



DYNAMIC ABUTMENT \* SOLUTIONS

# MULTI-UNIT DASSYSTEM

Work different, work better



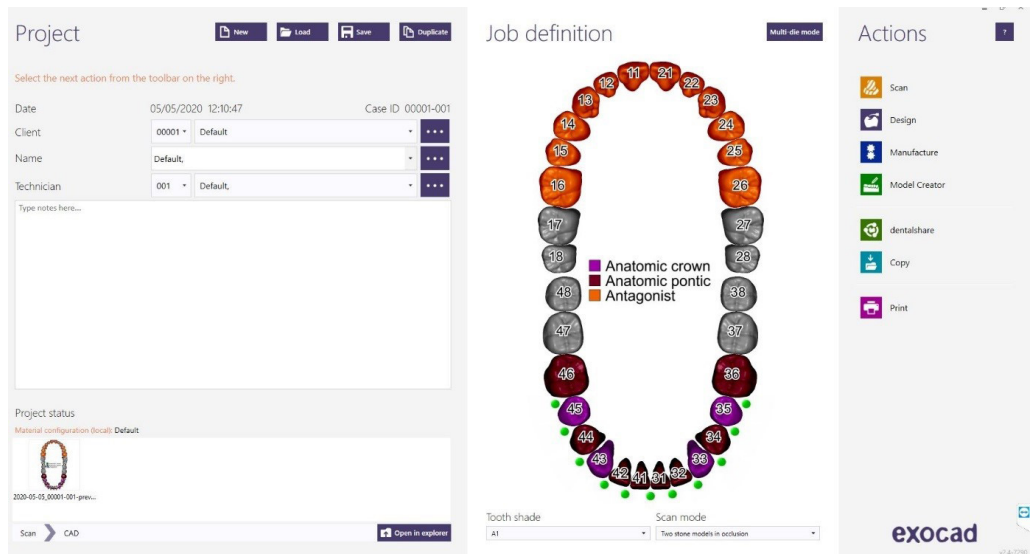
## INSTRUCTIONS FOR USE

DYNAMIC ABUTMENT® SOLUTIONS

# exocad

## INTRODUCTION

When starting the Exocad DentalDB program, the following screen appears to define the work to be done.



On this screen you define customer, patient, technician, type of work, materials, etc. The job is completely defined without specifying the brand and model of the implant.

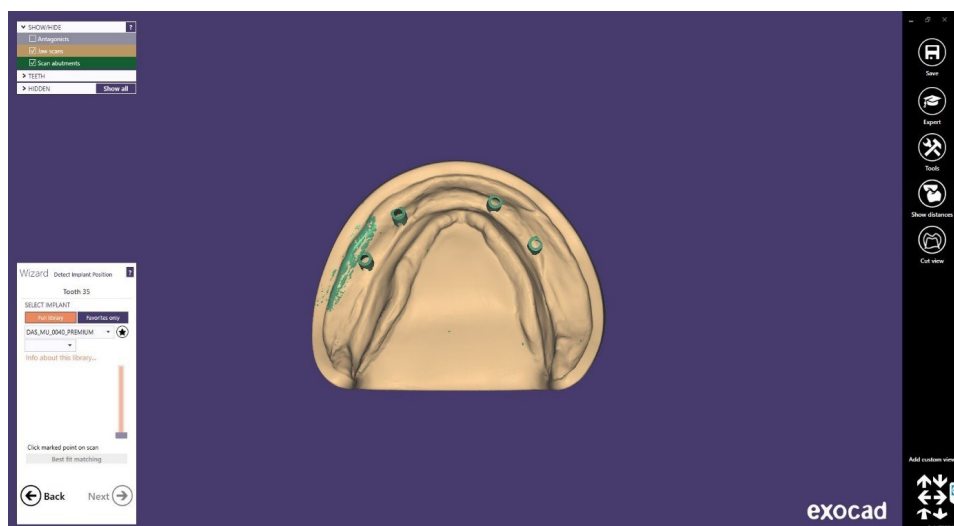
Define that the work will be done with an implant, since the reconstruction will be based on one or several implants depending on whether the work is single or multiple.

## Select Dynamic Abutment Solutions library (DAS MU)

When selecting the DAS library to work with DAS Multi-Unit system, you can choose from different Scanbody systems for scanning, which are:

- DAS Scanbody Multi-Unit
- DAS ScAnalog Multi-Unit (For more information on how to work with a ScAnalog, request specific ScAnalog Instructions for Use).
- Dynamic Scanbody (8mm, 10mm and 12mm, with adapter options I or IG)

Then with the type of Scanbody you must choose the compatibility of the implant (such as Nobel Biocare, Straumann, Astra, Zimmer, etc.).



The DAS libraries have, as mentioned above, different Scanbody options, which are represented by the following nomenclatures:

DAS\_MU\_XXXX\_PREMIUM - Library with Scanbody Multi-Unit

DAS\_MU\_SA\_XXXX\_PREMIUM - Library with ScAnalog Multi-Unit

DAS\_MU\_I/IG\_HH\_XXXX\_PREMIUM- Library with Dynamic Scanbody (for rotary prosthetic option only)

Nomenclature:      DAS = Dynamic Abutment Solutions  
                            MU = Multi-Unit  
                            XXXX = Compatibility (Example 0040)

PREMIUM = You have the prosthetic options of Tibases, Direct to Implant, Direct to Provisional Implant, both Direct to Implant with real connection values for milling. Also the option of Digital Analog.

SA = ScAnalog

I/IG = Standard I Adaptador or 3mm IG Adaptador

HH = Scanbody height, can be 8mm, 10mm or 12mm

The company has a listing (PDF) which marks the compatibility of the implant with a number, such as the compatibility DAS\_MU\_0001\_PREMIUM stands for Biomet 3I Certain Narrow Platform.

The same number may have more than one compatibility, e.g. DAS\_MU\_0024\_PREMIUM is compatible with Nobel Biocare Branemark Regular Platform, but will also be compatible with external hexagons that are compatible with the dimensions of the external hexagon of Branemark Regular Platform.

