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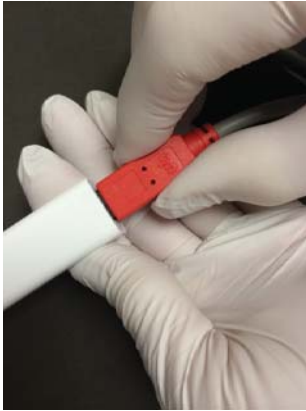


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Connecting & Disconnecting the NEVO Scanner

Properly connecting and disconnecting the NEVO Scanner will prevent damage to your devices.

1. Connect the red end of the NEVO scanner into the Thunderbolt™ connector.
2. Make sure the end is fully seated and a confirmation sound has been given from the Design Center.



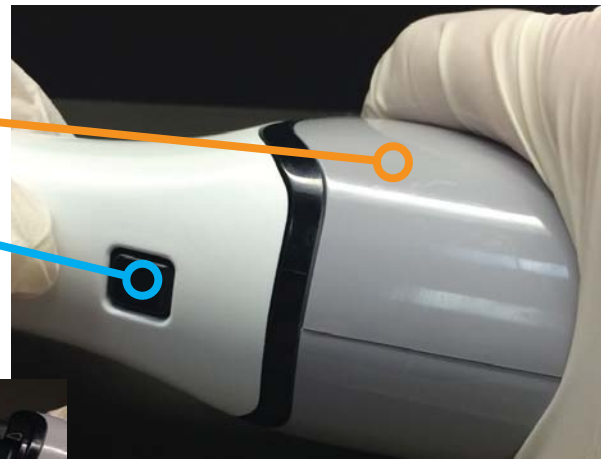
When removing the NEVO scanner, hold the red end with one hand and the other hand grasp the Thunderbolt connector. Gently pull apart to disconnect. Leave the white Thunderbolt connector attached to the computer.



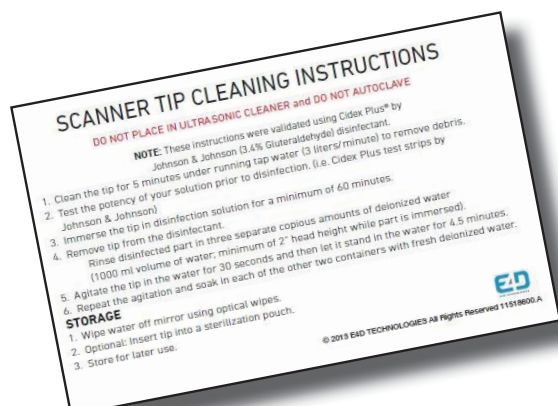
Note: At E4D University the tip has already been placed on your scanner. At your practice be sure to verify the scanner tip is completely dry before attempting to connect. Keep the power adapter connected to the laptop while scanning.

Removing the NEVO Tip

1. Grasp the grey portion of the scanner with one hand.
2. Use the other hand to depress the black button and gently pull the tip from the scanner.



Properly connecting and disconnecting the NEVO Tip will prevent damage to your devices.



Note: The NEVO Tip should be disinfected according to the manufacturer instructions provided with the NEVO Scanner.

Introduction

These instructions are intended as an outline to go along with the presenter's instructions and demonstrations. For complete step-by-step instructions, see the Exercise Workbook and User Manual.

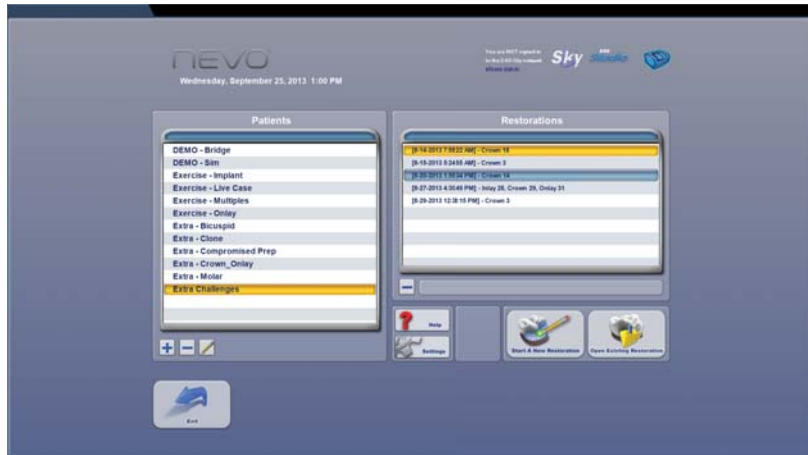
Premolar Crown with Buccal Bite

Tooth #5 (1-4 ISO)

Home



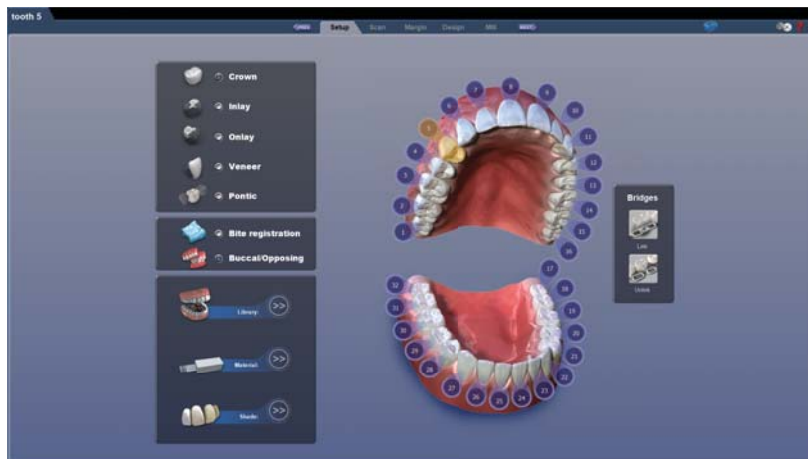
1. On the Home screen, click the  and add your name as a patient.



2. Click **Start New Restoration**.



The Setup tab displays.



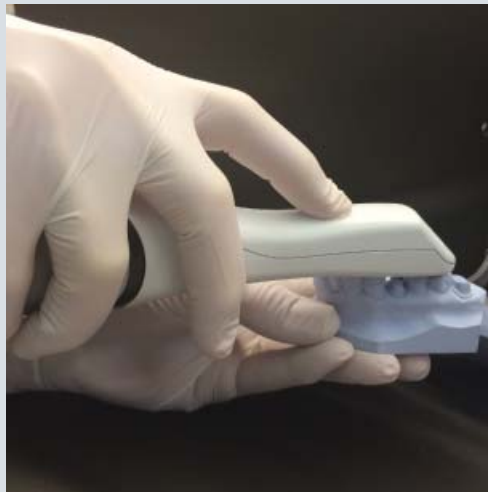
Setup

Enter the setup information for this case:

- **Tooth 5 (1-4 ISO)**
- **Crown**
- **Buccal/Opposing**
- **Library A**
- **Empress CAD LT**
- **Select shade A1**

For Your Information

- Hold the scanner close to the tip like a handpiece or overhanded. Rest the neck of the scanner on the adjacent teeth.

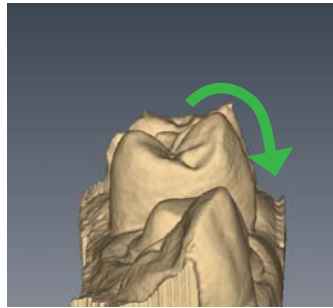
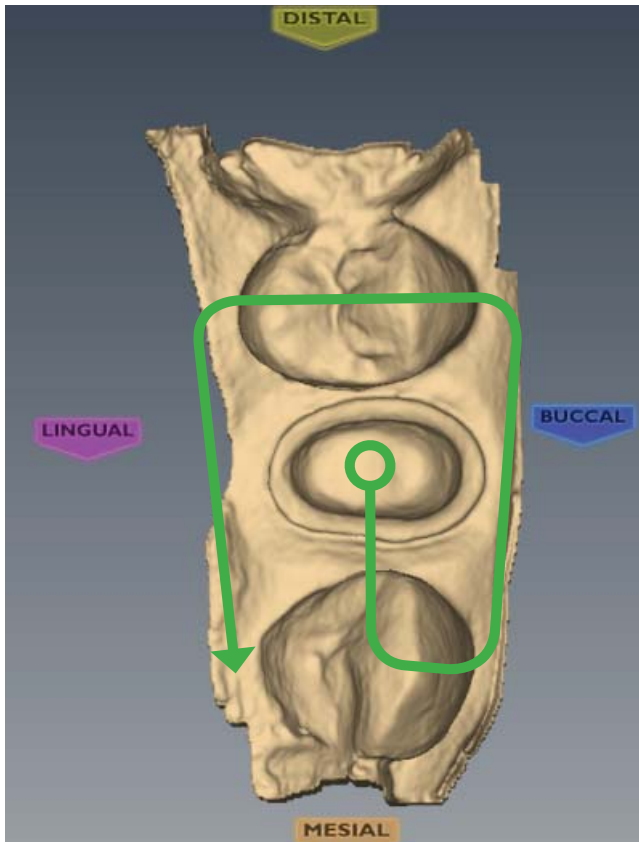


- The tip of the scanner should point towards the distal of the preparation.



Basic Scanning Pattern

Begin scanning directly over the occlusal surface of the preparation. Move in a gradual, continuous motion toward the mesial neighbor. Transition from the occlusal, cusp, axial wall, to gingival surfaces. The scanner should be held as close to 90° while scanning parallel to the buccal surface.



Goals

- 100% of the prep and interproximal contact areas
- 90% of the adjacent teeth
- Good axial data for design
- 2-3 mm gingival tissue on buccal and lingual

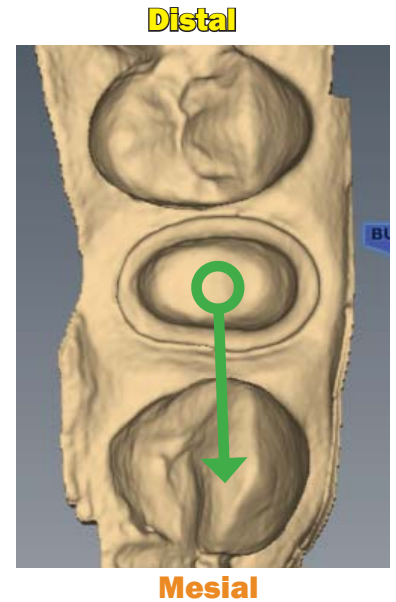
Overview

1. Click the **Scan** tab.
2. Pick up the scanner.
3. Activate/Deactivate the scanner by clicking the button on the scanner or pressing the **Spacebar** on the keyboard.
4. Scan the model.
5. Click **Generate Model** or press **M** on the keyboard to finish building the virtual model.

Occlusal scans

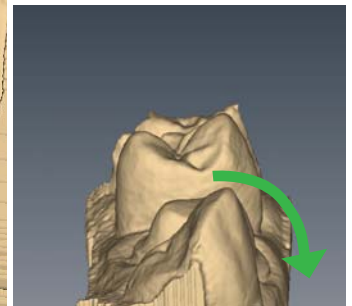
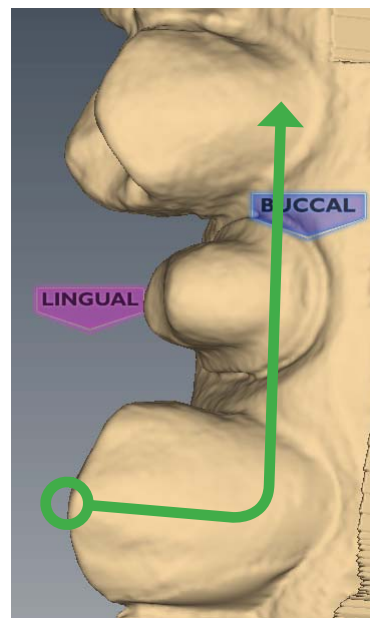
1. Begin scanning directly over the preparation.
2. Keep the scanner parallel to the occlusal table. Move in a gradual continuous motion toward the mesial neighbor.
3. Be sure to focus on the building model in the Design Center software.

Note: You do not need to look at the model during scanning. Keep your eyes on the screen and use the building model and the live view to track your progress and current position.



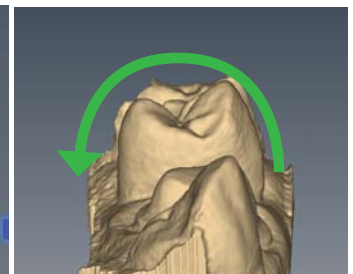
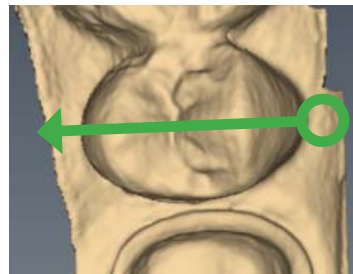
Buccal scans

1. Use small rotations over the mesial neighbor, transition from occlusal, cusp tip, buccal wall, to gingival.
2. Scan along the buccal surface of the teeth. Rotate the scanner to almost 90° from the occlusal table.
3. Watch as your model builds to see any areas that might require a different rotation or angle.



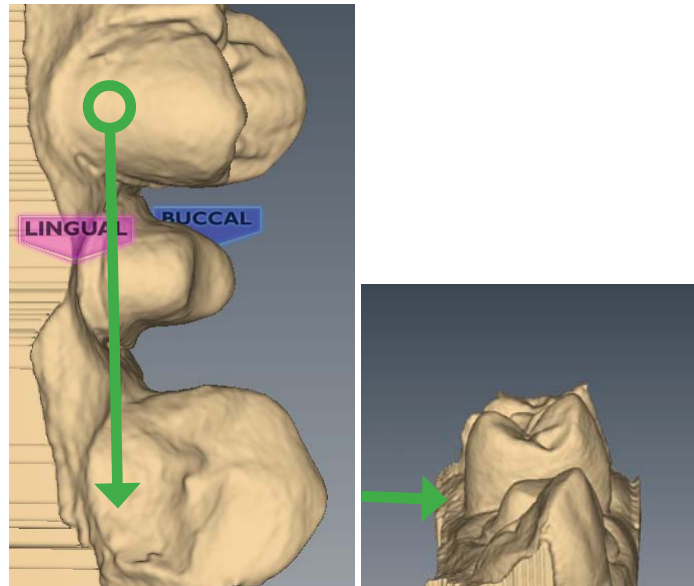
Distal Tooth

To capture the occlusal data of the distal tooth, transition across the occlusal table until you reach the lingual surface.



