

GUIDED | **KIT** **DAS** SURGICAL

exoplan

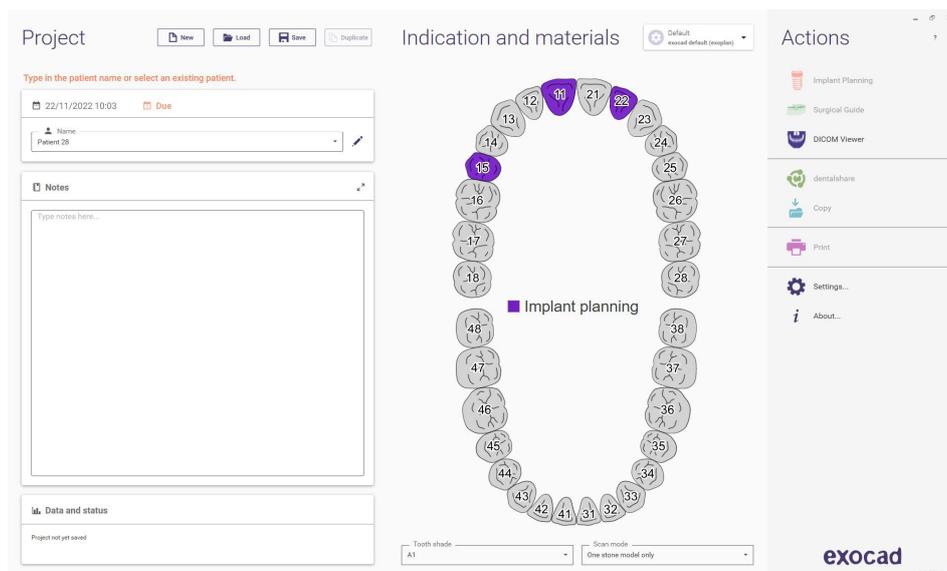


INSTRUCTIONS FOR USE
DYNAMIC ABUTMENT SOLUTIONS LIBRARY

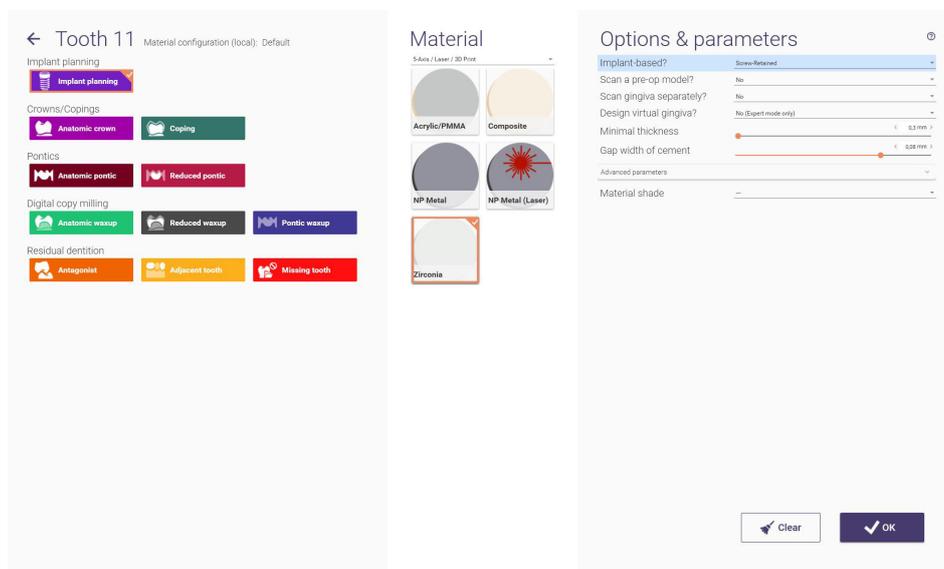
INTRODUCTION

Firstly, before planning, the case must be defined.

The patient's name is the only detail required in the project details section, and there is an optional notes field to add any desired information.



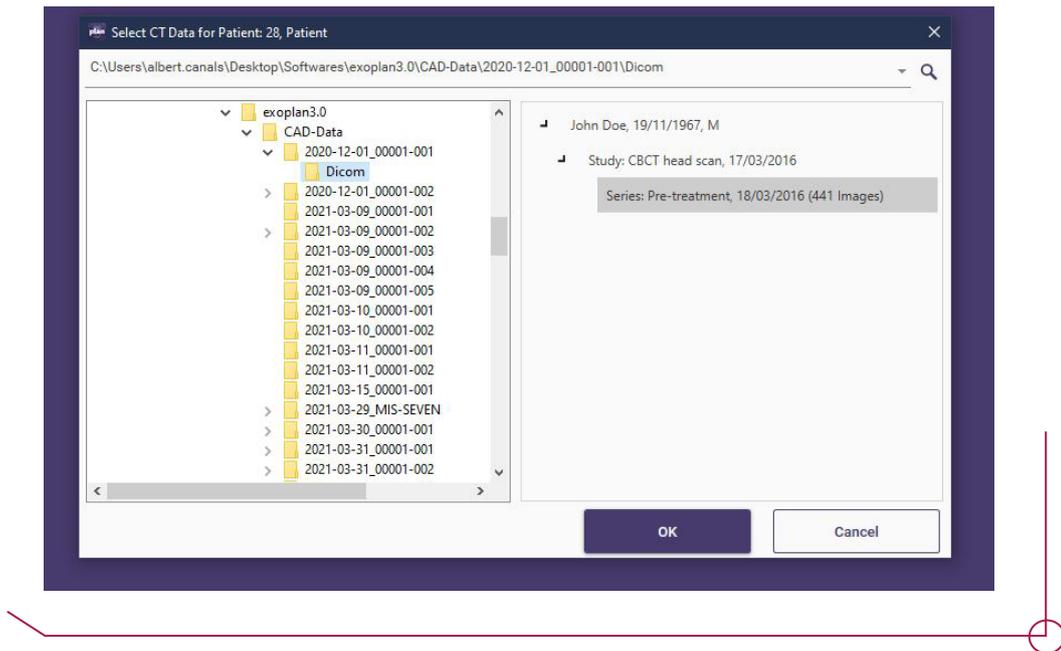
When selecting each tooth, a menu appears where you can specify whether an implant or another form of restoration is to be planned. Here, the intended material and parameters are set.



