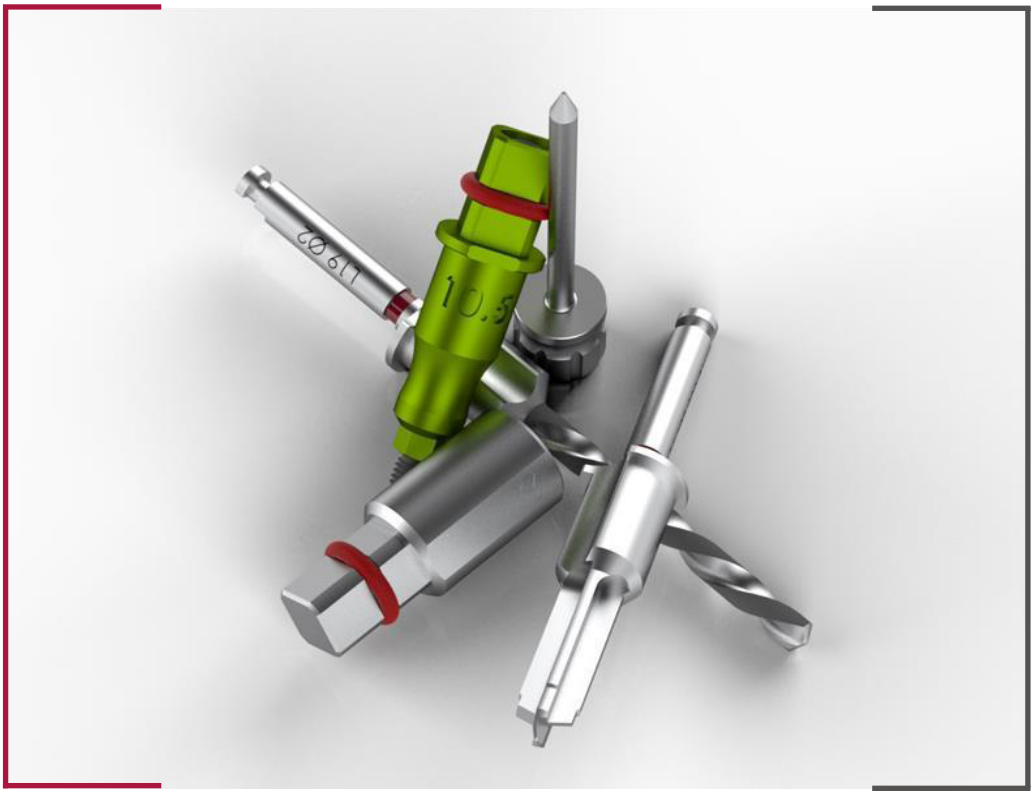
DYNAMIC ABUTMENT SOLUTIONS

GUIDED KIT

DASSURGICAL

ImplaStation



INSTRUCTIONS FOR USE

DYNAMIC ABUTMENT SOLUTIONS LIBRARY

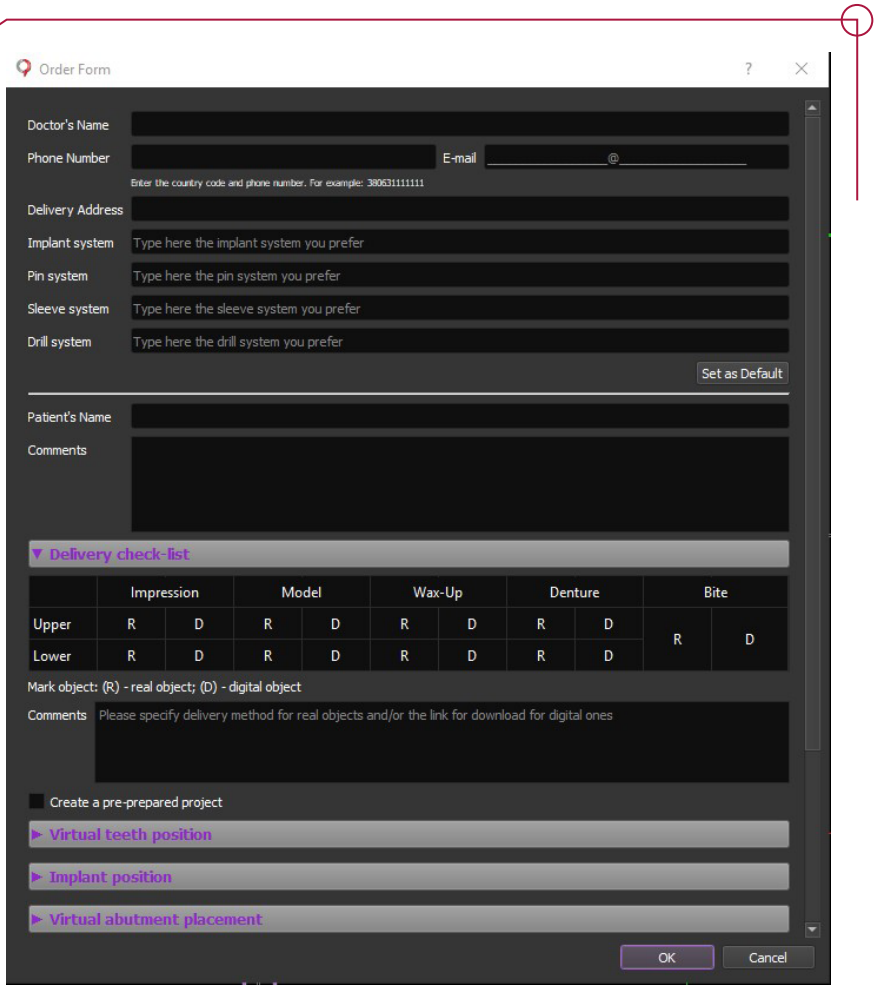
YOUR DIGITAL DENTAL PARTNER

INST_IMPL_ST_2023_01_EN

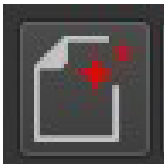
1. CASE DEFINITION

The ImplaStation software offers an easy form for you to establish the patient and case details when planning a case. To access this, click on “Order form” on the menu on the left of the program.

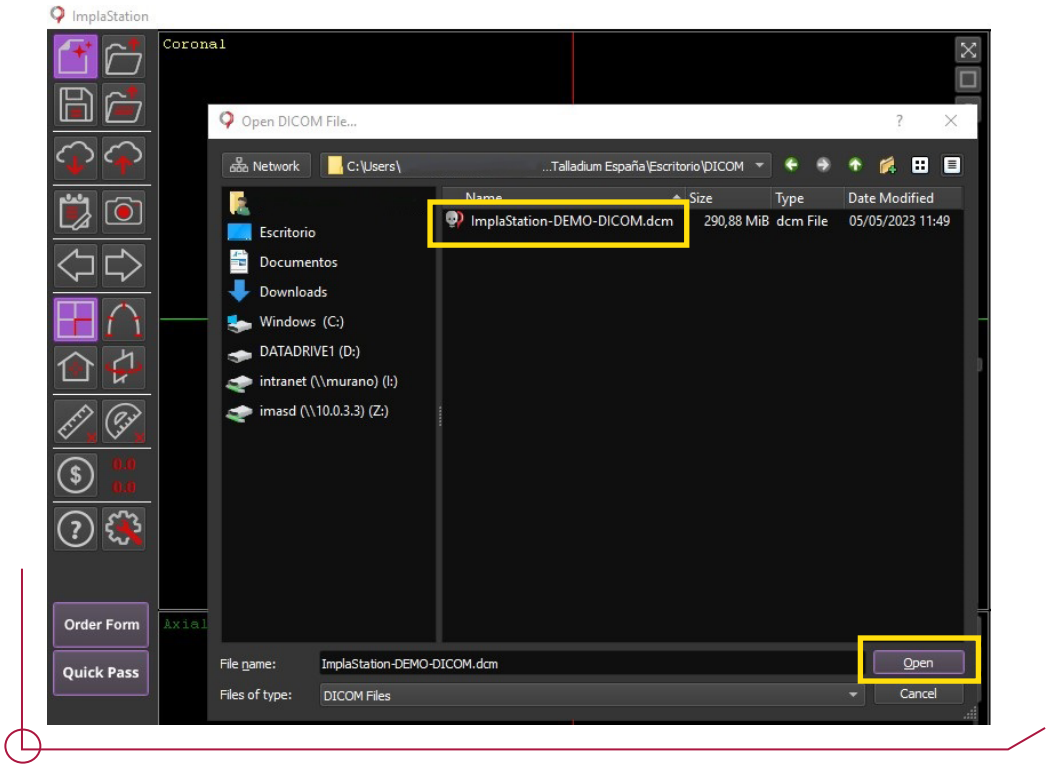
A window will then emerge where you can enter the relevant information.