Lingual scans

1. Scan along the lingual surface of the teeth. Rotate the scanner to almost 90° from the occlusal table.
2. Complete the scan pattern at the lingual of the mesial neighbor.

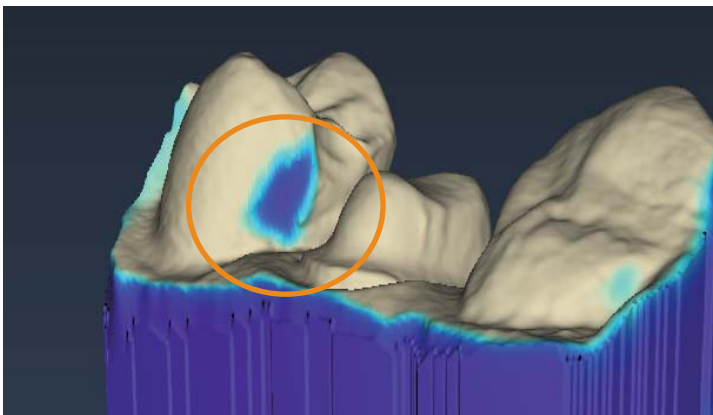


Evaluate the model

1. Click **Generate Model** or press **M** on the keyboard to finish building the model.
2. Use the mouse to rotate, move and zoom in and out to evaluate the model.

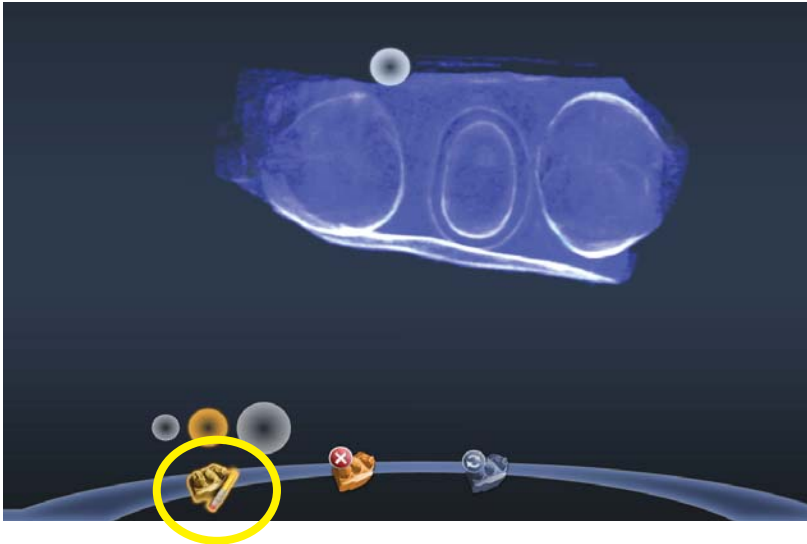
	Select position pointer on item and click left button to select		Rotate Model press and hold the right button, then drag
	Zoom Model rotate the wheel button to change the size of the model on the screen		Move Model up/down, left/right: press and hold the wheel button, then drag.

2. Click **Data Density View**.  Dark areas indicate low data. There should be NO dark areas on the margin or axial walls of the preparation or on the contact areas of the neighboring teeth (circled below).



3. Fill in missing data on the margin or contact areas.

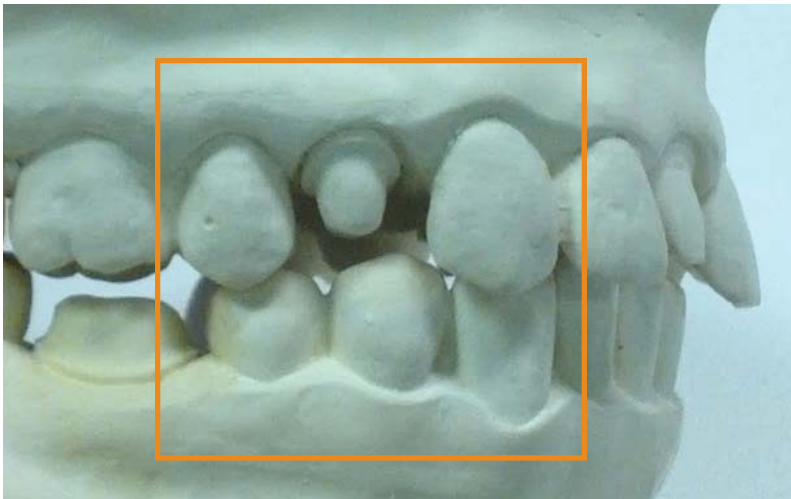
Ensure your model has 100% of the preparation, 100% of the interproximal contact area, and at least 90% of the occlusal data on the adjacent teeth. Be sure to capture the full cusp tips of the adjacent teeth.



4. Erase any unnecessary data such as adjacent teeth, tongue, cheek, and cotton rolls.

Buccal Bite and Opposing

The opposing teeth are scanned to acquire bite information for the proposal. The buccal bite is scanned to align the preparation model with the opposing model. Scan all of the teeth that are in opposition to the teeth in the preparation scans.

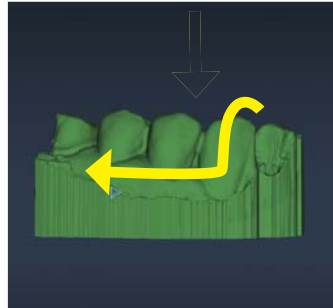
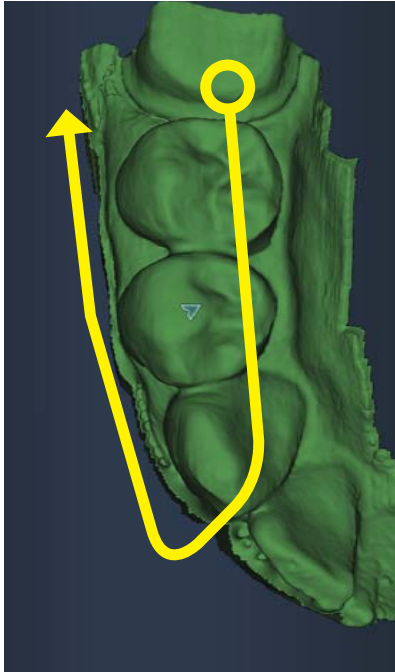


Note: Many clinical operators scan the Opposing while the patient is being anesthetized.

Scan Opposing



1. Click **Opposing**.
2. Starting with the distal tooth, scan the occlusal data.
3. Transition to the buccal and scan the buccal side of the opposing dentition. Include 2-3 mm of gingival data, do not stop halfway down the tooth. (Cusp tip, axial wall, gingival)



Goals

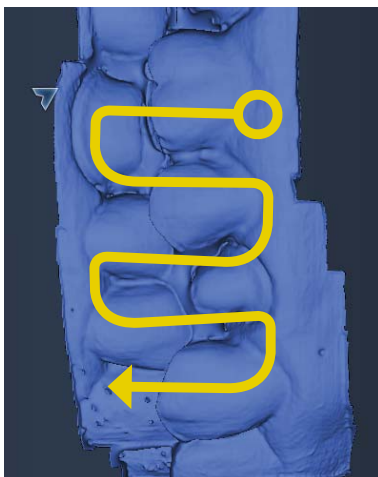
- 100% of the occlusal and buccal surfaces
- 2-3 mm gingival tissue on the buccal surface
- Lingual data not necessary

4. Erase any unnecessary data such as tongue, cheek, and cotton rolls.

Scan Buccal



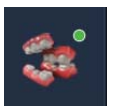
1. Click **Scan Buccal**.
2. Close the articulated model gently. If it shifts during the scanning, the alignment may be incorrect.
3. Scan the buccal surfaces of the teeth that were captured in the preparation and opposing models. Ensure some gingival data is captured.



Goals

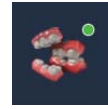
- Capture the buccal surface of the dentition in the prep and opposing
- 2-3 mm gingival data
- No rotations necessary

Note: Be sure to verify the status of the buccal alignment.



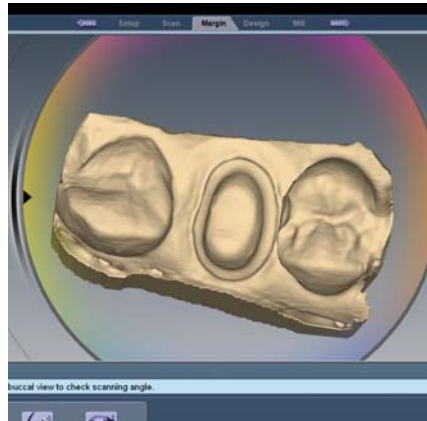
In most cases, alignment will be done automatically by the software.

A green dot in the Buccal icon indicates a successful alignment.

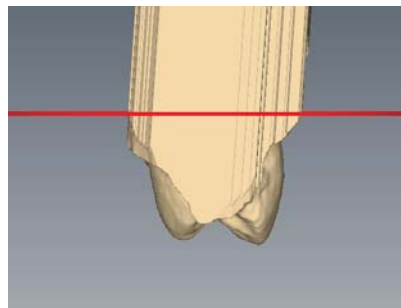


Evaluate and Adjust the Orientation

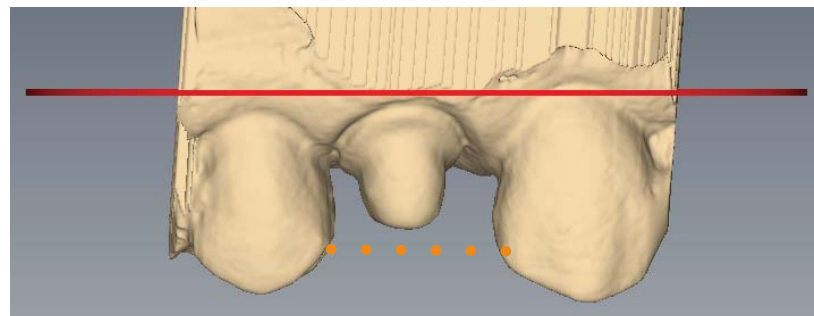
1. Click the **Margin** tab.
2. Evaluate and adjust the Orientation using **View Controls** to change the point of view.
 - A. In the Occlusal View, balance the model from buccal to lingual.



- B. In the Distal View, align the buccal cusps of the neighbors.



- C. In the Buccal View evaluate marginal ridge alignment.



3. Click the **Orientation** icon to accept the current position.

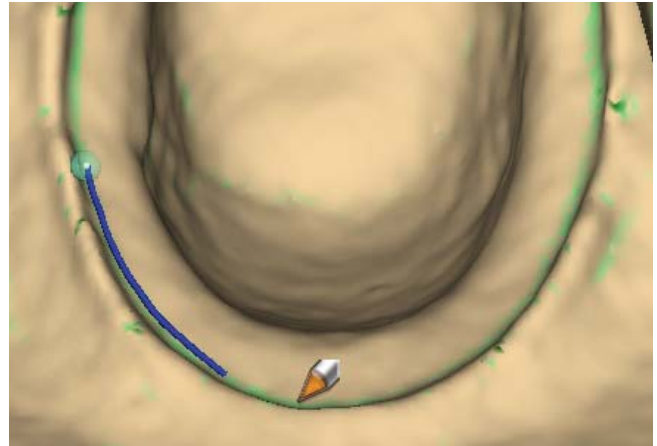


Mark the Margin

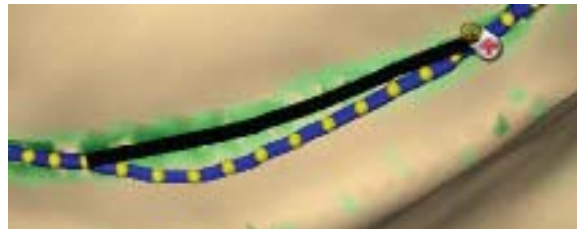
1. Click **Show Features**.  Show Features highlights areas of high contour, which helps define the margin.
2. Zoom in on the preparation.
3. Click **Trace** and click on the inside of the green line along the margin.
4. Moving in small increments, click as you move around the preparation.

Don't worry if you make a mistake while drawing the margin. It is easy to edit the margin.

5. The margin is finished when the original point (blue dot) is clicked to finish the circle.
6. Practice adjusting the margin with both **Move Margin** and **Add Segments**.



Move Margin is used for minor adjustments.



Add Segments is used to redraw a section of the margin.

Design

1. Click the **Design** tab.

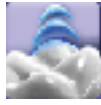
The Tooth Libraries screen appears.



2. Click **Apply** to generate the proposal.



3. Click **Incremental Tools** for large adjustments.



4. Click **Freeform Change Tools** for small adjustments.



5. Click **Material Thickness**. The material should be blue/green with a yellow margin.



6. Click **Rubber Tooth** and adjust the axial walls, marginal ridges, and embrasures.



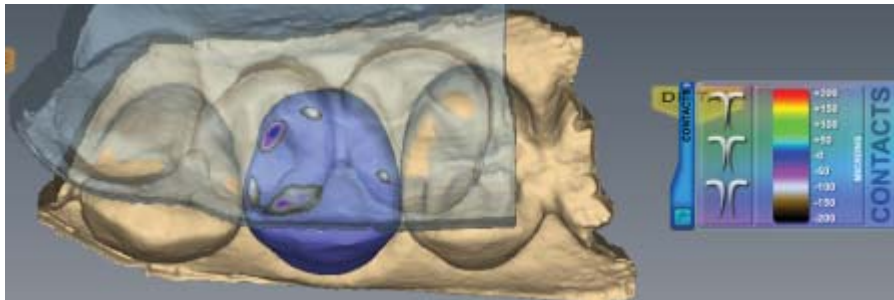
7. Click **View Bite Registration** to see the opposing dentition model above the proposal.



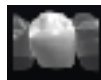
8. Click **View Bite Registration** a second time to make the template translucent.



9. Click **View Contacts**.

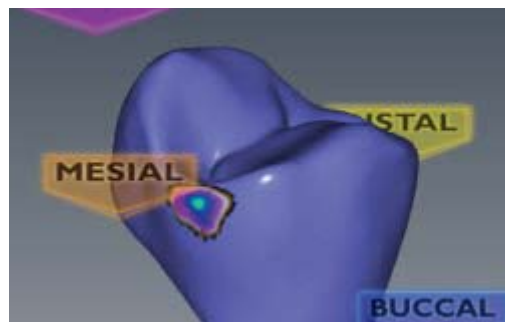
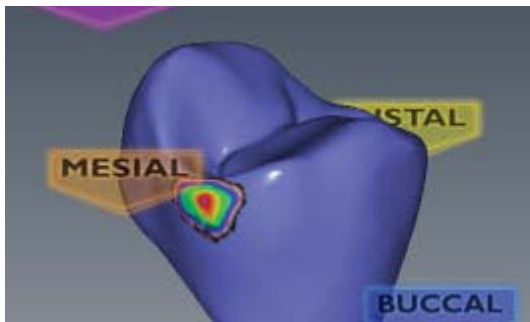


10. Click **View Bite Registration** again to deactivate the template.



11. Click **Hide Model** to remove the adjacent teeth from view.

12. Rotate the model to view the interproximal contacts. Adjust interproximal contacts as needed. The goal is dark blue with a hint of aqua.

