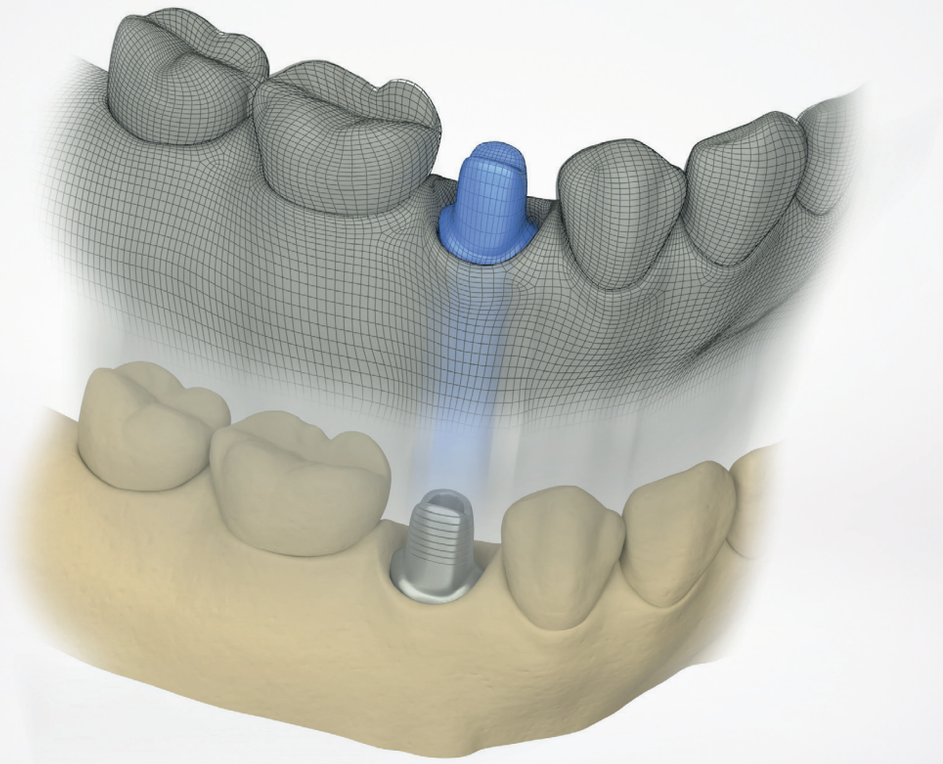
Available for
CEREC SW, inLab CAD SW, 3Shape,
Dental Wings, DWOS Lava Edition,
exocad, Open design software



Atlantis®

Atlantis® Core File

User guide

Dentsply Sirona Implants

Atlantis®

CONTENTS

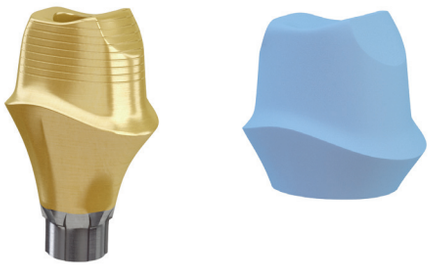
This user guide for the Atlantis Core File is valid for:

- CEREC SW 4.4.4 or higher
- inLab CAD SW 16.0 or higher
- exocad DentalCAD
- 3Shape DS 2014/2015
- Dental Wings DWOS 4.0
- DWOS Lava Edition
- Design software that accepts open STL file format

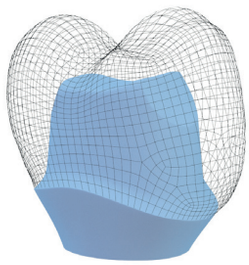
Description of Atlantis® Core File

Atlantis Core File is a digital representation of the total case, including the outer surface of an Atlantis Abutment. Atlantis Core File eliminates the need to scan the abutment and cast and enables the digital design of the coping and final restoration before even receiving the physical abutment ordered. Available in Atlantis WebOrder, Atlantis Core File can be ordered for cement- or screw-retained restorations (with or without screw access hole location).

For cement-retained restorations – Atlantis® Abutment and Atlantis® Core File

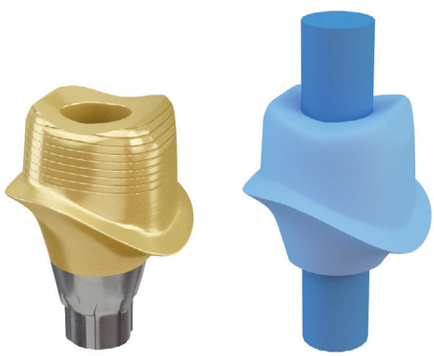


Atlantis Abutment and Atlantis Core File

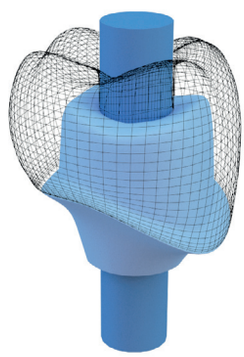


Design the final coping/crown in your preferred software

For screw-retained restorations – Atlantis® CustomBase solution with Atlantis® Core File



Atlantis Abutment and Atlantis Core File with screw access location*

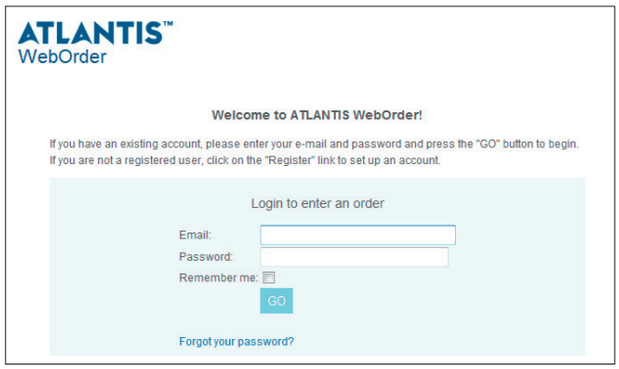


Design the final coping/crown in your preferred software

* The Atlantis Core File for the CustomBase solution (for screw-retained restorations) includes an additional STL file(s) that displays the location and diameter of the screw access channel. The screw access channel file is used as a guide during the restoration design to add the screw access channel hole.

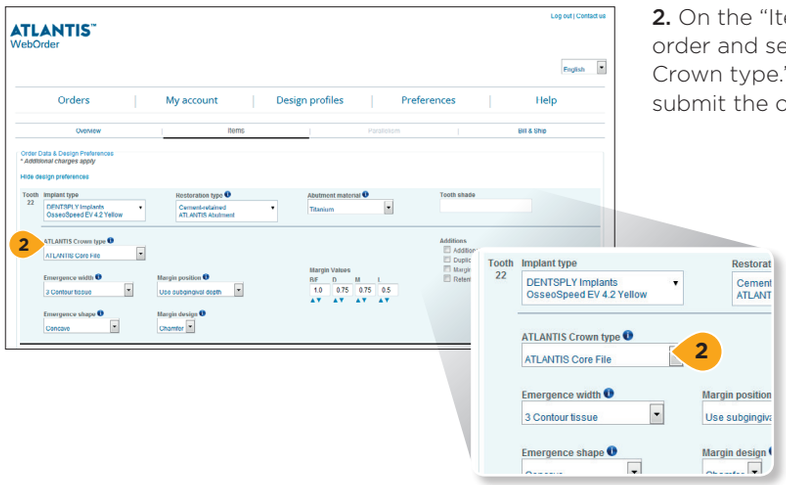
Creating a new Atlantis® order

The first step in ordering an Atlantis Core File is to create an Atlantis Abutment or an Atlantis CustomBase order.



1. Log in to Atlantis WebOrder: https://atlantisweborder.com

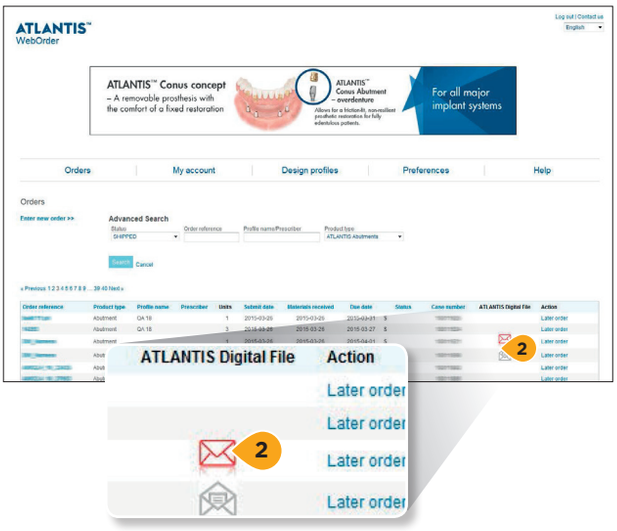
Note: Refer to the Atlantis WebOrder User Guide, 32670167-USX for more information: https://www.atlantisweborder.com/help



2. On the "Items" page, specify the options for your order and select to "Atlantis Core File" as the "Atlantis Crown type." Complete the remaining options and submit the order.

Downloading Atlantis® Core File

A notification will be sent when the Atlantis Core File is available on the order page.

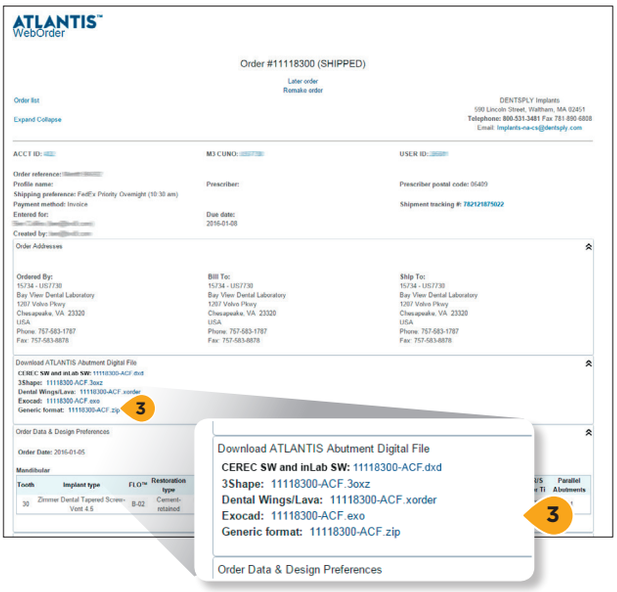


Note: To apply the steps below, the Atlantis Core File must have been ordered on the item page in Atlantis WebOrder.

Note: exocad users may not need to download the Atlantis Core File from Atlantis WebOrder. Please proceed to the exocad import section in this user guide.

1. Log in to Atlantis WebOrder and search for the order in which the Atlantis Core File was ordered.

2. Click on the envelope icon.



3. Download the correct format for the software that will be used when designing the restoration:
CEREC SW and inLab CAD SW: “ACF.dxd”
3Shape: “ACF.3oxz”
Dental Wings/Lava: “ACF.xorder”
exocad: “ACF.exo”
Generic format: “ACF.zip”

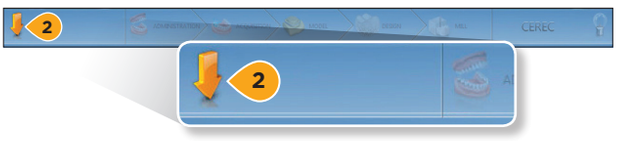
4. Click ”Save” to save the file to your computer.

5. Proceed to the page specified for your software.

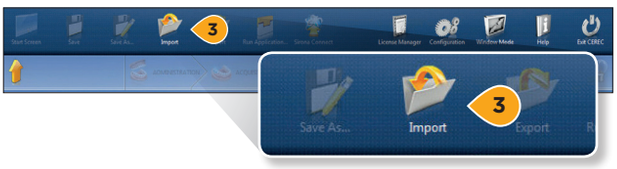
Note: The core file is available in Atlantis WebOrder for 30 days.