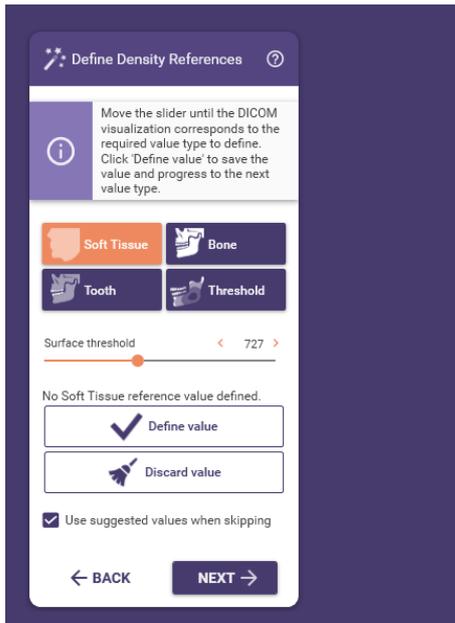
The software has a DICOM viewer for reference if this is necessary before defining the case.

Once everything has been defined, you must save before proceeding with the implant planning.

DICOM or CBCT data is requested when opening the case. You must simply select the path where it is stored, and once all the images have loaded, click OK.

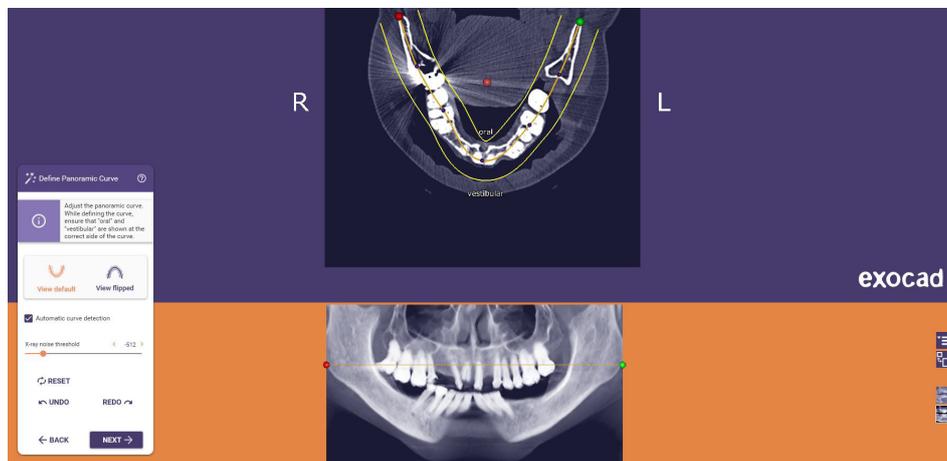


Once the DICOM data has loaded, you should use the program to set the various surface thresholds, so that later you have quick access to different visualizations. Drag the 'Surface threshold' bar and click on 'Define value' for each surface level requested by the software.

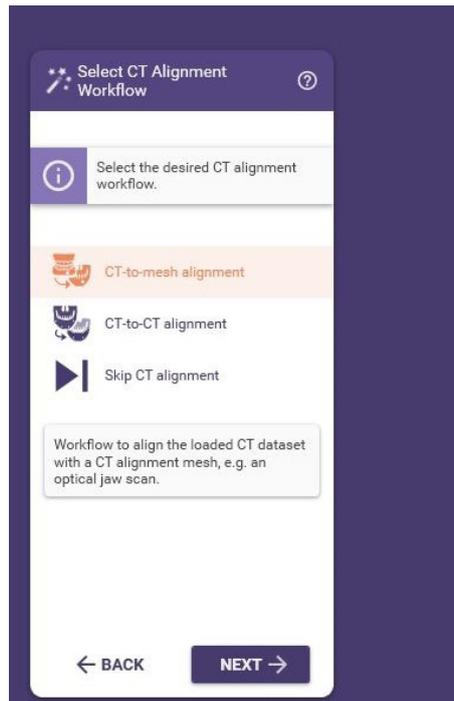


Slide the Surface Threshold bar and click on set value for each depth requested by the software.

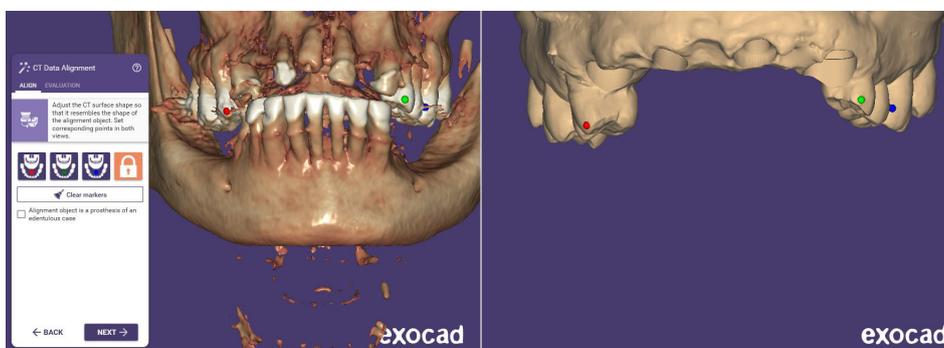
The software automatically calculates the panoramic curve. Adjust the curve if any corrections are needed.



The next step is aligning the DICOM data with the intraoral scan.

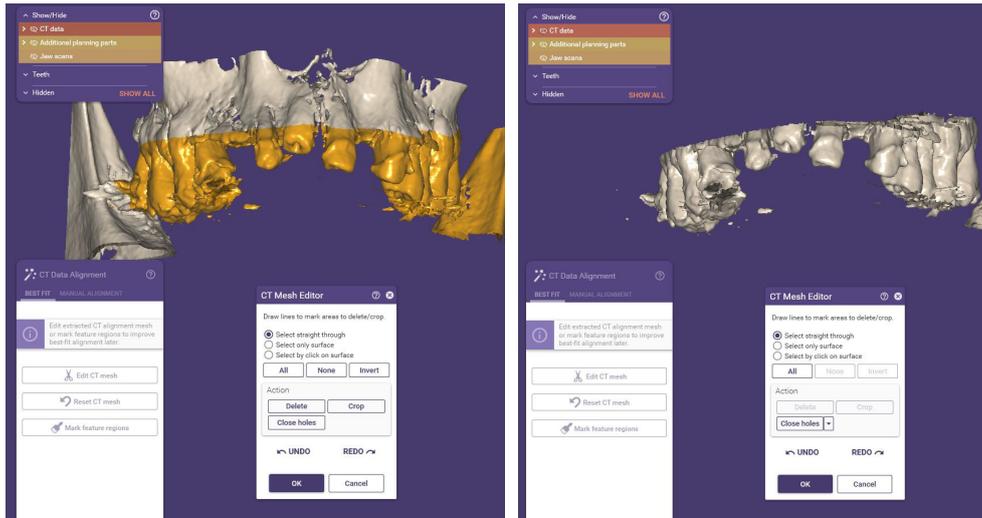


You must set 3 corresponding points in both views to provide the software with the necessary reference points.