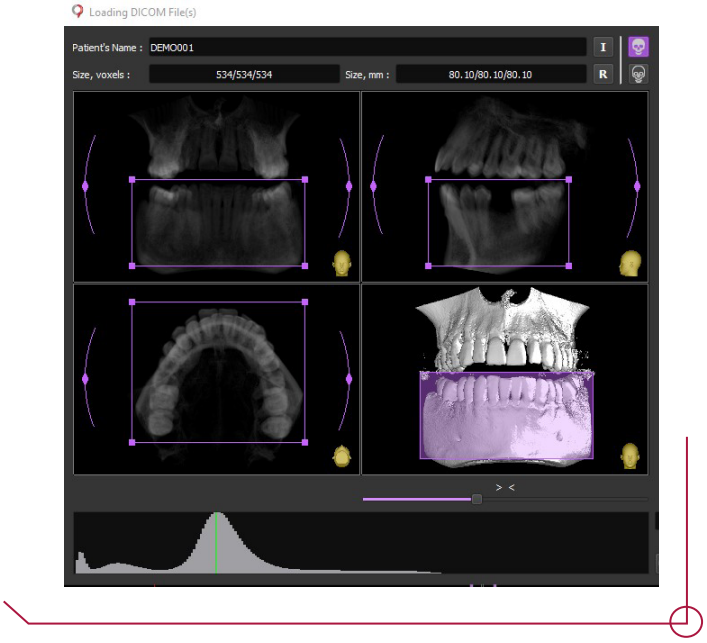
2. LOADING AND VISUALIZATION OF THE PATIENT'S DICOM DETAILS



To load the DICOM file, click on the first icon on the tool bar on the left.



Select your file and click on "Open". The DICOM will begin to load and the editor will open in a new window. This editor allows you to cut and rotate the file before using it in the software.



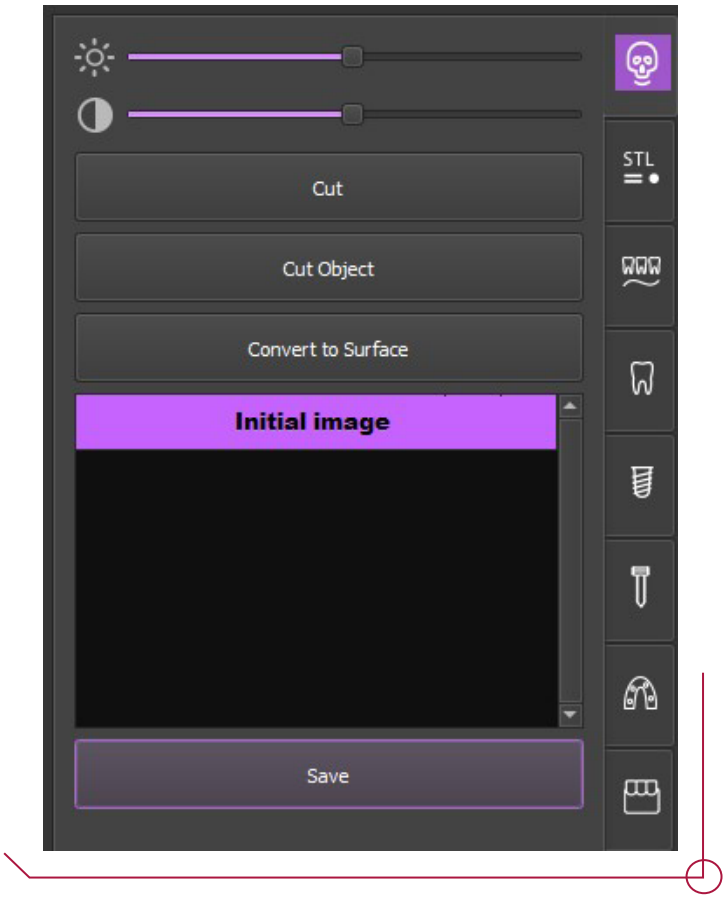
Use the purple lines to crop the DICOM - the curved lines allow you to rotate the image. When you are satisfied with the result, click “OK” to load the file.

Once you have defined the case, a vertical flow chart will appear on the right of the interface showing the steps involved in the planning.

- Loading and visualization of the patient’s DICOM details
- STL files management
- Nerve tracing
- Crown design
- Implant management
- Anchor pin management
- Surgical guide design and creation
- Mouth model design
- Surgical protocol report generation

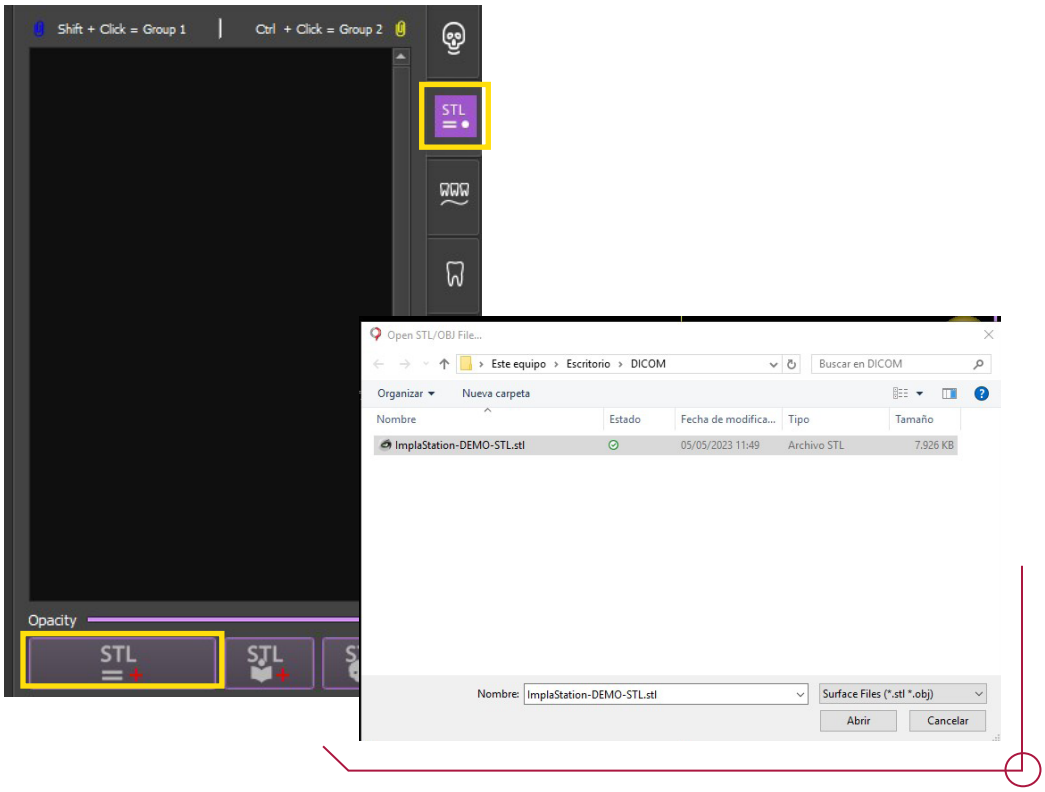
3. DICOM MANAGEMENT

The first item on the flow chart allows you to manage the DICOM file, with several different options for viewing and cutting the file.

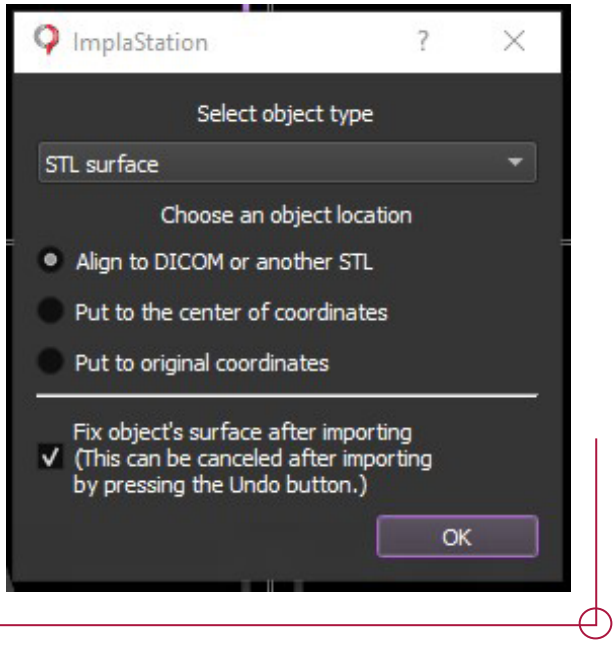


4. LOADING STL FILE.

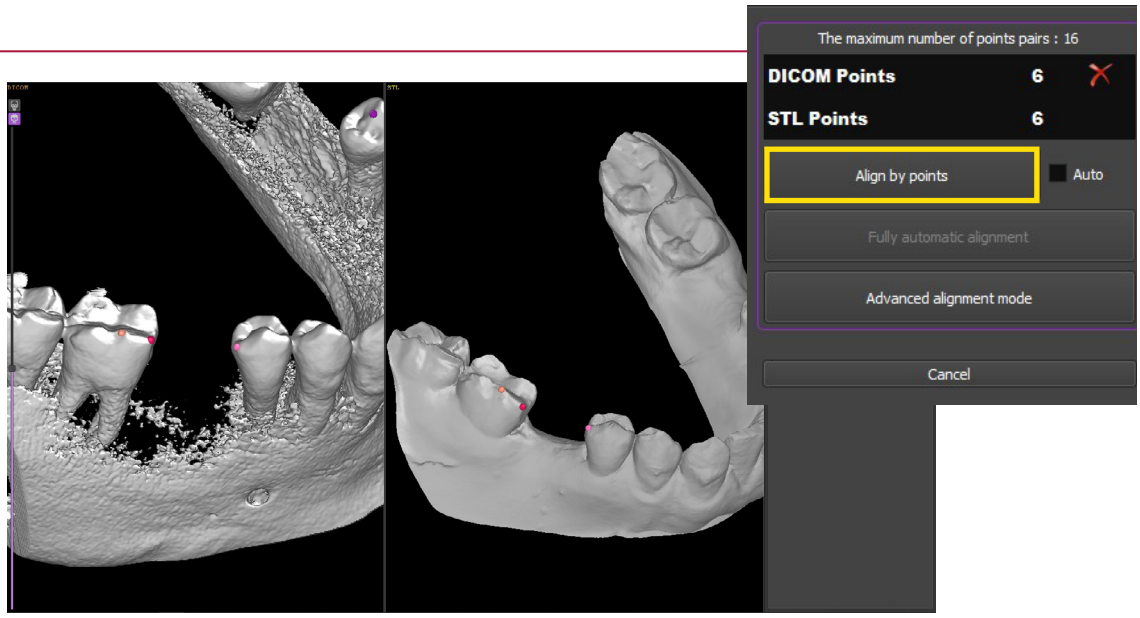
The following step is to import and align the scan file. Click on “Load Surface from file” to import the file in STL format.



