

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



**INSTRUCTIONS FOR USE**  
**DYNAMIC ABUTMENT SOLUTIONS LIBRARY**

# INSTALLATION OF SLEEVES IN THE DDS PRO SOFTWARE

Before planning, you need to install the libraries for the implants and sleeves you want to use.

To install the libraries in the software, go to the DDS PRO portal and log in.

Link -> <https://dds.ddp.systems/manuals/>

Go to **Implant library** -> and download the available sleeves file -> **ProInsertsLibraryDynamicAbutmentSolutions**

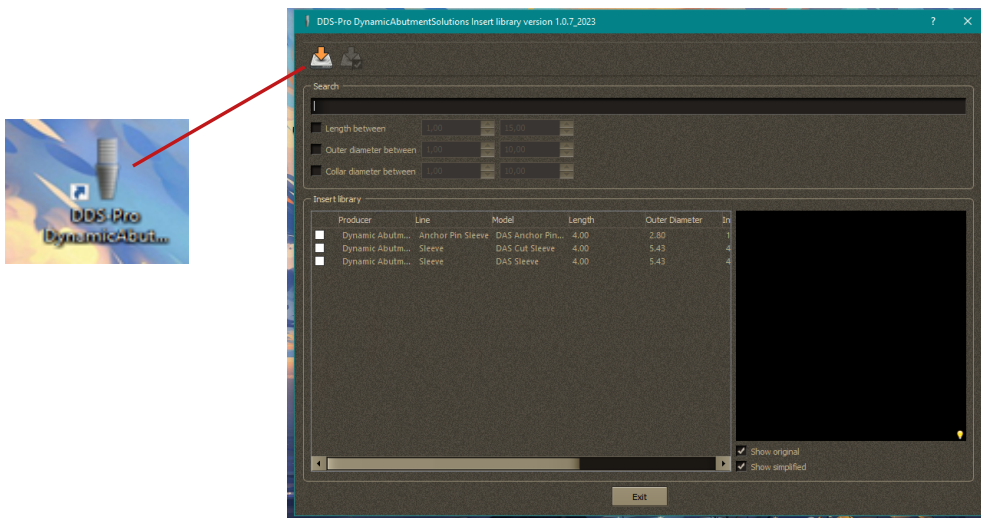
The screenshot shows the 'Implant library' web interface. At the top, there is a navigation bar with a home icon and the text '> Implant library'. Below this is a header section with a cloud download icon and the title 'Implant library'. The main content area is divided into two columns. The left column features a Windows logo and a list of library names with their version numbers in parentheses. The right column shows a list of library names with their version numbers, where the entry 'DDS-ProInsertsLibraryDynamicAbutmentSolutions (1.0.7.2023)' is highlighted with a red rectangular box. A red circle is drawn at the bottom left corner of the screenshot area.

Windows

- DDS-ProImplantsLibraryADVAN (1.1.17.2022)
- DDS-ProImplantsLibraryAlphaBioTec (1.1.17.2022)
- DDS-ProImplantsLibraryAnthogyr (1.1.17.2022)
- DDS-ProImplantsLibraryBANP (1.1.17.2022)
- DDS-ProImplantsLibraryBicon (1.1.17.2022)
- DDS-ProImplantsLibraryBilimplant (1.1.17.2022)
- DDS-ProImplantsLibraryBioHorizons (1.1.17.2022)
- DDS-ProImplantsLibraryBiomet3i (1.1.19.2022)
- DDS-ProImplantsLibraryBiotech (1.1.17.2022)
- DDS-ProImplantsLibraryBredent (1.1.17.2022)
- DDS-ProImplantsLibraryBTI (1.1.17.2022)
- DDS-ProImplantsLibraryBTK (1.1.17.2022)
- DDS-ProImplantsLibraryC-Tech (1.1.17.2022)
- DDS-ProImplantsLibraryCAMLOG (1.1.17.2022)
- DDS-ProImplantsLibraryCOMMON (1.1.17.2022)
- DDS-ProImplantsLibraryDentaurum (1.1.17.2022)

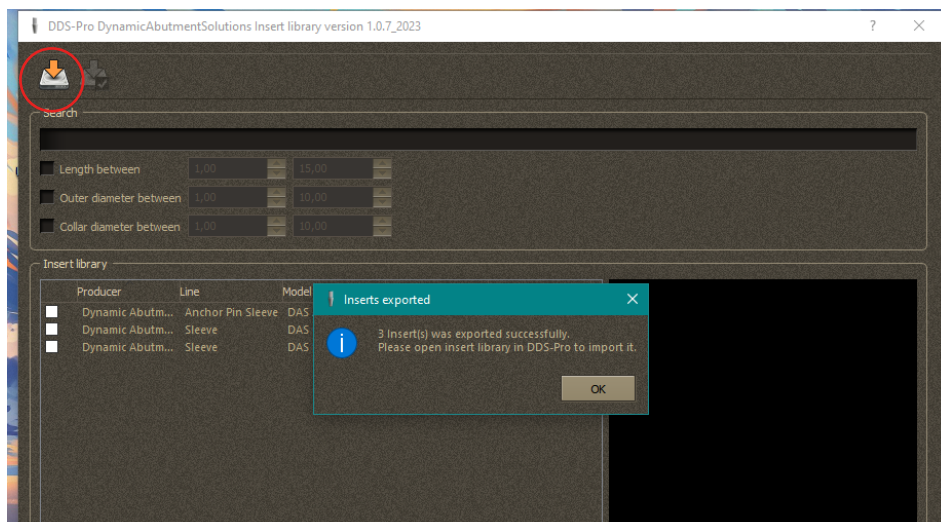
- DDS-ProInsertsLibraryBiomet (1.0.6.2022)
- DDS-ProInsertsLibraryCAMLOG (1.0.6.2022)
- DDS-ProInsertsLibraryDynamicAbutmentSolutions (1.0.7.2023)**
- DDS-ProScanBodiesLibraryBioHorizons (1.1.11.2022)
- DDS-ProScanBodiesLibraryGMillerimplantGroup (1.1.11.2022)
- DDS-ProScanBodiesLibrary (1.1.11.2022)
- DDS-ProScanBodiesLibraryIntralock (1.1.11.2022)
- DDS-ProScanBodiesLibraryMedentika (1.1.11.2022)
- DDS-ProScanBodiesLibraryStraumann (1.1.11.2022)
- (1.1.17.2022)

Install the sleeves pack on your computer. When the following icon appears on your desktop, start the program.



To import the sleeves in the software:

Click on the **Export All inserts** icon -> to export the components.



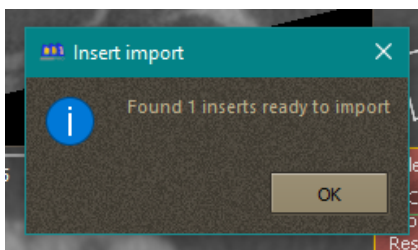
Once you have exported them, open the software.

To import both sleeves and implants, go to the **Implants** tab.

To import the implants -> click on the implant-shaped icon.

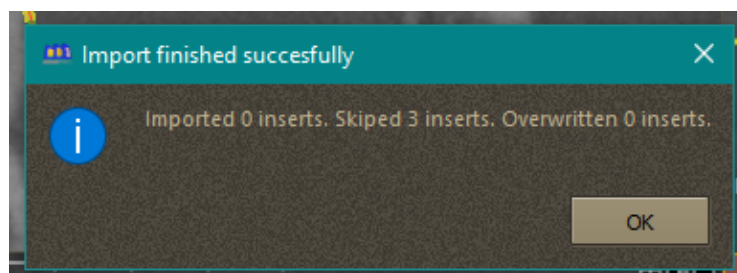
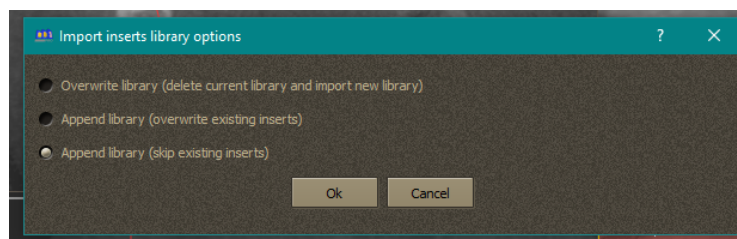
To import the sleeves -> click on the cylinder-shaped icon.

The following window will appear when the components can be imported. Select OK.



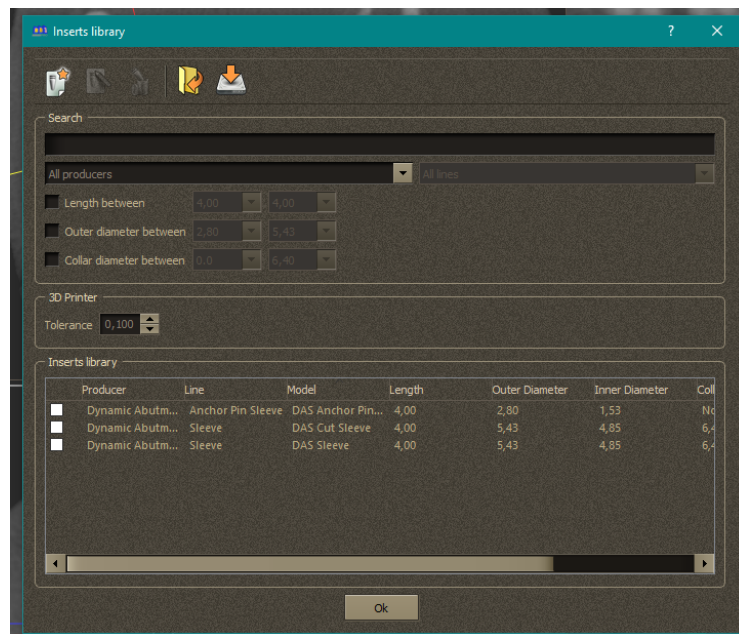
A menu appears with 3 options to choose from:

- Delete current library and import new library.
- Overwrite existing inserts
- Only import the parts of the library which are missing, skipping those which already exist.