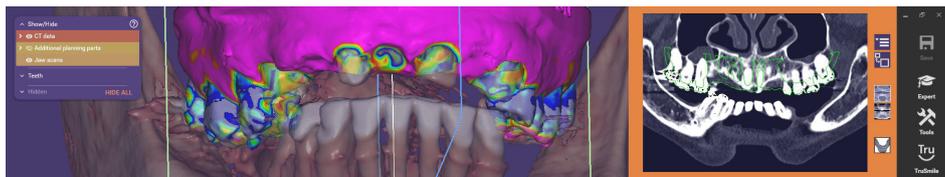


To help the software achieve a more accurate alignment, the DICOM mesh can be edited to remove any unnecessary geometry for alignment. To do this, click 'Edit CT mesh'.

There are two ways to remove the geometry: select the area you wish to delete and click 'Delete', or select the area you wish to keep and click 'Crop'.

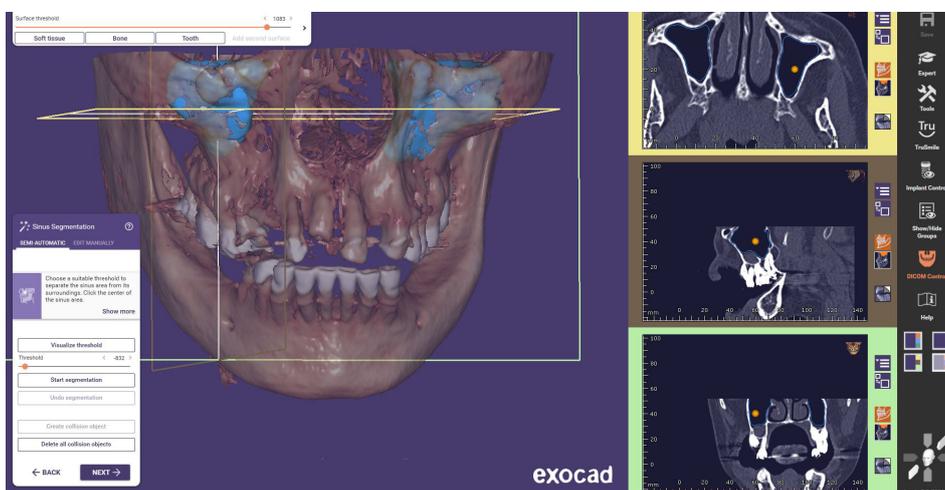


The software calculates the alignment and displays a range of colours to show the level of accuracy between the two models. If this is deemed inadequate, the points can be reset and the mesh can be edited until the most accurate result is achieved.

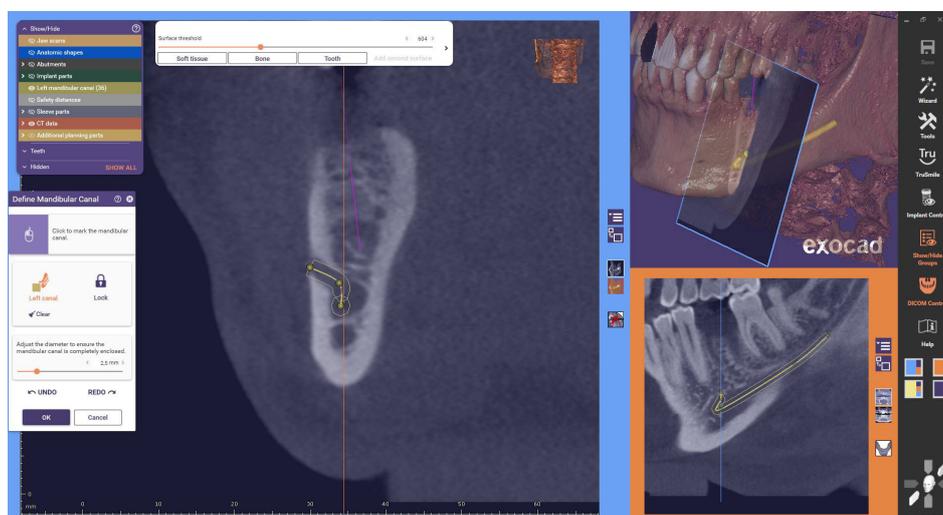


Depending on whether you are working with the upper or lower teeth (or both), you must add a collision object for the sinuses or the mental nerve respectively, so that it prevents you from adding an implant if it collides with that object.

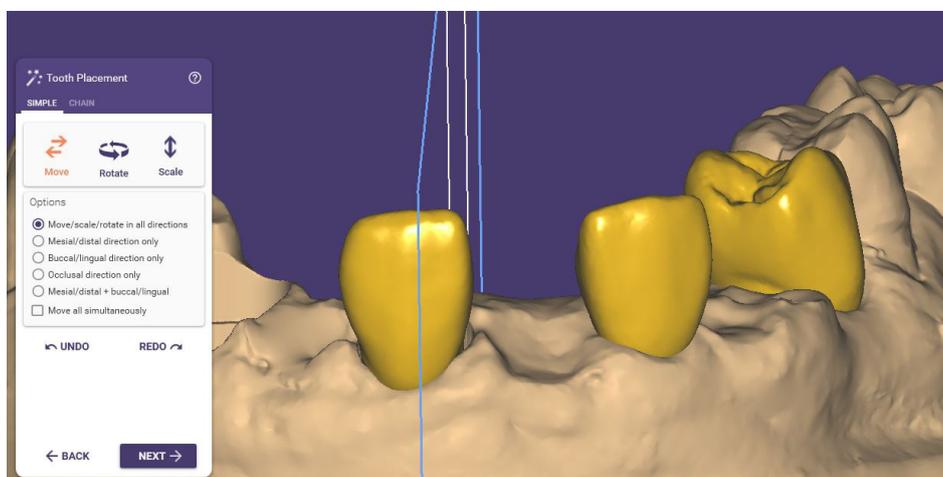
For the sinuses, there is a scroll bar for adjusting the DICOM density. Once they have been set correctly, click on the sinus area and select 'Create collision object'. The same process must be repeated for the other sinus.



