



## Protocol for 3Shape TRIOS®

fusion treatment is powered by suresmile technology to provide 3D models and fully-customized wires based on your scan of the patient.

Capture two scans per patient:

- Initial 3D scan – this scan may be captured by any system that can provide .STL files for uploading your case to the doctor portal. Follow the instructions for starting a case to upload this data.
- Scan after bonding – this scan must be captured with a suresmile-certified scanner such as the 3Shape TRIOS®. This document includes the steps for capturing acceptable data and guidelines for scanning patients who are bonded.



**NOTE:** Do not perform the scan with brackets until both IDB and any sequential bonding are complete.

[For more information on suresmile fusion](#)

Visit [suresmile.com](https://suresmile.com)  
and select **suresmile fusion** in the header.

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# Getting Started

suressmile supports both digital impression systems:

- TRIOS® Color
- TRIOS® standard



When purchasing the system, order the Ortho option to obtain the correct software. As a quick check to see if you have the right software, look at the tooth chart—the Ortho software uses the label “Normal” instead of “Restorations.”

## Set Hole Color

The TRIOS software allows you to choose the color-coding for holes in your scan data. Since suressmile requires 100% tooth coverage, it is helpful to choose a bright color (such as red) to catch your attention. This setting is available in the options for **Configure > Settings > Scan**.



# Capture Data for fusion

## Prepare the Patient

1. Remove the patient's wires in the arches to be scanned. If they are suresmile archwires, keep track of their orientation to help you reinsert them correctly at the end of the appointment.
2. Remove calculus and any other material that will misrepresent the true shape of the teeth.
3. If the patient has turbos, the guideline is the same whether they consist of metal or composite material—if the turbos are scheduled to be removed at this appointment, remove them before the scan.
4. Close the bracket doors of the self-ligating brackets before scanning.

**WARNING:** This step is critical since the fusion system cannot process the scan data if the bracket doors are open.

## Opaque Brackets for Scanning

Before you begin scanning, apply an opaque material to each bracket (whether it is ceramic or metal). Use a material such as SureWhite (included in the fusion kit) that can provide a thin coating for the bracket without obscuring its detail. It is not necessary to coat the teeth.

The TRIOS training will not instruct you to use retractors; however, consider using retractors to keep the opaque solution from being wiped off of the brackets before they can be scanned.

### Take the Scan/Send Order

1. Capture the upper, lower and bite.

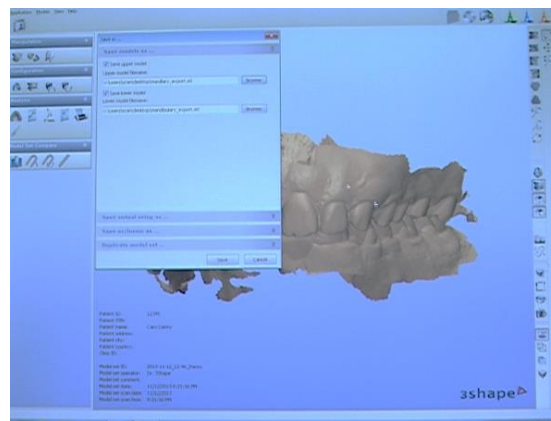
**NOTE:** If you are taking an extra scan to capture brackets that have been repositioned or rebonded, you may bypass steps in the scanner software to skip to the areas needed. When you scan the section, be sure to include the teeth with bracket changes and several adjacent teeth to assist in merging the data with the previous model.

2. Fill in any voids to capture:
  - 100% of tooth surfaces
  - 100% of bracket faces
  - 70% (or more) of bracket mesial and distal profiles
3. Complete the order to send the data to your TRIOS computer.
4. Reinsert the archwires and complete the patient appointment.