Choose the option which suits your needs best -> select OK and the sleeve libraries will be imported.

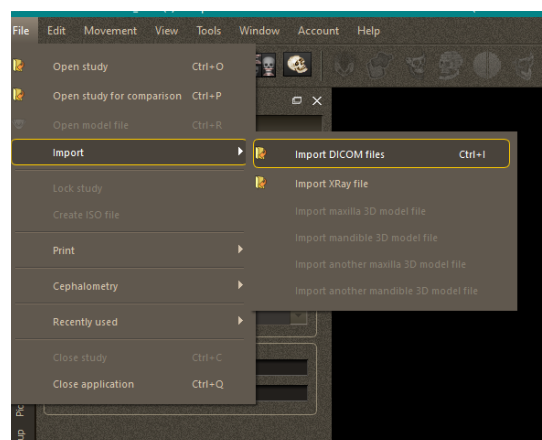
On the next panel, you can see the imported sleeve libraries.



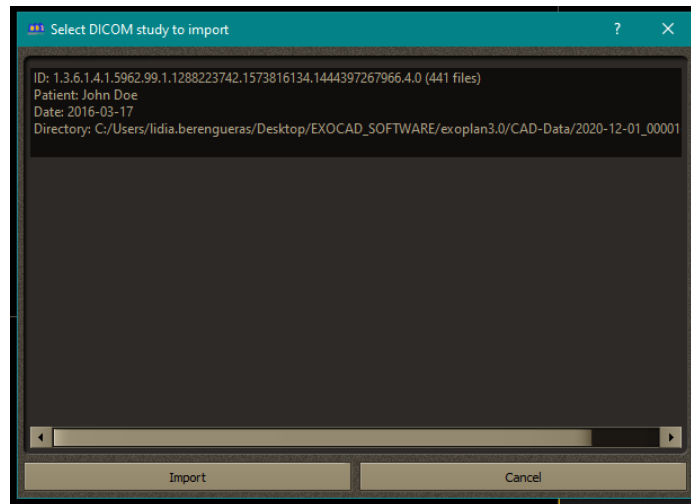
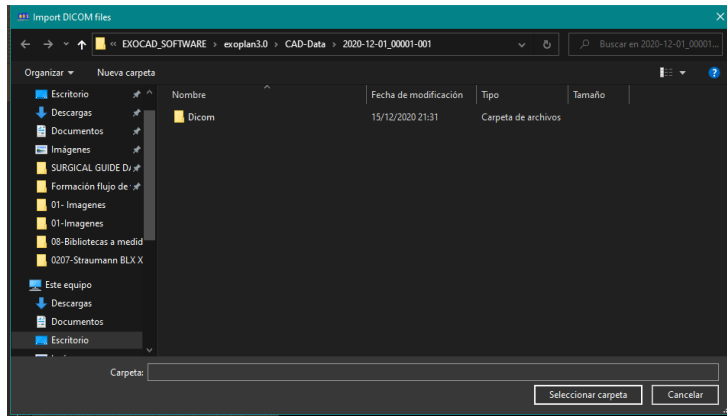
## Importing DICOM files and scanning

To import a DICOM file, take the following steps:

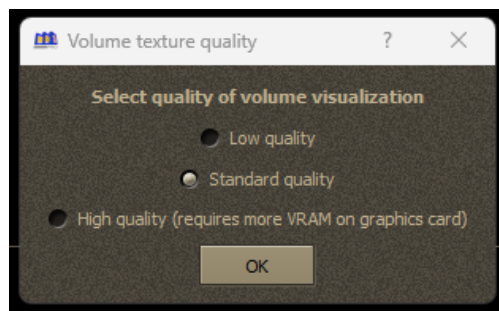
Go to **File -> Import -> Import DICOM files.**



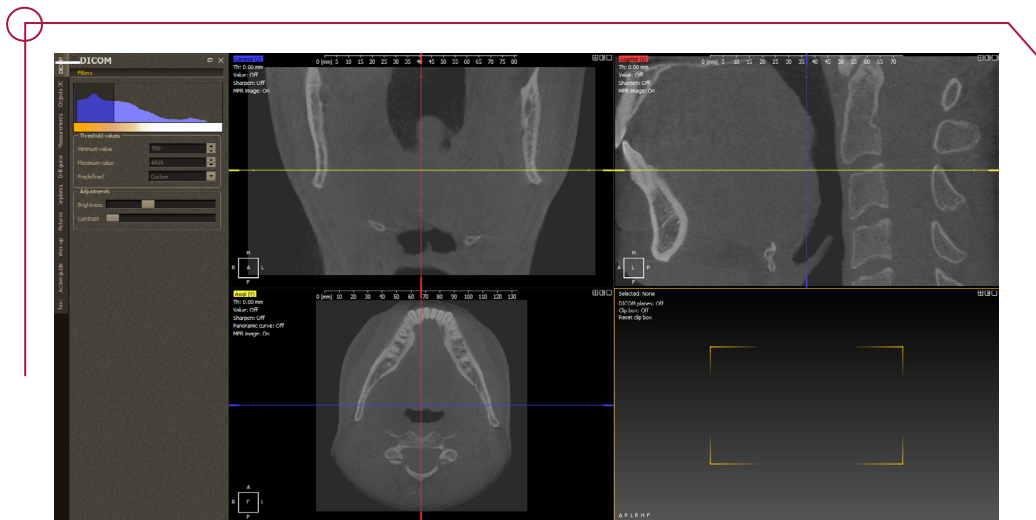
Choose the DICOM folder ->



Once you have selected the DICOM, the following window will appear where you can choose the desired DICOM quality.



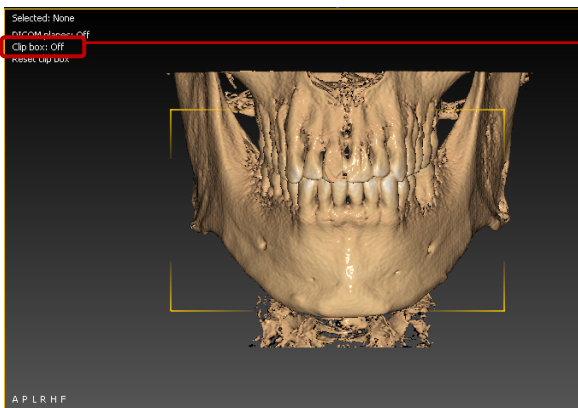
Select OK and the file will upload so you can start work.



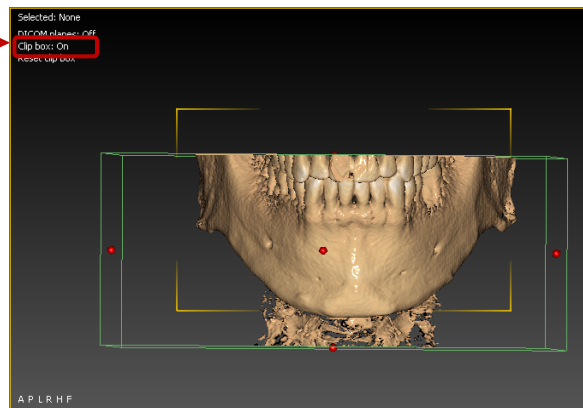
To clip the DICOM, change the **Clip box** tool in the upper left part of the 3D model from its default setting **Off** to **On**.

Once this setting is activated, use the red points you can see in the image on the right to clip the DICOM.

#### CLIP BOX: OFF



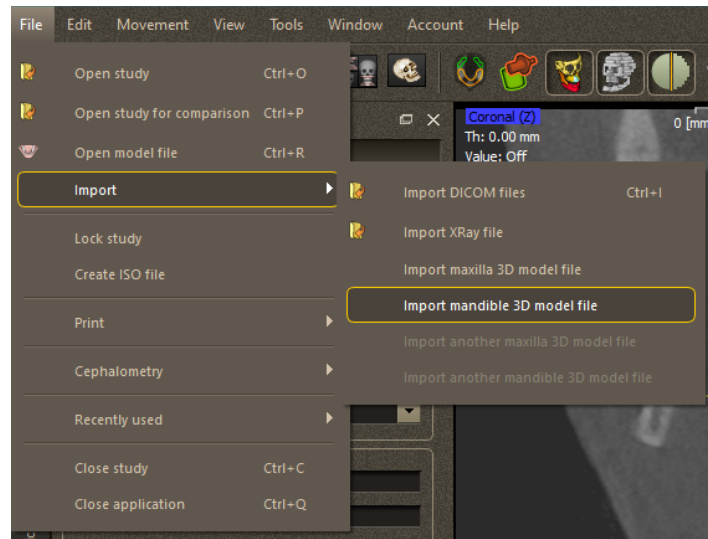
#### CLIP BOX: ON



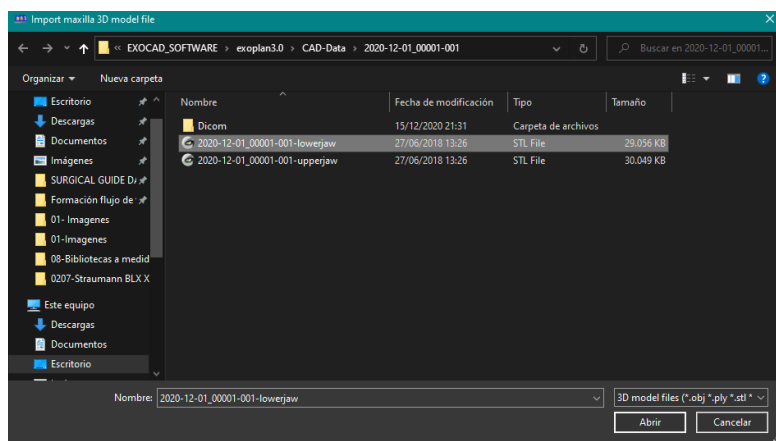
Once imported and clipped, import the **3D model** (STL file of the scanned mouth).