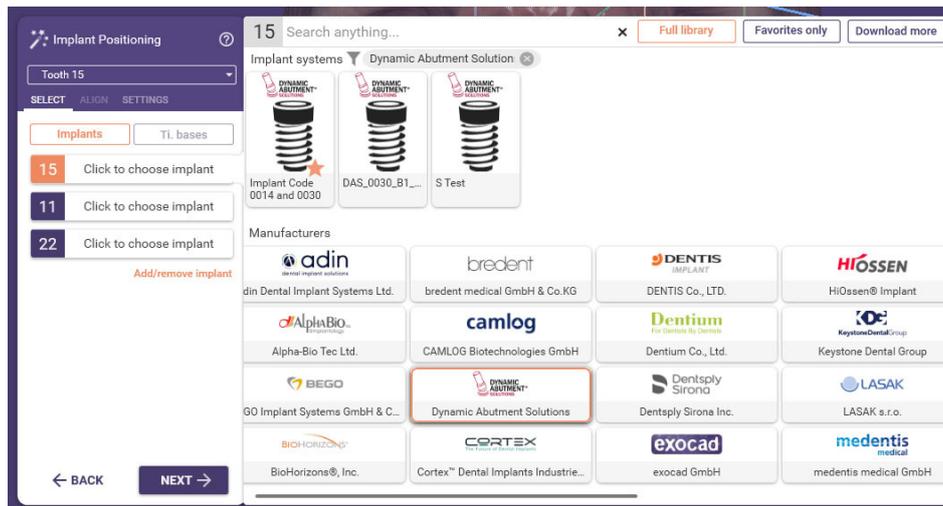
For the mental nerve, the points along the canal must be set. There is a scroll bar for adjusting the diameter to completely enclose the canal.



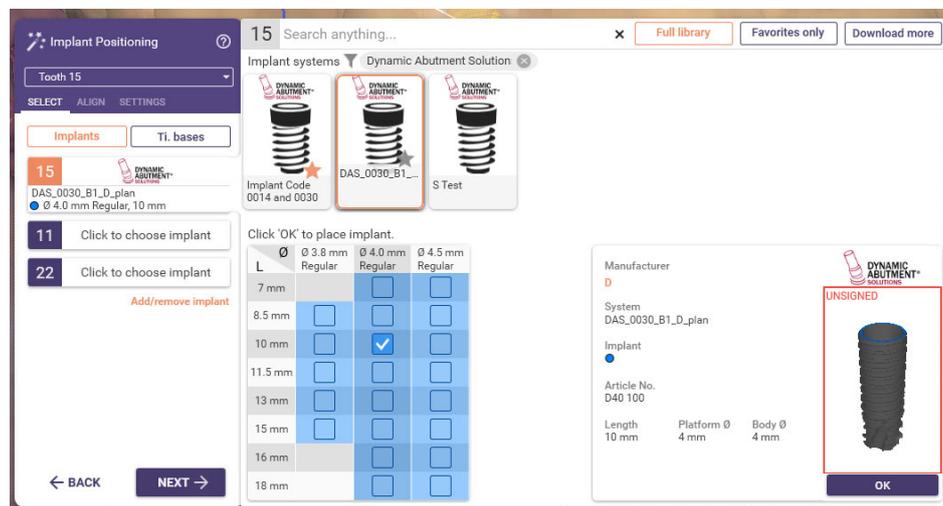
Before proceeding to implant selection, all provisional teeth specified in the case definition must be designed and positioned.



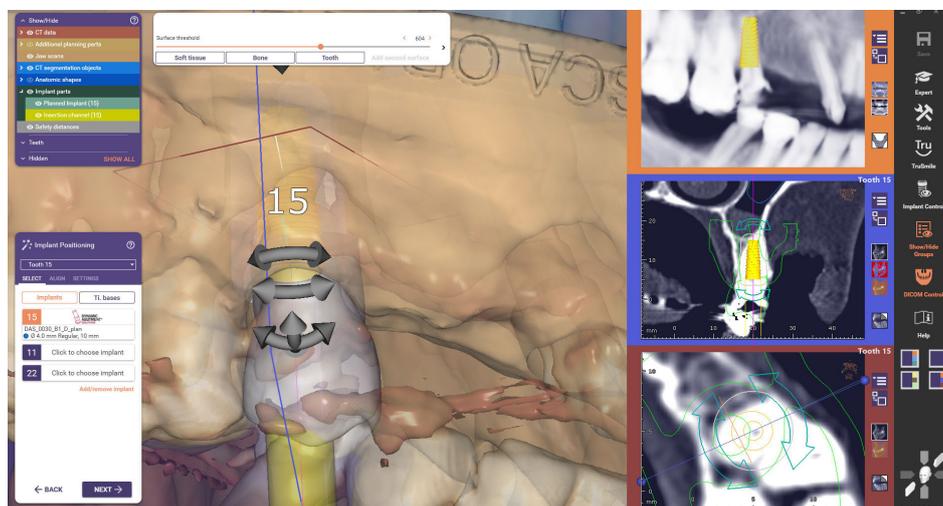
Exoplan shows all the implants installed by brand in alphabetical order. To navigate quickly between implants, we can click on the brand in the 'Manufacturers' section to filter the implants of that brand only.



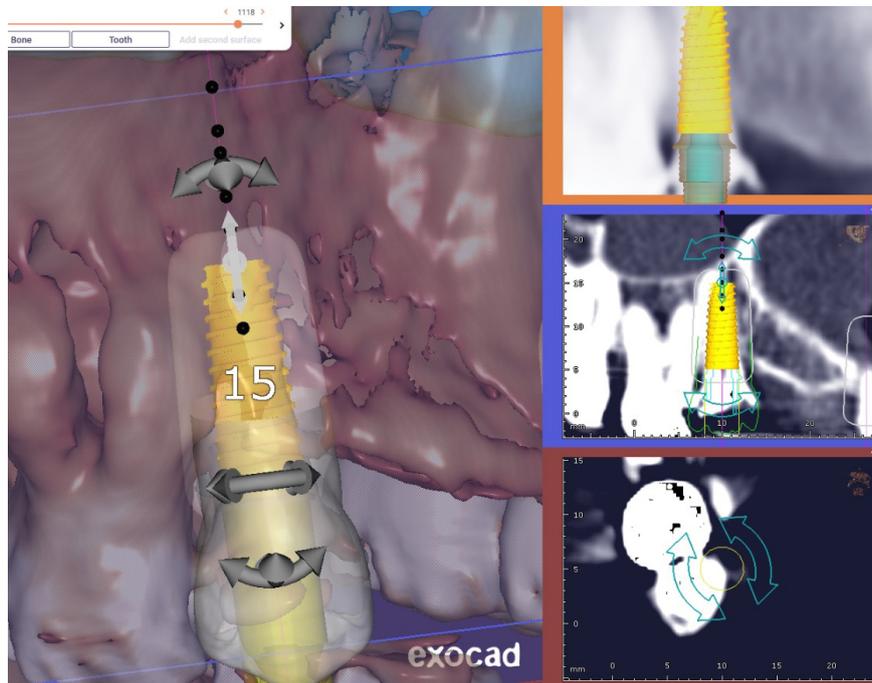
Once the desired implant model has been specified, a box appears with all the diameters and heights available for that model.