### Export Scan Data from the TRIOS computer

1. Go to the computer with a wireless connection to your TRIOS.
2. Open the Ortho Analyzer software.
3. In the Open Patient dialog, select the **TRIOS** tab.
4. Find your patient record and click the checkmark ✓ to accept it.
5. Go back to the **Patients** tab and find the scan under the patient name.
6. Right-click the data and choose **Open Model Set....** A window opens to show the models.
7. Click the Export icon in the upper-right corner. The Save As dialog opens.
8. For each arch, change the Save As type to .STL and browse to a location.
9. In the Save As dialog, click the **Save** button.

Keep your scans organized so you can easily find them for uploading into the fusion portal. The files are given default names such as “mandibular” and “maxillary.” You can use Windows Explorer to rename them to the patient’s name or ID. Or you can save them to a folder that identifies the patient.

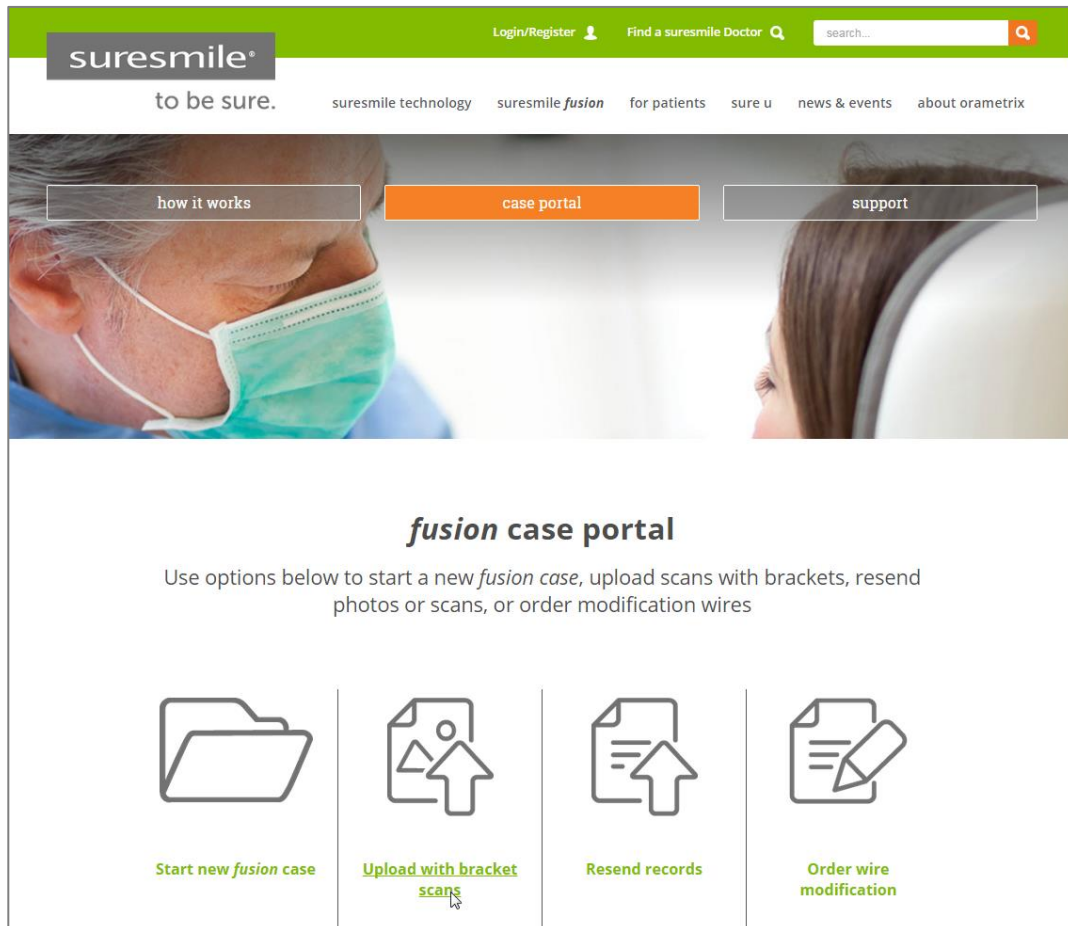


## Upload your Scan Data to the fusion Case Portal

Finally, go to the fusion case portal and upload the patient's records.