Follow these steps to import:

Menu **File** -> **Import** -> **Import Mandible 3D model file**

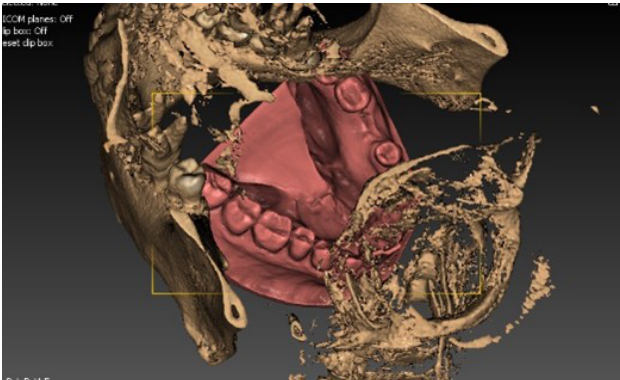
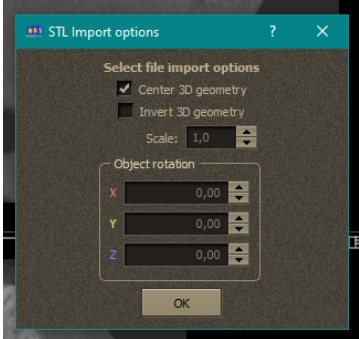


Select the file -> **Open**



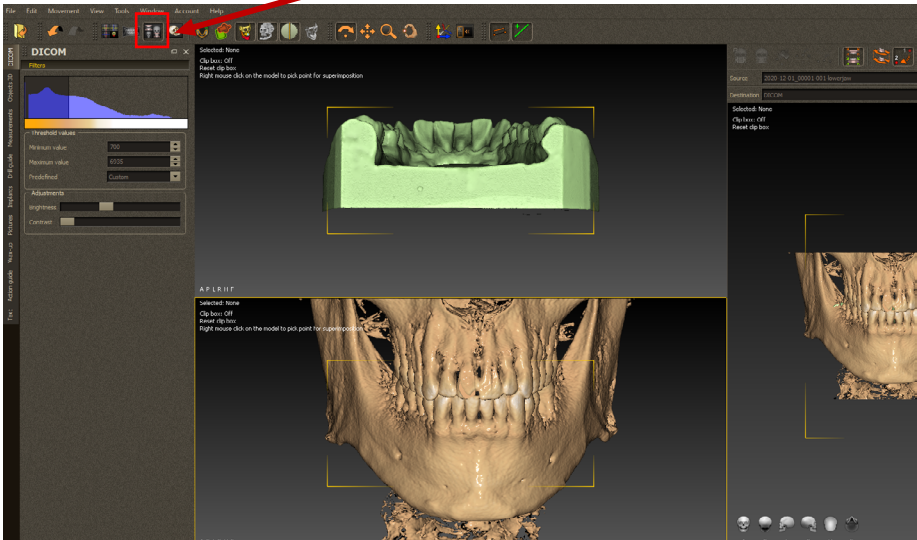


When the file is uploaded, the STL import options appear. This menu allows you to choose how and where you want the STL file imported by choosing the most suitable

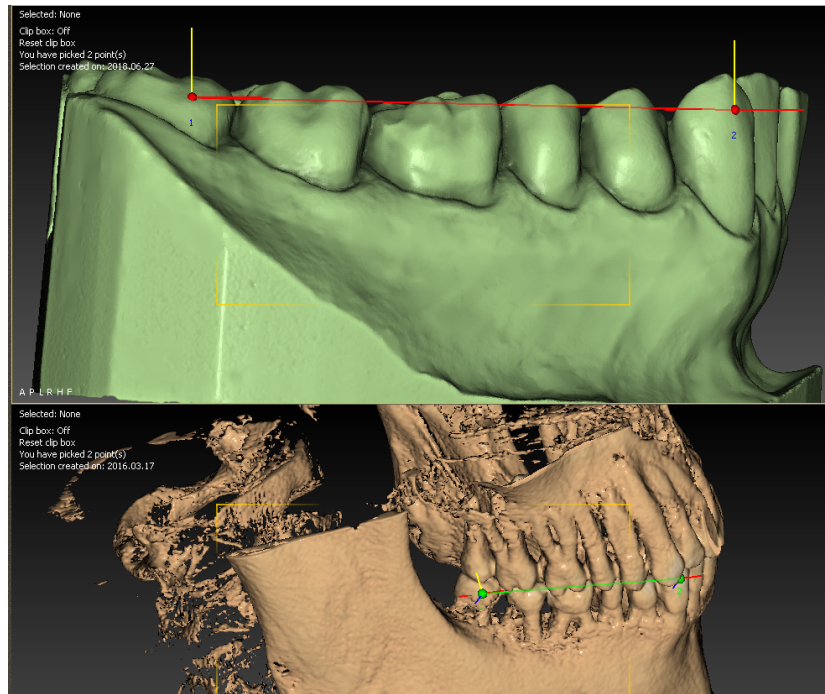


## ALIGNING THE MOUTH MODEL WITH DICOM

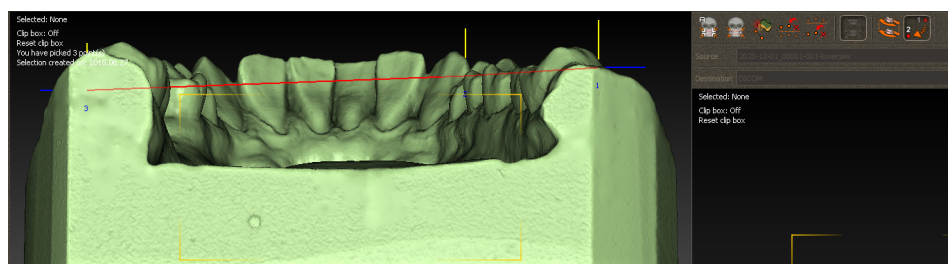
To align the model with the DICOM, go to the **superimposition view** tab. *(shown in red).*



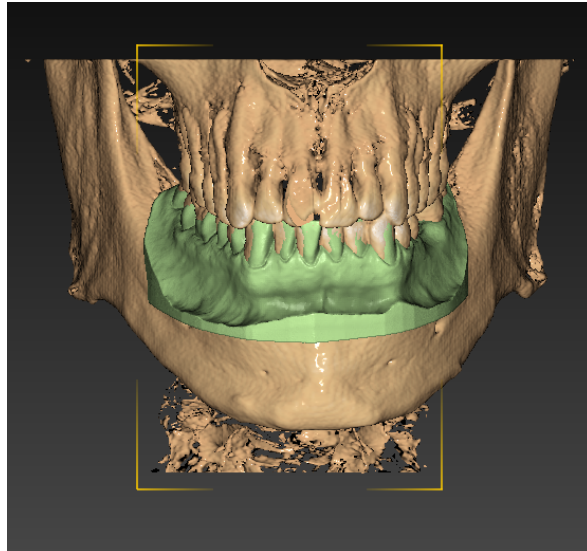
Once the alignment tab is open, select 3 points, both in the DICOM and in the model (always in the same area). It is very important to select areas that are easily identifiable in both 3D objects.



Once you have chosen these reference points, select the automatic positioning button (shown in red).

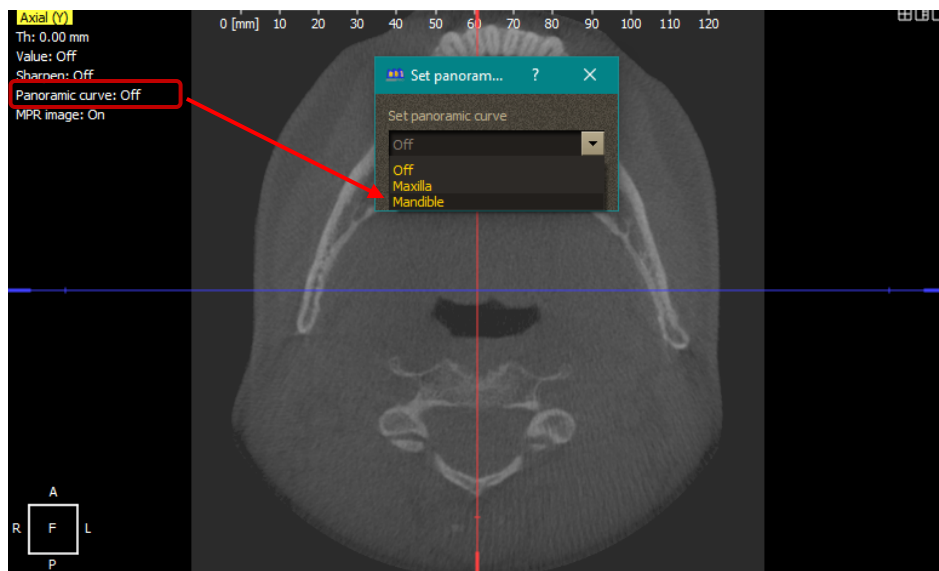


This option performs a more precise alignment (as you can see in the image below).

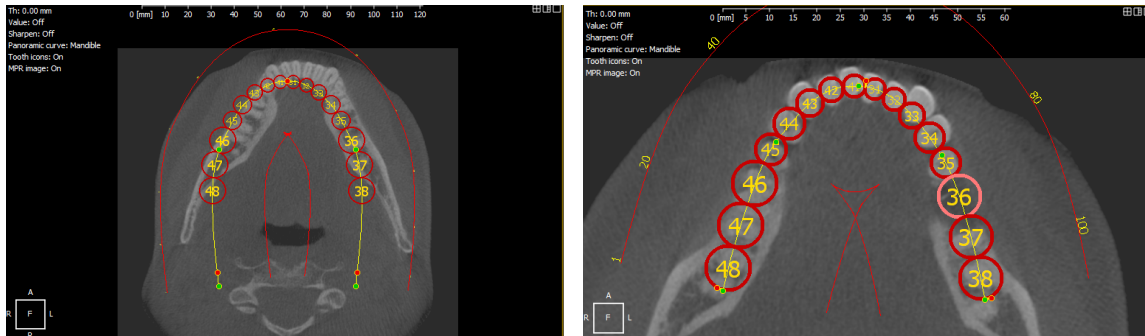


Once you have imported the file and completed the alignment, you can now set the panoramic curve.