Importing Atlantis® Core File into CEREC® SW

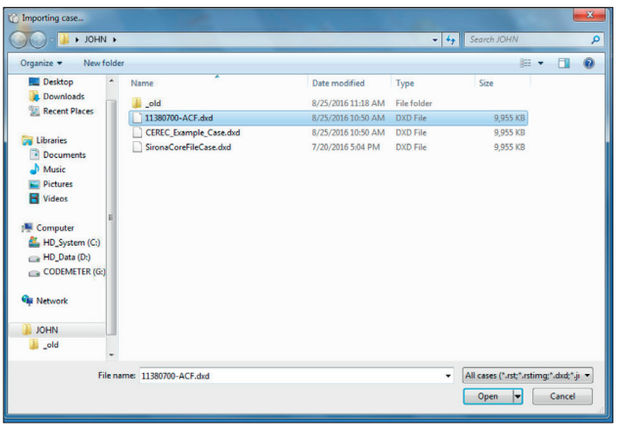
1. Open the CEREC software.



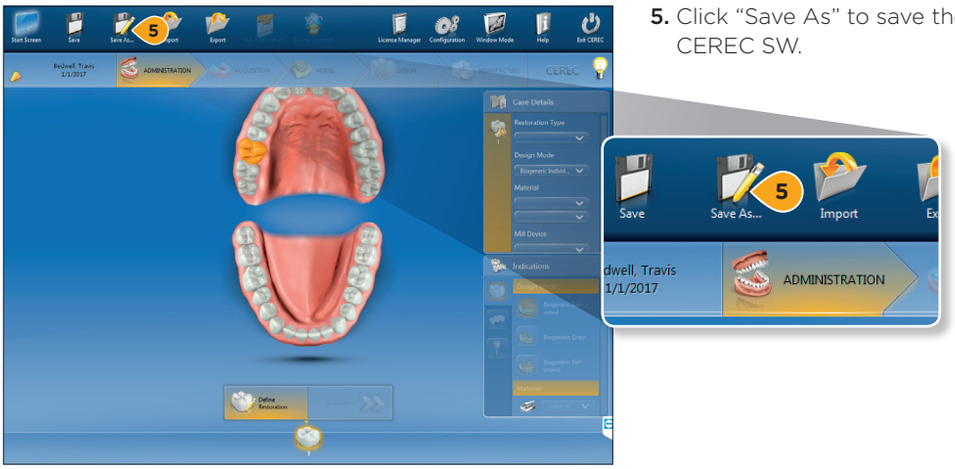
2. Click the orange menu button.



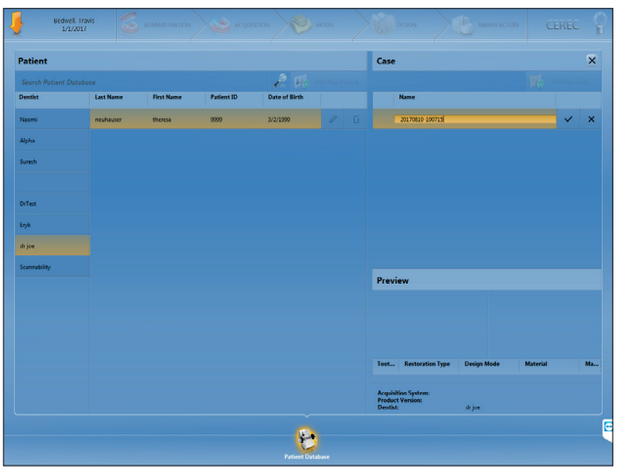
3. Click "Import."



4. Locate the Atlantis Core File.



5. Click “Save As” to save the patient’s details into CEREC SW.



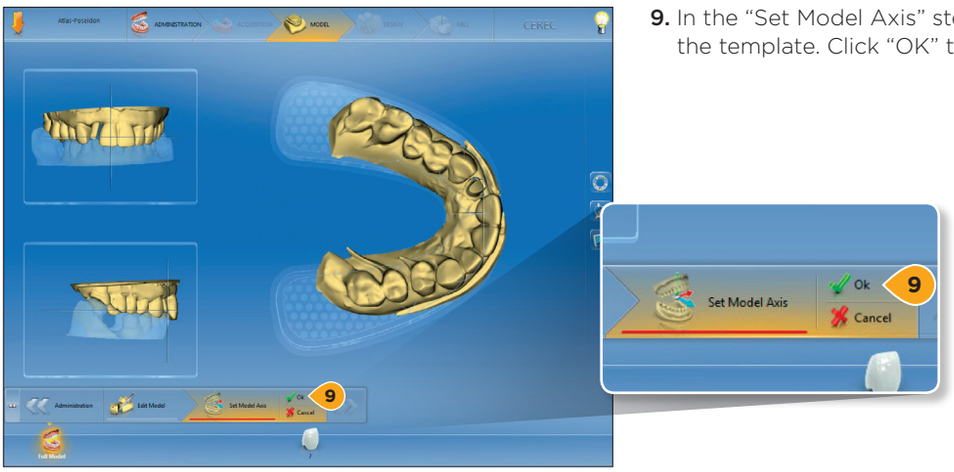
Note: It is recommended to choose “Crown” as the restoration type and “Biogeneric Individual” under design mode.

6. Click on the pen tool to edit the case details.

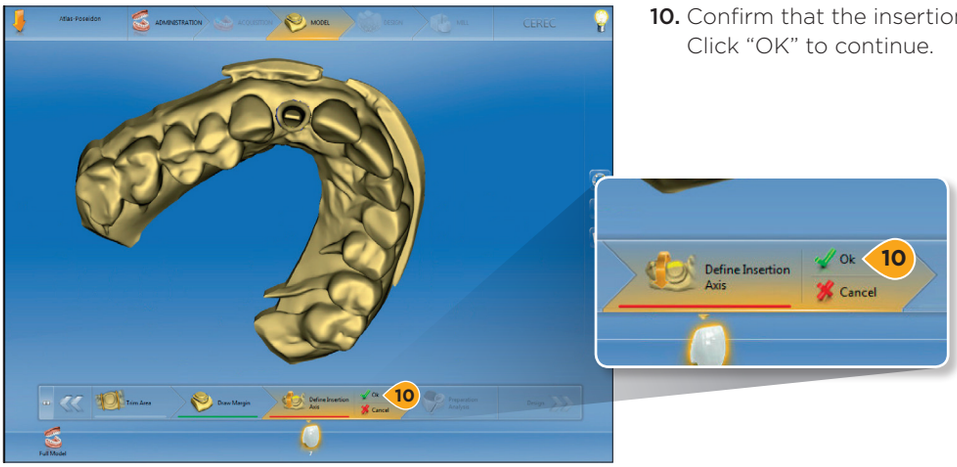
7. Define the restoration information. Click on the check mark to continue.

Note: With CEREC SW 4.5 and later, the restoration type is automatically detected and cannot be changed.

8. Click on the arrows to continue to the Model page.



9. In the “Set Model Axis” step, align the arches to the template. Click “OK” to continue.



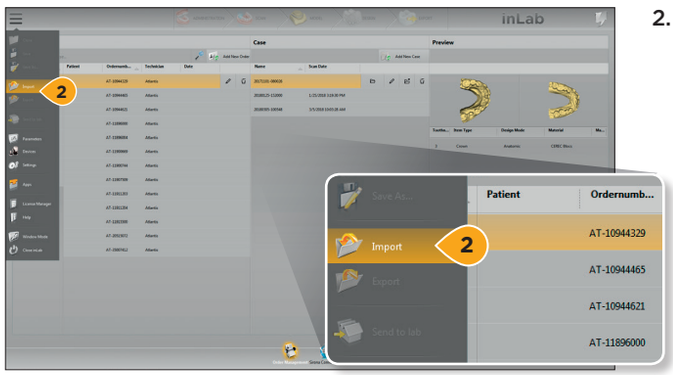
10. Confirm that the insertion direction is correct. Click “OK” to continue.

11. Design the restoration. Click “>>” to continue.

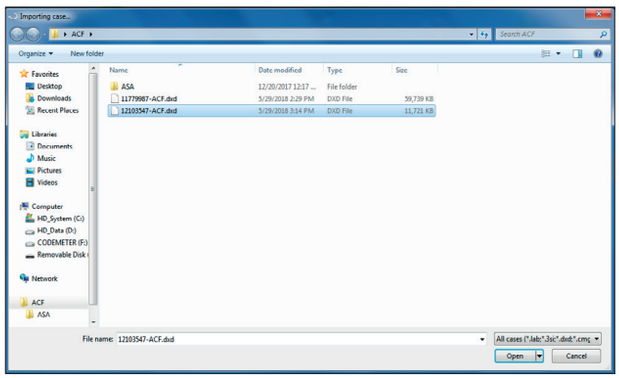
12. Adjust the mill position as required. Click “Start Milling” to finish.

Importing Atlantis® Core File into inLab® CAD SW

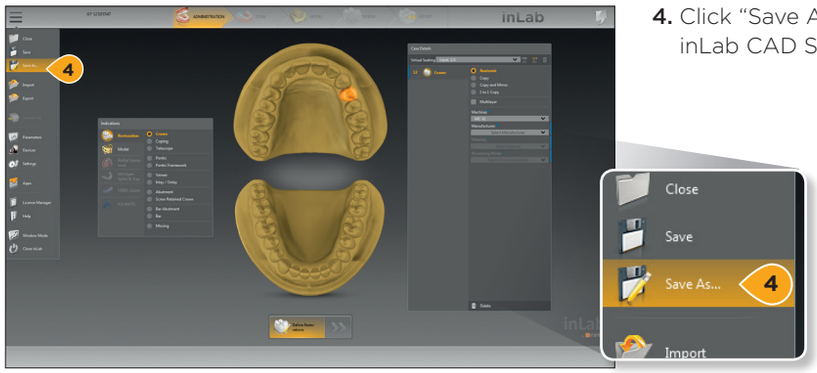
1. Open the inLab CAD Software.



2. Click the icon in the top left corner and click “Import.”



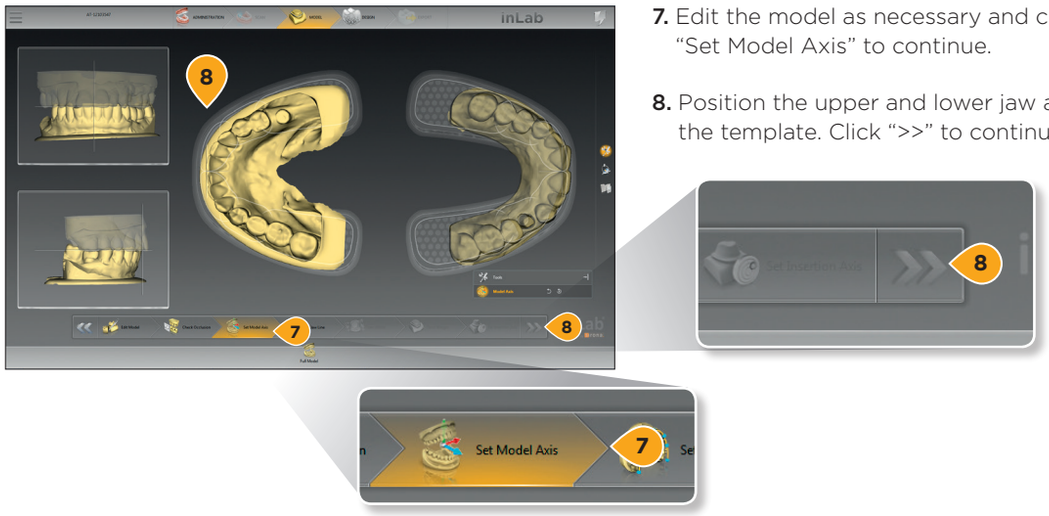
3. Locate the Atlantis Core File.