Once the compatibility is selected, the type of work to be done is now decided. One of the most important advantages of the system is that it has different work options.

Ti-Base\_NR = Non-Rotating TiBase

Ti-Base\_R = Rotating TiBase

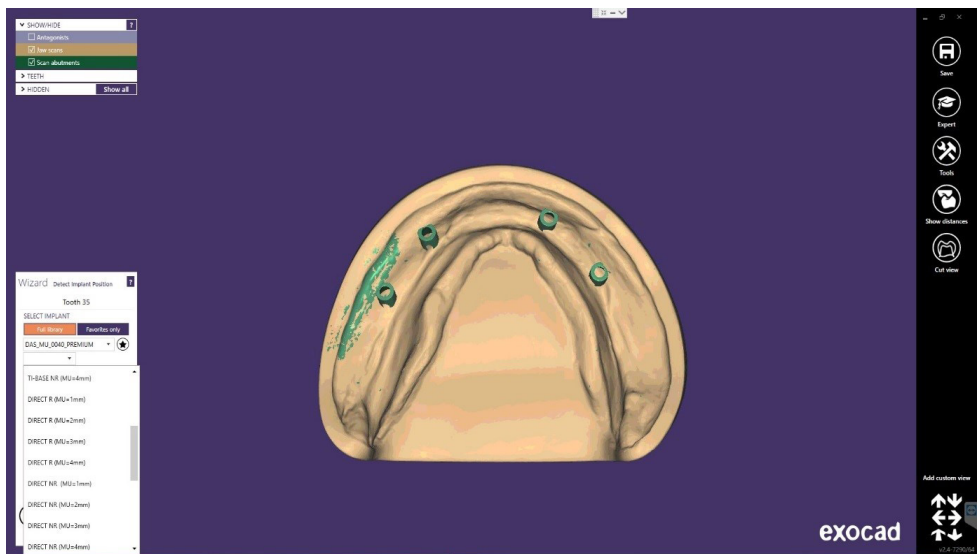
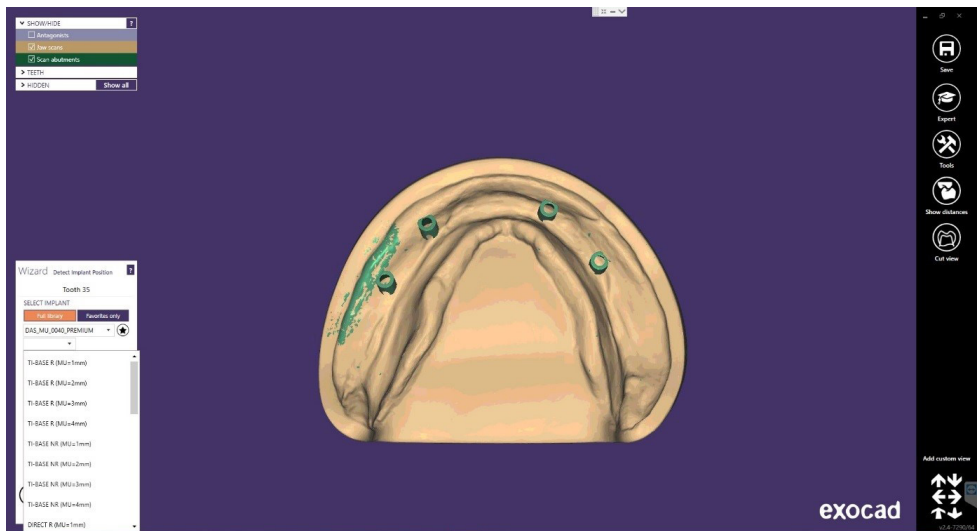
Direct\_NR = Direct to implant Non-Rotary