Go to the Axial image in the upper left corner and select **Panoramic Curve** -> click the curve you wish to work on (in this case Mandible has been selected) -> **OK**



Once you have activated the panoramic curve, you can use the red and green points to position it correctly on the denture.



Once you have placed the panoramic curve, go to the next tab (shown in green) to start drawing the nerve



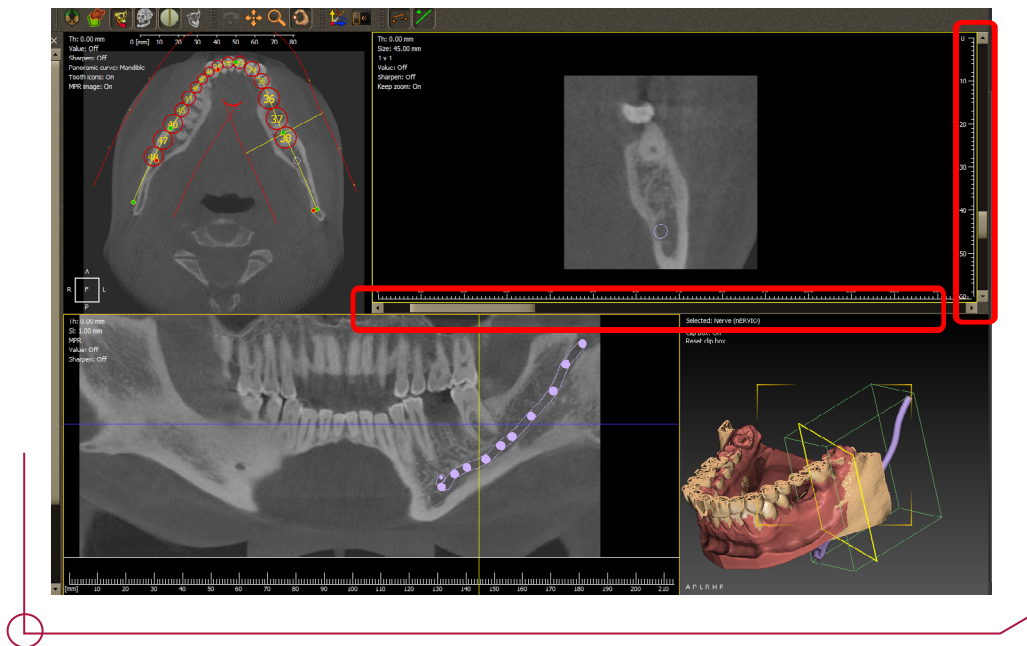
Go to the menu on the left -> **Objects 3D** (shown in red) -> Click on **Create a nerve** (shown in green)

Once you have created the object **Nerve** -> Right click in the object **Nerve** -> **Set nerve points**

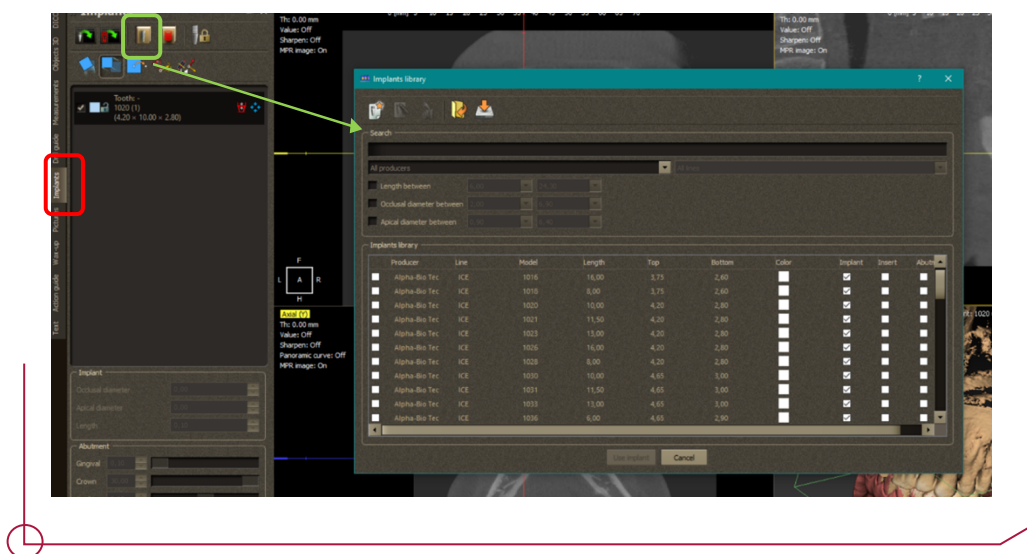


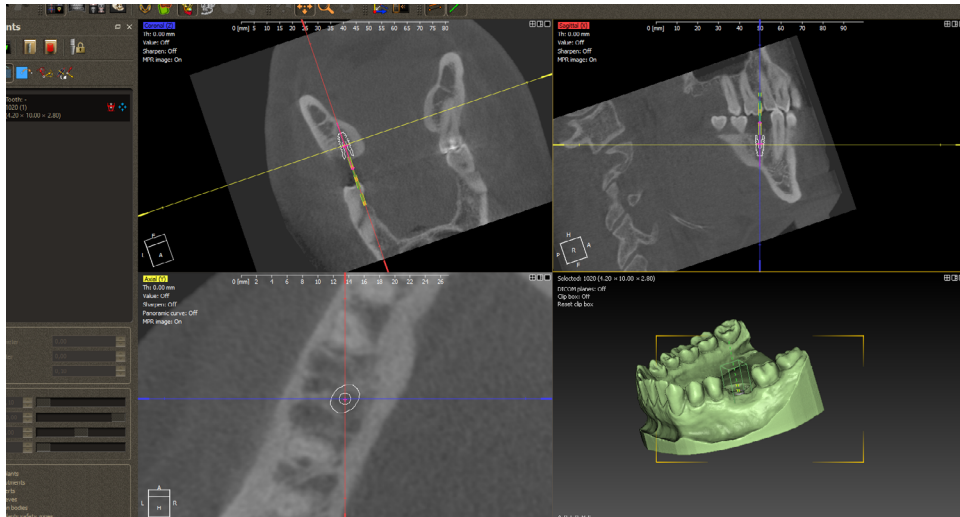
Press CTRL + left click to trace the outline of the nerve based on the DICOM image. You can also adjust the DICOM view using the bars shown in red, allowing you to get a better view of where the nerve is placed.

Using CTRL + scrolling with the mouse, you can change the DICOM density. This allows you to adjust the image intensity.

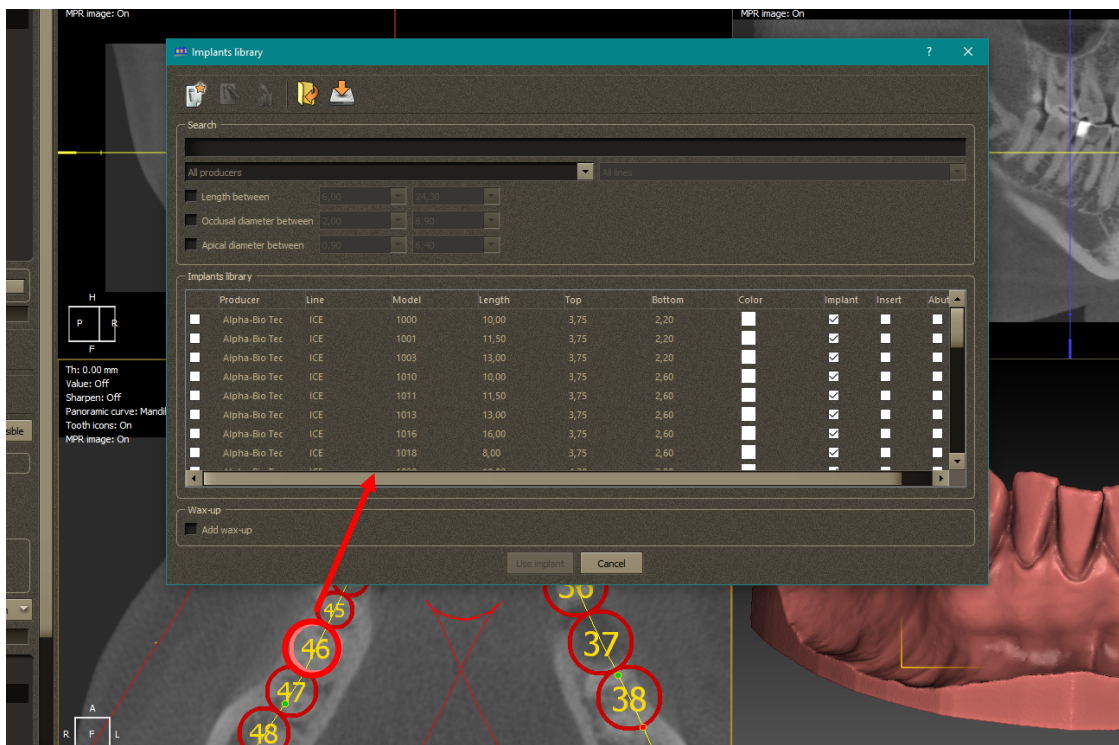


Once you have completed the panoramic curve and positioned the nerve, go to the **Implants** tab (shown in red) and choose **Add Implant** (shown in green). A window appears with the implants installed in the software so you can choose the implant you want.



