequent changes in the interproximal gaps will cause the software to recalculate the buildup or IPR for all teeth selected for automatic mesial/distal sizing. You can prevent recalculation by entering a fixed, defined IPR or buildup value for a tooth or set of teeth in the IPR (-)/ Buildup (+) row. This value will not change, even if the automatic IPR or build up is applied to the rest of the arch.
Intersection (-) / Gap(+)	This read-only row shows the mesial/distal overlap or gap between teeth. The amount of overlap is indicated by a negative number. The amount of gap is indicated by a positive number.
Vertical Offset	Use this feature to add or remove crown length to a single tooth. The amount of reduction or buildup in millimeters for each tooth is measured from the occlusal plane. Except for the incisors (2-2), which can be reduced/built-up distally or mesially, the vertical reduction/buildup is applied to the entire tooth. The minimum increment allowed is 0.1 mm. A negative number denotes polishing/reduction and is depicted in red on the tooth model. A positive number denotes buildup and is depicted in blue on the model.
Auto Vertical Buildup	Use this feature to automatically add length to multiple teeth, using the occlusal plane as the boundary condition. When you select a check box in this row, this feature automatically levels the tooth to the occlusal plane, building up or reducing the tooth as necessary. Keep in mind however, that by enabling this function, subsequent changes in the occlusal plane will cause the auto-vertical buildup/reduction function to recalculate the height of all teeth selected for automatic vertical buildup/reduction. You can prevent this recalculation by entering a fixed, defined offset or buildup value for a tooth or set of teeth in the Vertical Offset row. This value will not change even if the automatic vertical buildup/reduction function is applied to the rest of the arch.
Labial Offset/ Lingual Offset (two rows)	The amount of labial or lingual reduction anticipated by polishing is denoted by a negative number. The amount of buildup anticipated by veneers is denoted by a positive number. Although lingual and labial reductions or buildups can help to improve the aesthetic alignment, keep in mind that the position of the brackets does not move with the built-up or reduced surfaces. The buildup or reduction is calculated from the point of maximum buccolingual convexity of the tooth, and then tapers gradually to the gingival and incisor edges. The gingival edge is estimated for each tooth even if the gingival tissue is modeled. In cases where the gingival tissue is modeled, the buildup will at times butt into the gingival edge if the actual gingival edge is more occlusal than the computer estimate of the gingival edge. An extra buildup or reduction of 0.1 mm is added to any value entered to provide a visual “buffer zone” and soften any sharp angles. When setting labial or lingual reduction values, keep in mind that any model reduction cannot go beyond the central axis of the tooth.
Change Model	Allows you to replace a modeled tooth with a template, or repair an asymmetric tooth by mirroring it with the mesial or distal side tooth. See Changing Models below for more information.

Reset / Set All buttons	The Reset button removes all the values in a row and resets the model accordingly. The Set All button selects all of the check boxes in a row.

Enter Restorative Values

Perform the following steps to enter a restorative value:

1. Open or start a setup plan or a Treatment Simulation.
   Result: The Treatment Planning page opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Locate the cell for the tooth number in the row for the type of restoration you want to apply. The following restoration features are provided:
   - IPR (-)/Buildup (+)
   - Auto m/d Size
   - Intersection (-) / Gap(+)
   - Vertical Offset
   - Auto Vertical Buildup
   - Labial Offset
   - Lingual Offset
   - Change Model

   A detailed explanation of each of these features is provided in the *Restorative Functions on Buildup / IPR Tab* help topic.
4. Click in the cell. The current value becomes highlighted.

   Note: Cell highlighting helps you see where you are in the chart.
5. Type a new value in an increment of 0.1 mm. Enter a negative sign in front of the number as appropriate. Values are saved as soon as you enter them.
6. Use following options to modify your changes.

Option	Result
Click the Undo button.	Returns a cell to its previous value.
Check boxes in Auto m/d Size row for each tooth as appropriate	Automatically calculates the mesial/distal gap or the vertical buildup in the appropriate rows
Click the Set all button	Selects all check boxes for the Auto m/d Size or Auto Vertical Buildup rows.
Click the Reset button	Clears all values in a row.

Apply Restorative Values to Multiple Cells

Perform the following steps to apply a restorative value to multiple cells:

1. Open or start a setup plan or a treatment simulation.
   Result: The **Treatment Planning** page opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Locate the cell for the tooth number in the row for the type of restoration you want to apply.
4. Click in the cell to highlight it.
5. Press and hold the **Shift** key, and click in another cell. For example, select another cell on the same row to achieve the same movement for multiple teeth.
   The **Multi Selection** window opens.
6. Enter the value you want for all of the highlighted cells by typing the new value or clicking the up or down arrows.
7. Click the equal button to apply the typed value to the highlighted cells
   OR
   Click the plus button to add the typed value to the current value in each cell
   OR
   Click the minus button to subtract the typed value from each current value in the highlighted cells

Simulate an Extraction

You can remove a tooth from the model to simulate an extraction.

Perform the following steps to remove a tooth from the model.

1. Open or start a setup plan or a Treatment Simulation.
   Result: The Treatment Planning workspace opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Locate the cell for the tooth you want to remove in the **Change Model** row.
4. Click on the model icon and select **Remove Model**.
   Result: The tooth is removed from the model.

Simulate a Missing Tooth

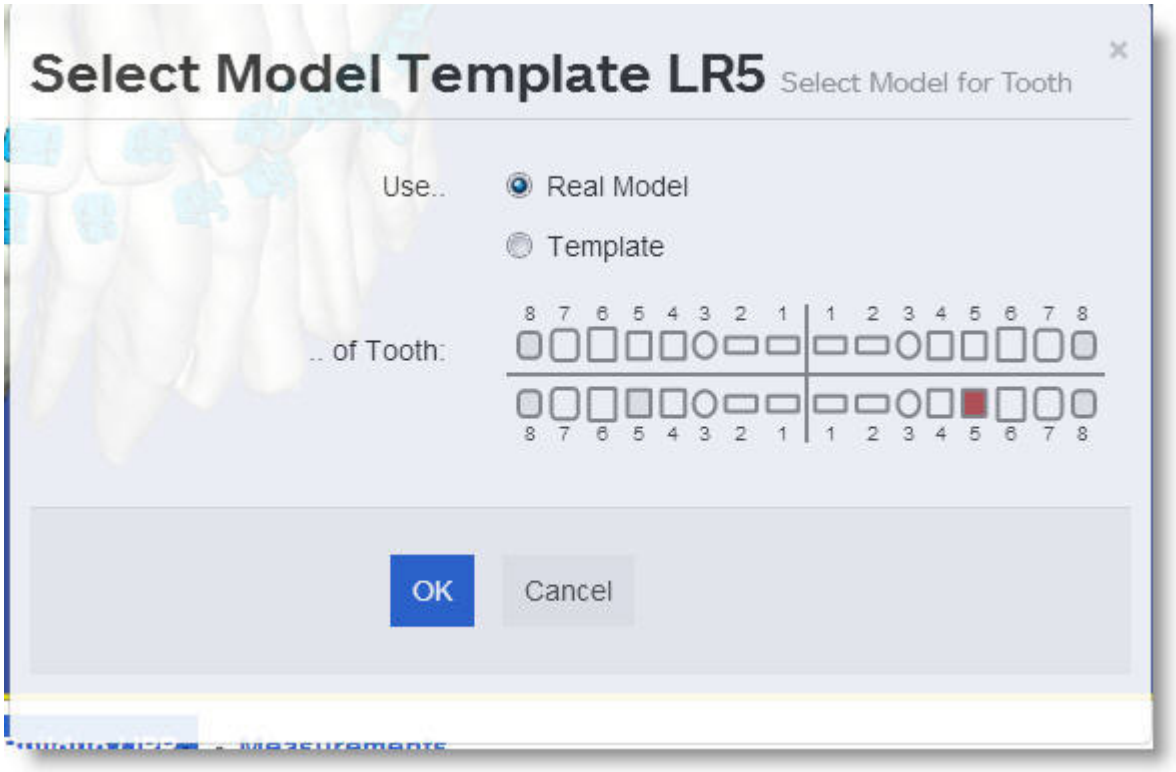
Use this feature to simulate a new tooth for space planning purposes if a patient is missing a tooth and will receive a replacement tooth such as an implant.