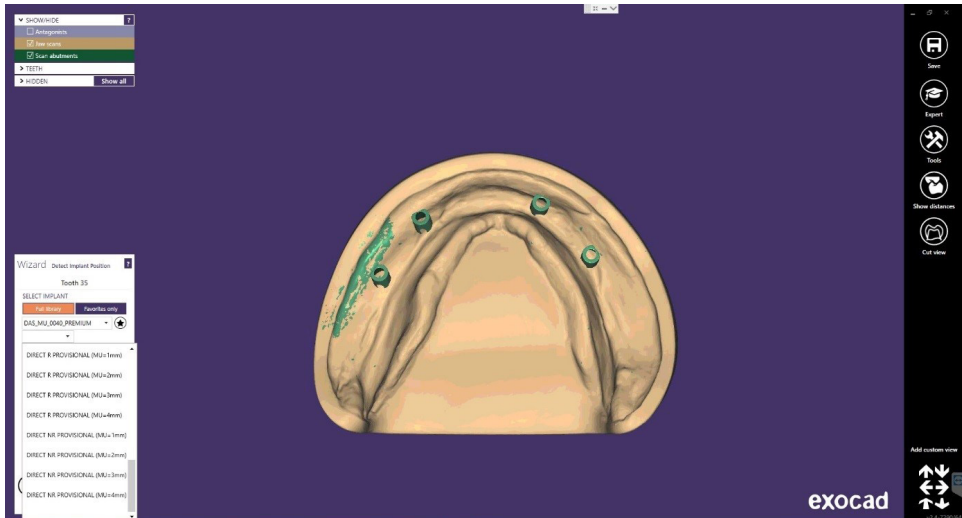
Direct\_R = Direct to implant Rotary

Direct\_NR\_Provisional = Direct to implant for non-rotating temporaries

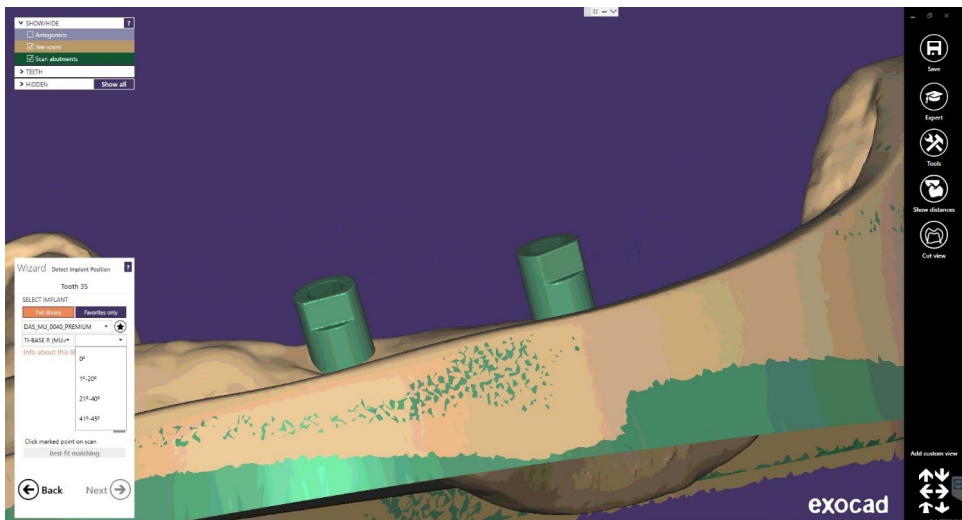
Direct\_R\_Provisional = Direct to implant for rotating temporaries

As shown in the following images, each prosthetic option is accompanied in brackets by the Multi-Unit option with which you want to work, such as MU=1mm which means that it is the Multi-Unit with 1mm of gingival height with which you want to work and design the prosthesis.





Once the type of work to be done has been selected, we proceed to select whether to work with a straight ( $0^\circ$ ) or angulated screw channel up to  $45^\circ$ .

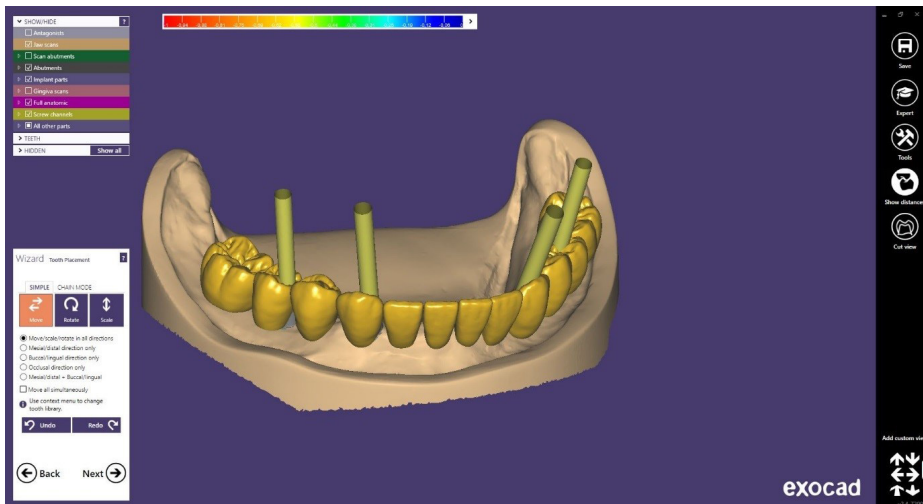


Once the compatibility and type of work has been selected, the angulation for each structure is chosen. As can be seen in the previous image, the angles are by sections,  $0^\circ$ , from  $1-20^\circ$ ,  $21-40^\circ$  and from  $41-45^\circ$  (In Provisional until  $35^\circ$ ). Once the section has been selected, the angle can be moved freely in the design section.

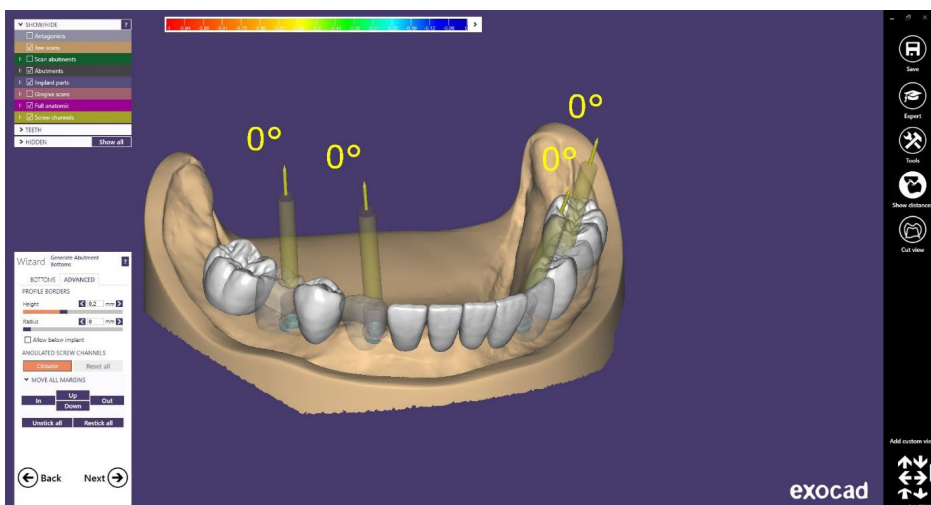
Once the scanbodies are positioned correctly, click "Next".

