

Optimized for impression & model scanning



User Guide

Identica Hybrid **User Guide**

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Greetings

Introduction

Thank you for buying Identica Hybrid.

Medit specializes in scanners and CAD/CAM solutions for dentists and dental technicians. Medit's Identica Hybrid scanner can be used to quickly and easily generate high-quality 3D data in open STL format, helping to increase your productivity and efficiency. Also, Medit's scanners are easy to use for anyone in the office. This manual will help guide you through installation and operation.

Caution Please read this manual completely before using your Identica Hybrid Scanner.

General information

Indications

Workflow

Scanner and Scanning Software

Indications

Identica hybrid's indications are as follows:

- Single coping
- Bridge framework
- Anatomical copings and framework
- Full Anatomic crown
- Full anatomical bridge
- Inlay / Onlay / Inlay Bridge
- Veneers
- Single wax up / Wax up bridge
- Over-press crowns and bridges
- Post & core
- Telescope
- Customized abutments
- Implant bars and bridges
- Removable partial design
- Orthodontics
- Virtual articulation

Workflow

Identica Hybrid is designed to provide high-quality scan data for any type and any sized lab. Identica Hybrid's intuitive and user-friendly software gives users the ability to finish scans quickly and easily.

Scanning with Identica Hybrid's specialized impression scanning feature makes it possible to see significant time savings – up to one day in some cases.

1) Create order

- Set up the tooth settings of the restoration in Identica software or CAD software.

2) Model or impression scanning

- Depending on the settings from the previous step, scan using a stone model.
- Scan an impression directly to create a restoration.

3) CAD work

- Convert the design data to NC data using a CAM program.

4) CAM work

- Convert the design data to NC data using a CAM program.

5) Milling

- Create a restoration using a milling machine with the NC data.

6) Finish

- Process the finished restoration.

Scanner and Scanning Software

1) Scanner

Identica Hybrid is designed to scan a wide range of dental models and impressions for fast and accurate data. With triple camera scanning technology, accuracy and precision is guaranteed, and with some of the fastest scanning speeds in the world, a full arch can be scanned in only 16 seconds. Identica Hybrid maximizes convenience by improving existing workflows with new innovative technologies. In addition, Identica Hybrid's new 3-axis arm makes it easy to scan impressions in one step.

2) Scanning Software

With Identica software, **Identica Scan**, and with Updater3, updates are automatic. Identica Software's user-friendly and intuitive design makes it easy to acquire scan data. It also features a flexible multi-die scan function that saves time and increases productivity by decreasing scan steps while also increasing accuracy for matching scan data.

Before use

Unpacking and Installation

Box contents

Product Specifications

PC requirements

Unpacking and Installation

Connect the scanner to the computer and find the other accessories in the box. There is special packaging to protect the scanner and accessories during transport.

Caution When you receive your scanner, make sure all of the accessories are there, and if any are missing, please contact your dealer.

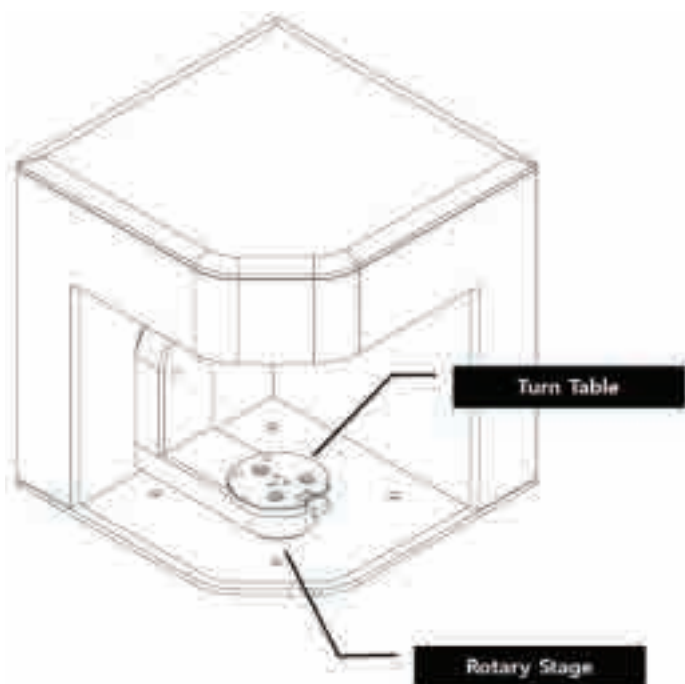
Product Information

Basic composition

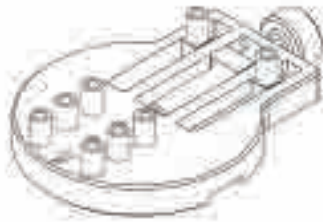
1. Identica Hybrid scanner
2. Screw jig (2EA)
3. Gum Base jig
4. Multi-die
5. Half Block jig (2EA)
6. Impression jig
7. Calibration panel
8. USB cable
9. Power cable & external adaptor
10. 3-axis arm (impression)
11. Flexible multi-die
12. Install CD & User guide

Options (Separately Sold)

13. Artex jig
14. KAVO jig
15. SAM jig
16. Articulator plate
17. Interlock jig



1. Identica Hybrid scanner



2. Screw jig (2EA)



3. Gum jig



4. Multi-die



5. Half Block jig (2EA)



6. Impression jig



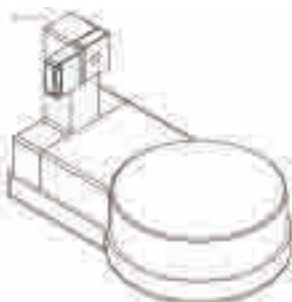
7. Calibration panel



8. USB cable



9. Power cord & external adaptor



10. 3-axis arm (impression))



11. Flexible multi-die

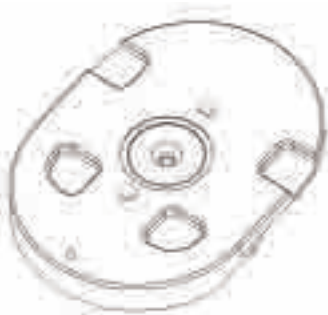


12. Install CD & User guide

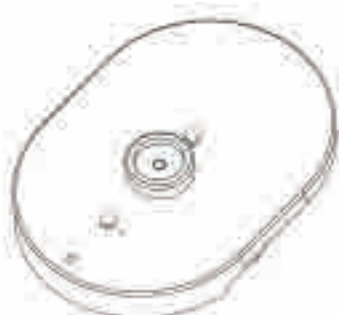
Options (Separately sold)



13. Artex jig



14. KAVO jig



15. SAM jig



16. Articulator plate



17. Medit Articulator

Product Specifications

Category	Descriptions
Camera resolution	Mono 1.3 (MP), Color 5.0 (MP)
Point spacing	0.065 mm
Scan region	80mm x 60mm x 60mm
Scan principle	Phase-shifting optical triangulation, Triple camera method
Size	290mm x 290mm x 340 mm
Weight	16 kg
Light source	LED, 50 ANSI-lumens
Light color	Real Blue
Connection method	USB 3.0 B Type
Power	AC 100 ~ 240V, 50~60 Hz

PC Specifications

We suggest that you use Identica Hybrid with a PC that exceeds the minimum PC requirements.

We cannot guarantee proper operation with a PC that does not meet the minimum PC requirements.

Caution It is designed for USB 3.0 port. It must be connected to a USB 3.0 port.

Caution Cannot run on Windows 32 bit and Mac OS.

Caution Before installing the scan software, check for a Windows update and make sure the mainboard, VGA card, and USB drivers have been updated recently.

PC Specifications

Minimum Requirements

CPU	Intel i5 2.6G or higher / equivalent AMD CPU
RAM	8G or higher
Graphic Card	NVIDIA GeForce GTS 450 (1GB) or higher / equivalent ATI graphic card
O/S	Windows 7 64 Bit (do not use 32 Bit)

Recommended Requirements

CPU	Intel i7-3770 @ 3.40GHz or higher
RAM	16G or higher
Graphic Card	NVIDIA GeForce GTX 950 (2GB) or higher
O/S	Windows 7 64 Bit (do not user 32 Bit)

Product installation

First, install Identica Software on your computer before connecting.

Step 1 : Software installation

Step 2 : Hardware installation

Precautions for use

Step 1 : Software installation

- Insert the installation CD into the PC and run setup.exe.



- Read and approve the license agreement and select “I agree to the...”



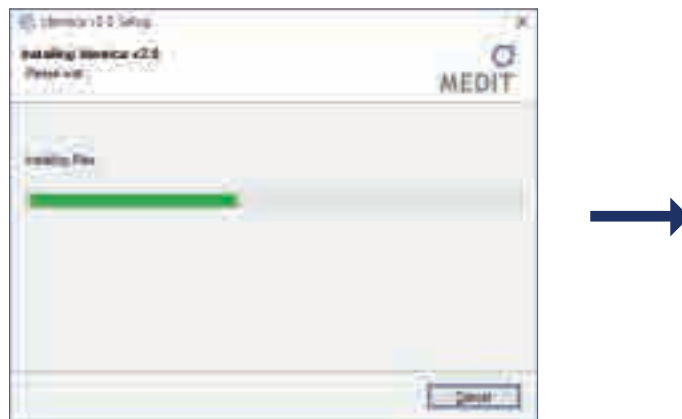
- Specify the installation location. (default path recommended)



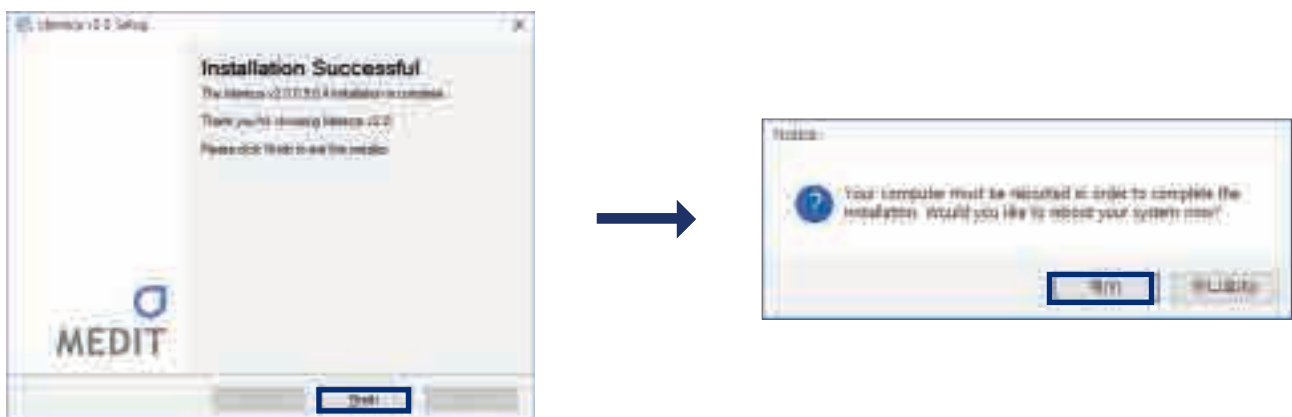
- Confirm the installation information and click Next.



- The Identica Software and other necessary software programs are automatically installed.



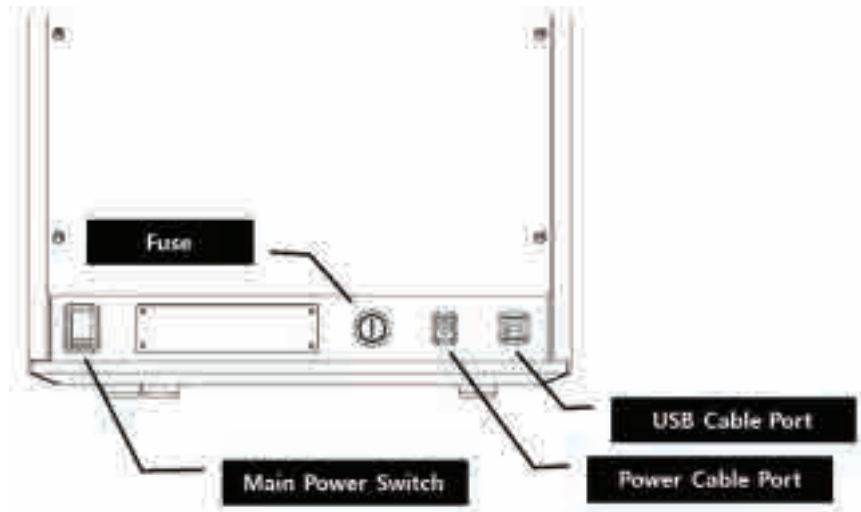
- Restart your computer after installation.



Caution To uninstall Identica Software v2.0, simply delete the folder where you installed it. Do not remove the program by using Remove Programs in the Windows Control Panel.

Step 2 : Hardware installation

1. Connecting the scanner



► After installing the software, restart the computer and install the hardware.

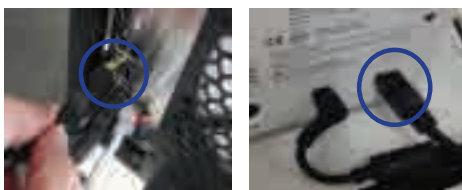
Caution Securely connect the cables to the PC.
(Identica Hybrid requires a USB cable and power cord.)

Caution Identica Hybrid requires a USB 3.0 connection.

1) Connect the power cable



2) Connect the USB cable to the blue USB 3.0 port on your computer.



3) Turn on Identica Hybrid. Turn on the power switch on the back.

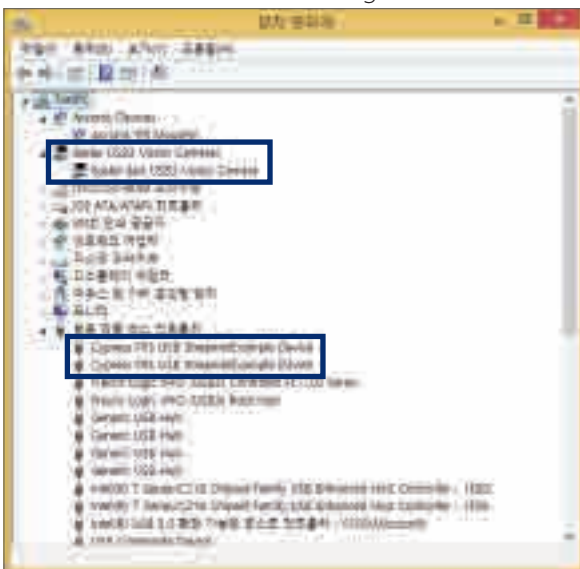


Confirm hardware installation.

- ▶ Confirm MEDIT USB Remote NDIS Network Device.



- ▶ Check the camera
- Check to see if two cameras are registered.



Precautions for use

General precautions

- ✓ Only qualified persons should use this machine.

Installation precautions

- ✓ Install the machine in a place not affected by water, air pressure, temperature, high humidity, dust, salt, ion, and other environmental factors.
- ✓ Pay special attention to external hazards such as slope, vibration, and shock.
- ✓ Do not install the machine in a chemical storage area or any place where there are gas emissions.
- ✓ Install the machine in a well-ventilated place.
- ✓ Take special care about power frequency, voltage, and allowable current (or power consumption).

Cautions before using this machine

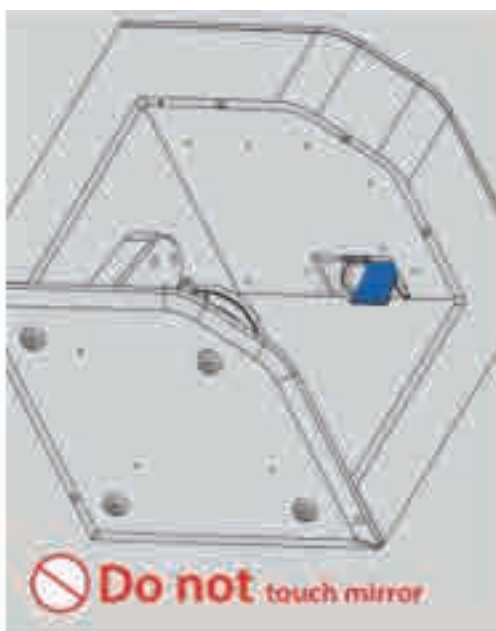
- ✓ Make sure that every component is correctly connected and fixed.
- ✓ Make sure that the machine is correctly recognized in your computer's Device Manager.
- ✓ Do not move your machine by applying force to its scanning arm.

Cautions when using this machine

- ✓ Do not give shock or vibration to the machine during use.
- ✓ Do not turn off the power of Identica Hybrid while using it.
- ✓ Do not block the vent while the machine is in use.
- ✓ If there is smoke or a strange smell, immediately turn off the power switch, disconnect the power cord, and contact the manufacturer.
- ✓ Remove the power cord from the machine if not in use for an extended time.
- ✓ All repairs should be done by the manufacturer or a Medit approved repair center. Users should not disassemble or reassemble their scanner. Doing so will void the warranty.
- ✓ Do not modify this machine for any reason. Unapproved modifications will result in a voided warranty.

Maintenance

- ✓ If the machine has not been used for a while, check for proper installation and calibration.
- ✓ Check to make sure that the scan data is correct.
- ✓ Periodically clean this machine with a dry cloth and make sure to not let water or moisture inside the machine.
- ✓ Do not clean this machine with corrosive detergent or antiseptic solution.
- ✓ Always turn off the power when checking the inside of the machine.
- ✓ Do not use a spray can or spray any material toward the scanner.
- ✓ Do not touch the mirror inside the scanner.



Instructions for storage

- ✔ Lightly wipe the surface with a dry cloth while taking care to not let water, other liquids, or other foreign materials contaminate the machine.
- ✔ Keep the machine in a safe place so that it will not be damaged due to carelessness.
- ✔ Environmental conditions for use
 - Temperature range: 0 °C - 35 °C
 - Relative humidity: 20% - 75%
- ✔ Environmental conditions for transport and storage
 - Temperature range: -5 °C - 45 °C
 - Relative humidity: 20% - 80%

Using Identica Hybrid

How to use Identica

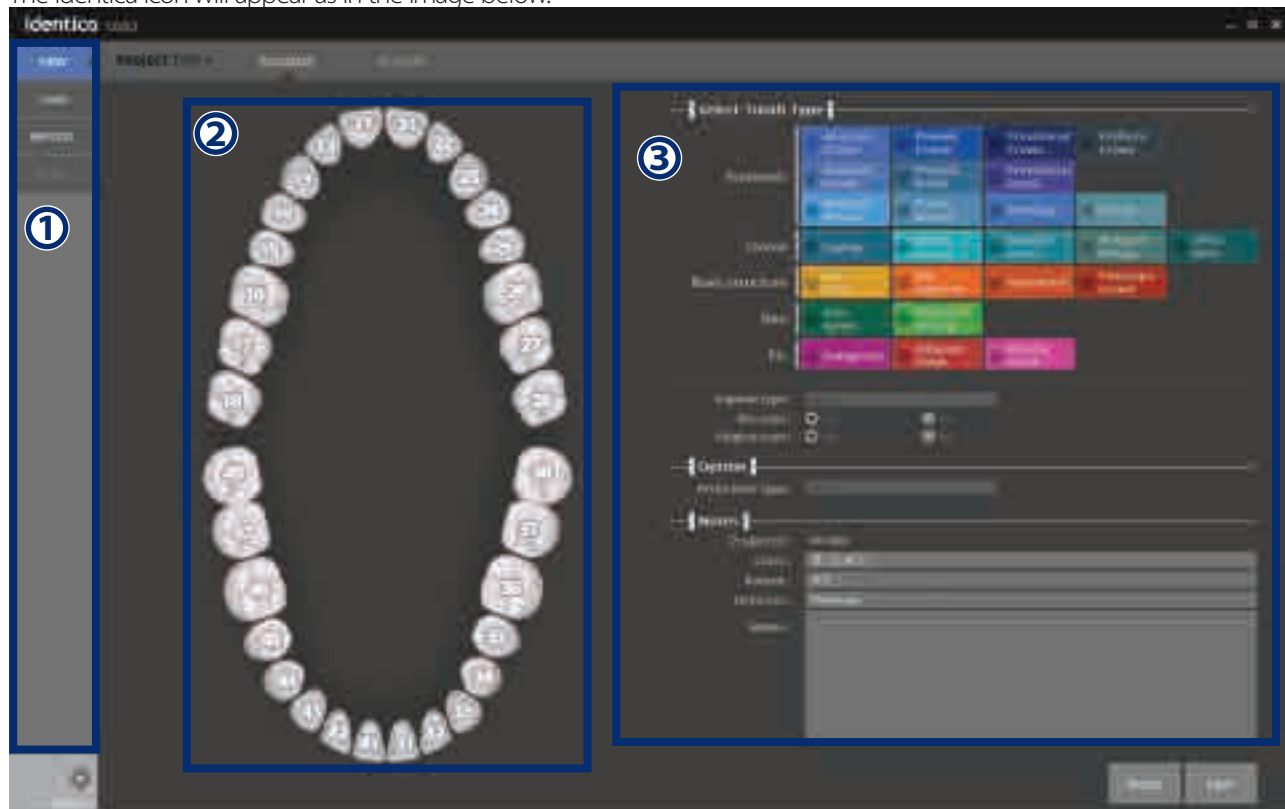
How to use Identica Scan

How to use Identica

Software GUI (Graphic User Interface) Configuration

Standard screen configuration

The Identica icon will appear as in the image below.



Button explanation

① Menu

New project : make a new job.

Load : load an existing file.

Import : import a ".meditproject" or ".dentalproject" file.

Scan: run the scan program.

② Tooth setup

General : use when not using multi-die.

Multi-die : select when scanning with multi-die.

Tooth number : use when setting up the teeth. Tooth numbers can be converted in setup.

③ Job setup

▶ Tooth type ▶ Anatomic

Anatomic Crown : Full abutment crowns; complete replacement of tooth shape.

Pressed Crown : Prostheses made of two parts. Dental prosthesis consisting of a set for the second operation and operations of the 1st frame, which serves as the Cut-Back core to reproduce the occlusal surface of the prosthesis by making a Wax / PMMA casting.

Provisional Crown : Used to prepare a temporary tooth from the outer surface of the inner tooth.

Preform Crown : Setup using a particular semi-finished block to reduce processing time.

Anatomic Pontic : Setup a full contour pontic. By default the link for the bridge is created if pontics are connected to the adjacent restoration.

Pressed Pontic : Setup a pontic having the same function as a Pressed Crown

Provisional Pontic : Setup a pontic for a provisional crown (unlike a provisional crown of which inner side tooth is prepped).

Anatomic Waxup : Setup for making an abutment and copied restoration made from a scanned waxup restoration (for making replicated restoration).

Waxup Pontic : Setup for making a replicated restoration from a scanned waxup restoration on the pontic part (for making replicated restoration).

Inlay/Onlay : Setup for making inlay or onlay over a preparation tooth.

Veneer : Setup for making a veneer or laminate over an abutment.

► **Tooth type ►► Frame**

Cutback Coping : Cutback to create space for a ceramic from a restoration.

Simple Coping : For making a fixed thickness cap restoration over the abutment.

Cutback Pontic : Cutback to create space for ceramic from a restoration of a pontic.

Cutback Waxup : Scan and replicate a preparation tooth and contour waxup restoration, and cutback, or shrink, the part for a ceramic restoration.

Simple Inlay : Setup for an inlay restoration with fixed thickness over the preparation tooth for inlay. (Usually, complete a job with ceramic.)

► **Tooth type ►► Basic structure**

Bar Pillar : the portion of a bar that connects to the implant.

Bar Segment : the portion of a bar that provides connection between the pillars.

Attachment : Setup the preparation teeth for making the Attachment.

Telescopic Crown : Setup for making the inner coping for Telescopic Crown

► **Tooth type ►► Bite Splint**

Bite Splint : Used for night-guards, mouth guards, and orthodontic appliances.

BiteSplint Missing : Setup a missing tooth from a bitesplint

► **Tooth type ►► Etc**

Bite Splint : Used for night-guards, mouth guards, and orthodontic appliances.

BiteSplint Missing : Setup a missing tooth from a bitesplint

► **Tooth type ►► Implant type**

▼ **None** : when a preparation tooth is not an implant restoration.

▼ **Custom Abutment** : When using a scanbody to create an implant custom abutment.

▼ **Custom Abutment Manual Positioning** : When scanning a titanium link or interface without using a scanbody and designing an abutment above it

▼ **Screw Retained** : Setup for making a fixed restoration using a screw retained above the implant external type abutment.

▼ **Screw Retained Manual Positioning** : When making a SCRP crown.

► **Tooth type ►► Situ Scan**

▼ **Situ scan** : Setup when you have a situ scan or study model to create a restoration.

► **Tooth type ►► Gingiva Scan**

Gingiva : Select when you scan a gingiva separately.

► Tooth type ► Antagonist Option

None : Choose when you do not select the antagonist in the arch.

Medit or Etc : Select when scanning an antagonist, scanning a upper/lower jaw using another jig instead of an articulator plate.

Artex : Select when scanning an antagonist using artex articulator and its plate.

Kavo : Select when scanning an antagonist using Kavo articulator and its plate

Sam : Select when scanning an antagonist using Sam articulator and its plate

Etc (Use Articulator plate) : Select when using an articulator plate with a large articulator.

► Notes

Project ID : Enter project ID

Clinic : Enter clinic information

Patient : Enter patient information

Technician : Enter information on the technician working on this job

Memo : Enter special notes about this job

i Setup job and run

Enter job information



Enter the information in order as seen below:

1. Select the type of prosthesis.

The selected prosthesis is displayed in a different color depending on the type.

Refer to "Setting the teeth" (prosthesis type) for more information.

2. When working with an antagonist, select the antagonist in the arch.

If scanning an antagonist, you must select at least one tooth on the other side of the arch as an “antagonist.”

3. Select whether there is a bridge or not with the connector between selected restorations

By default the bridge is created to adjacent restorations with the pontic

- Taupe : There is a bridge
- Gray : There is no bridge (If you need a bridge, click connection points)
- Red : Not able to create a bridge – If the material of adjacent restoration is different each other
- If there are no connectors : In case the selected restoration does not have a bridge.

4. Leave a note about dentists/patients/workers in the notes section ①

Save and scan

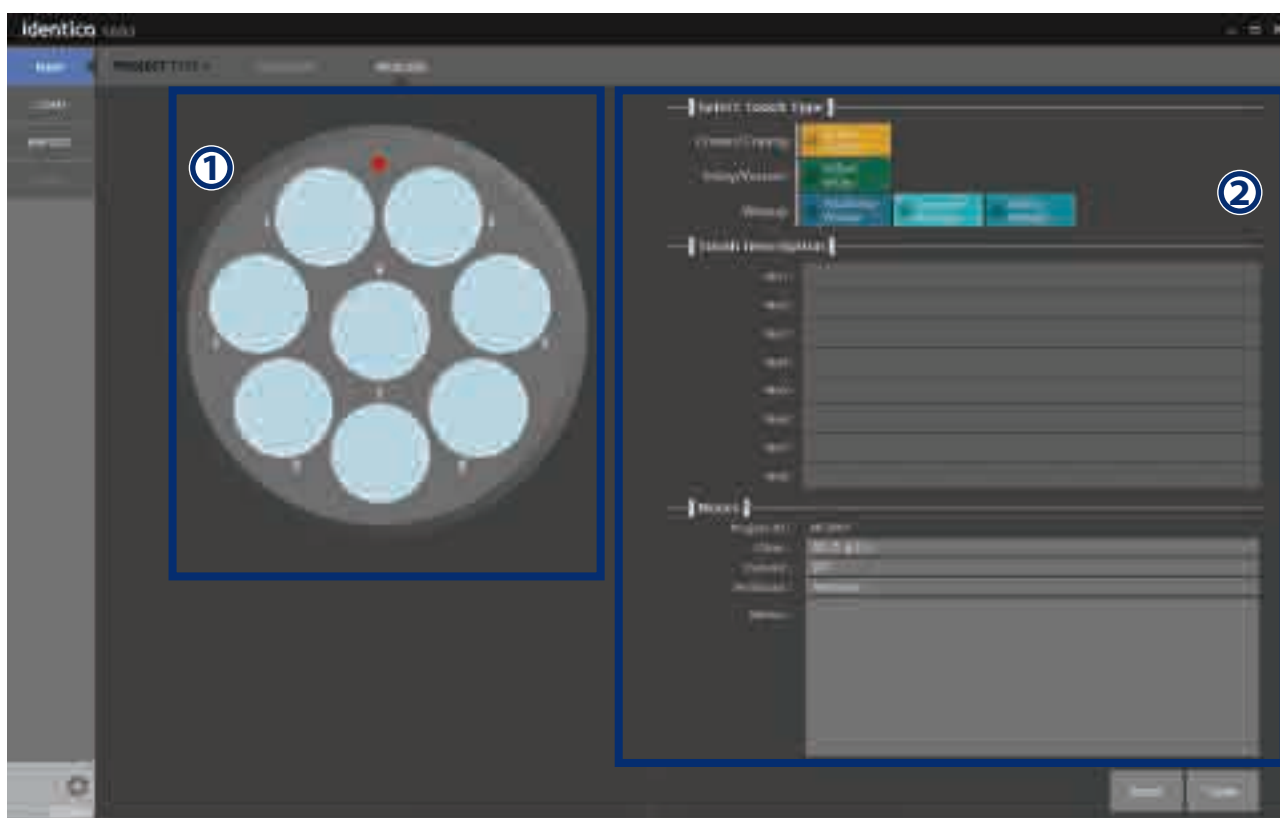
Complete the work information, and click ‘save’ on ②. All the work and information will be added to the database and a folder will be created. All the work and related information will be saved into a folder.

Once the work is saved, the ‘scan’ button will be activated. You can start scanning if click ‘Scan’ ③.

The activation of the icon and its function can be different depending on the work type.

Multi-die configuration screen

If you click the multi-die button, you will see the following image.



Button setup

① Configure multi-die setup

To proceed with the scan, select the desired position of the teeth from 1-8. Setup the selected restoration.

② Job setup configuration

▶ Tooth type ▶▶ Crown/Coping

Simple Coping : Setup for a simple coping with a fixed thickness over the preparation

▶ Tooth type ▶▶ Inlay / Veneer

Simple Inlay : Setup for a simple inlay with a fixed thickness over the inlay preparation

► **Tooth type** ► **Waxup**

Anatomic waxup : Scan the full anatomic waxup to create the framework for the prep teeth.

Pontic waxup : Scan the full anatomic waxup to create the framework for the pontic base.

Cutback waxup : Scan the full anatomic waxup, and cut it back to create the framework. Selective reduction (marking parts that stay unreduced) is also possible.

► **Notes**

Project ID : Enter the project ID

Clinic : Enter clinic information

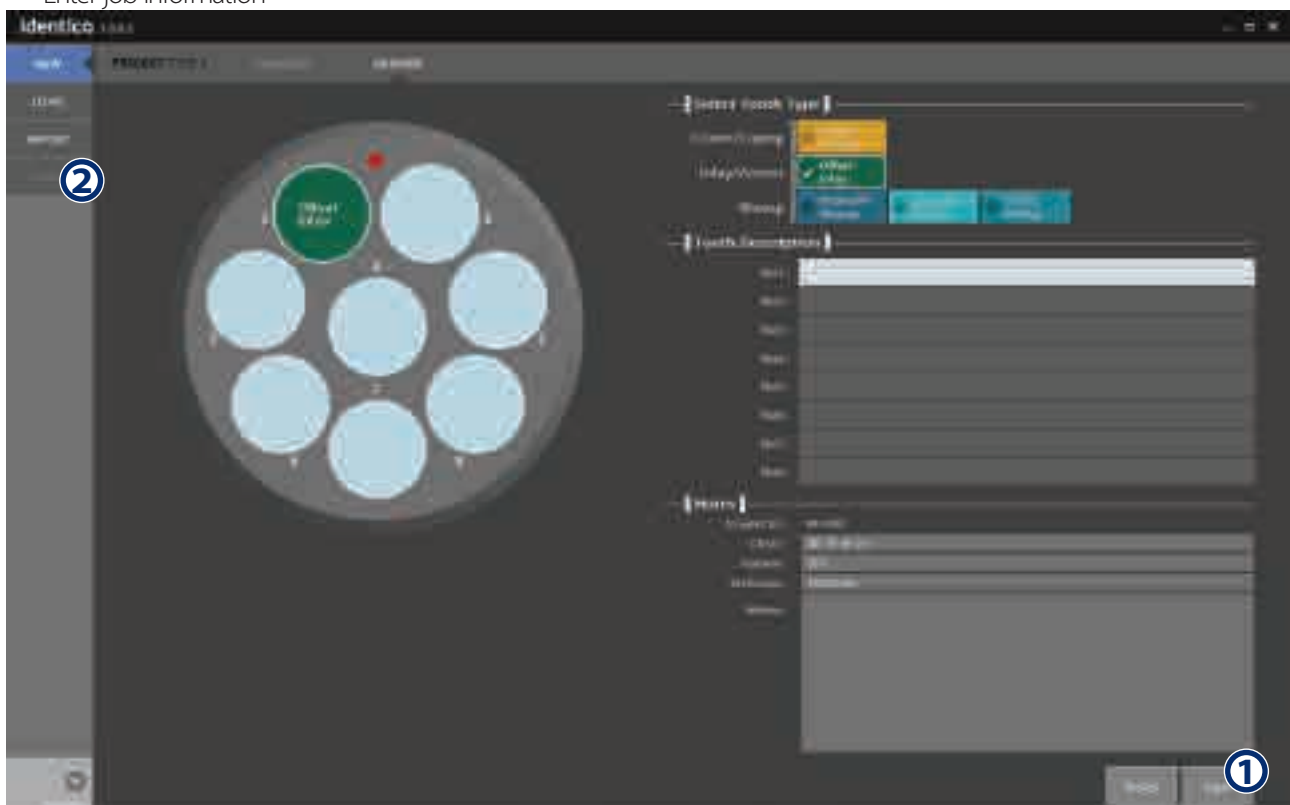
Patient : Enter patient information

Technician : Enter technician information

Memo : Enter any special notes

i Register job and run

Enter job information



Enter the job information in order as seen below:

1. Select the type and location of the prosthesis in the multi-die.
The selected prosthesis is displayed in a different color.
2. Enter descriptions for the positions of the abutments in the multi-die.

3. Enter necessary information for the dental clinic, patient, and job.

4. Save and scan

After inputting the information, click “Save”^①. The stored job information is added to the database and a task folder is created. This folder contains all of the data associated with the job.

When the job is saved, the “Scan”^② button is activated. Click “Scan” when you are ready to begin scanning.

Icons and their corresponding functions can vary depending on the type of operation.

A.3. Configure “Load” screen

If you click the “Load” button you will see the screen below.