You can simulate a model tooth that matches the opposite side, or you can choose from SureSmile's tooth templates.

Perform the following steps to replace the model for a specific tooth.

1. Open or start a setup plan or a Treatment Simulation.
   Result: The Treatment Planning workspace opens with the 3D model displayed in the main window.

2. Select the **Buildup / IPR** tab.
3. In the **Change Model** row, locate the cell for the missing tooth.
4. Click the blank cell and choose the **Select Template Tooth…** option.
   Result: The **Select Model Template** window opens.



5. Select the **Real Model** option to create a tooth template from one of the modeled teeth.
   OR

   Select the **Template** option to create a tooth template from one of the standard templates displayed in the **Change Model** row.

6. Choose the tooth you want to use as a model from the **Use Tooth** drop-down list, and click **OK**.

Replace removed tooth

You can replace a tooth you previously removed from a model.

1. Open or start a setup plan or a Treatment Simulation.
   Result: The Treatment Planning workspace opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Locate the cell for the tooth you want to remove in the **Change Model** row.
4. Click on the model icon and select **Regular Model**.
   Result: The previously removed tooth is returned to the model.

Use Buildup to Restore a Worn or Damaged Tooth

If a tooth is very worn or damaged and the basic buildup reduction tools are not able to simulate the fully restored tooth, you can use the **Make Symmetric** or **Restore Crown** tools to simulate the restorations. Use the Change Model menu option that provides the best fit for your plan.

Perform the following steps to change the model for a specific tooth.

1. Open or start a setup or a treatment simulation.
   Result: The treatment planning workspace opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Locate the cell for the tooth number in the **Change Model** row.
4. Click on the model icon to view several menu options:

- **Make Symmetric, Use Mesial Side** - Makes the distal side of the tooth symmetrical to its mesial side.
- **Make Symmetric, Use Distal Side** - Makes the mesial side of the tooth symmetrical to its distal side.
- **Restore Crown** - (Only available for the anterior (2-2) teeth.) This function should be your first choice when the incisal area of a crown is damaged, uneven or asymmetric, and just mirroring or replacing a tooth with a model from its opposing quadrant is unsatisfactory.

Calculate IPR

Use the table on the Buildup /IPR tab to automatically or manually calculate IPR. Keep in mind that there is only one value per pair of teeth. This value represents the combined IPR on the mesial side of the tooth and the distal side of its mesial neighbor. The only exception to this are the centrals, for which the value represents the IPR of the mesial side of each tooth.

> **Note:** As you plan for IPR, keep in mind that since this is a simulation only, the system does not limit the amount of IPR you can apply.

Automatically Calculate IPR for a Tooth

Use the Auto m/d Size row on the Buildup / IPR tab to automatically calculate needed IPR. Clicking a distal (d.) or mesial (m.) check box for the intersection of two teeth on the Auto m/d Size row equally divides any IPR or buildup needed between the teeth and enters the resultant values in the distal (d.) and/or Mesial (m.) cells of the **IPR (-) / Buildup(+)** row for each tooth.

1. From the Treatment Planning workspace, select the **Buildup / IPR** tab.
2. In the **Auto m/d Size** row, select adjacent mesial (m.) and distal (d.) check boxes to automatically determine the amount of IPR needed between the two teeth.

Manually Calculate IPR for a Tooth

Use the IPR (-)/Buildup(+) row to manually enter needed IPR.

1. From the Treatment Planning workspace, select the **Buildup / IPR** tab.
2. In the **IPR (-)/Buildup(+)** row of the table:
   - Enter a value for the mesial or distal side of a tooth.

     OR

   - Shift + click and drag to highlight a series of cells in the tooth chart. Use the **Edit Selection** box to enter the values.

Colorize Buildups / Cuts

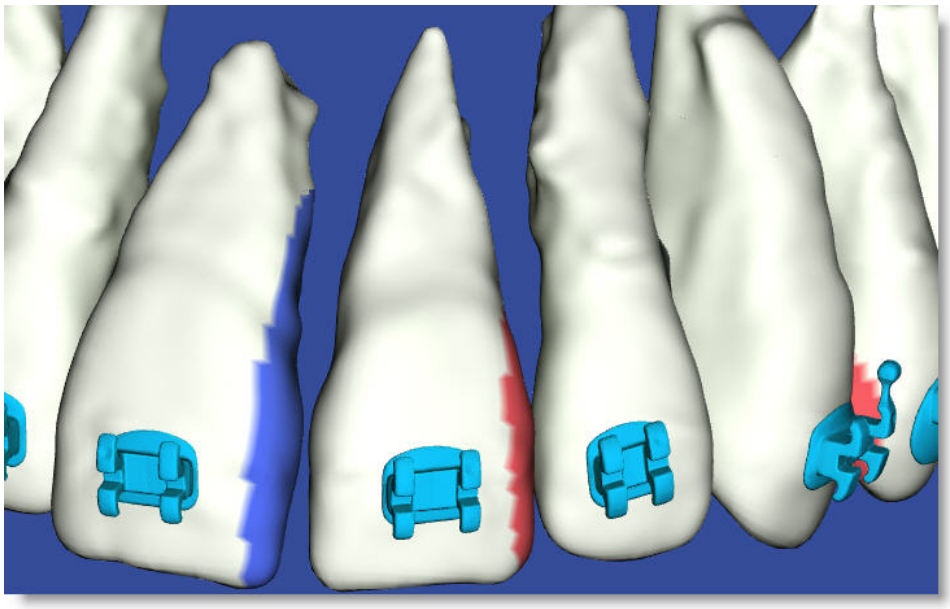
Use the **Colorize Buildups / Cuts** icon on the View menu palette to turn on color shading for changed teeth. Blue shading indicates added tooth surface. Red indicates anatomy removed.

To turn on colorization to indicate restorative changes:

1. Open or start a setup plan or a Treatment Simulation.
   Result: The Treatment Planning workspace opens with the 3D model displayed in the main window.

2. Select the **Buildup/IPR** tab.
   Note: The Colorize Buildups/Cuts icon is inactive until you select the **Buildup / IPR** or I**PR Tracking** tab.