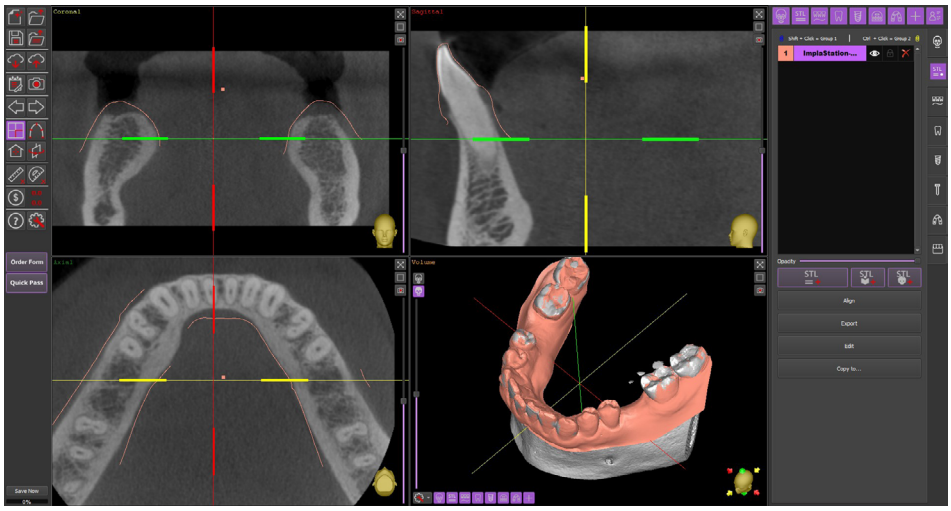
A window emerges with options for selecting where to position the STL file. Choose the option “Align to DICOM or another STL” for this case and click “OK”.



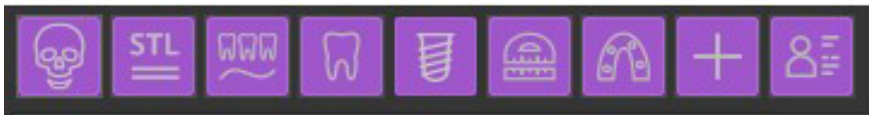
You will see the two files simultaneously for making the alignment. Mark points pairs in the corresponding areas, both on the scan file and the DICOM. Once you have positioned the points on the two models, click “Align by points”. The maximum number of points pairs is 16.



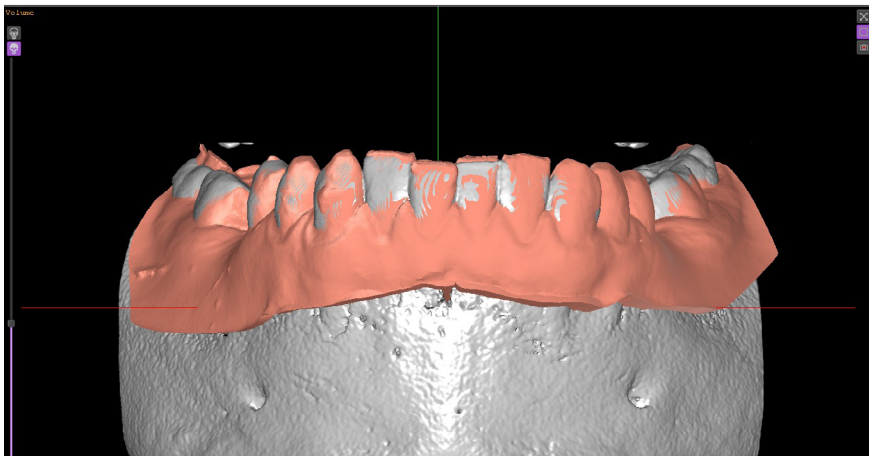
At the end of this process, you will see the two files superimposed on the ImplaStation displays.



At the top left, you can choose to view the two elements in coronal, sagittal and axial planes.



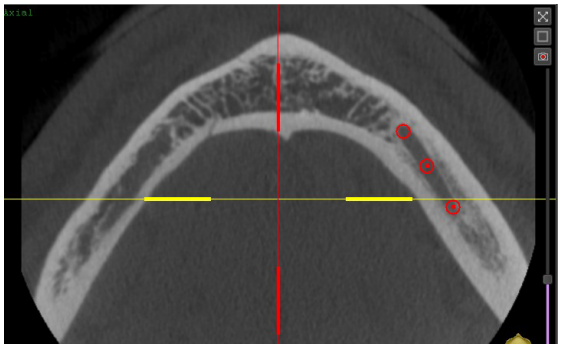
You can also change the view using the icons shown. Click to activate or deactivate any element previously incorporated without having to erase it entirely.

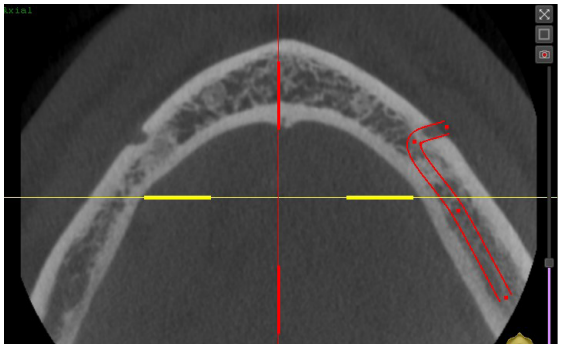


5. NERVE TRACING

Click on the “Nerve” icon to add the objects of the nerve canal. Click on “Draw new nerve”.

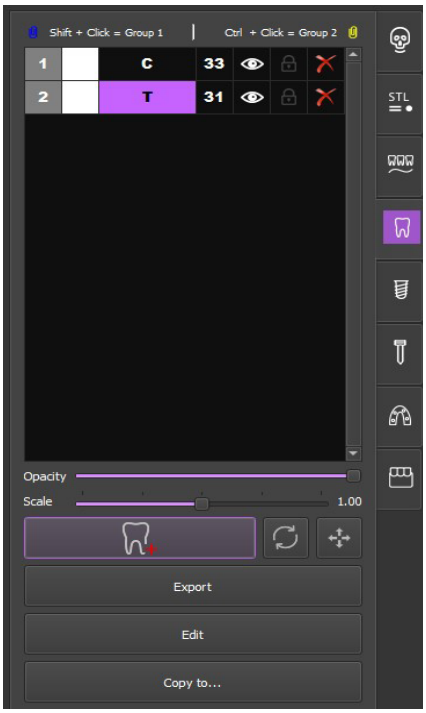
Left click on your mouse to draw a line of points to trace the nerve. Once you have added all the points, right click so they join together to form the nerve canal.

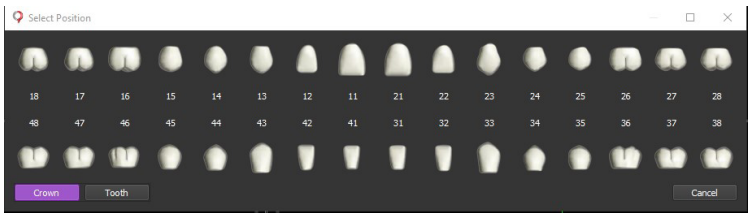




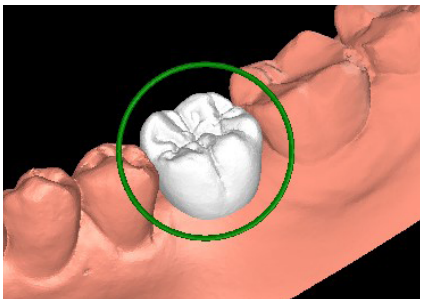
6. CROWN DESIGN

The next step in the process is the crown design. Click on “Place new crown or tooth” and a window will emerge where you can select the crown or tooth position.



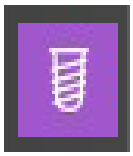


Choose whether you want to insert a tooth or crown and click on the desired position.