4. Click “Save As” to save the patient’s details into inLab CAD SW.

5. Select Milling Machine and material for each tooth in the case. To apply the same settings to each tooth, shift+click to select each tooth.

6. Confirm that everything on the order form is correct and click “>>” to continue.



7. Edit the model as necessary and click "Set Model Axis" to continue.

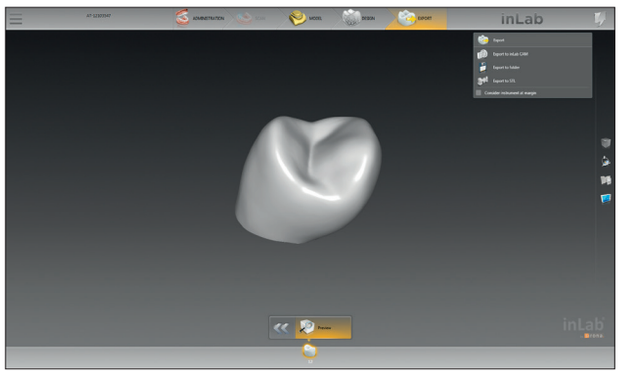
8. Position the upper and lower jaw according to the template. Click ">>" to continue.

9. Move the tooth number markers to align on top of the abutment core shapes. Click "Draw Margin" to continue.

10. Confirm that the Insertion Axis is correct. Click ">>" to continue.

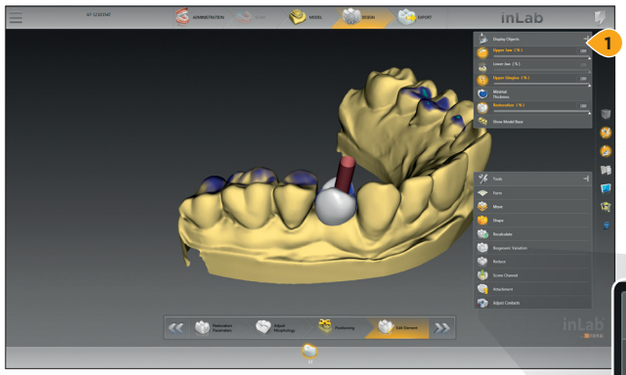
11. Design the restoration.

12. When the restoration design is complete, click “>>” to continue.



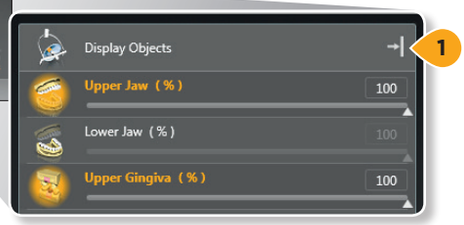
13. Mill the restoration.

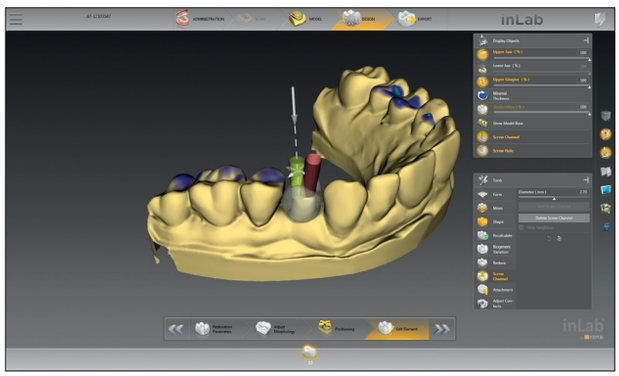
Adding the screw access channel



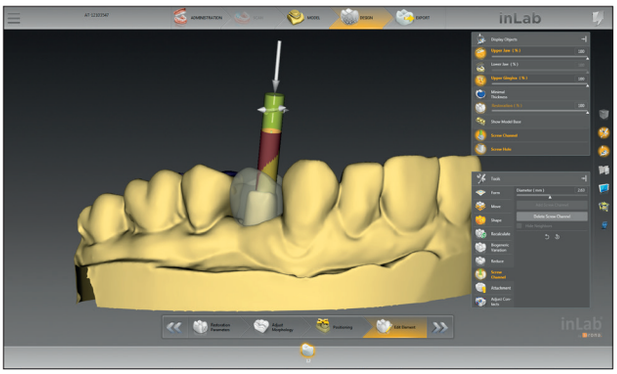
Important: Workaround for production is available with restrictions:
– inLab MC X5 only
– For milling materials only
(zirconium oxide, PMMA, composite)

1. Click Gingiva Mask Lower/Upper on the “Display Objects” menu to view the screw access channel.

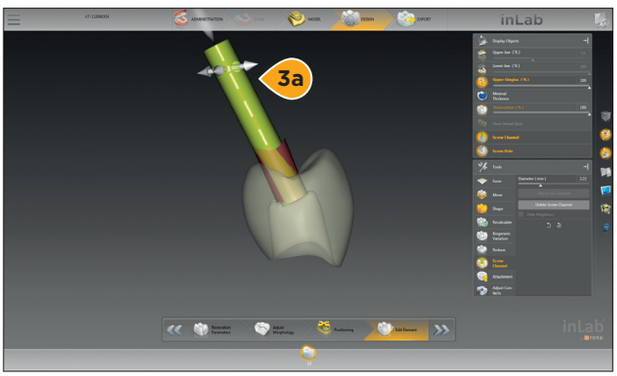




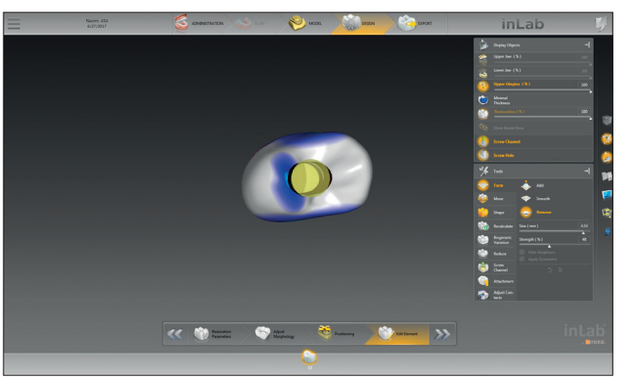
2. Click “Screw Channel” under the Tools menu, and click “Add Screw Channel.”

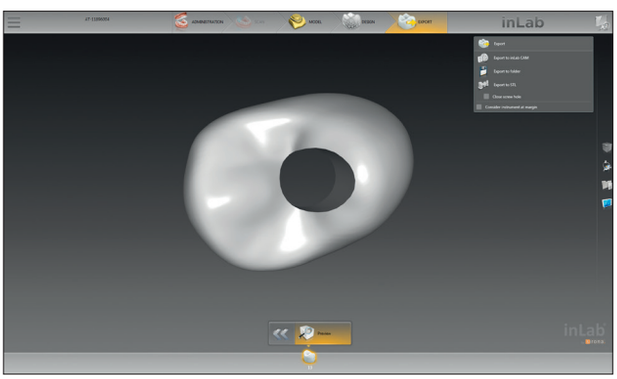


3a. Align the proposed hole with the location of the screw access channel hole.



3b. For angulated screw access, adjust the diameter of the proposed hole to match the radius of provided screw access channel. Then, angle the proposed hole to match the angulation of the provided screw access channel.





4. Mill the restoration.

Importing Atlantis® Core File into exocad DentalCAD

Note: For Atlantis abutments orders using exocad, please refer to the user guide for Lab-based scanning for Atlantis abutments with exocad (32670789.)

1. Load the corresponding exocad project. If the Atlantis Abutment order wasn't submitted with exocad, please proceed to step 3.

2. Select "Atlantis import." A progress notification message will be shown. The import completion message will show if the import was successful. If the import was successful, continue with the design according to the exocad user guide. If the import was completed with an error message, please refer to the message explanations on page 7.

3. Create a new order in exocad dentalDB and load the project.

4. Select "Atlantis import."

5. Enter the Atlantis Order reference.

6. Click “OK” to start the core file download.

> **Note:** A pop-up window will show if the automated download was successful or if it failed for some reason. The download failure could be caused by a bad Internet or a non-existing Atlantis Order reference. If the download failed, please continue with step 7.

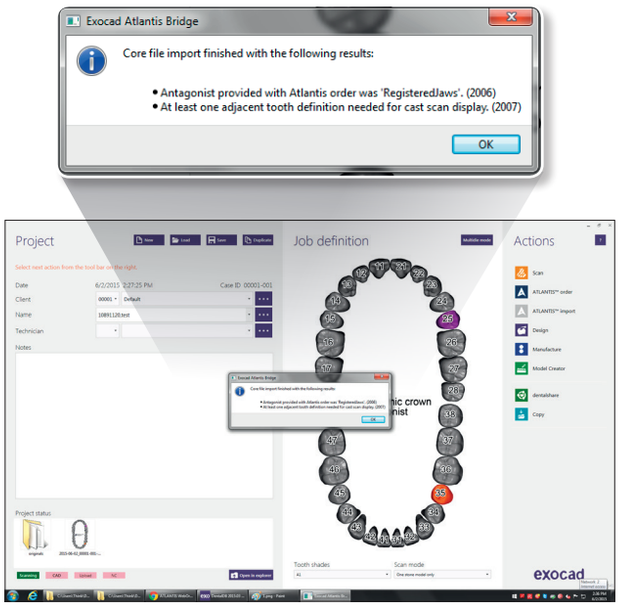
7. If the automatic download failed, a pop up window will ask to download the core file manually and point to the storage path for the downloaded file.

8. Refer to *Atlantis WebOrder* on page 4 for instructions for downloading. When all the steps on page 4 are finalized, continue with step 9.

9. Enter the Atlantis Order reference.

10. Browse the storage path for where the core file was saved when downloaded.

11. Click “OK” to start the import process.



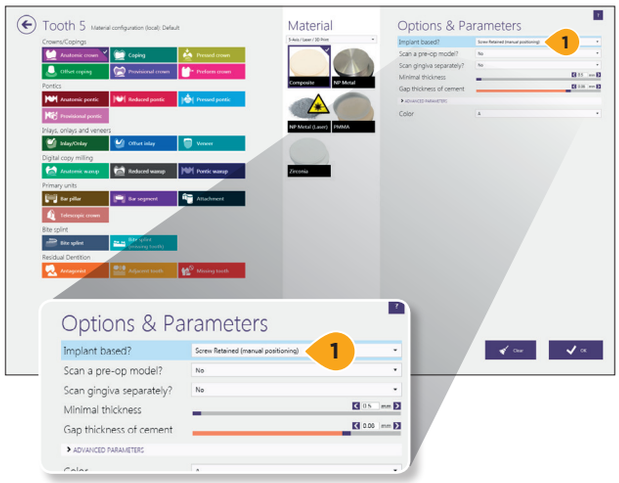
If the information in the .dentalProject file does not match the Atlantis Core File XML, the core file import will still be done, but a warning message indicating the inconsistency will appear.