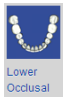
3. Show one or both arches, and make your restorative changes or plans as needed.
4. As you work, click the **Buildup / Cuts** icon to show or hide shading on the areas you change.
5. After you finish your restorative work and before you save the case, make sure you click the **Colorize Buildups/Cuts** icon so that the restorations are colorized. The color shading serves as an important visual reminder to your practice and to the Digital Lab technicians that the restoration features are for visualization purposes only. Restorative modeling in SureSmile is primarily for space management purposes. It may not reflect the final tooth shape as determined by the restorative dentist.



Remove Lingual or Labial Surfaces

If you need to simulate the polishing of a tooth's surface or the use of laminates to build up a tooth's surface, use the **Labial Offset** or **Lingual Offset** rows on the **Buildup / IPR** tab. A negative number removes tooth surface from the 3D model. A positive number builds up tooth surface on the 3D model.

1. Open or start a setup plan or a Treatment Simulation.
   Result: The treatment planning workspace opens with the 3D model displayed in the main window.
2. Select the **Buildup / IPR** tab.
3. Click the View menu in the treatment workspace menu bar to display the View menu palette. Click the **Upper Occlusal**

or **Lower Occlusal** 

icon as appropriate to display the model in an occlusal view.
4. Click the View menu and click the **Buildups / Cuts** icon so you can see your tooth buildups/reductions on the model.
5. In the **Lingual** or **Labial Offset** row:
   - To **remove surface** enter a negative number preceded by a minus sign (i.e., -0.3. mm)
   - To **build up surface**, enter a positive number (i.e., .03.) and press the <Enter> key.
6. Press the **<Enter>** key.
   Result: the surface is built up (shaded in blue) or reduced (shaded in red).

Treatment Planning for Surgical Cases

SureSmile is an orthodontic treatment planning system and is not intended to be used to plan surgery. The surgical case planning features described in this section allow you to capture planned surgical movements and use them in conjunction with orthodontic treatment planning for the ultimate purpose of arch-wire design. A best practice is to consult with the oral surgeon throughout this process.

Typically you use the SureSmile surgical case planning features to create two plans and corresponding wires.

- First, you create a post-surgical setup to plan the patient's results, including both dental and skeletal movements.

  SureSmile gives you the ability to indicate the number and placement of cuts and to indicate the skeletal corrections interactively in 3D or by entering "global" displacement values for each bone segment independently.

  SureSmile automatically constructs a new archform based on the planned bone position, from which you can plan the post-surgical dental setup.

  After you approve the post-surgical setup, SureSmile automatically calculates the starting point for a pre-surgical setup by removing all bone segment movements while retaining all dental corrections from the post-surgical setup.

- Next, you create a pre-surgical setup, at which time you can then adjust the tooth positions to allow room for the osteotomy cuts or to accommodate other considerations. You also have the option to skip this pre-surgical setup and instead use a pre-surgical simulation, which allows you to bypass the Digital Lab and order your pre-surgical wires directly.

  Since the pre-surgical setup automatically incorporates all dental movement from the post-surgical setup minus the skeletal movement of the surgical segments, you do not have to manually deduct movement. You can model all of the movements planned for a multi-piece surgery.

The suggested workflow in the table below is described in detail in the topics in this section.

Step	Procedure
1	Review and approve the therapeutic model
2	Create Post-Surgery simulations or setup 1. Select either or both of the surgery options in the Special Instructions section of the MACROS form to activate the Surgery tab. 2. Use the Surgery tab for skeletal movements. 3. Use MACROS or the simulation to specify the planned dental movements. 4. Submit the setup.
3	Review/approve the Post-Surgery setup (review with oral surgeon if possible).
4	Create pre-surgical simulations) or setup (minus the surgical movements) and adjust as needed for osteotomy cuts or interferences.
5	Order pre-surgical wires.
6	Order Post-Surgical wires.

Step 1 - Review and Approve the Therapeutic Model

When reviewing the therapeutic model, make sure the occlusion and global alignments set by the Digital Lab are accurate before approving. This is very important for multi-piece surgery cases because the surgical movements are included in the wires for the post-surgical plan.

An accurate bite is also important for one-piece surgical cases, although a minor error is permissible, since one-piece surgical movements are fixed jaw movements and fixed jaw movements are not incorporated in the wire.

If you know before reviewing the therapeutic model that a patient is a surgical candidate, you can define the case as a surgical case before the therapeutic model has been approved. When you activate the surgery options in the MACROS form for the therapeutic model, the SureSmile case is automatically flagged as surgical and labeled as such when you create treatment simulations or a setup. You can also activate the surgery options in the MACROS form in a treatment simulation or setup.

As part of your surgical planning, you can order a premium therapeutic model. With the premium model, the Digital Lab merges all of the crowns from an optical scan with the roots and bone from a CBCT scan. This premium model enables you to produce accurate splints when using SureSmile for surgical planning from CBCT data. You can order the premium model as an a la carte service for an extra fee in addition to your standard case fee. See Order a Premium Model for more information.

> **Note:** An “optical scan” refers to data acquired with scanner technologies that capture surface anatomy; in other words, the anatomy that can be seen optically. These technologies include the OraScanner and 3rd party certified scanners (iTero and TRIOS). The scan may be intraoral (captured at a patient appointment) or of a plaster model.

Define a case as a surgical case in the therapeutic model

To define as surgical case, follow these steps:

1. Open the therapeutic model, and click the **Checklist** button.
   Result: The review guide opens on the left side of the screen.

2. Click the **MACROS** button at the top of the guide and scroll down to **Surgery**.

3. Click to select appropriate **Surgery On** options: Upper, Lower or both, depending on your patient diagnosis and treatment plan.
   Result: The case is now marked as a surgical case, and the **Surgery** tab appears with the other tabs in the treatment planning workspace.

Step 2 - Create Post-Surgery Simulations or Post-Surgery Setup

When you create a post-surgical setup, you have two options:

- Create one or more treatment simulations in SureSmile that represent different treatment scenarios. Review these on your own or with the oral surgeon associated with the case. After you determine the most appropriate treatment scenario, attach the corresponding simulation to the setup plan.
  OR
- Create a setup plan that includes one of the following:
  - A rough simulation of the dental alignment and surgical movements. This simulation should include the number of surgical segments for each arch, placement of the surgical cuts, and the amount of movement agreed upon with the oral surgeon.
    OR
  - A simulation of the surgical movements only with information for dental alignment in the MACROS form for the Digital Lab technician.
    OR
  - Only written instructions in the MACROS form for both dental alignment and surgical movements. The instructions for surgery should include the number of surgical segments for each arch, placement of the surgical cuts, and amount of movement agreed upon with the oral surgeon.

Create One or More Post-Surgery Treatment Simulations

Create one or more post-surgical simulations to display and compare all possible surgical scenarios.

1. Open the treatment simulation from the timeline on the patient overview page.
   Result: The simulation opens. If you selected a surgery option in the therapeutic model, then when you create a treatment simulation, the **Surgery** tab is displayed and the simulation has the suffix (Post-Surgical) added to its name.
2. If the **Surgery** tab is not visible, follow these steps in the treatment simulation:
   a. Click the **Checklist** icon at the top of the left side of the screen.
   b. Click the **MACROS** button at the top of the guide and scroll down to **Surgery**.
   c. Click to select appropriate **Surgery On** options: Upper, Lower or both, depending on your patient diagnosis and treatment plan.
   Result: The case is now marked as a surgical case, and the **Surgery** tab appears with the other tabs in the treatment planning workspace.
   d. To generate the post-surgical treatment simulation, follow these steps:
      i. Click the **Surgery** tab. The surgical segments are shown automatically when you open the **Surgery** tab. Use the controls on the **Surgery** tab to indicate the number of segments, the placement of cuts, and the planned amount of surgical correction for each segment. For details about the **Surgery** tab controls, refer to the next topic, *Creating a Post-Surgery Setup without a Treatment Simulation Attached*.