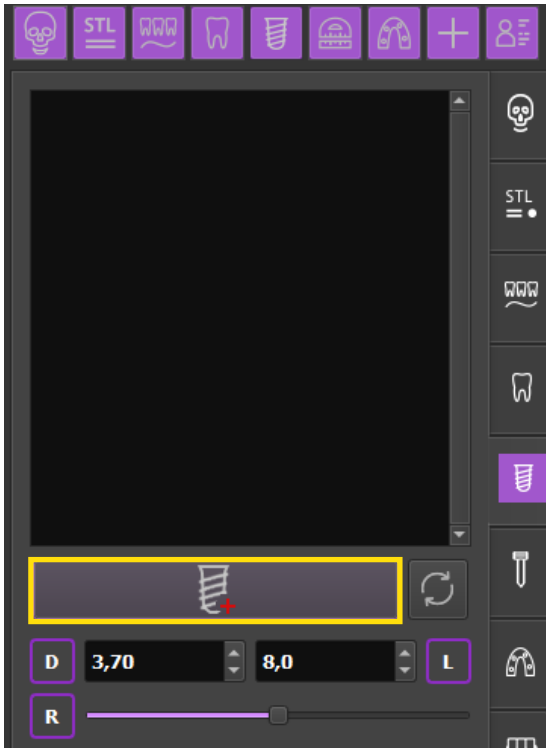
Right click on the inserted crown to open the item menu. Use the arrows to drag and rotate the crown until you find the right position.

7. IMPLANT MANAGEMENT



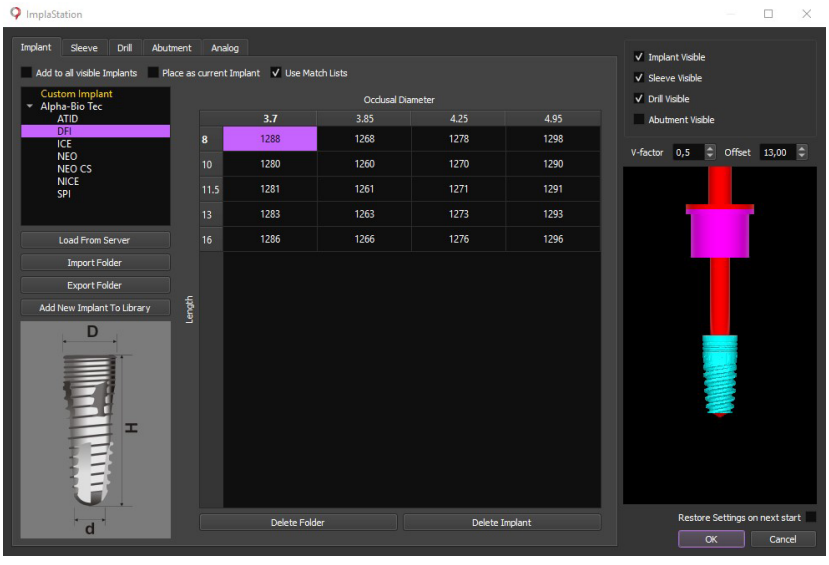
This section is key. Not only does it offer options for selecting and positioning the desired implant, it also determines other elements associated with the planning such as: positioning the sleeve for designing surgical guides; abutments for designing the implant; or replica if you are creating a mouth model.

Click on the “Add implant” icon in the tool bar. Add the implant in the following window by clicking on “Place new implant”.

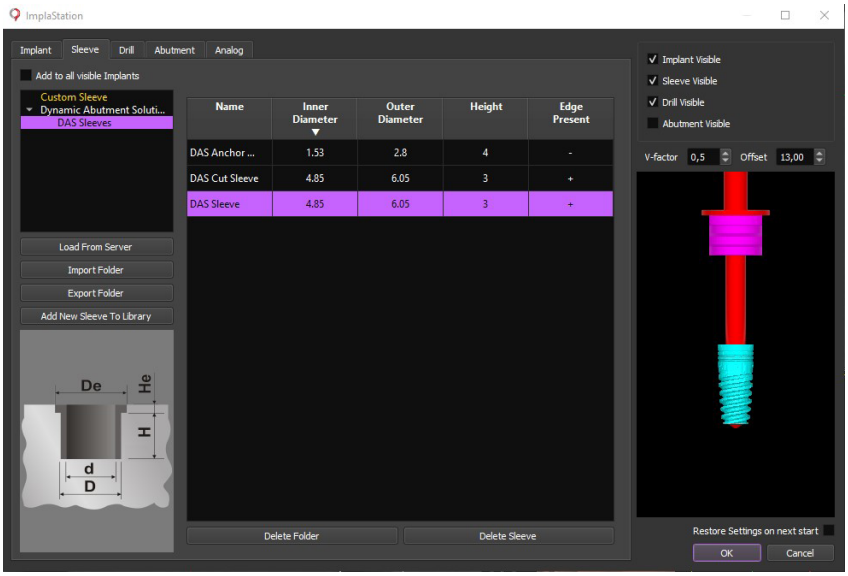


A window will emerge showing the database of available implants.

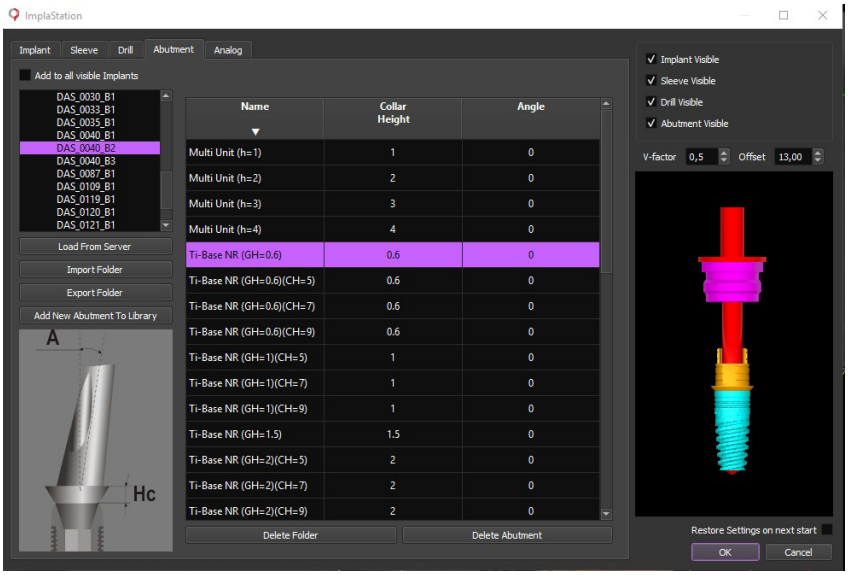
Choose an implant. As you can see, this step allows you to choose any other components the project requires, such as sleeves, abutments, analogs, etc.



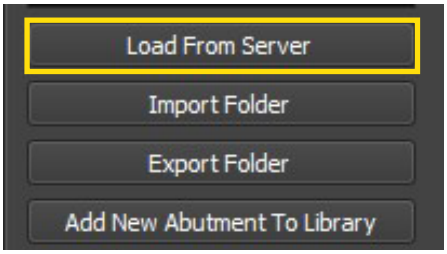
Go to the next available section for configuring the sleeve. Choose the DAS Sleeve. If the Dynamic Abutment Solutions library does not appear, you can download it by clicking on “Load from server”.

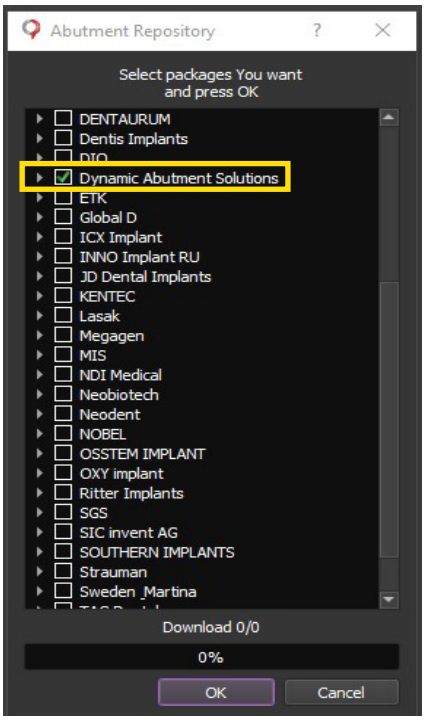


You will then find the abutments section. You can see how the software allows you to choose either a direct to implant Ti-Base or a Multi Unit DAS. If you choose a Multi Unit, you will later find instructions on how to place the Ti-Base on the Multi Unit. This process appears in another part of the interface because the software considers it to be a secondary abutment.