**NOTE:** If you are capturing this scan after completing sequential bonding, remember to take progress photos at the same appointment. In preparation for uploading, combine the photos into a .ZIP file.

1. Go to the fusion case portal by visiting suresmile.com and selecting **suresmile fusion** in the header.
2. Select the **case portal** option (between “how it works” and “support”).
3. Select **Upload with bracket scans**.
4. Follow the instructions for uploading your scan with brackets.



# Guidelines for Scanning Bonded Patients

Because the suresmile system will fill in holes with artificial data, complete coverage is required for an accurate representation of the patient. Capture to these standards:

- 100% tooth coverage and interproximal areas
- 100% of bracket faces
- 70% of bracket mesial and distal profiles
- 2 mm of gingiva

## Tips for Scanning Bonded Patients

When you receive your TRIOS training, you will learn how to scan both arches and the bite. You will also learn how to use tools for erasing extra data that may have been captured (i.e., cheek, tongue). **You must erase and rescan the area if anything is touching the teeth or bracket surfaces.**

In general:

- Keep the scanner in motion. Do not pause over an area or you may confuse the system.
- Try standing to capture difficult angles, such as when you are scanning the bite.
- Use compressed air and other methods to remove saliva from the patient's teeth and brackets. Repeat during the session when needed.
- Avoid capturing soft tissue (tongue, lips, cheeks) since soft tissue can move between pictures and confuse the system. This rule also applies to your fingers. If you accidentally capture any extraneous anatomy, use the trim function to remove this data.
- It is critical to follow the TRIOS scan strategy—especially the wiggling across the incisors as part of the first pass where you capture the occlusal surface. This view provides global accuracy to avoid warping of the 3D model.



To capture brackets:

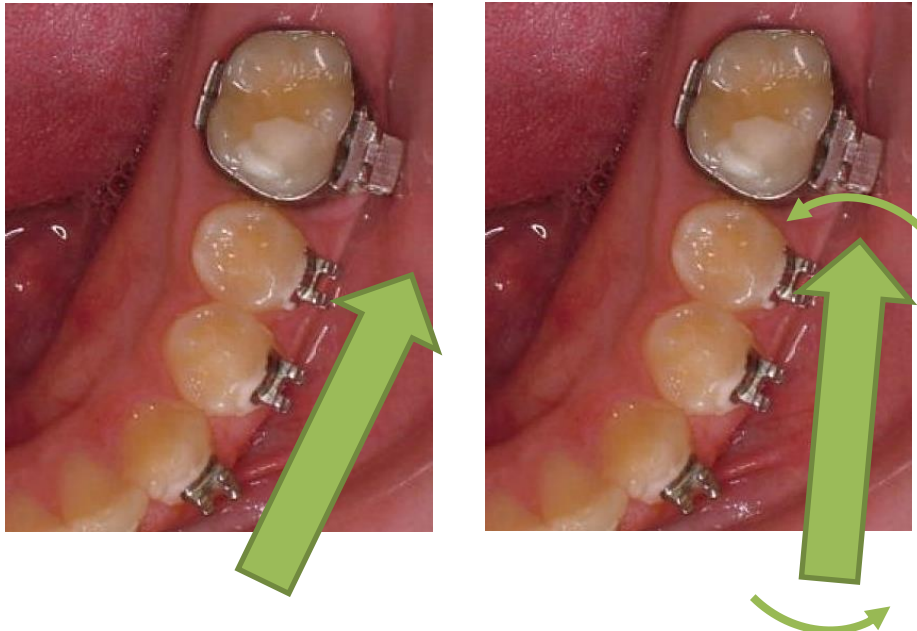
- The TRIOS is not designed to capture brackets. For all bracket types (including clear), apply an opaque solution such as SureWhite (included in the fusion kit) to assist the scanner in capturing bracket geometry.
- Attempt to include a view of the brackets as you make your occlusal pass.
- Keep some distance between the scanner tip and the brackets while you are moving. The tip is open and could potentially hang on a bracket or even pull it off.