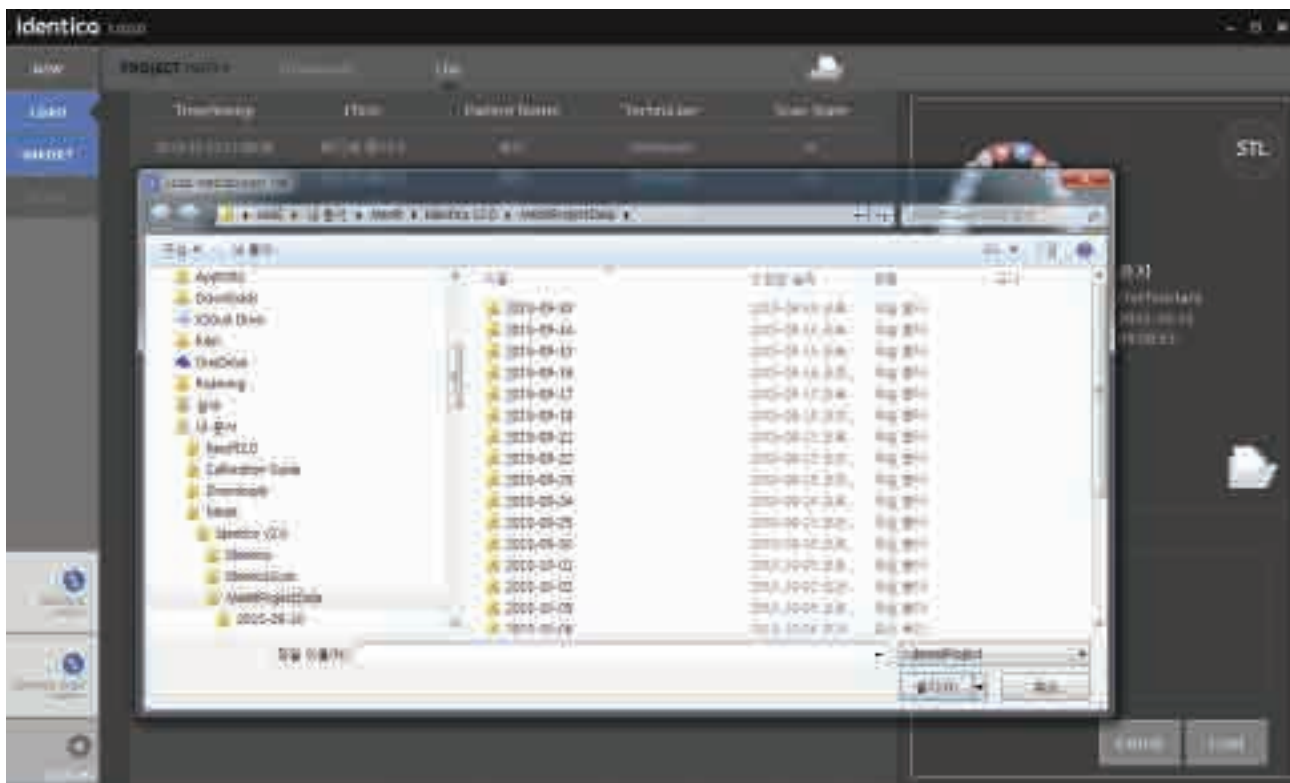


Button descriptions

- ① Thumbnail : Show list of jobs as thumbnails
- ② List : Show list of jobs as a list
- ③ File Load : Directly load the “.meditProject” file
- ④ Open Folder : Open folder in new window
- ⑤ Load : Load the selected file.
- ⑥ Cancel : Cancel the current job and return to the previous job

“Import”

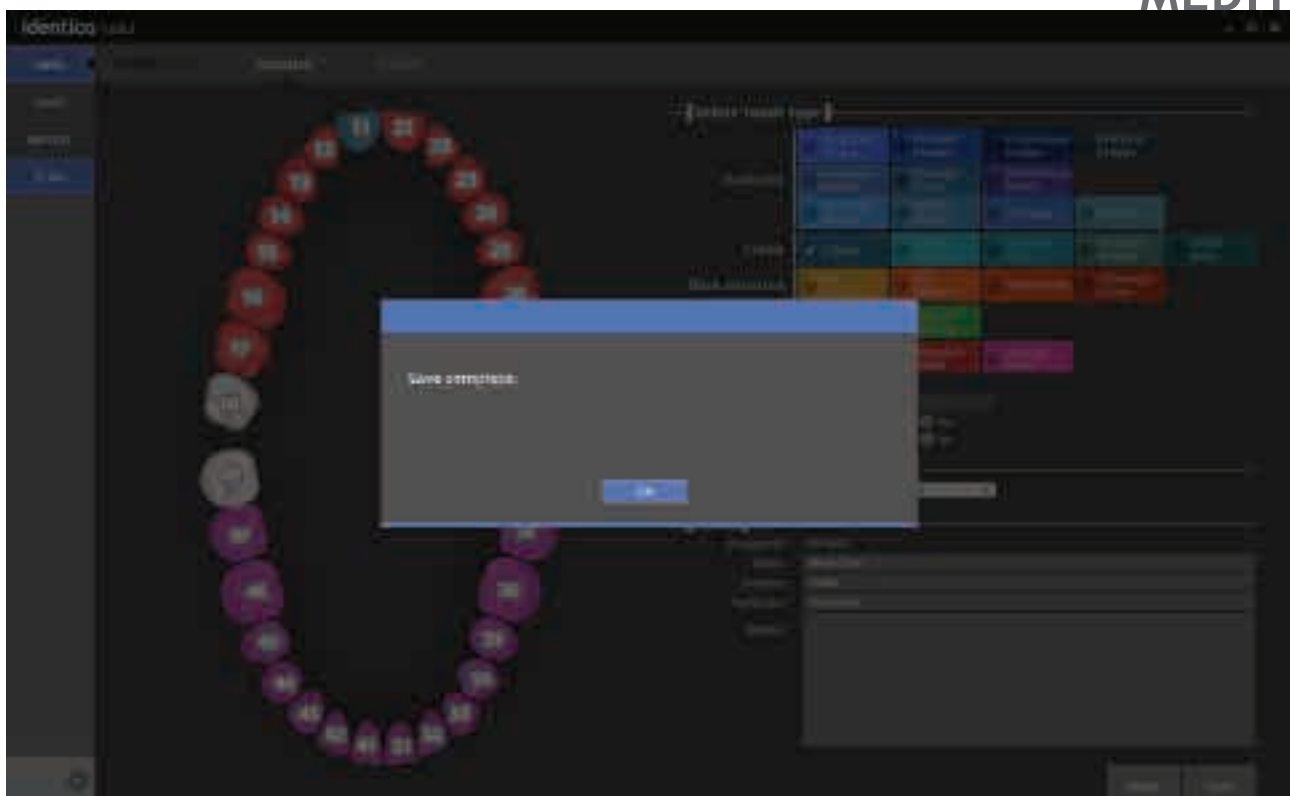
If you click the “Import” button, the screen below will appear.



1. Select the “dentistProject” file.



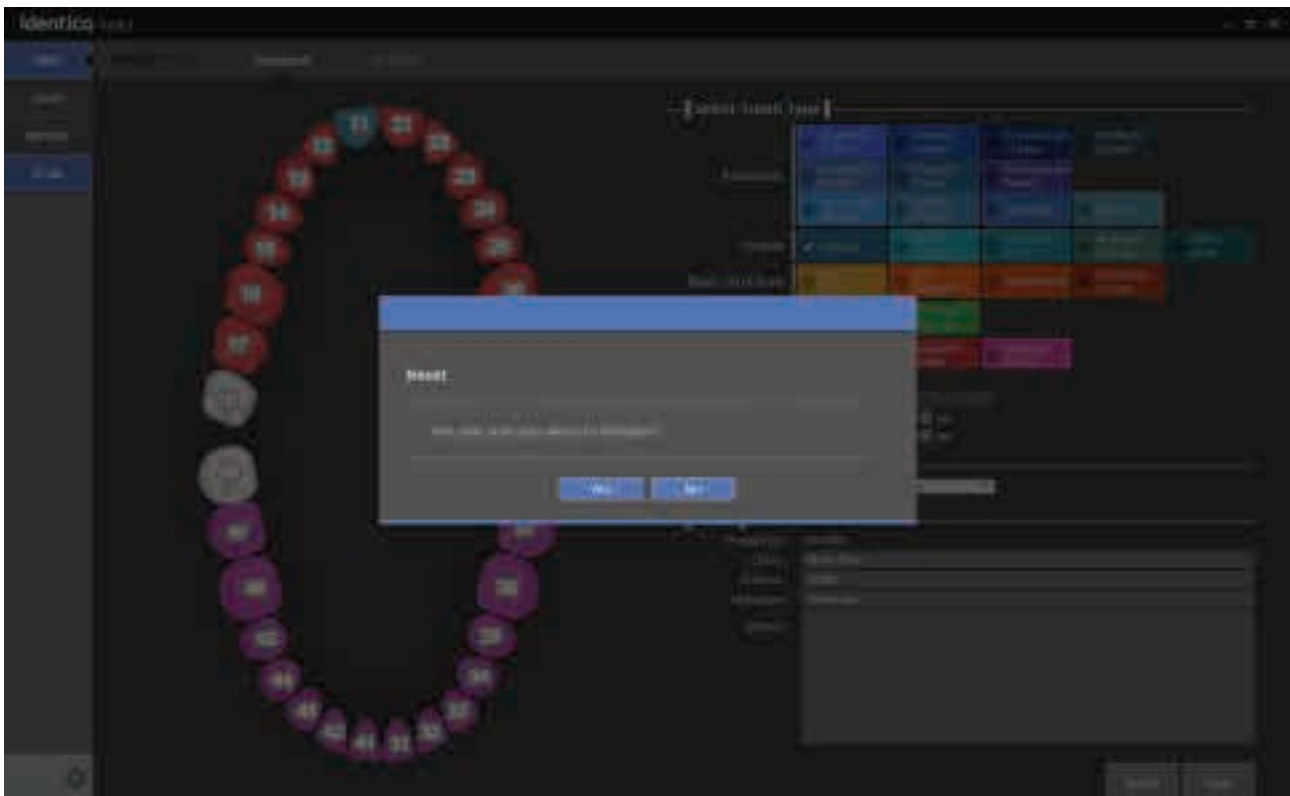
2. Click Save after modifying the information.



3. After clicking “OK,” the scan job will be activated.



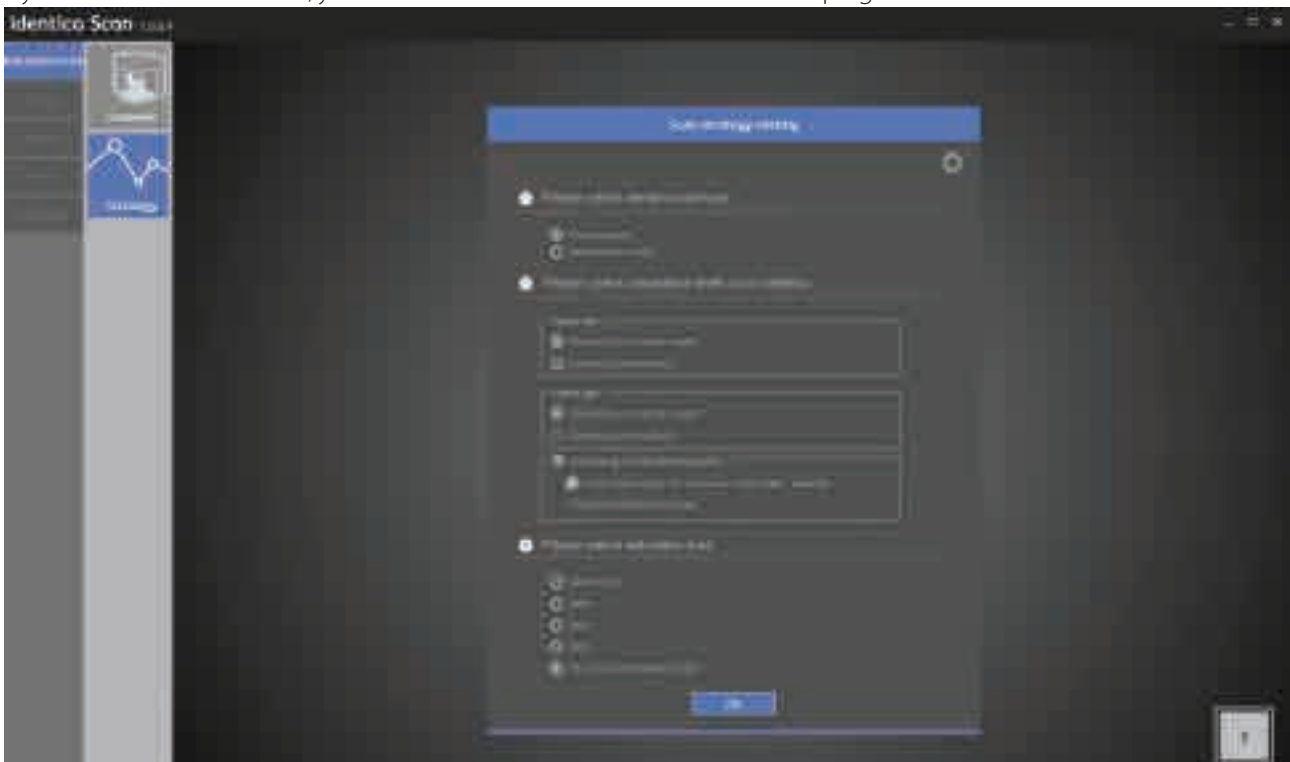
4. If you want to return to the original screen, click “Reset.”



5. If you click “Yes,” you will be taken back to the original screen, if you click “No” you will return back to your workflow.

Scan

If you click the “Scan” button, you will see the screen below. Check the “Scan progress” window for more information.



“Setting” screen

If you click the “Load” button the screen below will appear.

Button settings

► Settings

Settings : You can change the original settings of Identica Software program.

About : Current information about Identica Software

Troubleshooting : Should you have problems with Identica Software, go here for help.

► Setting ►► Setup

Dental lab : Register the name of the dental lab using this program.

Language : Choose your language.

Labeling : Choose FDI or ADA tooth numbering system.

Auto-update: Setup auto-updates for your machine.

Save directory : Choose where to save your files.
(Set the path by opening the folder.)

Scan directory : Choose the installation folder.
(Set the path by opening the folder.)

How to scan with Identica

When you finish the preparation stage in Identica Software, click the “Scan” button to start the scanning program.

Before use

Check before use

- ✓ Is the scanner connected properly?
 - ✓ Make sure the projector has booted.

Make sure the power is on and that the Medit logo appears from the projector.



When booting has finished, the Medit logo will turn to a blue light.



- ✓ After installation, check the scanner connection.
 - ✓ The following message appears during the first connection when running the program



- ✓ The first time you connect your scanner, it will take around 30 seconds to boot.

After the first installation, it will take around 3-5 seconds. Also, during the scanner connection process the projector will momentarily blink, and then the connection will be completed.



- ✓ If the scanner is not properly connected, a message will appear. Check the status of the equipment according to the message.

- ✓ The image below shows a successfully connected scanner.



- ✓ If your computer cannot find the connected scanner, you will see the message below.



Computer cannot detect connected device.

- ✓ Check the scanner power
- ✓ Check USB cable connections

- ✓ If the cameras are not recognized, you will see the message below.



Camera not connected properly

- ✓ Check the USB cable connections

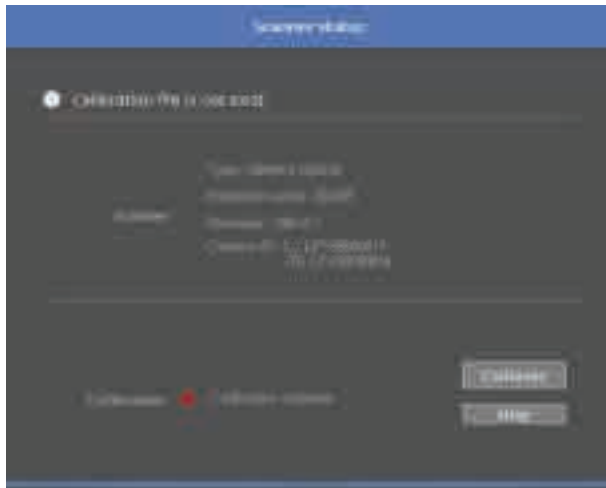
- ✓ If the projector and computer cannot connect, the following message will appear.



Projector is not properly

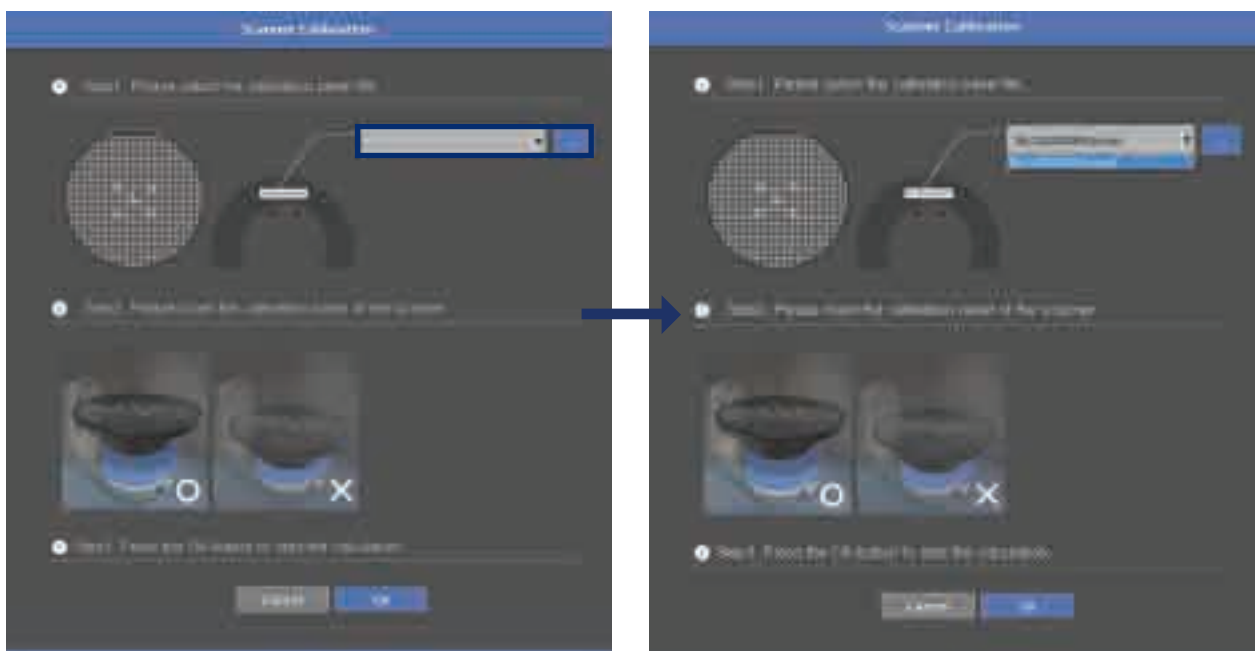
- ✓ Check the projector connection. (check the network adapter in Device Manager)

Calibration



- ✓ Click calibrate to start the calibration process.

Select the PNL file



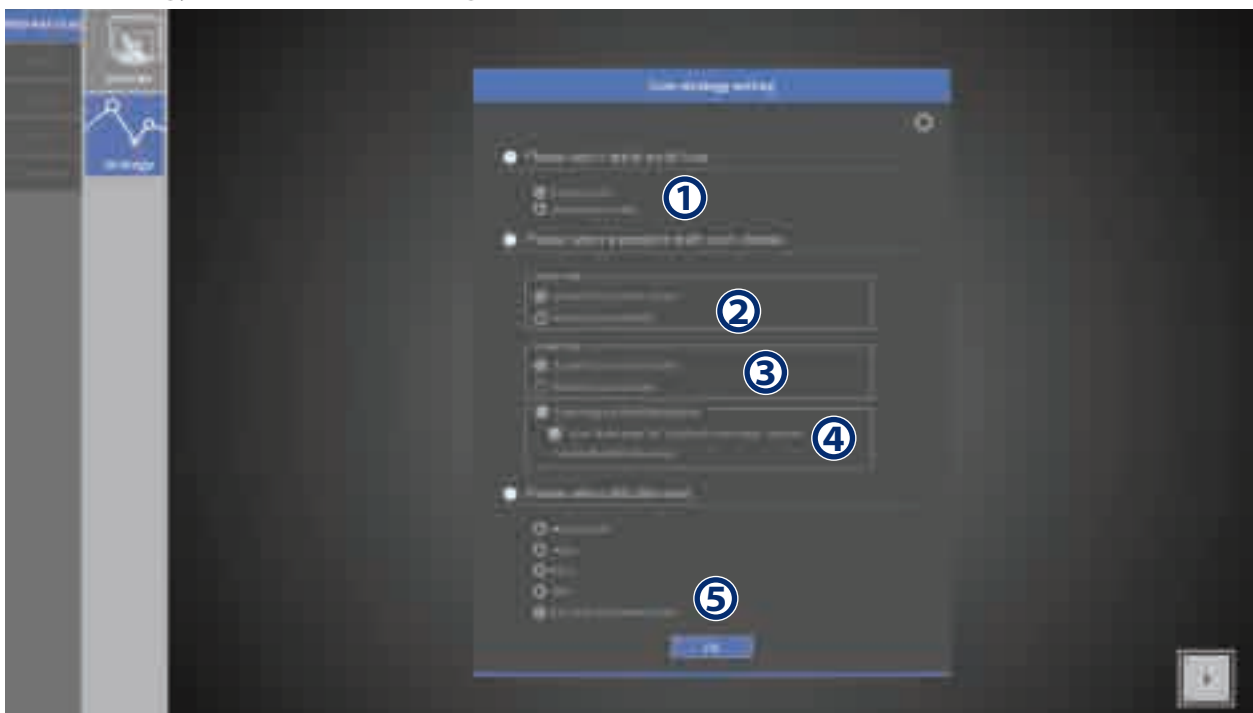
- ✓ Check the serial number on the back of the calibration panel and match it with the PNL file. Press OK to start calibration.



- ✓ Set the calibration panel on top of two half jigs, as seen in the image above.



- ✓ Calibration will be completed in about two minutes.
- ✓ When the scanner is connected properly, it will automatically move to the Scan Strategy settings page. Scan strategy will determine the progress of the scan.



☰ Preparation - Strategy

- ① Select the type of model to be scanned
 - Stone model or impression
 - ② Select the abutment for the upper jaw
 - Choose whether to scan an upper preparation using a base or whether to use use a multi-die.
 - (If you use a base and the preparations are adjacent, divide it into two groups and start scanning. If you use a multi-die and the number of preparations is over 8, divide them into two group and start scanning. Normally, use of multi-die is recommended as it saves time.)
 - ③ Set the same scan method for the upper and lower jaw
 - ④ Set the use for the flexible multi-die
 - When this feature is enabled, the scan settings for the upper and lower jaw are disabled.
 - ⑤ Select the scan strategy for the articulator
 - When finished with setup, select OK and move to the next step.
- ✓ Use a model's base for a single coping/ Select ETC (use articulator plate) for articulators , and select OK to move to the next step.

Single coping scan (#11)

1. Order form setup

- ✓ Running Identica Software.



- ✓ Enter the settings for the model you want to scan.
- ① Cut-back coping - #11

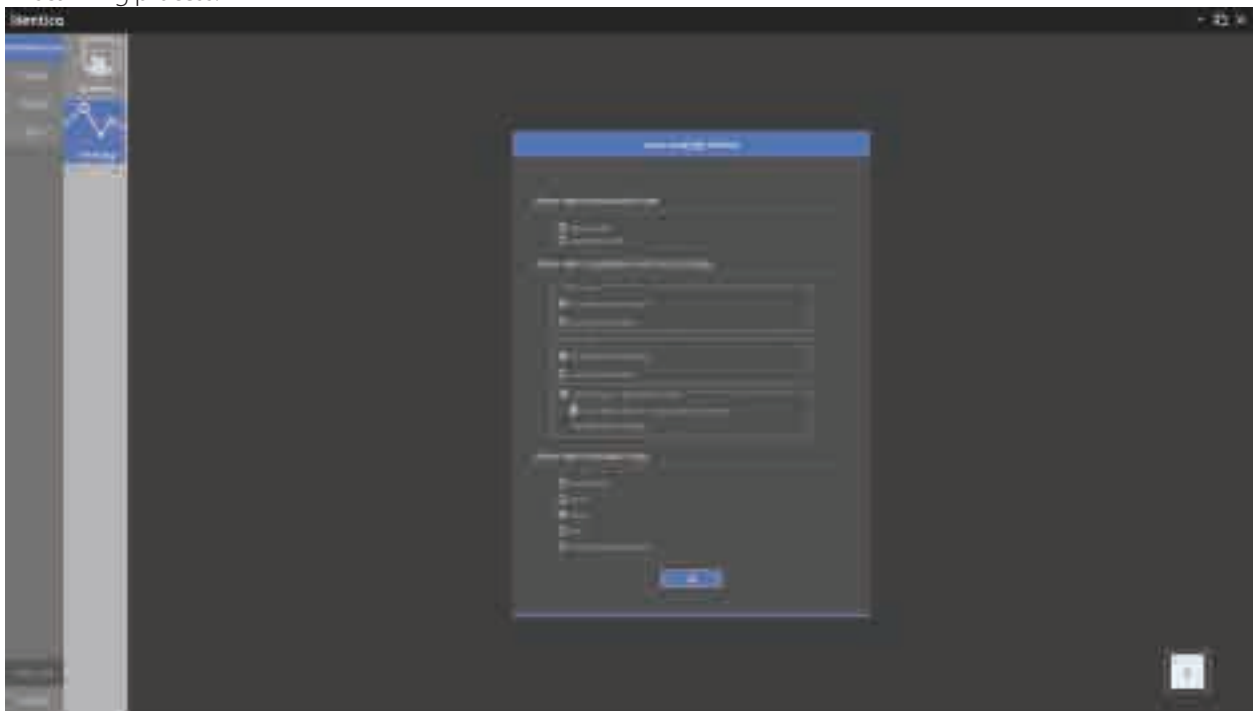
Identica Hybrid User Guide

- ② Implant type – No, Situ scan – No, Gingiva scan – No, Articulator
- ③ Adjacent Tooth - upper jaw
- ④ Antagonist - lower jaw
- ⑤ Articulator type - ETC (use articulator plate)
- ⑥ Enter specific details about the order (not required).

Caution Identica S/W User Interface

- ⑦ Click the “Save” button.
- ⑧ Click the “Scan” button to begin scanning.

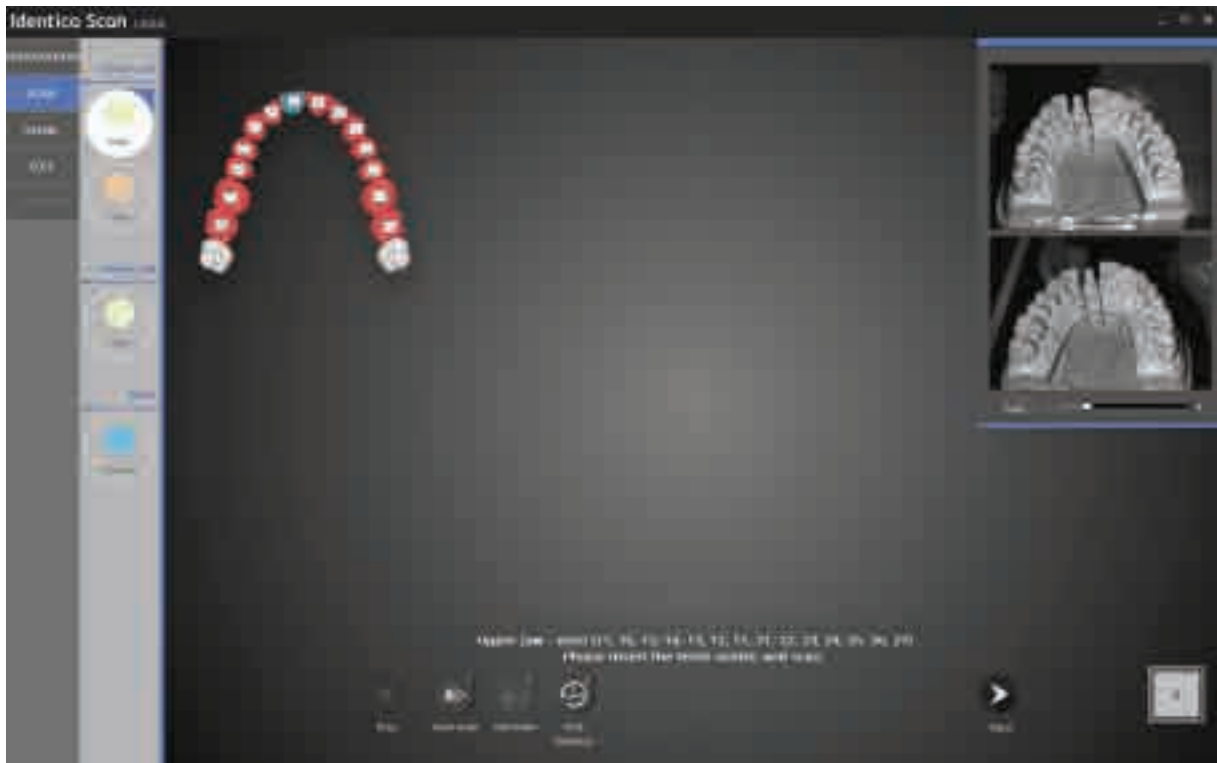
- ✓ When the scanner is connected properly, it will automatically advance to the Preparation Strategy and determine the scanning process.



⚙️ Preparation - Strategy

- ✓ For single coping, use the model base / for articulator, select “ETC (use articulator plate)” and click “Confirm” to go to the next step.

Scan



- ✓ As in the image above, follow the instructions in the upper left corner and insert the model. Click “Auto Scan” ① to proceed with the full model scan.



- ✓ As in the image above, the model scan is finished.

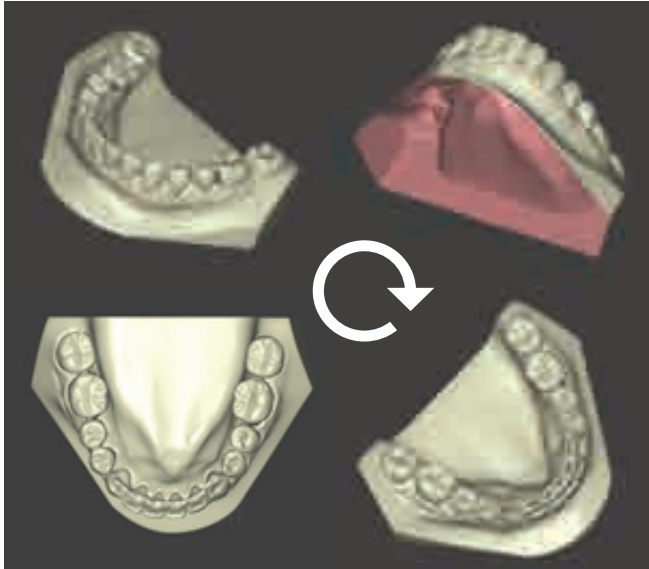
Model handling

Use the computer's mouse to view the scan in different angles.

3D rotation

to change the 3D viewing angle of the scan image

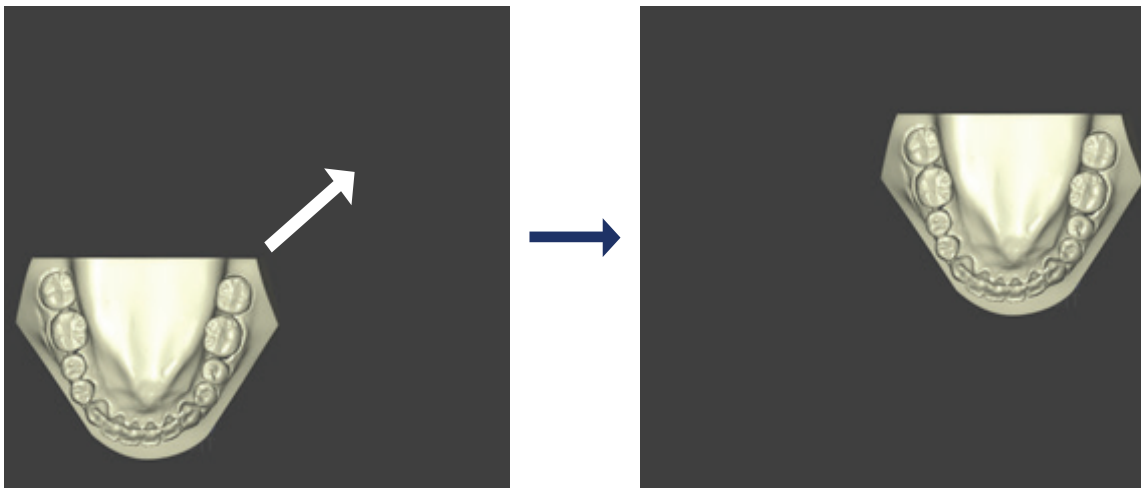
Right click + drag



Pan

move the scan image horizontally

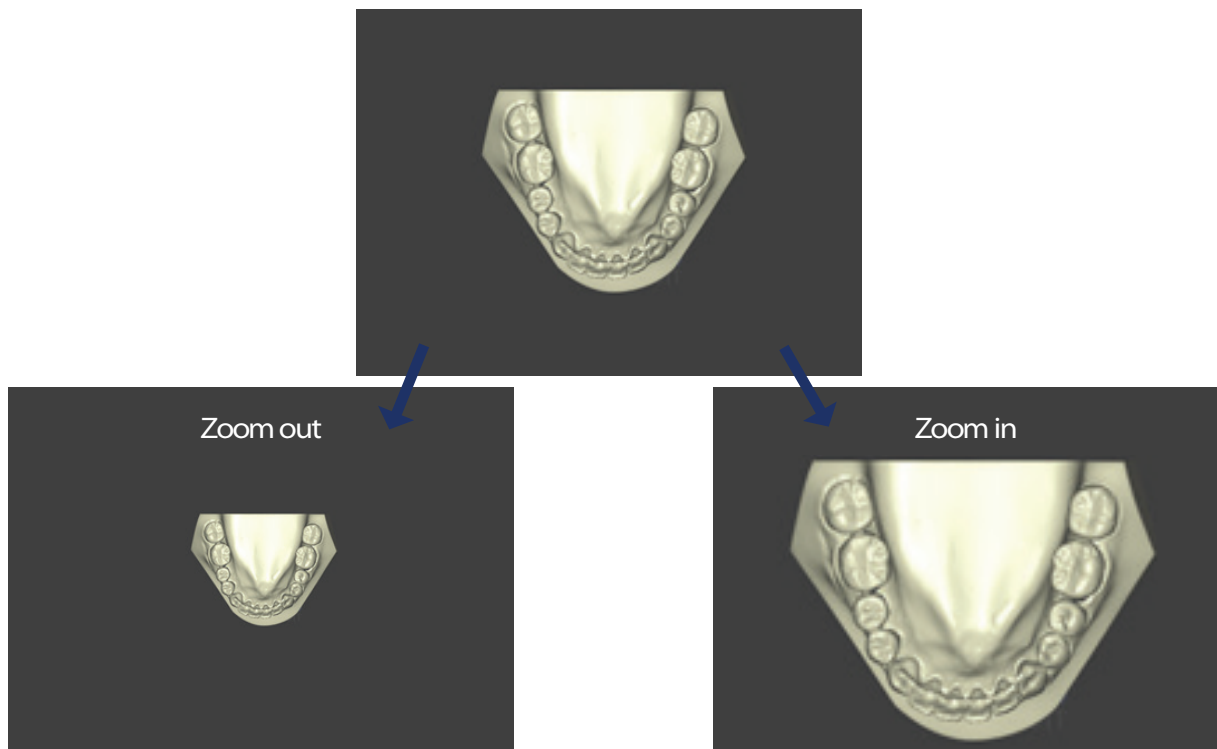
Click [mouse wheel] + drag



Zoom in/ Zoom out

zoom in and out

[Mouse wheel scroll] or [right click] + drag: zoom in and out



Rotate the model to verify data.

If the data does not look correct, check the following.

Caution

✓ Check for incorrect scanning processes

1. Is the machine calibrated?

- Strong impacts, or vibrations, might require the scanner to be calibrated again.
- If you do not move the scanner, cause impacts or strong vibrations, calibration should be performed once per month.

2. Is the scan object within the measurement area of the scanner?

- Make sure the model can be seen in the camera image on screen.

Is the scan object shiny or black?

Identica Hybrid is able to capture 3D data through reading the projected pattern. However, it can be hard to measure if the pattern is not clearly projected onto the tooth model.

- If scanning is difficult, use a scan spray

3. Scan spray

Scan sprays can reduce reflections for black or shiny objects

(2. Usually, dried plaster models do not need a scan spray)

● Scan spray procedure

- a. In a well ventilated area, place the object on a clean dry surface that can be sprayed (e.g., newspapers)
- b. Spray from a distance of about 30-50cm at varying angles to ensure that all parts of the scan model are covered.
- c. Do not spray too much. Spray 1-3 seconds on each part.

Precautions when using scan spray

Scan spray is flammable. Do not use in areas subject to sparks or fire.

Do not inhale the scan spray.

Do not spray on skin or eyes.

Using a jig

Attach the clean scan object to a jig

Spray the object before attaching it to the jig

Use tack to attach the scan object to the jig. Shake the jig to make sure it is stable.

Place a jig the direction that matches the grooved underside (it will automatically click to connect).

The front of the model should be facing the user as you can see in the picture below



If scan data is not correct, additional scans can be performed if needed. After the scan, rotate the image so that the part needing additional scans is showing in front. Then, click [Add scan] ② or keyboard shortcut ③.

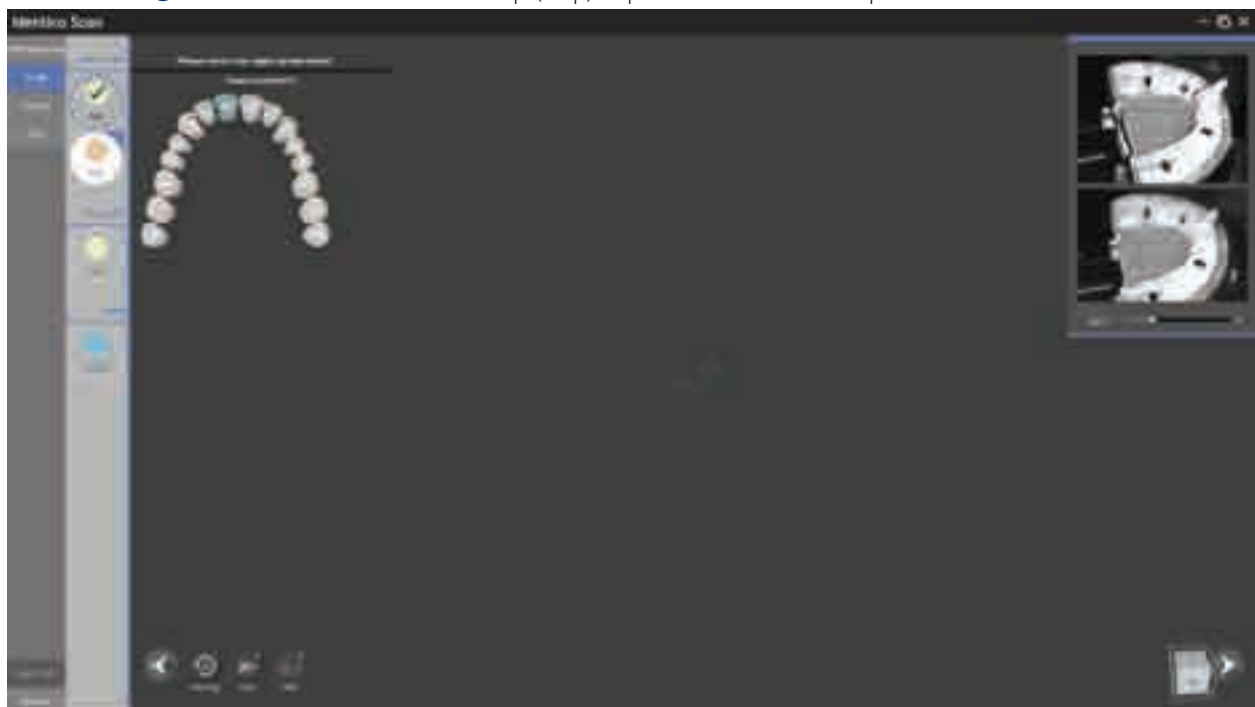


Before Add scan



After Add scan

Click the next④ button to move to the next step (Prep). Experienced users can skip to their desired location.



