

Guide for full arch scanning

Preparing scan

Software setup

1. Open Planmeca Romexis® software. In *Patient Management*, search and select the right patient.
2. Click on the patient. Hover your mouse over *Capture* and, under *Models*, select *Scan* to proceed to scanning.

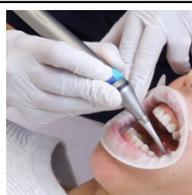
Alternatively, select the patient with a double-click and click on the *Models* symbol on the module menu.

The scanning window opens with *Upper* automatically selected as the scan type.



Preparing patient for scanning

- Retraction devices are recommended to keep the lips and cheeks away from the scanner.
- Dry the teeth before you start scanning.
- The scanning is easier when the patient is in a horizontal position.



General instructions for scanning

Holding scanner

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



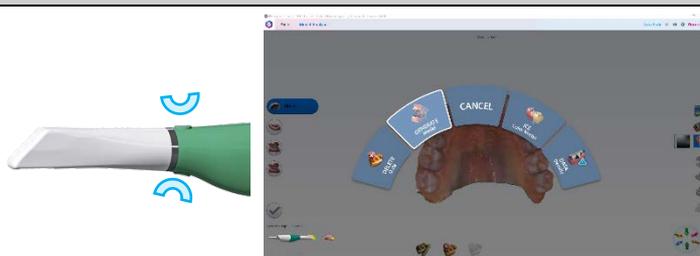
Button and mouse controls

Selecting actions

- Select different actions by pressing the scanner's two buttons simultaneously and rotating the scanner. Release the buttons to select the desired action.

Rotating and zooming the scanned model

- With Planmeca Emerald™ S, you can rotate and zoom the scanned model by pressing and holding the upper scanner button and moving the scanner.
- With Planmeca Emerald™, move and zoom the model using a mouse. Press and hold the right button while dragging the cursor over the screen. Roll the scroll wheel up or down to zoom the model.



Software settings and tools

If you are scanning bright surfaces in mouth (e.g. golden restorations, brackets) or dental gypsum models, click on the *Scan Model* symbol to dim the scanning mode.



While scanning, you can remove unwanted data by activating the *Active Delete* function. To activate the function, press the lower button once and rescan the areas with unwanted data.



After scanning, you can refine the scanned model by using the *Eraser* tool to remove tongue or cheeks from the scan.



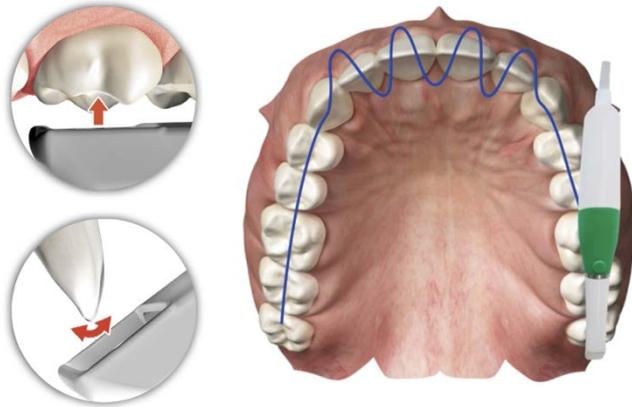
Scanning process – Upper arch

Scanning upper arch

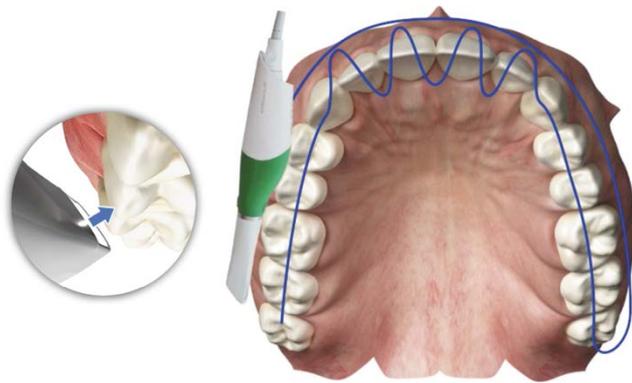
Activate the scanner by pressing the upper scanner button once.