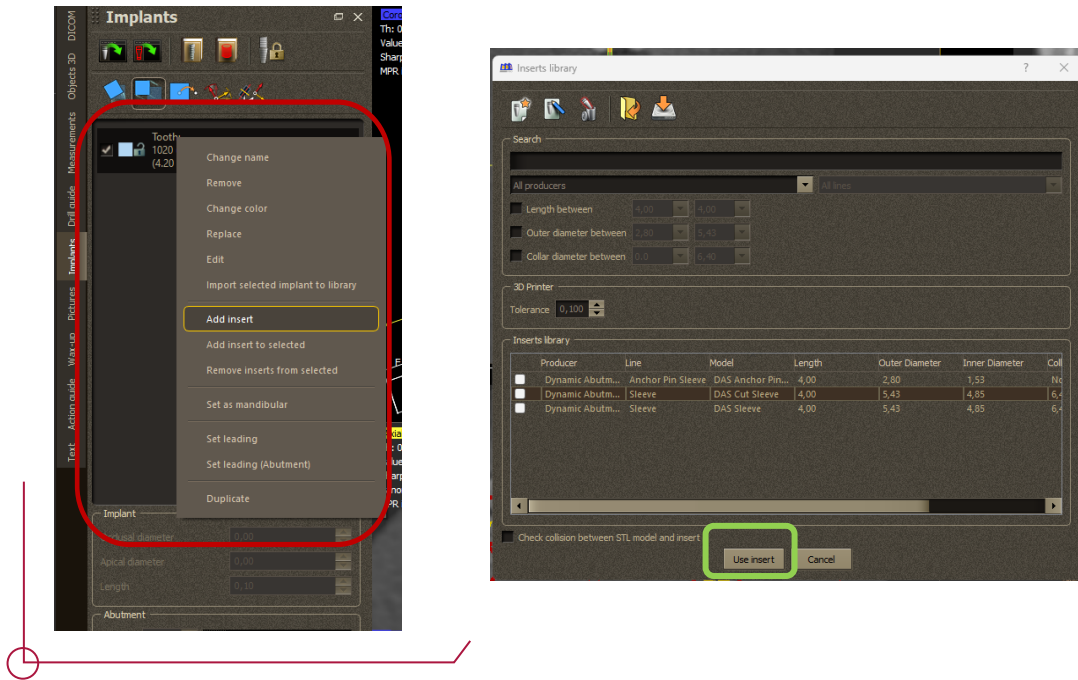


From the panoramic curve, it is also possible to add implants by selecting the tooth number you want to work with. This allows you to place and position the implants in the desired region more precisely.



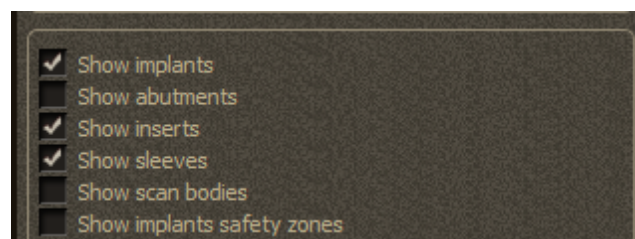
Then, go to the **Implants** tab, right click on the implant menu (shown in red) -> choose **Add insert** -> A window with sleeves will appear -> Choose sleeve\* -> Select **Use Insert**. (shown in green)

\*In the **Inserts Library** section, choose **Dynamic Abutment** and the type of sleeve you desire. There are currently two sleeves available: **DAS Sleeve** and **DAS Cut Sleeve**.

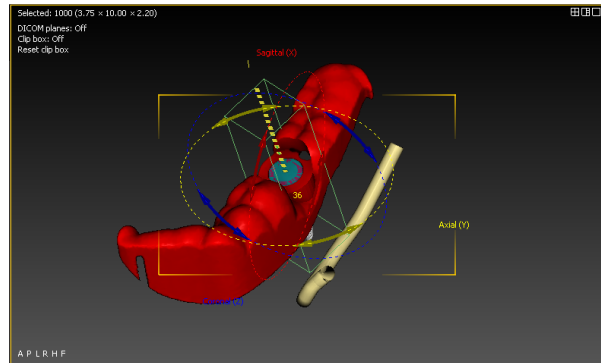
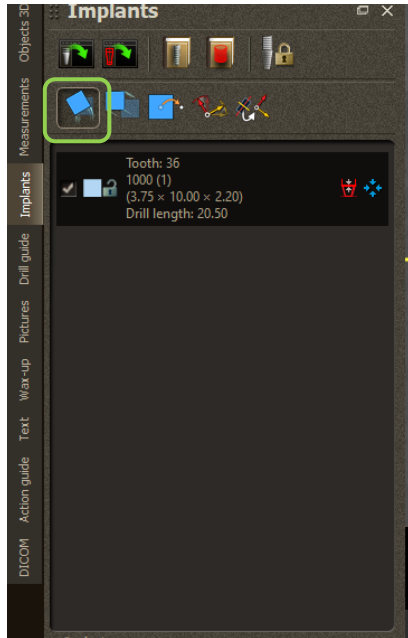


**Remember that when you select a new implant, you have to choose the sleeve again and assign the corresponding offset.**

In the lower part of the **Implants** menu, you have the option to show/hide the components. In this case, we have chosen show sleeves by selecting **Show Inserts** and **Show Sleeves**.

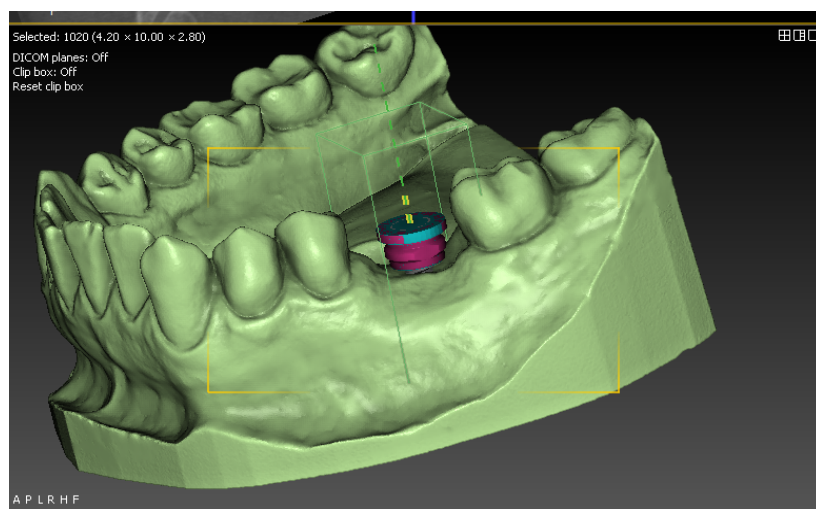


To rotate an object or sleeve, go to the **Implants** menu and select the sleeve you want to rotate (if you want to turn the model or the guide, click on the object in the **3D Objects** menu) -> click **Rotate Object**. (shown in green). The sleeve rotation can only be changed in conjunction with the implant and the abutment.



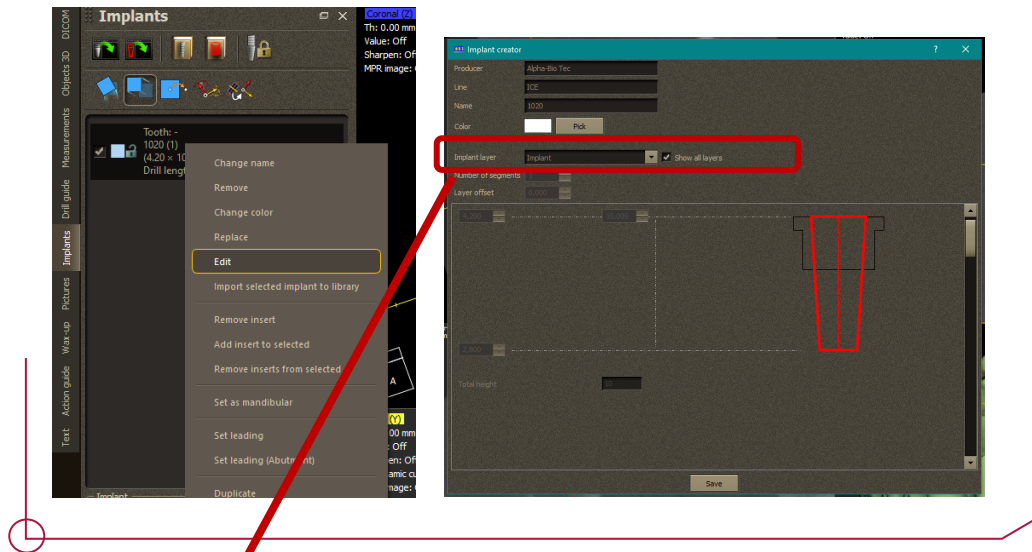
## OFFSET AND SLEEVE VALUES

Once you have positioned the sleeve, the initial offset is 0 mm. (see image below)





To change the offset value you want to work with, go to **Implants** -> right click on the implant -> **Edit** -> A window will appear with options to change either the implant or the sleeve.