Prep.

Place only No. 11 tooth model attached to a base onto the scanner as the instruction from left above.

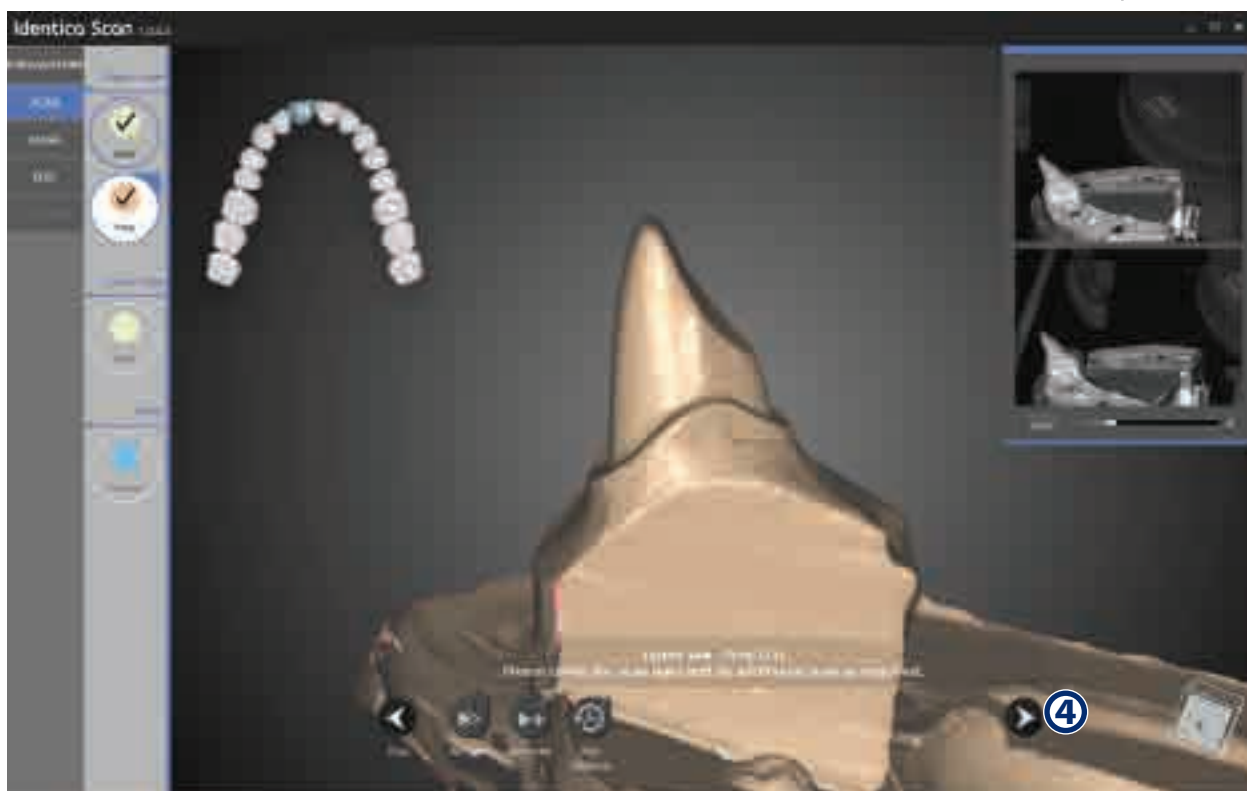
Then click "Auto" (or keyboard shortcut ①) to proceed with the scan.



Once the scanning of No.11 preparation is finished, check the data by rotating the model image. If additional scans are needed, click [Add] or keyboard shortcut **2**

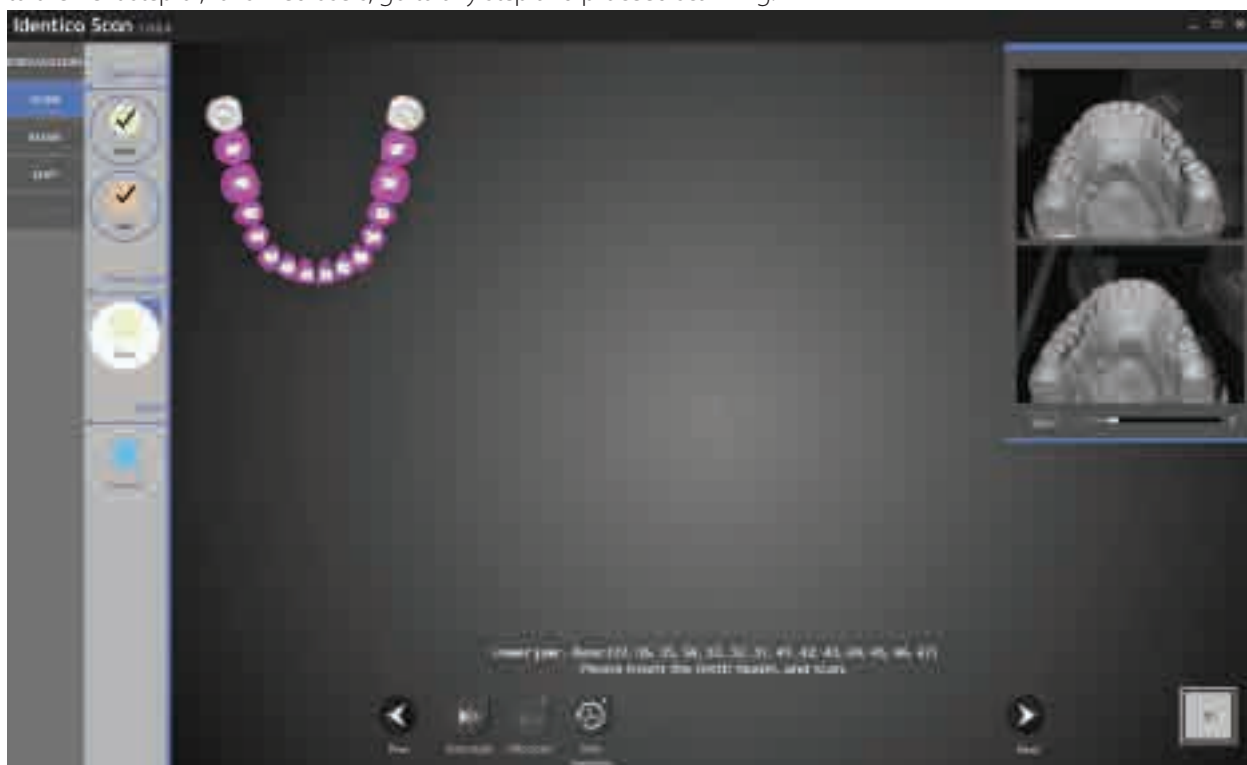


The area needs to be additional scans.



Finished add scan

When all of the necessary scans are complete, click button④ and move to the lower/base step. Click next to proceed to the next step or, for skilled users, go to any step and proceed scanning.



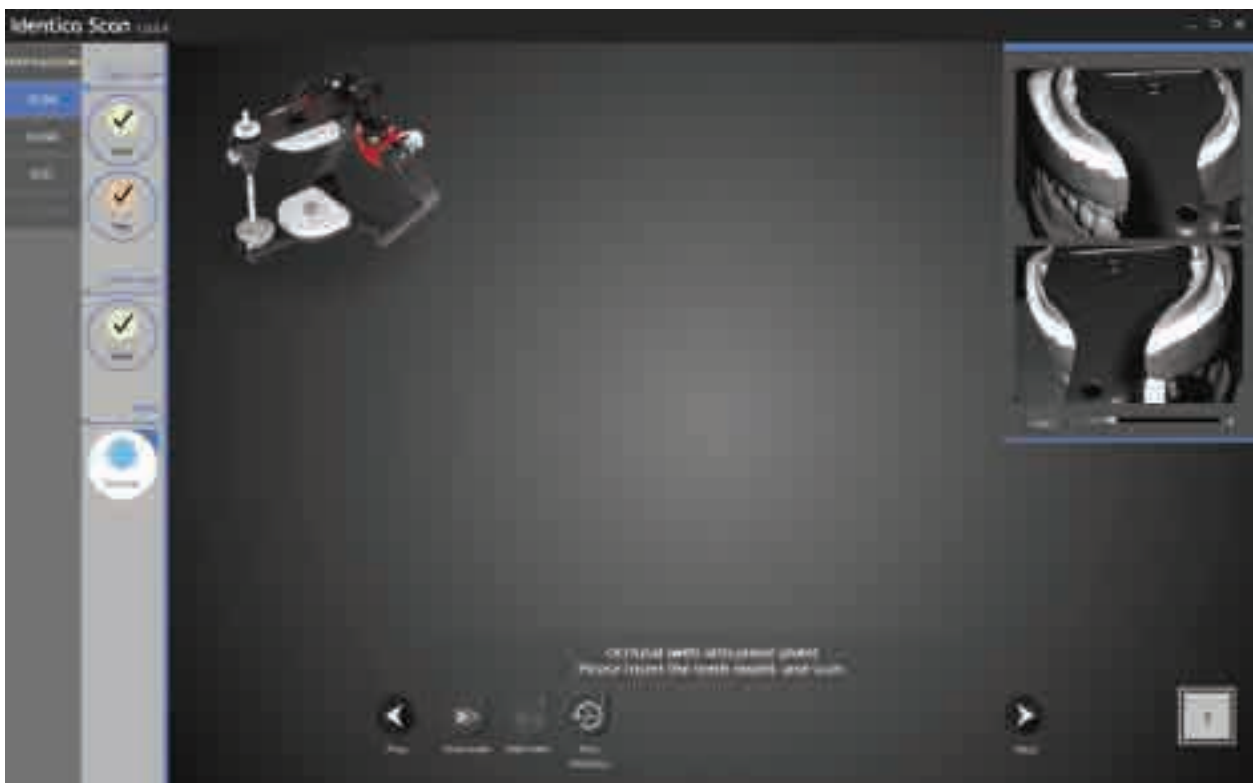
Follow the instructions in the upper left corner, click [Auto] or press② to proceed with the scan.



When the lower/base scan is complete, rotate the image to see if additional scans are needed. If needed, click “Add scan” or keyboard shortcut **2**.

(Normally there is no need of additional scans for antagonist.)

When the additional scans are complete, click keyboard shortcut **4** to move to the next step for the bite scan. Experienced users can move to any step they wish.



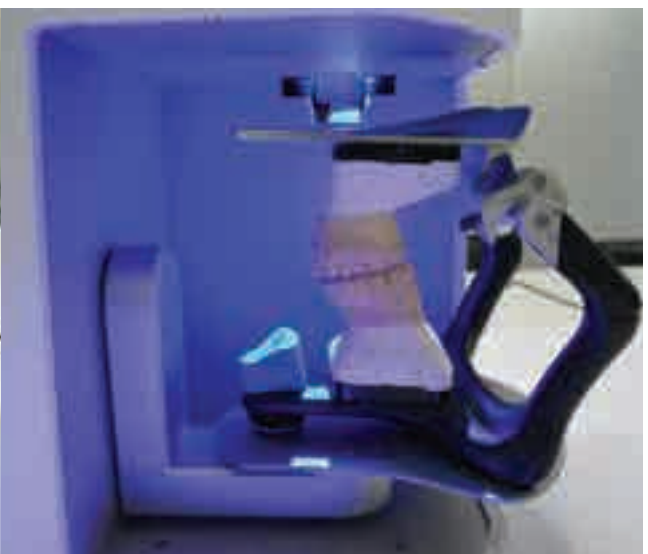
Follow the instructions in the upper left corner for mounting the articulator plate and articulator onto the scanner. Place the articulator plate as seen in the image below.



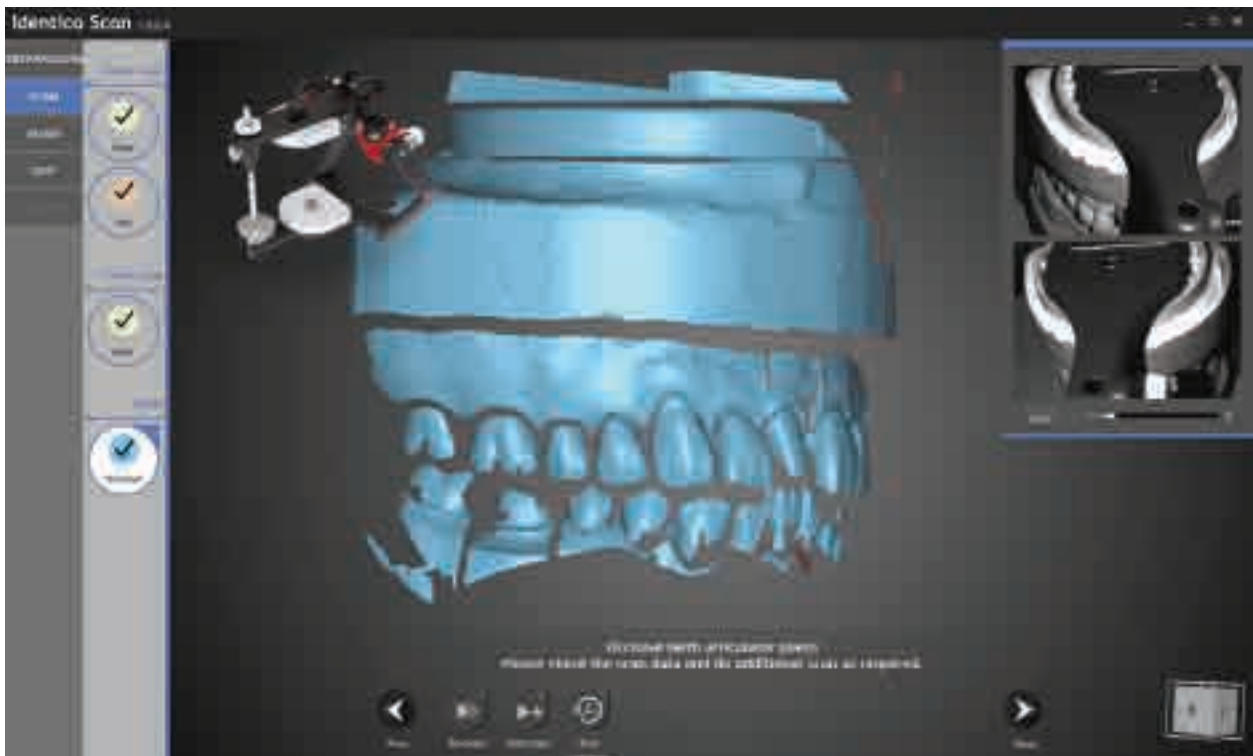
As seen in the image below, place the articulator on the articulator plate. Then, scanning will proceed capturing 4 cuts.



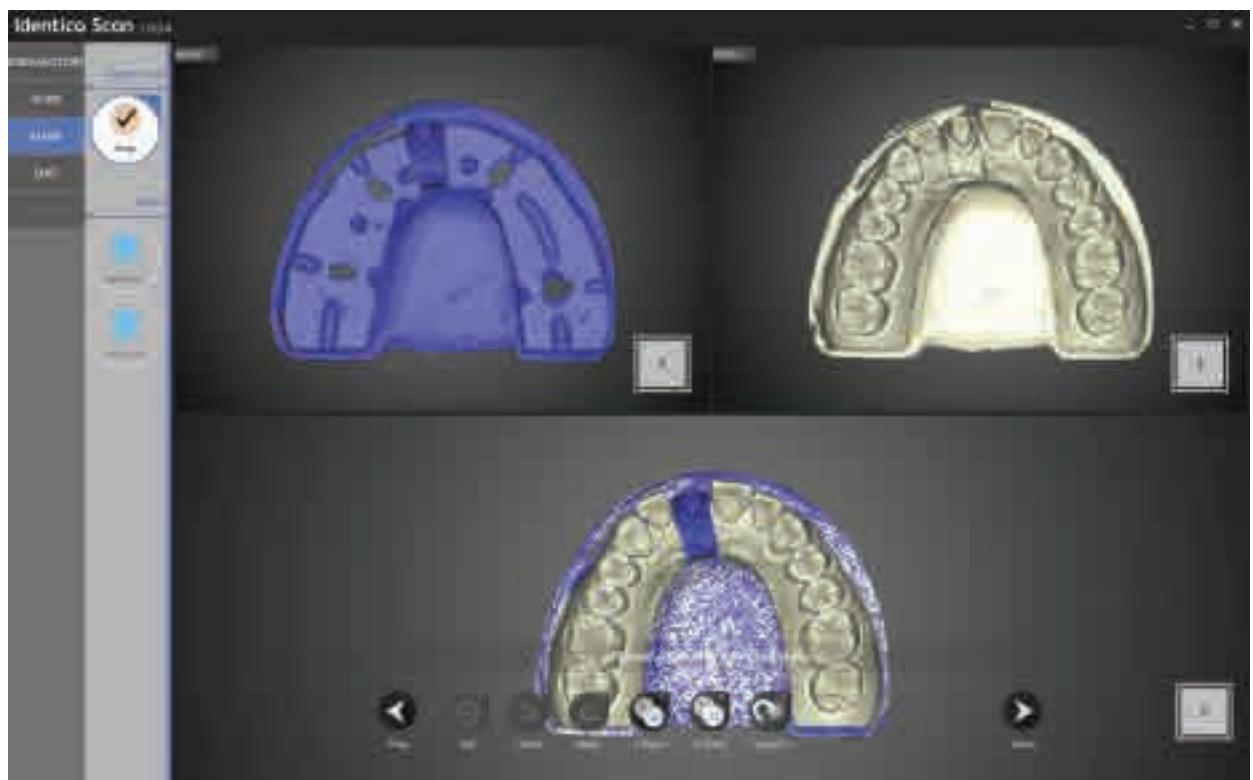
Articulator scan, 1st position.



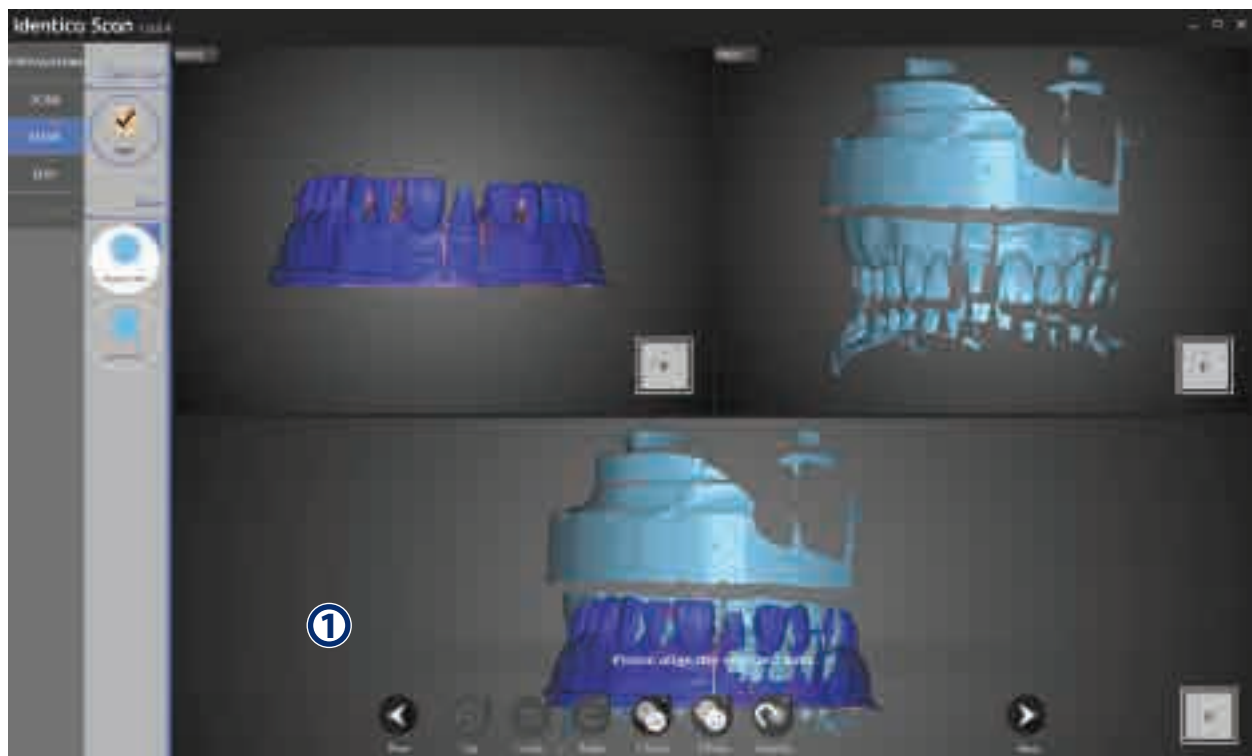
Articulator scan, last position.



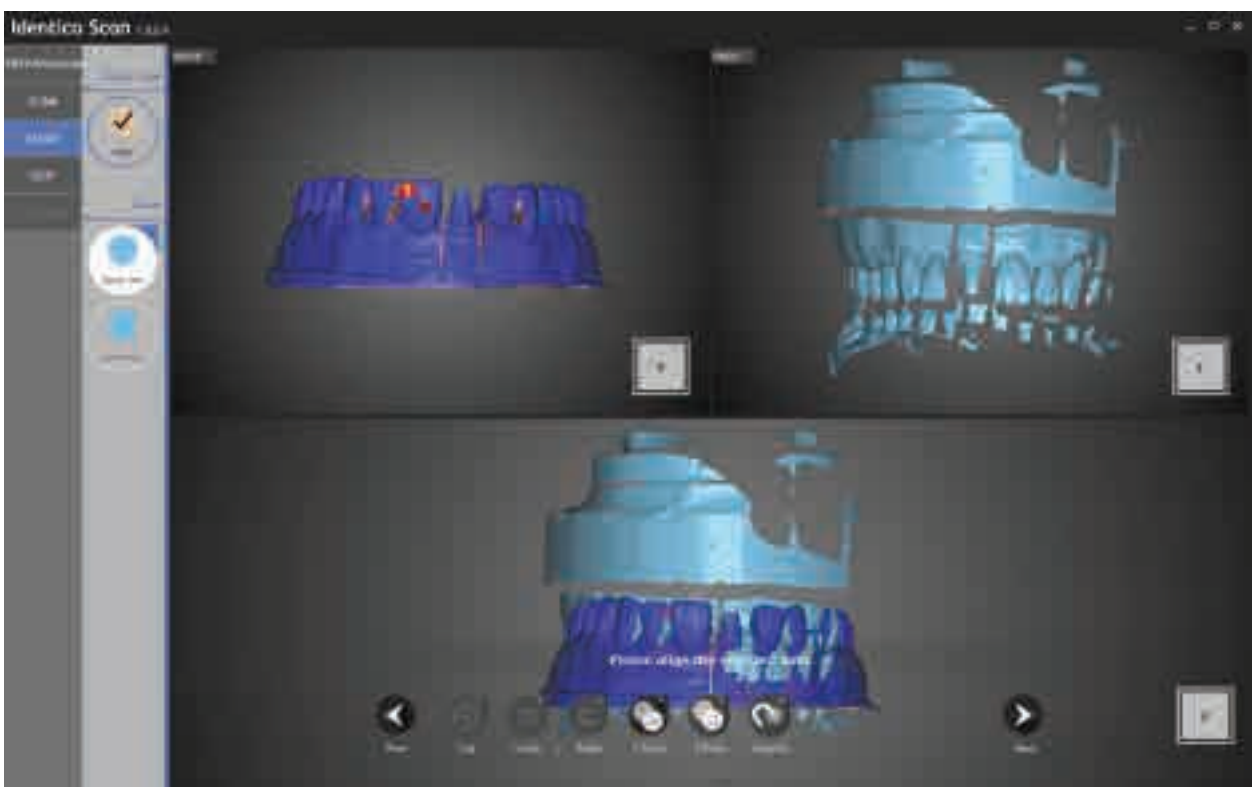
When the articulator scan is completed, click Next to proceed to the alignment step.



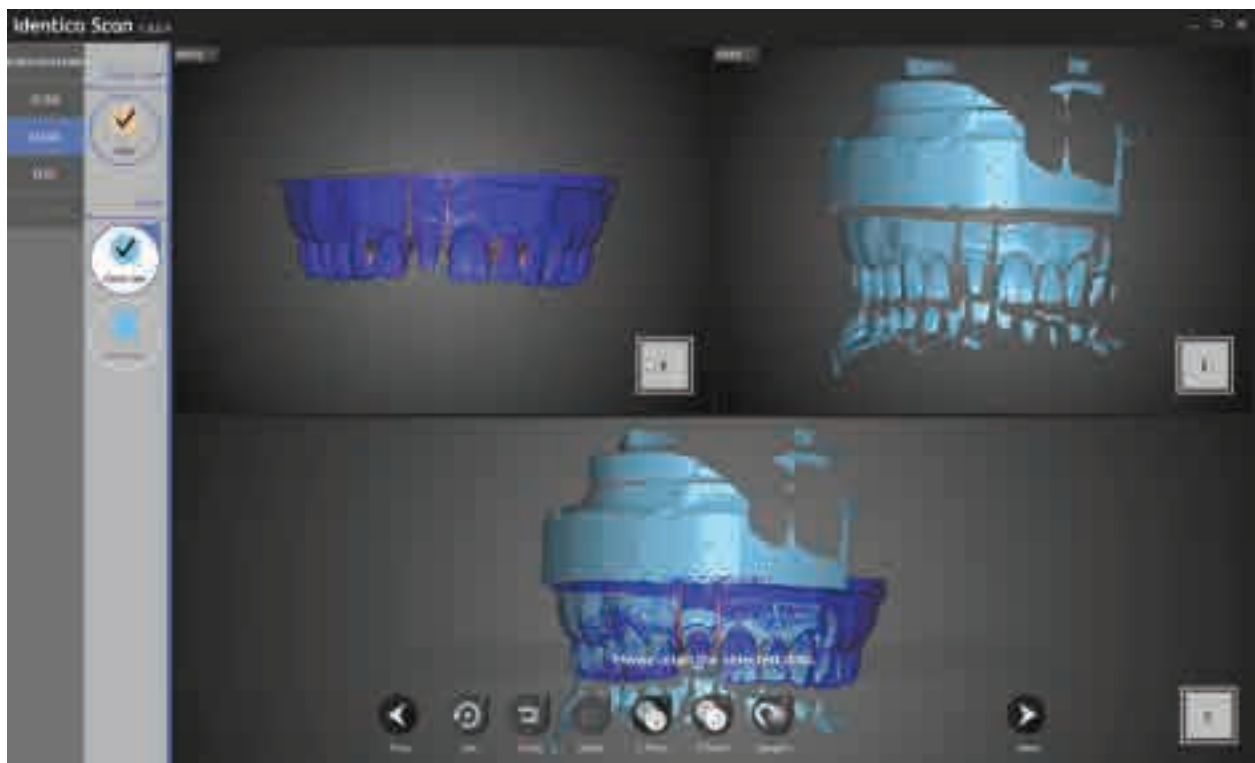
In the first step of alignment, alignment of the base and tooth No 11 is automatically done. If you click Next again, you can move to the upper jaw alignment. Experienced users can move to any step they wish.



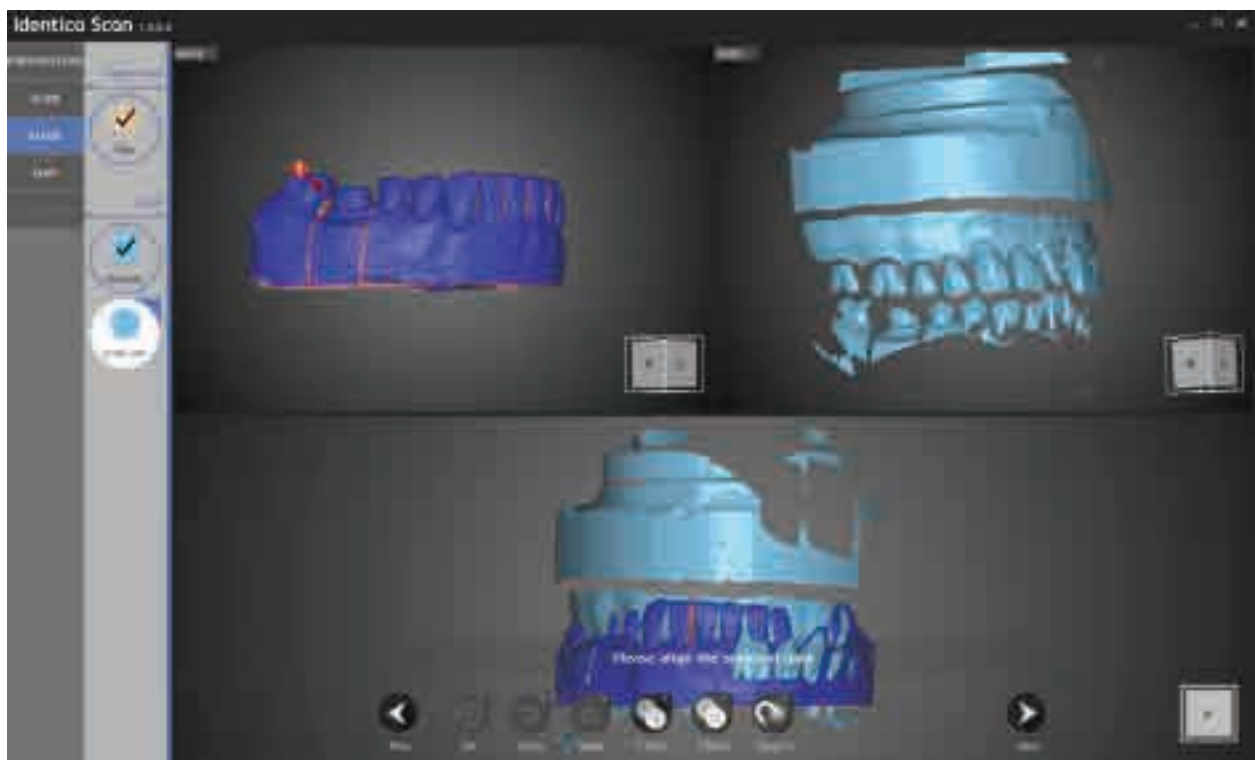
For the upper alignment, click align ① and choose 1 point align or 3 point align. This case will use the 1 point alignment method.



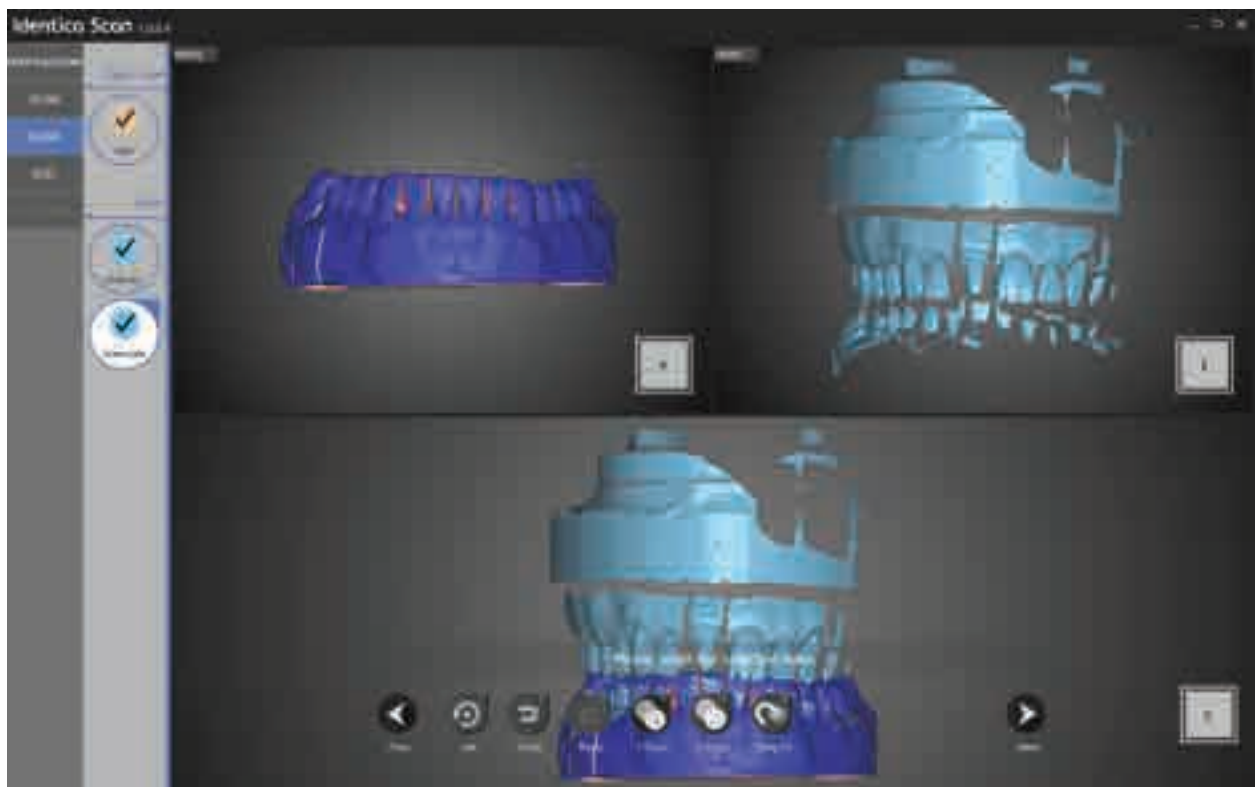
Click 1 points in the upper left image and then click 1 points in the right image whose locations are similar.



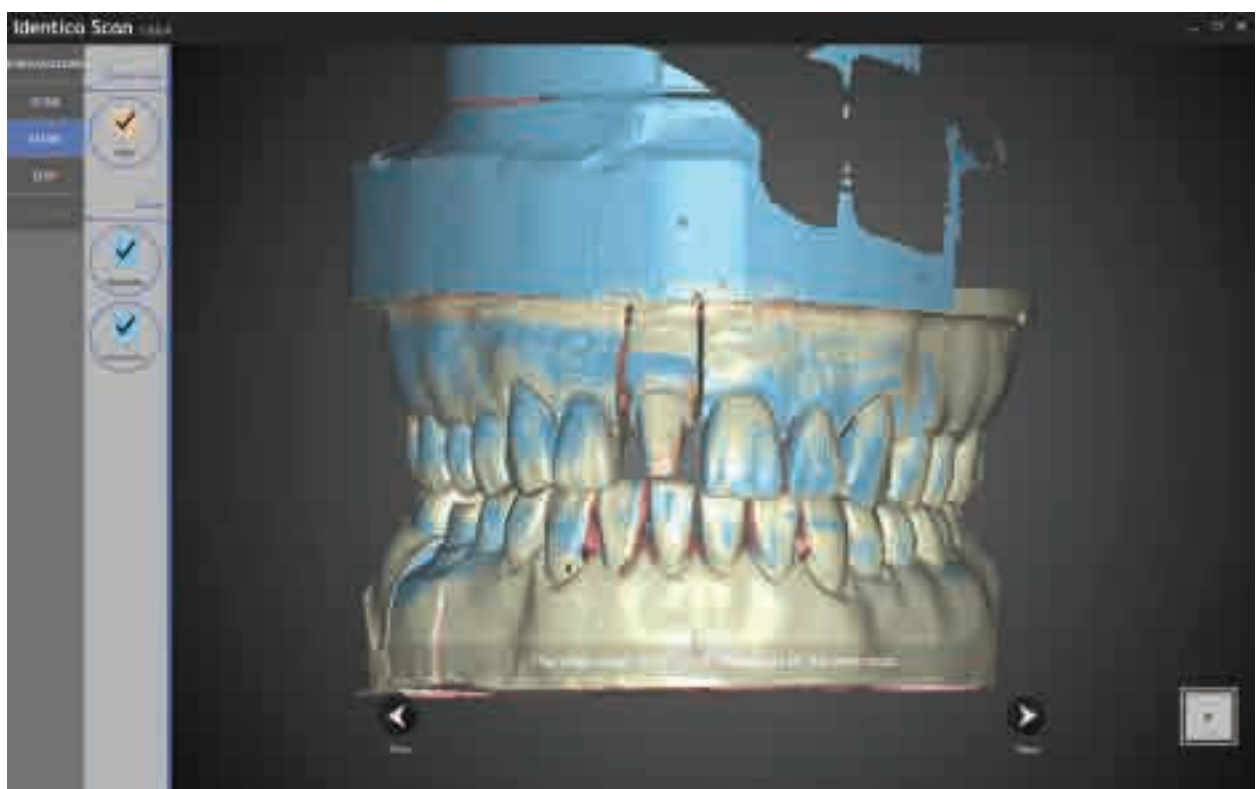
The upper align is complete.
Click next to proceed the lower jaw align.
Experienced users can move to any step they wish.



To align the upper and lower jaw, the three points must be the same on each scan using 3 point alignment.



When the lower jaw alignment is finished click Next to move to the [Edit] stage.