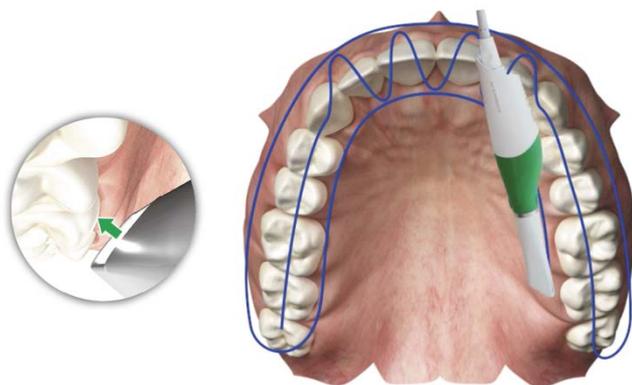
Start scanning from the occlusal surface with the tip of the scanner pointing towards the distal.
Scan the occlusal of the entire arch.
On the anteriors, rotate back and forth from the palatal to the facial to capture data on all three surfaces to avoid possible errors in stitching.



Scan all of the buccal.
The scan should continue from the occlusal surface already captured and overlap with it.



Scan all of the palatal.
The scan should continue from the occlusal surface already captured and overlap with it.



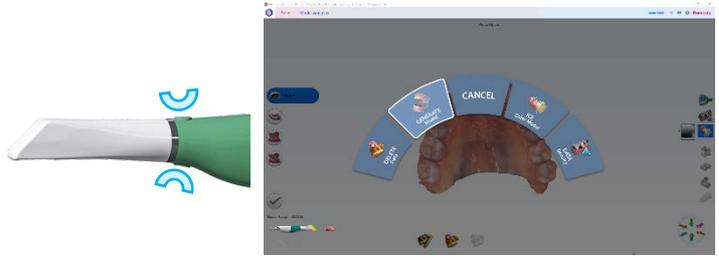
Stop the scanner by pressing the upper button of the scanner once.



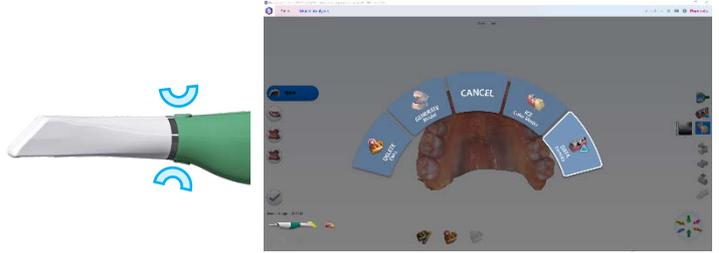
Generating and evaluating model

After scanning the upper arch, press and hold both buttons of the scanner at the same time and rotate the scanner until you have selected *GENERATE Model*. Release the buttons to generate the scan model.

You can also click on the *Generate Model* button on the screen or press M on the keyboard.

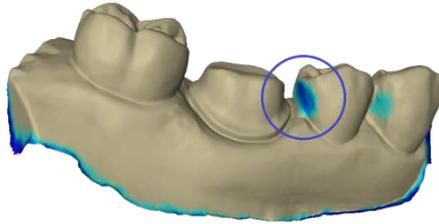


To evaluate the model for missing data, press and hold both buttons of the scanner simultaneously and rotate the scanner to select *DATA Density*.



Next, rotate the model and analyse it for areas which appear blue and indicate missing data:

- Dark blue areas are missing data and must be scanned again, if the data is missing at the area of interest.
- Light blue areas have low but enough data density and usually do not need to be rescanned.



If necessary, rescan (dark blue) areas with missing data.

Place the scanner over an area already scanned, restart the scanner by pressing the upper button and hold it still.

When you hear the sound, the scanner is capturing data again.



Once you are ready, move on to the opposite arch by pressing the lower button of the scanner, which activates *Lower* as the scan type.

If you have rescanned the model, the model is now generated again automatically.