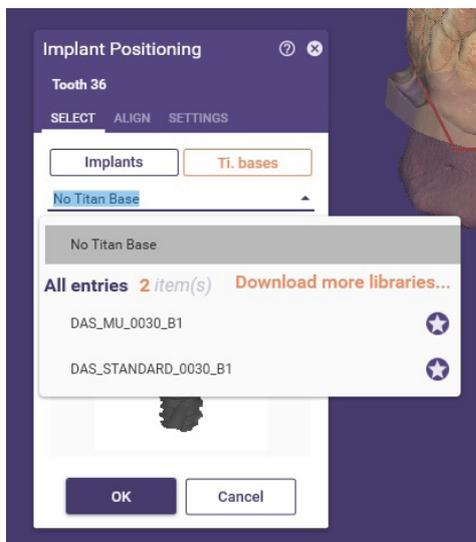
The implant is positioned in the desired area using the different views. Drag the implant to adjust its position and use the arrows to rotate it.



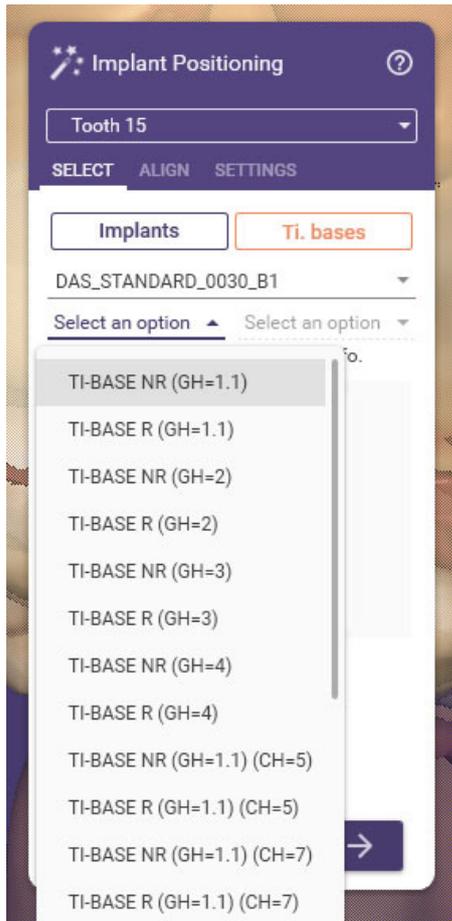
Once in place, if the length of the implant is not correct, it can be easily adjusted by clicking on the black dots indicating the end of each implant.



Next to the 'Implant' box is the option to select the TiBase. The libraries for our implant kit start with DAS and end with B followed by a number.



- DAS** = Dynamic Abutment Solutions
- Standard** = For working with Ti-Base
- MU** = For working with MU
- 0030_B1** = Implant Compatibility



With the library selected, select the desired TiBase:

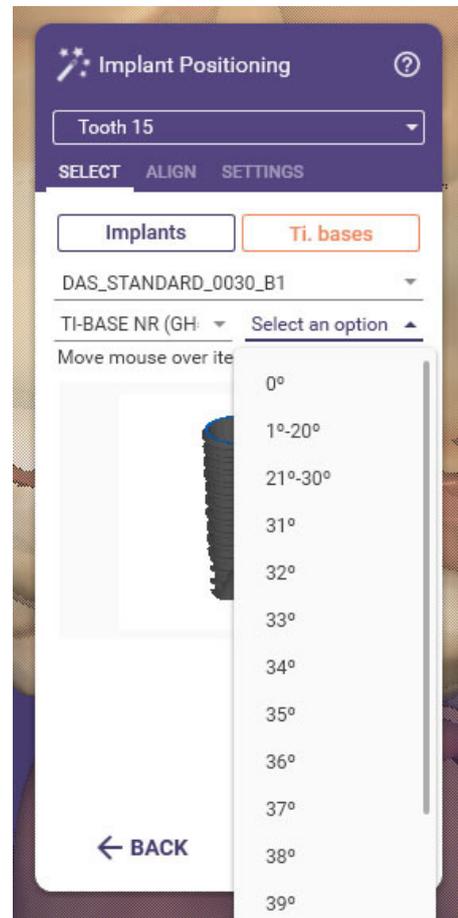
NR = Non-Engaging

R = Engaging

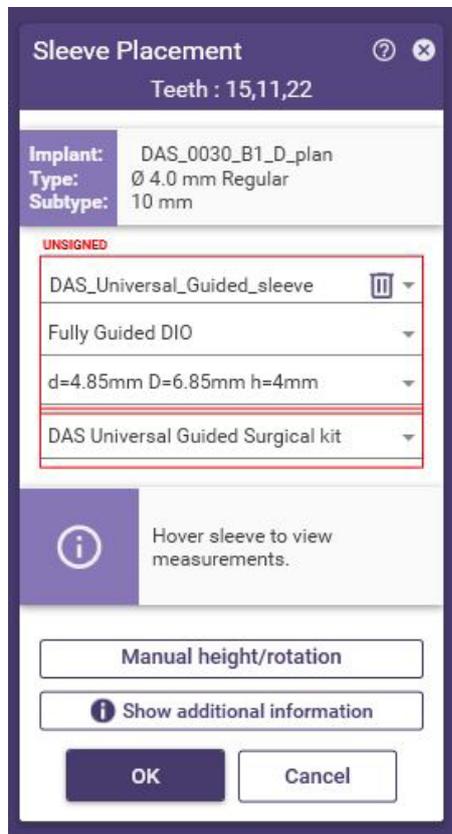
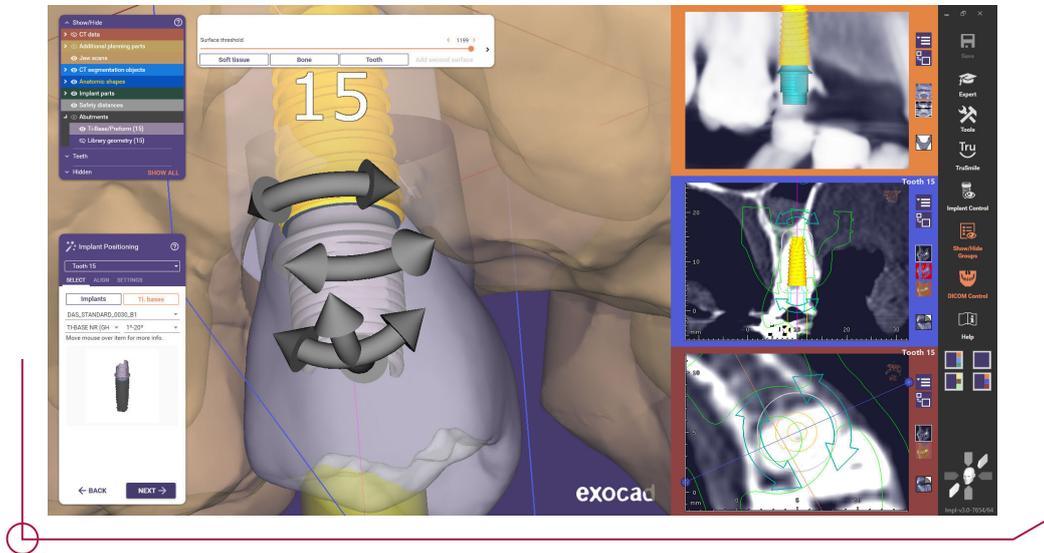
GH = Gingival Height