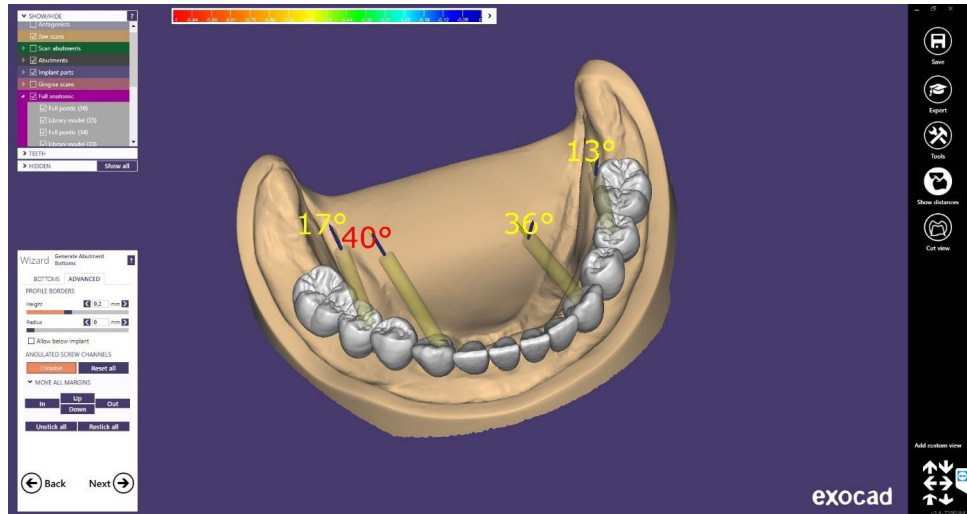
## Structure Design

In this step you define the position, rotation and scale of the structure.



Next in “Create abutment base”, on “ Advanced”, there is an option called “Angled chimneys”, where you can change the angle and direction of the chimney.





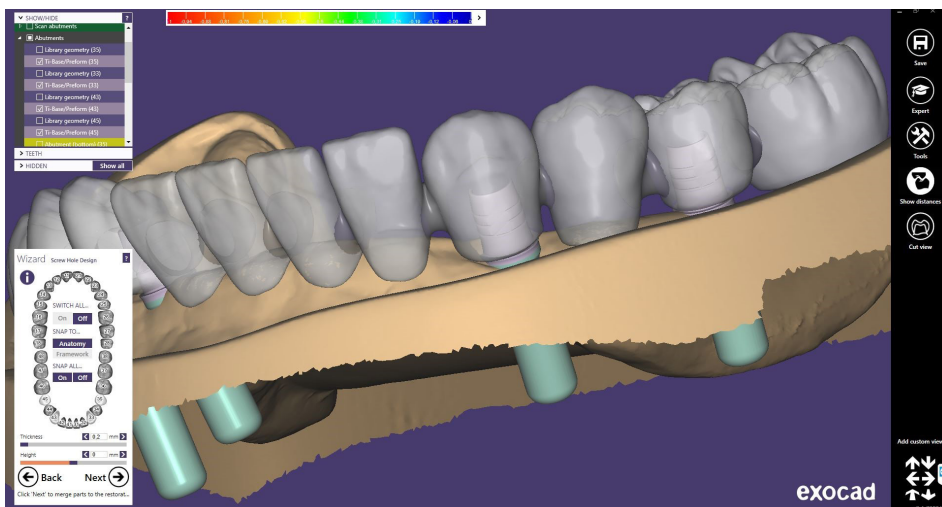


A very important point in the Plovdiv (or later) version is the possibility of changing the Multi-Unit without having to rescan the model or call the patient again for a gingival height change scan of the Multi-Unit.

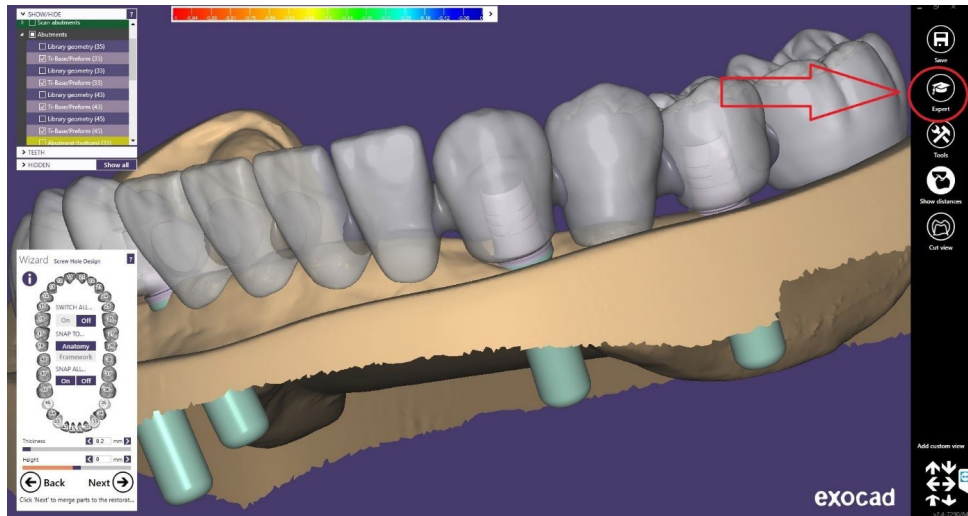
When the prosthesis is being designed and the client observes that it may be necessary to change the gingival height of one or more Multi-Units, the prosthetist can communicate with the clinician and show him/her the design and possible change of the Multi-Unit. With the Dynamic Abutment Solutions work system and the Multi-Unit library, it is possible to change the Multi-Unit in the virtual design and to design and mill the prosthesis without rescanning. This way the clinician only has to change the Multi-Unit(s) that are changed in the design on the patient and will have the job solved without the need for multiple scans or multiple designs. If the Exocad Plovdiv version is also available, it allows us to change the Multi-Unit while keeping the prosthesis design already made.

Below is an explanation of how the options are activated and how they work.