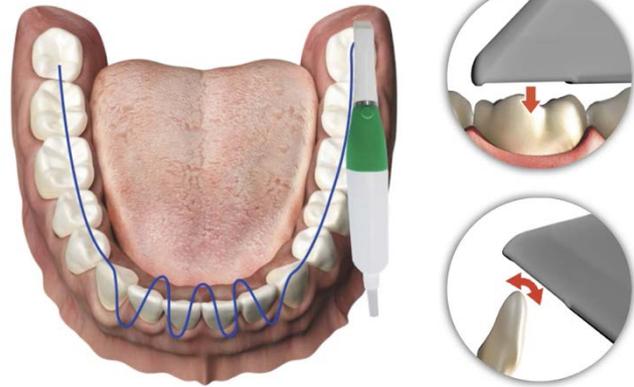
Scanning process – Lower arch

Scanning lower arch

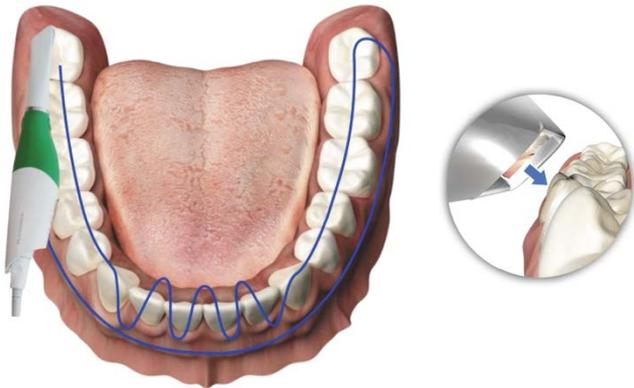
Activate the scanner by pressing the upper scanner button once.
Start the scan from the same side as with the upper arch.



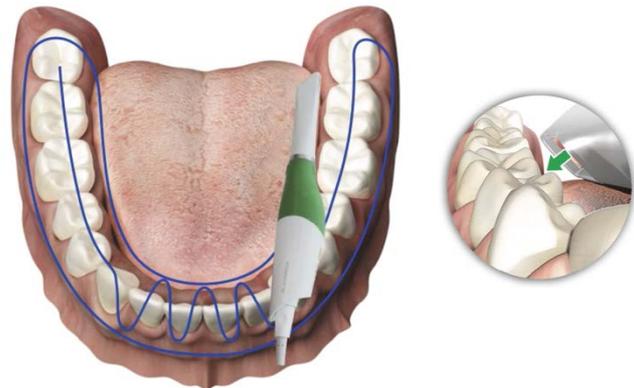
Start scanning from the occlusal surface with the tip of the scanner pointing towards the distal.
Scan the occlusal of the entire arch.
On the anteriors, rotate back and forth from the lingual to the facial to capture data on all three surfaces to avoid possible errors in stitching.



Scan all of the buccal.
The scan should continue from the occlusal surface already captured and overlap with it.



Scan all of the lingual.
The scan should continue from the occlusal surface already captured and overlap with it.



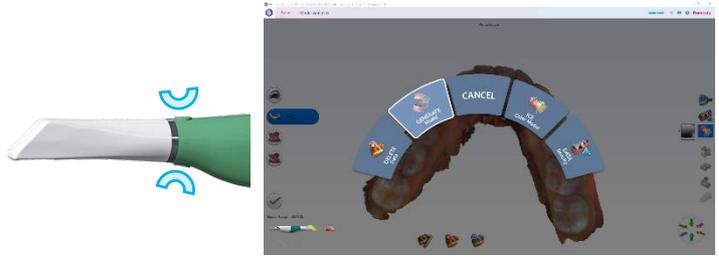
Stop the scanner by pressing the upper button of the scanner once.



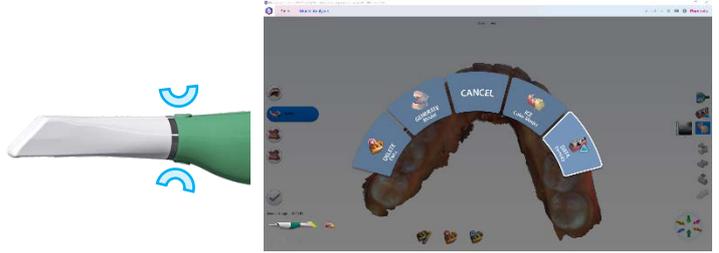
Generating and evaluating model

After scanning the lower arch, press and hold both buttons of the scanner at the same time and rotate the scanner until you have selected *GENERATE Model*. Release the buttons to generate the scan model.