      Note: When both the Maxilla and Mandible arches are flagged for surgery, all global corrections must be made on the Surgery tab. The Max./Mand. Alignment controls on the Global Registration tab will be unavailable. If only one arch is marked for surgical treatment, the Max./Mand. Alignment controls for the opposite arch are active on the Global Registration tab. This enables you to use mechanics in one arch in conjunction with surgery on the other arch.

      Caution: To prevent conflicting instructions, surgical corrections should not be placed in the Global Registration tab.

      ii. (Optional) If you want to create an additional post-surgical treatment simulation to compare different treatment scenarios, click the **New** drop-down menu and select **Treatment Simulation**.
      Result: If you selected a surgical option in MACROS, the simulation is automatically labeled Simulation <N+1> (Post-Surgical).

      Note: This can be performed while you are currently in a Treatment Simulation. The current treatment simulation is automatically saved, and a new treatment simulation window opens.

      iii. Repeat step 2 above as needed to generate additional treatment plan scenarios.

      Tip: If you want to simulate a non-surgical treatment option, uncheck the Surgery option in the MACROS form.
3. To attach your chosen post-surgical treatment simulation to a setup plan, use either of the following methods:
   - Open your chosen simulation, click the **New** drop-down menu and select Setup
     Result: The open simulation is automatically attached to this post-surgical plan, and the plan is labeled as Plan 1 (Post-Surgical).
   - If you already created a new setup prescription, go to that plan, and click on the **Order** tab at the bottom of the page, and follow these steps:
     a. On the **Order** tab, under **Attach Simulation**, click the drop-down arrow to view a list of all the post-surgical simulations for the patient.
     b. Choose the simulation that you want to attach to this post-surgical plan.

Caution: If you do not select a post-surgical treatment simulation from the list, the reference simulation becomes the embedded simulation and the surgical values will not be correct.

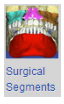
Creating a Post-Surgery Setup without a Treatment Simulation Attached

If you...	Then...
selected surgical treatment options during your review of the therapeutic model	the plan will automatically have the Surgery tab displayed, and the plan will be named *Set-Up Plan 1 (Post-Surgical)*.
created a post-surgical treatment simulation but did not attach it to the plan	make sure you attach the post-surgical treatment simulation now. (See the help topic *Creating One or More Post-Surgery Treatment Simulations* for instructions on attaching surgical treatment simulations.)
did not select surgical treatment options during the Therapeutic Model Review, and no Surgical Treatment Simulation has been attached	check one of the Surgery options in the Setup Prescription Guide MACROS form under Surgery. The product name changes to Plan 1 (Post-Surgical) and the Surgery tab appears.

Create a post-surgical setup without a treatment simulation attached:

1. During your review of the therapeutic model, or immediately after approving the therapeutic model, open the **MACROS** form.
2. In the **Surgery** section under **Surgery on**, check the **Upper** and/or **Lower** check boxes as appropriate to enable the **Surgery** tab.
3. From the menu bar, click the clock icon to expand the timeline.
4. Click the **New** menu and select **Setup.**
   The new setup is named *Post-Surgical*.

   Once you click a surgical option, the Max./Mand. Alignment controls on the **Global Registration** tab are unavailable, and changes must be made on the **Surgery** tab for each arch selected. If one of the arches is not indicated for surgery, mechanical movements (e.g., for TADs or elastics) can be made as usual on the **Global Registration** tab for that arch.
5. Select the **Surgery** tab.
   The color-coded segment handles are shown on the 3D model. The system default displays one segment per jaw. In the Segment Alignment area under the **Surgery** tab, the surgical skeletal movement features for the upper and lower jaws are also color-coded.

   Use the **Show/Hide Surgical Segments** icon 

   on the Tools menu palette to turn on or off the segments.
6. If you are planning multi-piece surgery,under the **Surgery** tab, indicate the number of segments in the maxilla or mandible in the surgical segment selection area.
   - Click and drag the surgical cut vertical indicators on the teeth diagram to mark the cuts. The Segment Alignment area is updated to display a tab for each new segment you create. The color-coding for each tab matches each bone segment in the 3D model.
   - You can move the jaw pieces by typing in values in the surgical segment alignment area or by using object navigation in the main window. Use object navigation just as you would to move teeth. Select a jaw segment in the 3D model, and drag the segment handles to the desired position.

- You can move a single segment and then split it into two or more segments by changing the number or segments on the **Surgery** tab. The new segments will retain the same adjustment as the original single segment.

7. Select the following options as needed:
   - **Malocclusion includes surgical adjustments** – for post-surgical:
     - When checked, the therapeutic model includes planned surgical movements. The tooth displacement values will only include movements due to dental corrections.
     - When unchecked, the therapeutic model does not include planned surgical movements. The tooth displacements will include both dental and skeletal corrections.
   - **Show Pre-Surgical** – When checked for a Post-Surgical setup, shows the setup dental movements without any skeletal corrections.
   - **Reset Pre-Surgical** – (Only displayed for Pre-Surgical setups or simulations.) Click to remove all skeletal movements.
   - **Hold Teeth** – When checked, holds teeth in place, allowing additional surgical movements to be made without changing absolute tooth positions.
   - **Reset Segment Position** button to clear values in the global movement tabs and return the surgical segments to their original position before you started movements.
   - **Use Common Rotation Axis** – Check if you want both arches to use a common axis of rotation.
   - **Use Condyle Axis** – Check to simulate the natural movement of the lower jaw rotating around the condyle axis. When you rotate the bone segment, the axis of rotation is relative to the condyle.
8. From the Display menu palette, click the **Lateral Ceph** icon to toggle on/off the combination ceph and left buccal view. This is a toggle on/off view. When toggled on, all other views are linked to and superimposed upon the lateral ceph view.
9. From the Display menu palette, click the Fade image control icon

to open the Fade Image control. Use the slider on the control to adjust the opacity of the ceph.
10. (Optional) To set the skeletal horizontal plane, follow these steps:
    a. From the Tools menu palette select the Show/Hide Horizontal and Vertical Facial Axis toolbar icon

. This displays the Skeletal Horizontal Line (a blue line with two end points).
    b. To make adjustments, click a point. It turns pink and the Frankfurt Line box opens. Click and drag the end points of the of the line to the desired locations.
    c. Once points are correctly placed, click **Apply** to apply and save your changes. The ceph will be adjusted to maintain a set parallel horizontal line. The bounding box will adjust to be parallel to that line.
11. After completing the surgical movements, perform the dental movements and fill out the MACROS to complete the Post-Surgical setup prescription.
12. When finished with the setup, go to the **Order** tab to submit the setup to the Digital Lab.

See also...

Creating One or More Post-Surgery Treatment Simulations

Step 3 - Review/Approve the Post-Surgery Setup

When you receive your post-surgical setup back from the Digital Lab, use the setup review guide as you would for a non-surgical plan, making sure that you review all dental and skeletal movements and make any necessary adjustments.