Refer to the table below for an explanation of all warning messages:

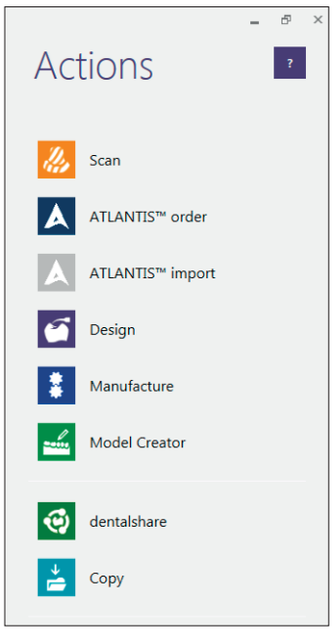
Warning message	Explanation
No diagnostic scan was provided or ordered with the Atlantis order.	In the .dentalProject file, a wax-up scan or a separate pre-op scan has been defined, but there was no diagnostic scan submitted with the Atlantis abutment.
No antagonist scan was provided with the Atlantis order.	In the .dentalProject file, an antagonist has been defined, but there was no antagonist scan submitted with the Atlantis abutment order.
No Atlantis abutments were designed in parallel.	In the .dentalProject file, a bridge has been defined, but there were no Atlantis abutments ordered to be designed as a parallel group.
Antagonist provided with the Atlantis order was “RegisteredJaws”/ ”Mush bite”.	The .dentalProject file defines the antagonist type in a way that differs from the Atlantis abutment order.
A diagnostic scan was provided with Atlantis Core File but no definition found in the project file.	In the .dentalProject file, no wax-up or separate pre-op is defined but there was a diagnostic scan submitted with the Atlantis abutment order which was included in the Atlantis Core File.
An antagonist scan is provided with Atlantis Core File but no definition found in the project file.	In the .dentalProject file, no Antagonist has been defined, but there was an antagonist scan submitted with the Atlantis abutment order and included in the Atlantis Core File.
At least one adjacent tooth definition is needed for cast scan display.	In the .dentalProject file, no adjacent tooth is defined. Thus, the cast scan will not be displayed when design starts.
All teeth in the .dentalProject file that have to be imported must have “None” as the implant type.	In order to import the Atlantis Core File, the implant type for a tooth which has Atlantis Core File ordered has to be “No Implant”.
No teeth are common between the Atlantis Core File and the .dentalProject file.	Implant numbers are inconsistent between the .dentalProject file and the Atlantis Core File.
Atlantis Core Files are provided for tooth no.1, no.2,etc.	
There are more teeth in the Atlantis Core File than in the .dentalProject file.	

Note: All inconsistency can be corrected through the exocad dentalDB user interface. There is no need to re-import the Atlantis Core File.

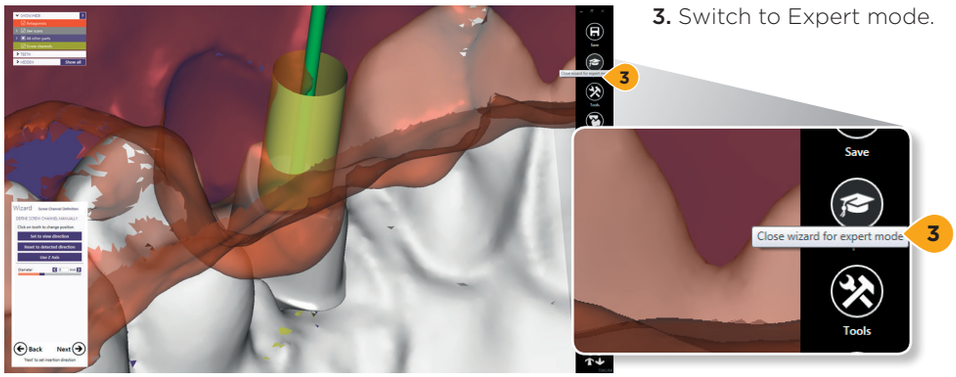
Adding the screw access channel



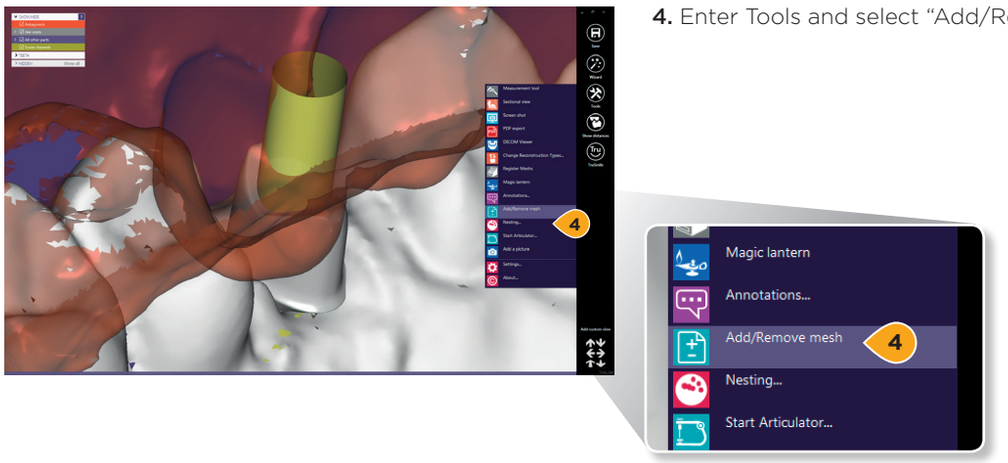
1. Ensure that the “Implant based?” field under Options & Parameters is set to “Screw Retained (manual positioning).”



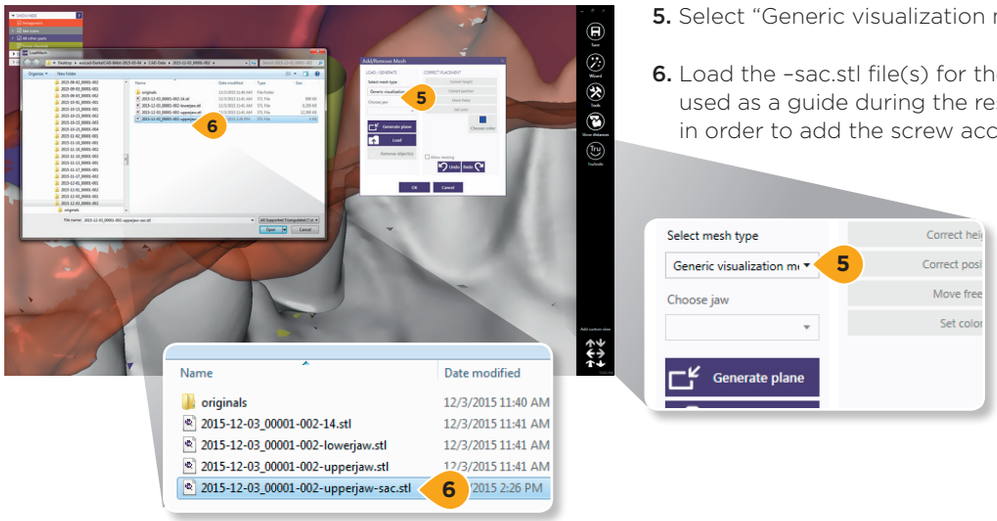
2. Click “OK” and enter the “Design window.”



3. Switch to Expert mode.

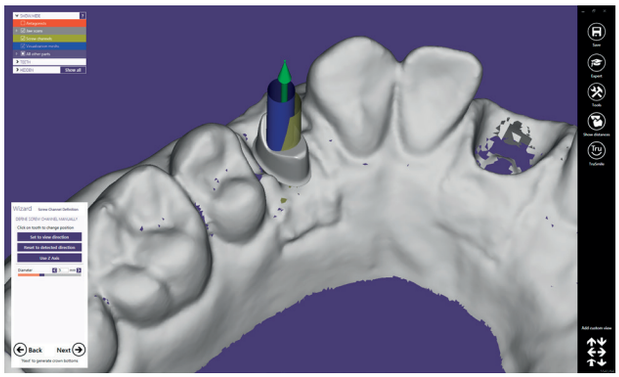


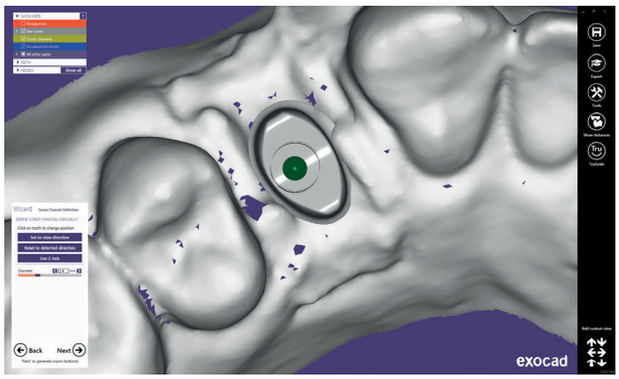
4. Enter Tools and select “Add/Remove mesh.”

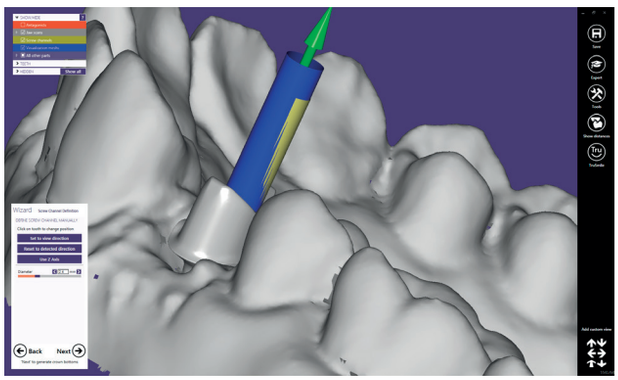


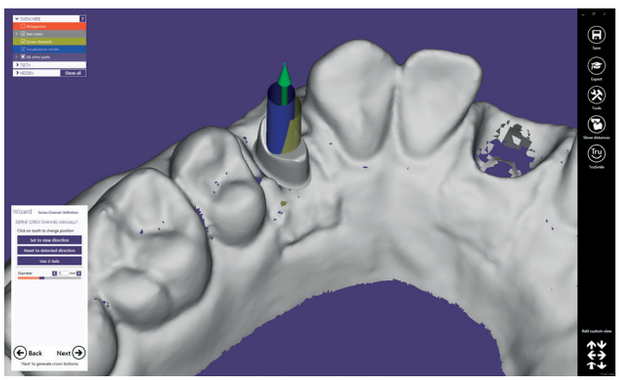
5. Select “Generic visualization mesh” as the mesh type.

6. Load the –sac.stl file(s) for the project. This file is used as a guide during the restoration design process in order to add the screw access channel hole.

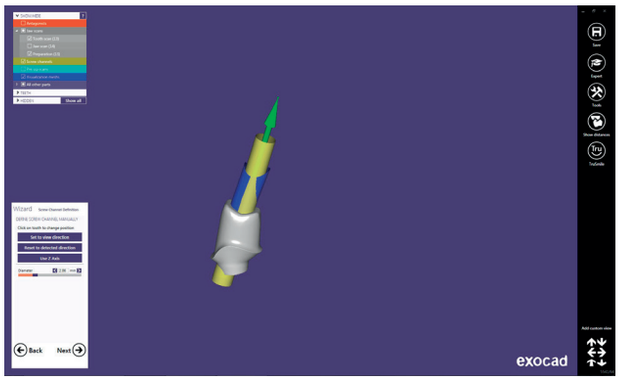




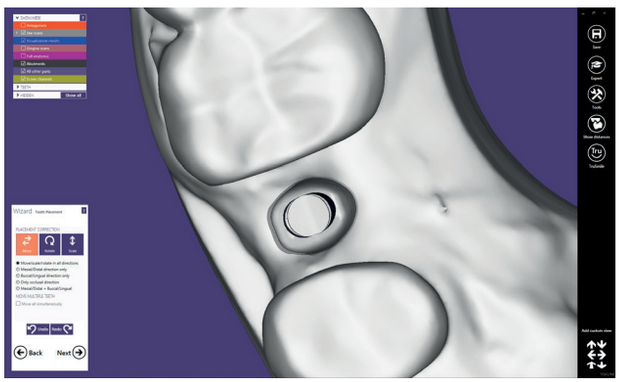


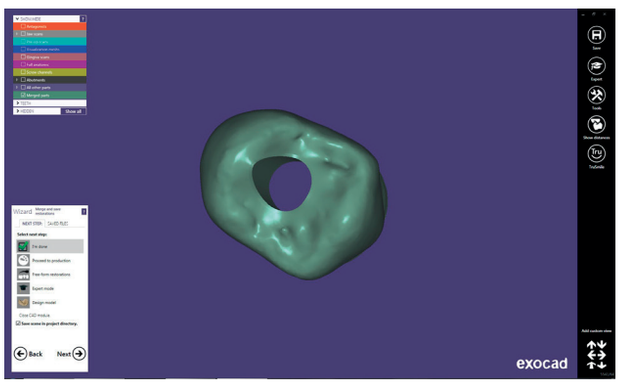


7a. Design the screw access channel by adjusting the channel axis and diameter based on the visualization mesh displayed.