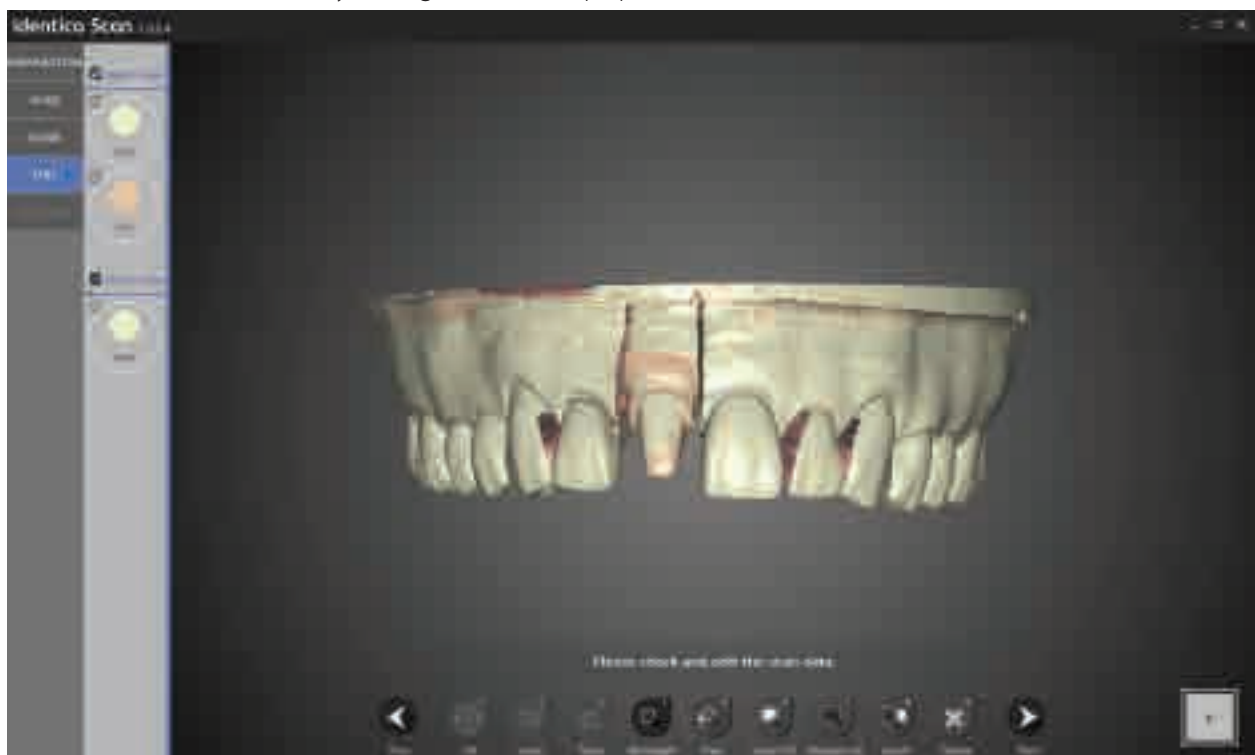


Scan data can be edited in the [Edit] stage



① Only the selected parts of the model can be seen.

You can select different views by making the model or preparation teeth visible or invisible.



Icon descriptions (at bottom of screen):

≡ Init : go back to initial data [keyboard shortcut ①]

≡ Undo : undo latest edit ②

≡ Redo : after undo-ing, reverts back to edited state ③

- ✚ **Rectangle** : select area in form of rectangle **4**
- ✚ **Free** : freehand draw a selection **5**
- ✚ **Select All** : select all data **6**
- ✚ **Deselect All** : removes all data from selection **7**
- ✚ **Invert** : selects data outside of the current selection **8**
- ✚ **Erase** : erases data **9**

Edit the data using the features above.

After editing the data, click Next, and the software will process and produce the scanned file in STL format.



Scan file is completed

If more edits are needed, simply go back to the previous step.

Click “Next” or “Save Edit” to store the scanned data file and exit the program.

11 single copings scan job is completed successfully.

Appendix - Scan case

3 Unit Bridge

Waxup

Single Impression

Double Impression

Implant scan adapter

Flexible multi-die

3 Unit Bridge

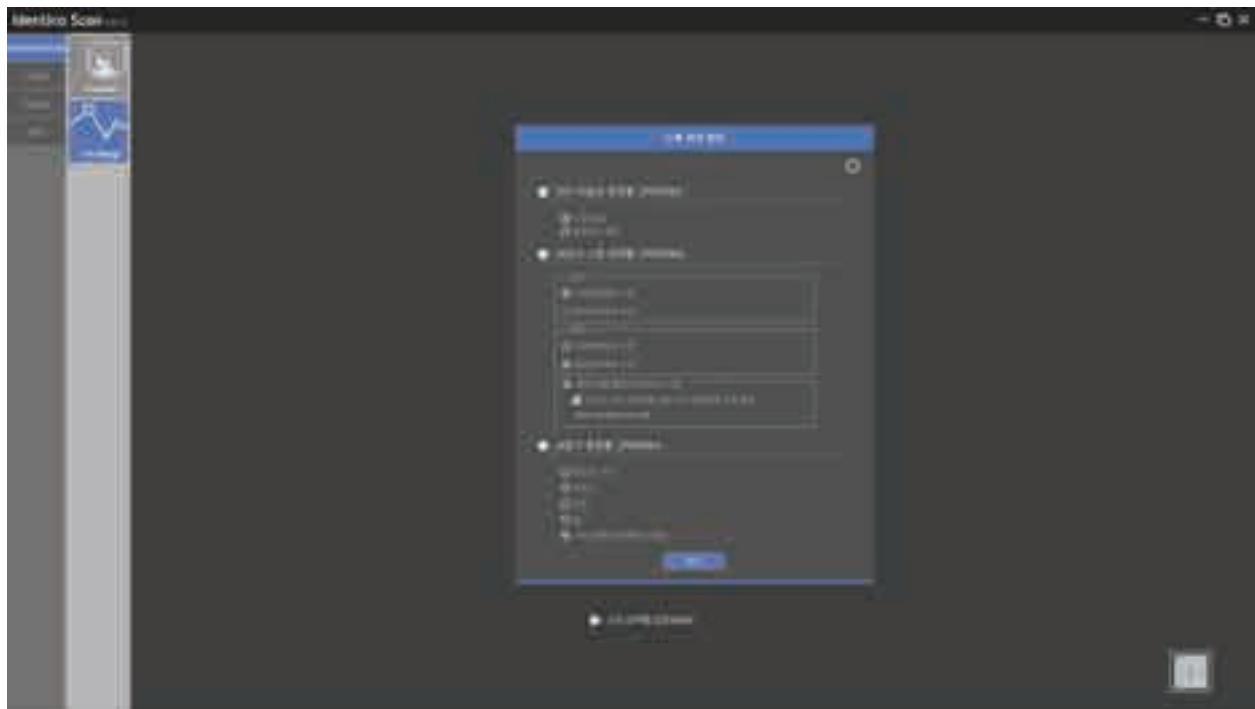
Tooth setup



- Enter the scan settings for the model to scan.
 - Refer to tooth settings
 - * Implant type – None, Situ scan – No, Gingiva – No
- Articulator - Medit / Etc.
- Click the “Save” button.
- Click the “Scan” button to begin scanning.

The first time you connect your scanner, it will take around 30 seconds to boot. After the first installation, it will take around 3-5 seconds. Also, during the scanner connection process the projector will momentarily blink, and then the connection will be completed.

When the scanner is connected properly, it will automatically advance to the Preparation Strategy and determine the scanning process.



* Preparation - Strategy

- 3 Select the Unit Bridge upper base, lower base multi-die, or articulator, click “OK” and proceed to the next step.
 ■ See the “Single scan coping” step for more details.

* Scan



As in the image above, follow the instructions in the upper left corner and insert the model and click “Auto scan” to proceed with scanning.



Scan proceeding.



As in the image above, the upper base model is finished.

If scan data is correct, continue with additional scans if necessary. Rotate the data image to the part of the scan that needs additional scans and click “Add scan” or keyboard shortcut **3**

In most cases, additional scans are not needed.



Before additional scans



After additional scans

Click the “Next” button and move to the “Prep” stage. Experienced users can skip to any part of the scan process.

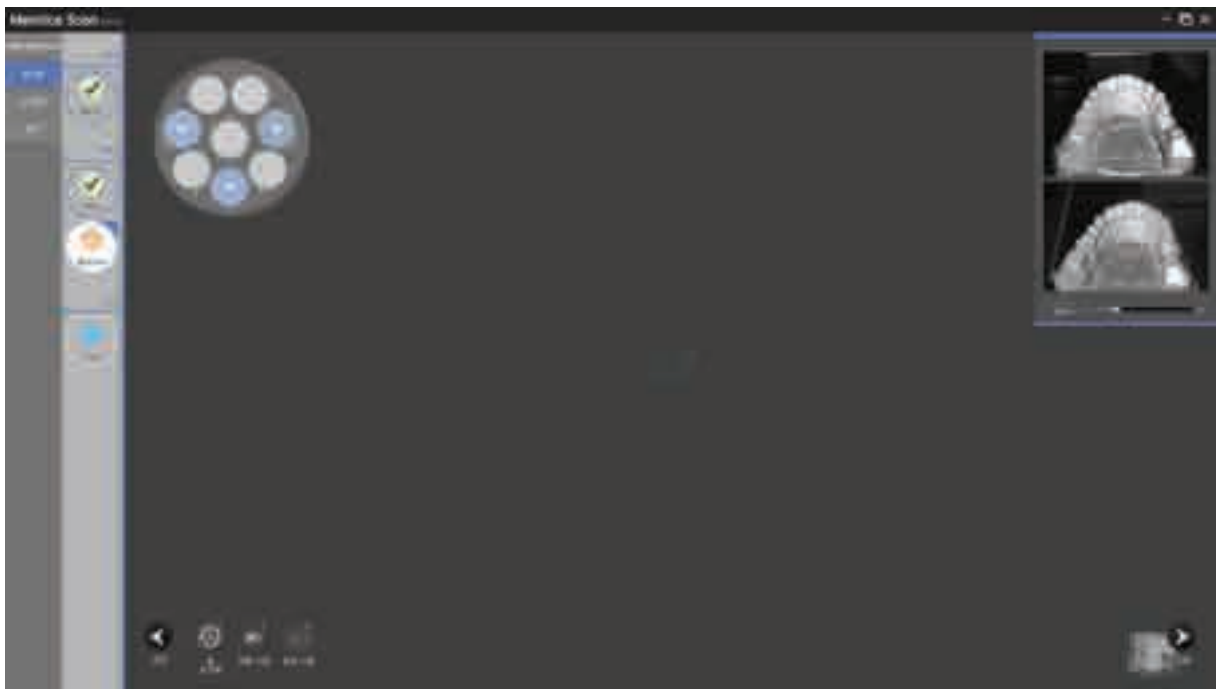


Following the instructions in the upper left corner, insert the lower model and click “Auto Scan” **2** to proceed with scanning.



When the lower base model scan is finished, rotate the data model and check the data, click “Add Scan” **3** if needed.

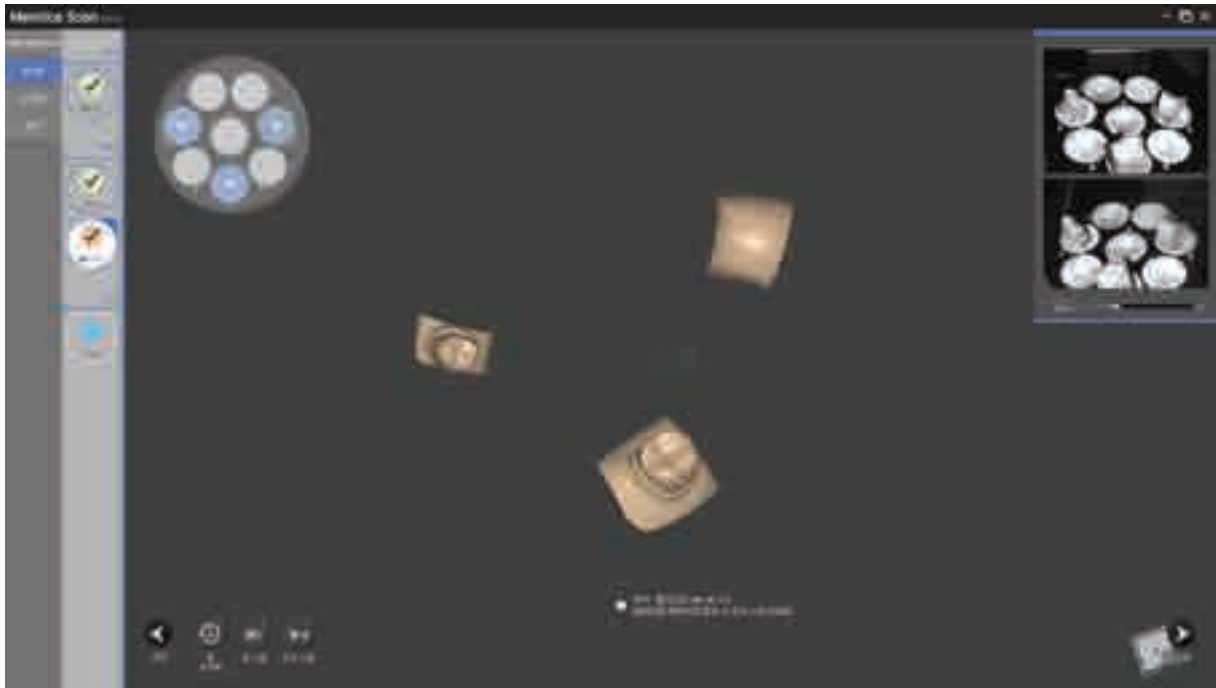
Click “Next” to proceed to the multi-die stage. Experienced users can move to any stage.



Click the “auto scan” button or press **2** button on the keyboard after set the preparation teeth 35, 37 and pontic base on the mutidie for the scanning.



When scanning with multi-die, 2 base jigs must be used.



Check the scan data and perform additional scans if needed. Click “Next” to move to the next stage. Experienced users can skip to any stage.

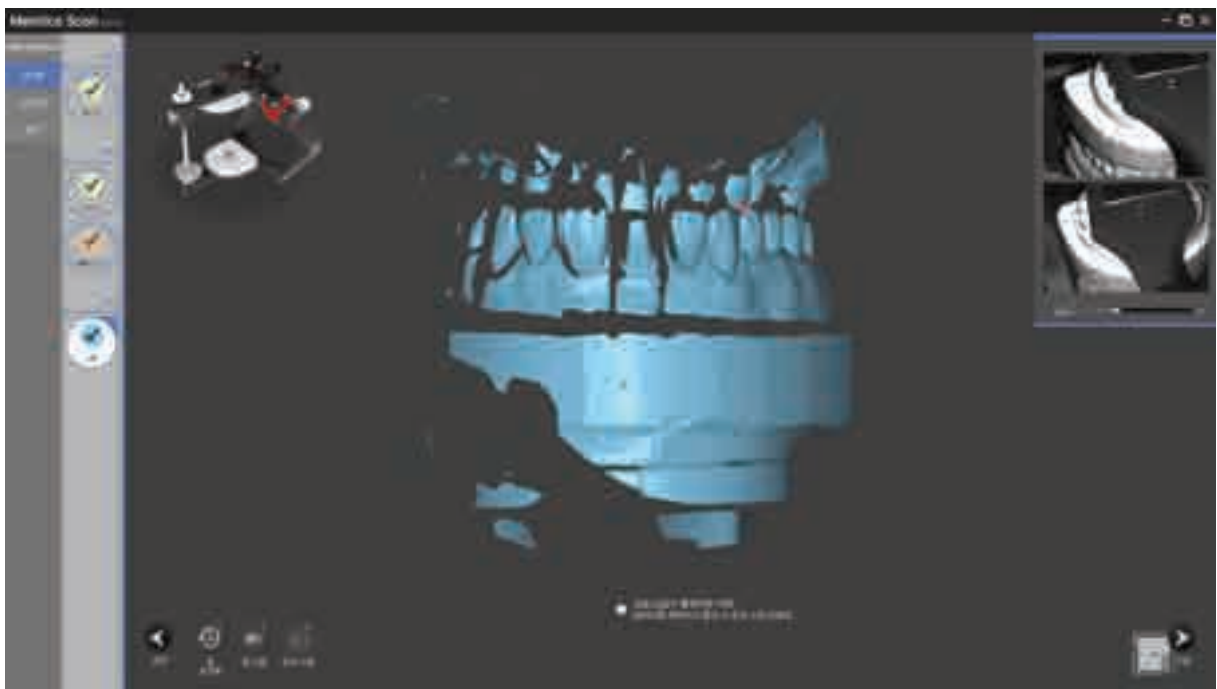


Following the instructions in the upper left corner, place the articulator on the articulator plate.

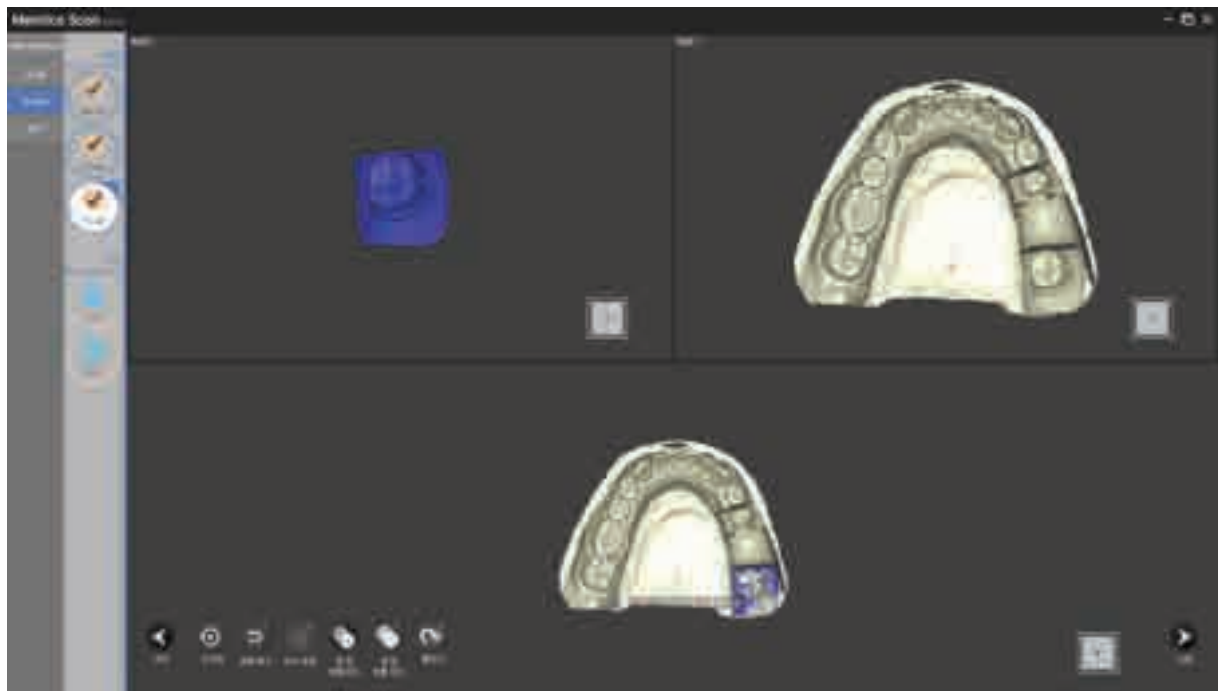


Use a screw jig when scanning two upper/lower base models.

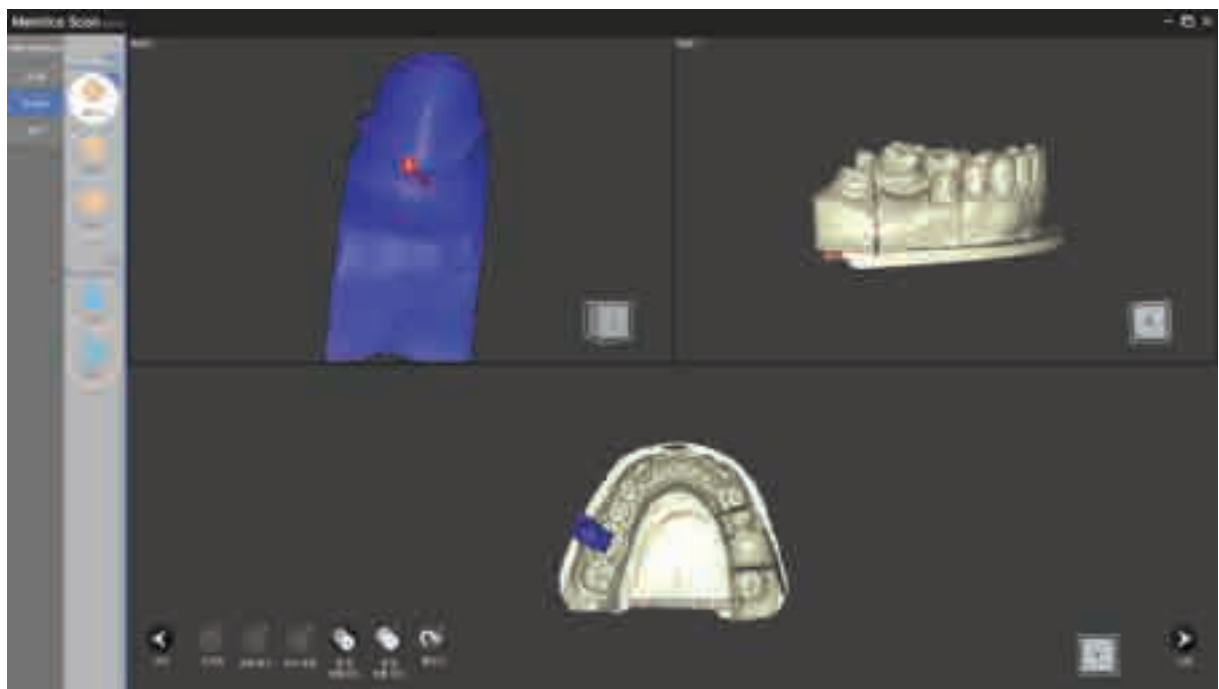
Final articulator scan image



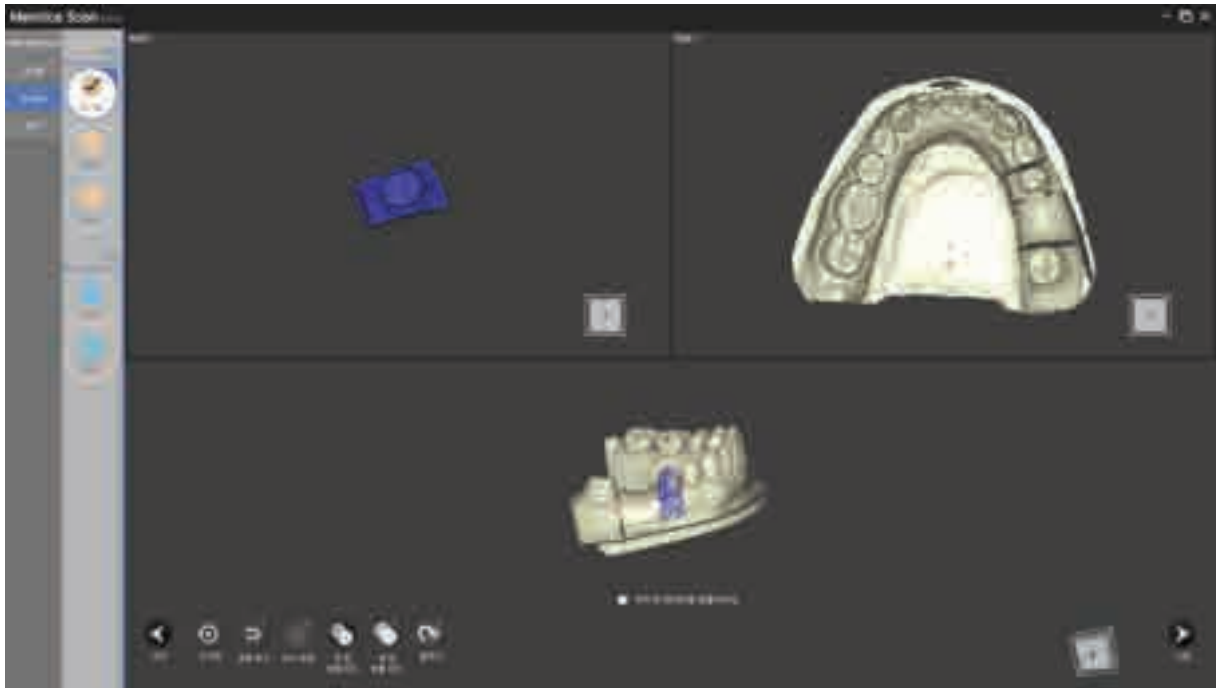
When the articulator scan is finished, click the “Next” button and move to the “Alignment” stage.



Use 1 point or 3 point alignment and click on the corresponding points in each scan image using alignment points.

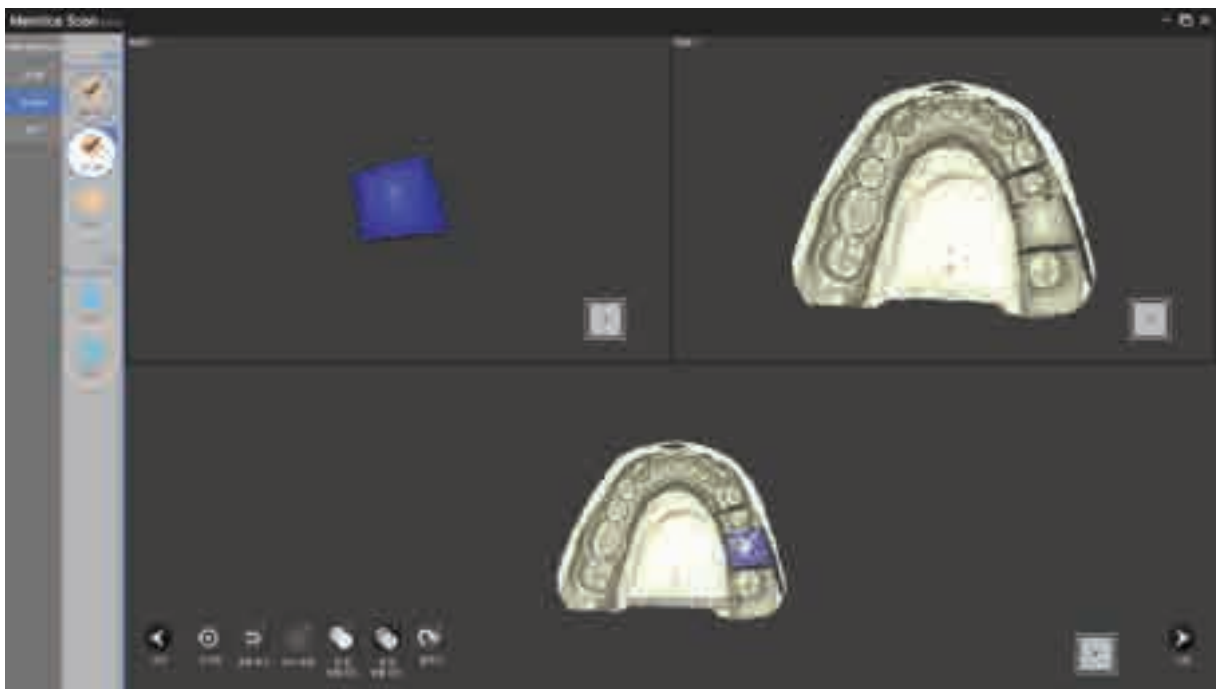


Click 1 points in the upper left image and then click 1 points in the right image whose locations are similar.

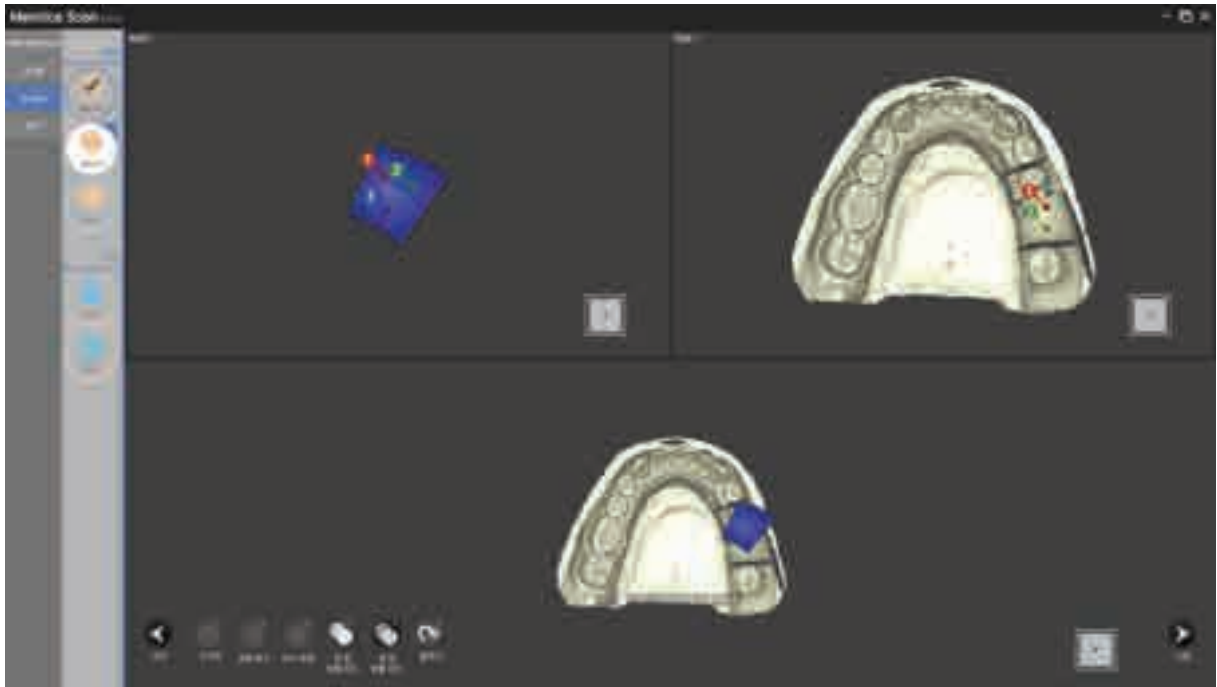


#35 successful alignment

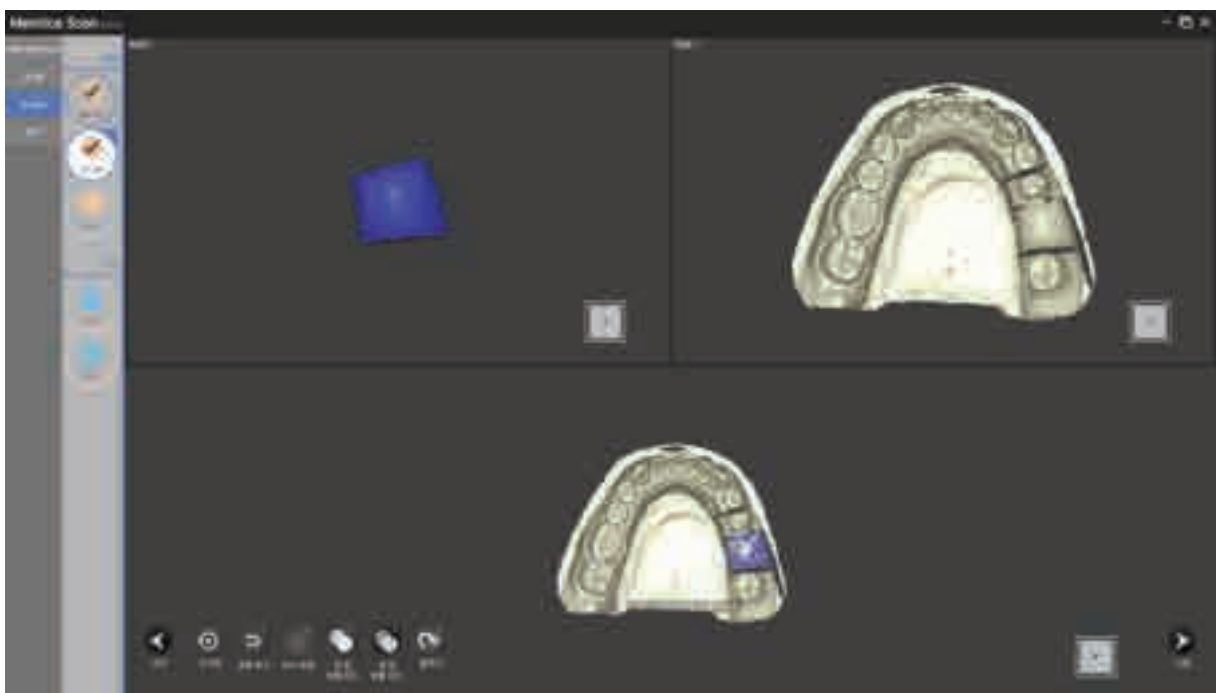
Click “Next” or keyboard shortcut “Spacebar” **Space** “Enter” **↵** to move to the next step. Experienced users can move to any stage.



#36 pontic alignment step. Proceed using 3 point alignment.



On the upper left blue model, click one point and then find and click the same point in the right sky blue model.

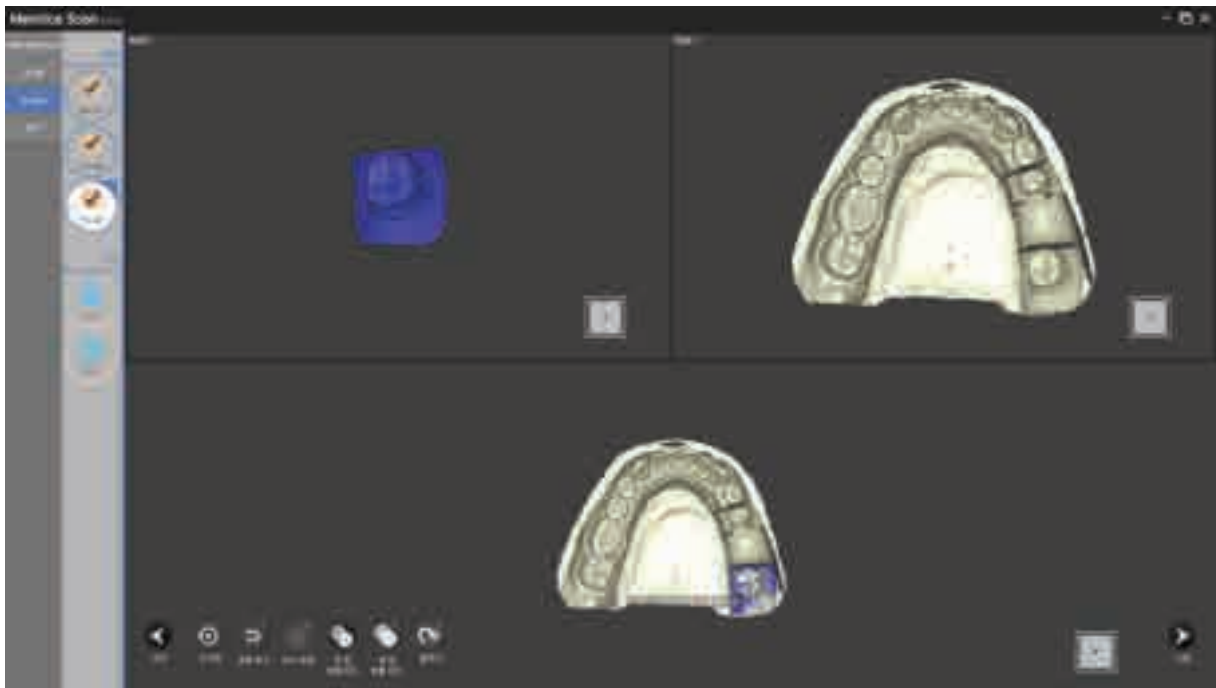


#36 pontic alignment complete.

Click "Next" or keyboard shortcut "Spacebar" **Space** "Enter" **↵** to move to the next step.

Experienced users can move to any stage.

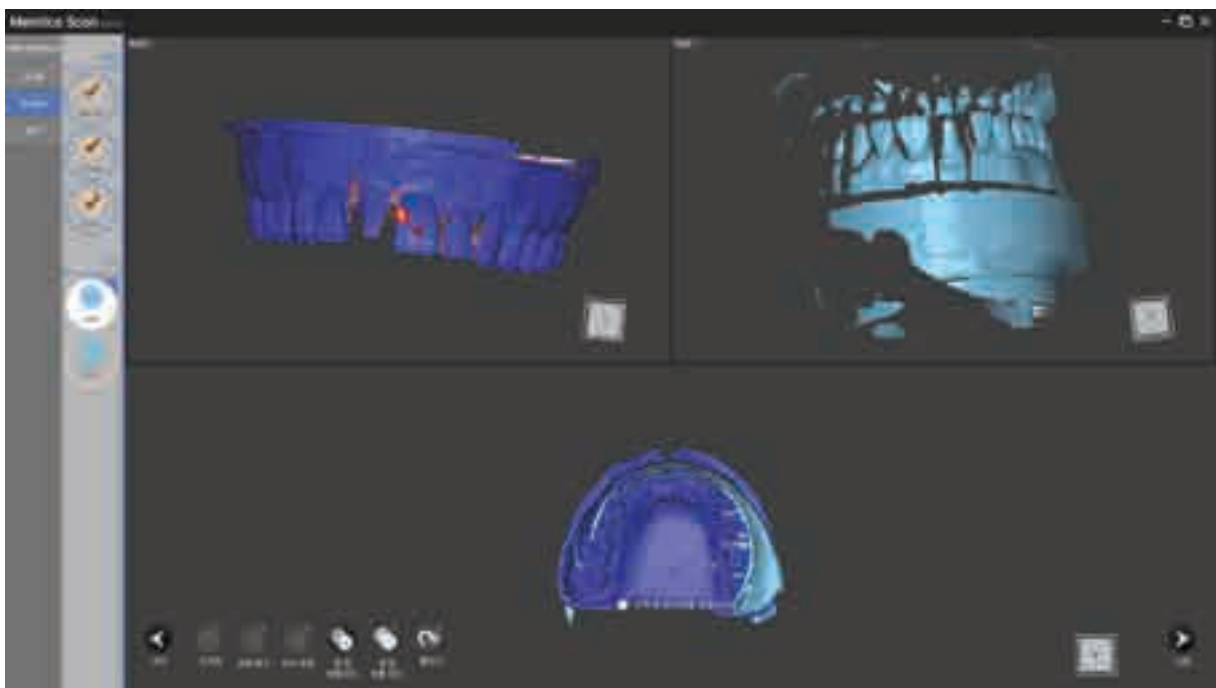
#37 abutment alignment step. One point alignment.