After you have completed your review and approved the post-surgical setup, SureSmile recommends one of the following options:

- **Begin a pre-surgical setup** – This is the recommended option if you are new to surgical treatment planning in SureSmile. This option allows you to order a pre-surgical plan so that the Digital Lab technician can make needed adjustments for root divergence and add space for the surgical cuts.

  Note: This option is not necessary for one-piece surgeries since there should be no tooth interference where the surgical cuts are to be made.

  Caution: We do not recommend ordering any wires until the setup has been approved. Ordering the wires before the pre-surgical plan has been approved will reference the incorrect models.

- **Begin a pre-surgical simulation** – Because, in most cases, the amount of work that has to be done in the pre-surgical setup is minimal, this option is a good choice if you are experienced with surgical treatment planning in SureSmile and do not need Digital Lab assistance. If you are able to make needed adjustments for root divergence and to add space where the surgical cuts are to be placed, you can order pre-surgical wires directly from the pre-surgical simulation. (See "Step 5 – Order Pre-Surgery Wires" for instructions.)

- **Begin a post-surgical wire order** – This option is NOT recommended for multi-piece surgeries. However, in single-piece surgical cases, when a pre-surgical plan is not needed, you can order wires.

Limitations

For multi-piece surgery cases, do not order the post-surgical wire first. If you order the post-surgical wire first, the reference stage for the wire will be incorrect. Because the Digital Lab cannot correct this, they will place the case on Customer Hold with instructions to order new wires in the correct sequence and with the correct references. You will then need to release the Customer Hold back to the Digital Lab. This limitation does not apply to single-piece surgical cases. You can order just a post-surgical wire for these cases.

Step 4 - Create Pre-Surgical Simulations or Pre-Surgical Setup

The main purpose of pre-surgical simulations or pre-surgical setup is to make any changes you need to occur before surgery, such as creating space for osteotomy cuts.

When you complete the review of your post-surgical setup order, if you choose the first option, **Begin Pre-Surgical Setup Order Next**, the setup order opens as usual. Choose the second option, **Begin Pre-Surgical Simulation Next**, if you want to open a new simulation instead.

Create a pre-surgical setup

The main purpose of the pre-surgical setup is to make any changes you need to occur before surgery, such as creating space for osteotomy cuts.

1. On the patient overview page, click the **New** drop-down menu.
2. Select **Setup**.

   Result: SureSmile automatically positions the teeth in their final position and the bone segments in their pre-surgical positions.

   Note: SureSmile automatically adds the suffix (Pre-Surgery) to the name of the setup prescription.

Create a pre-surgical simulation

To create a pre-surgical simulation, follow these steps:

1. On the patient overview page, click the **New** drop-down menu.
2. Select **Treatment Simulation**.

   Result: SureSmile automatically positions the teeth in their final position and the bone segments in their pre-surgical positions.

   Note: SureSmile automatically adds the suffix (Pre-Surgical) to the name of the simulation.

Step 5 - Order the Pre-Surgical Wires

Order your pre-surgical wires before the post-surgical wires, as you will use the pre-surgical wires first.

- The model on the left is the reference or therapeutic model.
- The model on the right is the base model and shows the teeth in their final state minus the surgical skeletal movements.

The pre-surgical wire should do most of the work as it moves the teeth to their final or near-final position before surgery, so that after surgery the amount of force and tooth movement needed is minimal.

To order pre-surgical wires from a treatment simulation or setup:

1. Under the **Order** tab, select **New Pre-Surgical Wire**.
2. Order the wire as you would normally.

   Caution: Do not copy a post-surgical wire for use as a pre-surgical wire as the surgical movements will be copied as well.

Step 6 - Order Post-Surgical Wires

The reference model for a post-surgical wire will be a combination of the pre-surgical setup or simulation with the post-surgical skeletal corrections applied. The base model will be the post-surgical setup. The wire name has the suffix *(Post-Surgical)*. The reference model, (a Pre-Surgical simulation or setup) on the left includes all of the dental movements applied prior to the surgery, but it also includes the post-surgical skeletal movements. This is the starting position after surgery. The target model shows the post-surgical setup. Here, only slight alignments are typically required--just slight tooth movements to complement the alignments made prior to surgery.

To order the Post-Surgery wire:

1. From the menu bar, click the clock icon to expand the timeline.
2. Click the **New** menu and select **Wire**.
3. The **Create New Wire** pop-up window appears.
4. Choose the *Post-Surgical Setup* as the base model and select - *no overrides* - for the upper and lower wires.

   Result: The New Wire Order window opens. The wire is automatically labeled *Wire 2 (Post-Surgical)*.

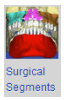
   Note: On the Order Tab of the approved post-surgical setup, the **Create Post-Surgical Simulation** button directly creates a simulation based on the post-surgical setup. The simulation applies to both teeth and surgery movements. You can then order a setup modification wire from this simulation.

Surgical Planning with Bone Models

If you request bone modeling, instead of the segment handles, you will see the bone color-coded for multi-piece surgery.

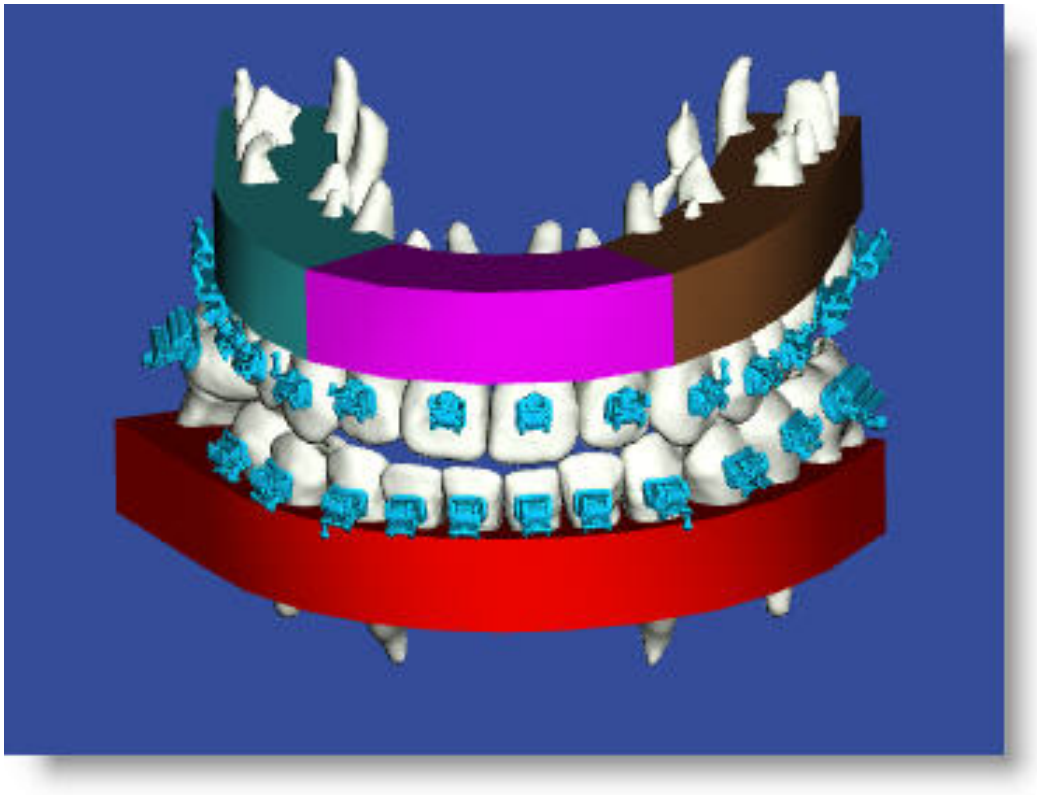
Surgical cut indicators are available on the tooth chart to move the cuts between the different teeth. You can also interactively move them on the model to adjust their angulation and position the indicators in all three planes of space.