CH = Cement Height

The last option is for the desired angulation of the canal of the crown.



Once all options have been selected, the TiBase is displayed and an assessment is made as to whether it is suitable or whether any options need to be changed.



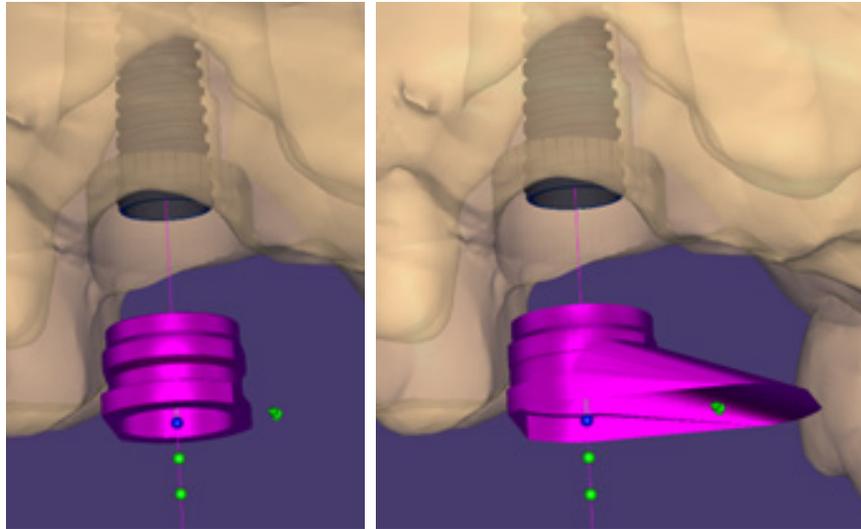
Once all implants have been positioned, the sleeves must be established.

You must select the guided surgical kit library called:

DAS_Universal_Guided_sleeve

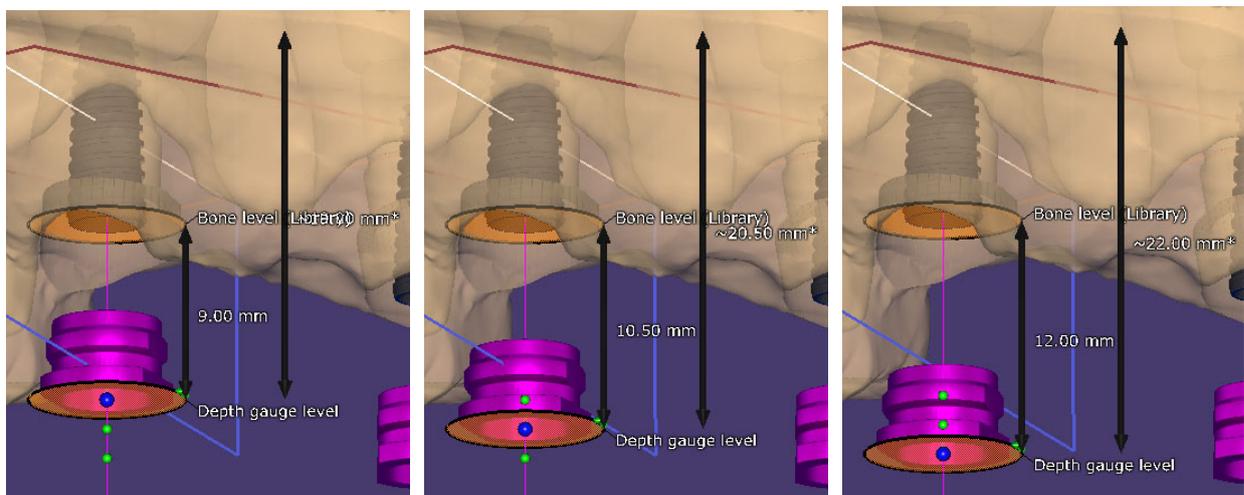
Then select the desired type of sleeve. There are currently 2 sleeves available: regular and regular cut.

*For the cut sleeve, the canal created in the surgical guide is displayed, instead of its real geometry.

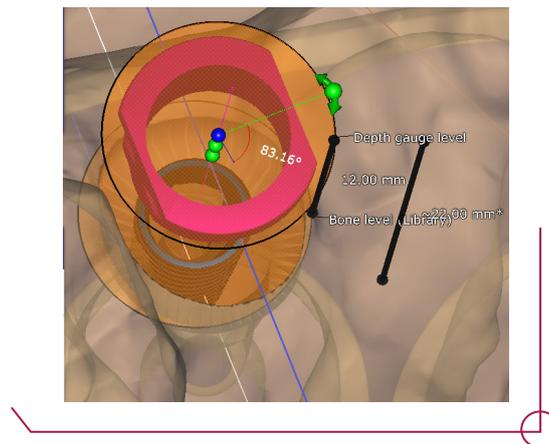


The sleeves have several different offsets depending on the implant selected. The green dots indicate the various offsets available, while the blue dot shows the selected offset.

The selected offset will establish which drills and implant mount to choose when performing the surgery; see the pdf file “work offsets by compatibility” to determine which drill corresponds to which offset.



There is an arrow above the sleeve to change its rotation.



*If you change the offset or rotation of a sleeve and subsequently switch between a regular or cut sleeve, the software maintains the user-assigned rotation and offset.