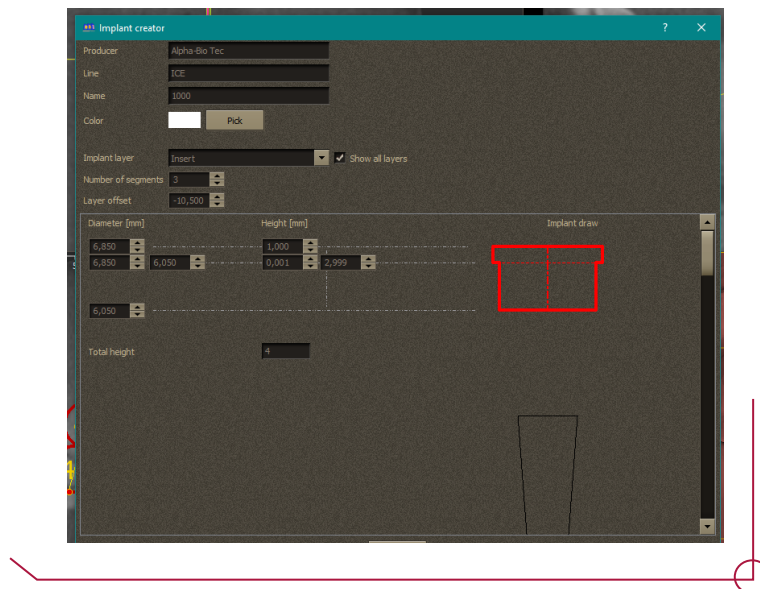
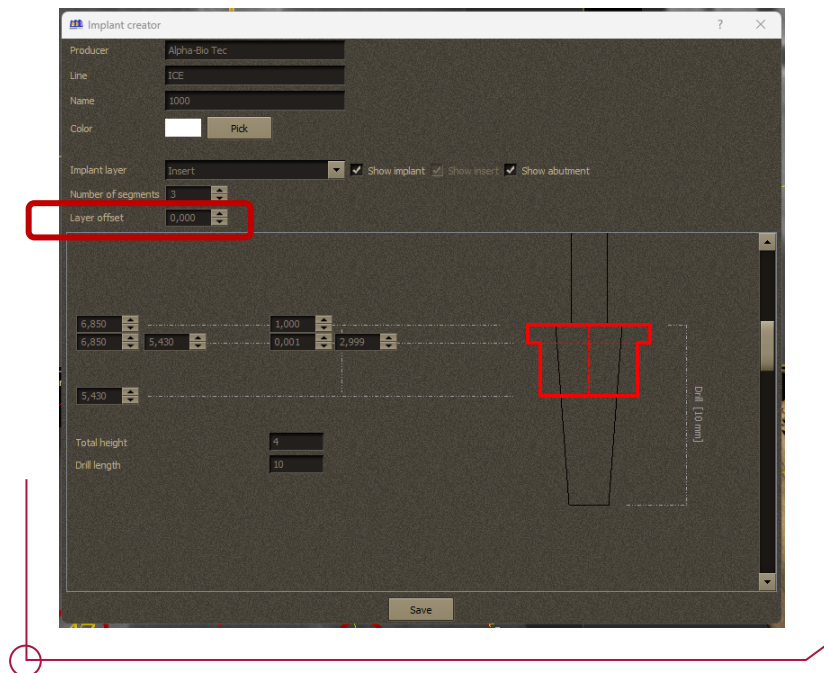


In **Implant layer** (shown in red) change to **Insert**.



To change the offset, go to -> **Layer offset** (shown in red) -> Choose the offset you want to work with.

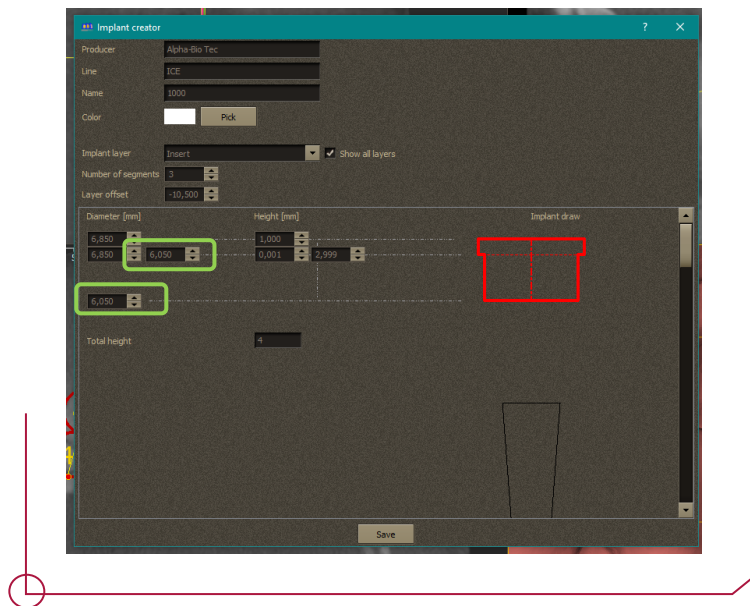
**Always put the offset value in negative to work in this software.**



Once you have changed the offset -> Select **Save** to save your changes

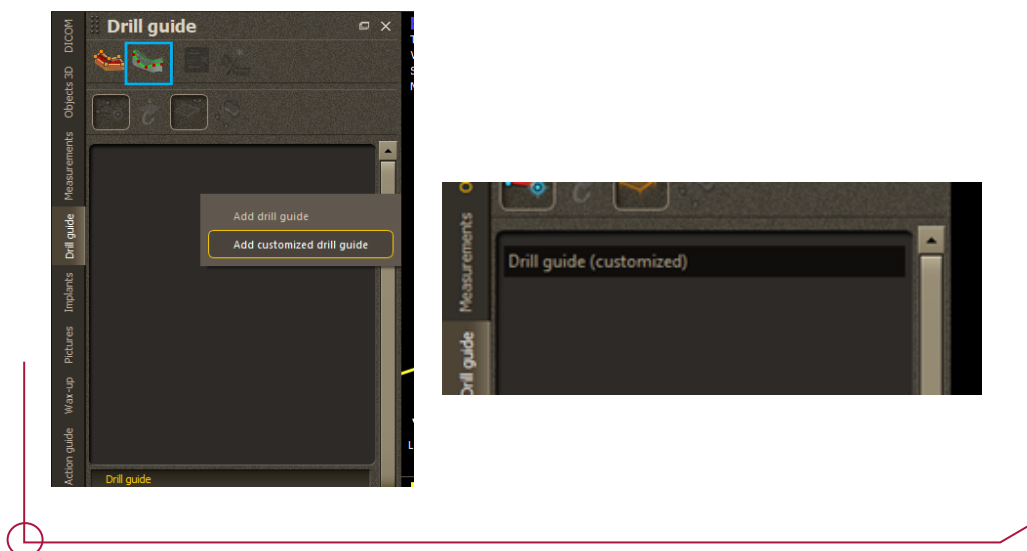
**Important:** The sleeves have several different offset values depending on the implant selected. The selected offset will establish which drills and carrier to use when performing the surgery. See the PDF on **Work Offsets by Compatibility** to see the available offsets for each implant model. DDS Pro allows you to choose any offset, so it is important to choose a suitable offset for the procedure carefully.

The following values (shown in green) can be changed to adjust the sleeve depending on your needs.



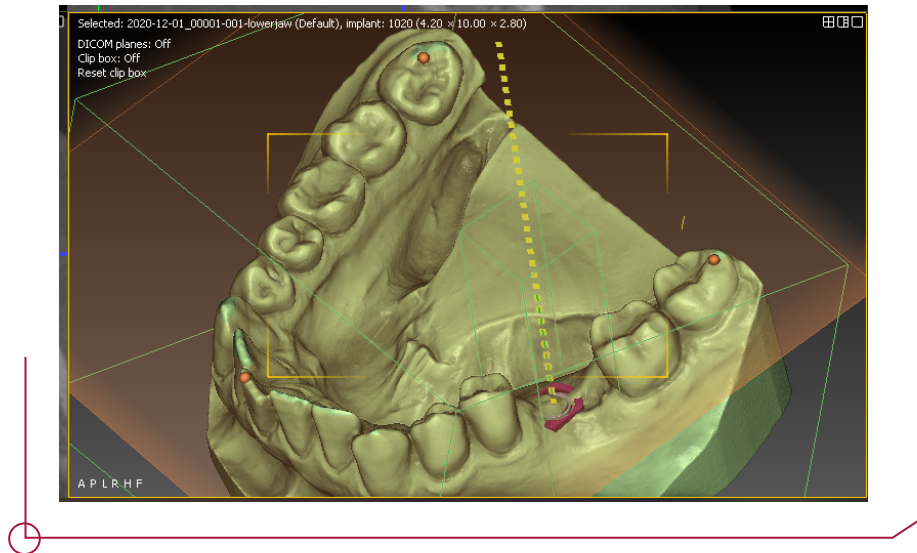
## CREATING THE SURGICAL GUIDE

To create the surgical guide, go to the **Drill guide** tab -> Right click -> **Add Customized drill guide**, or select the option in blue.

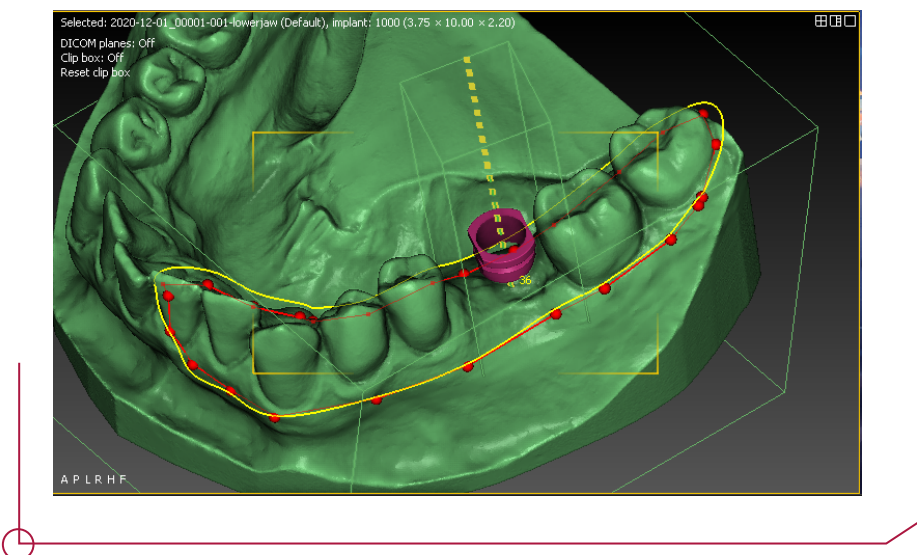


Once you have the **Drill Guide** option, go to the model and add 3 points to determine the base plane for you to create the surgical guide.