#37 tooth alignment is complete.

Click "Next" or keyboard shortcut "Spacebar" **Space** "Enter" **↵** to move to the next step.

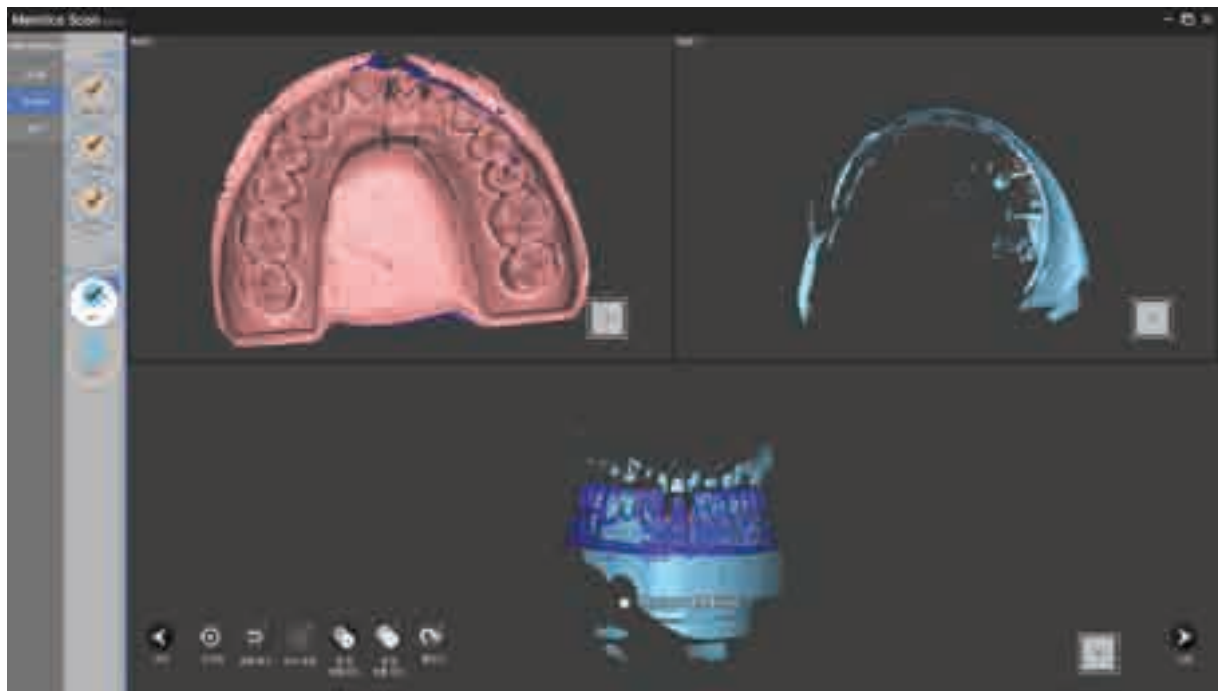
Experienced users can move to any stage



Upper base articulator alignment stage

Select 1 or 3 point alignment and select similar points in the left and right data images for alignment.

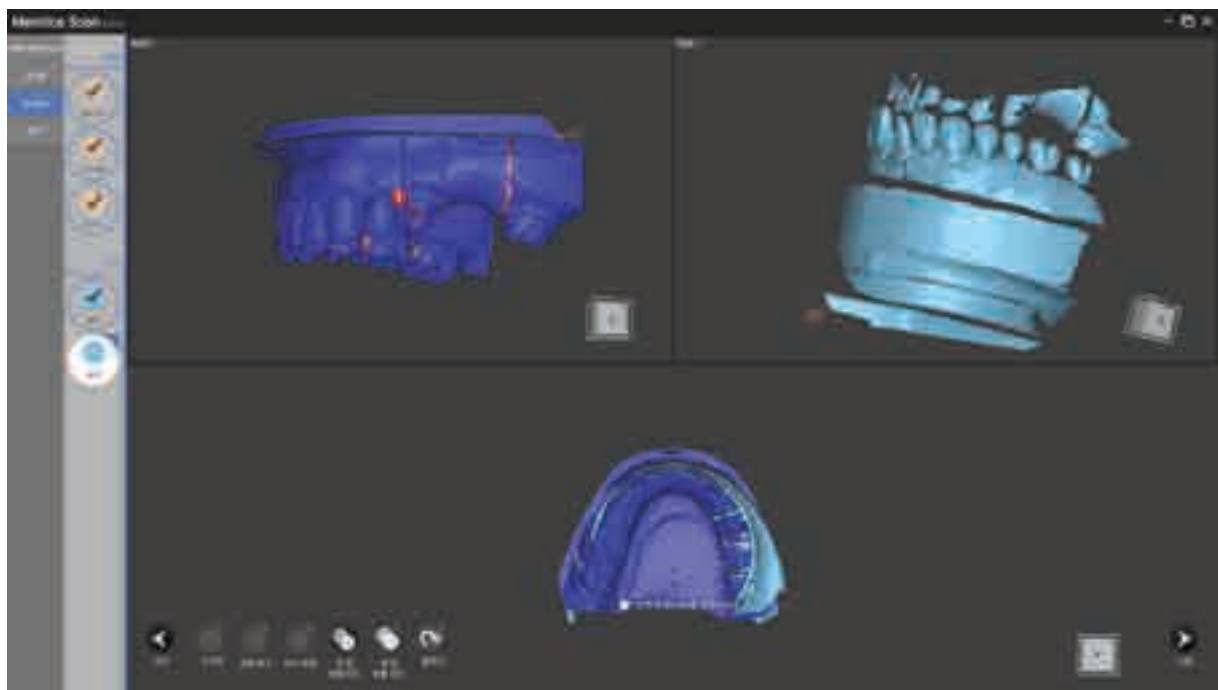
This case will show 1 point alignment.



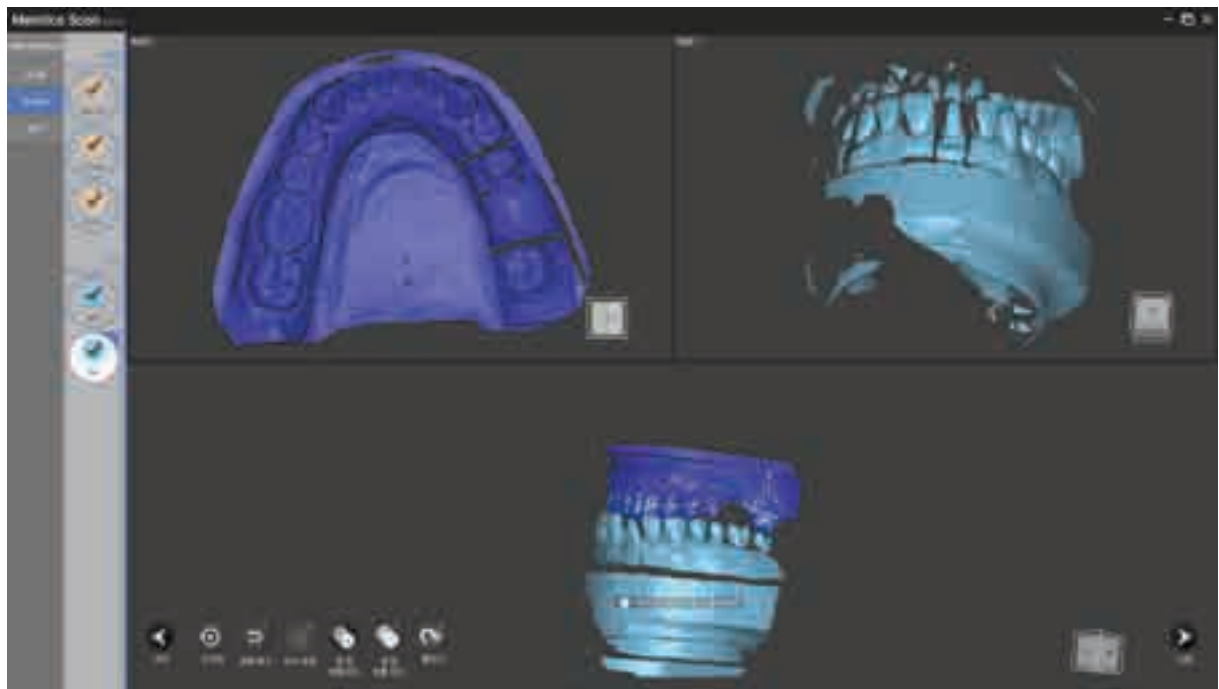
Upper base articulator scan complete

Click "Next" or keyboard shortcut Spacebar **Space** "Enter" **Enter** to move to the next step.

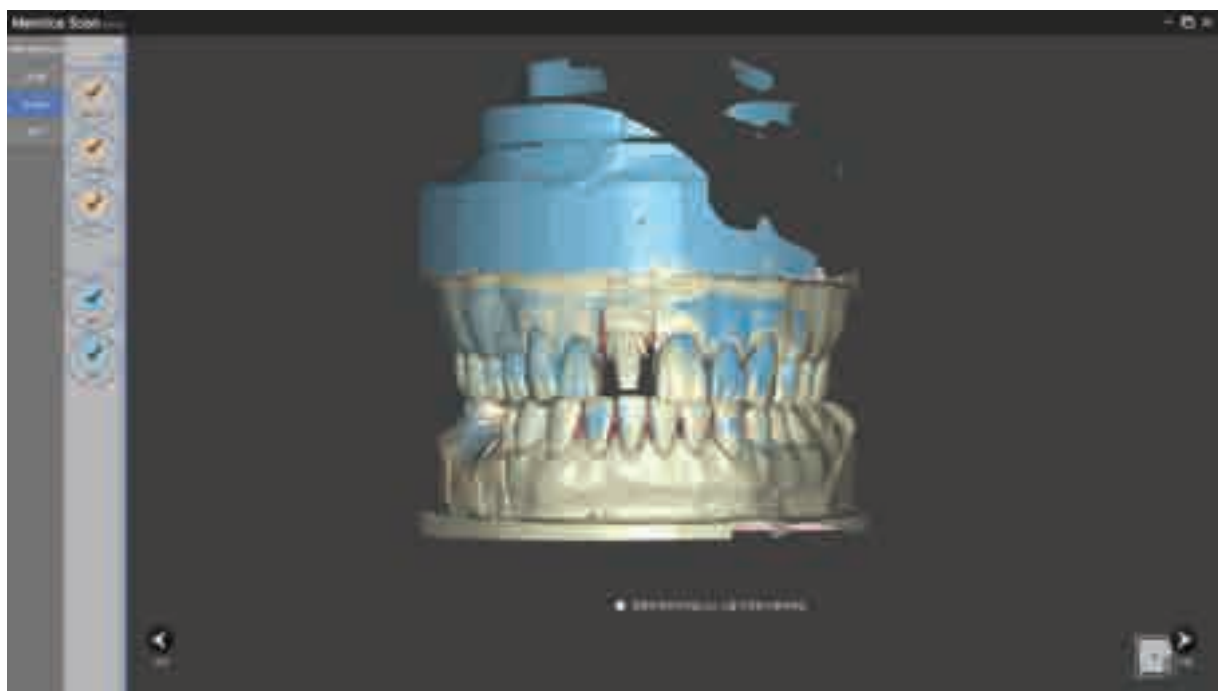
Experienced users can move to any stage.



Align the lower base and upper base using 1 point alignment.



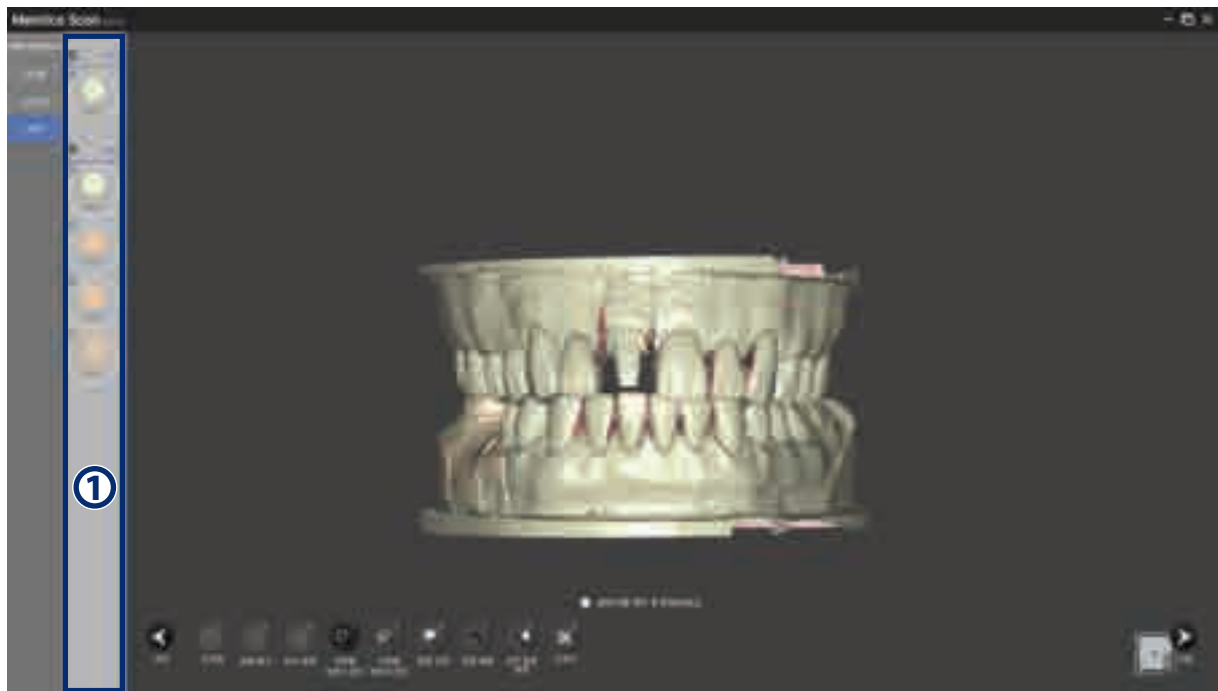
Lower base alignment complete, articulator alignment complete.



Alignment is complete. Check the data.

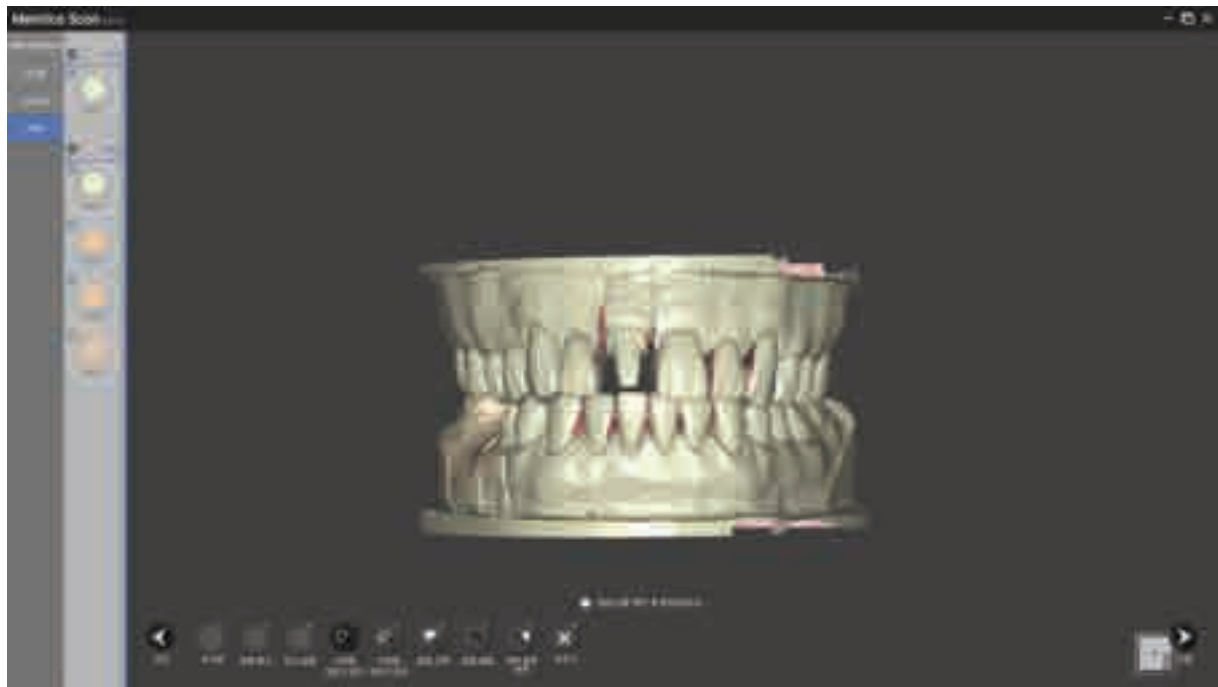
Click "Next" or keyboard shortcut "Spacebar" **Space** "Enter" **↵** to move to the next step.

Experienced users can move to any stage.



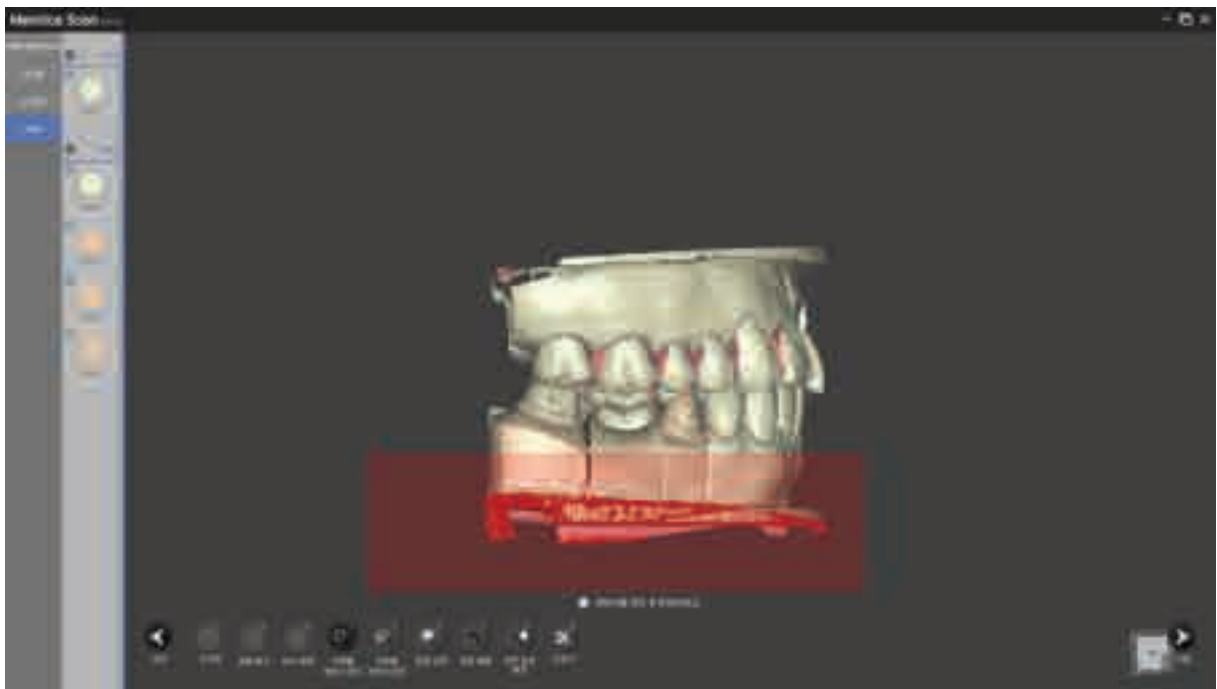
“Edit” stage

① Check the models and select the model to edit. Users will only see the model to be edited.

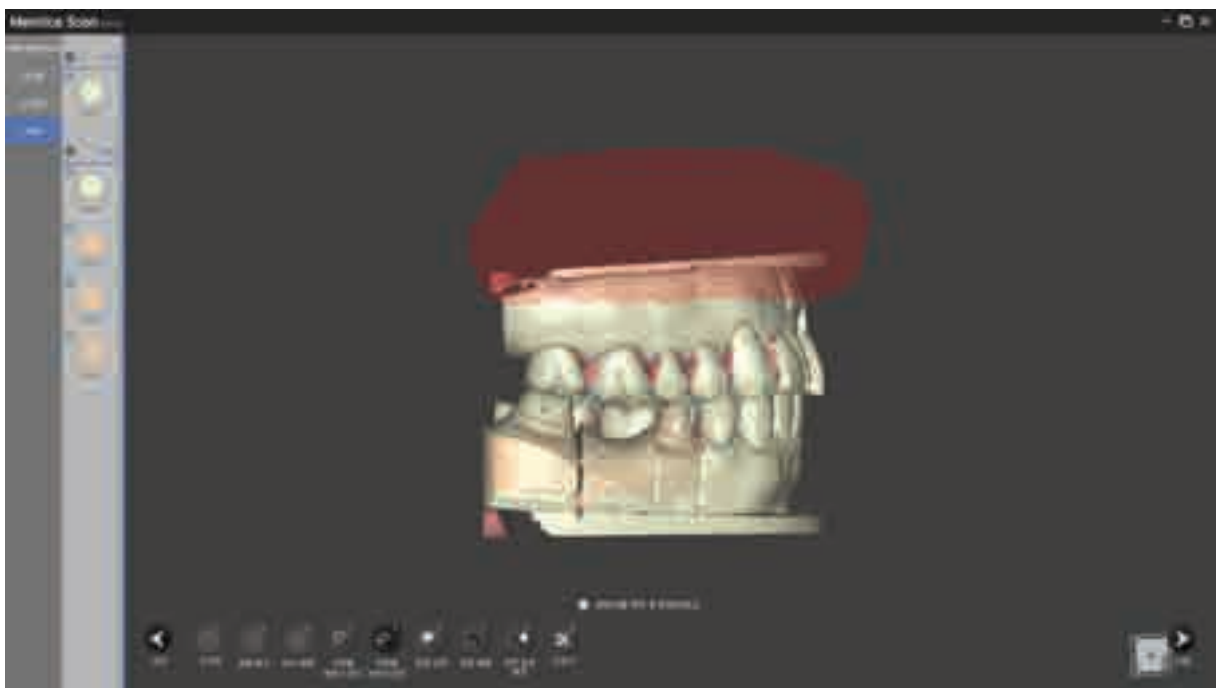


Use the icons at the bottom of the screen to continue editing the scan data.

■ Refer to the “Single copings” section for detailed descriptions of the icons.

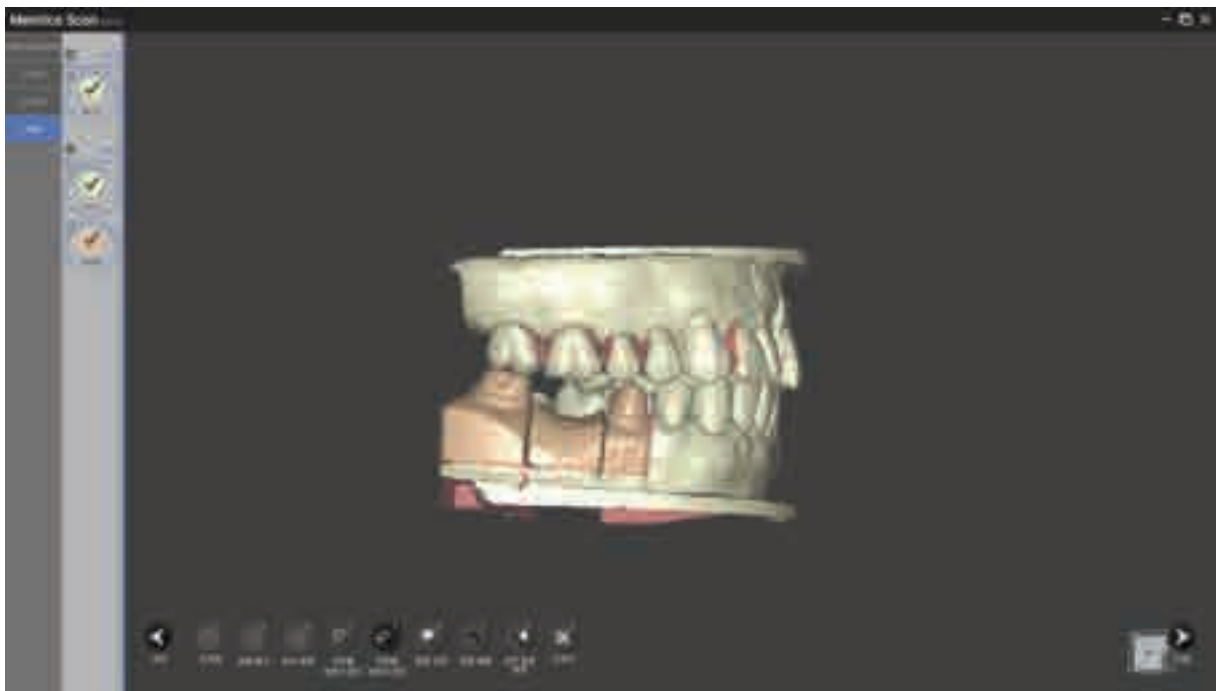


“Square cut mode” is selected on the screen.



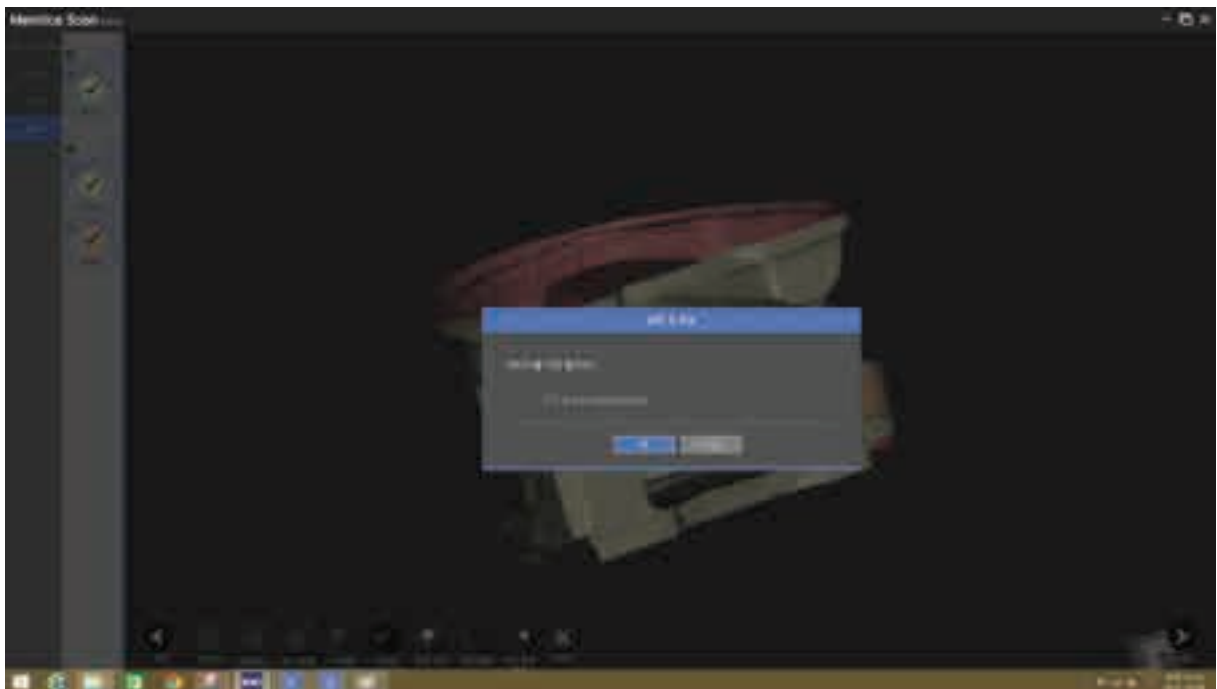
“Free coping mode” is selected on the screen.

After selecting the desired area, click “Delete” to delete the selected part. When finished with editing, click “Next” for data processing and STL file production.



Scan file production is complete. Editing is still possible as shown in the previous step.

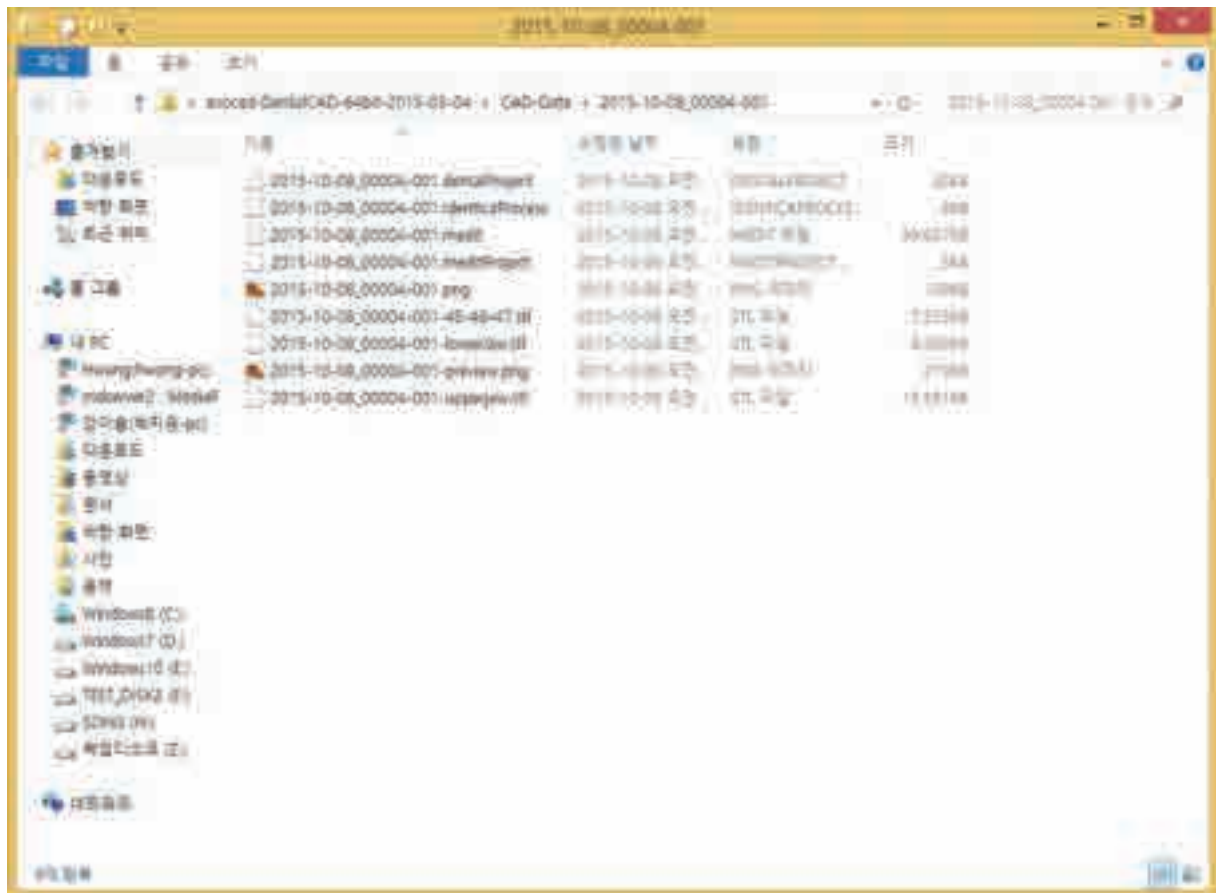
Click “Next” or click “Save Exit”^①.



When the scanning is completely finished a prompt will appear. Click “Yes” to save the scanned data and exit the program.

#35-37 3 Unit Bridge scan jobs are successfully completed.

The data can be checked in the Settings folder.





Tooth settings



- Enter the settings for the scan model

Refer to teeth settings.

Proceed with cases 11 – 16. #6 Unit Wax-up Bridge Framework and #16번 Wax-up crown.

* Implant type – none, Situ scan – No, Gingiva scan – No, Articulator - none

- Click the “Save” button.

- “Press the “Scan” button and scanning will begin.

The first time you connect your scanner, it will take around 30 seconds to boot. After the first installation, it will take around 3-5 seconds. Also, during the scanner connection process the projector will momentarily blink, and then the connection will be completed.

When the scanner is connected properly, it will automatically advance to the Preparation Strategy and determine the scanning process.

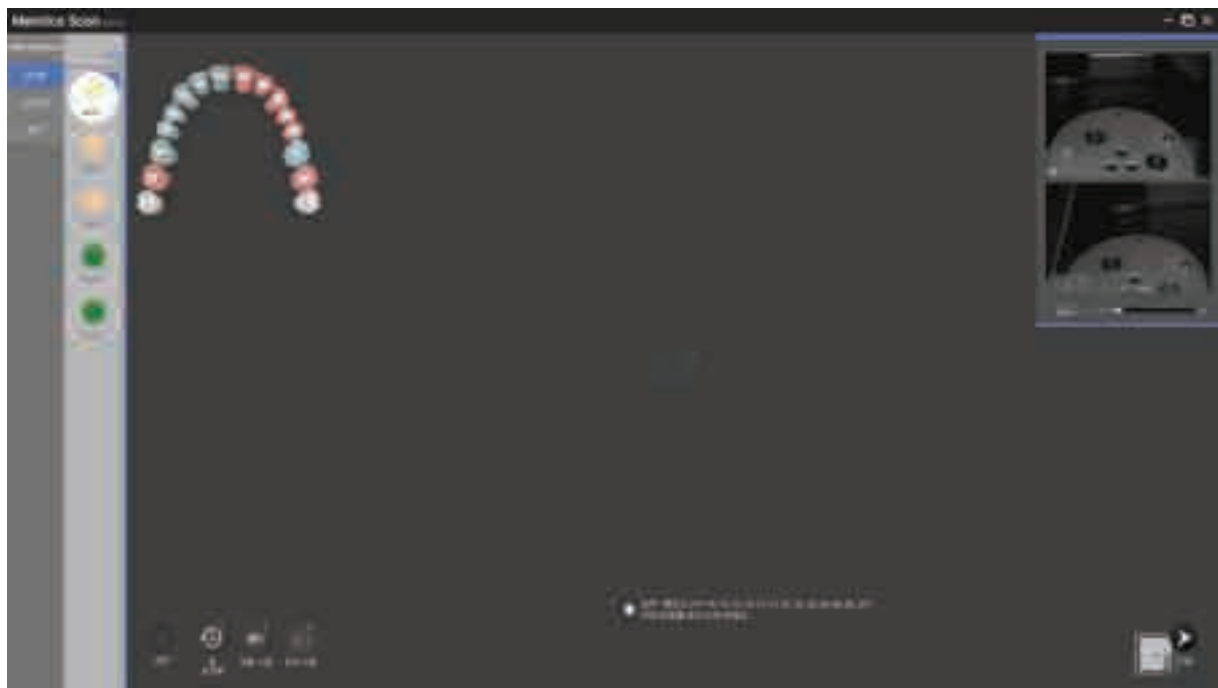


*** Preparation - Strategy**

Select #6 Unit Bridge and upper crown model and click “OK” to move to the next stage.

■ See “Single scan coping” step for more information.

*** Scan**



As in the image above, following the directions in the upper left corner, insert the lower jaw model and click “Auto Scan” **2** to proceed with scanning.

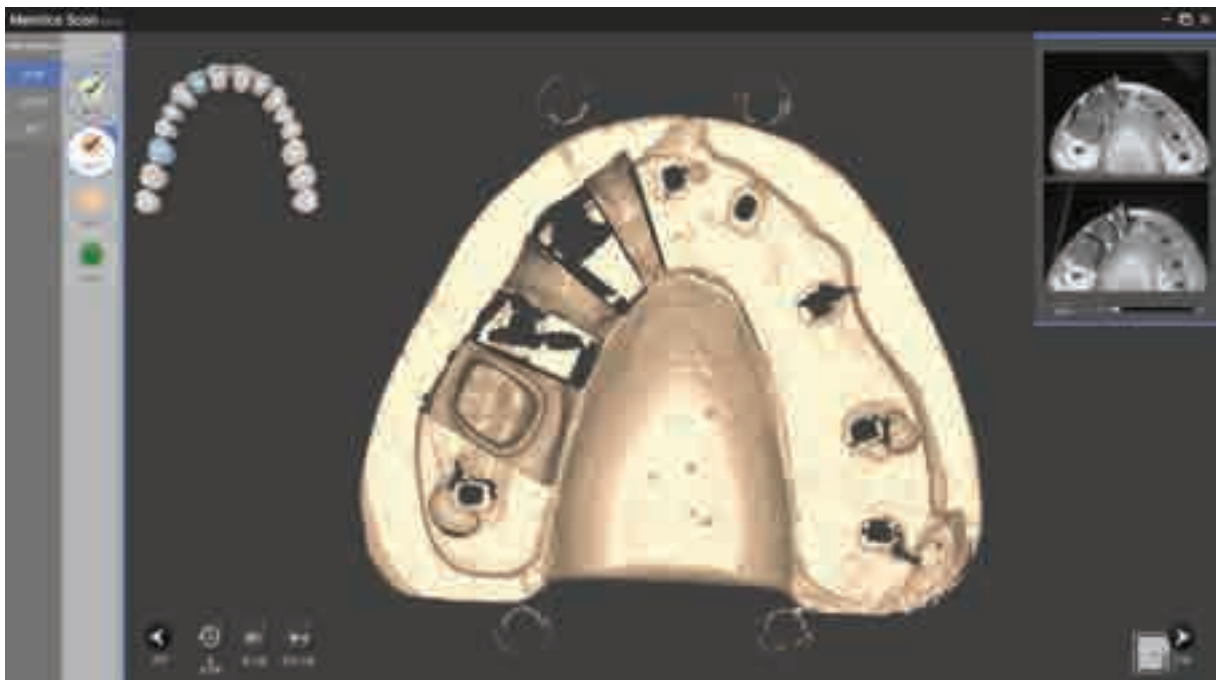


The picture above shows the completion of the upper teeth base model scanning. If the scanning data does not meet the desired result, proceed with extra scanning. Rotate the data image to the location that requires additional scans and click on “Add Scan” **3**. In most cases, you will not need any additional scanning.