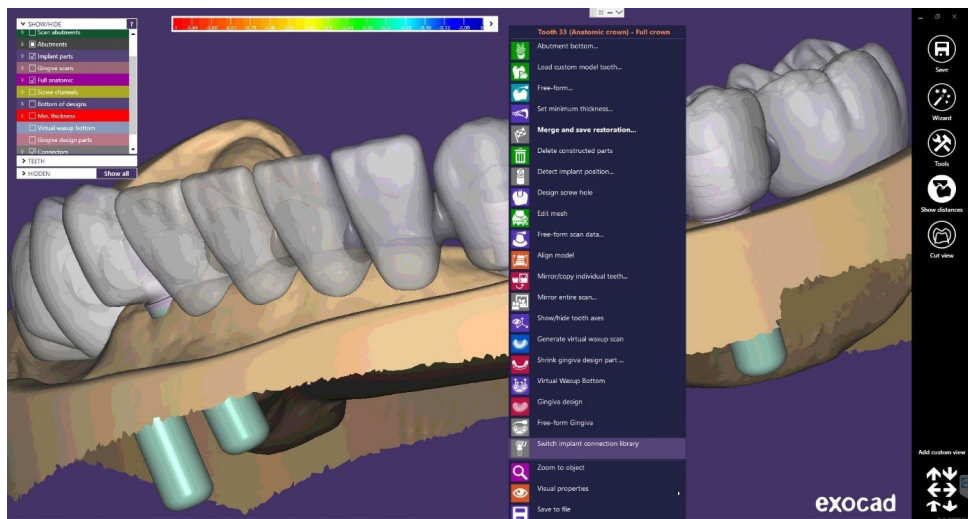
The following picture shows a standard design in Exocad.



To be able to change the Multi-Unit it is necessary to go to “Expert Mode”.

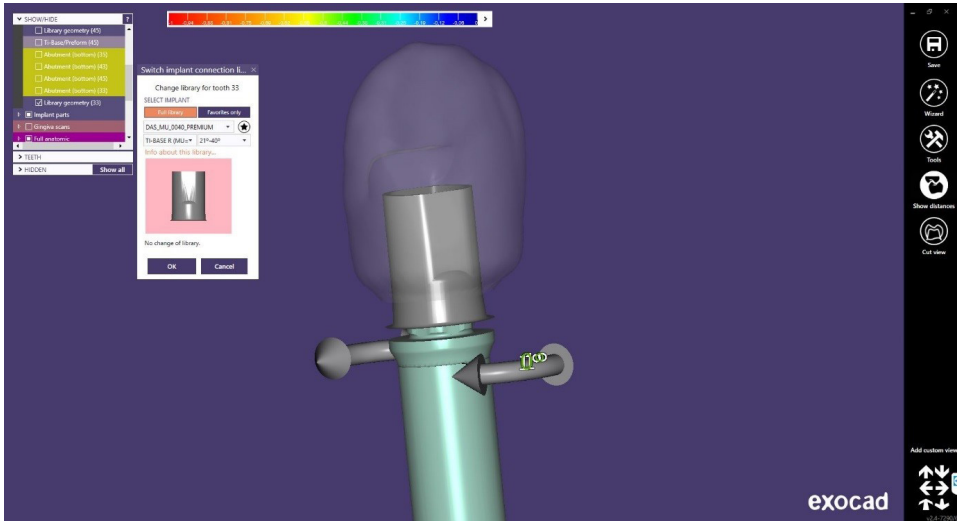


Once in expert mode, right click on the tibase/direct implant you want to modify.



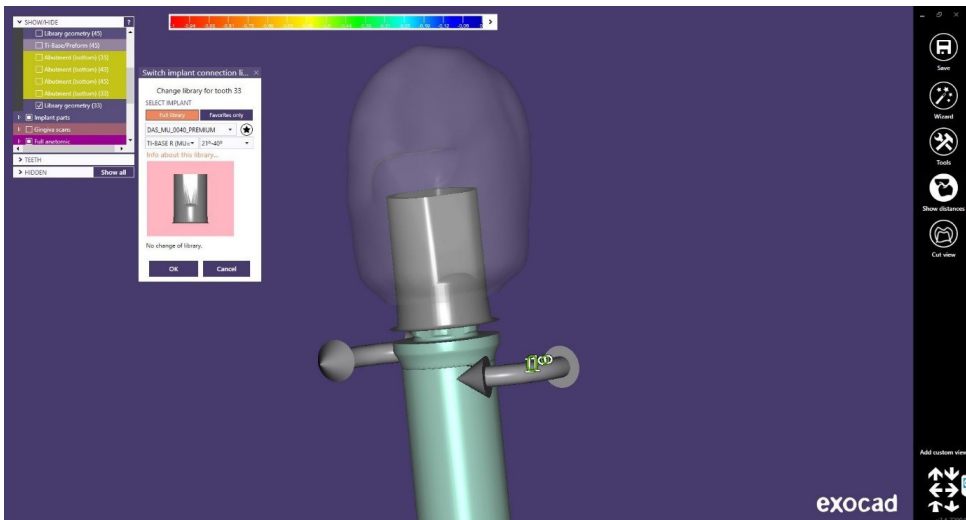
As shown in the previous image, once you right click on the tibase/direct to implant to be modified, a drop-down menu opens, click on “Switch Implant connection library”.

After clicking on “Switch Implant connection library” the following screen will appear: (You can then deactivate the model, gum, etc. to better visualize the TiBase as follows)

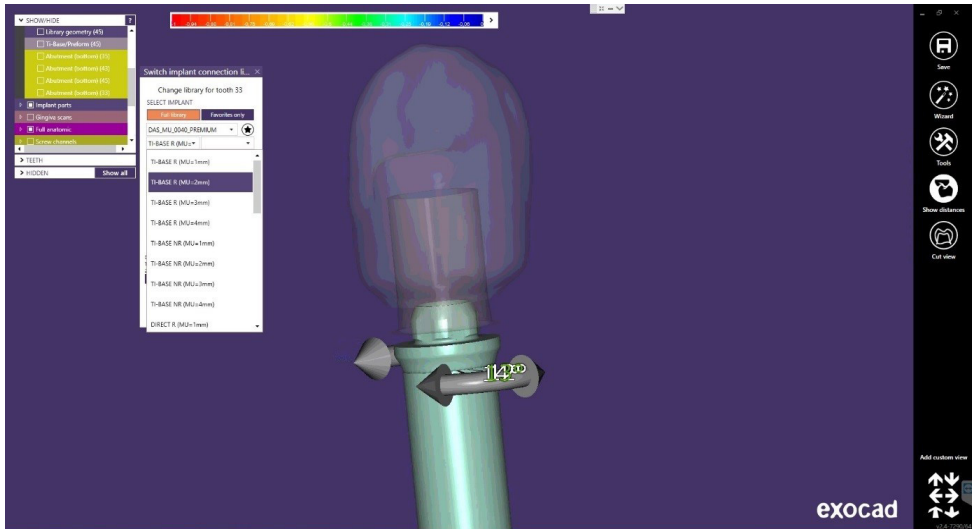


As mentioned above, the most important point is to be able to change the Multi-Unit.