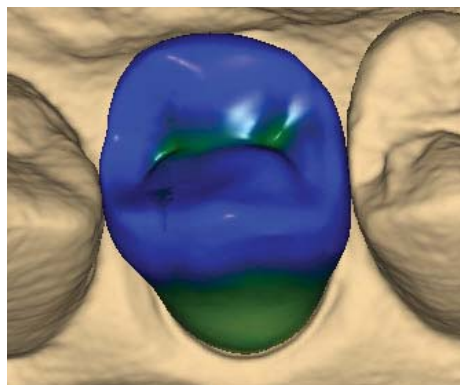


13. Deactivate **Hide Model.**

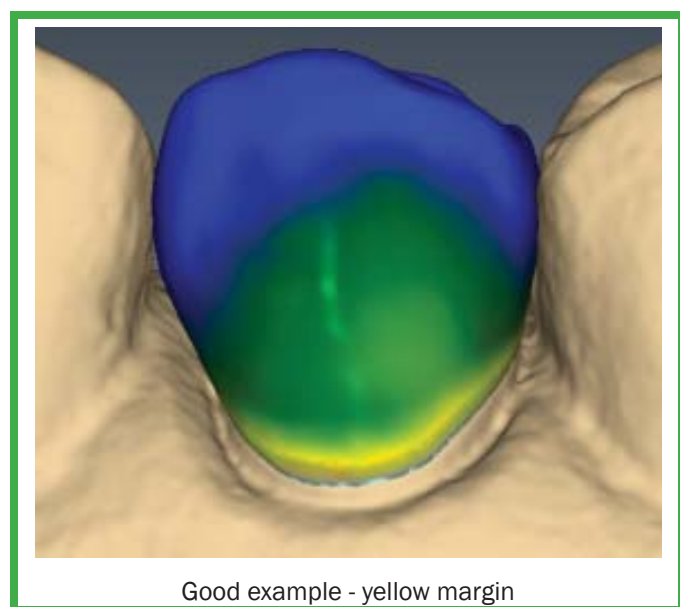
14. Deactivate **View Contacts.**

15. Click **View Material Thickness.**

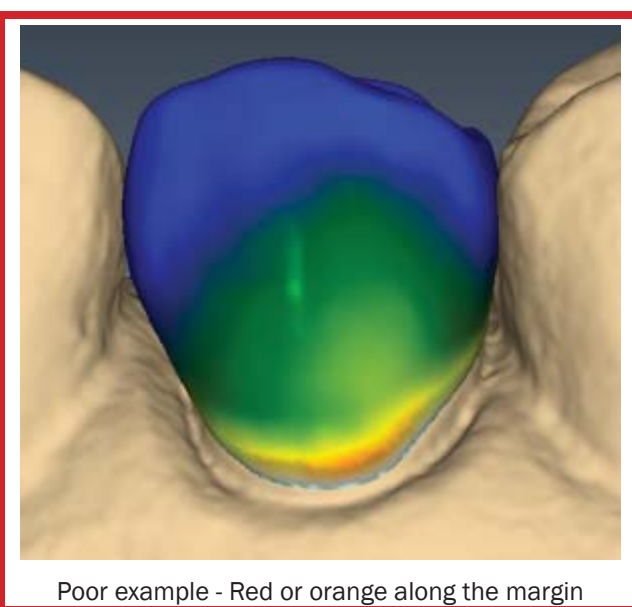
The desired material thickness is based on the block manufacturer's recommended thickness for your restoration type. The desired material thickness for a crown is 1-1.5 mm along the axial walls (bright green - dark green) and 1.5-2 mm on the occlusal table (dark green - blue).



16. Evaluate the margin. The material thickness should be yellow (0.5 mm) around the margin, with no red or orange.

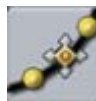


Good example - yellow margin



Poor example - Red or orange along the margin

17. If there is red around the margin, click **Move Margin**



to evaluate if the margin is placed correctly.

The proposal becomes transparent so that the margin is visible. Do NOT go back to the Margin tab to make the changes or you will lose all of the design work that has been done.

18. Adjust the margin if needed.

19. If the margin is in the correct place, use the **Dropper**



tool to add material thickness.

End of exercise. Do not proceed to the Mill tab.

Posterior Crown with Selection Area

Tooth #30 (4-6 ISO) with bite registration

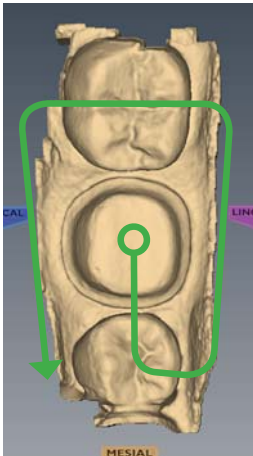
Setup

Enter the setup information for this case:

- **Tooth 30 (4-6 ISO)**
- **Crown**
- **Buccal Opposing**
- **Library A**
- **e.max HT**
- **Select shade B1**

Scan Prep

Scan prep using the basic scan method.



Begin scanning directly over the occlusal surface of the preparation. Move in a gradual, continuous motion toward the mesial neighbor. Transition from the occlusal, cusp, axial wall, to gingival surfaces. The scanner should be held at close to 90° while scanning parallel to the buccal surface.

Use small rotations over the mesial proximal neighbor, transition from occlusal, cusp tip, axial wall, to gingival.

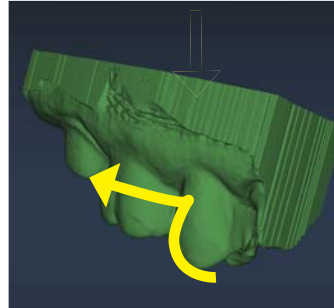
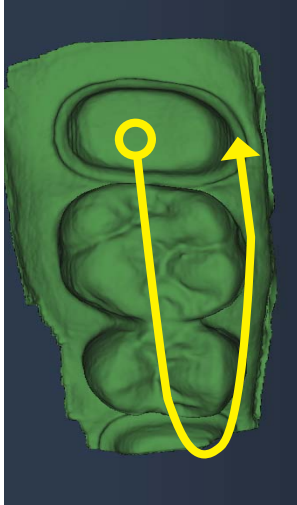
Scan along the lingual surface of the teeth. Rotate the scanner to almost 90° from the occlusal table.

Watch as your model builds to see any areas that might require a different rotation or angle.

Scan Opposing



1. Click **Opposing**.
2. Starting with the distal tooth, scan the occlusal data.
3. Transition to the buccal and scan the buccal side of the opposing dentition. Include 2-3 mm of gingival data, do not stop halfway down the tooth. (Cusp tip, axial wall, gingival)



Goals

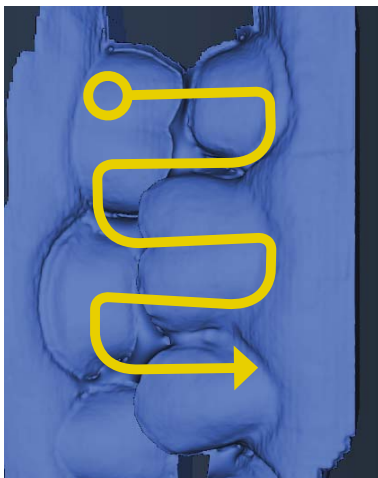
- 100% of the occlusal and buccal surfaces
- 2-3 mm gingival tissue on the buccal surface
- Lingual data not necessary

4. Erase any unnecessary data such as tongue, cheek, and cotton rolls.

Scan Buccal



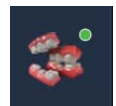
1. Click **Scan Buccal**.
2. Close the articulated model gently. If it shifts during the scanning, the alignment may be incorrect.
3. Scan the buccal surfaces of the teeth that were captured in the preparation and opposing models. Ensure some gingival data is captured.



Goals

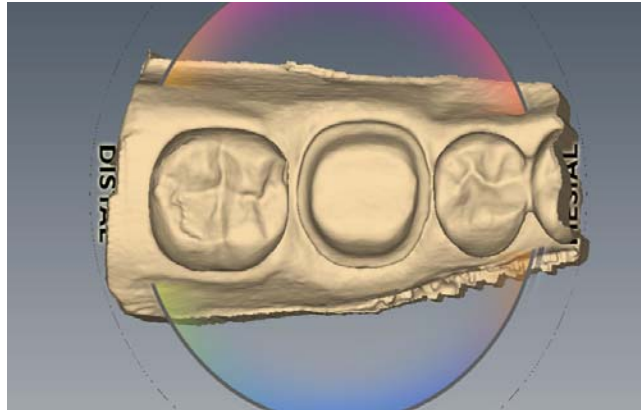
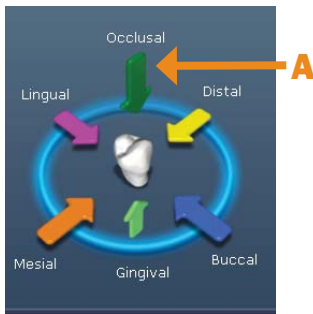
- Capture the buccal surface of the dentition in the prep and opposing
- 2-3 mm gingival data
- No rotations necessary

Note: Be sure to verify the status of the buccal alignment.

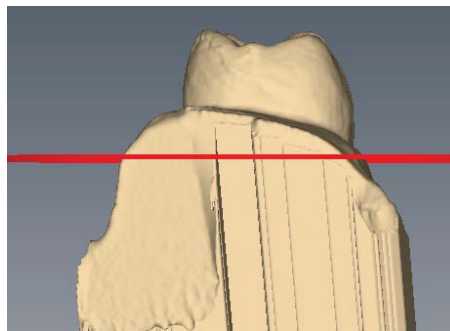
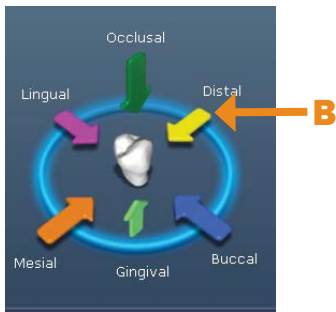


Margin

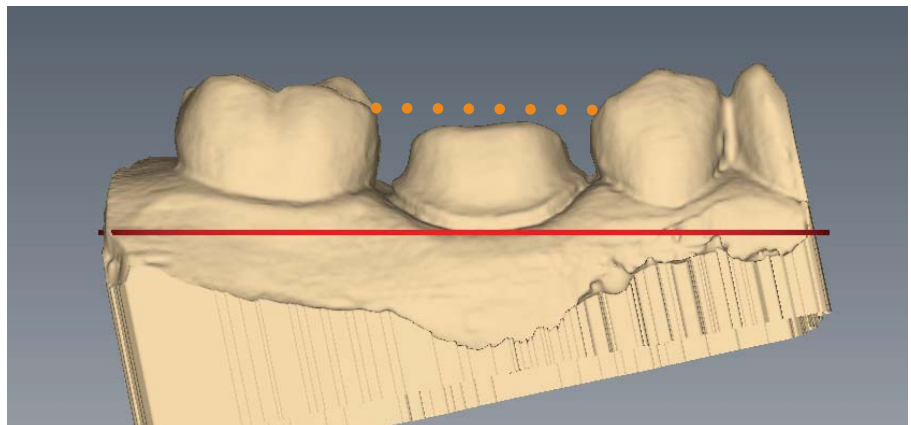
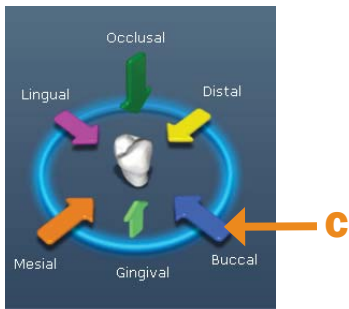
1. Click the **Margin** tab.
2. Evaluate and adjust the Orientation using **View Controls** to rotate the model.
 - A. In the Occlusal View, balance the model from buccal to lingual.
 - B. In the Distal View, align the buccal cusps of the neighbors.
 - C. In the Buccal View, evaluate marginal ridge alignment.



A. Occlusal View



B. Distal View



C. Buccal View

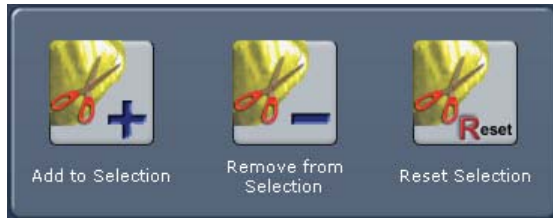
4. Click **Orientation** to accept the current position.

In some cases, the adjacent teeth are close enough to the preparation to make the identification of the margin in the interproximal areas difficult. For this exercise, Selection Area is used to isolate the preparation. This is an optional step for full coverage crowns. Selection Area is required for partial restorations and will be discussed more later.

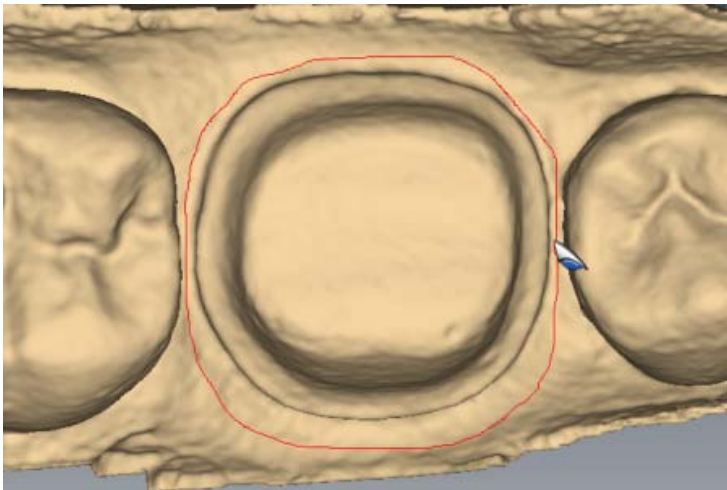
5. Click **Selection Area** on the left side of the screen.