To show and edit surgical segments in the main window on the treatment planning workspace

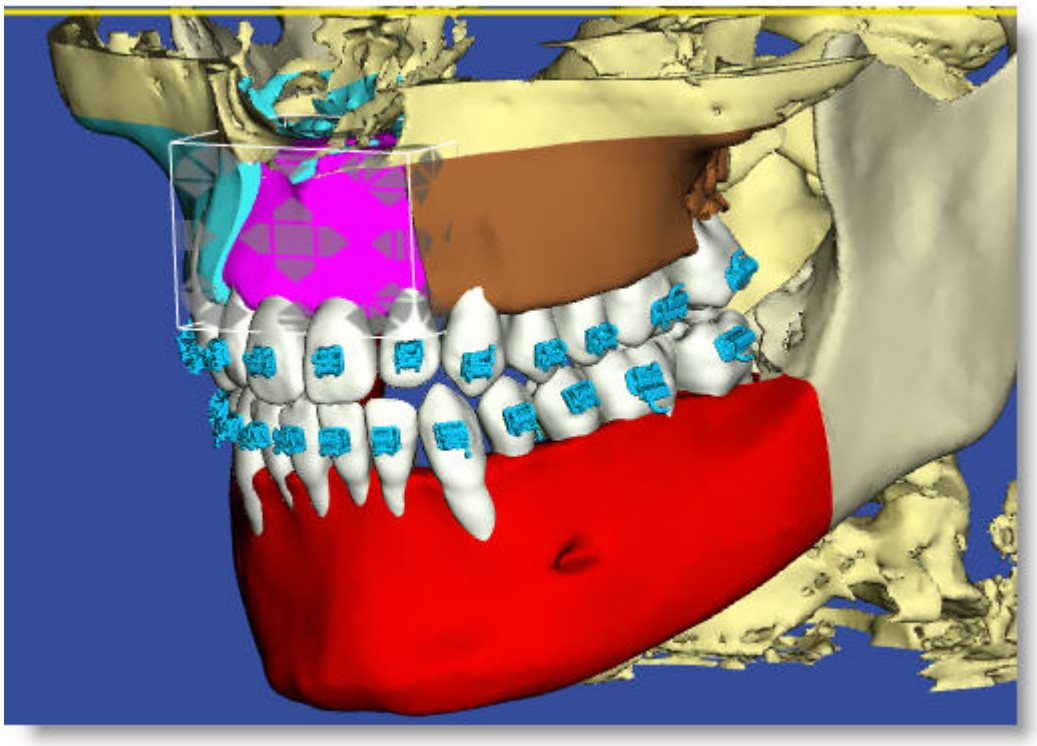
1. Create your post-surgical simulation or setup as you would normally with a surgical case.
2. Select the **Surgery** tab.
3. Click the **Show/Hide Surgical Segments** icon 

on the Tools menu palette to turn on the surgical segments.
NOTE: The model cannot be in a read-only state.
4. Indicate the number of segments in the **Segment selection** area under the **Surgery** tab.
RESULT: Segment Alignment area displays a tab for each segment. Tab color coding matches bone segments.

   Note: If modeled bone was not ordered for the case clicking the Surgical Segments icon displays surgical segment handles:



5. Click and drag the surgical cut indicators on the surgery tooth chart to mark the cuts. After you click the surgery cut indicators in the tooth chart, the corresponding surgery cut indicator is also shown in the 3D model in the main window. Click on this indicator to display its bounding box to change the location and angle of the indicator.
6. Move the bone segments as needed:
    - Type values in the Segment Alignment tabs
      OR
    - Use the bounding box to manipulate the model in the main window. Select a bone segment and use the bounding box controls to move the segment.



Tip: To retain tooth adjustments in multiple segments as they were in their original single segment, move the single segment first, and then split it into two or more segments. Your original tooth adjustments will be retained.

Lingual Treatment Planning

SureSmile's lingual treatment planning tools provide you with powerful diagnostic, treatment planning, and monitoring resources for delivering predictable and personalized lingual orthodontic care.

SureSmile provides an end-to-end solution for fixed lingual appliances, allowing you to apply 3D diagnostic imaging and computer-aided treatment planning to unlock the power of Shape Memory Alloy (SMA) archwires. As a result of robotic customization, SMA wires permanently retain their custom prescription and are activated by the patient’s body heat. This allows you to create a more efficient therapeutic device than is typically possible with conventional lingual treatment systems.

SureSmile Lingual Process

The SureSmile lingual process encompasses all of the interactions between you and your patient during lingual treatment. Activities can be grouped into four areas:

Start - A SureSmile lingual case starts with the consultation appointment and the creation of the patient record. This includes importing photos and x-rays into SureSmile. You can then use the imported images for treatment planning in SureSmile. At the start of treatment, the patient's malocclusion should be captured to produce a diagnostic model. A diagnostic model is required for planning bracket positions with SureSmile's diagnostic bracket placement simulation functionality.

Diagnostic Simulation, Indirect Bonding - SureSmile's treatment simulation software allows you to use a diagnostic model to evaluate treatment alternatives. In addition, bracket placement simulation allows you to plan your bracket placements and communicate with your laboratory technician during the indirect bonding process. Diagnostic Bracket Placement Simulation is essential for correct SureSmile lingual patient selection. It allows for precise inter-bracket distance and lingual surface length evaluation.

Therapeutic Scan, Setup - As with labial SureSmile treatment, after your staff has taken a scan to capture current tooth and bracket positions after teeth have been aligned and derotated, you can use the resultant therapeutic model to review treatment progress and create a setup prescription.

Prescription Archwires - Just as with labial SureSmile treatment, SureSmile lingual custom archwires are ordered based on your wire design prescription, and engaged at the wire installation appointment. Again, just like labial SureSmile treatment, correct wire engagement is critical to ensure precise play out of SureSmile lingual archwires.

Lingual brackets supported by SureSmile

You can use any labial or lingual bracket in the SureSmile bracket library for lingual treatment. However, considering the concave surface of the anterior teeth and the convex surface geometry of the pre-molars and molars, we recommend using lingual brackets, as these are designed for lingual anatomy.

Creating your own Lingual Bracket Sets

Save time by creating and storing your lingual bracket sets in SureSmile. This is much more efficient than having to search for and find each bracket every time you bond a patient. Create one or more lingual bracket sets with the brackets you typically use. You can still customize your bracket sets for a patient as appropriate by removing and changing brackets. Go to Bracket Set Preferences for instructions.