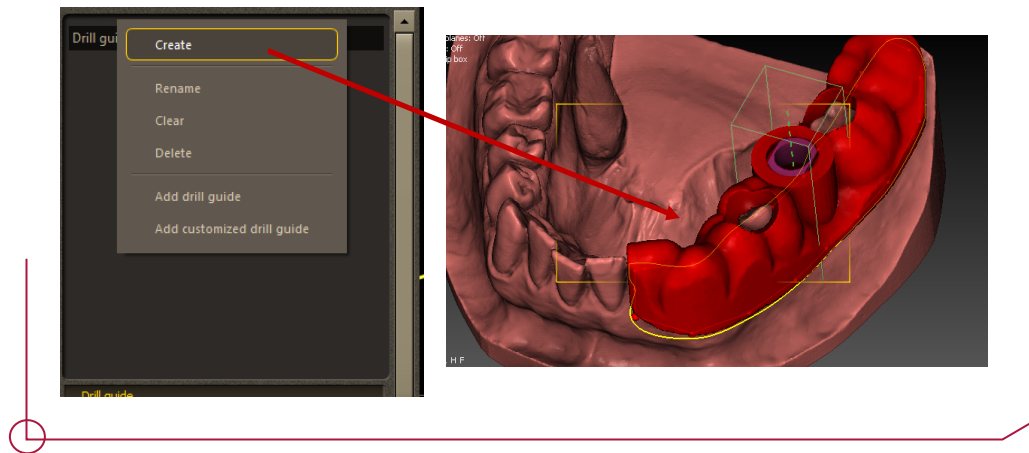
Add the points with **click + right button**.



Once you have the plane, draw the guide.

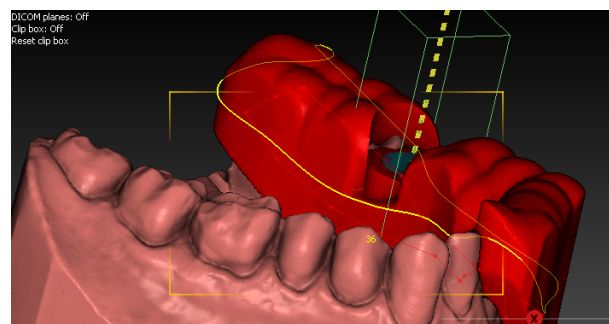
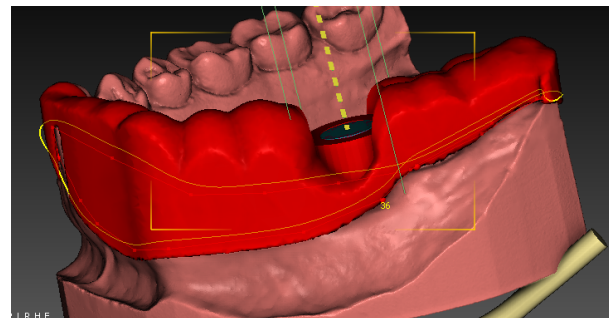


To create the guide, go to the panel on the left, right click on **Drill guide** -> Click **Create** -> The guide will appear automatically with the offset parameters you previously selected.



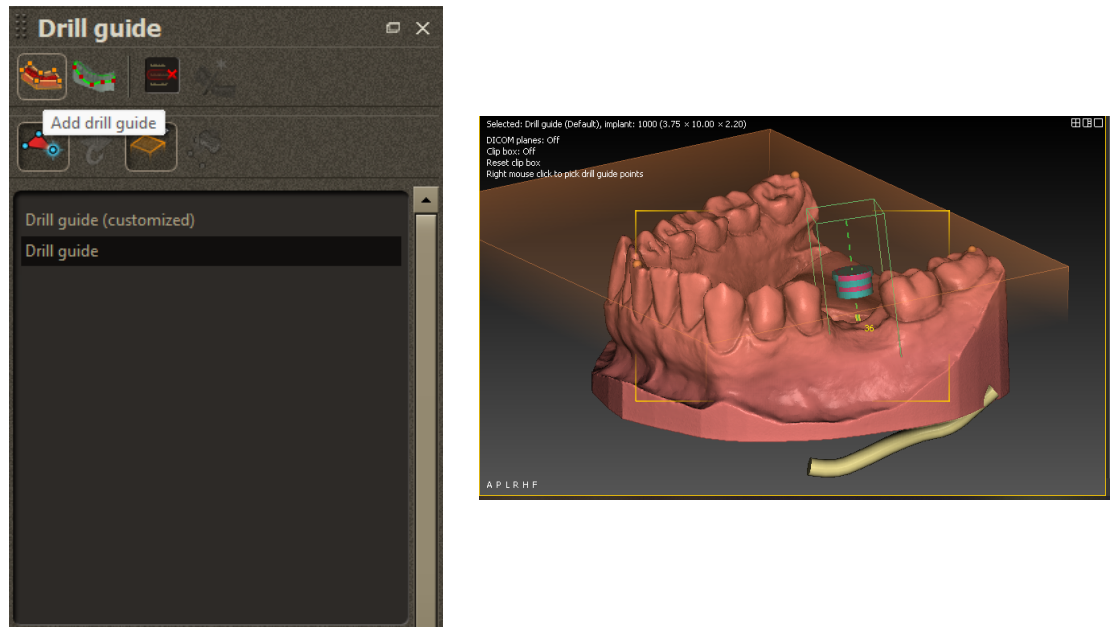
If you want to change the thickness of the guide, go to -> **Custom drill guide** -> **Offset**. You can increase the thickness of the guide from the **Custom drill guide** panel -> **Additional** -> **Thickness**.

E.g

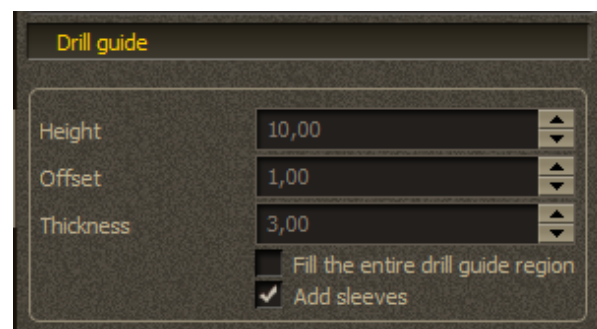


Another way to create a surgical guide is to go to the **Drill Guide** panel -> **Add Drill Guide**

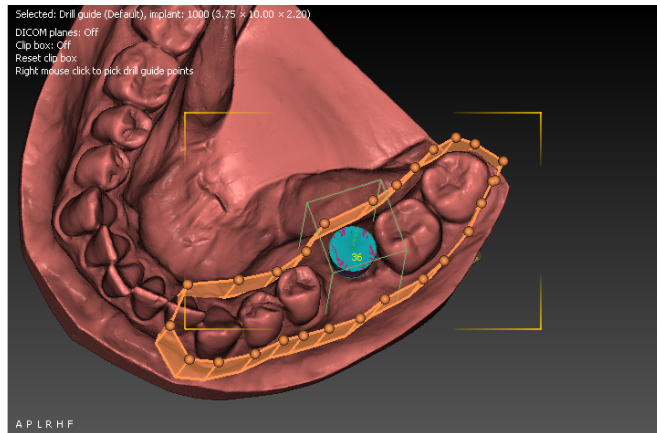
Position the plane to create the Guide.



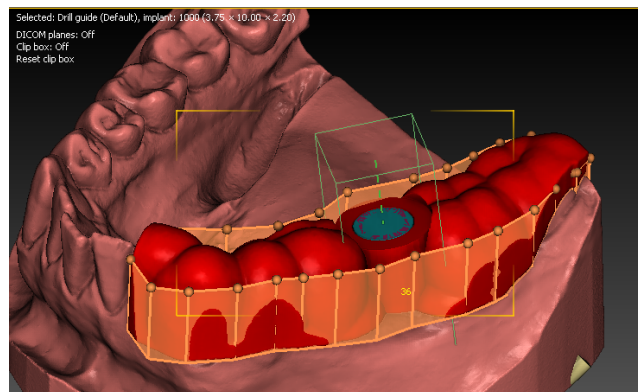
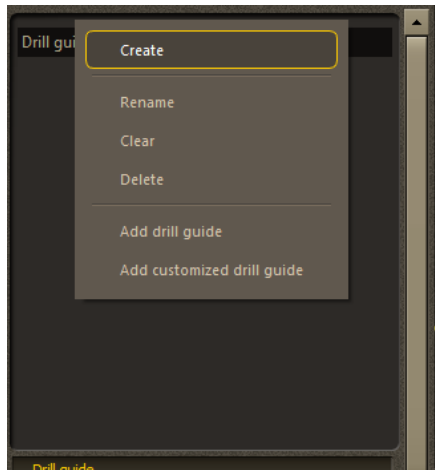
Before you create the guide, you can change the offset of the plane (upper right image), guide thickness, etc. You can find these options in the **Drill guide** section -> menu **Drill guide** (image shown below).



Once you have selected the parameters of the plane and the guide, then draw the line of the guide.