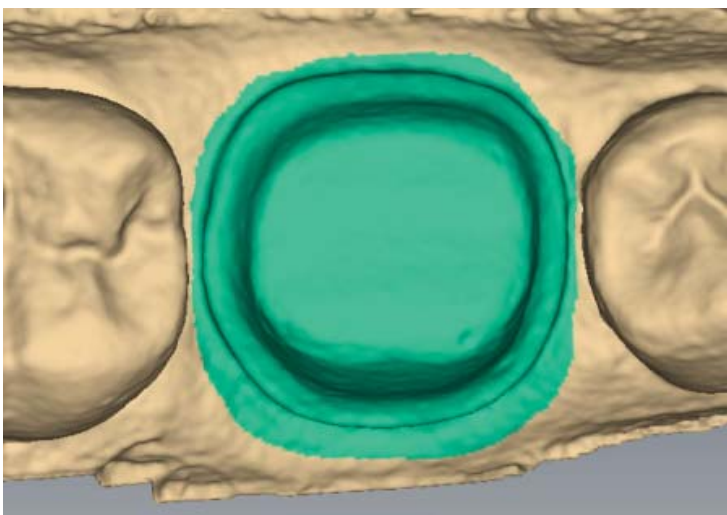
New options appear at the bottom of the screen.



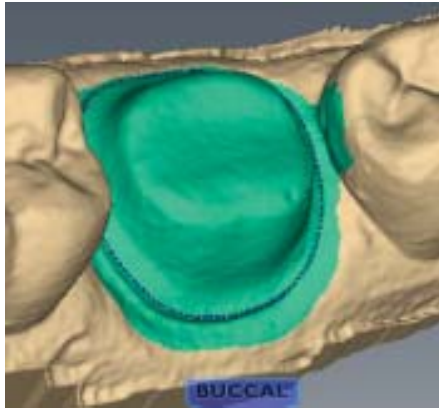
6. Click **Add to Selection.** Left click and hold to draw.
7. Draw a circle around the preparation. Do not include any part of the adjacent teeth.



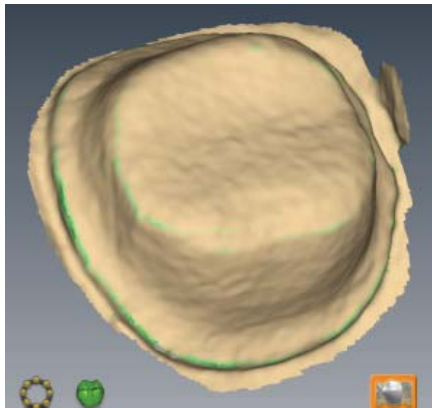
8. Release the mouse button as you finish the circle. The selected area is highlighted.



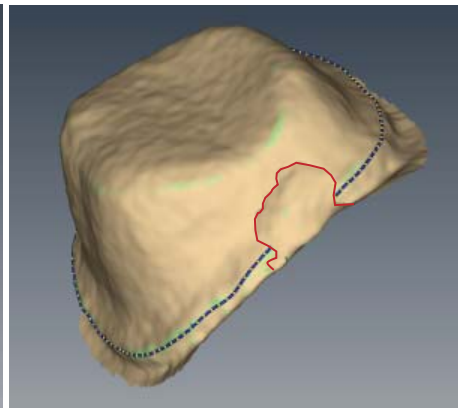
9. To add more to the designated area, click **Add to Selection**. Ensure all of the margin is in the highlighted area.
10. Rotate and evaluate the Selection Area. Ensure none of the adjacent teeth are in the highlighted area. Click **Remove from Selection** and circle the extra information if needed.



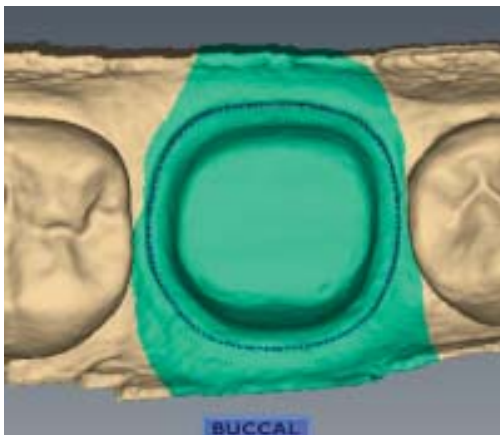
Poor - Selection Area includes part of the adjacent teeth. This is sometimes not noticeable from the occlusal view.



If part of an adjacent tooth is selected, that selection is part of what displays when Hide Model is activated.



This piece of the adjacent tooth can make it difficult to see the margin on that side of the tooth. (Outlined in red above)

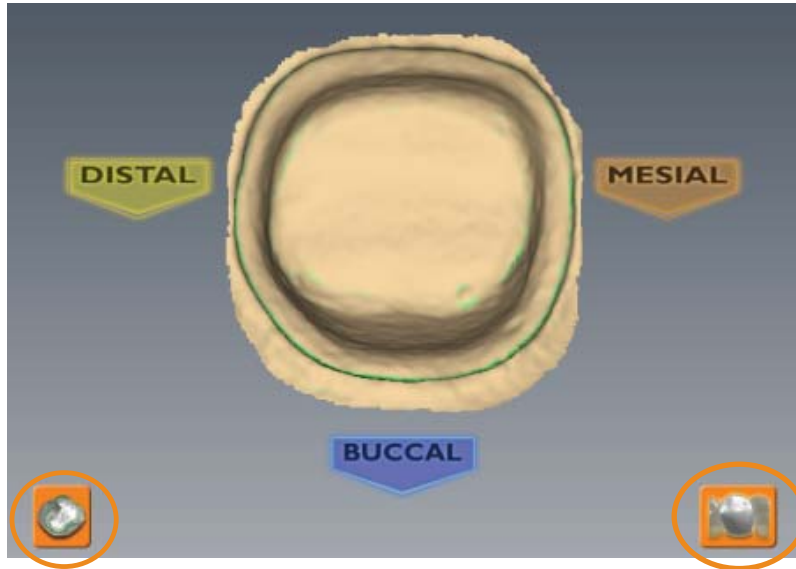


Poor - If too much of the gingival tissue is selected, the proposal will be distorted. Selection Area should be close to the size of the final proposal.

11. Click **Margin Tool** on the left. The options on the bottom of the Design Center appear for marking and editing the margin.



- 12.** Click **Hide Model**. Only the designated Selection Area displays. The rest of the model is hidden.
- 13.** Click **Show Features**. Areas with high contours are highlighted. This can help identify the margin.



- 14.** Click **Trace** and mark the margin from the occlusal view. Verify placement by rotating the prep model in different views.
- 15.** Edit the margin if needed.

Design

Click the **Design** tab. Follow the Design Workflow sheet.

Mill

- 1.** Click the **Mill** tab. The proposal turns white and shows the default position for the sprue.
- 2.** Change the location of the sprue on the restoration, if desired, by moving the placement indicator (circled in orange below) along the circle that represents the exterior of the restoration or by clicking one of the arrows.



End of exercise. Do not send your case to the mill.

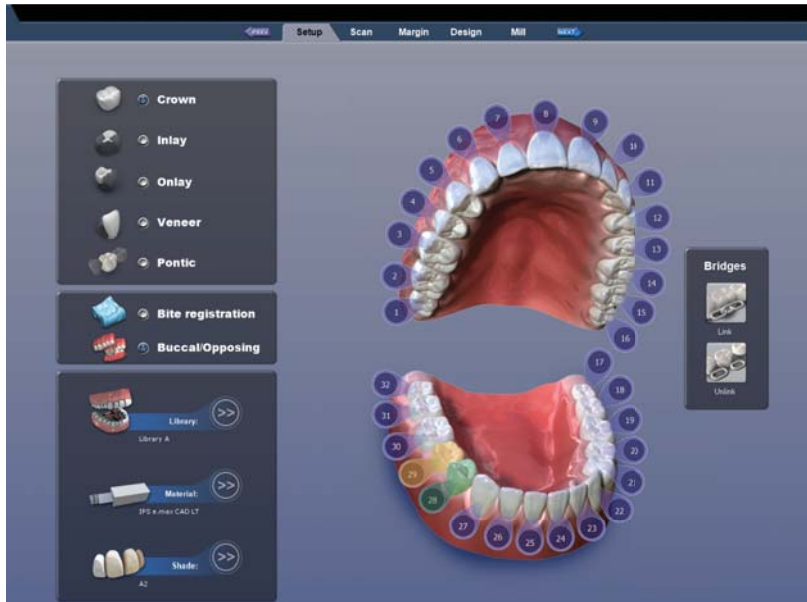
Multiple Posterior Crowns

Tooth #28 and 29 (4-4 and 4-5 ISO) pre-scanned case

Setup

This case has already been created.

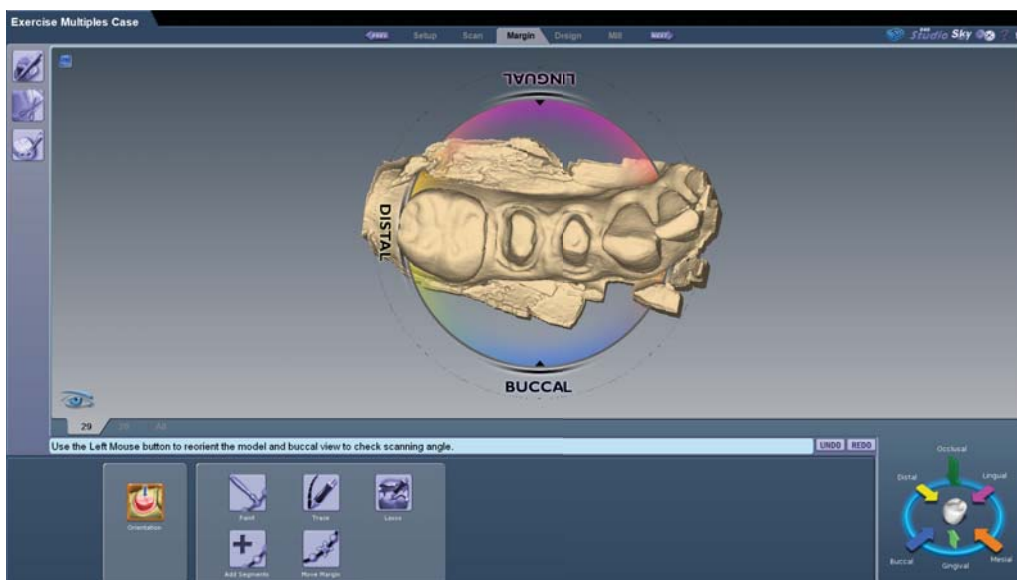
On a multiple restoration case, each tooth requires a restoration type, library, material and shade. Note that the currently selected tooth is orange while the other selected teeth are green.



Margin tab

Since this case has already been scanned, we are going straight to the Margin tab.

1. Click the **Margin** tab.
2. Click **Orientation** to activate it.



3. Adjust the Orientation for **Tooth 29 (4-5 ISO)**. The highest tooth number is selected by default.
4. Click **Orientation** to accept the position for the selected tooth.

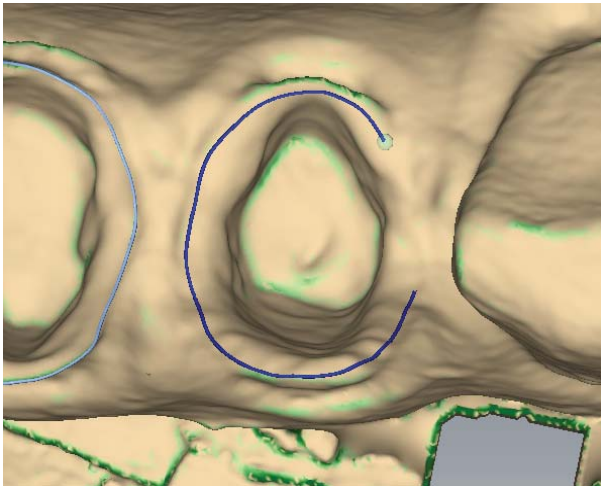
5. Click the **Tooth 28 (4-4 ISO)** tab.



6. Click **Orientation** to activate it.
7. Adjust the Orientation for **Tooth 28 (4-4 ISO)**.
8. Click **Orientation** to accept.

The margin for Tooth 29 (4-5 ISO) has already been marked.

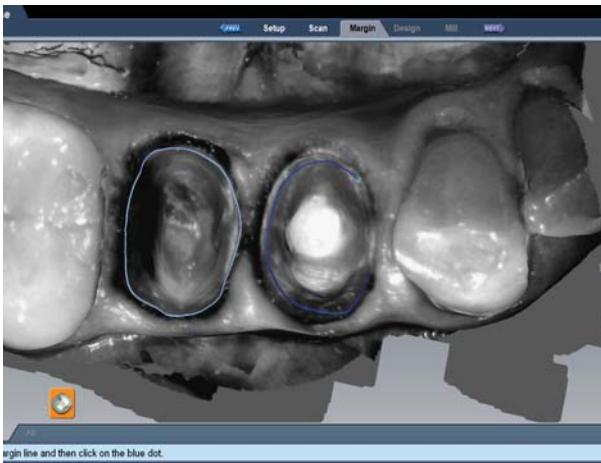
9. Click **Show Features**  to activate it. The tab for Tooth 28 (4-4 ISO) should still be selected.
10. Click **Trace**. Mark the margin where it can be seen on the stone model. The mesial side of the preparation is not supragingival and cannot be clearly seen on the stone model.



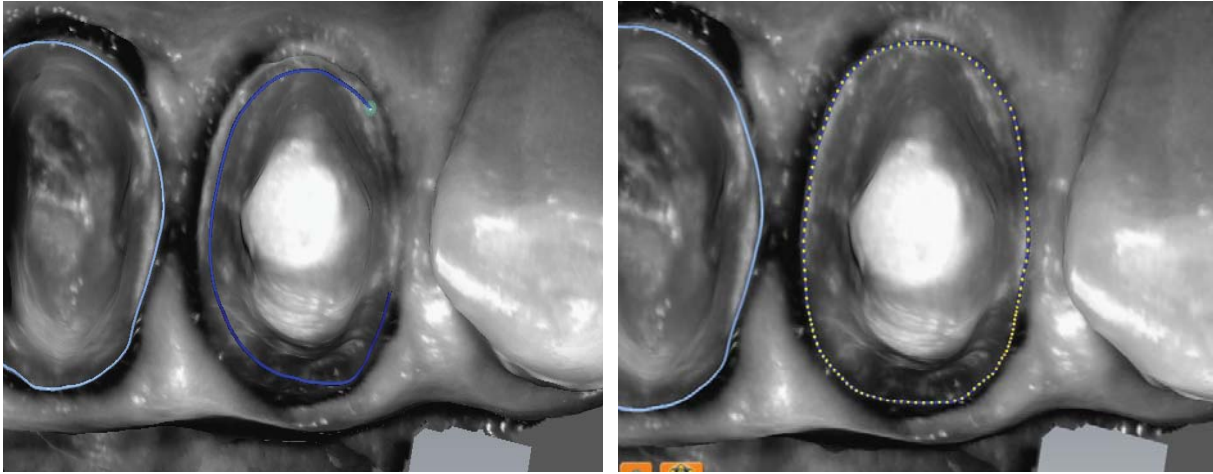
11. Click **View ICE**.