You can also click on the *Generate Model* button on the screen or press M on the keyboard.

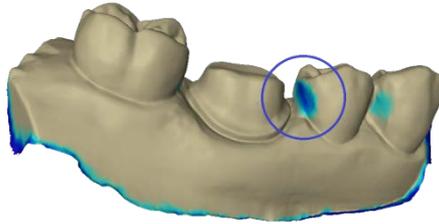


To evaluate the model for missing data, press and hold both buttons of the scanner simultaneously and rotate the scanner to select *DATA Density*.



Next, rotate the model and analyse it for areas which appear blue and indicate missing data:

- Dark blue areas are missing data and must be scanned again, if the data is missing at the area of interest.
- Light blue areas have low but enough data density and usually do not need to be rescanned.



If necessary, rescan (dark blue) areas with missing data.

Place the scanner over an area already scanned, restart the scanner by pressing the upper button and hold it still.

When you hear the sound, the scanner is capturing data again.



Once you are ready, continue to buccal bite to scan the teeth in occlusion. Press the lower button of the scanner to activate *Buccal 1* as the scan type.



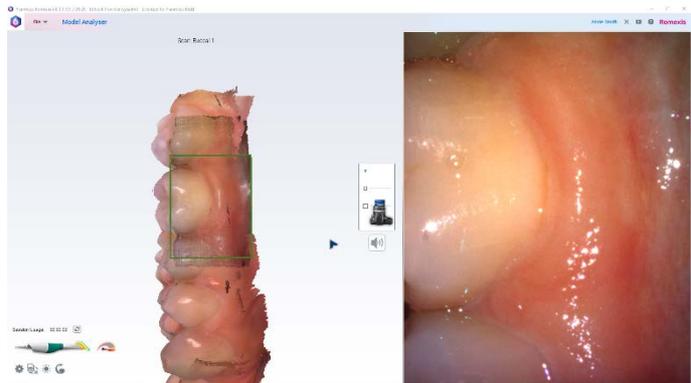
Scanning process – Buccal bite

Scanning buccal bite

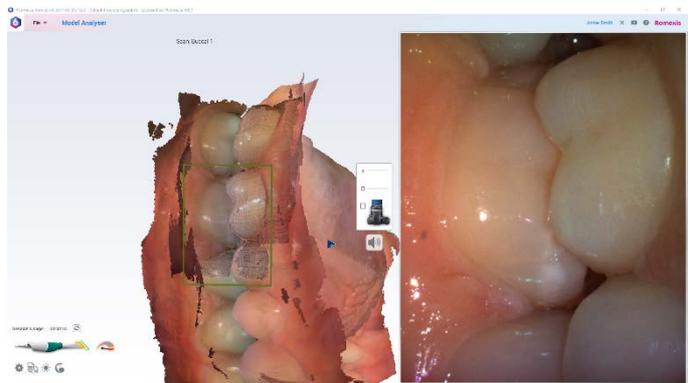
Activate the scanner by pressing the upper button of the scanner.
Start the scan from the same side as the previous scans.



Start with the buccal surface of the upper molars.
Hold the scanner still and capture the teeth until the previously scanned upper model appears on the screen and you hear a sound signal.
If the model does not appear, move the scanner slowly around and towards the anteriors one tooth at a time.



Capture the lower molars on the same side as instructed above until the previously scanned lower model appears and you hear a sound signal.



If the buccal models do not align correctly, select *Delete All Data* and try again.
Alternatively, or if the models did not appear after deleting the data, stop scanning and manually align the models with the *Align Buccal* tool in Planmeca Romexis software.
See Planmeca FIT® user's manual for detailed instructions.