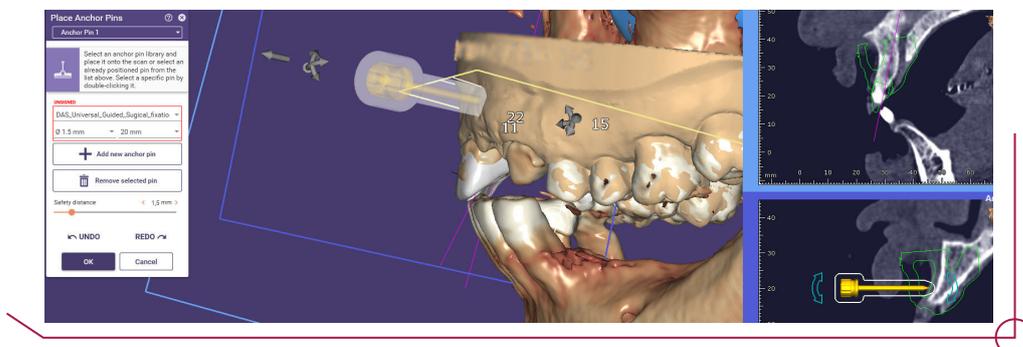


For edentulous cases or cases where teeth fail to provide sufficient anchorage, anchor pins are used, which do not appear in the wizard, but can be selected from the expert mode.

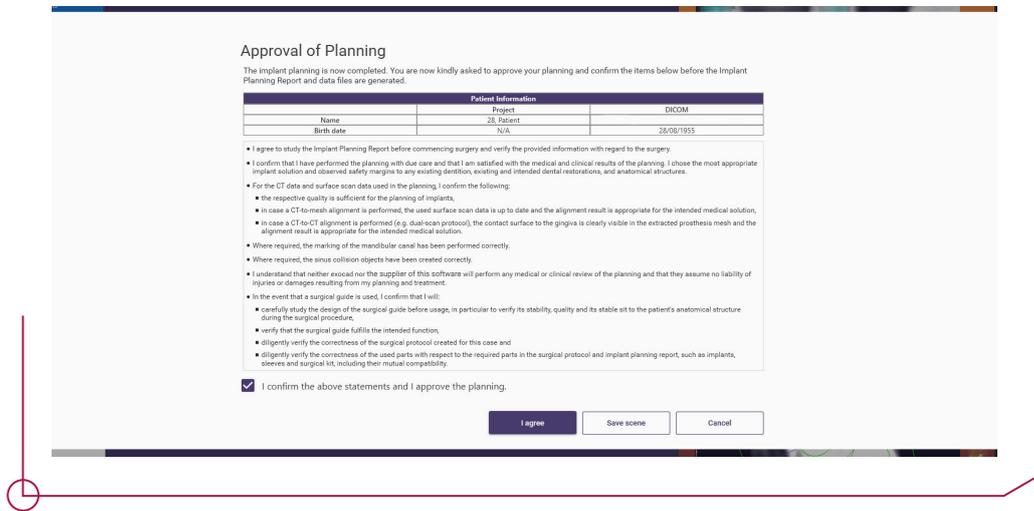
Select the library **DAS_Universal_Guided_Surgical_fixation**

Position the pin according to the desired depth.

To add more pins, select 'Add new anchor pin' and repeat the process.

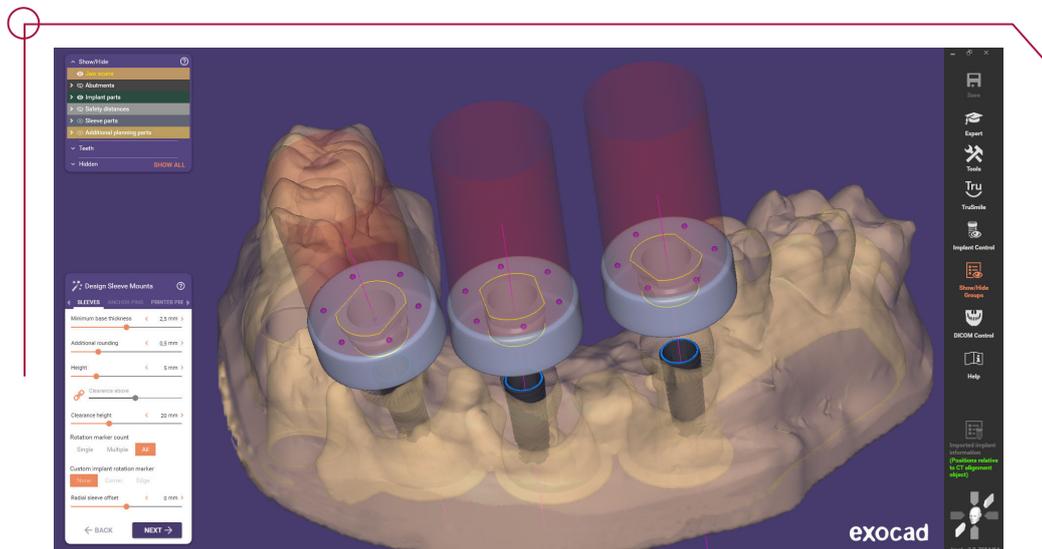


At the end of planning, you must indicate that you agree with and accept Exocad's terms.



Once the implant planning has been completed, we can design the surgical guide.

For sleeve mounts, we can set the thickness, height, rounding, safety distances and markings to indicate the position of the connection.