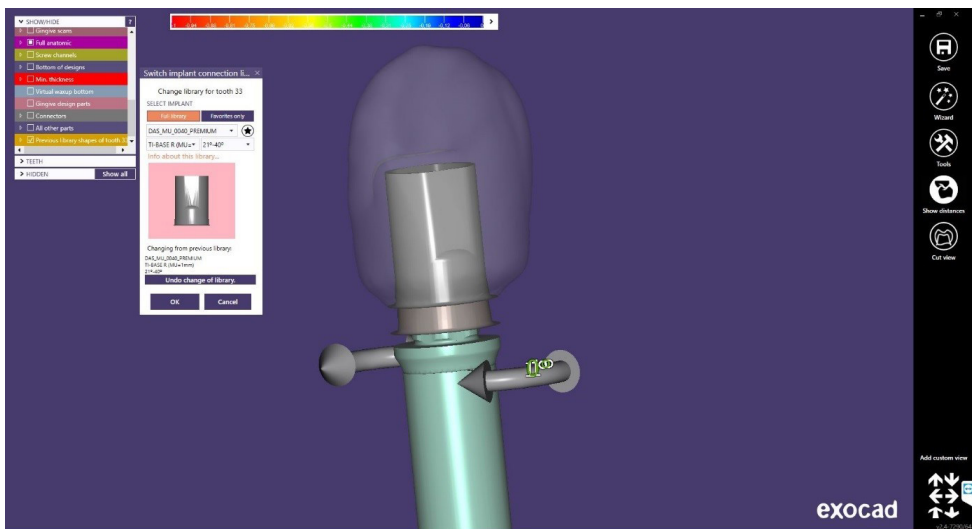
Below you can see the Multi-Unit selected at the beginning MU=1mm



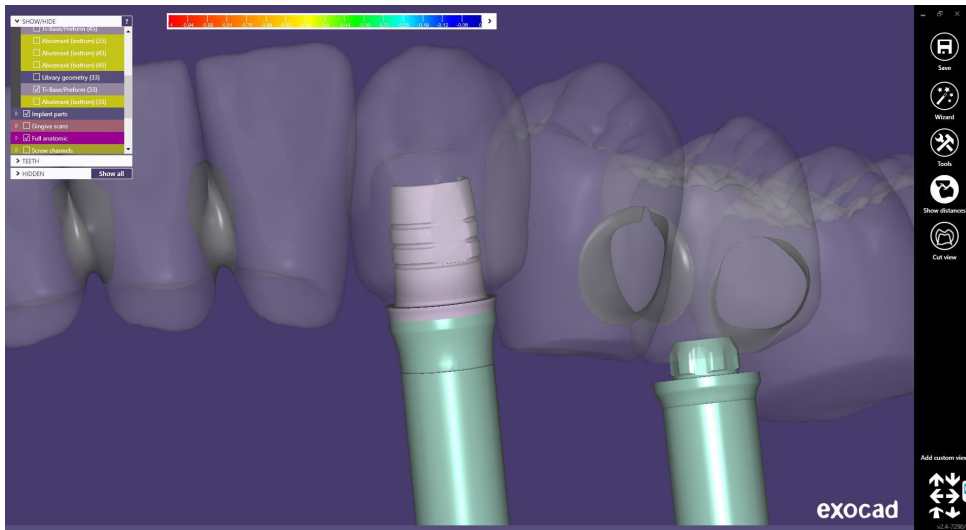
As shown in the following image, the drop-down menu opens and it is possible to change the height of the Multi-Unit (only in rotary, because if you change it to non-rotary, then in the clinic when you change the Multi-Unit in the mouth it is impossible to keep the position of the anti-rotation as at the beginning).



There is an option called “Previous library” that shows how the Multi-unit was previously and thus compares the change. Here is where this option is located.

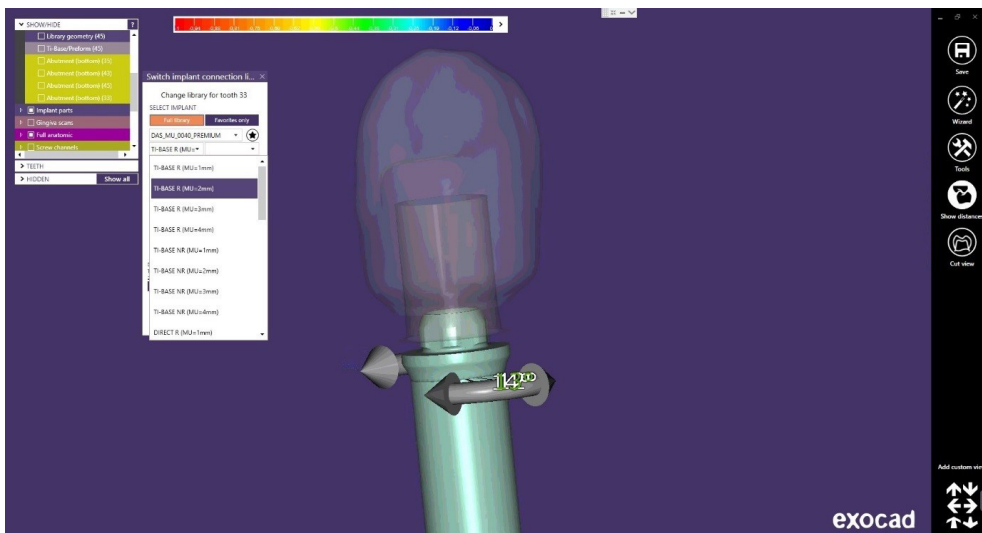


Finally, if the option is correct, click on “OK” to change the gingival height of the Multi-Unit.