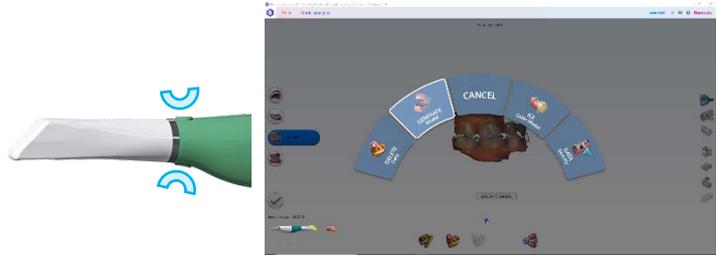
When the buccal models of one side have been aligned, press the lower button of the scanner to move on to *Buccal 2* and repeat the buccal scanning for the other side.



Generating and evaluating model

Once all buccal bite views have been aligned, press and hold both buttons of the scanner at the same time and rotate the scanner until you have selected *GENERATE Model*. Release the buttons to generate the scan model.

You can also click on the *Generate Model* button on the screen or press M on the keyboard.



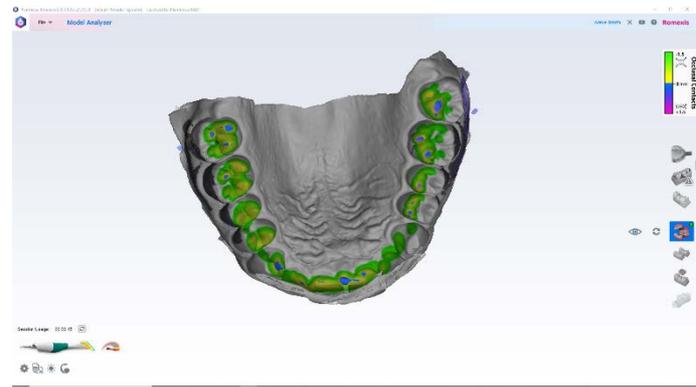
Verify the bite and, if necessary, refine the alignment automatically using the *Refine Alignment* tool.

See further instructions for using the *Refine Alignment* tool in the *Planmeca FIT® user's manual*.



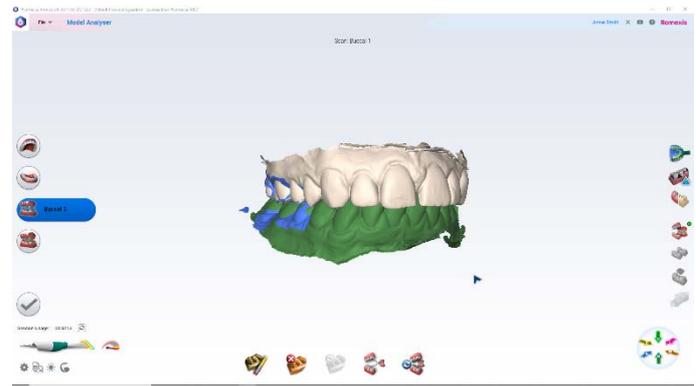
Finishing scanning

After you have completed the scanning, check the final result in the software.

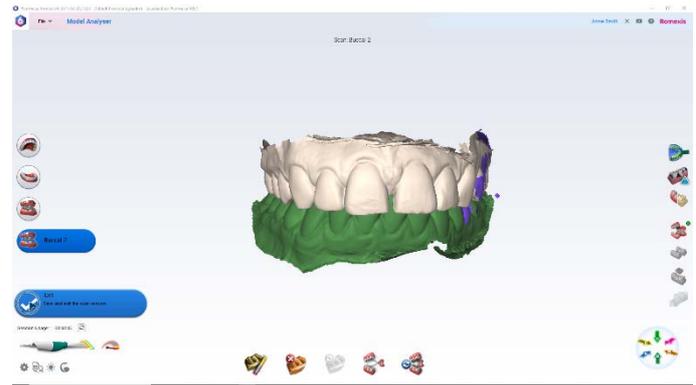


You can identify the different scan models by the colour:

- White: Upper arch
- Green: Lower arch
- Blue: Buccal 1 view (showing the area you captured with the scanner to align the buccal views)
- Purple: Buccal 2 view (showing the area you captured with the scanner to align the buccal views)



Once you are ready, click on the check mark symbol to save and exit.



Continue to work with the digital impression as you prefer.