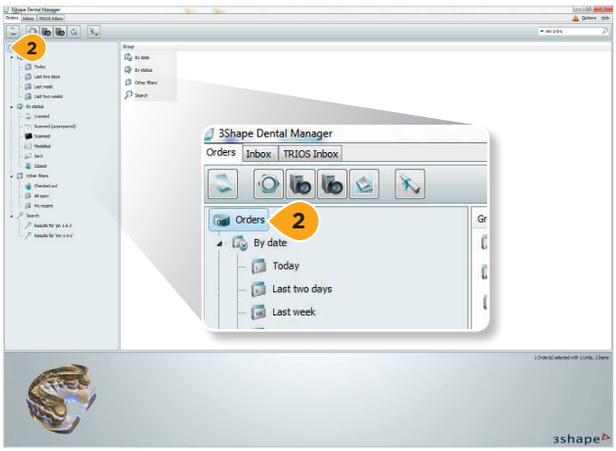
7b. For angulated screw access, adjust the diameter of the proposed hole to match the radius of provided screw access channel. Then, angle the proposed hole to match the angulation of the provided screw access channel.





8. Design the crown.

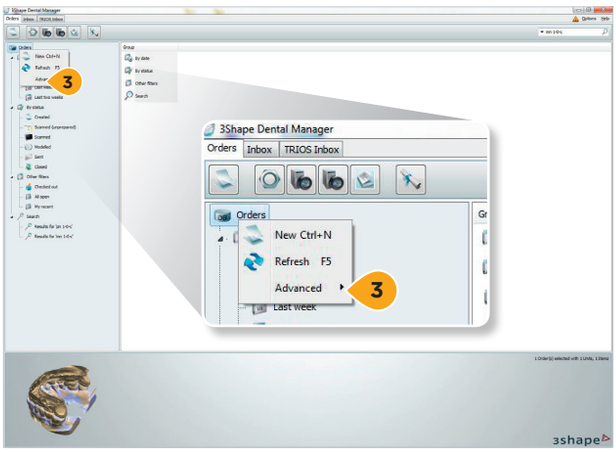
Importing Atlantis® Core File into 3Shape



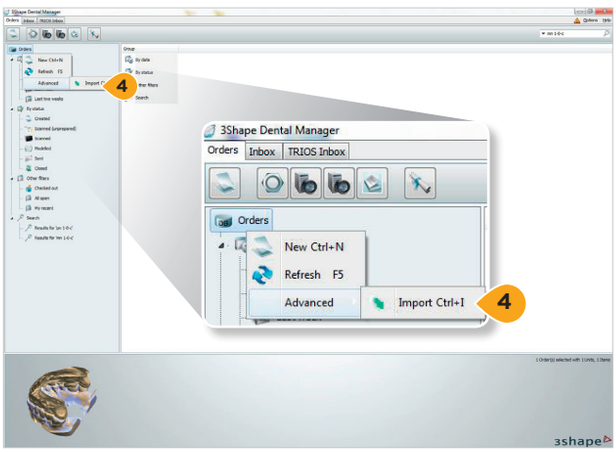
1. Open the 3Shape software.

Important: Do not create a new order to import and use the Atlantis Core File.

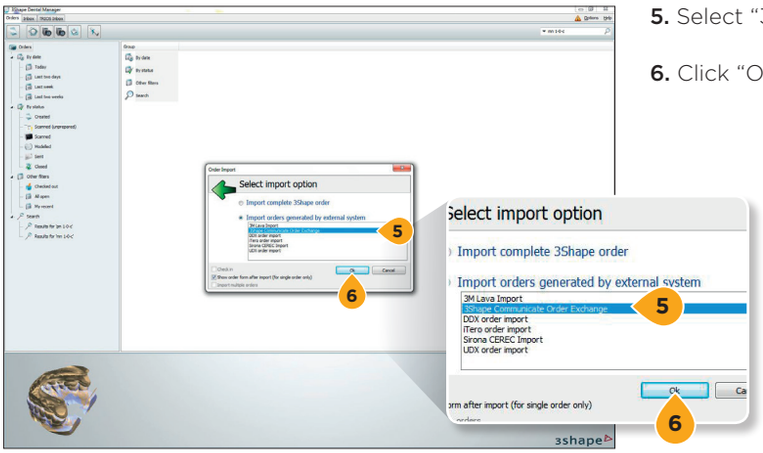
2. Right click “Orders.”



3. Click “Advanced.”

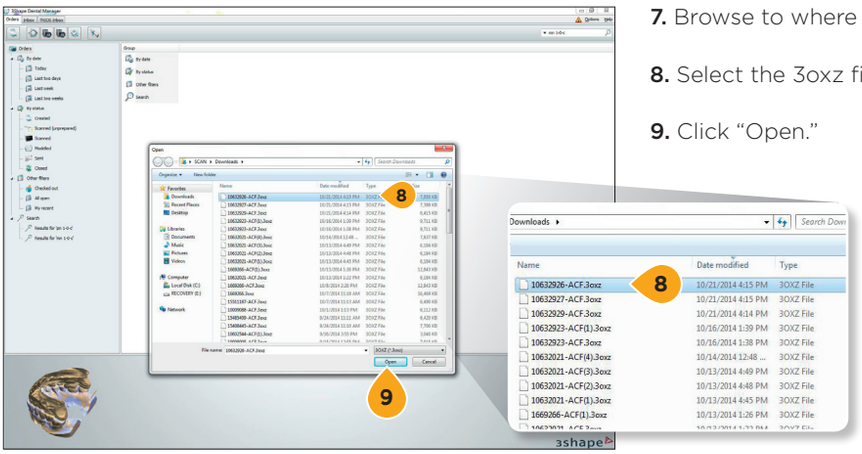


4. Click “Import.”



5. Select “3Shape Communicate order exchange.”

6. Click “OK.”



7. Browse to where the file was saved.

8. Select the 3oxz file.

9. Click “Open.”

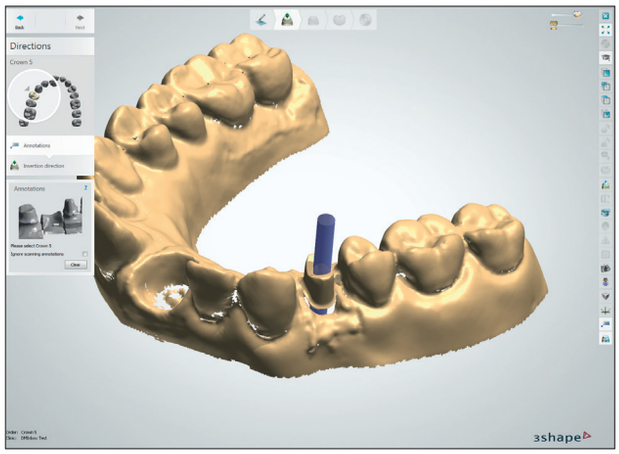
10. Click on a tooth and change the order as needed.

Note: The core file is available in Atlantis WebOrder for 30 days.

11. Click “OK.”

Note: The notification message on order conversion may be prompted. Continue by clicking “Save” or “Don’t save.”

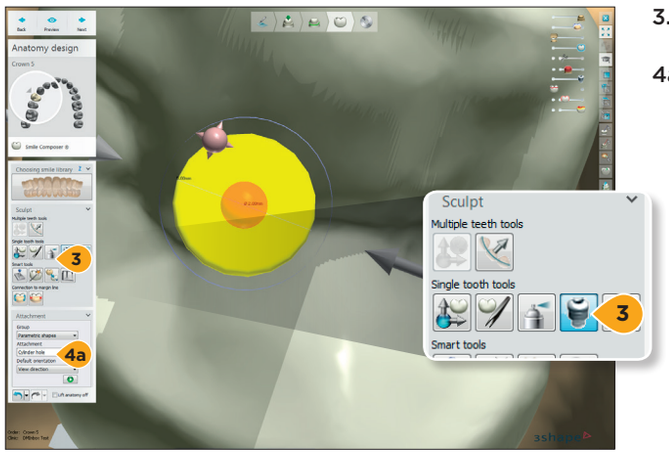
Adding the screw access channel



1. Open the case.

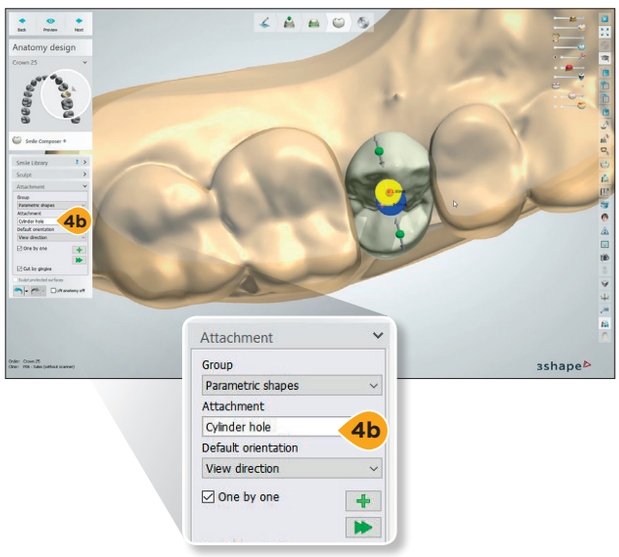
2. The screw access location is displayed in blue.

Note: The screw access location may not be displayed by default. Use the display slider in the top right to show screw access location.

