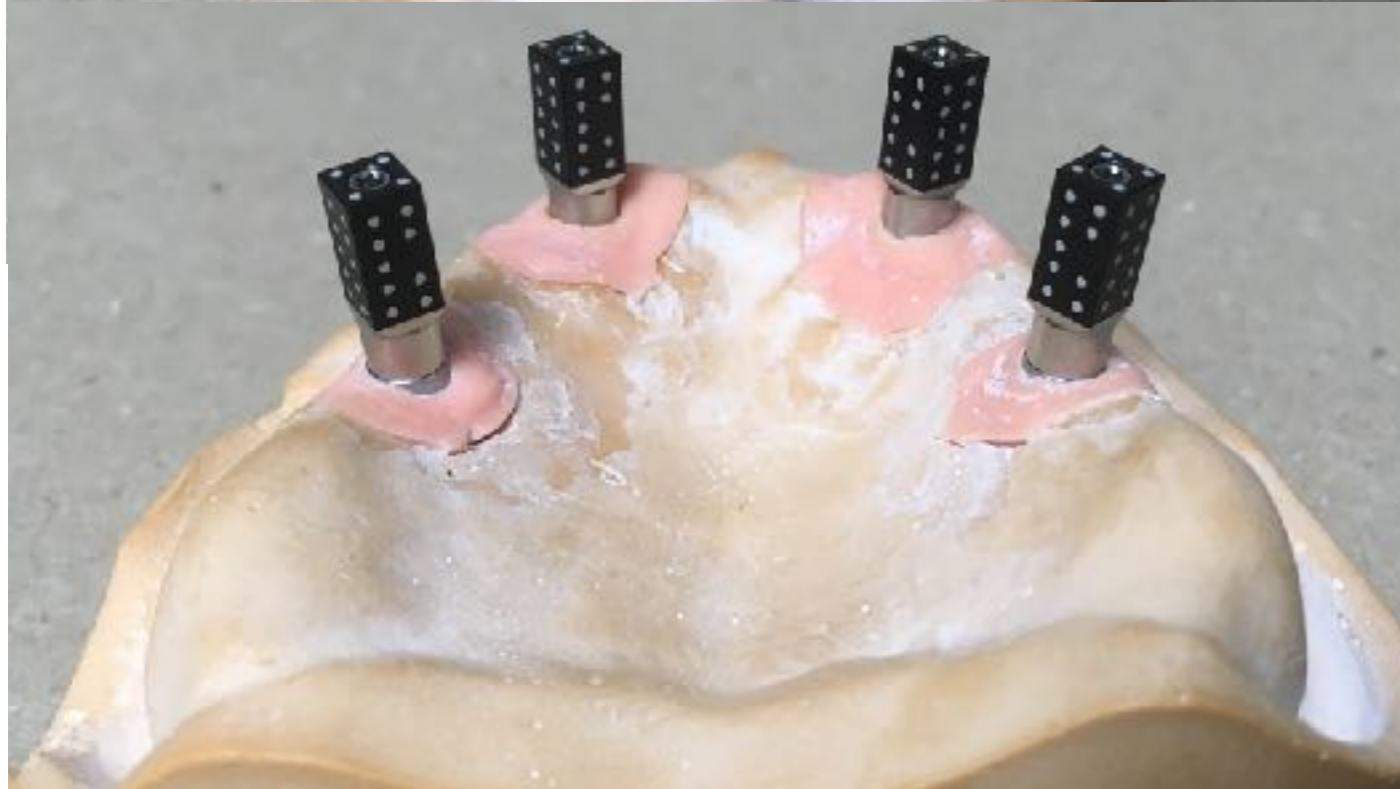
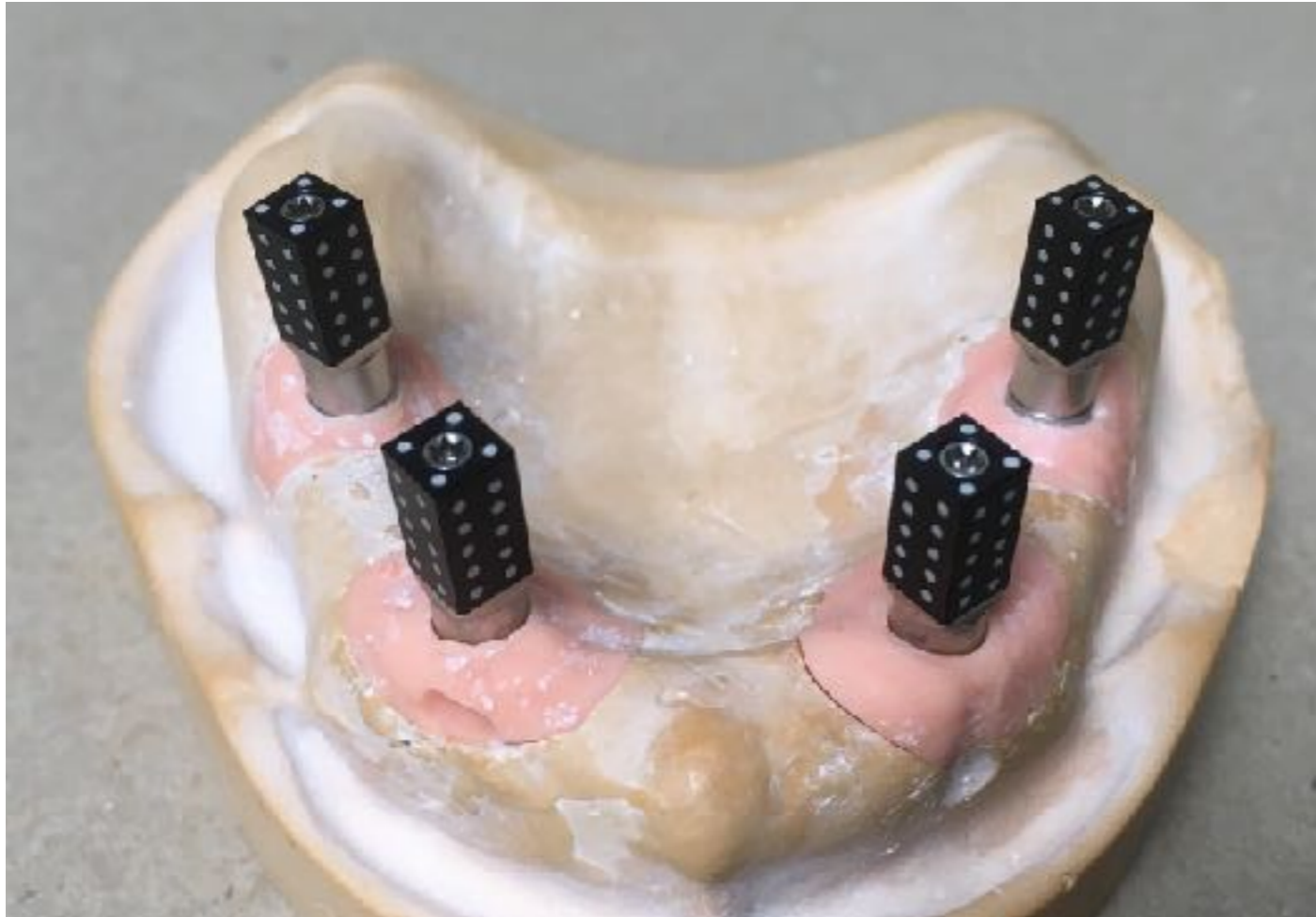