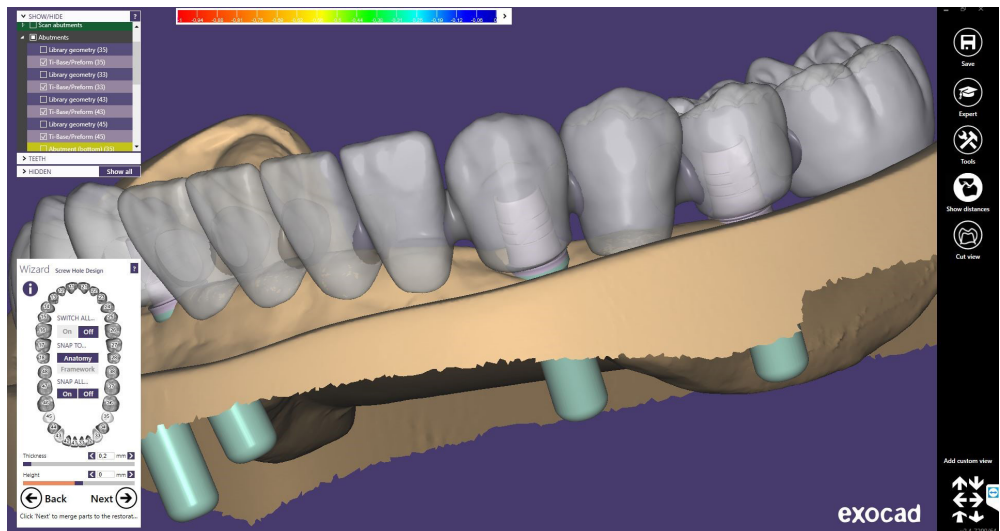
Note: also in the same option you can see that there are arrows for the rotation of the TiBase, and by moving the arrows you can change the rotation of the TiBase. In this case, as it is rotating, it can be freely rotated degree by degree until it is located in the desired position.

(When the case is anti-rotational, it is the same steps but the rotation will be every 60° since it has 6 positions).

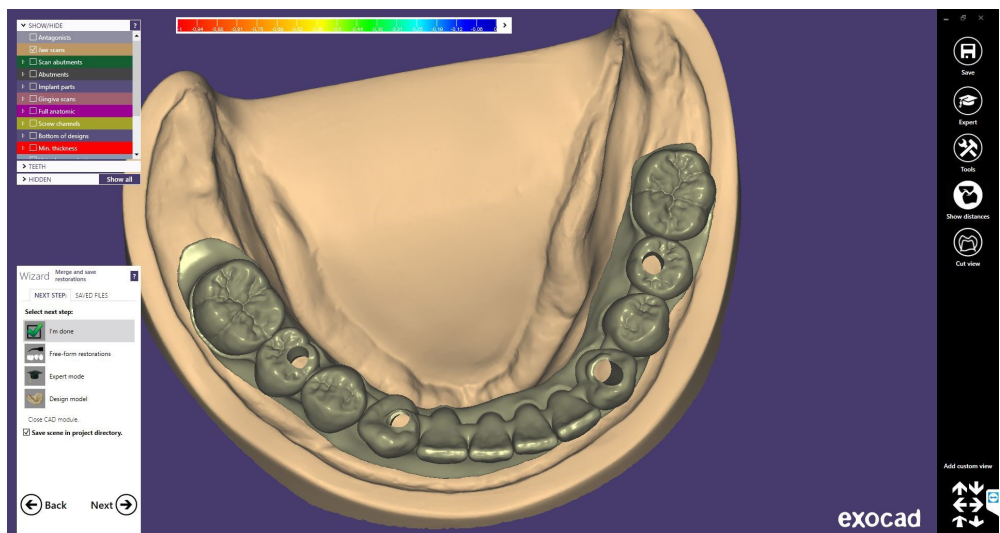


## Screw hole design

In the design section of the screw hole, it is possible to modify the height and thickness (It is the same for any library).



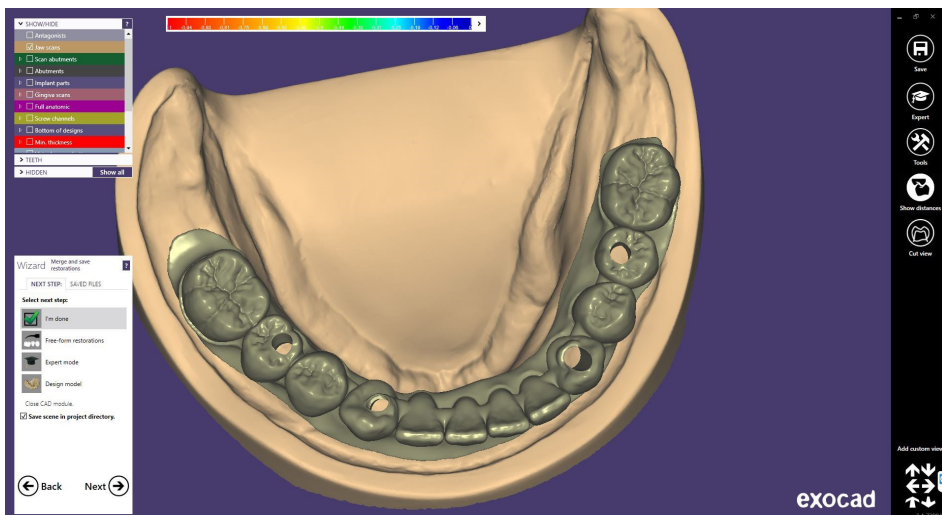
Once the design of the screw hole is finished, click “Next”, and the following final design is obtained.