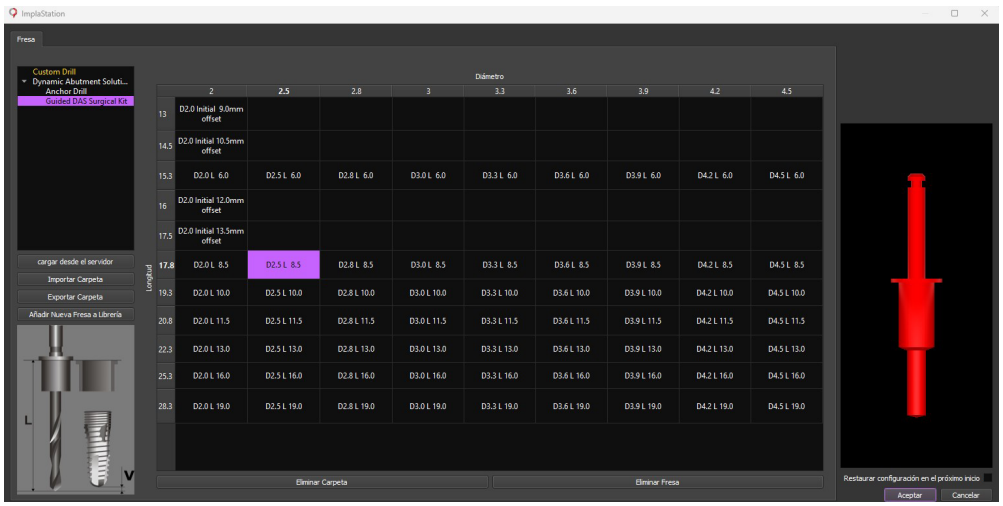


If you do not have the DAS abutment library, you can download it by clicking on “Load from server”. Check the Dynamic Abutment Solutions box and click on “OK” to download.

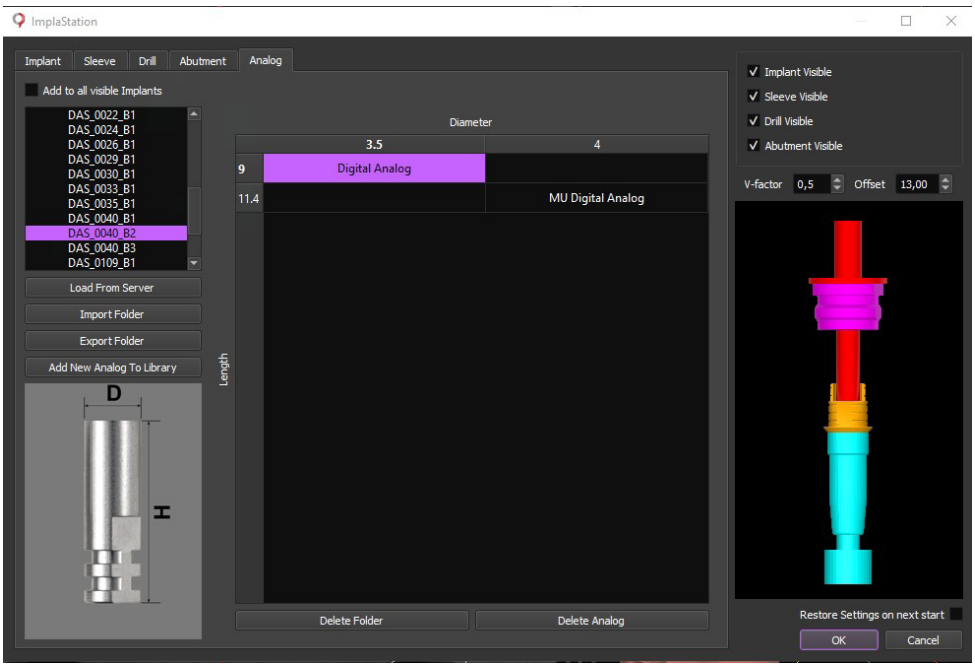




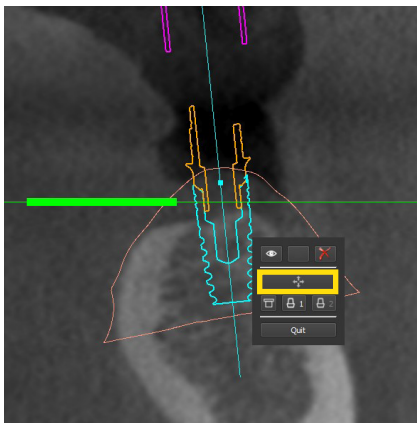
This software also allows you to visualize the drill you will use. This is particularly useful for ensuring you choose the right drill for the planned procedure.

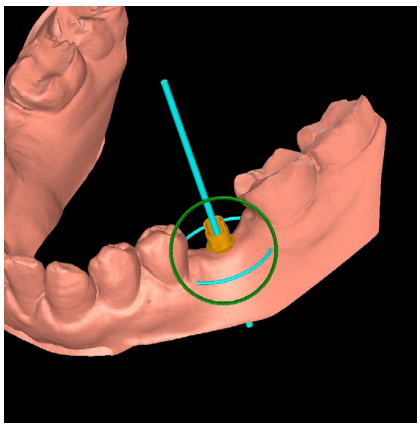


Finally, to finish the kit, choose the corresponding abutment analog. Click on “OK” to insert all the configured parts.

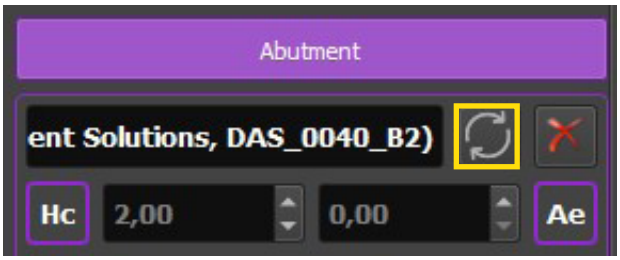


To position the kit you have created, right click on the implant in any window and a sub-menu will appear. Use the arrows to change the position. Use the centre point to move the implant on the image and the spheres for rotation.





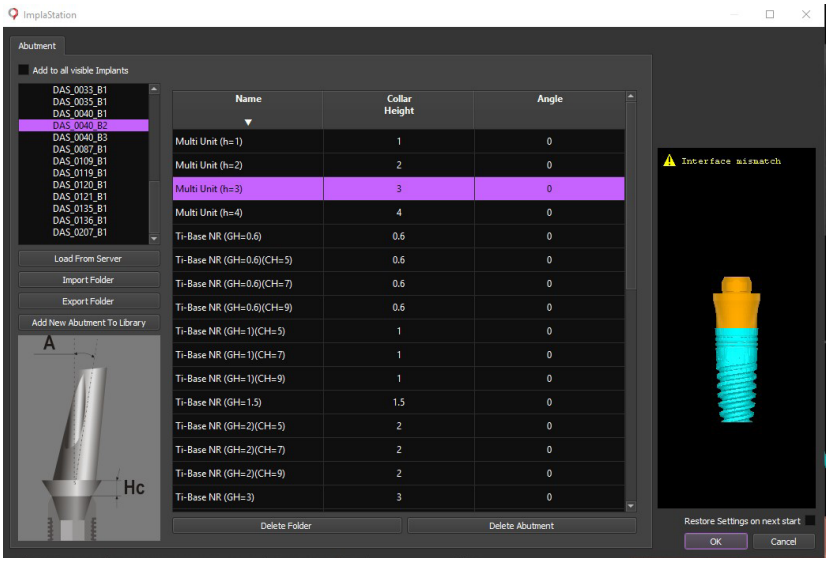
Remember that all the parts you chose when designing the implant despite it not being in position can still be modified depending on the location of the implant. To change the abutment or any of the other parts, go to the configuration panel on the right and choose the following box.



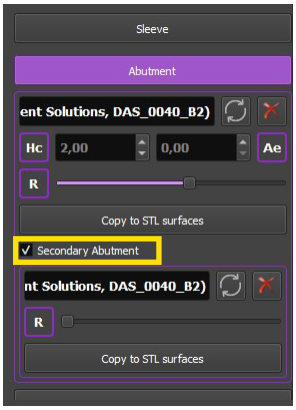
Another of the options which appear on the right panel in this section are the offset settings or displacement at which the sleeve will be placed. This value is entered in the “O” section.

Important: The software allows you to enter any value, so it is important to enter an offset suitable for the procedure. The offsets permitted for each implant are established in the document entitled **work offsets by compatibility**.

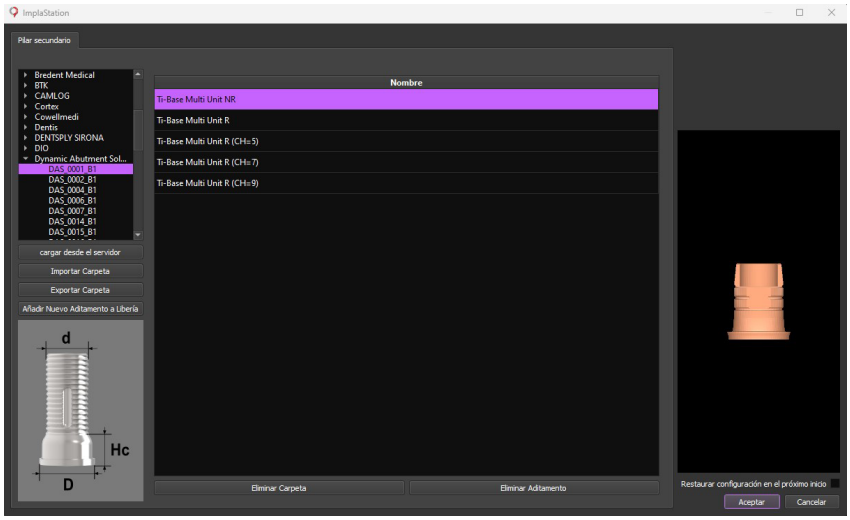
If you have chosen a DAS Multi Unit, you can then see how to position the Ti-Base on the Multi Unit.