To capture incisal edges:

- When capturing the buccal view, switch to a 45 degree angle as you approach the anterior teeth to capture some of the occlusal view as well. As needed, fill in buccal data to capture the area shadowed by the brackets.

To capture interproximal areas:

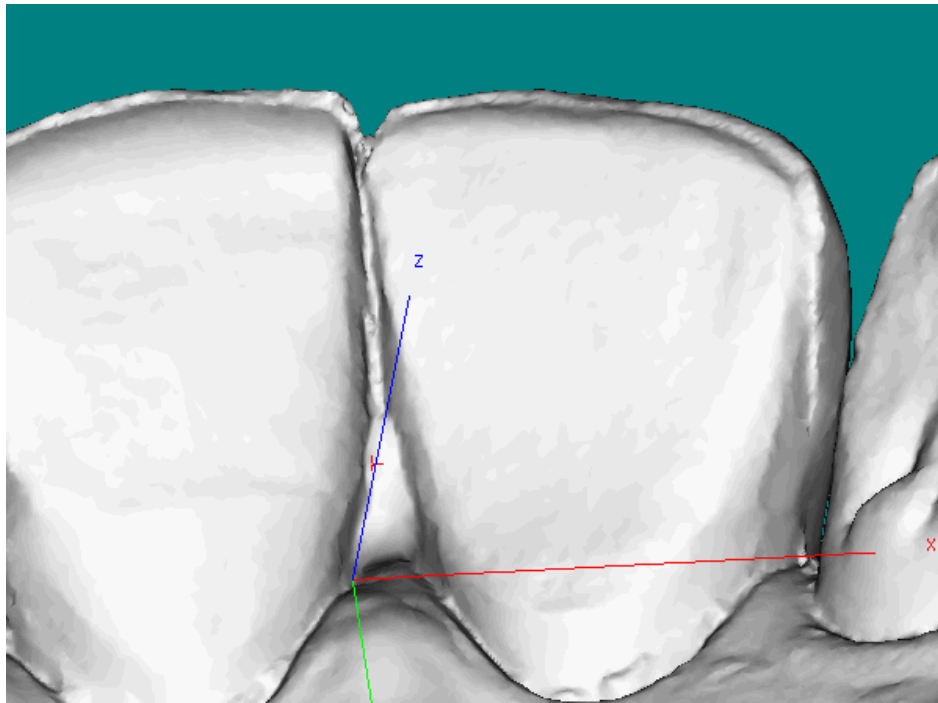
- When capturing the lingual view, angle the scanner down over the lingual of the anteriors rather than turning parallel with the arch.
- In tight spaces, angle the scanner tip to take advantage of the reach of its corner.
- Angle the scanner tip to focus on the mesial cusp of the far tooth, and then change the angle to focus on the distal cusp of the near tooth (as pictured below).





## Examples of Insufficient Overlap in Anteriors

If you see ridges or grooves at the incisal edge that do not reflect actual tooth anatomy, the scan has not accurately registered; and it will ultimately be rejected by the suressmile Digital Lab. Do not save this scan. Instead, delete the segment and re-scan to capture accurate data.



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## Questions?

**Europe Customer Support:** [fusion@orametrix.de](mailto:fusion@orametrix.de)  
or call +49-3030806277

**U.S. Customer Support:** [fusion@orametrix.com](mailto:fusion@orametrix.com)  
or call toll-free (855) 281-0966  
or call (972) 728-5901

**Australia Customer Support:** [fusionanz@orametrix.com](mailto:fusionanz@orametrix.com)  
or call 1800 976 453

**New Zealand Customer Support:** [fusionanz@orametrix.com](mailto:fusionanz@orametrix.com)  
or call 0800 460 043