ICE appears over the model.



- 12.** From the occlusal view, zoom in. Use the ICE view to draw the remainder of the margin directly along the margin of the preparation.



Note: ICE View can only be used on intraoral scans and should only be viewed from the occlusal angle.

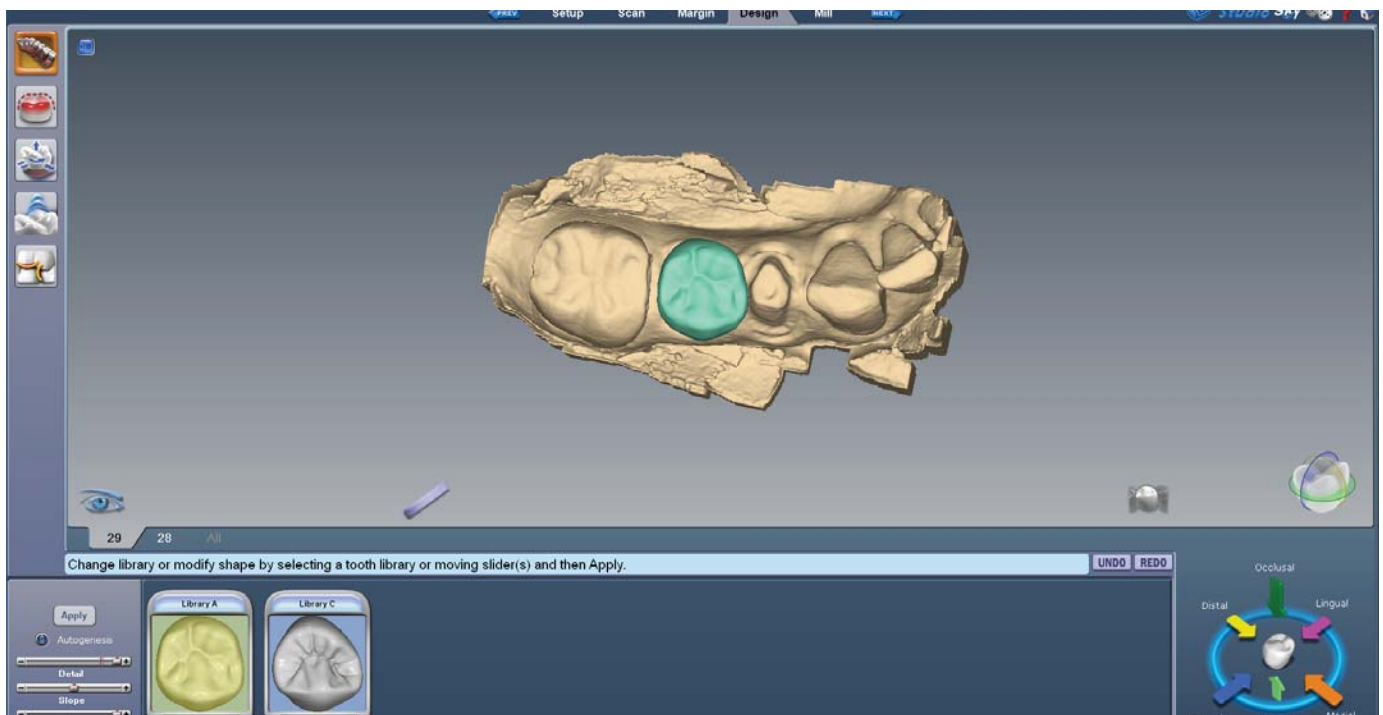
- 13.** Deactivate ICE View.
14. Evaluate and adjust the margin.

Note: If you see the margin in Stone View, you should mark it in Stone View. Verify margin placement after deactivating ICE View.

Design Tab

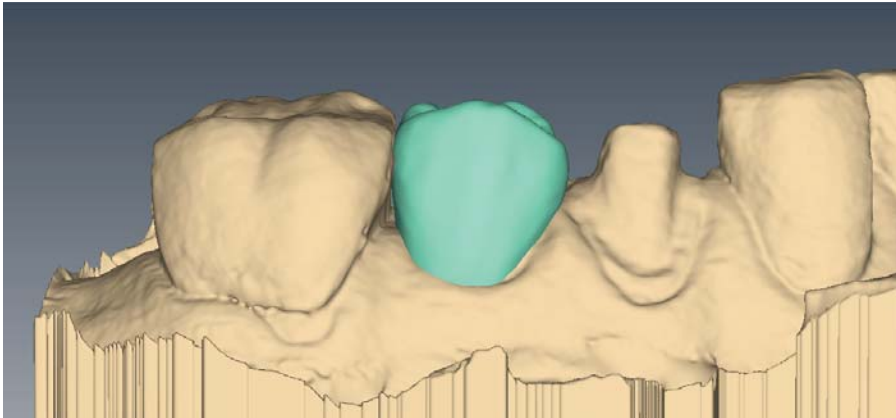
- 1.** Click the **Design** tab.
2. Click the **Tooth 29 (4-5 ISO)** tab.

The preview tooth displays as an overly large tooth. It must be resized and repositioned.



Click other libraries to view or change the anatomy.

3. Press the **Alt** key and the **up or down arrow** on the keyboard until the preview tooth is similar in size to the adjacent tooth.
4. Reposition the preview tooth over the center of the prep. Rotate the model to the buccal view to verify positioning.

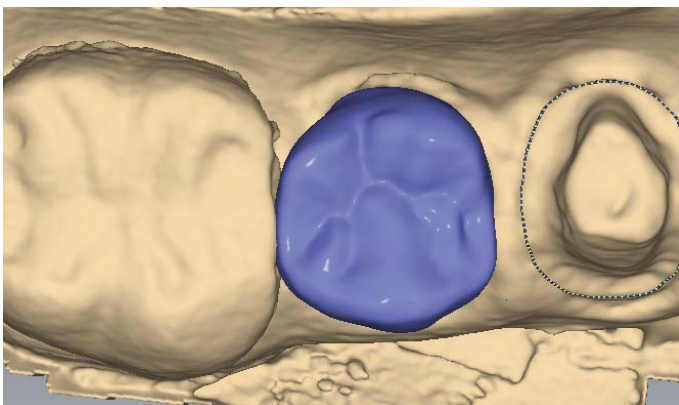


5. Deselect **Autogenesis**. If Autogenesis is active for the first proposal, it will attempt to make contact with the preparation of the neighboring tooth and become distorted.



6. Click **Apply**.

The proposal is generated.



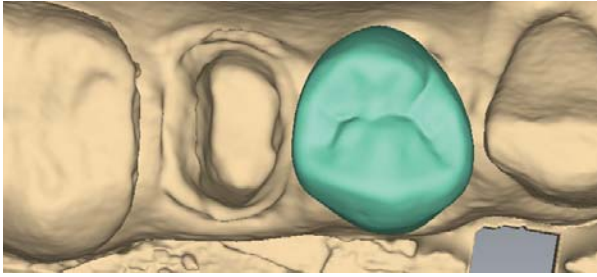
7. Use the design tools to create a good contour/shape for the first tooth before generating the proposal for the second tooth.

8. Click **Tooth Library**.



9. Click the **Tooth 28 (4-4 ISO)** tab.

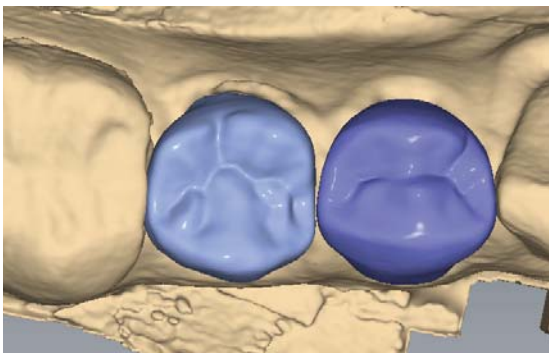
The proposal for Tooth 29 disappears from view, but the proposal has not been lost.



10. Click **Autogenesis** to activate it. Since the first tooth was already generated, Autogenesis will create contact with the first proposal instead of the preparation.

11. Click **Apply**.

The second proposal is generated and both proposals appear.



Follow the design workflow sheet. You can adjust each proposal individually and some tools are available with the ALL tab. Do NOT use Material Thickness on the ALL tab.

Manipulate individual proposals without switching tabs

Freeform Change Tools

- Rubber Tooth
- Dropper
- Smooth Surface

Tools that you CANNOT use with ALL

- Material Thickness
- Paint Feature
- Define Feature
- Contact Refinement
- Move Feature
- Move Margin

12. Finish designing both proposals.

End of exercise. Do not proceed to the mill tab.

Anterior Crown Using Pre-op

Tooth #8 (1-1 ISO)

This case has already been scanned into your system.

1. On the Home screen, select the **Pre-op** patient.
2. Select the **Crown 8** restoration.

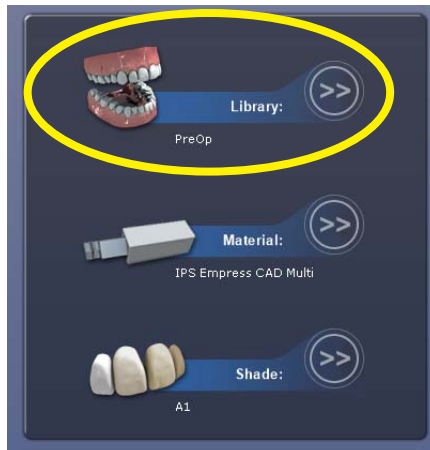
3. Click **Open Existing Restoration**.



Setup

Note: Select Pre-op as the Library tooth when the patient's existing dentition or a wax-up is being used as the model for creating the restoration.

On the setup tab, note that the **Library** is **Pre-op**. No actions are required on this tab.



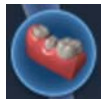
Scan

1. Click the **Scan** tab, **Pre-op** is active.



2. Evaluate the Pre-op model.

3. Click **Scan Prep**.

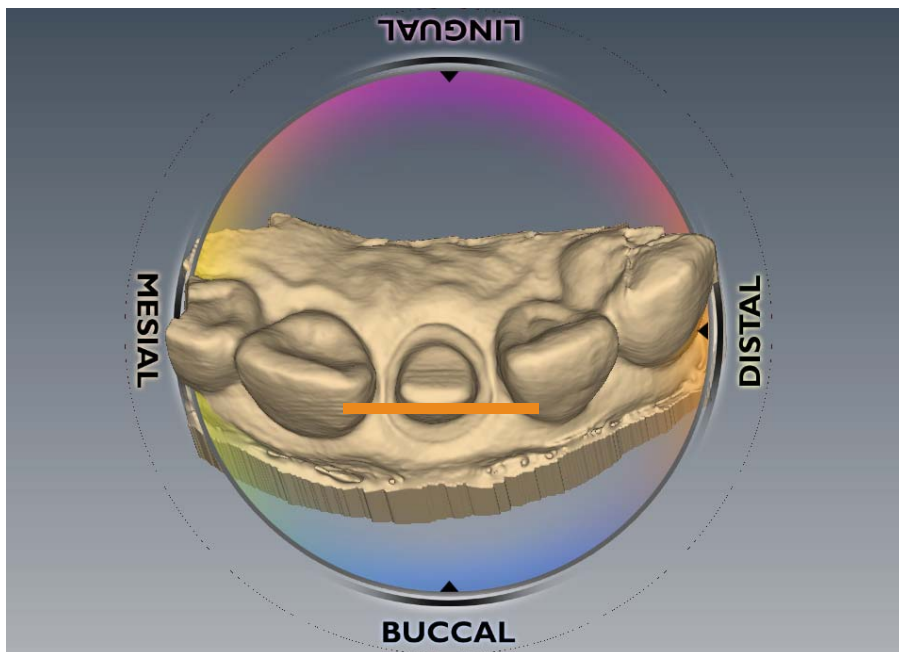


4. Evaluate the prep model. Note that the same amount of data was captured on both models. You need sufficient data on the adjacent teeth to match your preparation model.

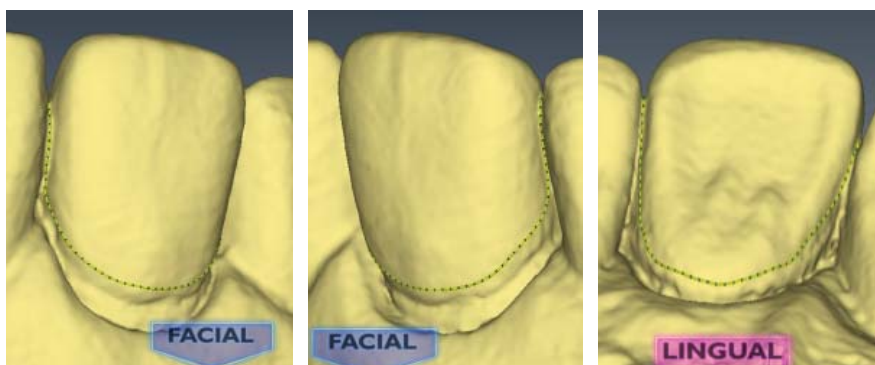
Note: There is no bite registration or buccal bite for this case because the Pre-op scans will be used for occlusion. In your office, Time Saver prompts you to copy the data when moving from the Pre-op to Prep scans. This enables you to erase the pre-op tooth and scan in the prep.

Margin

1. Click the **Margin** tab.
2. Evaluate the Orientation.
 - Are the surface indicators correct? If you accidentally scanned with the wand pointing towards the mesial instead of the distal, the surface indicators will be incorrect. If this happens, rotate the model until the Lingual, Mesial, Distal, and Buccal labels are correct.
 - Are the marginal ridges of the adjacent teeth straight across from mesial to distal? (Orange line used as an illustration below)



3. Click **Orientation** when you are satisfied with the position of the model
4. Click **Show Features**.
5. Draw the margin.
6. Click **Pre-op Editing**.
7. Use the **Trace** tool to designate the area of the model that you want to use as the Pre-op library surface. Stay away from rough areas and the margin.