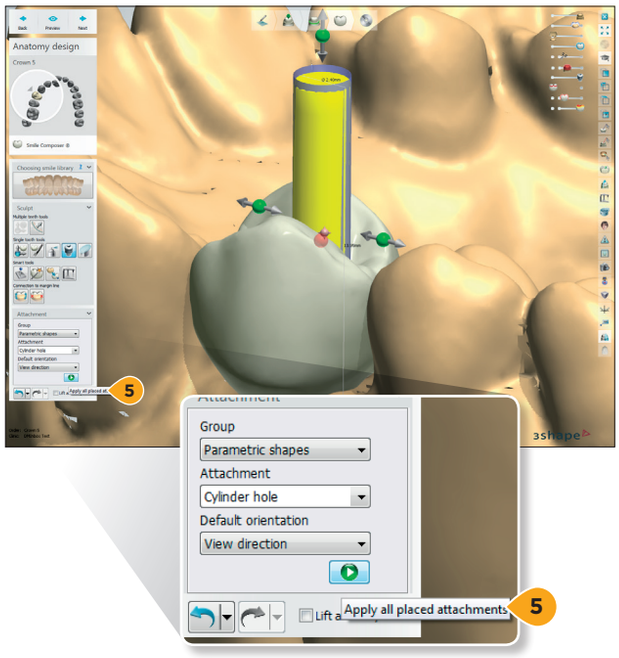


3. Design the crown.

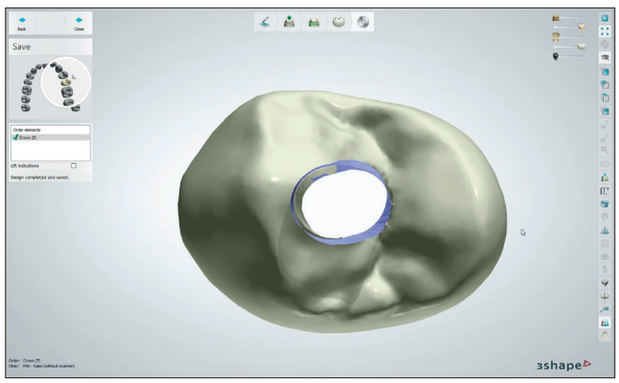
4a. Use the “Attachment option” (Parametric shapes, Cylinder hole, View directions) to cut the screw access hole with the guidance from the screw access channel file.



4b. For angulated screw access, two cylinders will be used. Place the first cylinder on one end of the oval screw access channel shape and adjust the diameter of the proposed cylinder to match the radius of provided screw access channel. Add a second cylinder to the opposite end of the oval screw access channel shape and adjust the diameter of the proposed cylinder to match the radius of the provided screw access channel.

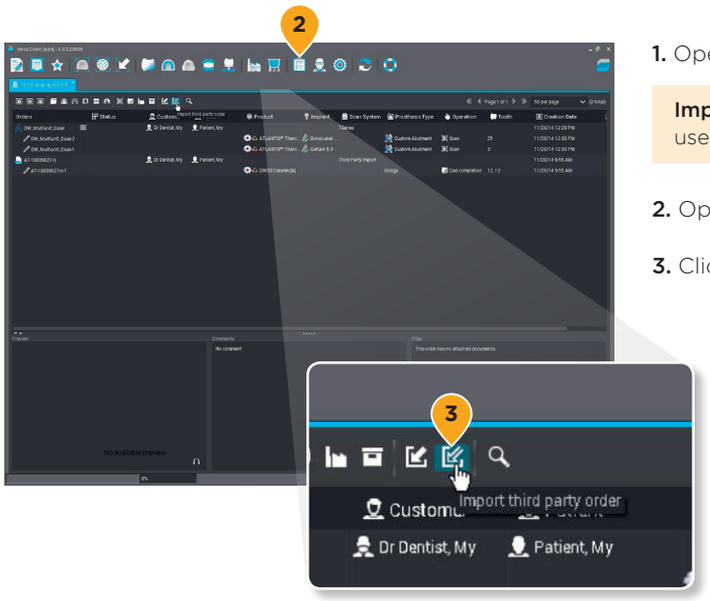


5. Click to "Apply all placed attachments" and create the crown with the screw access channel.



6. Finalize the restoration design.

Importing Atlantis® Core File into Dental Wings or DWOS Lava Edition

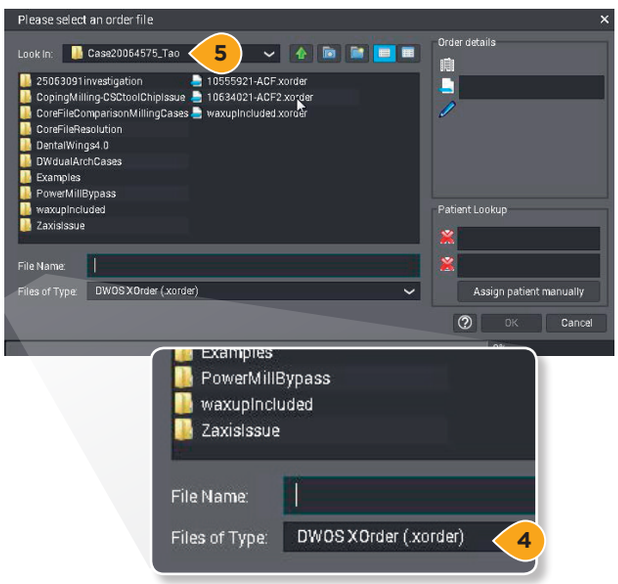


1. Open the Dental Wings or Lava Edition software.

Important: Do not create a new order to import and use the Atlantis Core File.

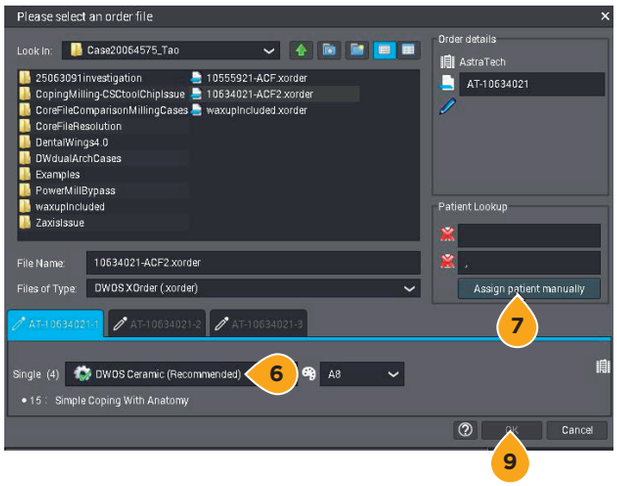
2. Open the ”Order Management” page.

3. Click the “Import third party order” button.



4. Select “DWOS XOrder (.xorder)” as the file type.

5. Find the path where the file was saved.



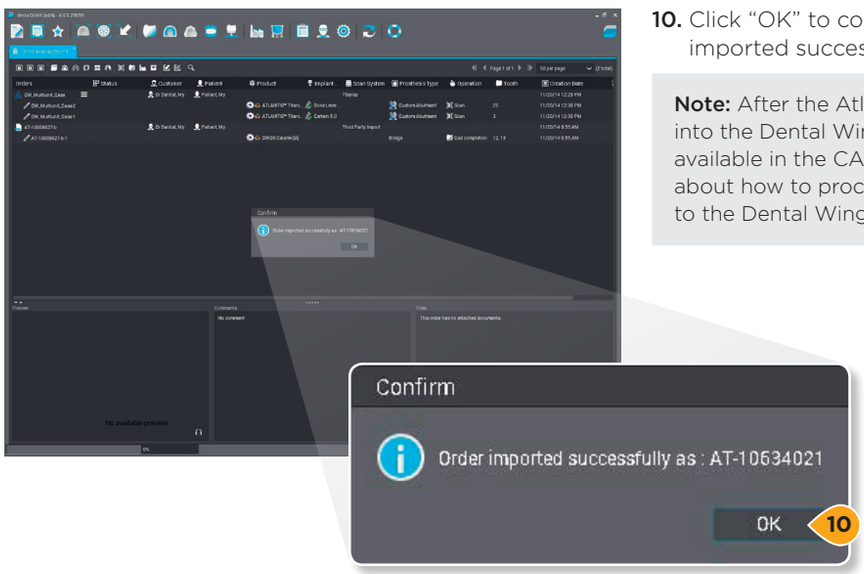
6. Select “Materials.”

7. Select “Assign patient manually” to assign a patient to the order.

Note: If the patient name already exists in the system, assign a new name to differentiate the order.

8. Select or create a patient to assign to the order.

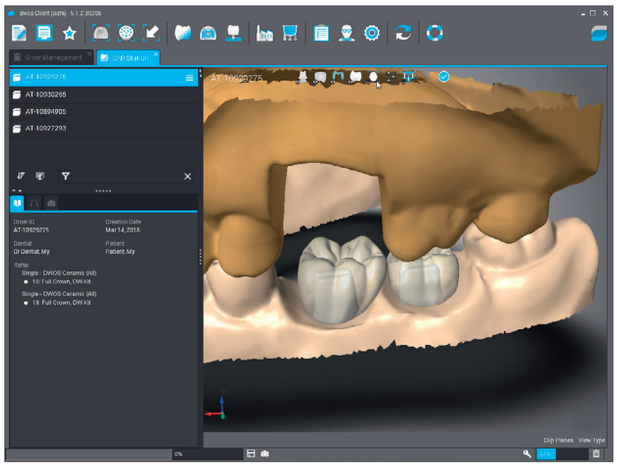
9. Click “OK” to finalize.



10. Click “OK” to confirm that the order has been imported successfully.

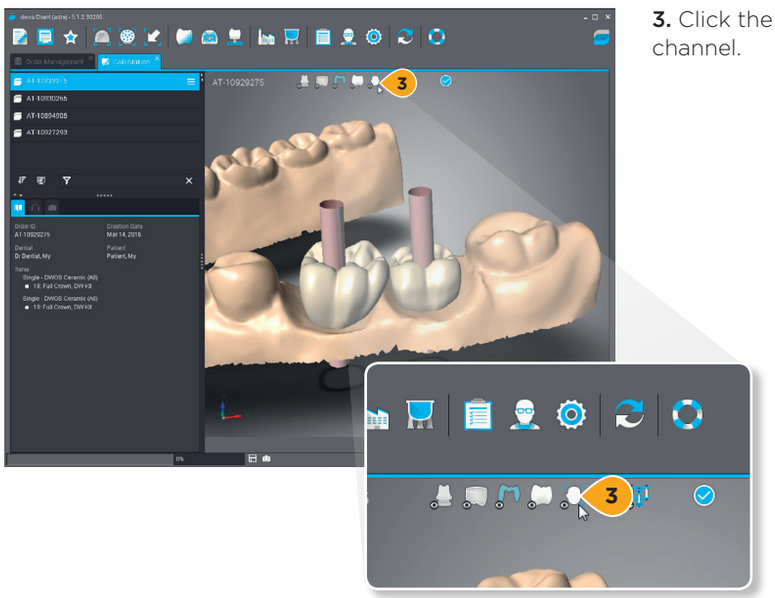
Note: After the Atlantis Core File has been imported into the Dental Wings or Lava system, the order is available in the CAD station for design. For information about how to proceed and design copings, please refer to the Dental Wings or Lava user guide.