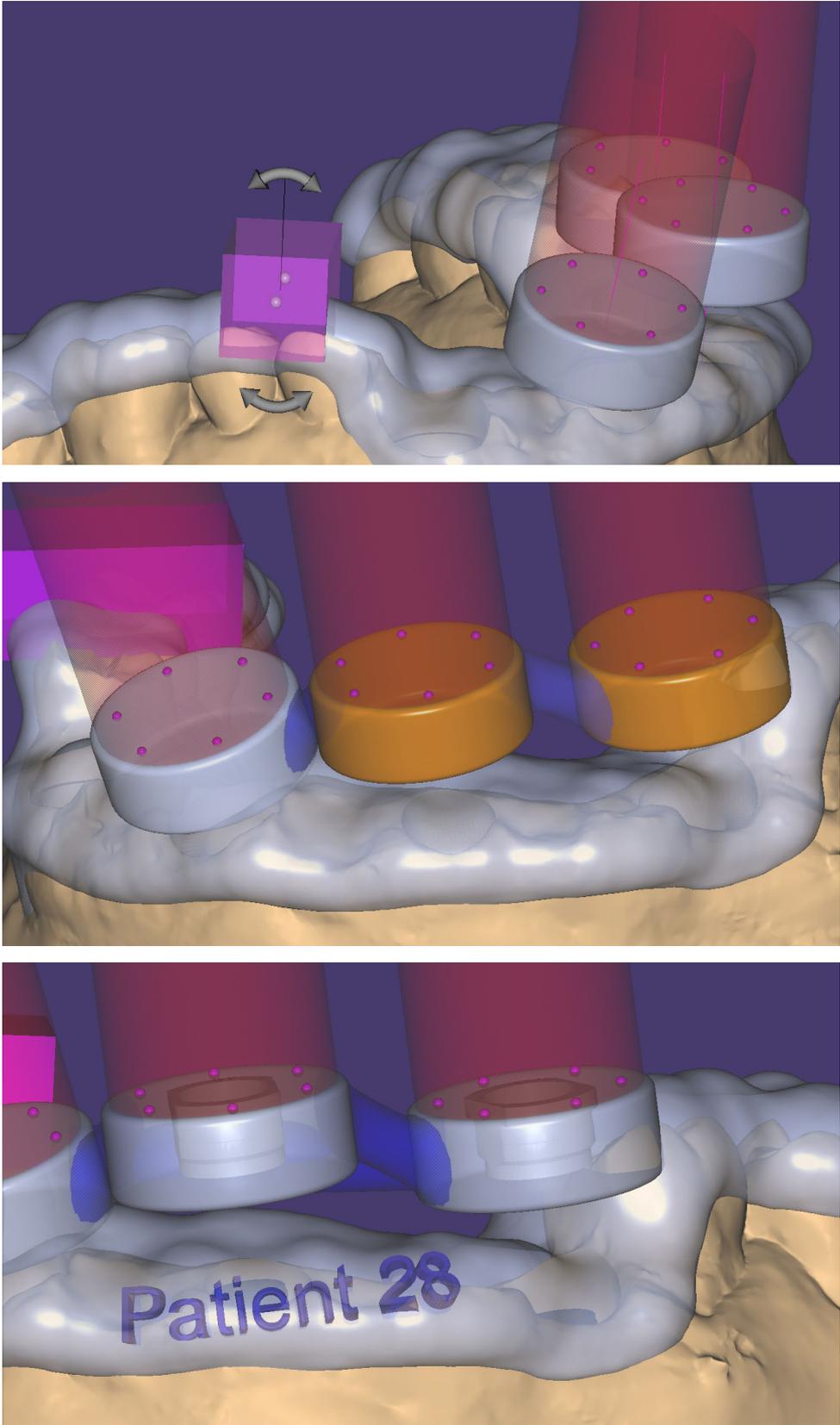
When designing the bottom part of the surgical guide, you can change the direction of insertion of the guide. Adjust the view according to the desired direction of insertion and select 'Set insertion direction from view'.



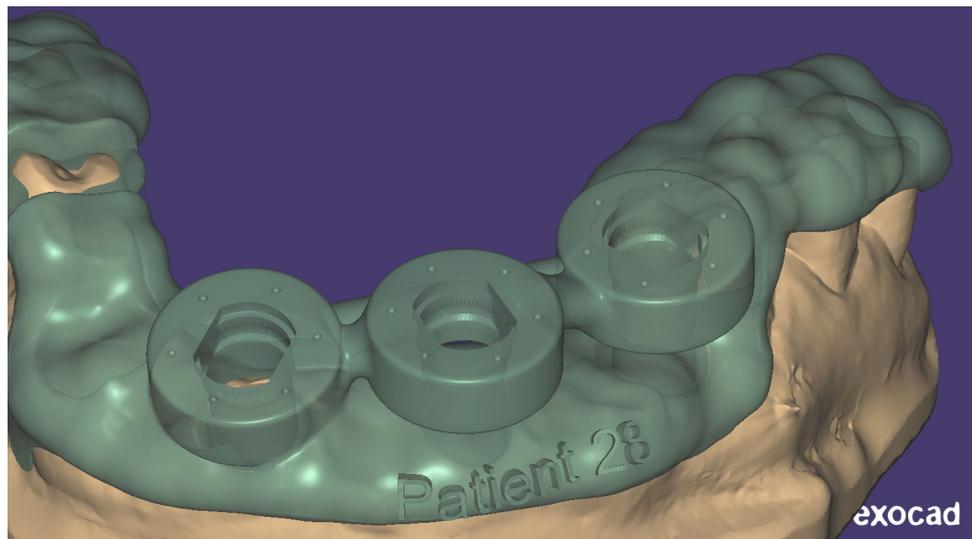
To design the upper part, draw the margin line from dot to dot where you want the guide to be placed and click 'Apply'. You can use the scroll bars to adjust thickness and smoothing.



After designing the guide, adjustments can be made to it, such as holes to check that it is properly mounted, brackets to reinforce the sleeve area or adding text to the guide.



Finally, the surgical guide is created according to the design parameters chosen.



In the end the Exoplan case generates 2 reports, one for planning and one for surgical guidance.

* Always check that the length of the cutter corresponds to the length indicated in the PDF “work offsets by compatibility”.

** The final milling cutter diameter may vary according to the density of the bone, the final milling cutter will be used according to the doctor’s criteria.

Sleeve Information	
Library Information:	DAS_Universal_Guided_Surgical_sleeve : Fully Guided DIO : d=4.85mm D=6.85mm H=4mm
Sleeve Model:	N/A
Manufacturer:	Dynamic Abutment Solutions
Article Number:	71.340.485.01-2
Height:	4 mm
Inner Diameter:	4,85 mm
Sleeve offset to implant platform / bone level:	To platform: 12 mm / To bone level: 12mm
Library Integrity:	
Image:	<div style="text-align: right;">Color code: </div>
Surgical Kit and Drill Information	
Library Information:	DAS Universal Guided Surgical kit : Ø 3.9 mm - Surgical Drill : 13 mm
Drill Model:	Guided surgical drill Ø 3.9 mm L 13 mm
Drill Manufacturer:	Dynamic Abutment Solutions
Article Number:	74.130.239.01-2
Drill Length:	13 mm
Drill Diameter:	3,9 mm
Drill Color Code:	XXXXXXXXXX
Library Integrity:	

†The presence of an electronic signature only confirms that the library entry has been verified for certain mesh and/or data characteristics. If the library contains meshes, it does NOT imply correctness of their shape under technical, medical or other aspects.

Exocad is used to design provisional crowns, meaning it is necessary to have the libraries installed in both Exoplan and Exocad if the complete workflow is to be used.

To load the case in Exocad, go to 'Load' and click on 'Import from exocad project'. Select the path to the Exoplan projects and open.

When loading the software, you must specify that you want to load the implant planning files, with which you can design the crown according to the previously planned implant position.