Lingual Bracket Placement Simulation

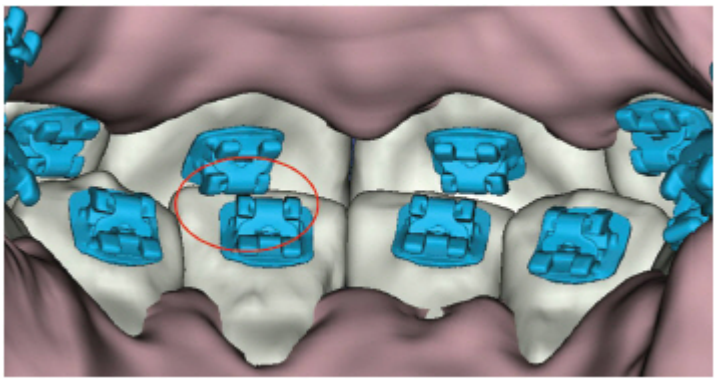
Rationale

Lingual bracket placement position is very important for successful SureSmile wire bending and wire insertion. Use the patient's approved SureSmile diagnostic model to simulate bracket positions at the end of conventional (alignment and derotation) treatment, just prior to insertion of the first custom SureSmile archwire. Provide this simulation or a report of the simulated bracket positions to the lab tech making your IDB trays.* The jig height and mesial-distal locations for each bracket allow the lab tech to position the brackets in such a way that bracket collisions and interferences are avoided.

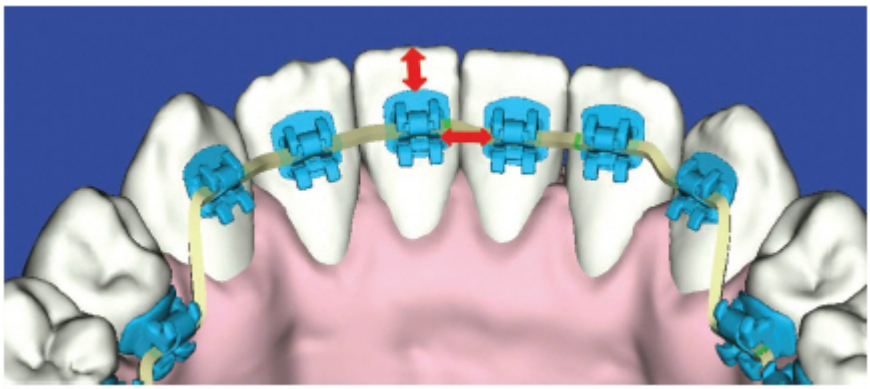
> ***Note**: Since lingual bracket placement may vary based on tooth morphology, indirect bonding is strongly recommended. If you bond brackets directly you run the risk of having to reposition brackets at mid-treatment.

Recommended Bracket Placement Strategies

Lingual bracket placement, upper arch - To prevent bracket-tooth collisions in the final position (overbite greater than 2 mm), place brackets in the upper arch as gingivally as possible, otherwise you can have a bracket/tooth collision similar to the one shown below. Maintain a minimum of 1 mm space between the gingival rim and the bracket base to allow for appropriate hygiene.



Lingual bracket placement, lower arch - The main challenge when selecting and placing brackets in the lower arch is the very small inter-bracket distance between the front teeth. An inter-bracket distance that is too small means the SureSmile robot cannot fabricate the SureSmile lingual custom wire. Therefore, it is important to bond the brackets as incisally as possible. We recommend a distance of 1 mm between the incisal edge and the upper border of the bracket base. This puts the bracket where the mesiodistal dimension of a lower front tooth is anatomically the largest (see below). Keep in mind, however, that this minimum placement height could adversely affect aesthetics. This is particularly true when teeth are extremely protruded. Bracket placement should always consider the clinical crown height and the contour of each tooth.



Create a Treatment Simulation from a diagnostic model

The end result of a treatment simulation based on an approved diagnostic model is a 3D model of a patient's treatment objective representing a specific treatment approach. This treatment simulation allows you to explore multiple treatment alternatives before deciding on a specific setup prescription. You can create and store numerous treatment simulations for a patient before deciding on a specific treatment plan. These simulations are a key component of lingual treatment planning as they allow you to precisely simulate lingual bracket placement so that you can predict and avoid bracket interferences and collisions, and determine the best placement for each bracket.

Even though you can also create treatment simulations from an approved therapeutic model, keep in mind that the patient will be in mid-treatment at this point. As a result, you will be more constrained by clinical considerations.

Steps for Creating a Diagnostic Simulation

1. Find the patient for which you want to create a diagnostic simulation and open the patient's approved diagnostic model so that it is shown in the treatment planning workspace.
2. Click the clock icon at the top right of the screen to display the timeline.
3. From the **New** drop-down menu select *Treatment Simulation*.
   Result: Simulation 1 opens in the treatment planning workspace.
4. Click the **Displacements** tab to make manual tooth adjustments or see the movements made with the bounding box.
5. Click the **Clear Spaces** button to eliminate any spaces and intersections that were created.
6. Apply global movements as needed.
7. Since your changes have been saved as you work, you can close the patient now if you wish, or leave the patient open if you now wish to immediately simulate lingual bracket placement.

Simulate Placement of Lingual Brackets

Once you have a simulation showing where you want the teeth to be in mid treatment (that is, when the patient is ready for his/her first set of custom SureSmile wires) you are ready to simulate the placement of brackets. Simulating the placement of the brackets allows you to adjust the placement of the brackets so you can avoid any bracket collisions or interferences as you align and derotate the teeth. Once you virtually place the brackets on the 3D diagnostic model, you can give this precise bracket placement information to the lab technician creating your physical IDB trays. The lab technician can use this information to place the brackets to correspond with their locations on the teeth as shown in the simulation.

To simulate the placement of lingual brackets

1. Open the patient's treatment simulation. The treatment simulation must be based on an approved diagnostic model. This simulation should show the teeth roughly aligned and leveled, that is, where you would expect the teeth to be when the patient is ready for his/her first custom SureSmile wire.
2. Open the **Brackets** tab.
3. From the **Apply Bracket Set** button click **Assign Bracket Set** to open the **Bracket Set Selection** dialog box**.**
4. Use the drop-down list to Select the bracket set you want to use.
5. Select the target from the drop-down list: Choose All Teeth, Upper Jaw Teeth or Lower Jaw teeth
6. Click **Apply**.
7. From the **Brackets** tab, check the **Lingually Bonded** check box for each arch that you want to bond lingually.
8. Open the **Wire** tab and select the wire material and cross-section for the upper and/or lower wire (typically NiTi, .016 round for an initial SureSmile wire).
9. From the **Brackets** menu palette, select the **Prebonded Brackets** icon.
10. From the **Brackets** menu palette, click the **Wire** icon to display the wire.
11. Display the bracket navigation plane by clicking the **Bracket Plane** icon in the **Brackets** palette. To improve the bracket plane position, select the plane by clicking it, then use the arrows on the bounding box to correct vertical alignment of the brackets. Select the **Align Brackets** icon on the **Brackets** palette to flatten the wire.
12. Design issues are noted on the screen with visual cues on the wire segments.
    - **Red** indicates that the bend is too sharp for the robot to handle and cannot be bent.
    - **Yellow** indicates that the wire is pressing on the tooth where the yellow segment is located.
    - **Purple** wire segment indicates that the bend does not fit between a bracket pair (e.g., the brackets are too close together).

    Note: All design issues must be resolved before the wires can be processed.
10. From the **Display** palette, click the **Gingiva** icon to display the gingiva.
11. Adjust brackets horizontally (mesial/distally) and vertically (occlusally/gingivally) as needed.