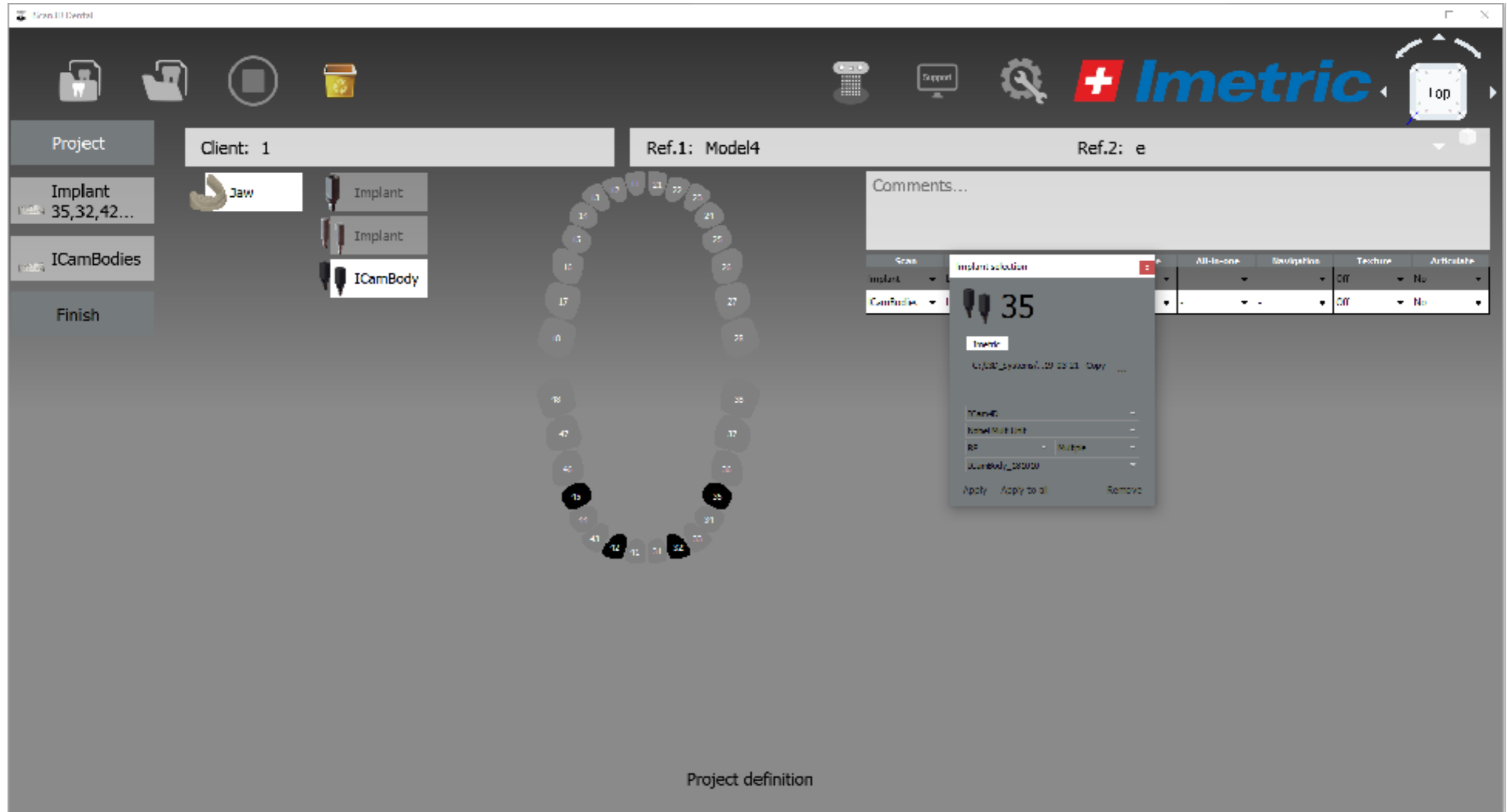
# ICam4D Workflow

## Short Explanation of Workflow with ICamBodies and ICamRefs

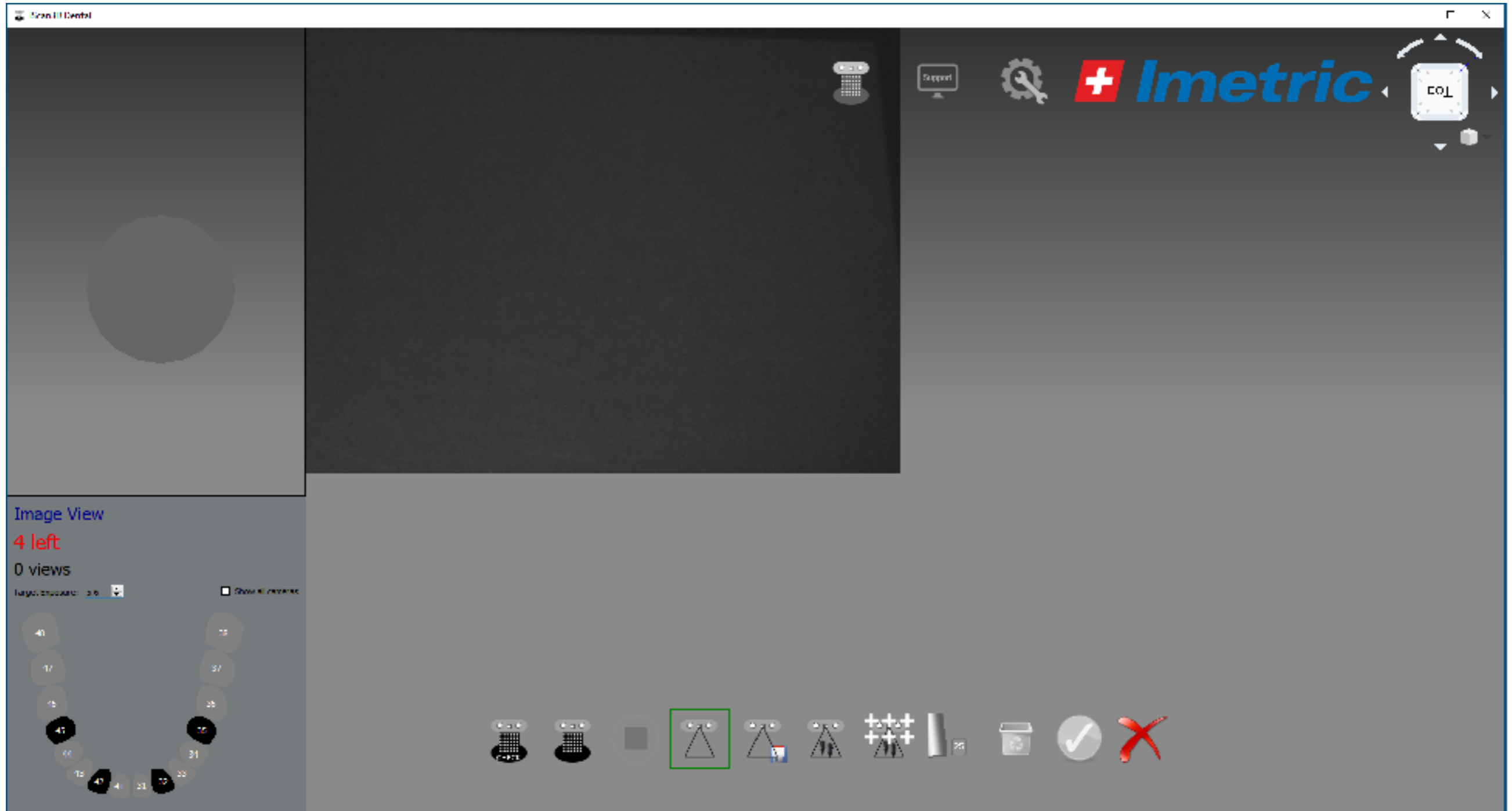


The ICamBodies must be placed such that the edge between two faces points to the front.

They must be rotated such that the face with the 9 targets points to the lingual position.



Selection of the ICamBody and set for each implant/abutment