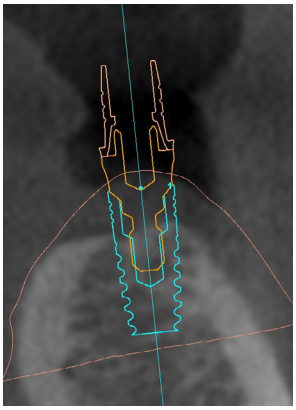


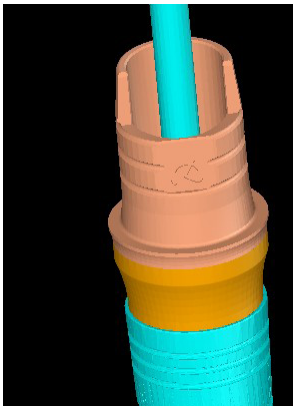
Click on “Secondary abutment” and then choose the corresponding secondary abutment.



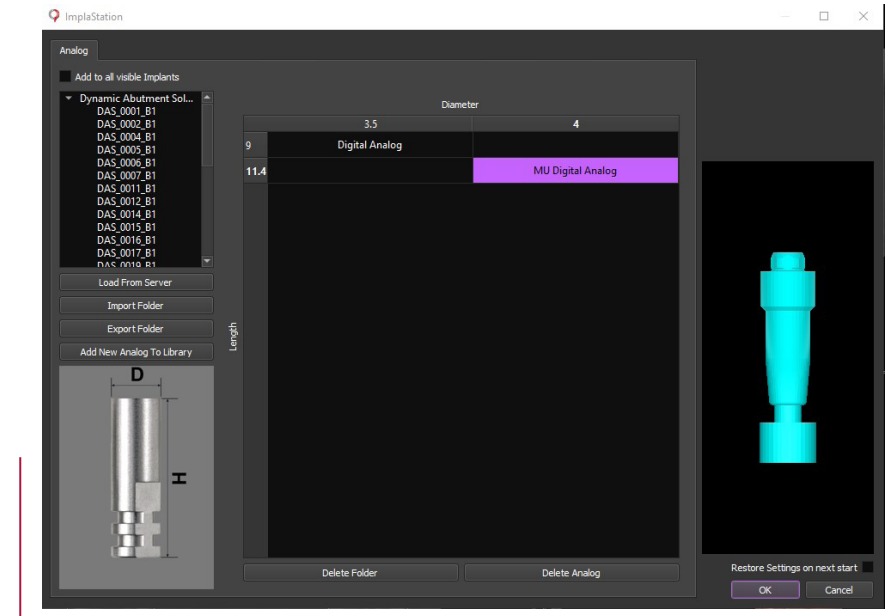
A window will emerge with the Ti-Bases corresponding to each Multi Unit. It is worth noting that abutment does not appear in the different heights of the Multi Unit. This is because this secondary abutment is linked to the one chosen before. As the Multi Unit comes with the specified height, the Ti-Base is automatically set at the right value.





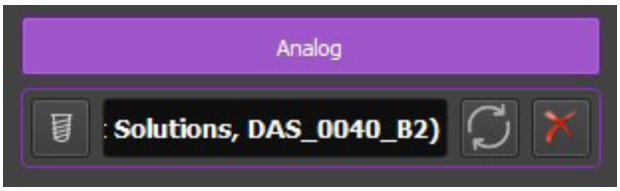


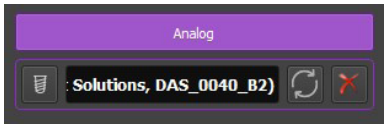
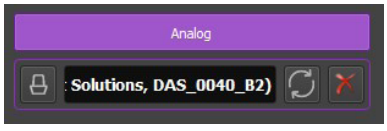
When choosing the corresponding replica implant, the DAS libraries offer two types of analogs. Those associated with the direct to implant Ti-Bases (Digital Analog) and those which are associated with the DAS Multi Units (MU Digital Analog).



Although you already chose the replica you are going to use, it is very important to specify its type once again in the analogs section on the right of the interface, as shown in the image below.

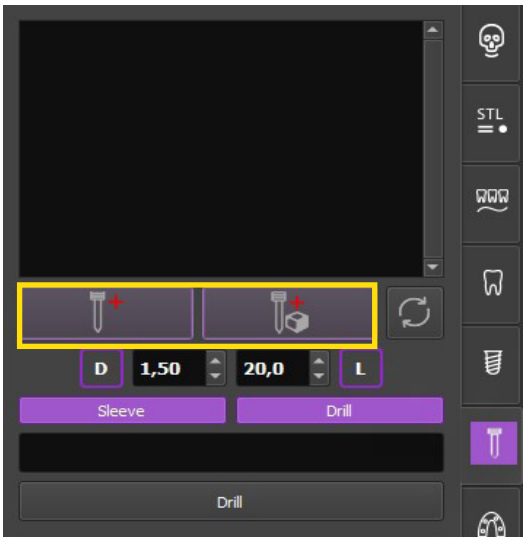
Note: This part is very important when working with the models. If you skip this part, the chosen replica may be correct, but its position will be wrong.



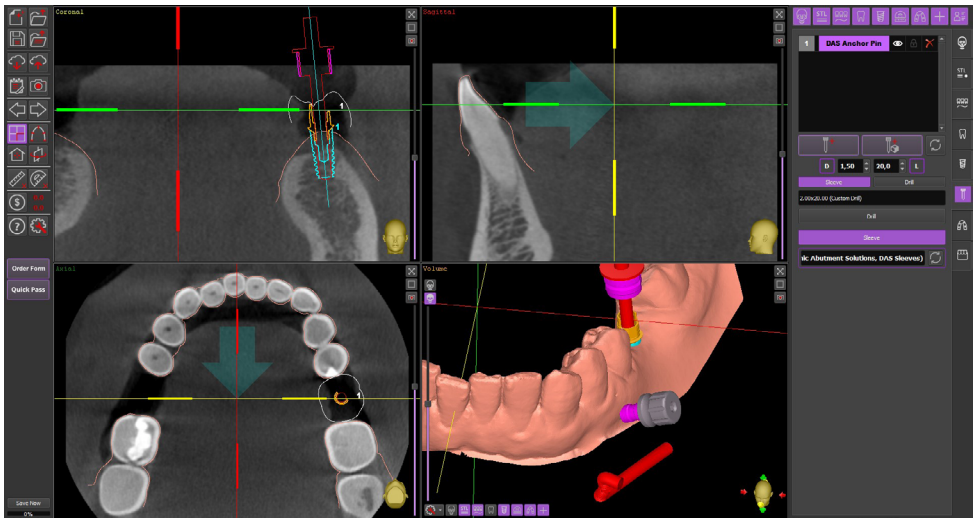
TI BASE DIGITAL ANALOG	*MU DIGITAL ANALOG*
	

8. ANCHOR PIN MANAGEMENT

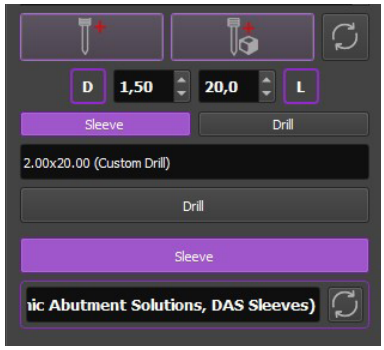
The anchor pins are found in the following section. There are two available options: “Place new pin” or “Place new pin in volume”.

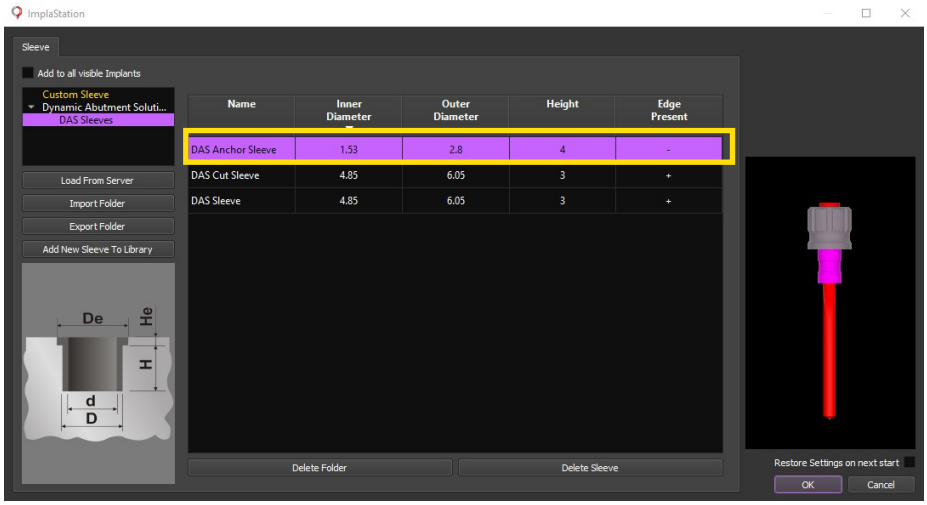


The first option allows you to choose the pin with its sleeves and position it in the central point of the coordinate axis, shown by a green arrow. In the second option, you can click to position the pin directly on the surface you have loaded. In both cases, the pin can be moved to any desired position.