When scanning crowns, proceed the scanning on the closest contacts on CAD. You can proceed to the next step easier. Click on the “Next” button to move to the next stage “Prep”. If you are an expert user, just choose what you want to scan.

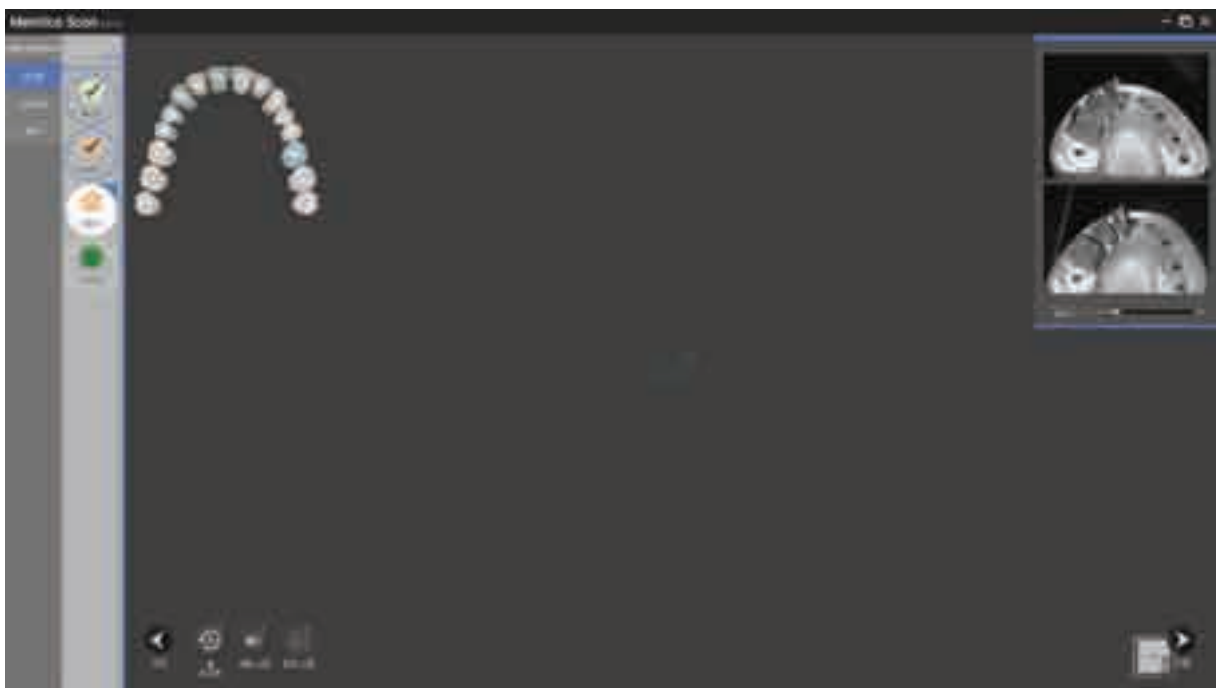


Follow the instructions in the upper left corner and Put Pontic #12,13 into the upper base and proceed with the scan.



When the “Prep1” model scan is complete, rotate the model to see if additional scans are needed and click “Add Scan” **3** if needed.

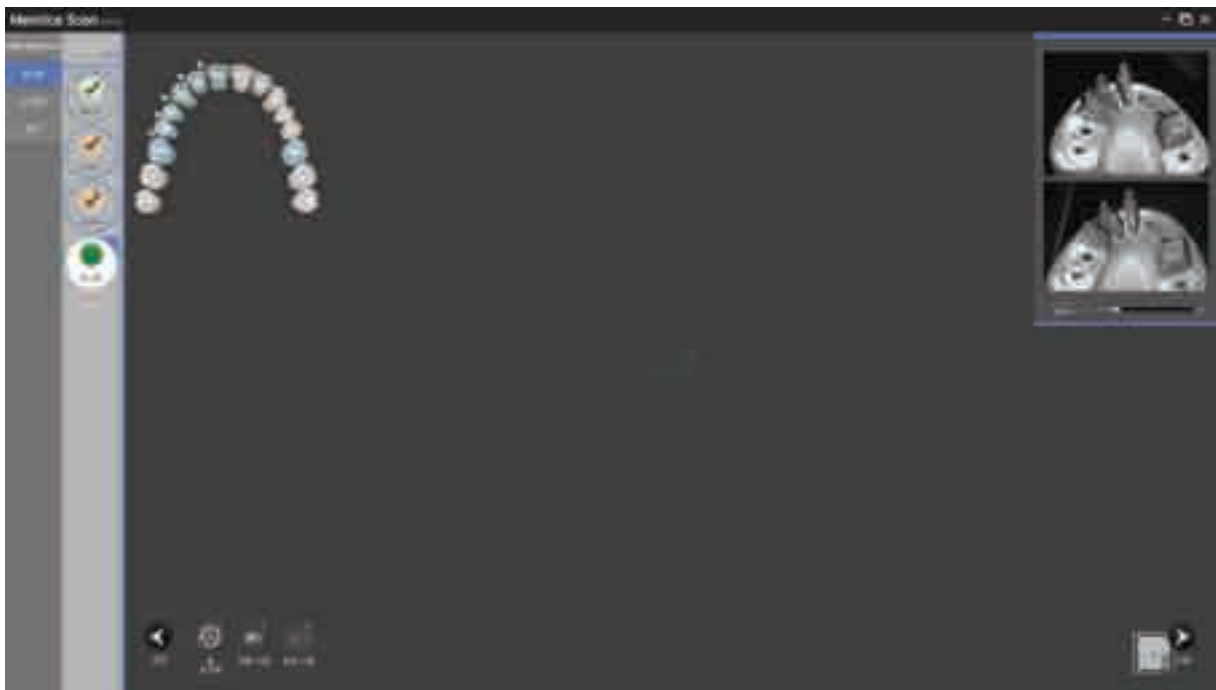
Click “Next” to move to the multi-die stage. Experienced users can move to any stage.



According to the instructions in the upper left, place the “Prep2- Prep teeth from the Upper jaw #11,13,15,26” into the scanner, click “Auto” **2** to proceed with the scan

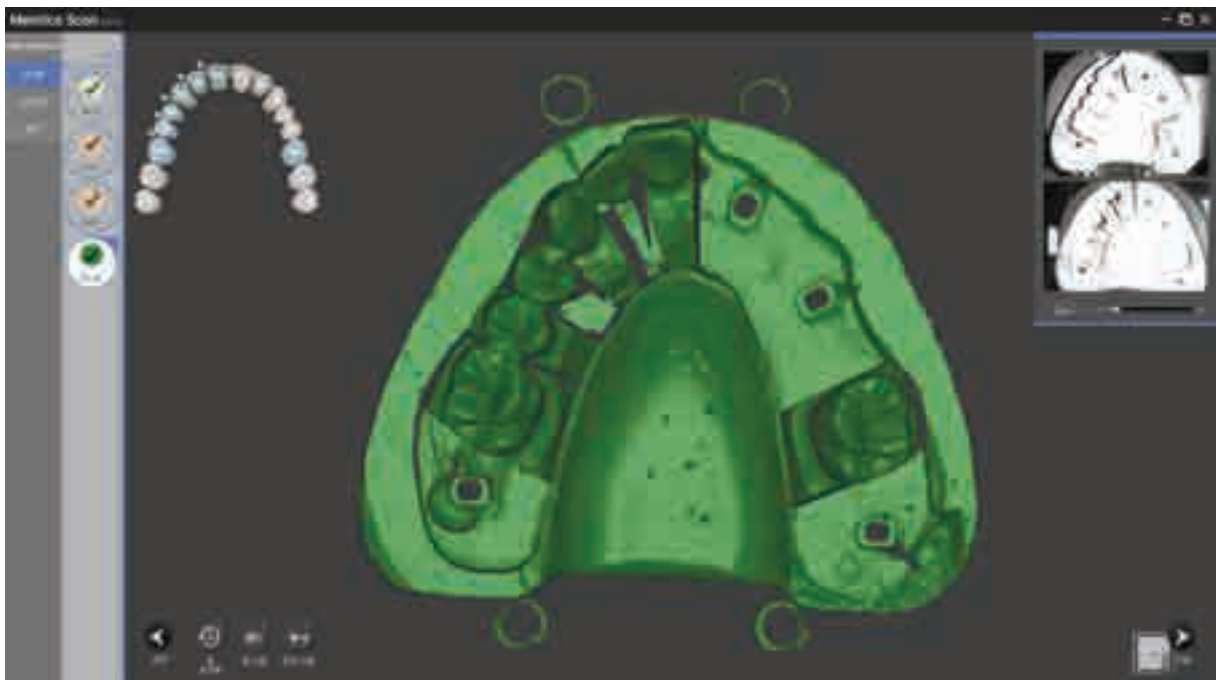


When the “Prep2” model scan is complete, check the data and click “Add Scan” **3** for additional scans.



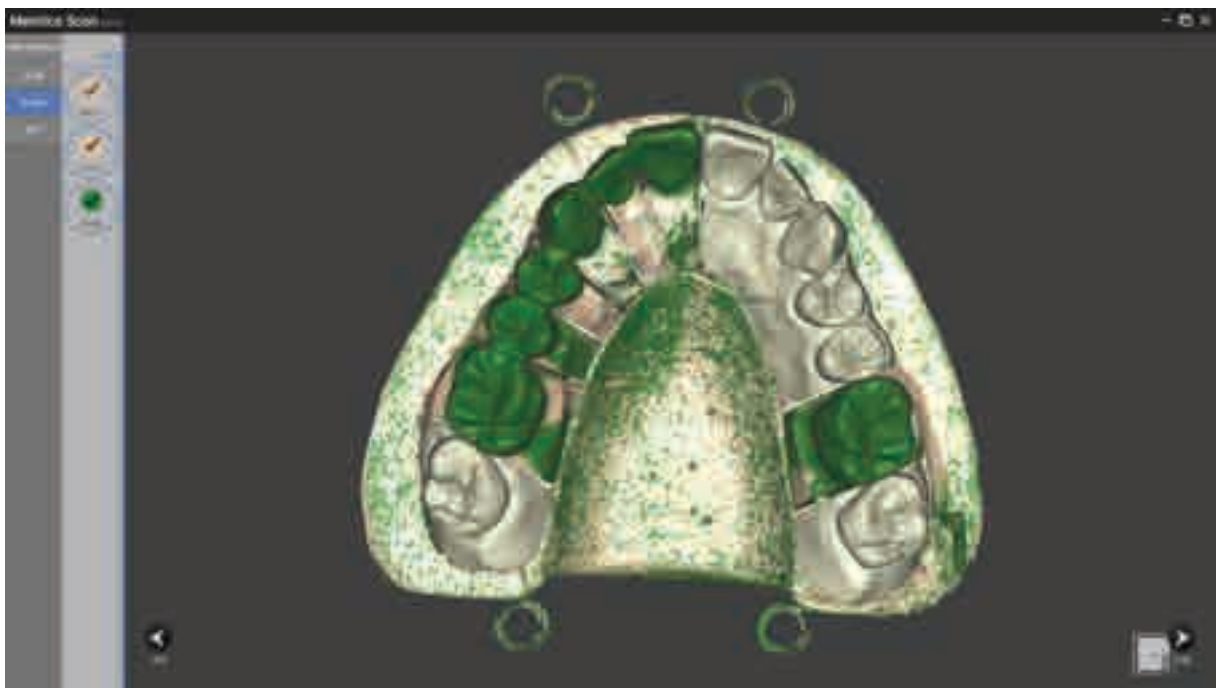
Waxup scan

Put all single dies into the upper base and proceed with the scan.



Waxup scan is complete

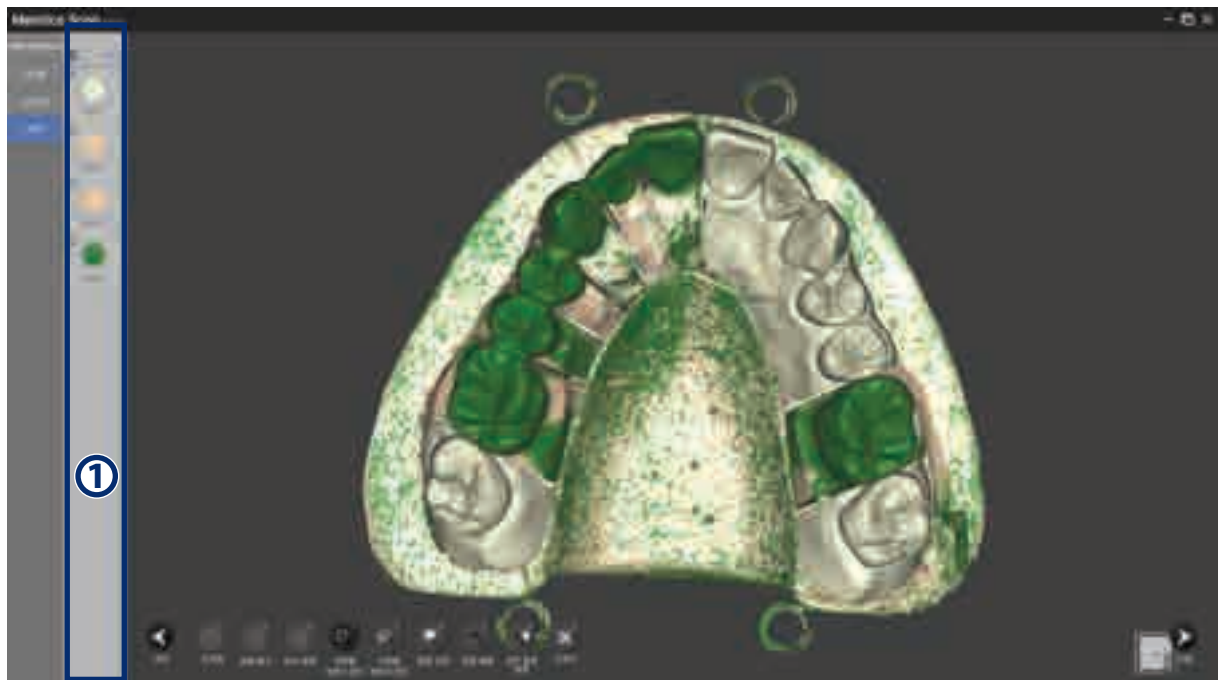
Check the scan data to see if additional scans are needed. Click “Add Scan” **3** to process additional scans and the “Next” button to move to the alignment stage.



Check the relationships between the model and dies.

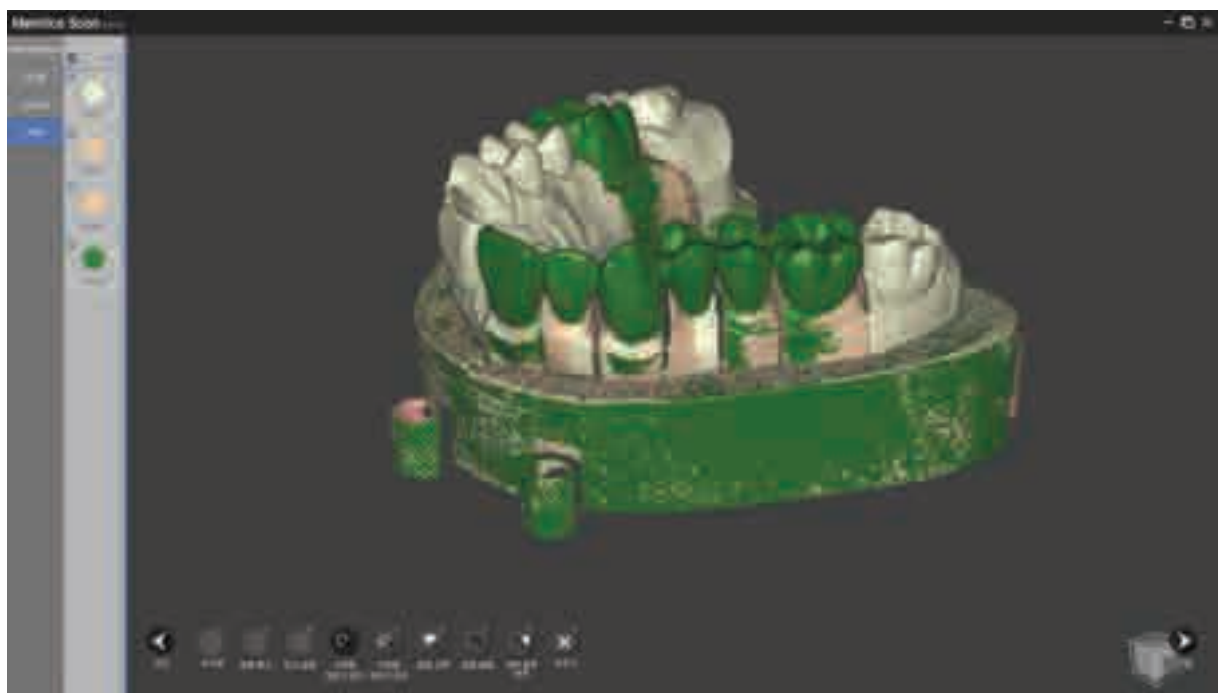
As in the image above, alignment is automatic.

Click “Next” or keyboard shortcut “Spacebar” **Space** “Enter” **↵** to move to the next step. Experienced users can move to any stage.



“Edit” stage

Check the models and select the model to edit. Users will only see the model to be edited



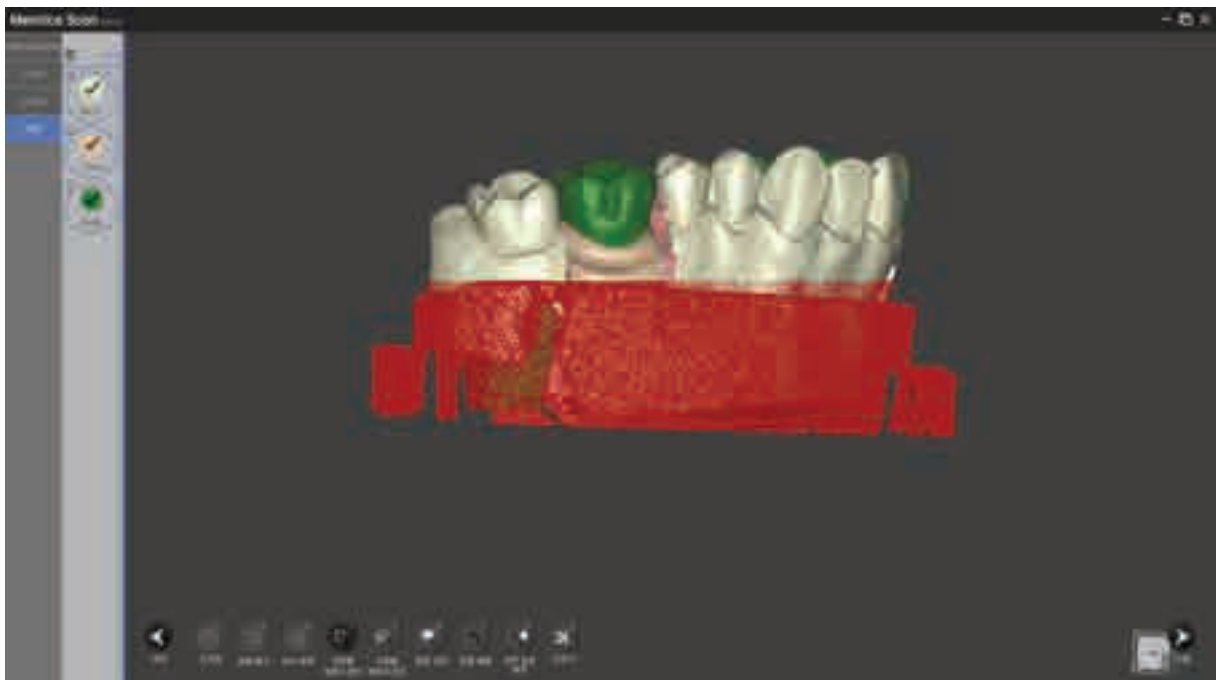
Use the icons at the bottom of the screen to edit the data.

■ Refer to “Single coping scan” for more information.

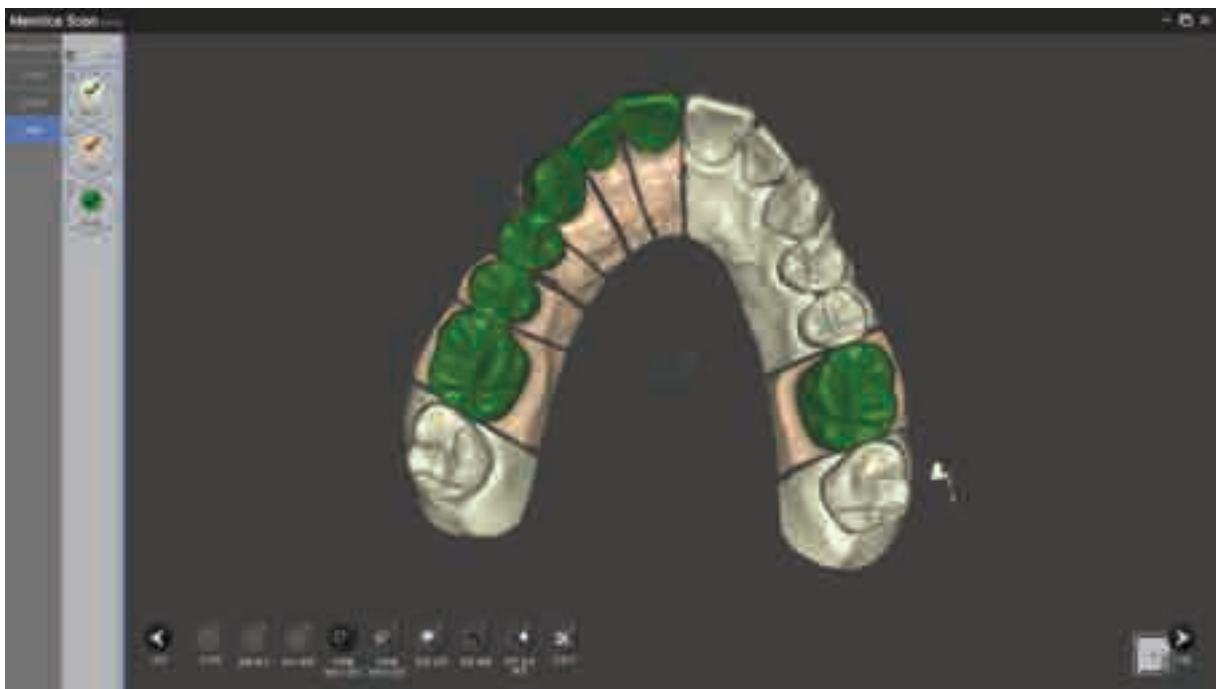
When editing is complete, click “Next” to process data and produce an STL file.

Scan file is complete

Editing is possible as shown in the previous step.



Select a base portion that does not require using “square cut” mode.



Click “Erase” to delete data.

Click “Next” or use keyboard shortcuts “Spacebar” **Space** “Enter” **Enter** to move to save the scanned data and exit the program.

Waxup scanning is complete.

Single Impression

Setup teeth

Enter the settings for the model you want to scan.

■ Refer to the tooth set

This case will proceed using #17 Crown case.

* Implant type – No, Situ scan – No, Gingiva scan – No, Articulator - none

- Click the “Save” button.

- Click the “Scan” button to start scanning.

The first time you connect your scanner, it will take around 30 seconds to boot. After the first installation, it will take around 3-5 seconds. Also, during the scanner connection process the projector will momentarily blink, and then the connection will be completed.

When the scanner is connected properly, it will automatically advance to the Preparation Strategy and determine the scanning process.

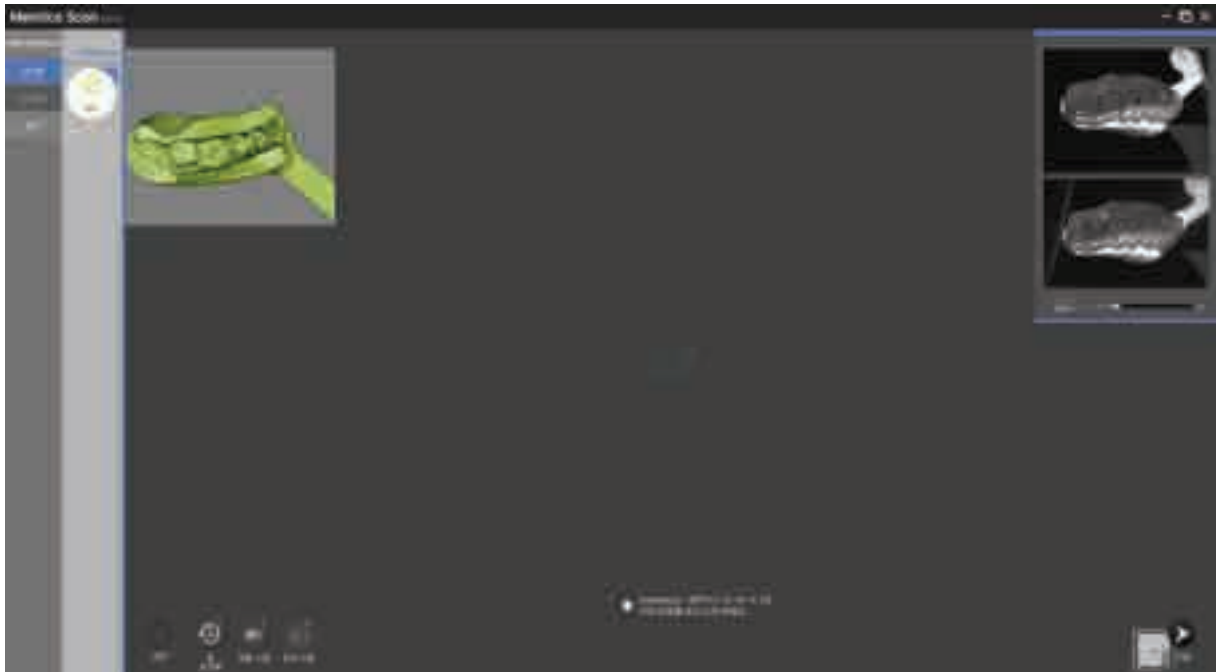


* Preparation - Strategy

Select impression scanning. Impression scanning on Identica Hybrid can be easily done using its 3 axes.

Click “OK” to proceed to the next step.

■ For more details, see “Single coping scan”.



* Scan

As in the image above, insert the impression according to the instructions.



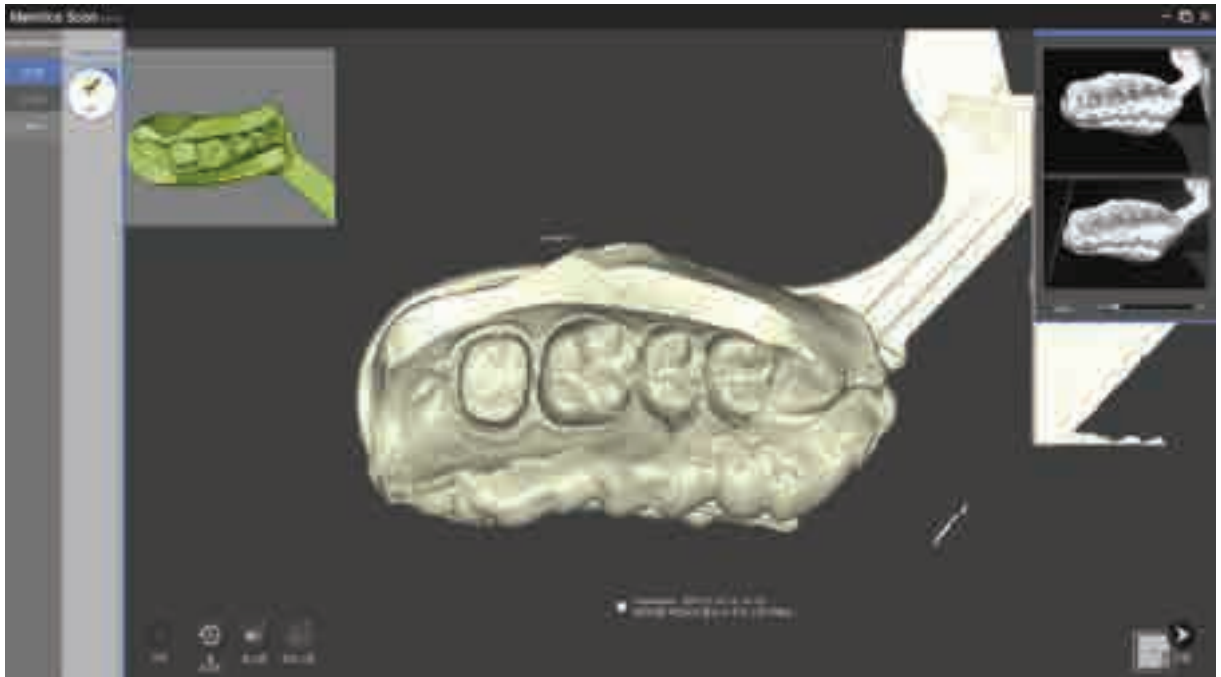
Open the button for 3 axis connection.



3 axis scan and connection.



Put the impression jig and mount onto the scanner.
Click "Auto Scan" **2** to proceed with scanning



As in the image above, impression scanning is complete. Additional scans can be performed.

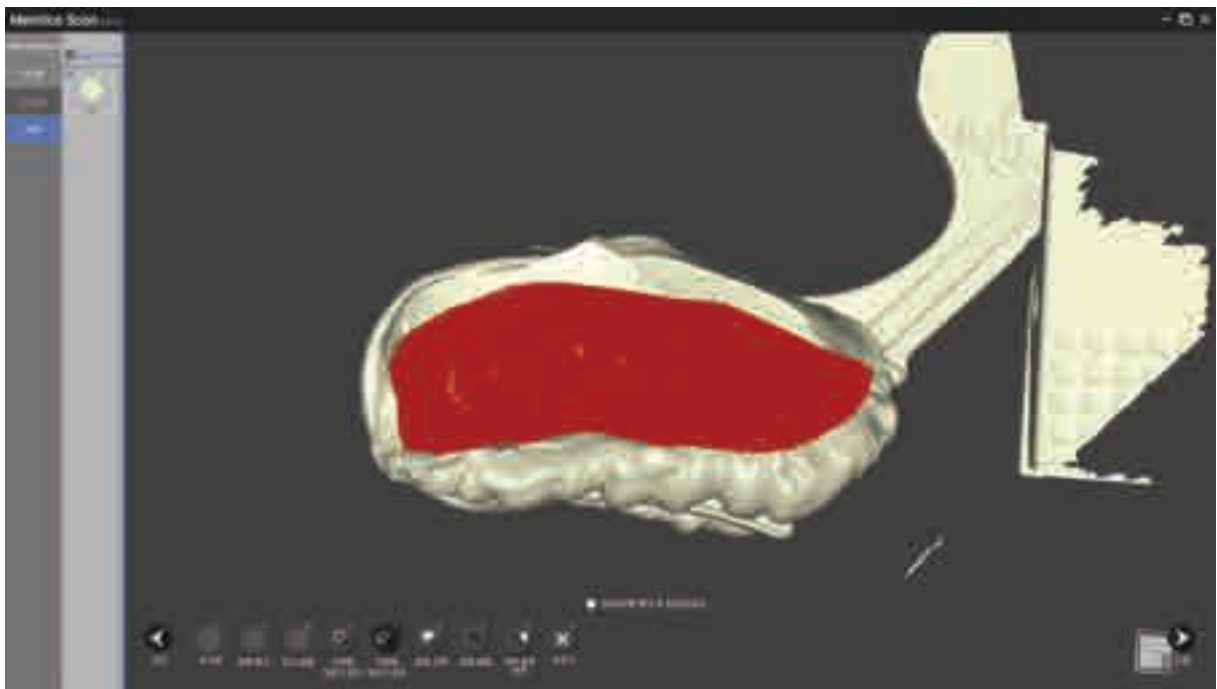
Click “Next” or keyboard shortcut “Spacebar” **Space** “Enter” **↵** to move to the next step. Experienced users can move to any stage.



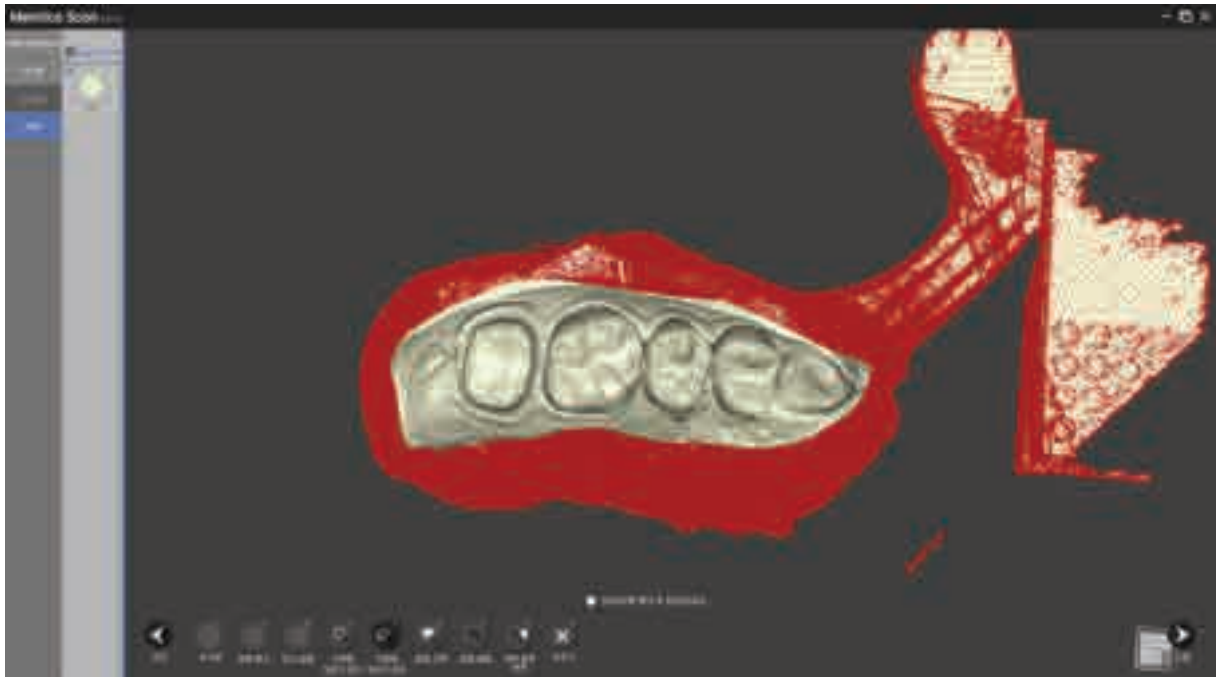
“Edit” stage

Use the icons at the bottom of the screen to edit the data.

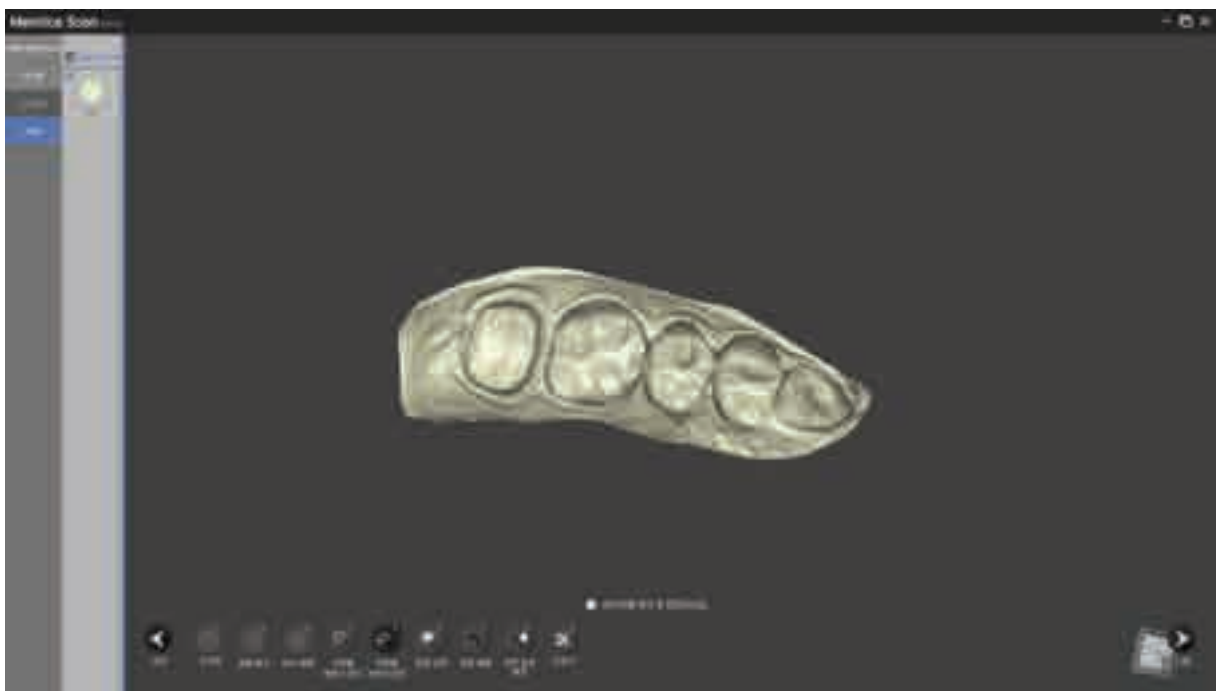
■ Refer to “Single coping scan” for more information.