8. Use **Move Curve** and **Add Segments** to edit the Pre-op if needed.

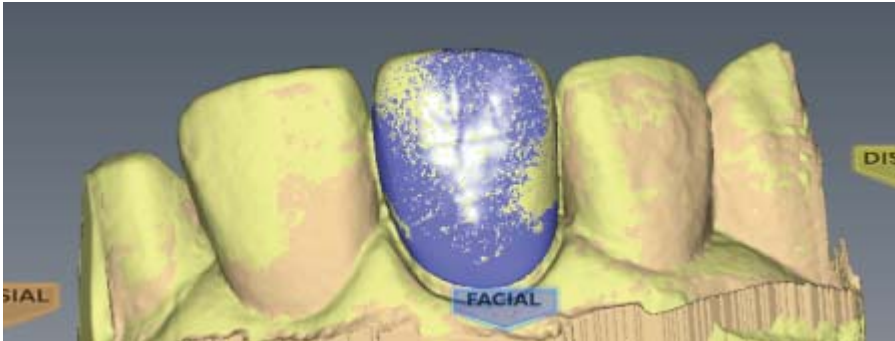
Design

1. Click the **Design** tab.

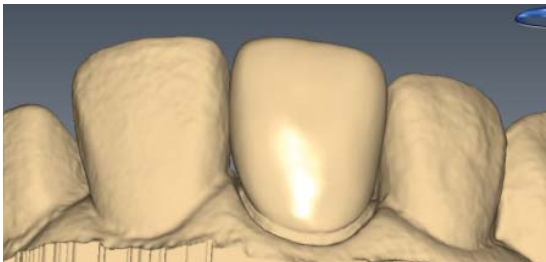
Note that the Library at the bottom of the screen now includes Pre-op.

2. Click **Apply**. Autogenesis creates a proposal based on the Pre-op area that you designated.

3. Click **View Pre-op**  to see the combination of the pre-op model and the prep model. The speckled area is where the proposal was created from the pre-op designation. The solid area around the margin is where Autogenesis used Library A to fill in any gaps.



4. Click **View Pre-op** a second time to make the pre-op model translucent.
5. Continue designing the proposal. Follow the standard workflow.
6. Click **Ctrl+Alt** to view the proposal in Medusa View. This turns the proposal the same color as the rest of the model, making it easier to evaluate the overall shape. Click **Ctrl** to deactivate Medusa View.

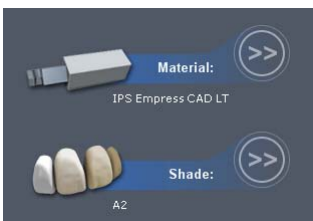


Mill tab

1. Click the **Mill** tab.

For this exercise, we will change the material to an IPS Empress Multiblock.

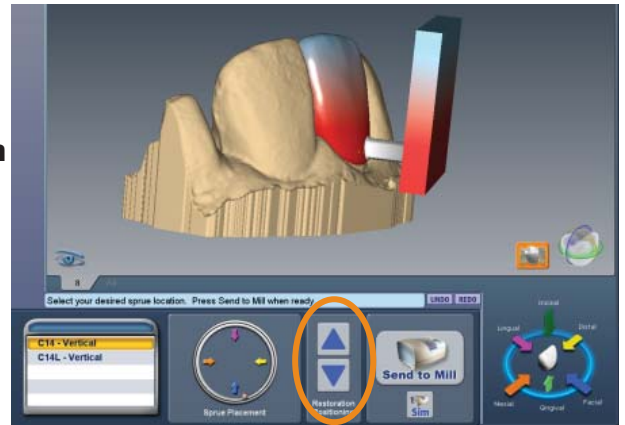
2. Click **Settings** in the upper right hand corner. 
3. Click **Material/Shade Settings**.



4. Click the arrows next to Material and select **IPS Empress CAD Multi**.

5. Click **Save**.
6. Because the IPS Empress Multiblock was selected as the material, the amount of chroma and translucency can be adjusted. Use the **Restoration Positioning** arrows to move the restoration up or down within the block.

End of exercise. Do not Send to Mill.



Posterior Crown Impression

Tooth #2 (1-7 ISO)

Setup

Enter the setup information for this case. This is a scanning exercise. The case will not be fully designed and milled.

- **Tooth 2 (1-7 ISO)**
- **Crown**
- **Library A**
- **Select any material**
- **Select any shade**

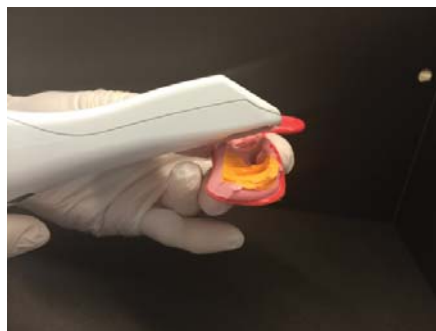
Scan

1. Click the **Scan** tab.

When scanning the impression, ensure the tip of the scanner is pointing towards the distal so that the orientation of the model will be correct. Be careful not to squeeze the impression while scanning or the scans will be distorted. Note that this impression has already been trimmed.



Starting Position



Perpendicular for Interproximals

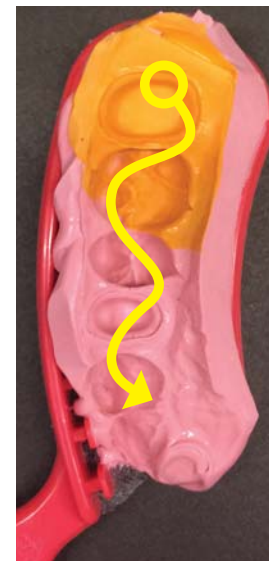


Backwards starting position

2. Scan the impression.

Make small rotations to capture the data on the buccal/lingual walls. Use the tail-slide technique to fill in interproximal areas.

Note: Tail-slide technique - Hold the scanner tip perpendicular to the impression, rotate to the left and right to capture data.



Goals

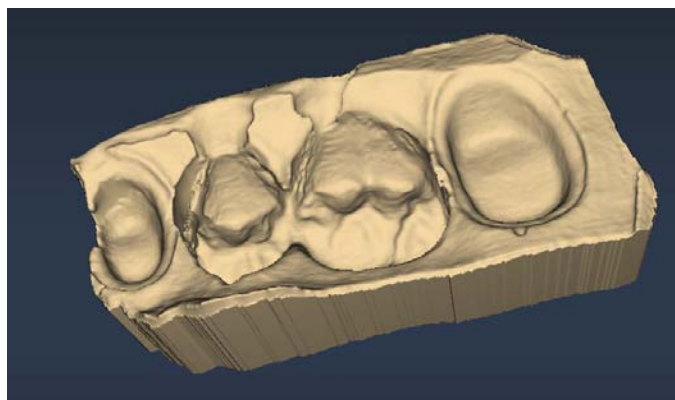
100% of the prep and interprox. contact areas

90% of the adjacent teeth

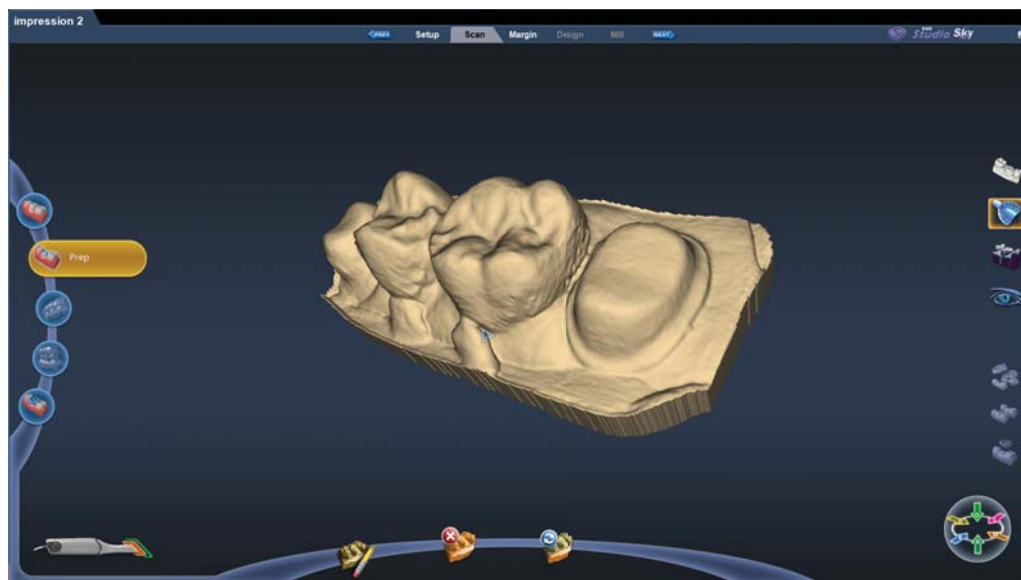
Good axial data for design

2-3 mm gingival tissue on buccal and lingual

The model is inverted since you scanned an impression. Rotate to view the negative image.



3. Click **Impression Mode** to create a positive version of the model.



4. Click **Data Density View** and evaluate your model. This can be done either before or after activating Impression Mode.

For this exercise, we are not scanning the opposing dentition. In clinical cases, the data needs to be scanned using one of the following methods:

- In Scan Pre-op, scan the preoperative tooth intraorally or take a preoperative impression.
- Apply bite registration material and scan intraorally.
- Take a bite registration, scan the impression, pour up the impression to create a model, and scan the bite registration on the model.
- Create an articulated model using both sides of the impression. Use the articulated model to create and scan the buccal bite.

Onlay Restoration

Tooth #3 (1-6 ISO)

This case has already been scanned into your system.

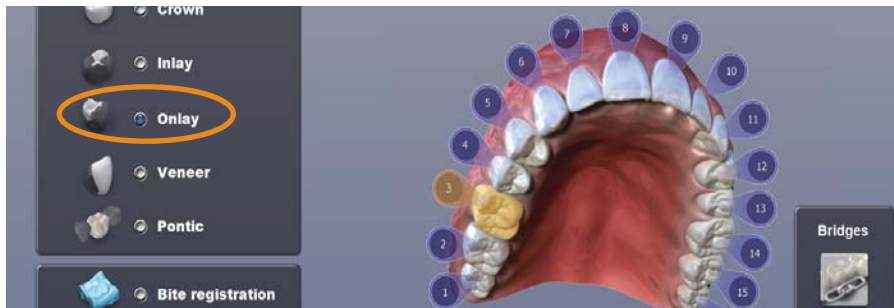
1. On the Home screen, select the **Exercise - Onlay** patient.
2. Select the **Onlay 3** restoration.

3. Click **Open Existing Restoration.**



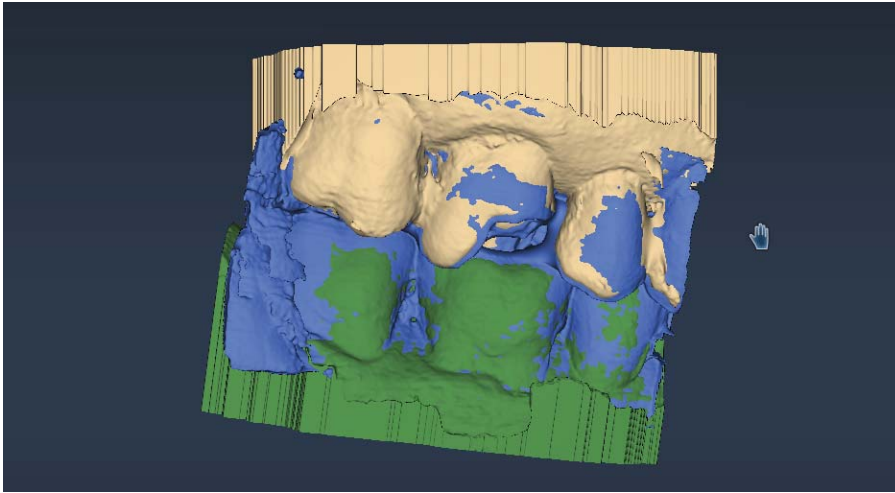
Setup

On the setup tab, note that the Restoration Type is Onlay. No actions are required on this tab.



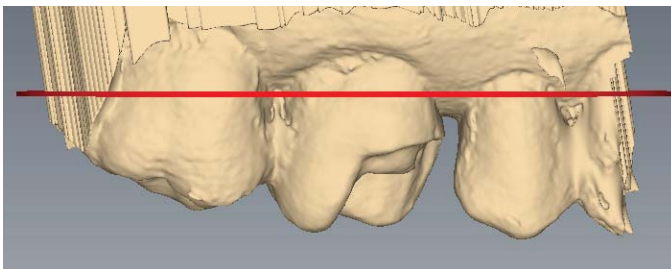
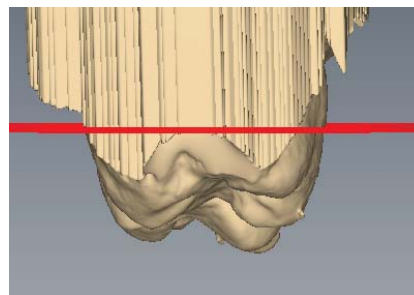
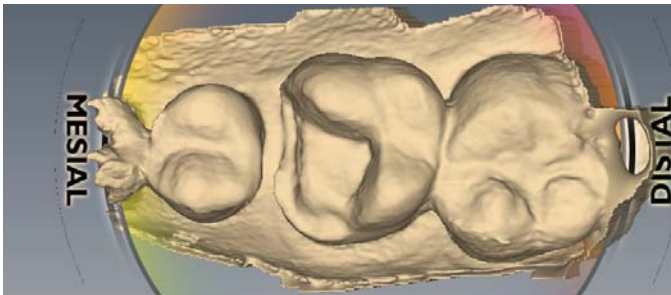
Scan

1. Click the **Scan** tab.
2. Evaluate the preparation model. The same basic scan pattern is used for partial restorations.
3. Click **Buccal** to view the previously scanned buccal bite model and evaluate.