Adding the screw access channel

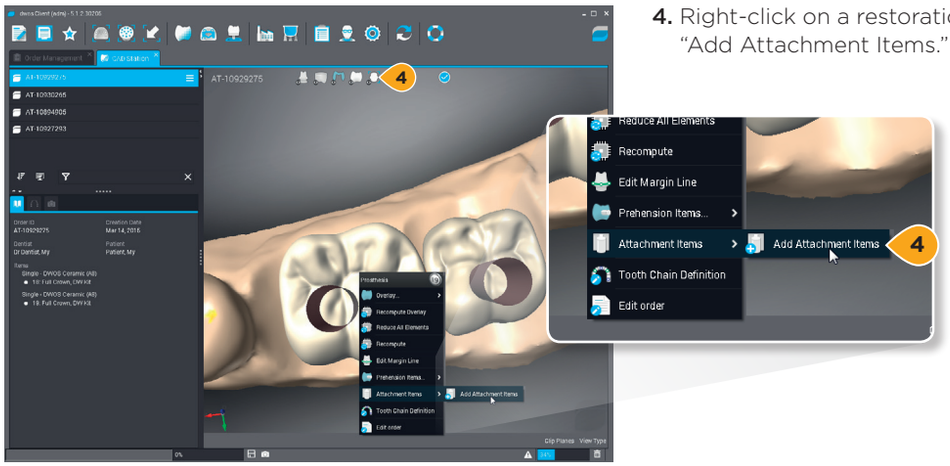


1. Open application.

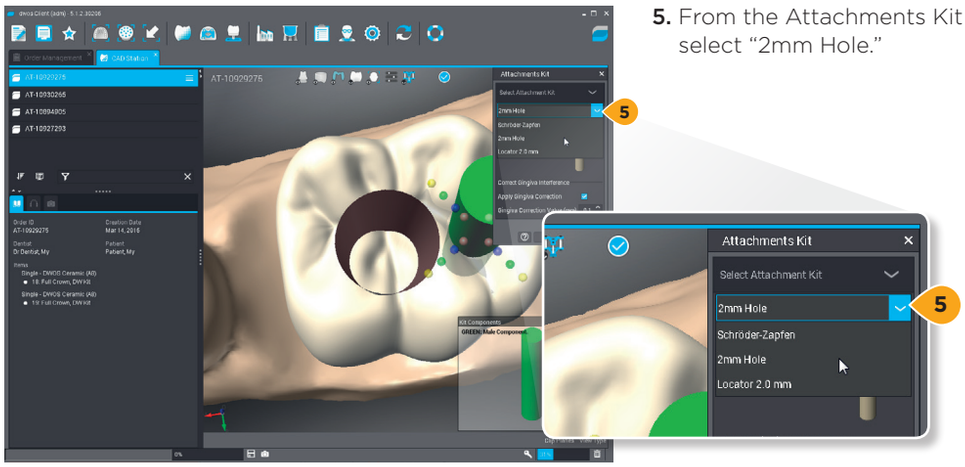
2. Right-click and select “Edit order,” select the “Prosthesis Subtype” and click “OK.”



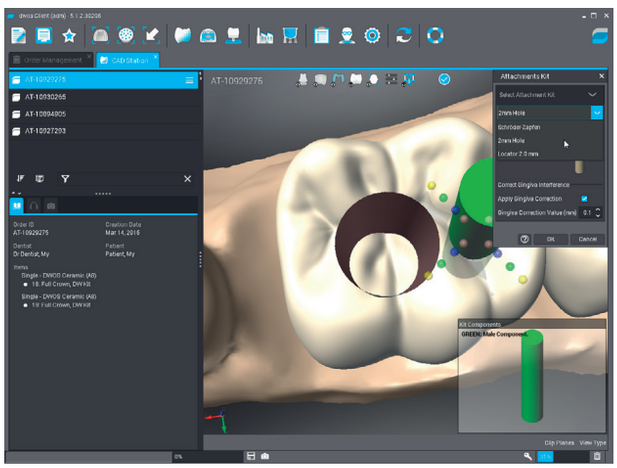
3. Click the face icon to display the screw access channel.



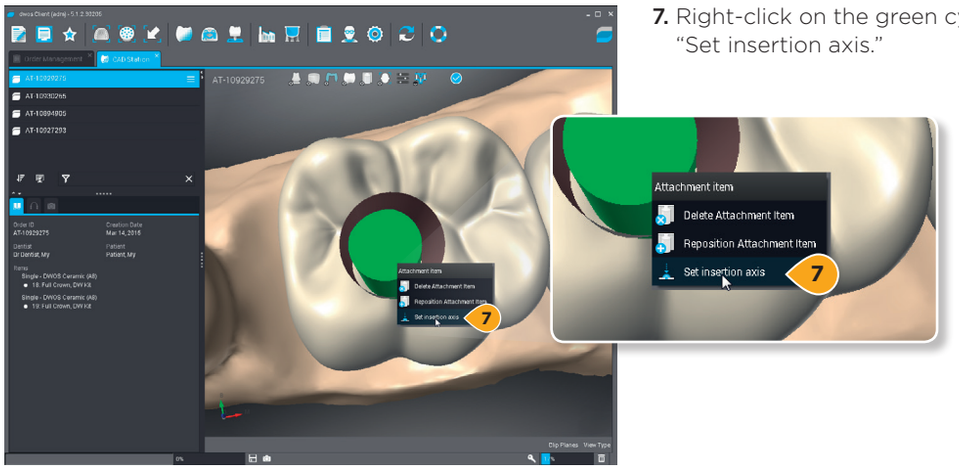
4. Right-click on a restoration and select "Add Attachment Items."



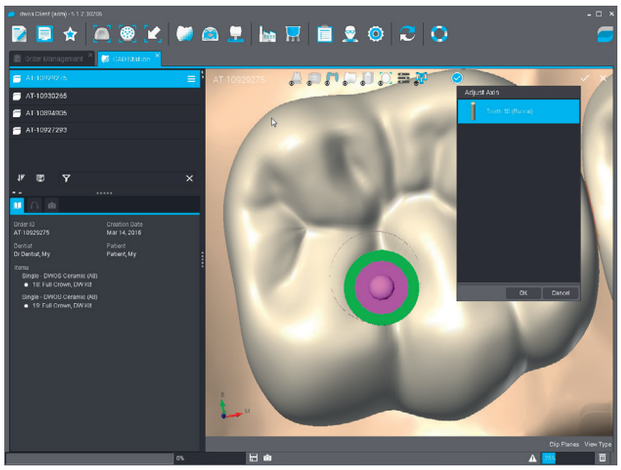
5. From the Attachments Kit drop down menu, select "2mm Hole."



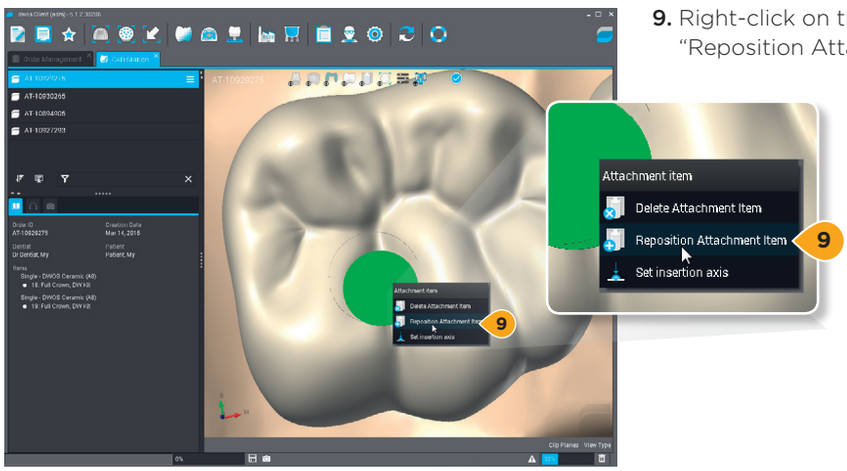
6. Click "OK."



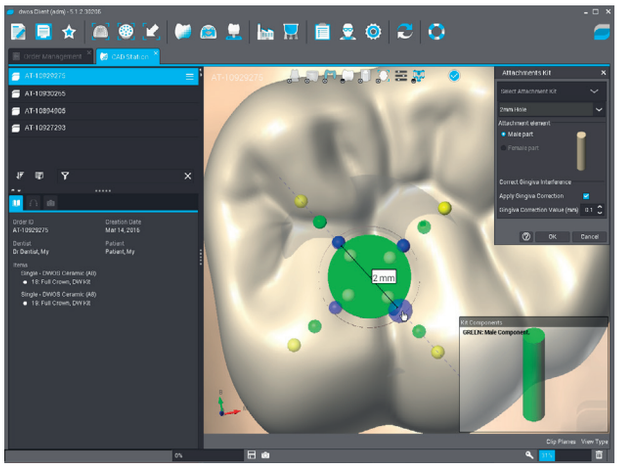
7. Right-click on the green cylinder and select "Set insertion axis."



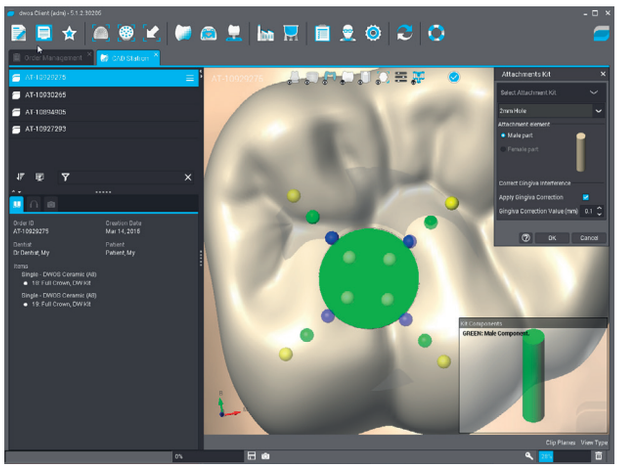
8. Align the insertion direction of the green cylinder to match the screw access channel.



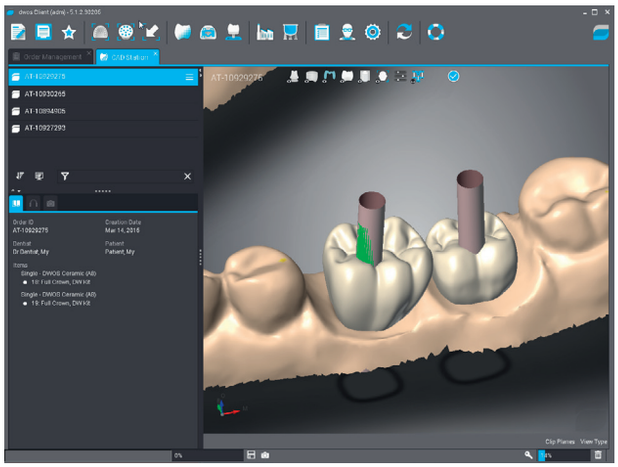
9. Right-click on the green cylinder again and select "Reposition Attachment Item."



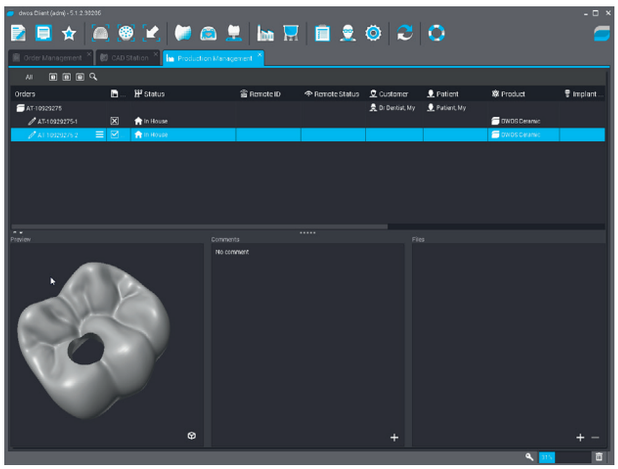
10. Adjust the size and position to match the screw access channel and click “OK.”



11. Repeat steps 3–9 for all applicable restorations.



12. Finish the restoration design with screw access channel.



Importing Atlantis® Core File into open design software

With the generic format of the Atlantis Abutment File, it is possible to design the restoration using any design software that accepts an open STL file format.