User interface for measurement with ICam4D of ICamBodies

Imetric4D

Support

Imetric

Rear

Calibration Check

Target resolution: 0.6

Show all points

Poor, Points: 73, Plate residuals: (0.007, 0.004, 0.010), Ray diffs: 0.021

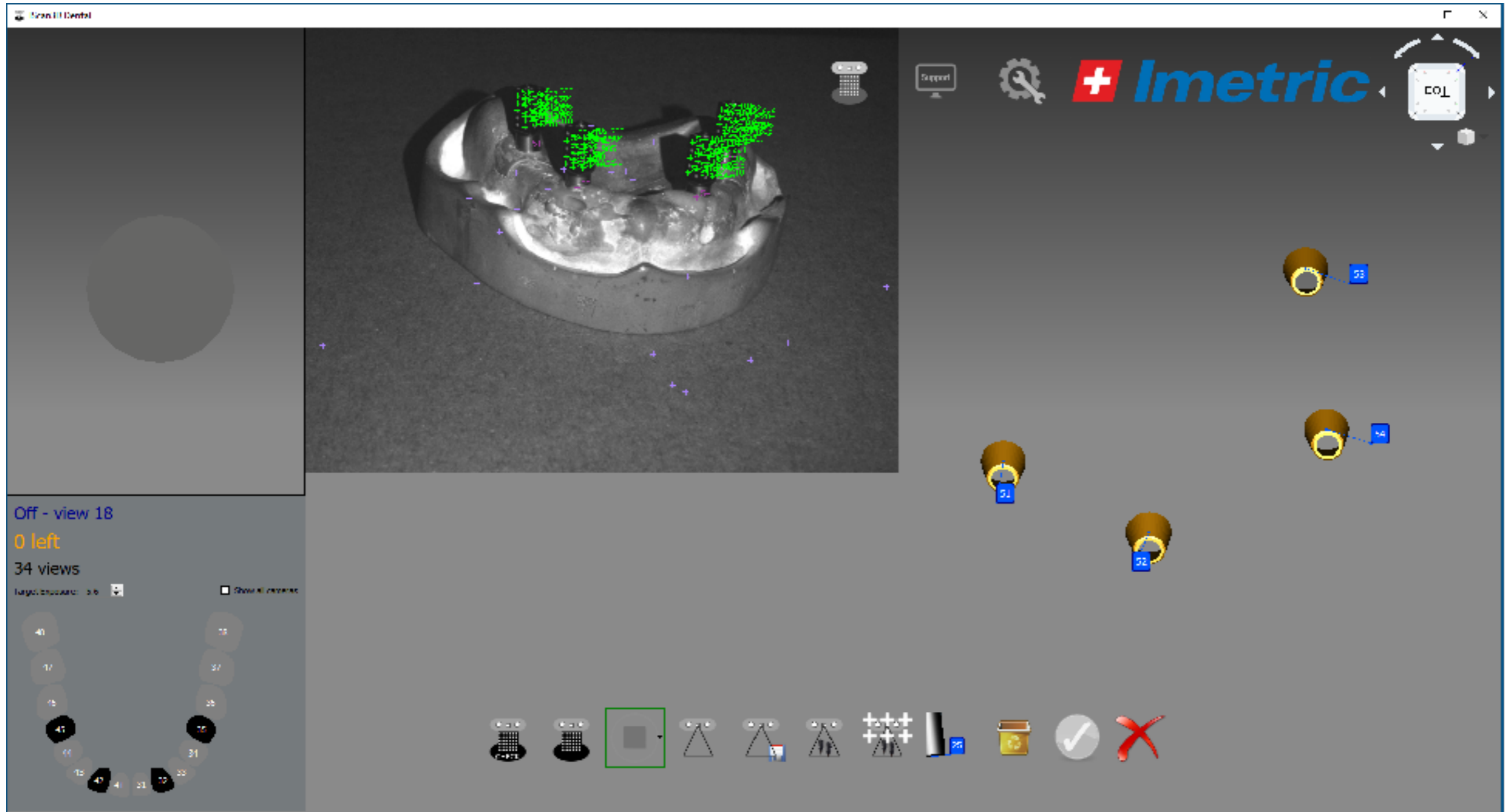
It is necessary to perform a calibration before each measurement to assure that the ICam4D is perfect.