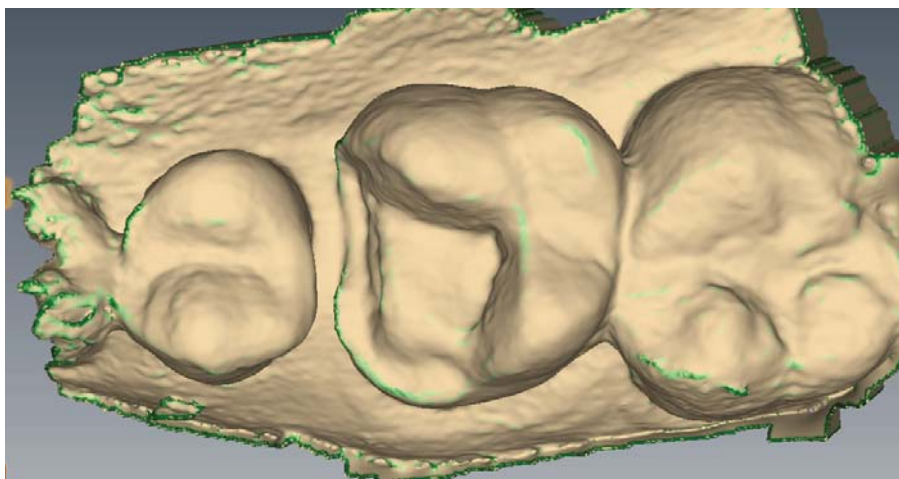


Margin

1. Click the **Margin** tab.
2. Set the **Orientation** for the onlay. Use the remaining anatomy of the prepped tooth to aid your orientation.

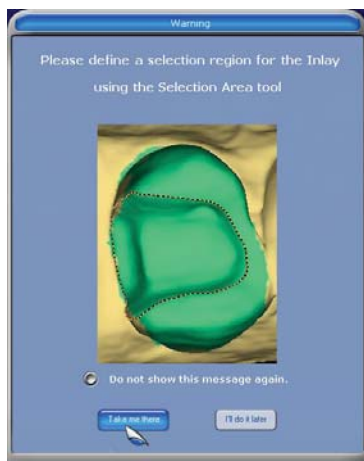


3. Activate **Show Features**.

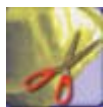


4. Draw the margin.

Once the margin is drawn, a screen appears. This only appears for inlays and onlays.

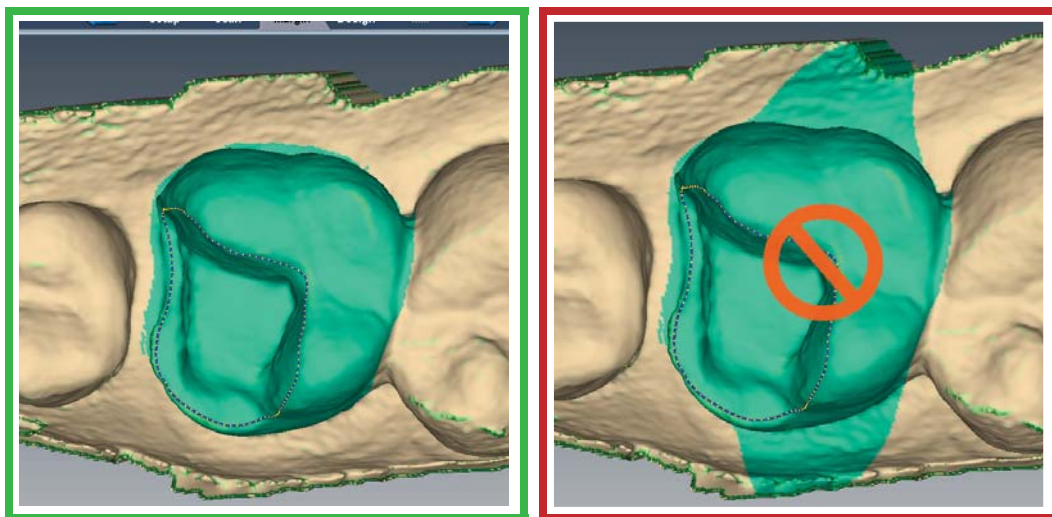


Note: If this screen doesn't appear, click **Selection Area**.



5. Click **Take Me There** to go to the Selection Area screen.

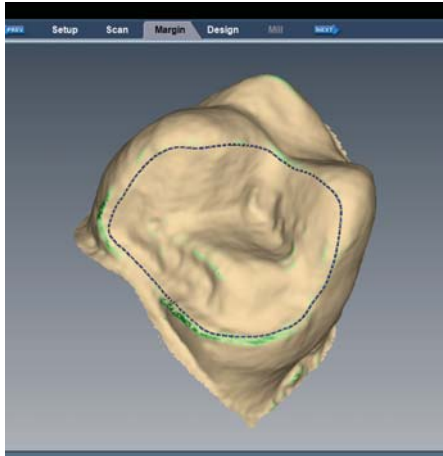
6. Click **Add to Selection** and circle Tooth 3 (1-6 ISO).



7. Complete the Selection Area and return to the **Margin Tool** screen.



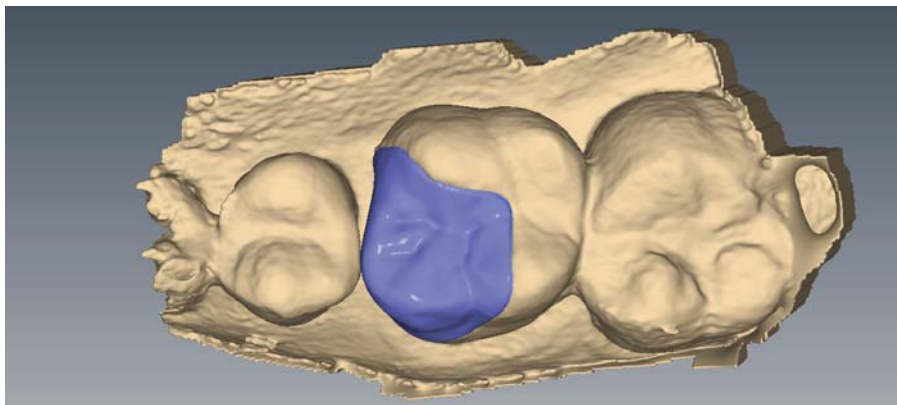
8. Click **Hide Model** to isolate the preparation and to evaluate and adjust the margin.



Design

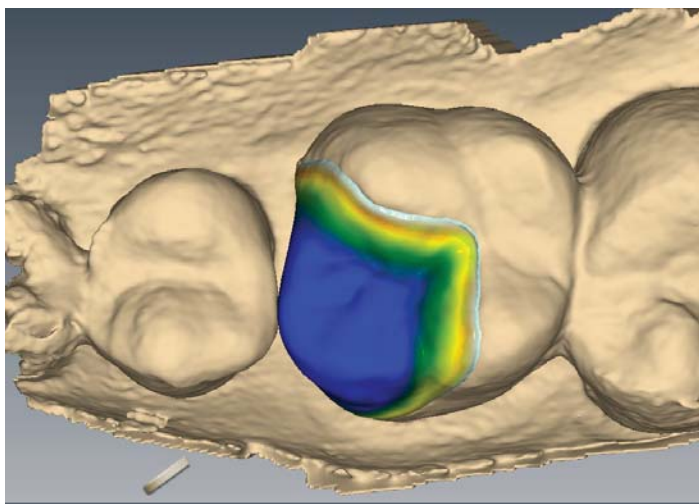
1. Click the **Design** tab.

Autogenesis creates a proposal based on the Selection Area designated.

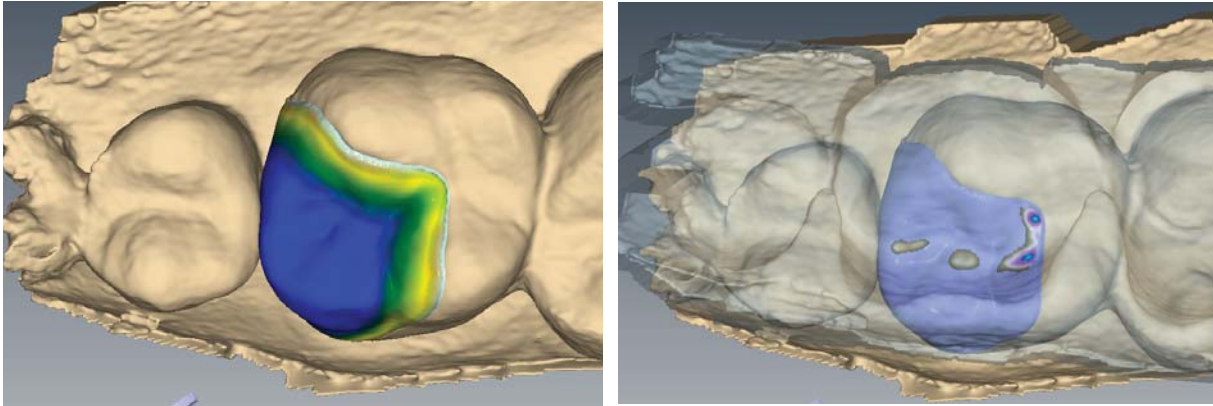


2. Follow the basic design workflow to design the onlay.

In some situations, it will be difficult to attain ideal occlusal contact strength and reach minimum material thickness. In the example below, the red material thickness around the margin indicates the margin is too thin.

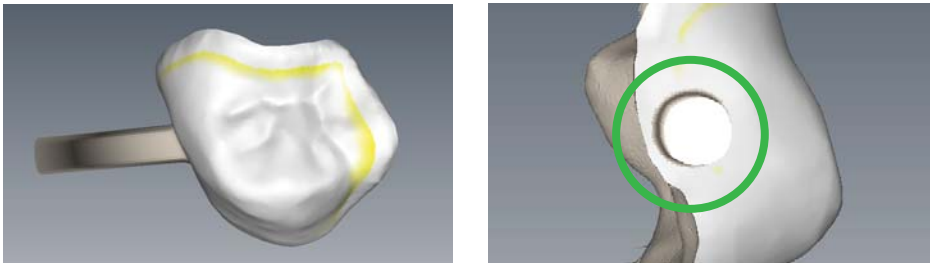


3. Click **Dropper** and add material thickness. This will result in adequate material thickness strength but a strong contact with the opposing dentition. This can be corrected intraorally.



Mill

1. Click the **Mill** tab.
2. Click **Hide Model**. The sprue is hidden when the model is visible.
3. Sprue placement options are limited. In this situation, the sprue must be placed on the interproximal contact area.
4. Ensures the total circumference of the sprue is visible.



End of exercise.

Posterior Crown with Bite Registration

Tooth #30 (4-6 ISO) with bite registration

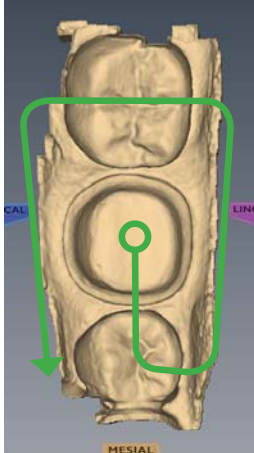
Setup

Enter the setup information for this case:

- **Tooth 30 (4-6 ISO)**
- **Crown**
- **Bite Registration**
- **Library A**
- **e.max HT**
- **Select shade B1**

Scan

1. Scan prep using the basic scan method.



Begin scanning directly over the occlusal surface of the preparation. Move in a gradual, continuous motion toward the mesial neighbor. Transition from the occlusal, cusp, axial wall, to gingival surfaces. The scanner should be held at close to 90° while scanning parallel to the buccal surface.

Use small rotations over the mesial proximal neighbor, transition from occlusal, cusp tip, axial wall, to gingival.

Scan along the lingual surface of the teeth. Rotate the scanner to almost 90° from the occlusal table.

Watch as your model builds to see any areas that might require a different rotation or angle.

2. Erase any unnecessary data such as tongue, cheek, and cotton rolls.

3. Apply bite registration material.

- Apply enough material vertically and horizontally
- Do not smooth with fingers
- Evaluate model and trim material away from adjacent teeth

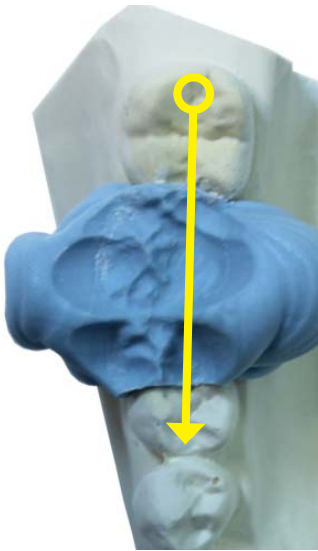


Good - The marginal ridges are covered, occlusal tables of the adjacent teeth are visible.



Poor - There are gaps between the bite registration and the neighboring teeth.