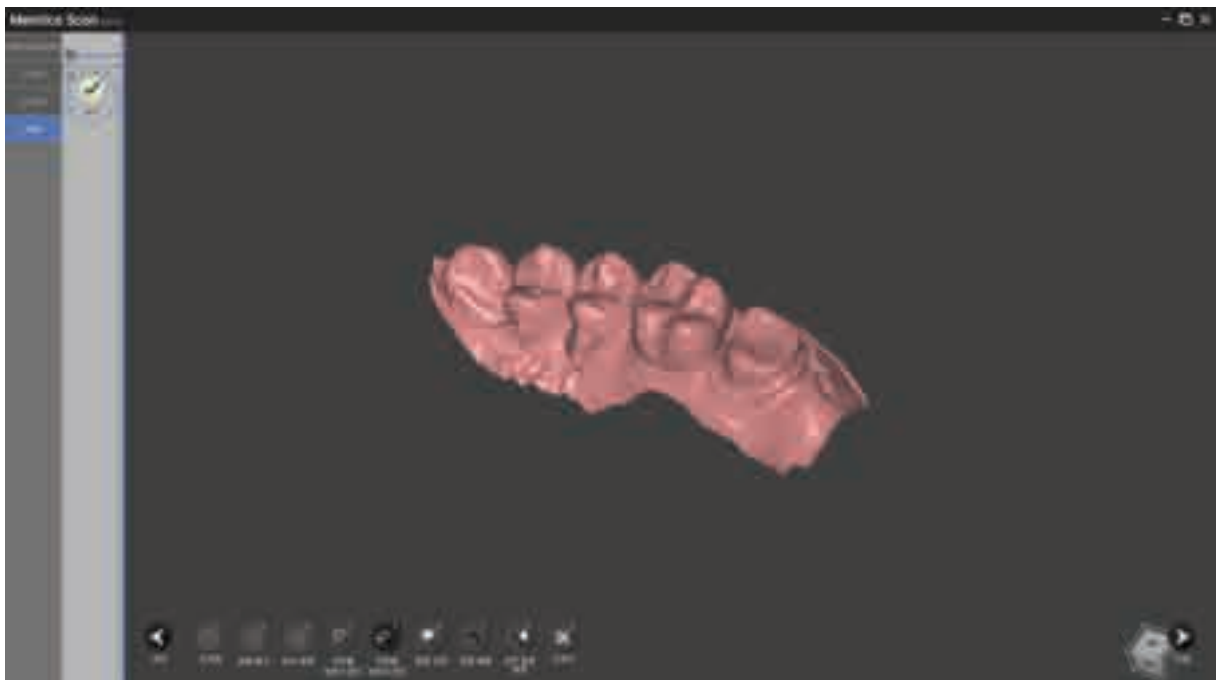
“Free style crop mode” can be selected.



Select “Invert Selection” to invert the selected area.



Click “Delete” to delete the data of the selected portion. When editing is complete, click “Next” and data processing will begin and produce an STL file.



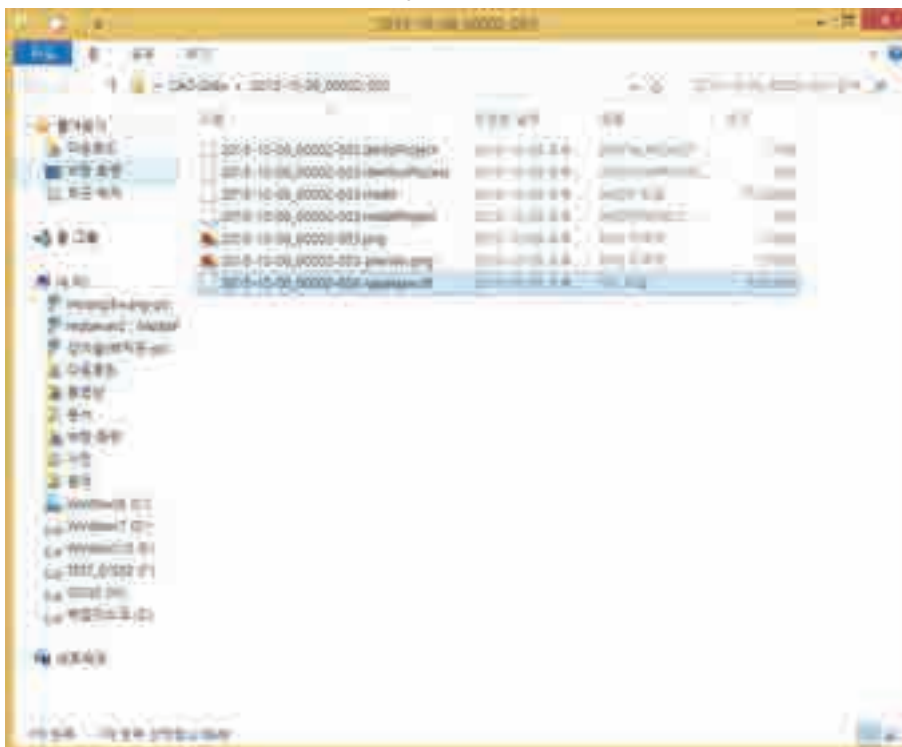
Scan file production is complete.

Editing is possible as seen in the previous step.

Click “Next” or use keyboard shortcuts “Spacebar” **Space** “Enter” **↵** to move to save the scanned data and exit the program.

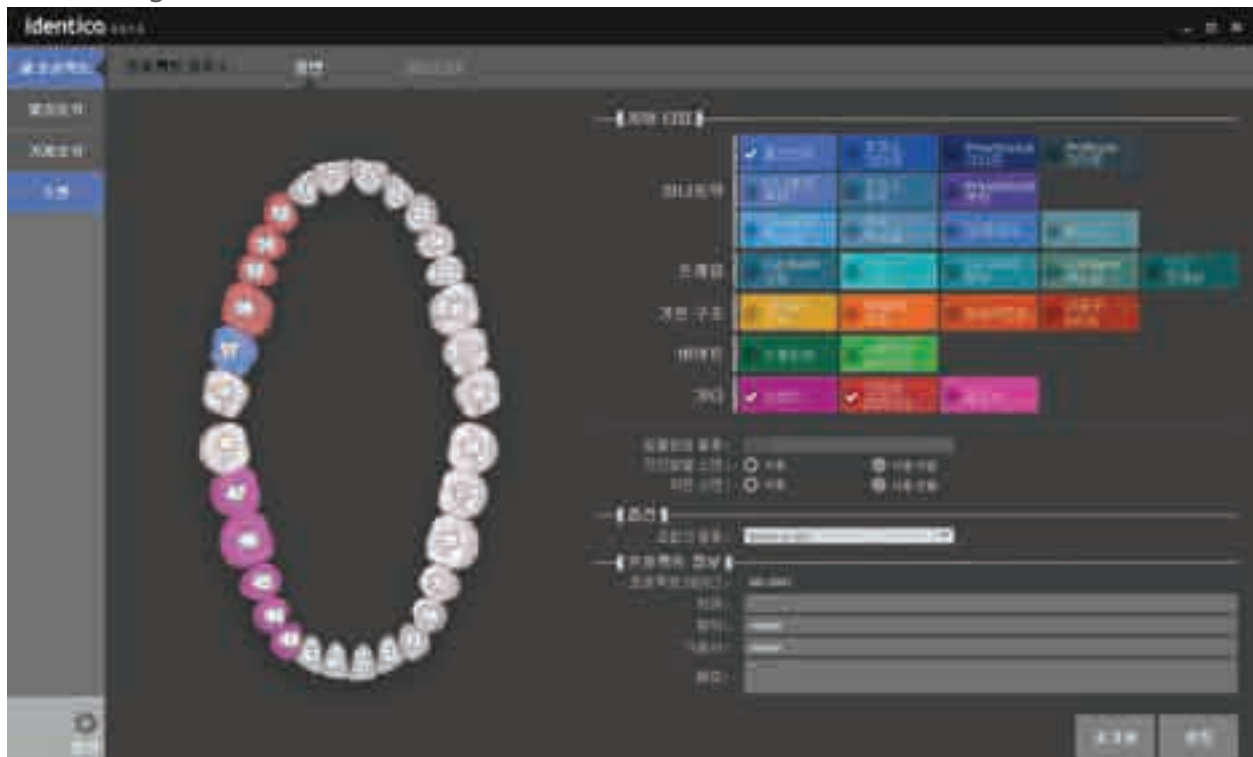
Single Impression scanning is complete.

The data can be checked in the Settings folder.



Double impression

Tooth settings



Enter the settings for the model you want to scan.

■ Refer to the tooth set.

This case will proceed using #17 Crown case.

- * Implant type – No, Situ scan – No, Gingiva scan – No, Articulator - none
- Click the “Save” button.
- Click the “Scan” button to start scanning.

The first time you connect your scanner, it will take around 30 seconds to boot. After the first installation, it will take around 3-5 seconds. Also, during the scanner connection process the projector will momentarily blink, and then the connection will be completed.

When the scanner is connected properly, it will automatically advance to the Preparation Strategy and determine the scanning process.



* Preparation - Strategy

Because of the bite tray, select double impression scan.

Double impressions can be easily done due to the 3 axis arm.

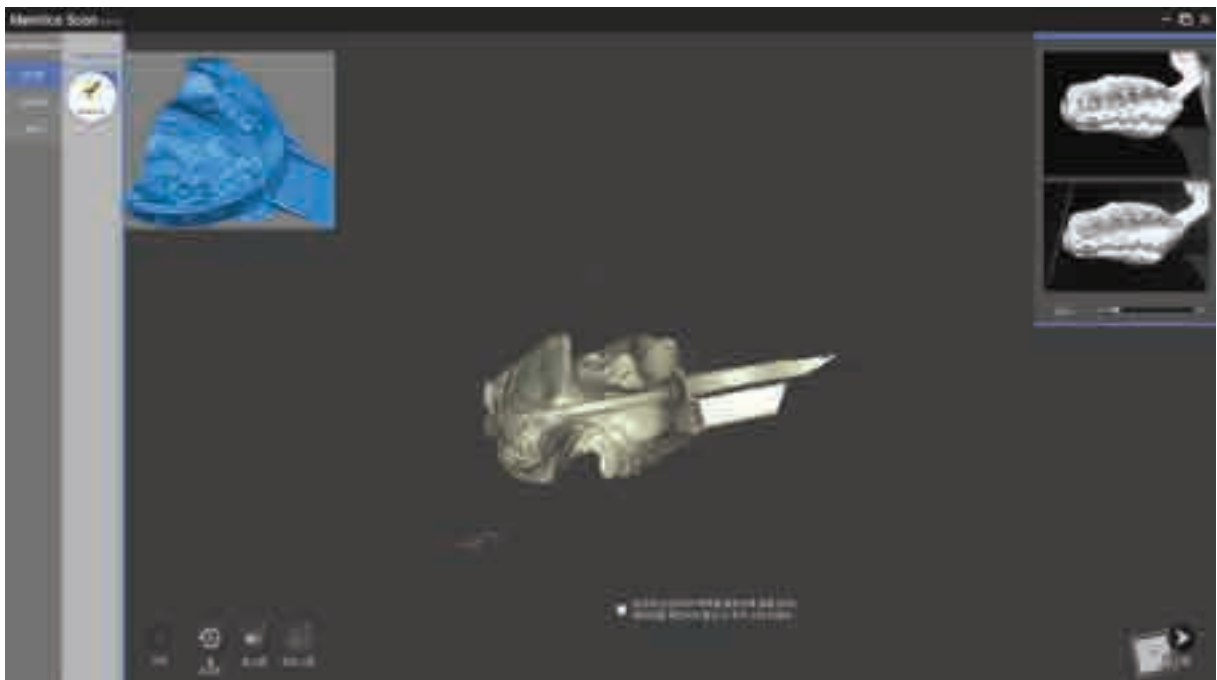
Click “Confirm” to move to the next step.

■ For more details see “Single coping scanning.”



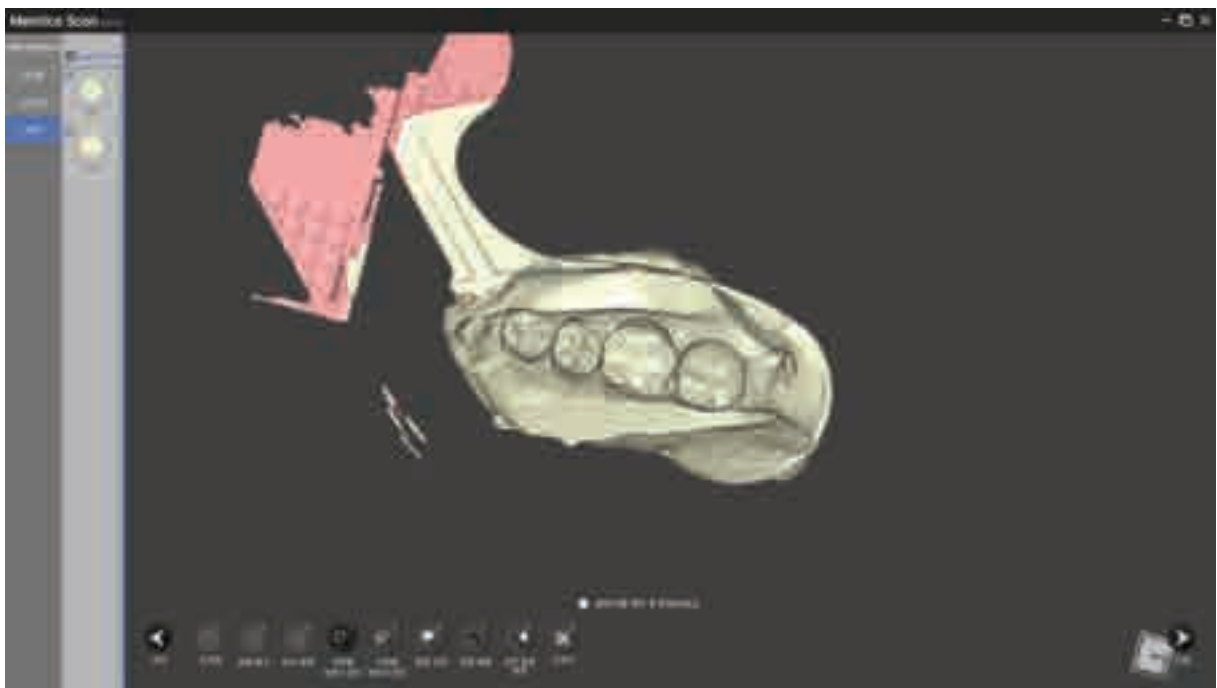
* Scan

As in the image above, follow the instructions in the upper left corner and put the impression into the impression arm and click “Auto Scan” **2** to proceed with scanning.



As in the image above, the upper and lower bite tray impression scan is complete. You can do additional scans at this time.

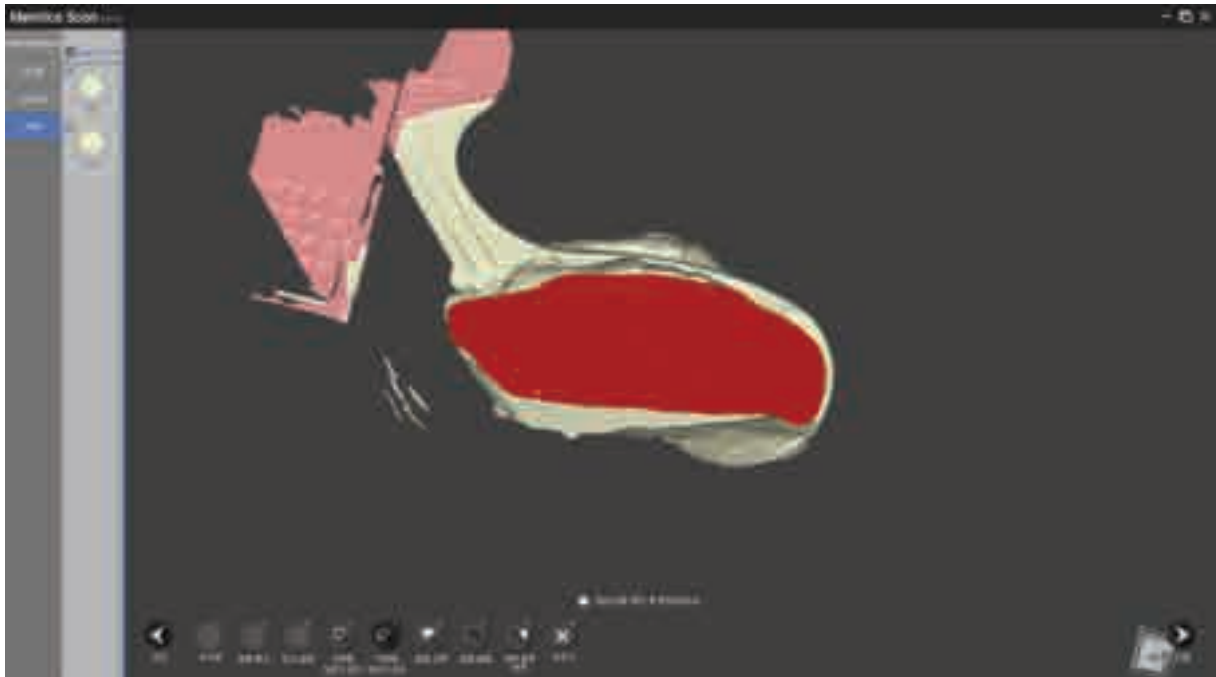
Click “Next” or keyboard shortcut “Spacebar” **Space** “Enter” **↵** to move to the next step. Experienced users can move to any stage.



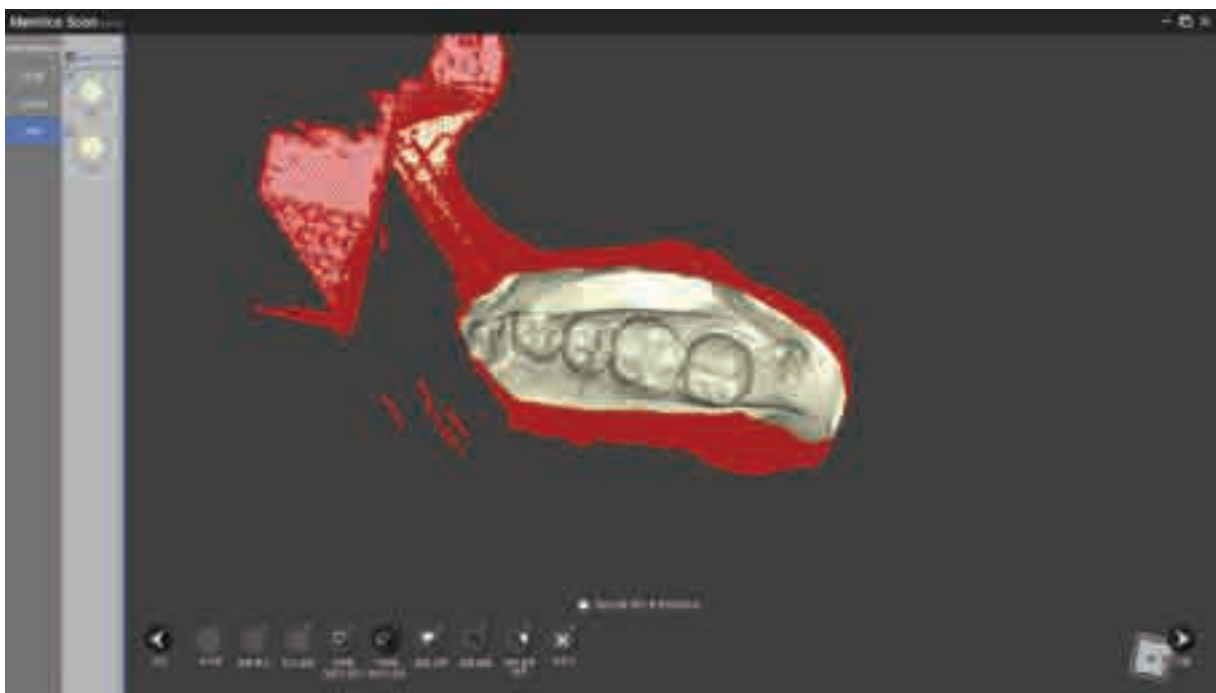
“Edit” stage.

Use the icons at the bottom of the screen to edit the data.

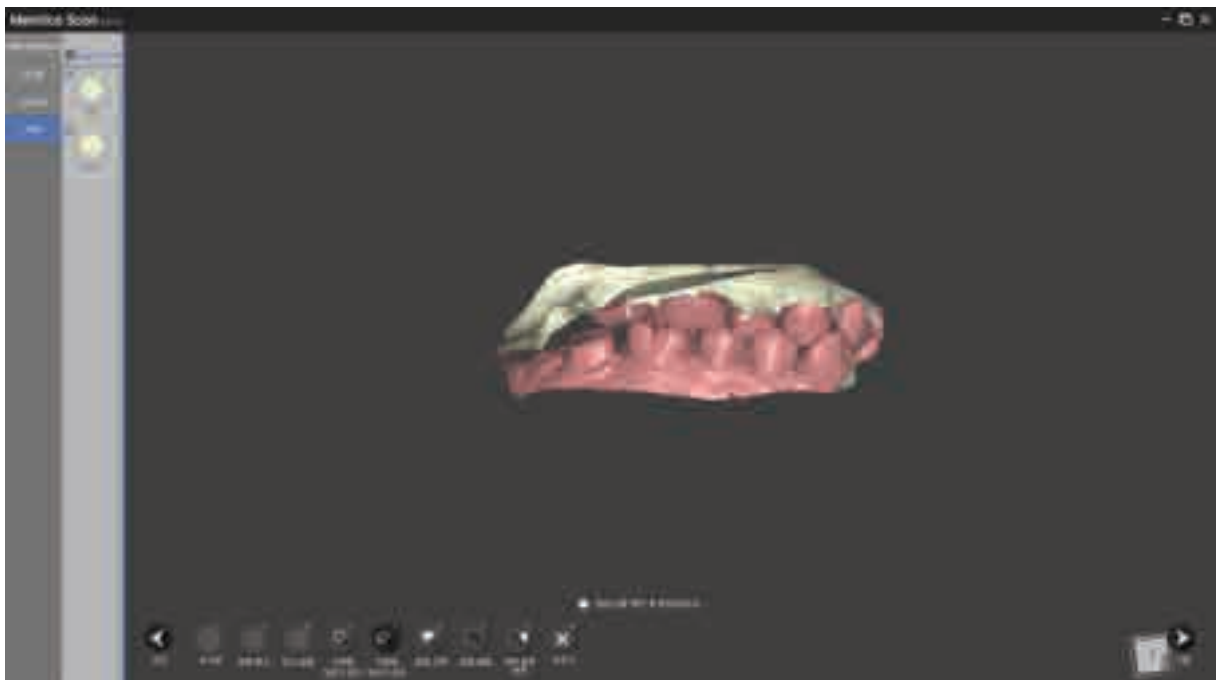
■ Refer to “Single coping scan” for more information.



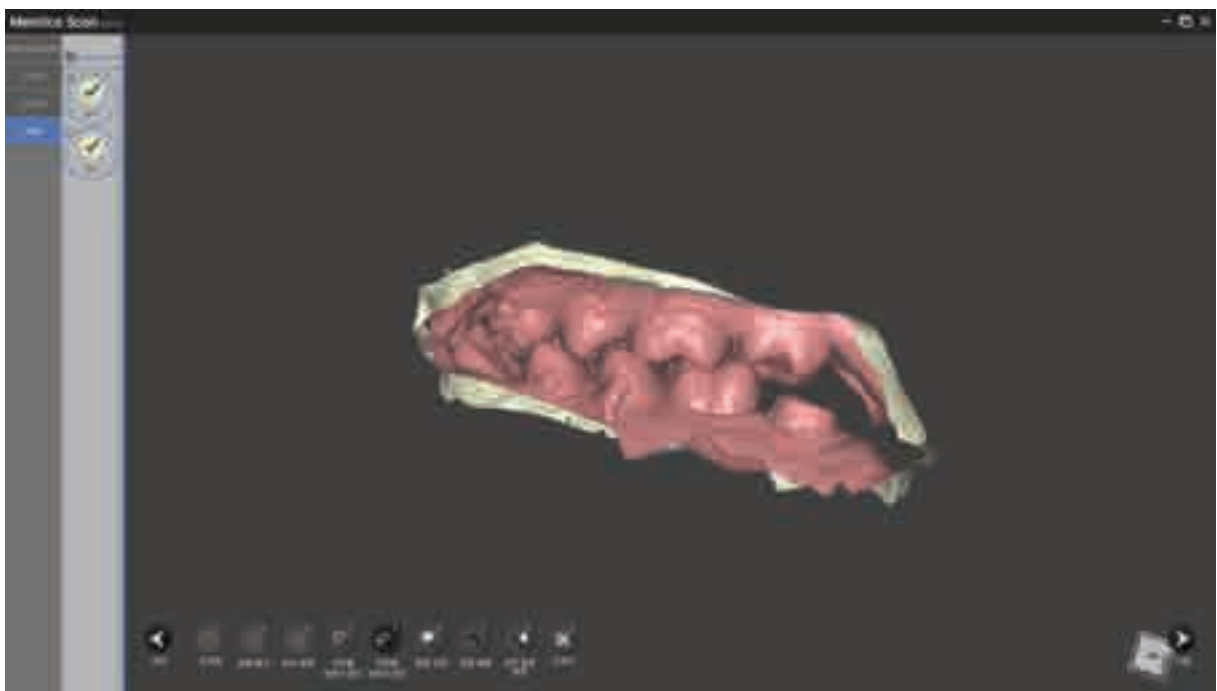
Select "Free cut" and select the portions to be edited.



Select "Invert Selection" to invert the selected area.



Click “Delete” to delete the selected part. When editing is complete, click “Next” and data processing will begin and produce an STL file.



Scan file production is complete.

Editing is possible as seen in the previous step.

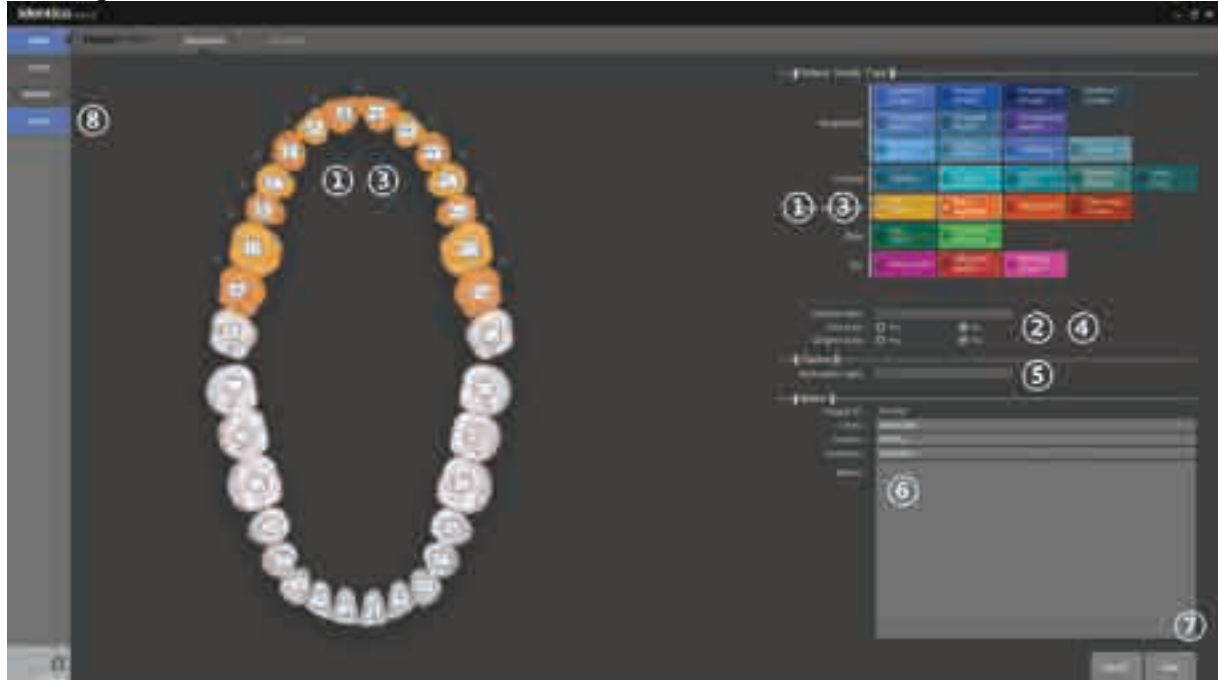
Click “Next” or use keyboard shortcuts “Spacebar” **Space** “Enter” **Enter** to move to save the scanned data and exit the program.

Bite Impression scanning is complete.

Implant scan adapter

1. Order form and teeth settings

- Running Identica Software.

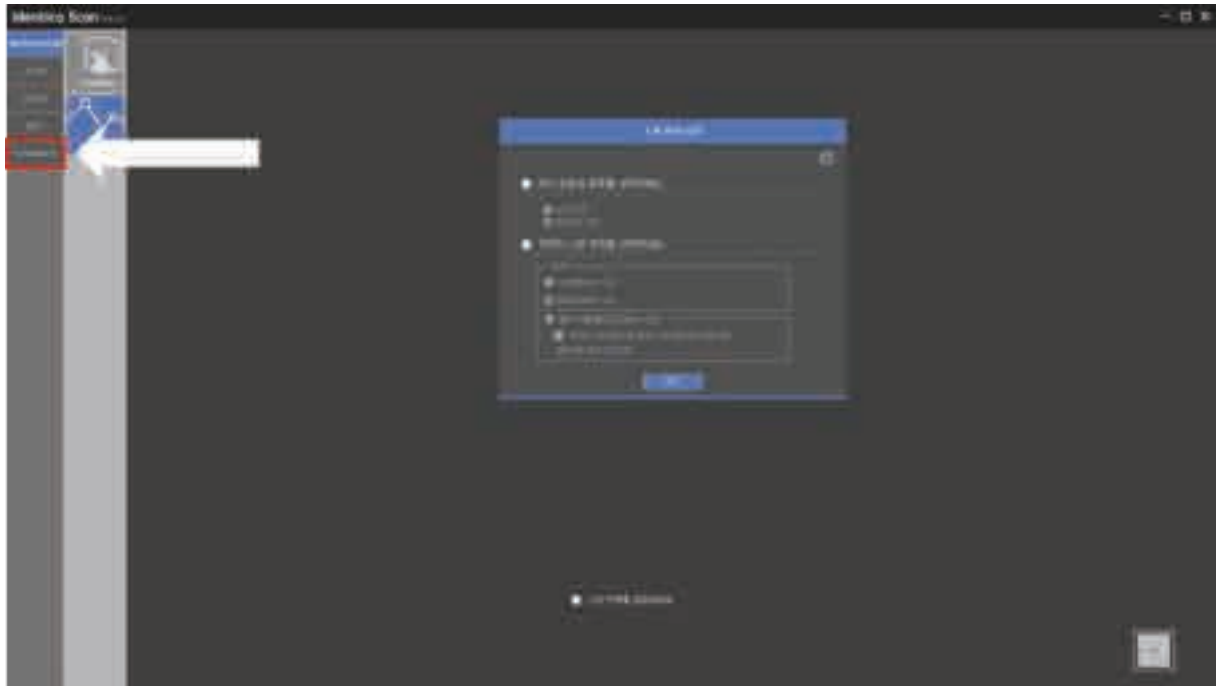


Enter the settings for the model to scan.

- ① Bar Pillar – 16, 14, 12, 22, 24, 26
- ② Implant type – Retained Screw, Situ scan – No, Gingiva Scan – No, Articulator
- ③ Bar Segment – 17, 15, 13, 11, 21, 23, 25, 27
- ④ Implant type – None, Situ scan – No, Gingiva Scan – No, Articulator
- ⑤ Articulator type - None
- ⑥ Enter the order details (not required).
 - Refer to the Identica S/W User Interface.
- ⑦ Press the “Save” button.
- ⑧ Press the “Scan” button to begin scanning.

When the scanner is properly connected, it will automatically proceed to the Preparation – Strategy to determine the scanning process.

* Preparation - Strategy



On the left menu, check that “Scan Body” entry has been created and press the “OK” button to begin the program.

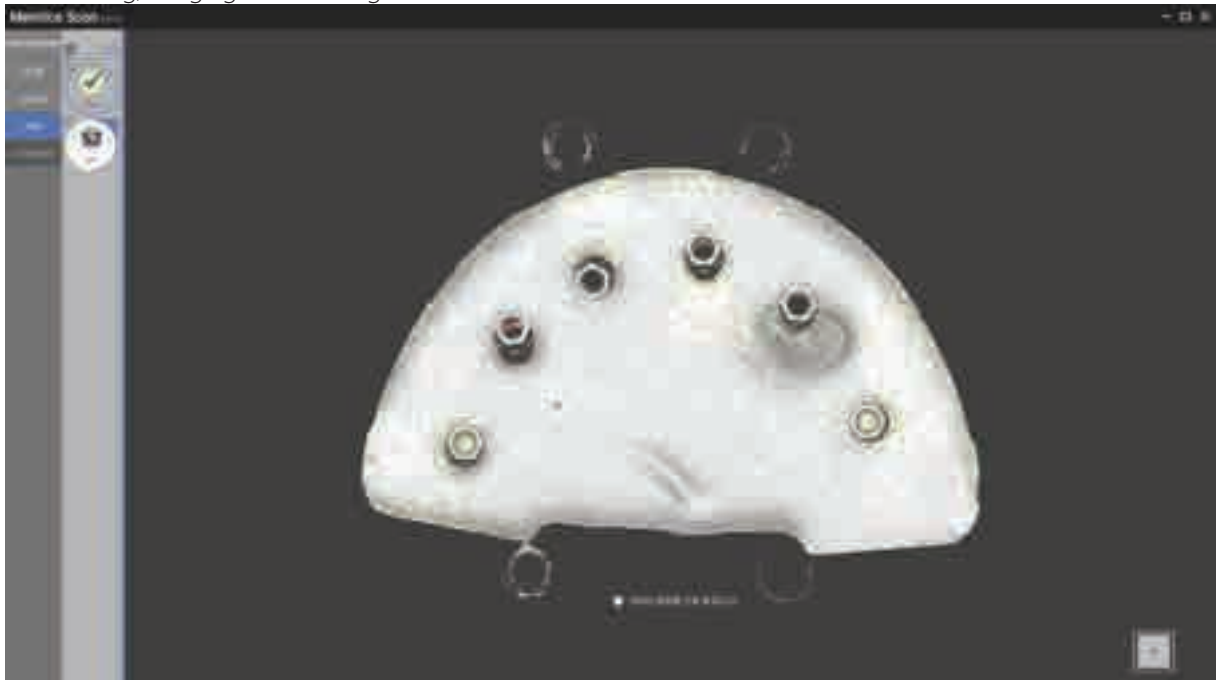


After this step, proceed as with regular scanning from Scan to Align.