The camera image shown in the user interface is from the camera to the left as seen from the person operating the camera, or the camera to the right in this picture.



The measurement is started at the extreme right side of the patient as seen from patient. The ICam4D is then moved slowly to the other side.

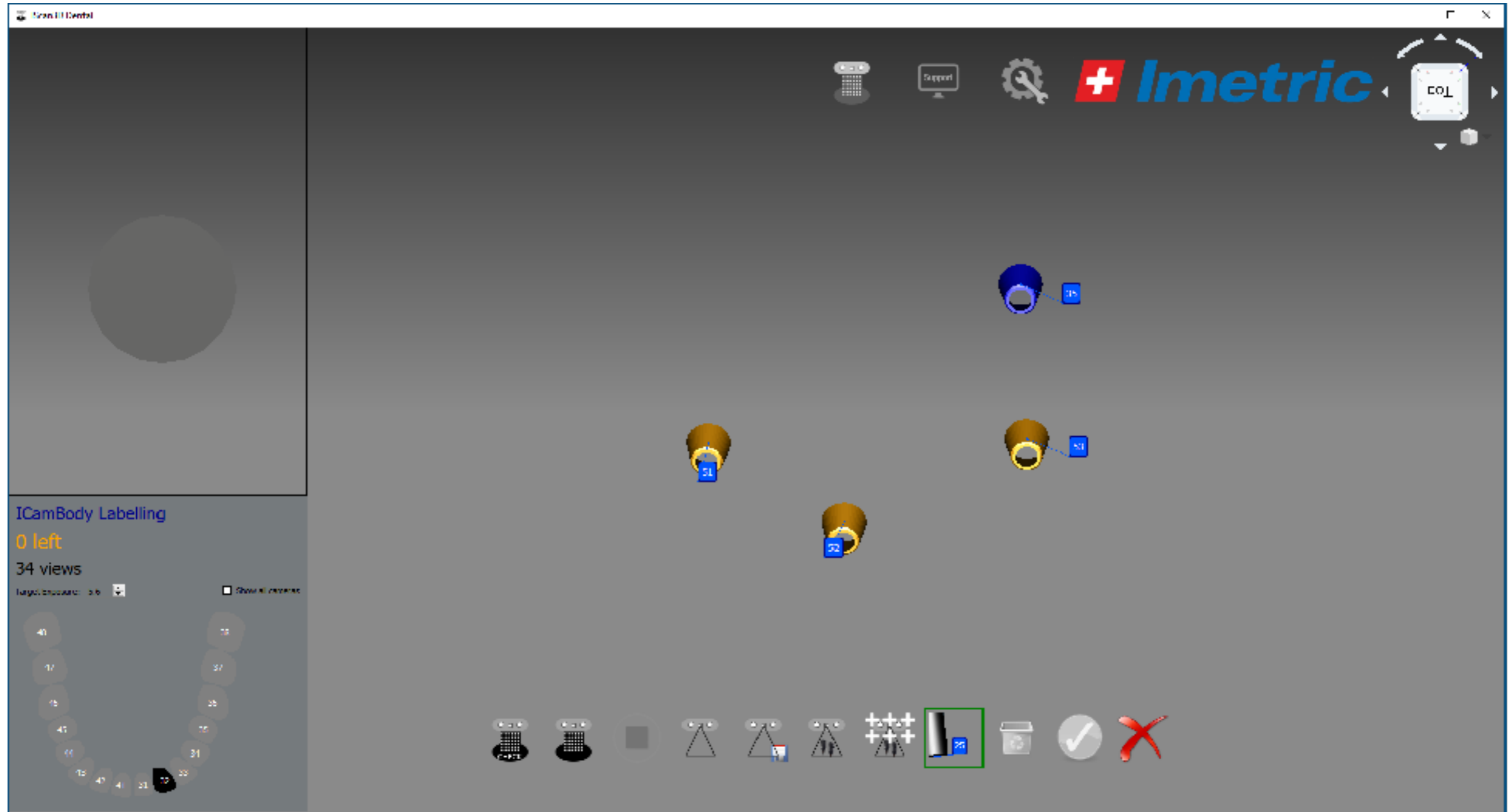


During measurements in the front of the patient.