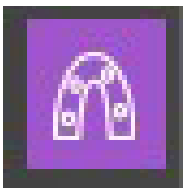


Once you have set the pin, return to the “Sleeve” section to configure the pin sleeve. Select DAS Anchor Sleeve and click “OK” to save.

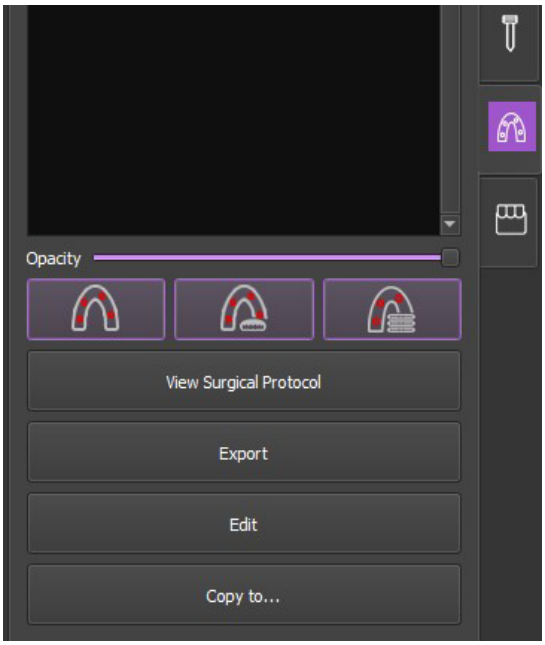


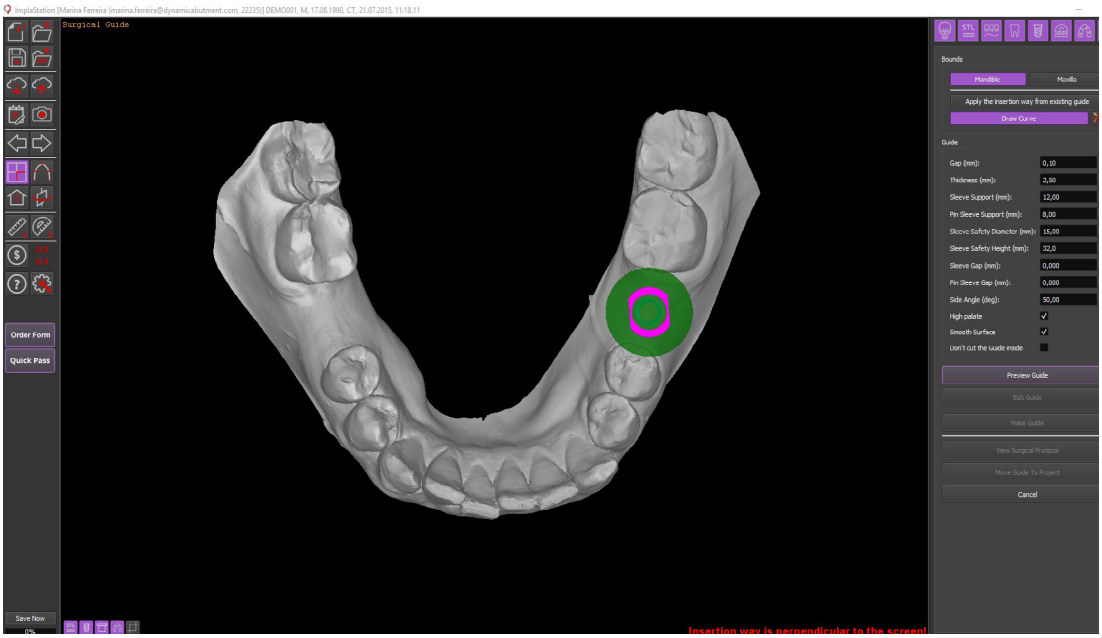


9. SURGICAL GUIDE DESIGN AND CREATION

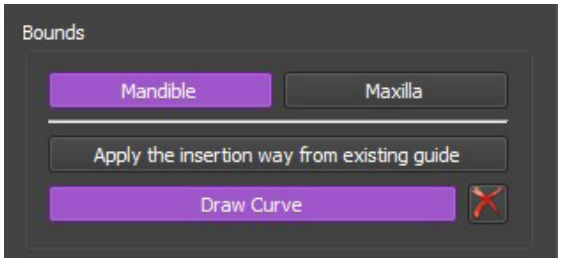


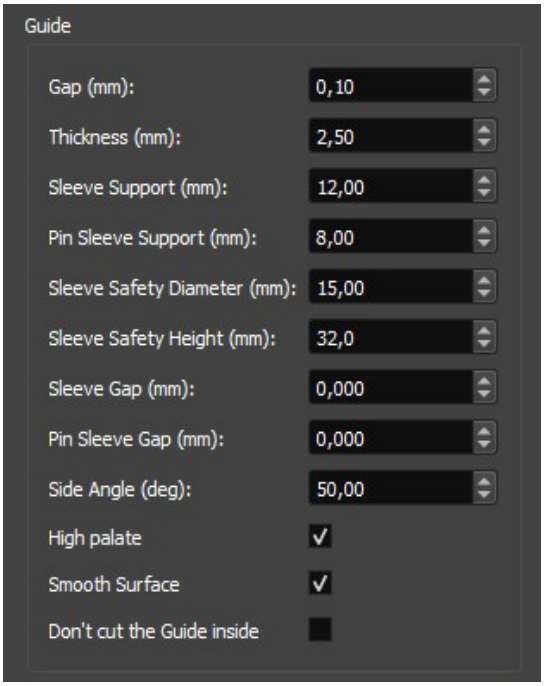
Following the program flow chart, we now access the surgical guide creation tab. Click in this section on “Make surgical guide based on surface”



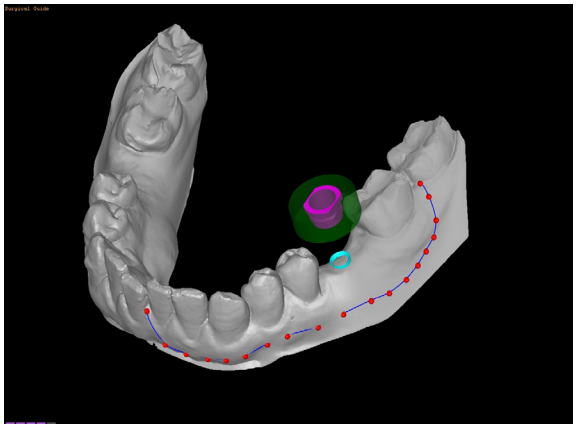


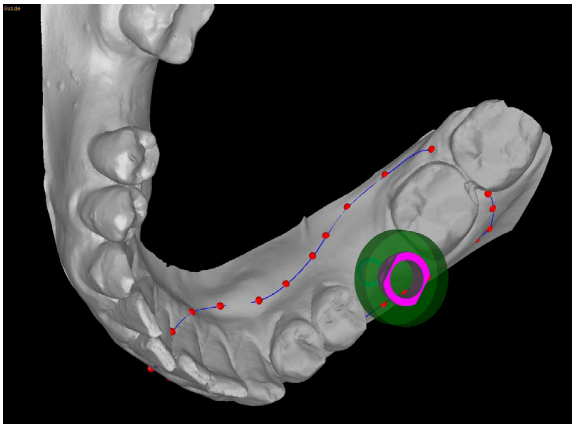
The program will go into guide creation mode. Configure the superior maxillary and mandible as required. Adjust the guide characteristics using the options displayed on the right of the window.

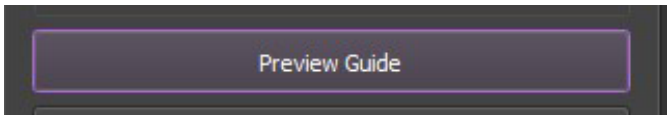




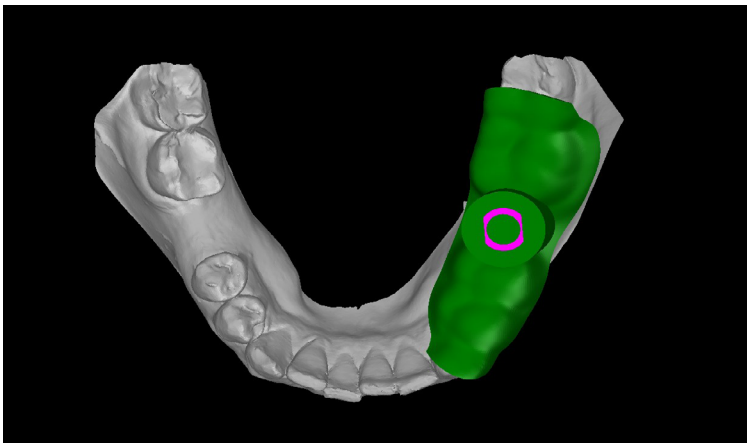
To draw the guide, click on the surface to add reference points which will determine the profile.