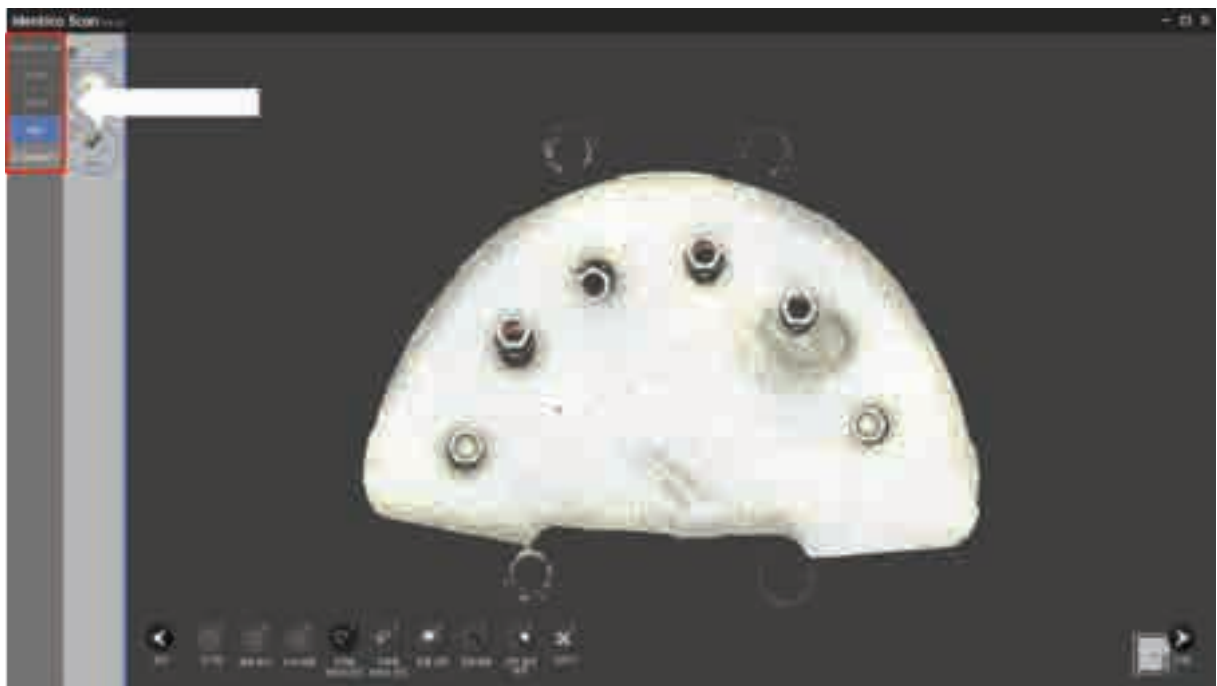
2. Scan data acquisition

- * Scan
- * Align
- * Edit

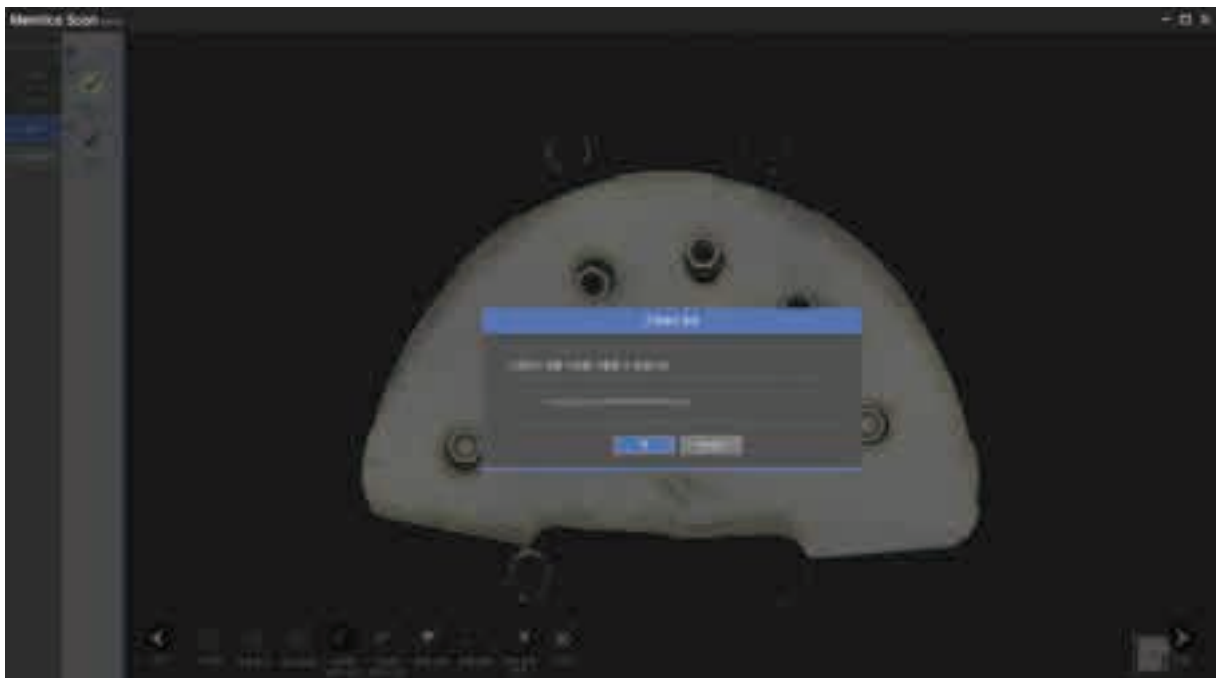
After editing, merging data can begin.



When the merge is complete, “Scan Body” will appear on the left menu.



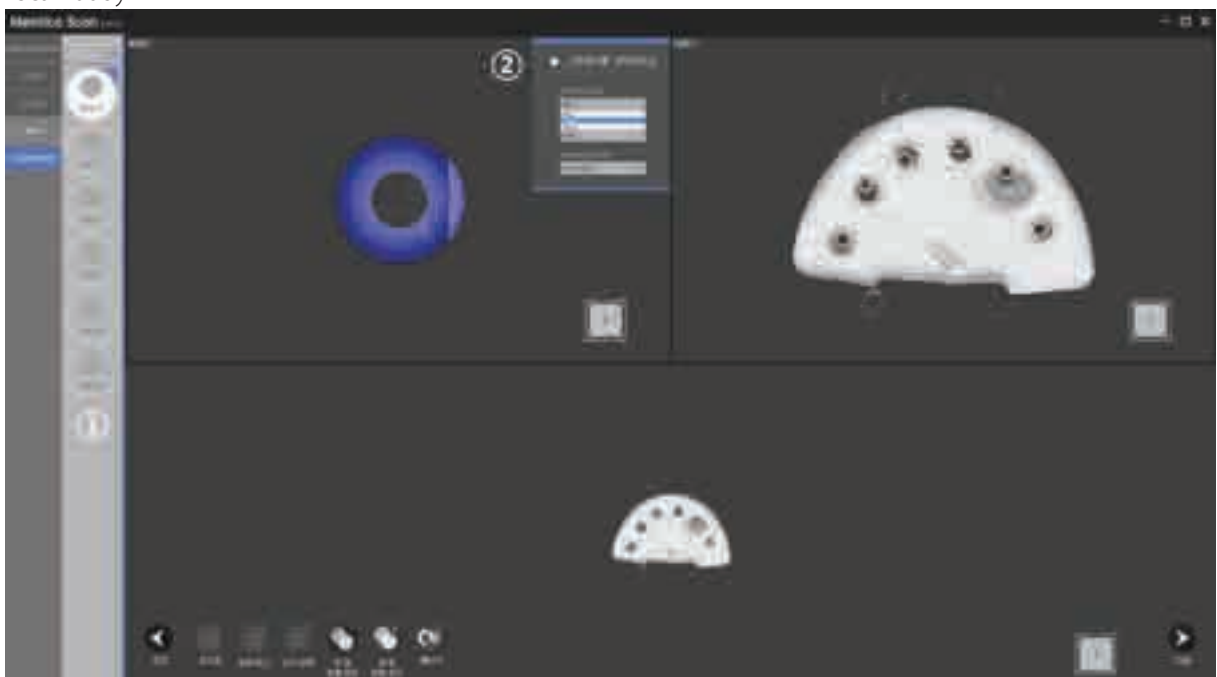
After editing, press the “Scan Body” button or the “Next” button and determine whether “Scan Body Align” is needed.



If clicked, the program will move to the “Scan Body Align” step.

3. Scanbody Library Align

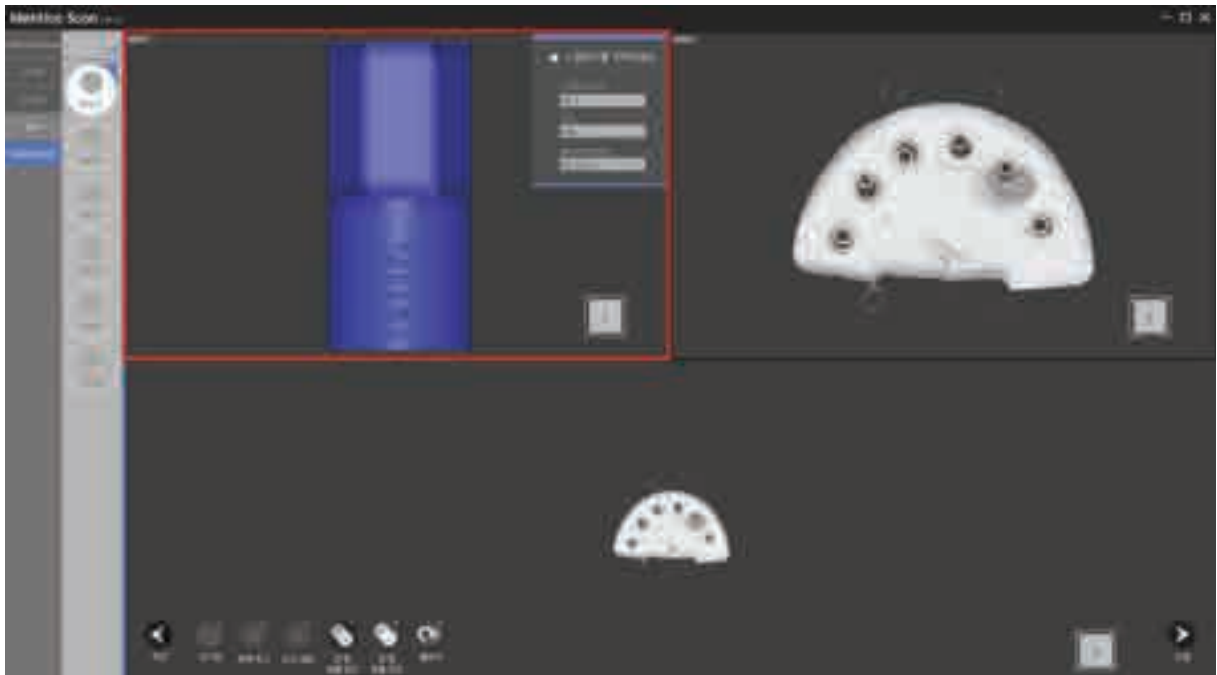
*Scan body



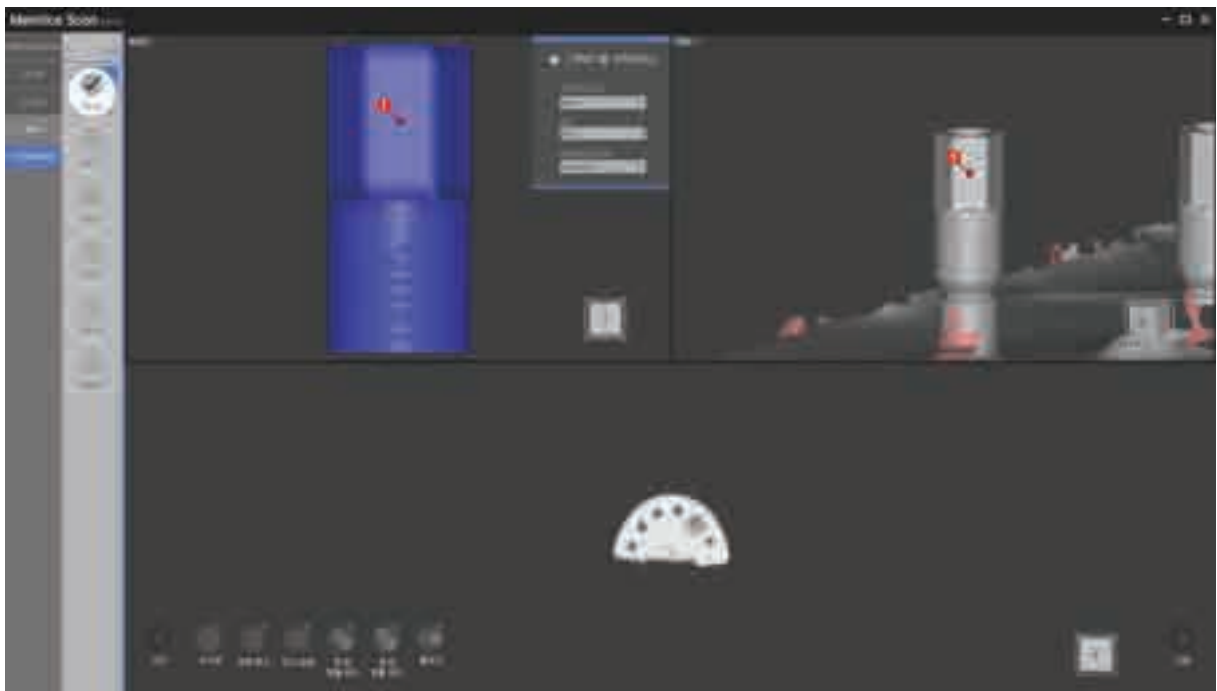
In this step, setup the Scan Body Library and match the scan data.

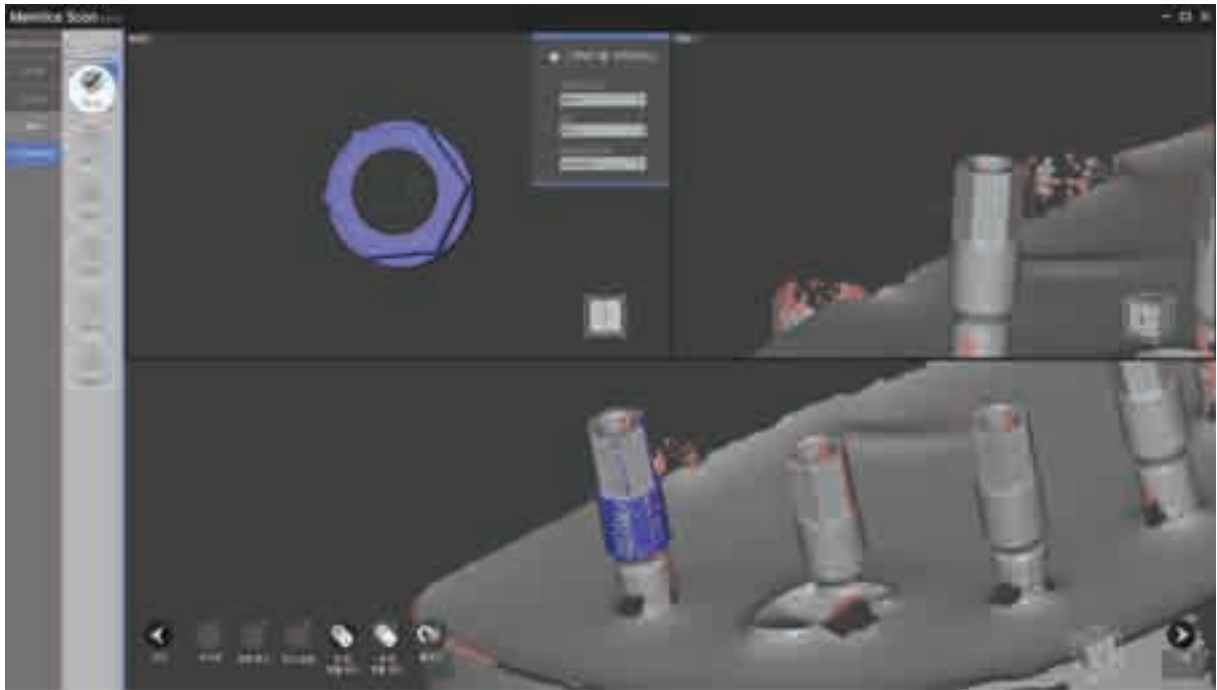
- ① Bar Pillar – 16, 14, 12, 22, 24, 26
- ② Scan Body selection

Select the Scan Body type and check that it is displayed properly in the upper left corner.



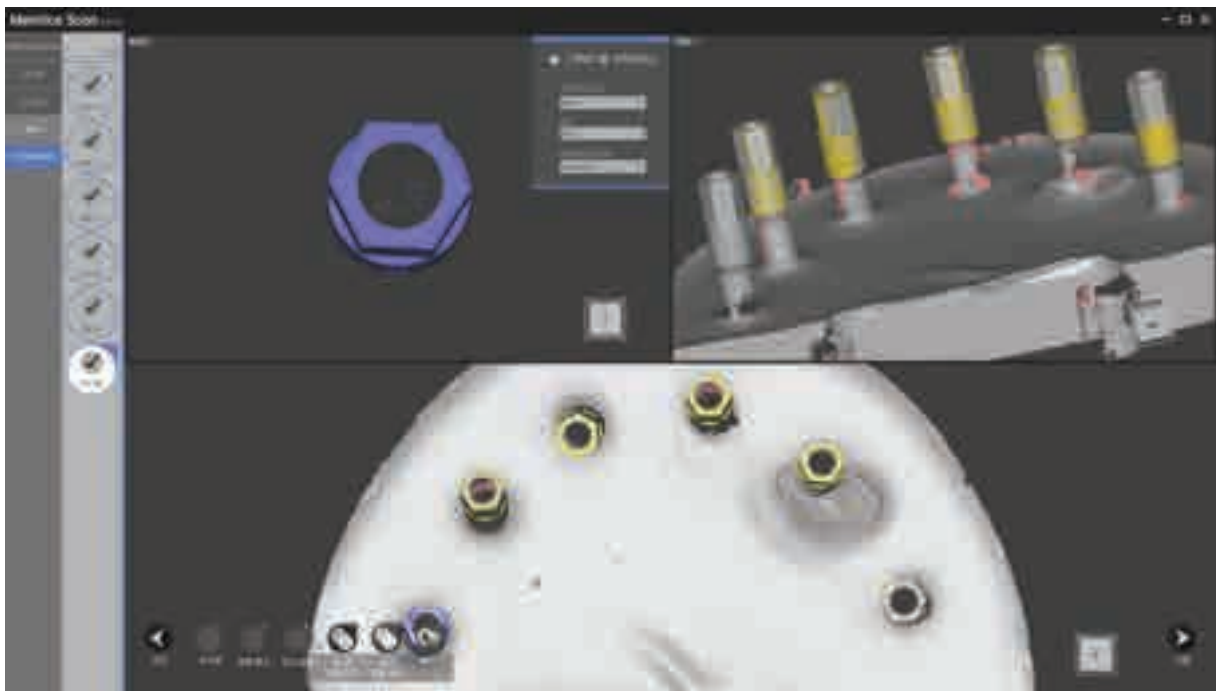
Afterwards, the Align step is the same as the sorting the scan data and library.





After checking alignment, additional alignment can be processed if needed.

Each Bar Pillar is aligned with the scanbody library.



Check the alignment.



When alignment is complete, press the “Next” button to exit the program and run a CAD program to begin design.





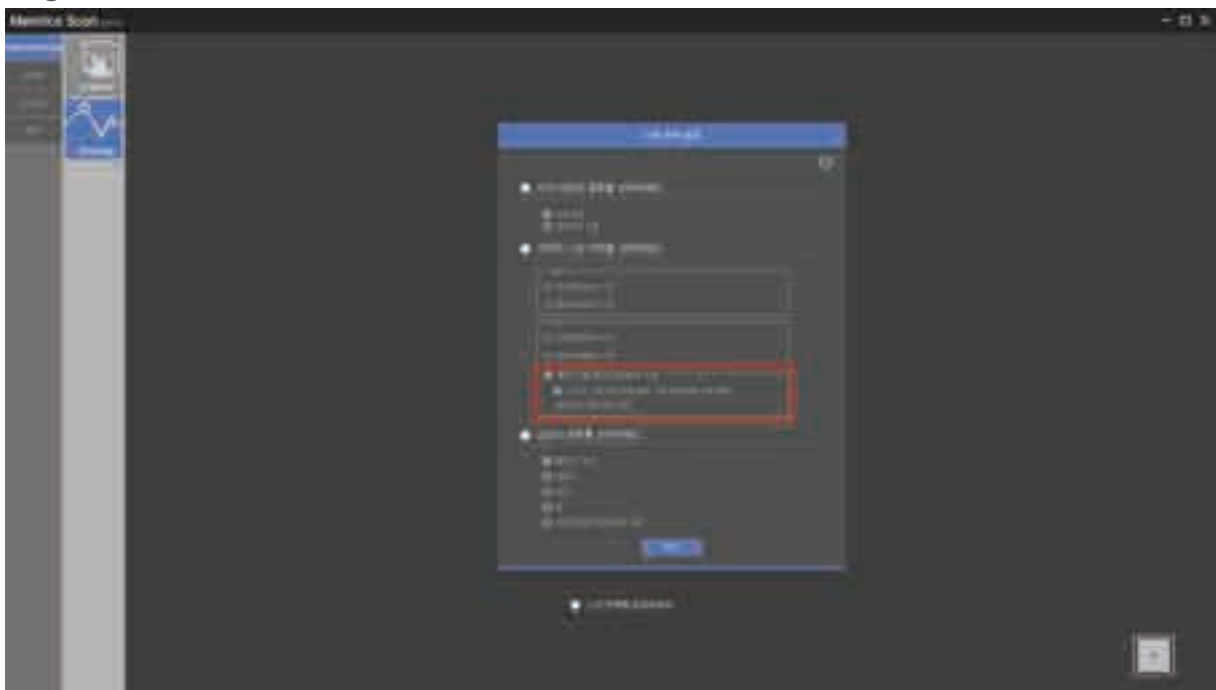
Flexible multi-die

1. Create order form and set teeth
 - Running Identica Software

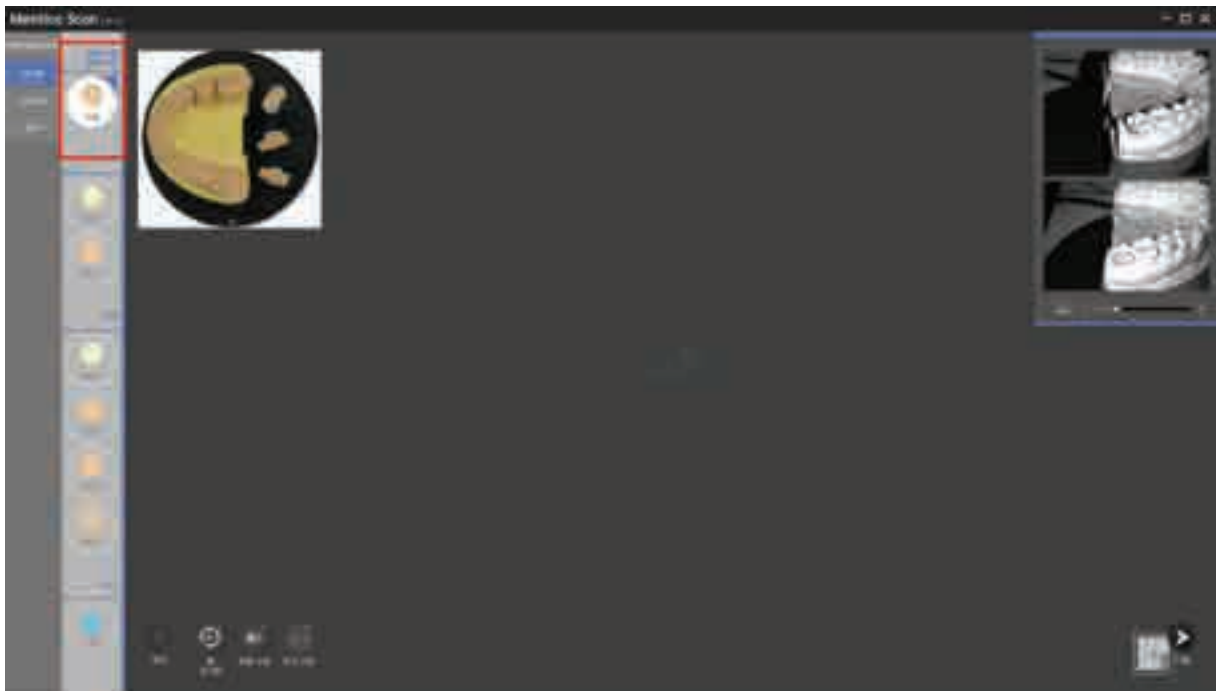


Enter the settings for the model, press “Scan,” and go to Preparation Strategy.

2. Using flexible multi-die



Select “Flexible multi-die” scan and click the “OK” button to continue.



“Flexible multi-die” will be activated on the left menu. Once selected, only flexible multi-die scanning is available.

3. Flexible multi-die scanning



Place the flexible multi-die on the scanner.

Place the desired scanning models on the multi-die. In this example, the upper jaw complete model is used along with the lower jaw single dies #45, #46, and #47.

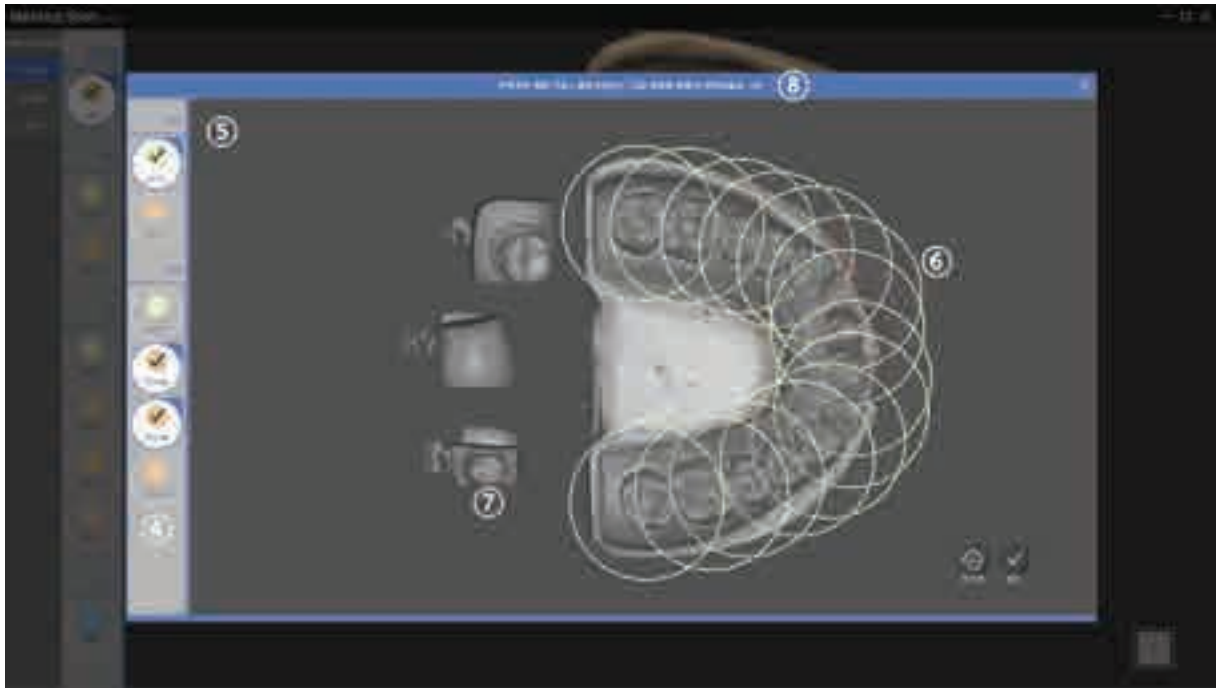


Run a scan to acquire scan data. After checking the scan data, press the “Next” button.

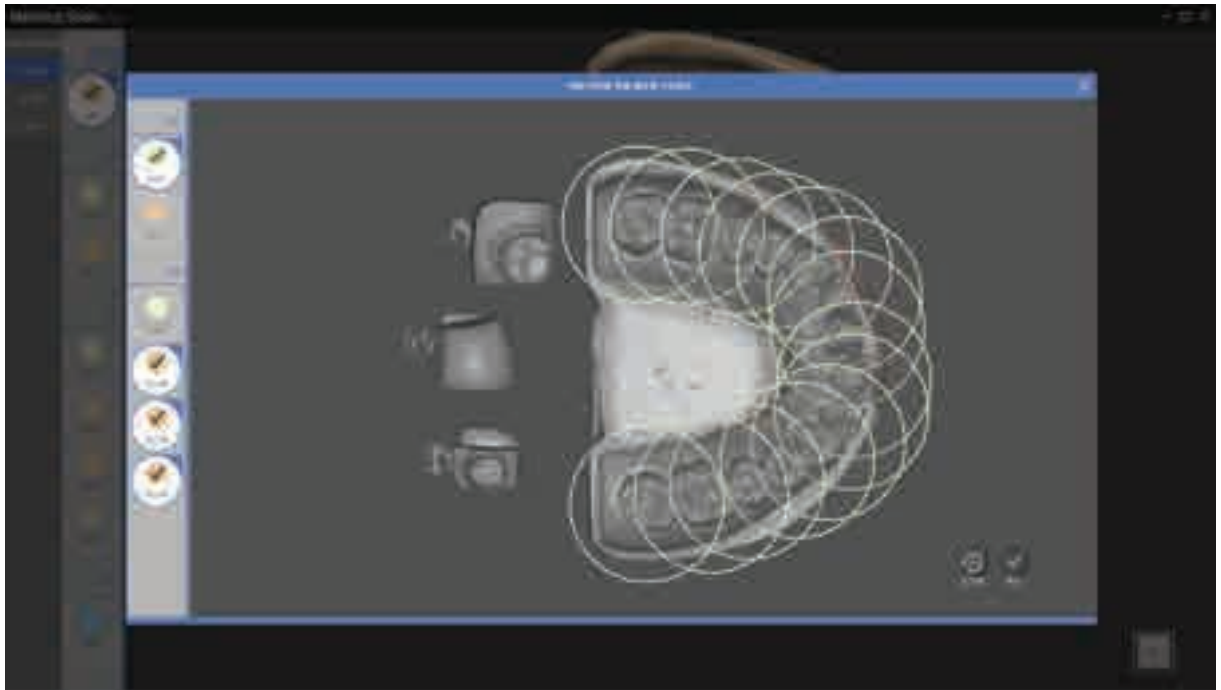


After pressing the “Next” button, select each tooth as above.

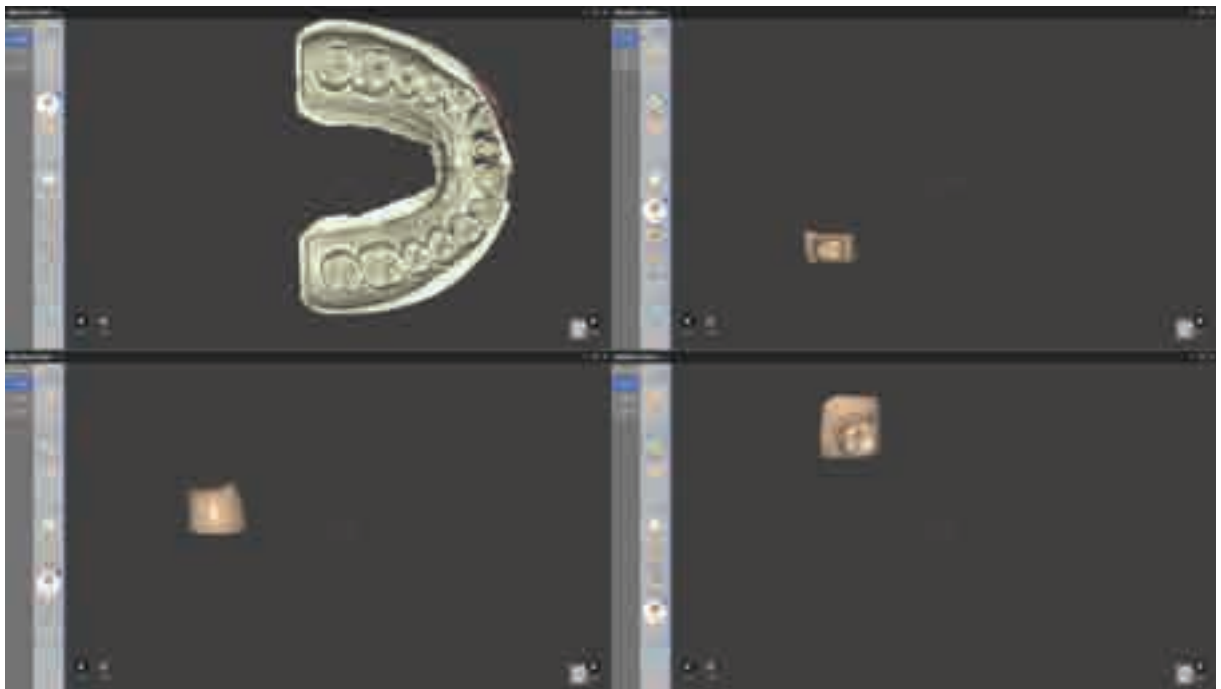
- ① Reset : reset the specified tooth elements.
- ② Confirm : Check the specific elements.
- ③ Cancel : Cancel the current job and return to the previous job.



- ④ Item button : Select the item to see on the screen.
- ⑤ 지정 화면 : Scanned data will be displayed on the monitor. When you select the items with Item button ④ then you can see the updated message on the upper center as ⑧. You can choose the tooth with left click of the mouse follow the message as explained.
- ⑥ Selecting data/teeth : you need to select all relevant teeth if the items consist of more than 2 teeth. The selected area is indicated as a circle and the selected area is extracted as a scan data after selection and confirmation. After selection, you can adjust size of circle by scrolling mouse wheel while mouse cursor is on the number in the middle. After selection, you can adjust position of circle by drag & drop with left mouse button while mouse cursor is on the number in the middle.
- ⑦ Designating Data / Individual tooth : If the item consists of a single tooth selected area will be marked with numbers, and by clicking "Check" button after the selection 3D data nearest to the button will be extracted. After selection, put your mouse cursor in the middle of the number circle, to move the numbers, drag & drop with the left click of the mouse.
- ⑧ Alert Message : Notifies the current process.



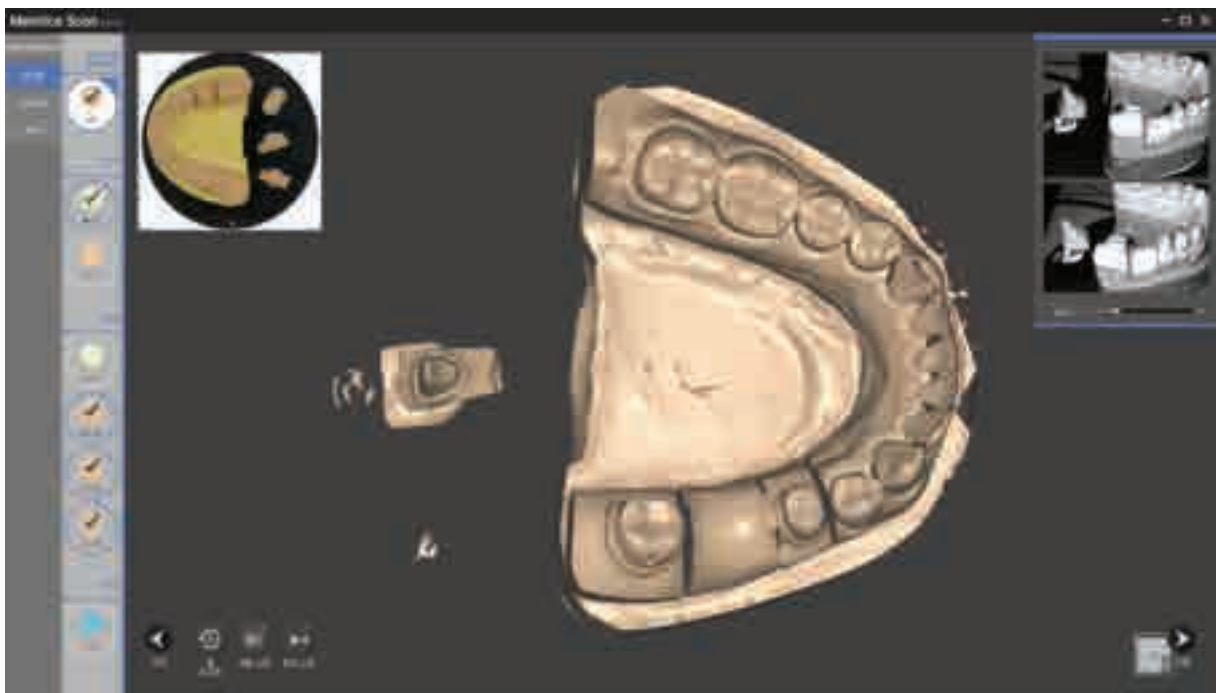
Press OK after selecting all of the data.



On the left menu, the selected data will appear and be checked.

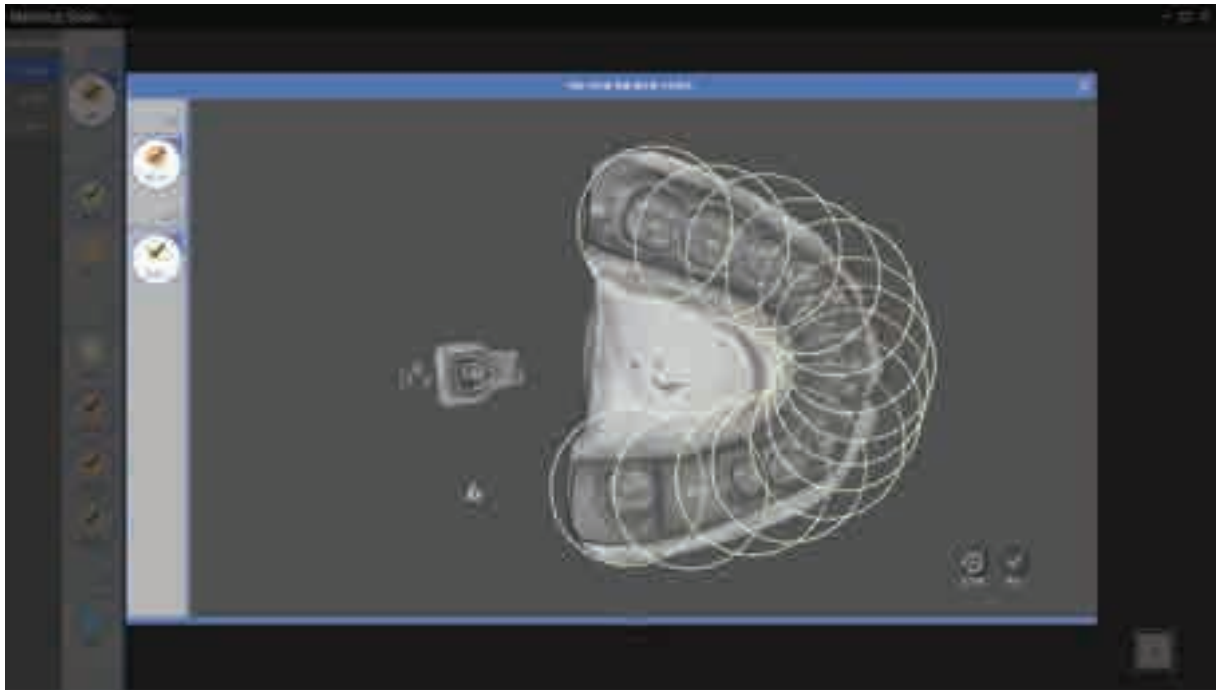


Press the “Delete” button to delete data.



Scan the rest of the model.

Place the lower jaw model and the upper jaw single dies on the flexible multi-die as done above.



The scan data can be checked.



The articulator model can be scanned in the same way it normally would.



All scanning is complete. Perform the following steps to sort the data.