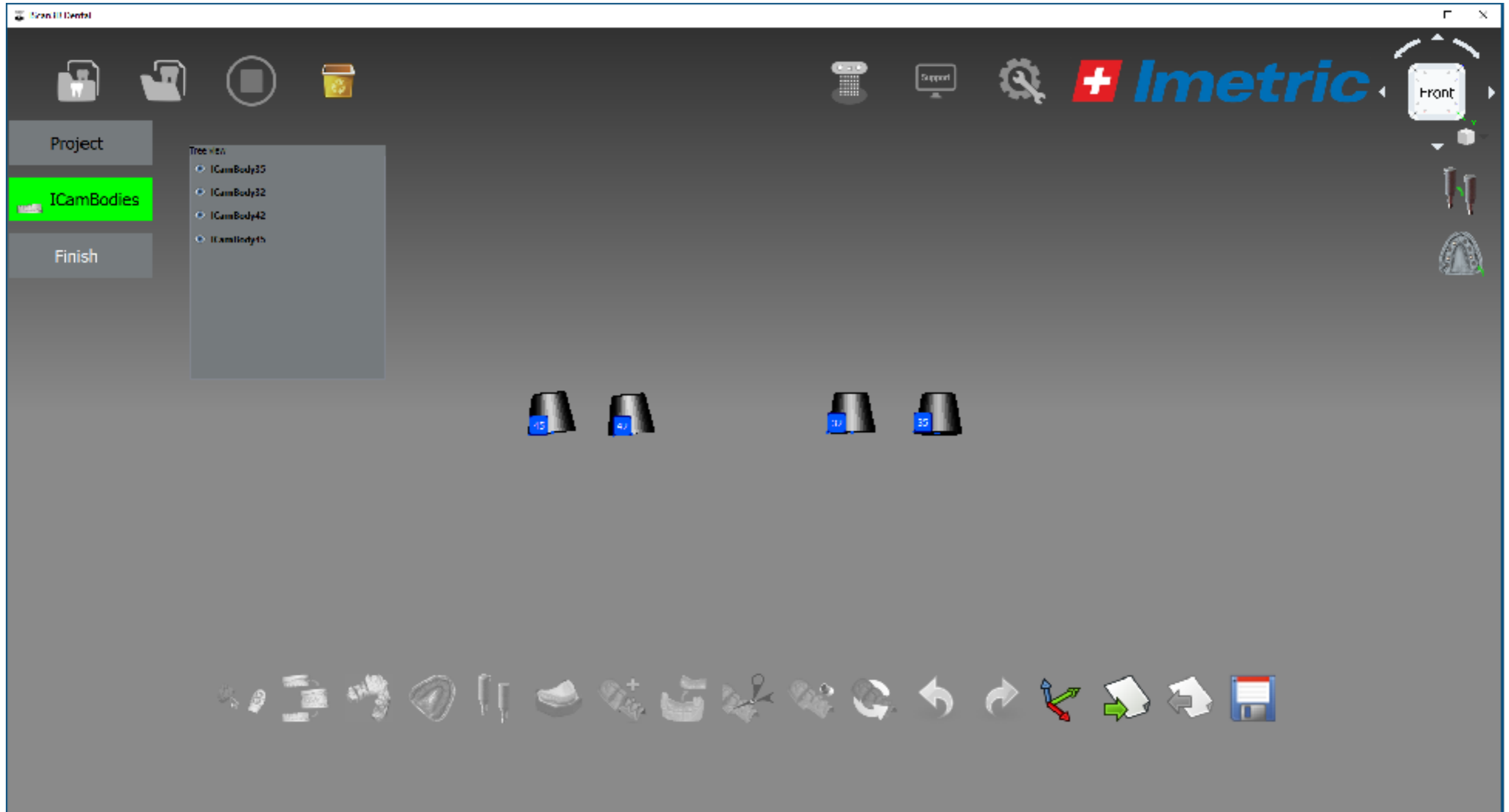




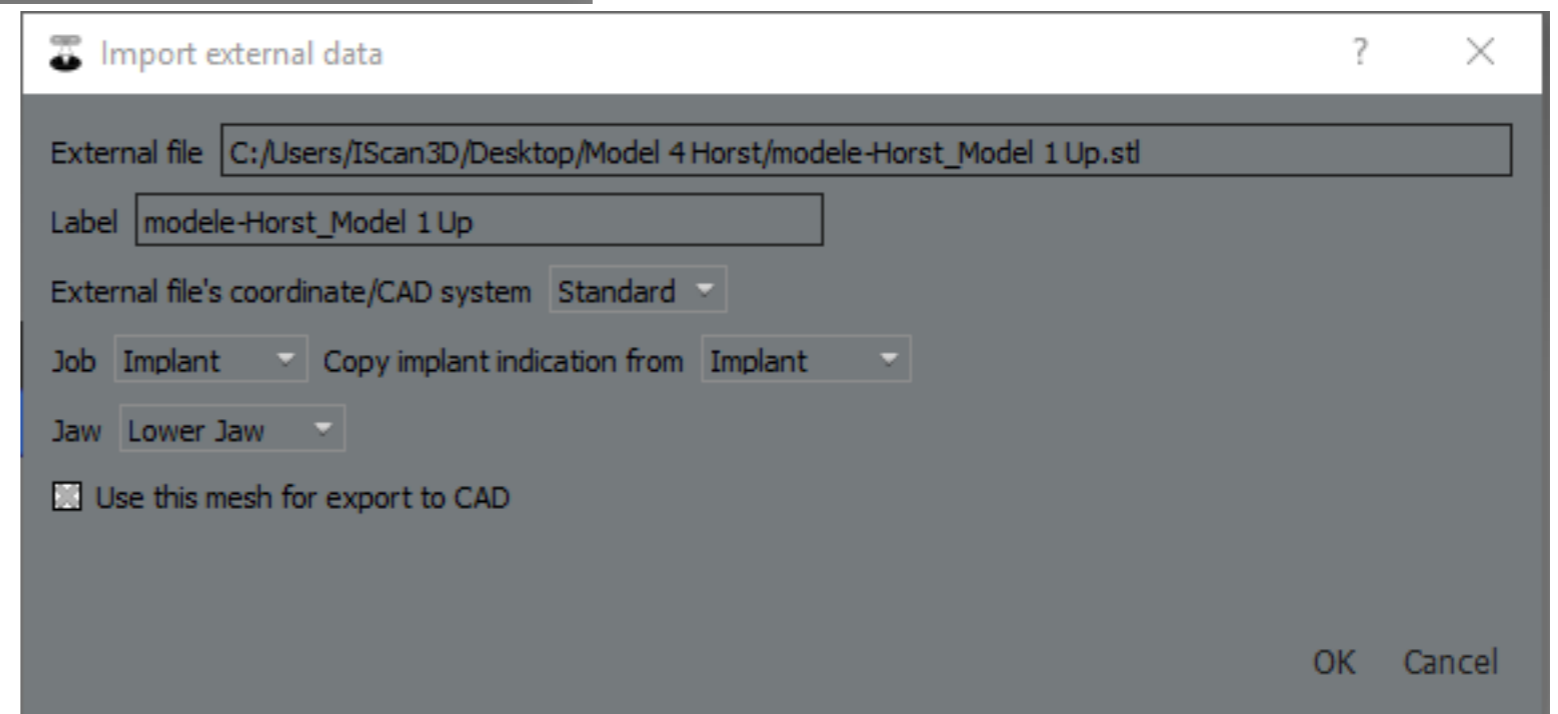
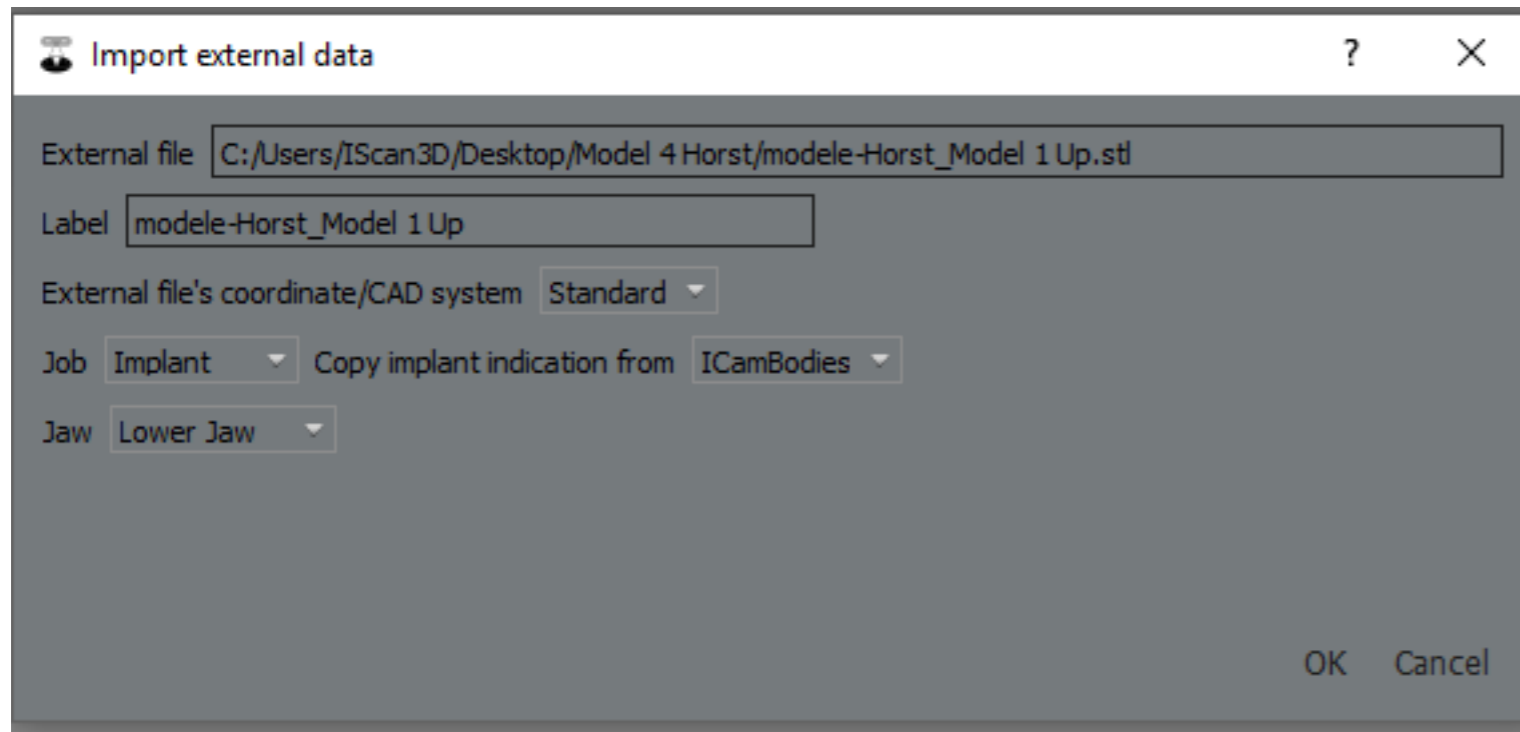
The measurement is completed when the opposite side is reached. All ICamBodies have been measured on two fronts.