4. Scan the bite registration and evaluate model for sufficient data.

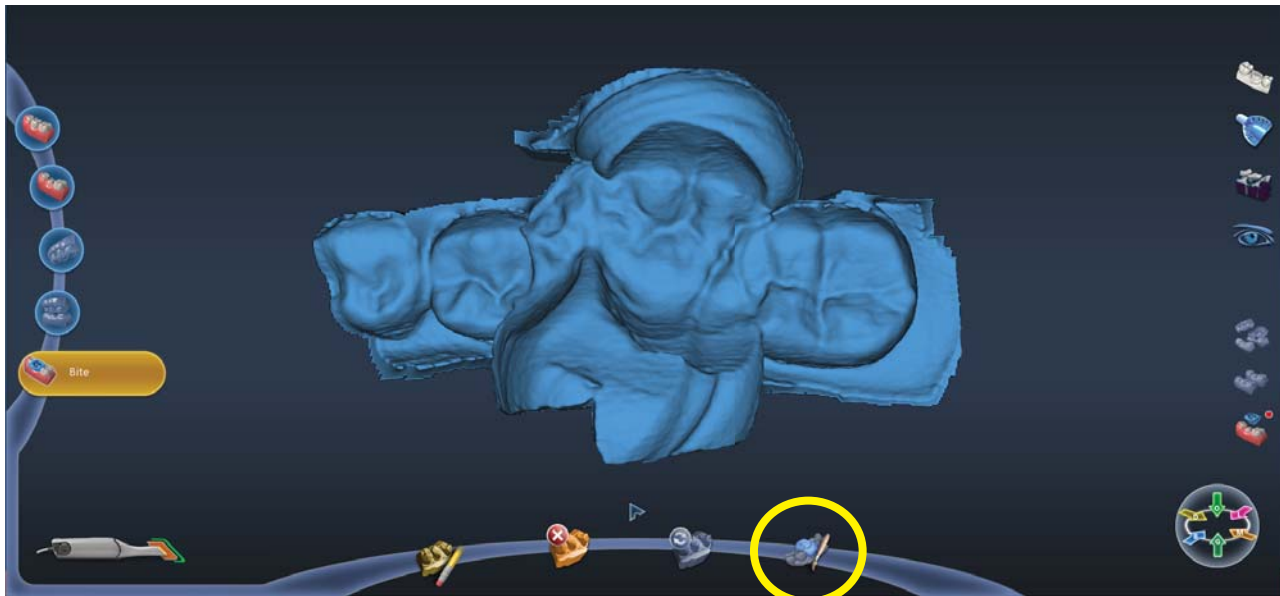


Goals

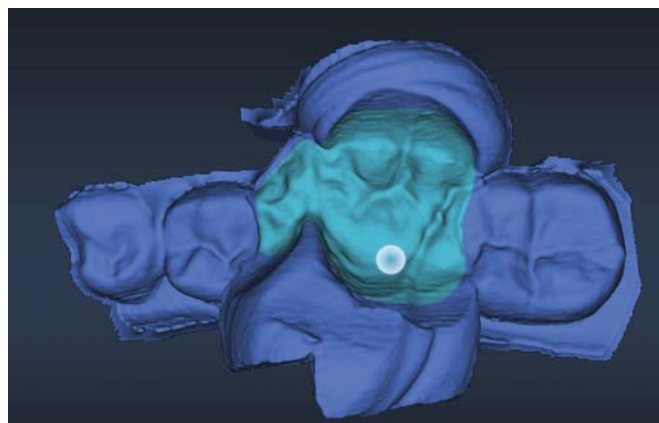
100% occlusal data

No lingual or buccal data necessary

5. Click **Bite Selection**.



6. Paint the area of the opposing dentition within the bite registration material.



Proceed with the normal Margin tab and Design tab workflow.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Tissue Management & Prep Reduction

Requirements and Job Aids

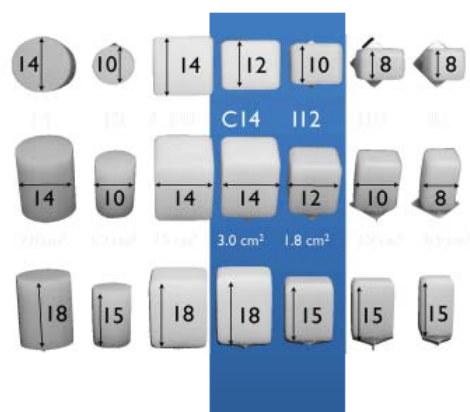


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Materials Presentation

Block Size Selection

Material Size Chart



- Materials come in a variety of sizes.
- The size of the designed restoration and sprue position will determine the available size to mill.

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IPS Empress CAD

Leucite-Reinforced Glass Ceramic Blocks



Beautiful Esthetics

- IPS Empress CAD offers over 100 combinations of block size, shades, and translucencies to meet the esthetic demands of your patients.



Multi Shade & Translucency

- Cut back and layer esthetics in a monolithic block
- Multiple translucencies create the most natural looking, esthetic restoration
- "Control" incisal translucency and gingival color



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IPS Empress CAD

Leucite-Reinforced Glass Ceramic Blocks



High Translucency

- Excellent chameleon effect
- Blends easily with existing tooth structure
- Inlays virtually “disappear”
- 20% more translucent than the Low Translucency Block



Low Translucency

- Higher value
- “Block out” capability. Higher opacity level



IPS Empress CAD

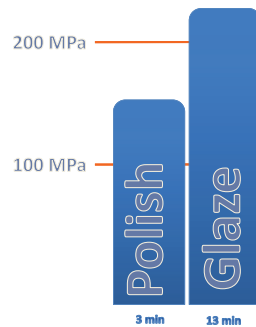
Leucite-Reinforced Glass Ceramic Blocks



Efficient

- IPS Empress CAD offers the option to simply mill and polish for maximum efficiency or glaze fire for up to a 50% increase in strength*.

*Clinician's Report – October 2009, Volume 2 Issue 10



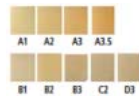
IPS Empress CAD

Leucite-Reinforced Glass Ceramic Blocks



Multi

- A1, A2, A3, A3.5, B1
- BL1, BL3



HT (High Translucency)

- A1, A2, A3, A3.5, B1, B2, B3, C2, D3



LT (Low Translucency)

- A1, A2, A3, A3.5, B1, B2, B3, C2, D3
- BL1, BL2, BL3, BL4



IPS e.max CAD

Lithium Disilicate Glass Ceramic Blocks



Beautiful Esthetics

- IPS e.max CAD offers a wide range of shades, sizes, and translucencies to allow the dental professional to provide beautiful esthetics and the durability to ensure clinical success for all indications



The Highlights

- True-to-nature shade behavior for highly esthetic solutions
- Versatile use and comprehensive range of indications
- Lifelike esthetics, irrespective of the shade of the preparation



IPS e.max CAD

Lithium Disilicate Glass Ceramic Blocks



Benefits

- Durable restorations due to the high strength
- Adhesive, self-adhesive or conventional cementation depending on the indication



New Materials

- C16
 - Ideal for longer dentition and large restorations
- B32
 - Up to three-unit bridges up to the second premolar as the abutment tooth



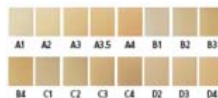
IPS e.max CAD

Lithium Disilicate Glass Ceramic Blocks



HT (High Translucency)

- A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4
- BL1, BL2, BL3, BL4



LT (Low Translucency)

- A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4
- BL1, BL2, BL3, BL4



C16 & B32 Blocks

- A1, A2, A3, A3.5, B1, B2, C1, C2, D2
- BL1



IPS e.max CAD Impulse

Lithium Disilicate Glass Ceramic Blocks



Value blocks – various brightness values

- The Value blocks feature different brightness values: 1 is the lowest and 3 the highest.
- This allows optimum integration of the restoration into the intraoral situation – regardless of whether the tooth shade is to be individually adjusted in the case of a given brightness value, or whether the same brightness level is required for preparations with different shades.



Opal blocks – lifelike opalescence effect

- The Opal blocks exhibit a decreasing opalescence and increasing brightness value from 1 to 2.
- Their unique opalescence and strength, the Opal blocks can be used as an “enamel replacement” material.
- Aesthetic and minimally invasive restorations – thin veneers in particular.



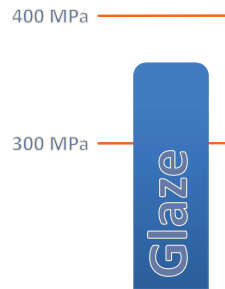
IPS e.max CAD Impulse

Lithium Disilicate Glass Ceramic Blocks



Advantages

- Lithium disilicate glass-ceramic (LS2) with a strength of 360 MPa
- Opal blocks for highly esthetic, minimally invasive veneers with a minimum thickness of 0.4 mm
- Value blocks for lifelike brightness value in crowns



Telio CAD

Temporary Restorative Acrylic Polymer Blocks



Strength and Endurance

- Long term temporary bridge material (12 mo.).
- Flexural strength of 130 MPa

Esthetic

- Polyacrylate material technology allows for beautiful esthetic results simply by polishing or with the option to apply stains and glaze for a customized appearance.



Shades

- A1, A2, A3, A3.5, B1
- BL3



Resin Nano Ceramic Blocks

3M ESPE

Nano Technology

- High flexural strength (200 MPa) adds durability to posterior restoration
- Excellent wear resistance
- Brilliant and long-lasting polish
- Excellent stain resistance for color stability



Shades

- A1, A2, A3, A3.5, B1, C2, D2
- BL



Paradigm MZ100

Composite Blocks

Versatile and Easy

- Created from 3M™ ESPE™ Z100™ Materials
- High flexural strength and fracture toughness
- Enamel-like wear characteristics are superior to that of ceramic blocks
- Easy to finish and polish
- Can be easily characterized with light-cured composite stains and glazes
- Ideal material for CAD/CAM where strength and occlusal wear properties are needed
- Easy to repair intraorally



Shades

- A1, A2, A3, A3.5, B3
- Enamel



Options to think about.

- Choose the best option for your patient
- Call your manufacturer representative for more details
- View manufacturer websites for more specific indications and uses



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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Lava Ultimate

Resin Nano Ceramic Blocks

3M ESPE



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Cementation & Delivery Presentation

IVOCLAR VIVADENT ALL-CERAMICS PREPARING FOR CEMENTATION — GLASS-CERAMICS

	IPS Empress	IPS e.max				
	IPS Empress Esthetic IPS Empress CAD	IPS e.max Press		IPS e.max CAD		IPS e.max Ceram / IPS e.max ZirPress Nano/fluorapatite- glass-ceramics
Material	Leucite glass-ceramic	Lithium disilicate glass-ceramic		Lithium disilicate glass-ceramic		
Indication	Veneers, inlays, onlays, anterior and posterior crowns	Thin Veneers, veneers, Talker Tops, inlays, onlays, partial crowns	Anterior and posterior crowns, 3-unit bridges up to the 2nd premolar	Veneers, inlays, onlays, partial crowns	Anterior and posterior crowns	Veneers
Cementation method	adhesive	adhesive	adhesive / self-adhesive* / conventional	adhesive	adhesive / self-adhesive* / conventional	adhesive
Blasting	—	—	—	—	—	—
Etching	60 sec with IPS Ceramic Etching Gel	20 sec with IPS Ceramic Etching Gel		20 sec with IPS Ceramic Etching Gel		20 sec with IPS Ceramic Etching Gel
Conditioning / Sanitization	60 sec with Monobond-S	60 sec with Monobond-S	60 sec with Monobond-S — 1)	60 sec with Monobond-S	60 sec with Monobond-S — 1)	60 sec with Monobond-S
Cementation system	Variolink® Veneer, Variolink® II, MultiLink® Automix	Variolink® Veneer, Variolink® II, MultiLink® Automix	Variolink® II, MultiLink® Automix, Vivaglass® CEM	Variolink® Veneer, Variolink® II, MultiLink® Automix	Variolink® II, MultiLink® Automix, Vivaglass® CEM	Variolink® Veneer, Variolink® II

1) For self-adhesive cementation, etching is necessary.
* self-adhesive provided by system

1. Please read the corresponding instructions for use

ivoclar
vivadent

3M ESPE





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Remember to always follow the manufacturer instructions provided with each material type.

Integration & Starter Kit Presentation

Integration Day

Start Planning Today

How to be a success on this 3rd day of training:

1. Day starts at 7:30am and ends 3pm
2. 3 Pre-prepped, Single Unit, Posteriors
 - Scheduled patients at 8am, 10am, and 1pm
 - Allow 3 hours for the first appointment
- Lunch and Learn
 - Mill maintenance
 - DDX & SKY Setup
 - Discuss how to continue with your education
3. No other patients scheduled
4. Focused on those who attended Elements course in Texas



Starter Kit

Items from Premier



- 1 Diamond Twist Paste Kit
- 1 Traxodent Sample
- 2 Sample Prep Burs
- 1 Milling Tools Sample Pack
 - 2 Ellipsoidal
 - 2 Conical
 - 2 Tapered
- 1 Sample Cord



Starter Kit

Items from Ivoclar



Telio CAD:

4 Telio CAD Blocks
Telio CS Link Transparent
Telio CS Desensitizer 5g
OptraPol Test Pack

IPS e.max CAD:

4 e.max CAD Blocks
2 e.max Shades
1 e.max Stain
1 e.max Glaze Paste
1 e.max Glaze Liquid
1 e.max Crystallization Tray

IPS Empress CAD:

4 IPS Empress CAD Blocks
2 Empress Shades
1 Empress Stain
1 Empress Glaze
1 Empress Glaze Liquid

Misc. items:

2 Multilink Primer
1 Monobond Plus
1 Ceramic Etching Gel
1 Multilink Automix Trans
1 Optrastick
1 Optrafine Promo Pack
1 Object Fix Putty
Cementation Navigation DVD



Starter Kit

Items from 3M



Lava Ultimate :

5 A2 LT C14 Blocks
5 A2 HT C14 Blocks

Misc. items:

1 RelyX Ultimate Adhesive (A1)
1 Scotchbond Universal Adhesive
1 3M ESPE Retraction Capsule
1 CoJet Sand Blast Coating Agent
1 Lava Ultimate Guide



What's next...

Don't forget to order

Contact your local representative today:

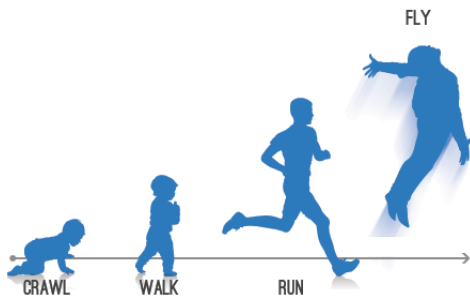
- Order blocks in shade values for upcoming patients
- Order mill tools
 - 1 sleeve of each; Ellipsoidal and Tapered
- Stains and Shades for characterization
- Spray Glaze and speed tray for e.max (depending on order)
- Deionized Water and Cidex Plus
- KimWipes (lense tissue)
- Lab handpiece and Finishing Kit
- Sand blaster (if using Lava Ultimate)
- Prep Kits (recommended, not required)



Time Management Presentation

Time Management

Crawl, Walk, Run, Fly



Time Management

Crawl, Walk, Run, Fly

3 hour appointments

- Anesthetic – Scan
- Prep – Scan
- Design, Mill, Try-in, Characterize, and Firing
- Delivery

1.5 hours doctor time, 1.5 Assistant time

- Doctor helps with scanning, design, and finishing



Time Management

Crawl, Walk, Run, Fly

2.5 hour appointments

- Anesthetic – Scan
- Prep – Scan
- Design, Mill, Try-in, Characterize, and Firing
- Delivery

1 hours doctor time, 1.5 Assistant time

- Doctor reviews scanning, design, and finishing



Time Management

Crawl, Walk, Run, Fly

2 hour appointments

- Anesthetic – Scan
- Prep – Scan
- Design, Mill, Try-in, Characterize, and Firing
- Delivery



45 Minutes doctor time, 1.25 Assistant time

- **Assistant** scanning, design, and finishing
- Doctor delivers restoration



Time Management

Crawl, Walk, Run, Fly

1.5 hour appointments

- Anesthetic – Scan
- Prep – Scan
- Design, Mill, Try-in, Characterize, and Firing
- Delivery



This technique is specific to materials that do not require firing.

- **Assistant** scanning, design, hand-polish
- Doctor delivers restoration



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"Time flies. It's up to you to be the navigator."

- Robert Orben

For additional information regarding the content in this presentation. Please contact the manufacturer for the product in question.

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