If you are happy with the configuration, confirm the creation of your surgical guide  
-> right click on **Drill Guide** -> **Create**

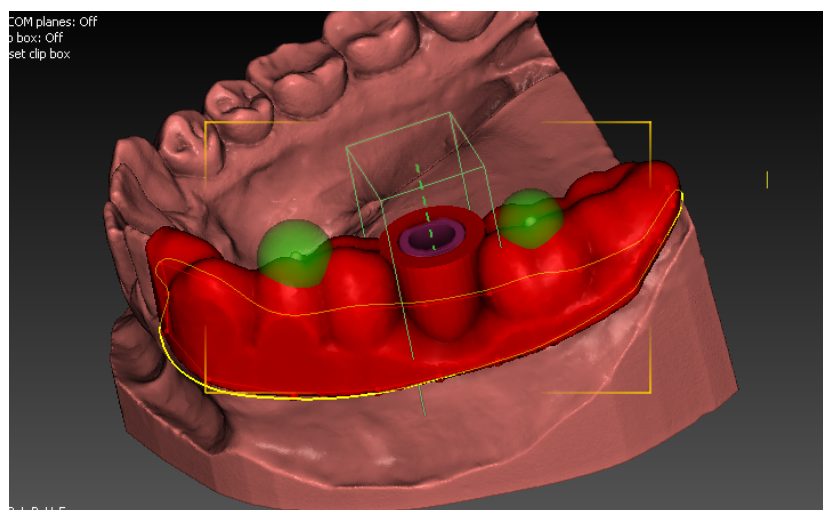


To place the windows on the guide, follow these steps:

- Go to the **Inspection** panel on the interface.
- In the Inspection panel, you will find three options to choose the geometry of the windows you need. Choose the option which suits you best.
- Once you have the desired geometry, a pre-set parameter will appear which you can change depending on the needs of your case.
- Adjust the pre-set parameter to set the size, position and other characteristics of the windows in the surgical guide to suit your needs.



To add the shapes to the surgical guide, use right click.



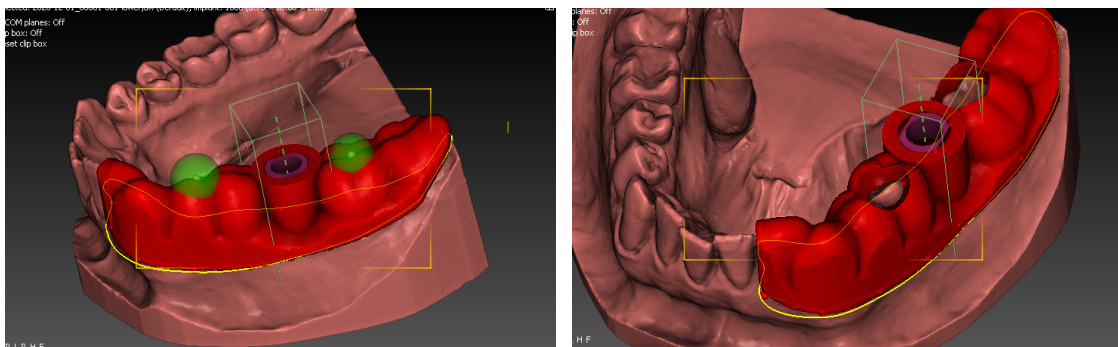


To create the guide with the windows, go to the **Inspection panel** -> click on the arrow on the right -> choose the **Apply to visible drill guides** option.

Once you have selected **Apply to visible drill guides**, the surgical guide will be created with the windows and geometrical features you chose.



*Here we can see the guide with the windows already placed.*

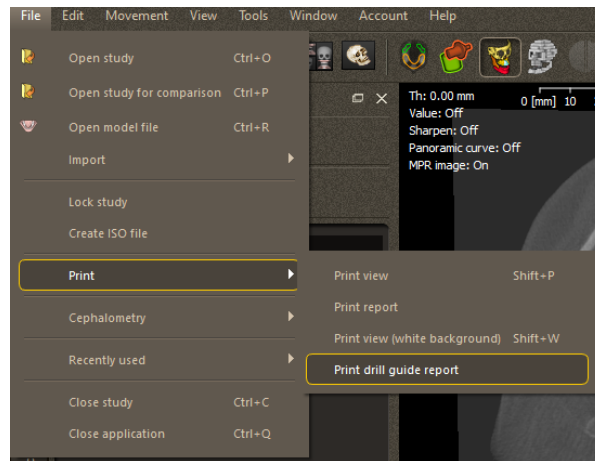


To measure the thickness once the guide has been created, go to the menu -> **measurements**. In the **measurements** panel, you will find a range of tools for measuring the distances and dimensions between the objects.



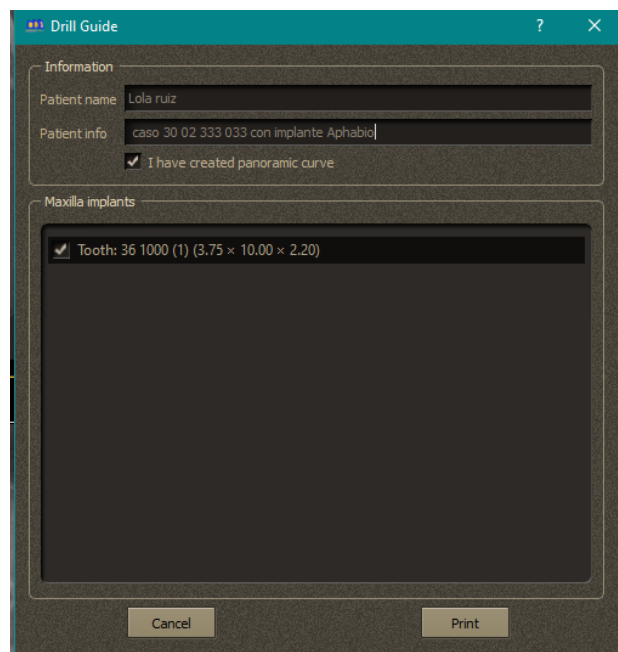
## CASE STUDY REPORT

Once you have finished and approved the design, planning and the surgical guide, you can access the surgical report which shows all the information about the position of the implants. To access the file, go to: menu **File** -> **Print drill guide report**



A window will appear which will specify the client name and data.

To generate the report, it is important to tick the box **I have created panoramic curve** and select the planned teeth. (see image)

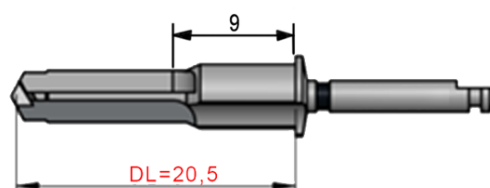


Once you have finished the planning and created the surgical guide, the software will automatically generate a detailed report containing images of the case, information about the patient and implant details.

The report will also provide specific information about the selected implant, such as the implant type and total length of the drill required for the surgical procedure. **Check the PDF Work Offsets by Compatibility to see the drill length which corresponds to each offset depending on the length of the implant.**

Client name: Lola  
Creation date: mi. may. 10 2023  
Client reference:  
  
Tooth: 36  
Producer: Alpha-Bio Tec  
Line: ICE  
Implant: 1000  
Implant diameter: 3,75  
Implant height: 10,00  
Insert: DAS Sleeve  
Drill length: 20,50

$$L \text{ final drill} = DL - 9$$



(E.g :  $L \text{ final drill} = 20,5 - 9 = 11,5$   
Final drill: L11,5)

**Always check the PDF Work Offsets by Compatibility.**

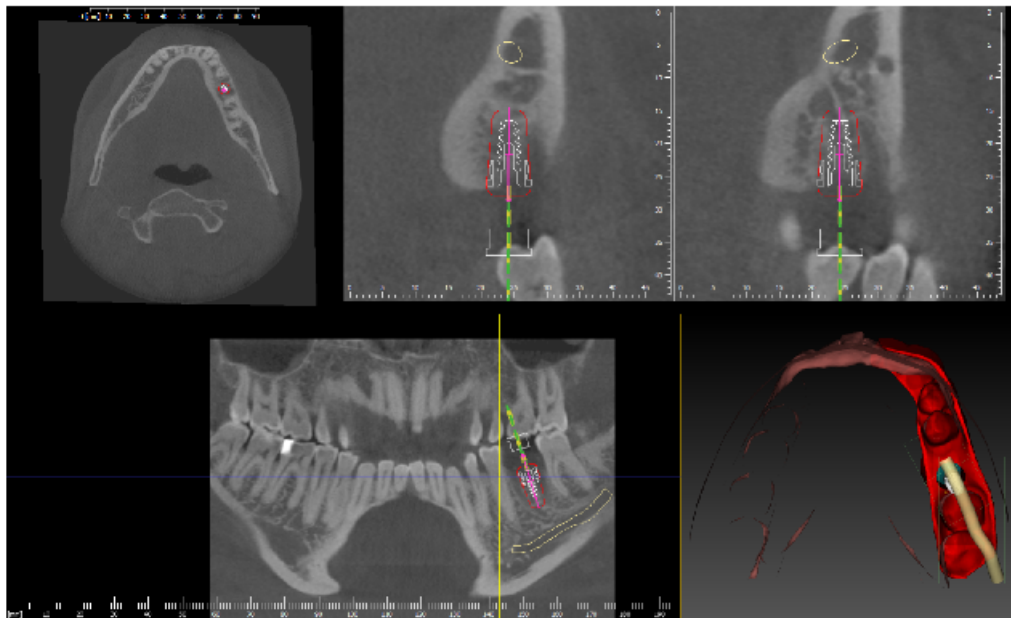
Save and export the case, create the mouth model and export the STL files. Do this once the implant planning and the guide have been approved in the **Export** section.

## Previous image of the report extracted with DDS Software



Client name: Lola ruiz  
Creation date: mi. may. 10 2023  
Client reference: caso 30 02 333 033 con implante Aphabio

Tooth: 36  
Producer: Alpha-Bio Tec  
Line: ICE  
Implant: 1000  
Implant diameter: 3,75  
Implant height: 10,00  
Insert: DAS Sleeve  
Drill length: 20,50



*This document is derived from a patient case created in the DDS-Pro software and based on information entered by a user of said software. The user of the DDS-Pro software is solely responsible for the patient case, and the correctness, completeness and adequacy of all information entered. This document does not constitute advice by the DDS-Pro and/or by its affiliates and partners in any specific or general case and does not replace the diagnosis of an appropriately qualified dental specialist. DDS-Pro and its affiliates & partners therefore explicitly exclude any liability for direct, consequential, incidental, indirect, punitive or other damages, resulting from or in connection with this document, or any errors or incompleteness in the information entered into the DDS-Pro software.*