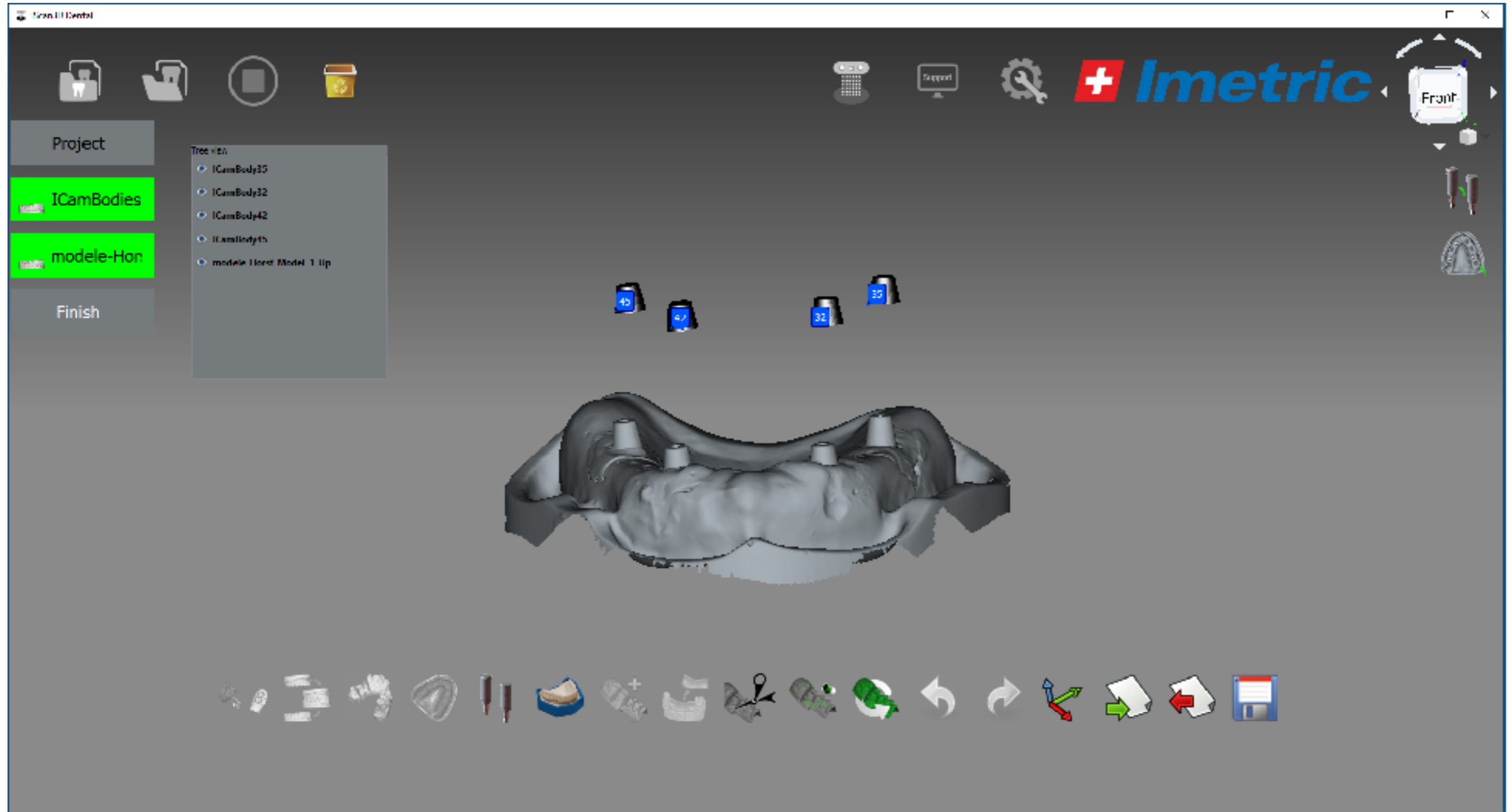
The user indicates the tooth numbers of each ICamPosition