    Tip: To improve bracket position, select the bracket and use the bounding box to move the bracket.
12. From the **Brackets** palette, select the Intersections icon to check tooth-bracket collisions.

Bracket Placement Parameters

After selecting parameters such as a bracket set and the inter-arch relationship, manipulate the model by changing the archforms, adjusting the upper/lower alignment or extracting teeth to approximate expected results. You can also reposition brackets or teeth in the model to simulate the effects with a straight wire.

Check the overjet value as you make changes to the model. A value of 0.0 indicates normal contact between the lower incisal edge and the lingual surface of the upper central incisors. An edge-to-edge relationship is indicated by a negative value of -1.0 mm; greater than 0.0 mm indicates an incisal gap.

After you have positioned brackets, check for interferences and make any final adjustments as needed.

See also ...

Adjusting Maxillary/Mandibular Alignment

Moving Brackets

Moving Brackets

When you click a **bracket** in a 3D model in SureSmile and move it using SureSmile's object navigation features, you may make mesial-distal, vertical, or angulation adjustments. All other movements are restricted by the bracket's adhesion to the tooth. In the straight-wire model, bracket movement is also constrained by the bracket's prescription relative to its position and its connection to the wire.

Since the movement occurs relative to the current view, choose the most appropriate standard viewpoint before moving a bracket. Use the tooth sequencer to automatically position a selected tooth or bracket in a buccal view.

When you select a **tooth** in the straight-wire model and move it, the bracket will remain in position relative to the wire and adhered to the tooth. With a straight wire and brackets, the tooth is constrained as follows:

- First-order (in/out and rotations) and third-order movements are restricted by the fixed shape of the wire and the bracket's prescription relative to its position.
- Second-order movements (vertical and angulation) are limited by the bracket's adhesion somewhere on the tooth, the bracket's prescription relative to its position, and its connection to the wire.

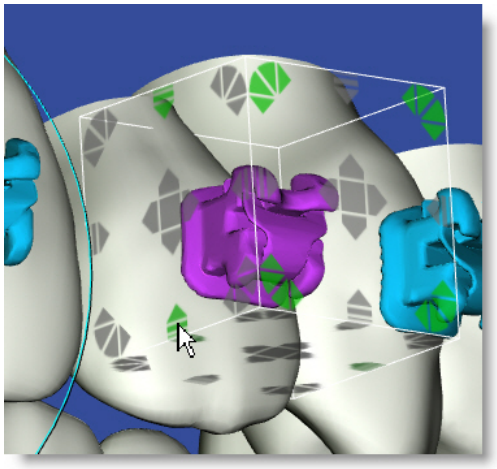
  Tip: Point to the small rectangle in the center of the Camera Navigation controls, and drag down to magnify the view. Select a standard viewpoint to return to a view of the model.

Make manual adjustments to the brackets

To make manual adjustments:

1. Use standard viewpoints and Camera Navigation to position and magnify an occlusal view of a tooth and bracket.
2. Click the bracket to select it. The selected bracket is shaded in purple.
3. A bounding box will appear around the bracket with arrows around the bounding box. Click on the arrow pointing in the direction you would like to move the bracket.
4. The controls appear as arrows that are color and location coded for each type of movement as follows:

   - Mesial/Distal—Red arrows in the center of the bounding box
   - Buccal/Lingual—Green arrows in the center of the bounding box
   - Occlusal/Gingival—Blue arrows in the center of the bounding box
   - Torque Facial/Lingual—Red arrows at the outside edge of the bounding box
   - Angulation Mesial/Distal—Green arrows at the outside edge of the bounding box
   - Rotation Mesial/Distal—Blue arrows at the outside edge of the bounding box



As you move the bracket, the bounding box disappears to avoid obstructing your view.

Note: There are two options for displaying the bounding box controls. The default option displays the controls when you click a bracket. You can change this option so that the controls are only displayed when you shift-click the bracket. To change the current option, click the settings icon and select the **Preferences** menu. On the Preferences page, click the **Appearance** tab and then change the **Object Navigation with SHIFT** option according to your preference by selecting either *Yes* or *No* from the drop-down list.

Adjusting Maxillary/Mandibular Alignment

If you are planning a shift in treatment, use the **Global Registration** tab to shift the relationship between the arches when you create your treatment simulation.

If you want...	**Then...**
to use a common axis of rotation	click **Use Common Rotation Axis**
the common center of rotation to be the condyle axis.	click **Use Condyle Axis**
the opposing arch to follow your changes to an arch	click **Sync U/L**
to adjust **Translation** movement	click the up/down arrows to scroll to a number (in millimeters). or Type an estimate for the amount of movement (in millimeters). **Note:** As indicated on the screen, a positive or negative number will move the arch left/right, anterior/posterior, or gingival/occlusal.
to adjust **Rotation** movement	click the up/down arrows to scroll to a number (in degrees). or type an estimate for the amount of movement (in degrees). **Note:** As indicated on the screen, a positive or negative number will rotate the arch.
to remove all of your entries and start over	Click the **Reset** button.

SureSmile Lingual Recommended Wire Sequence

The following table provides the recommended sequences of SureSmile lingual archwires for treatment track A and treatment track B patients. Please see the PDF document SureSmile Lingual Clinical Protocol for more information about lingual treatment tracks.

Recommended Archwires	
Initial phase:	.014 NiTi mushroom *(minor to moderate crowding)* OR .012 NiTi mushroom *(moderate crowding)* use as the teeth are being aligned and derotated
suresmile Archwires:	1) .016 CuNiTi/NiTi 2) .016x.016 CuNiTi/NiTi 3) .016x.022 CuNiTi/NiTi 4) .017x.025 CuNiTi/NiTi 5) .017x.025 Elgiloy/Azurloy* *Use if transversal expansion and torque expression is still required in full lingual treatment (upper lingual and lower lingual). Preferred use is in the maxilla because this wire is very difficult to insert.

Note: The table assumes that after initial alignment and leveling using preformed mushroom-shaped archwires, patients will wear initial and final SureSmile custom archwires.

Lingual Archwires Supported by SureSmile

SureSmile supports the following wire materials and cross-sections for lingual treatment. The Stiffness column shows the comparative stiffness of each wire.

NiTi	Beta-Ti	Elgiloy	Cross-Section (inches)
X	X		.016 round
X	X		.016 x .016
X			.018 x .018
X	X	X	.016 x .022
X	X	X	.017 x .025

Stiffness	Type of Material	Cross-Section
Low	NiTi	.016 round
	NiTi	.016 x .016
	Beta-Ti	.016 round
	Beta-Ti	.016 x .016
	NiTi	.016 x .022
	Beta-Ti	.016 x .022
	NiTi	.017 x .025
	NiTi	.018 x .018
	Beta-Ti	.017 x .025
	Elgiloy	.016 x .022
High	Elgiloy	.017 x .025

NiTi = Nickel Titanium

Beta-Ti = Beta Titanium

Manufacturer
OraMetrix
2350 Campbell Creek Blvd., Suite 400
Richardson, TX 75082, U.S.A.

Authorized EU Representative
Orametrix GmbH
Rugestrasse 19,
10179 Berlin, Germany

Switzerland Representative
Maillefer Instruments Holding Sàrl
Chemin du verger 3
CH-1338 Ballaigues

Australian Sponsor
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Mount Waverley VIC 3149 Australia
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