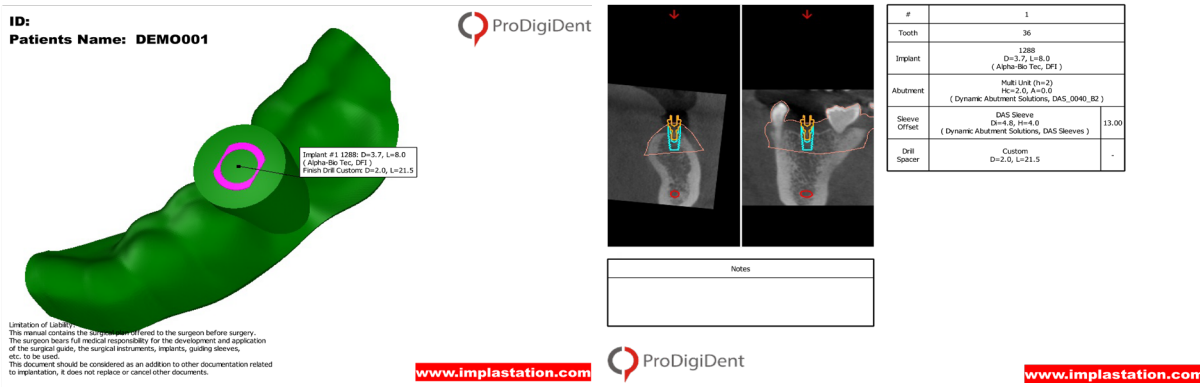




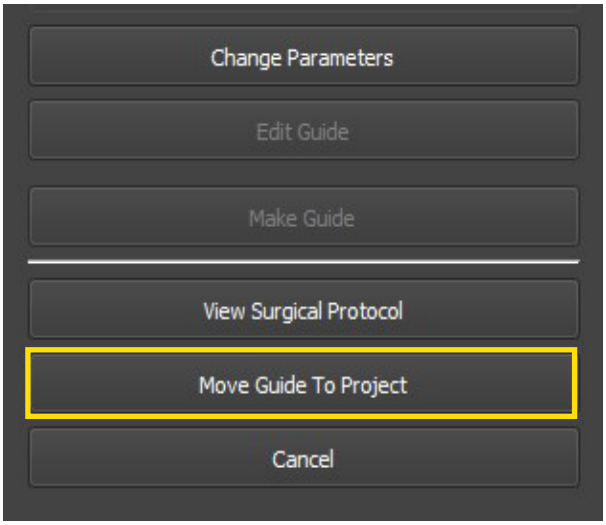
Once you have entered the points, click on “Preview guide” for a preview of the guide. If you are happy with the result, position the model in occlusal view and click “Make guide” to create the definitive model. The “Edit guide” and “Change parameters” options allow you to make changes to the guide.



Once you have finished planning the implant, you can get the surgical procedure for the project by clicking on “View surgical protocol”.

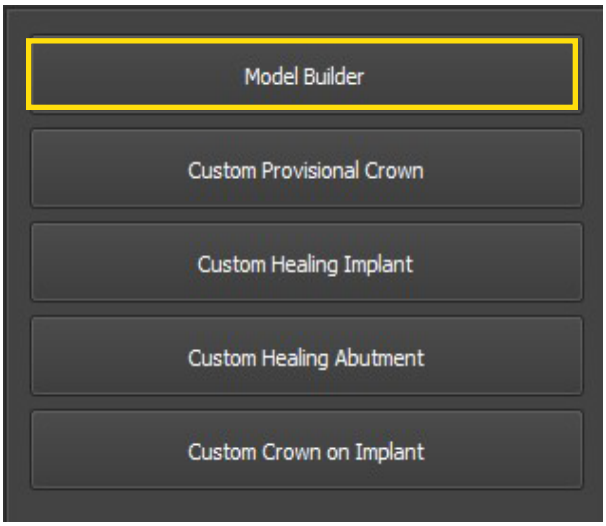


Once the process is finished, click on “Move guide to project” to transfer the surface to the general project.

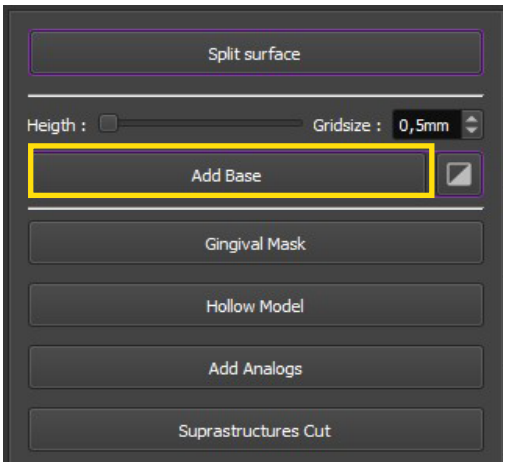


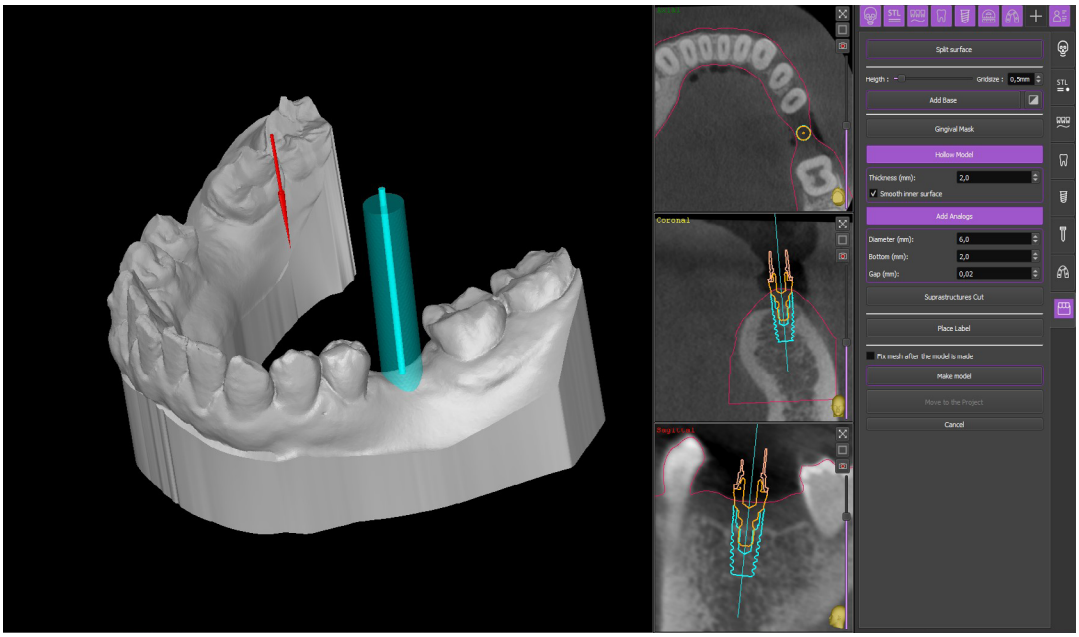
10. BUILDING DIGITAL REPLICA MODELS

The final option on the tool bar allows you to build models. Click on “Model Builder” to enter model building mode.

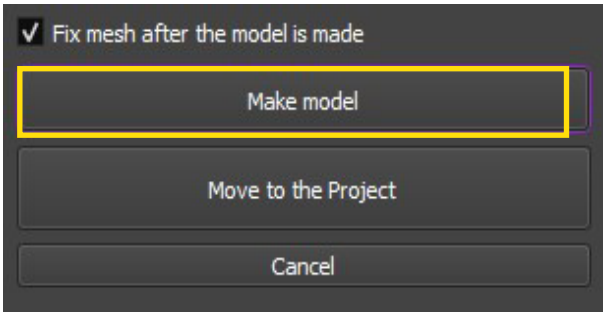
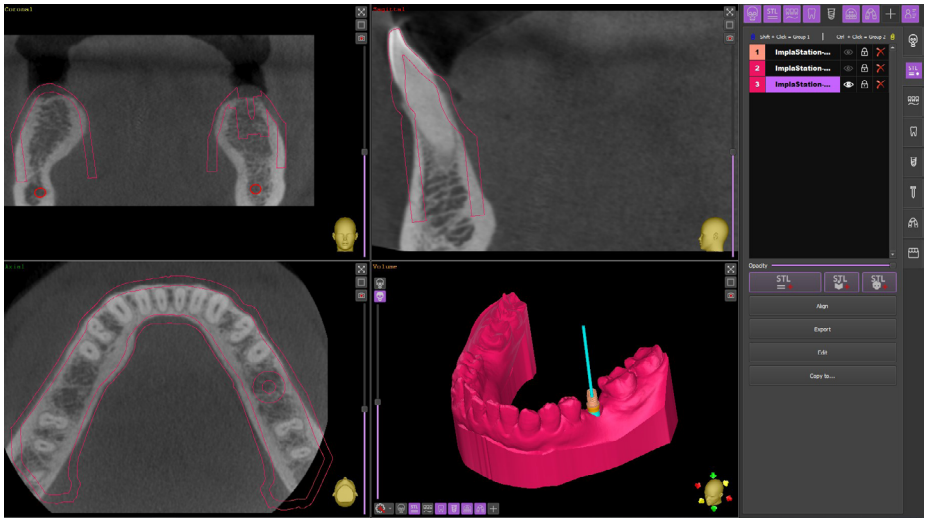


Click on “Add base” to create the model base. Place the model in the occlusal plane to create the base correctly. The height can be controlled by moving the “Height” measurement. Add analogs by clicking on “Add Analogs”





Click on “Make model” to build it. If the model is correct, click on “Move to the project” to transfer the changes to the general project and export.


Fix mesh after the model is made
Make model
Move to the Project
Cancel