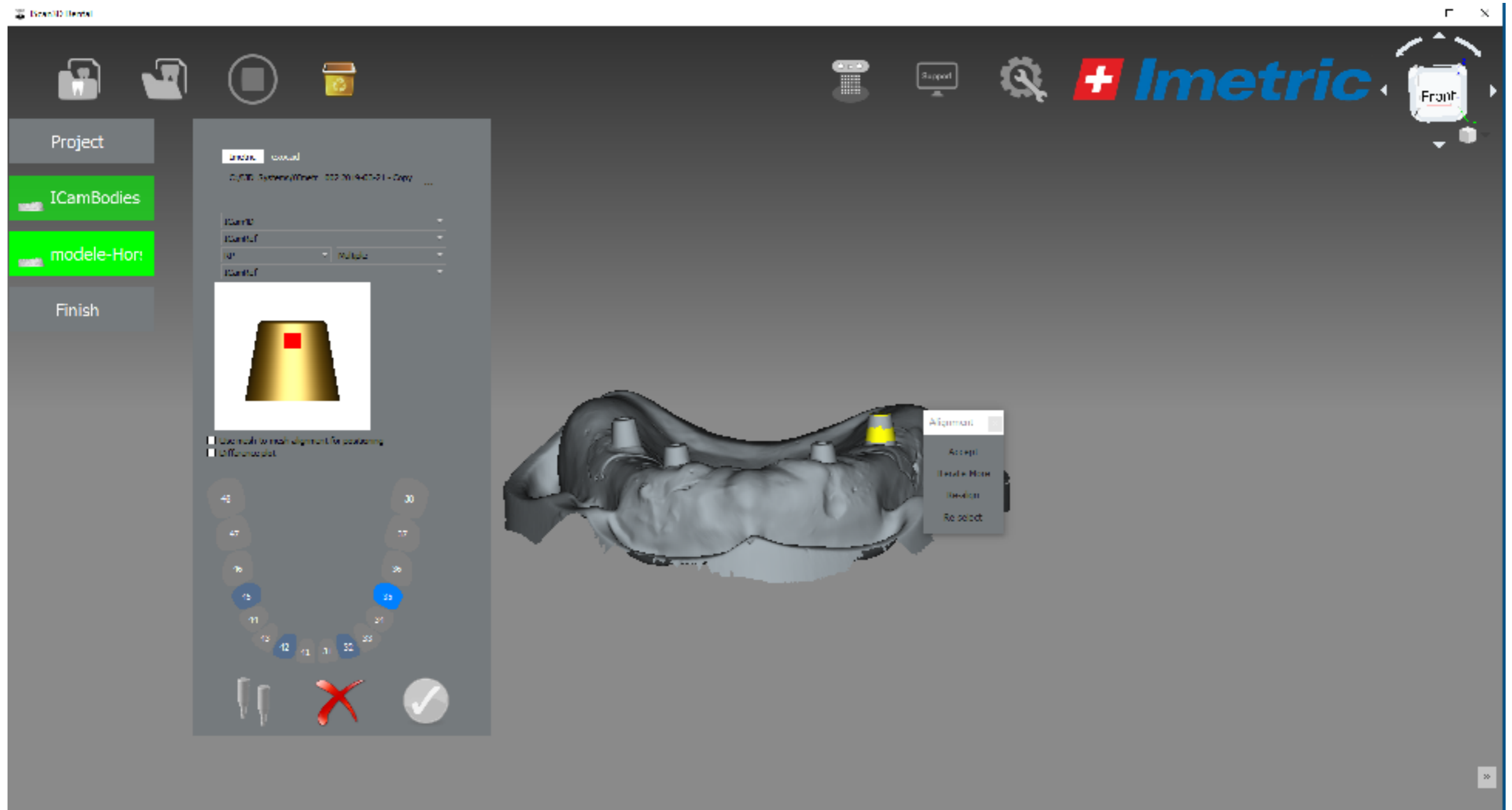
Finish page after measurement of ICamBodies. Third button from the right on bottom is for import of gingiva. These steps can be done later-on.



Panel for import of gingiva stand-alone or with DentalDB.



Finish page after import of gingiva. On top are ICamPositions on bottom gingiva with ICamRefs.



The ICamRefs are measured like ScanAdapters to get the position (and axis) of the implant/analog.