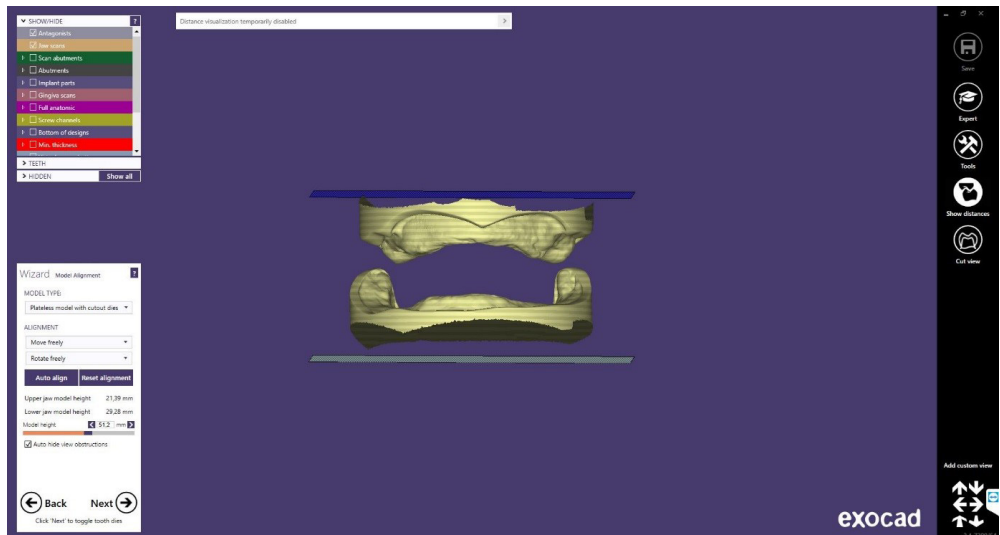
Once the work is completed, the model can be designed for subsequent 3D printing.

In the last image you can see that there are different options, one of them is “Design Model” where we proceed to the creation of the 3D model. Click on “Design Model” to start the design.

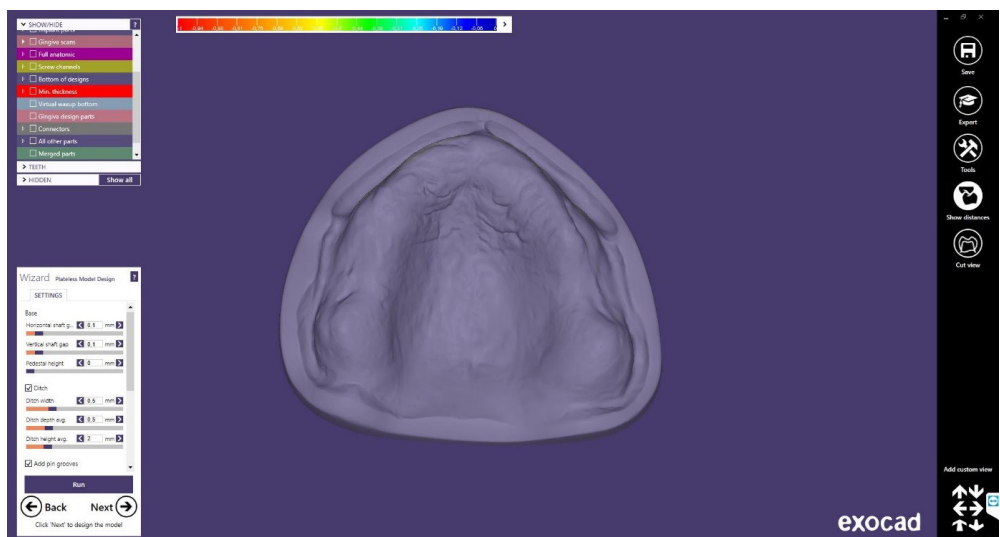


## Digital analog

The first screen to appear is the following one, where you can choose the type of model “Demo with plate”, “Model without plate (Objet printer)”, etc, and you can also perform the alignment of the model.



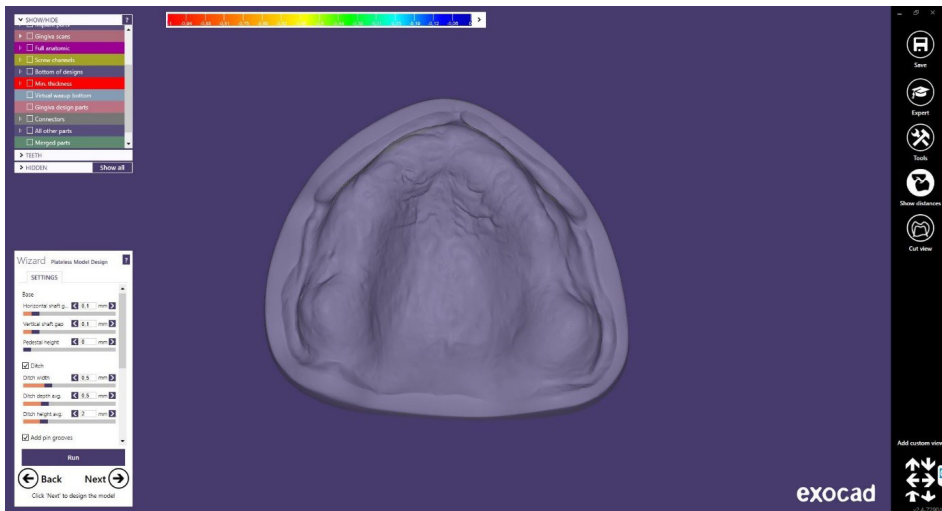
In the following screen you can make a modification of the model, such as cutting unused parts, “Close Holes”, splitting the model, etc.



In this case we proceed to close the holes and click on Next.



The following picture shows the model with the holes. In this step different modifications of the 3D can be made, such as “Wall thickness”, “Cavity fill diameter”, etc.



Finally we can see the model with the digital analogs placed and the model with the holes where the corresponding digital analogs will be placed later.