Implant set alignment

Moving set: Lower Jaw ICamBodies 1

Fixed set: External Lower Jaw Implant 1

Options

Use standard deviation

Fix scale

Use only origin points

Use only origin and Z-axis points

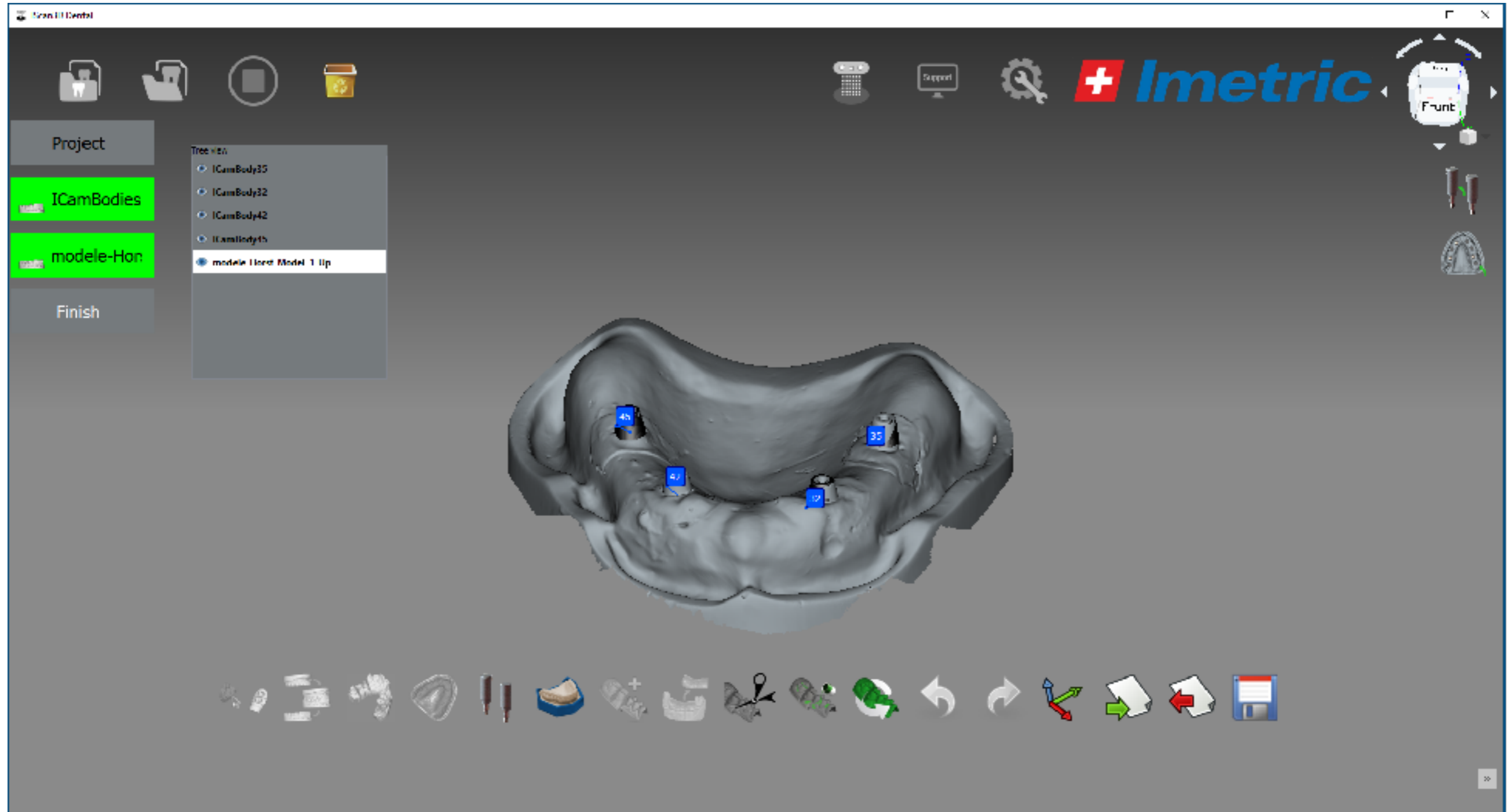
Use all origin and axis points

Compute transformation    Apply transformation

RESULTS OF LEAST SQUARES TRANSFORMATION  
=====

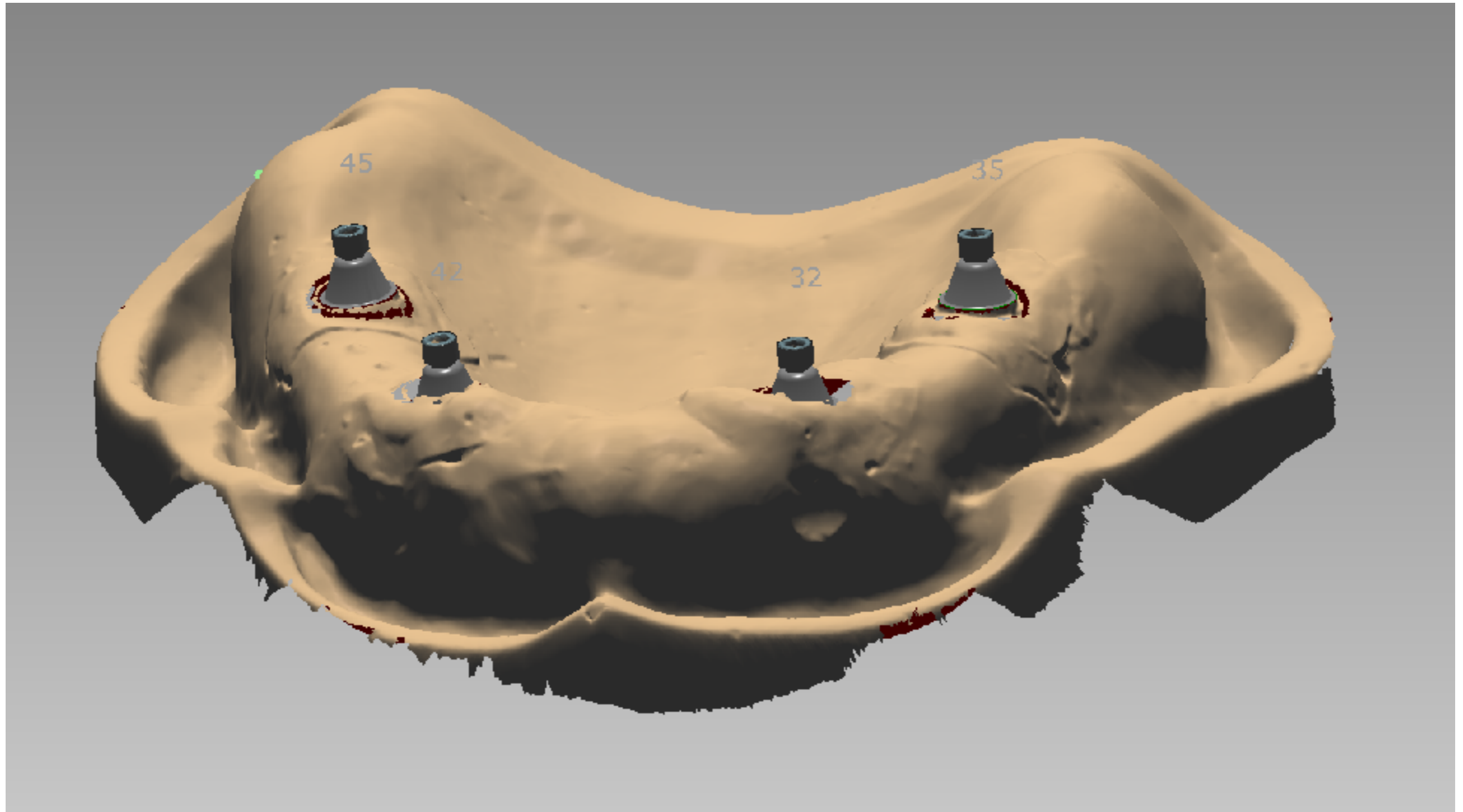
| Point Name | Residuals  |            |            |
|------------|------------|------------|------------|
|            | vX<br>[mm] | vY<br>[mm] | vZ<br>[mm] |
| 35_Origin  | -0.0625    | -0.0317    | -0.0327    |
| 32_Origin  | 0.0739     | 0.0136     | 0.0605     |
| 42_Origin  | -0.0015    | -0.0538    | -0.0597    |
| 45_Origin  | -0.0098    | 0.0719     | 0.0319     |
| RMS:       | 0.0487     | 0.0481     | 0.0482     |
| Max:       | 0.0739     | 0.0719     | 0.0605     |
| At:        | 32_Origin  | 45_Origin  | 32_Origin  |
| No.:       | 4          | 4          | 4          |

Computation to transform the ICamPositions to the gingiva using the ICamRefs.



The ICamPositions from the ICamBodies are aligned to the gingiva. The data is now complete to go to CAD.





Data with gingiva and bases for design of bar in DentalCAD.

# Cleaning of ICamBodies



The screw must be removed from the ICamBody. Clean the screw and the ICamBody. Be careful not to damage the implant interface and the targets on the ICamBody when handling or when disinfecting with an autoclave.



Please send technical comments as well as requests for support to:

[support@imetric4d.com](mailto:support@imetric4d.com)

Our international team located on 3 continents is looking forward to helping you!

Thank you very much for making ICam4D even better!