Naming of the files in the zip package:

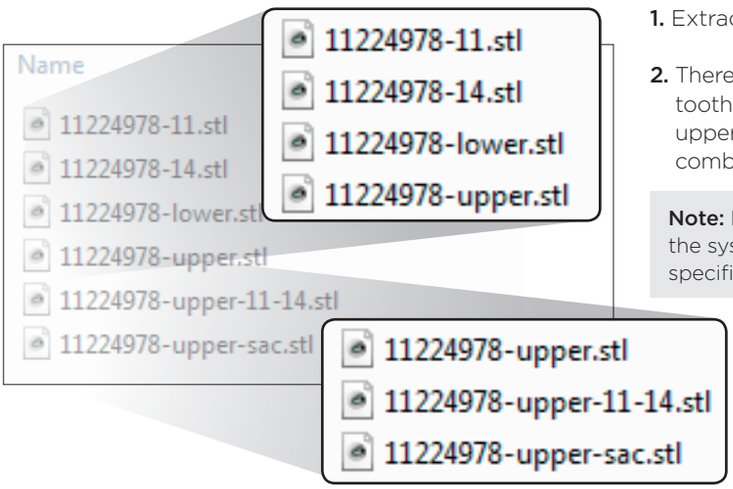
<caseno>-<tooth>.stl
<caseno>-lower.stl
<caseno>-upper.stl

For screw-retained restorations the zip package also includes a file with the screw access channel:
<caseno>-upper-sac.stl
<caseno>-lower-sac.stl

If the case includes multiple units:
<caseno>-upper-<tooth 1>-<tooth 2>-...-<tooth n>.stl
<caseno>-lower-<tooth 1>-<tooth 2>-...-<tooth n>.stl

If a diagnostic scan is included:
<caseno>-upper-restore.stl
<caseno>-lower-restore.stl

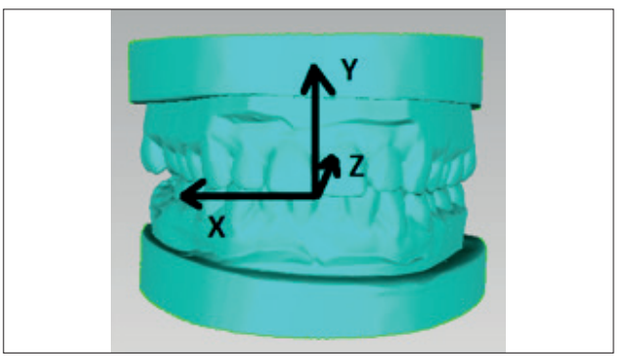
The generic core file package includes separate files for cast and abutment as well as a single merged file with all units per jaw.



1. Extract the downloaded zip package.

2. There are two ways to import the files: 1) import all the tooth files separately, including those that are marked upper and lower, or 2) import them as a group of combined teeth, including those marked upper and lower.

Note: For questions regarding the import and design for the system in use, please refer to the user guide for the specific system.



The coordinate system used for the generic core file.
The positive Y always points from the lower jaw to the upper jaw.

3. Once the scan files are loaded, adjust the model orientation if needed.

4. Pay attention to the tooth numbering system. The core file for open software is using universal notation. Change to FDI notation if needed.

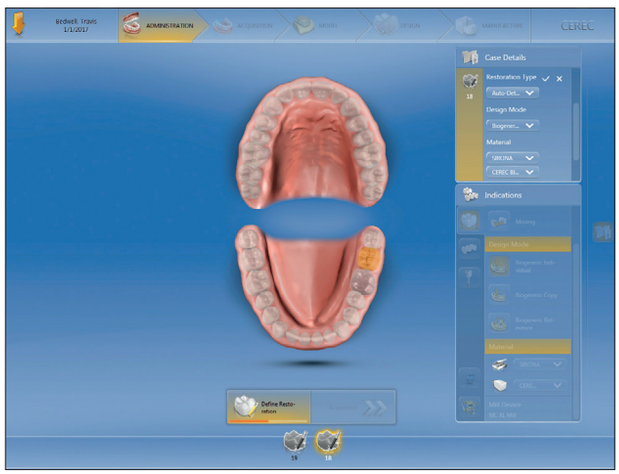
5. Design the restoration in the same way as if the cast was scanned instead of imported digitally from Atlantis WebOrder.

Appendix A

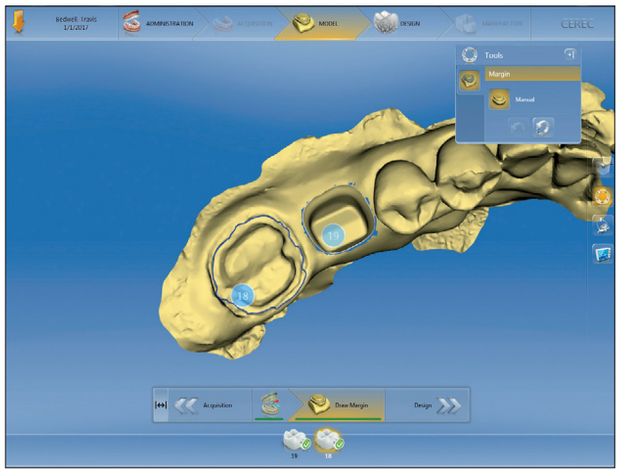
Adding more restorations – CEREC SW

1. Fill in material/design mode information in both "Case Details" and "Indications."

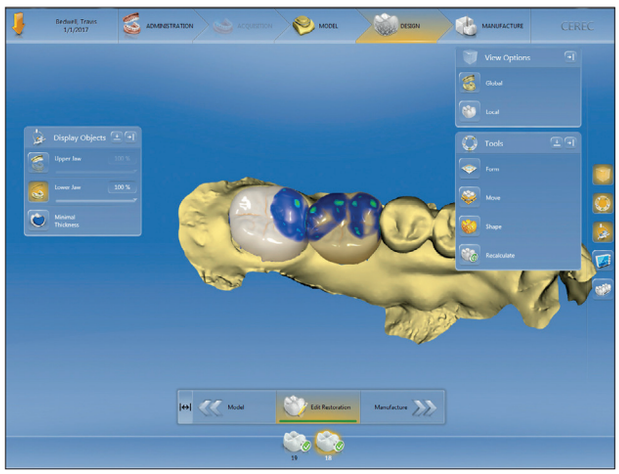
2. The rest of the teeth will light up at this point. Select the tooth or teeth which have been prepped.



3. The material/design mode will be copied from the original restoration. This can be edited with the pen symbol in the case details tab.



4. Now that there are more than the single restoration selected, the software will prompt you for margin lines & designs for each restoration.



Appendix B

Failed to process your Atlantis® Core File order

You may get an error message in an e-mail notifying you that the Atlantis Core File order has been replaced and a new one become available on Atlantis WebOrder. If the core file failed, a note is also posted on Atlantis WebOrder.

1. Review the email received and act accordingly. If you have any questions, please contact Dentsply Sirona Implants customer service.

Important: If the message states that the core file has been updated and re-uploaded, then it is important to delete the already downloaded core file and replace it with the new one.

If you have any questions, please contact Dentsply Sirona Implants Customer Service.

If any design changes take place after the core file was available, WebOrder, the Atlantis Core File, is removed from the download place and the following message is sent:

> Dear Customer,
>
> We would like to inform you that the Atlantis Core File that was available on Atlantis WebOrder has been removed due to changes in the design of the Atlantis abutment. If you already have downloaded the core file, it is important to delete it. When a new core file is available, you will receive a new message. We apologize for any inconvenience this may cause.
>
> Best regards,
>
> Atlantis Customer Service

When the Atlantis Core File is updated and available again, the following message is sent:

> Dear Customer,
>
> We would like to inform you that the Atlantis Core File has been updated and re-uploaded to the Atlantis WebOrder.
>
> Best regards,
>
> Atlantis Customer Service

If Atlantis Core File is not available for download due to technical difficulties, the following message is sent:

> Dear Customer,
> We would like to inform you that we are unable to deliver the Atlantis Core File you ordered due to technical difficulties.
> We apologize for any inconvenience this may cause.
>
> Best regards,
>
> Atlantis Customer Service

Appendix C

Designing pontic on Atlantis® Core File

A pontic can be added and designed in the Dental Wings or Lava CAD application after downloading and importing the Atlantis Core File.

1. Import the Atlantis Core File.

2. Right click on the prosthesis.

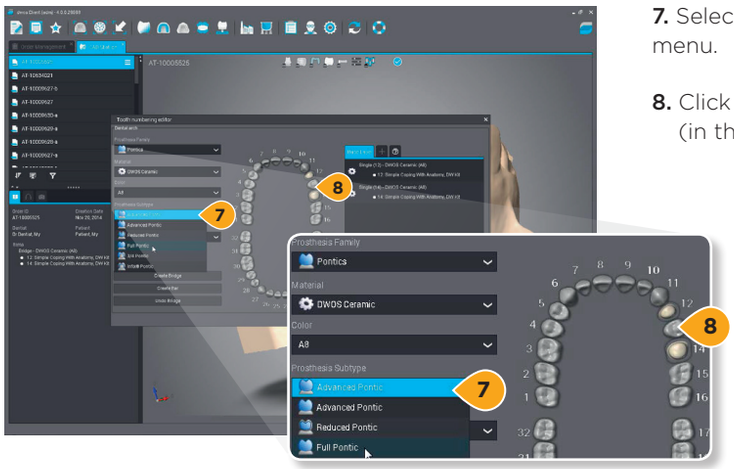
3. Click “Edit Order” from the context menu.

Note: Fore more information about general customization tools, please refer to the Dental Wings or Lava user guides.

4. Select all units of the bridge.

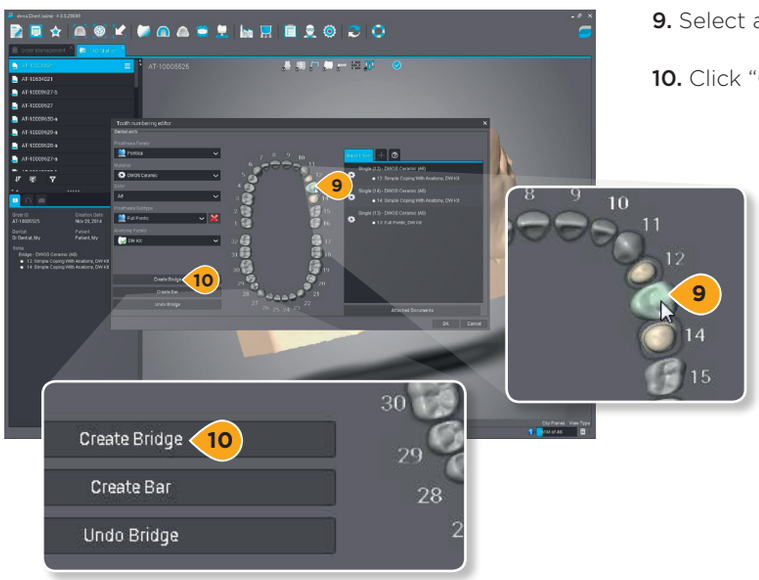
5. Select “Undo Bridge” from the context menu.

6. Select “Pontics” from the prosthesis menu.



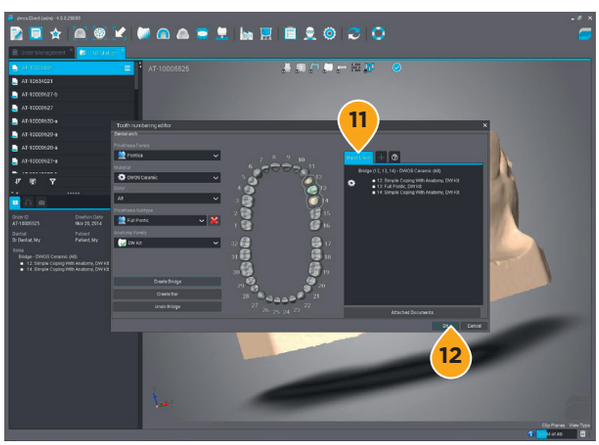
7. Select the pontic type from the Prosthesis Subtype menu.

8. Click on the teeth for the pontics in the case (in this case, tooth number 13.)



9. Select all the teeth needed for the bridge.

10. Click “Create Bridge.”



11. Base layer information is updated to bridge.

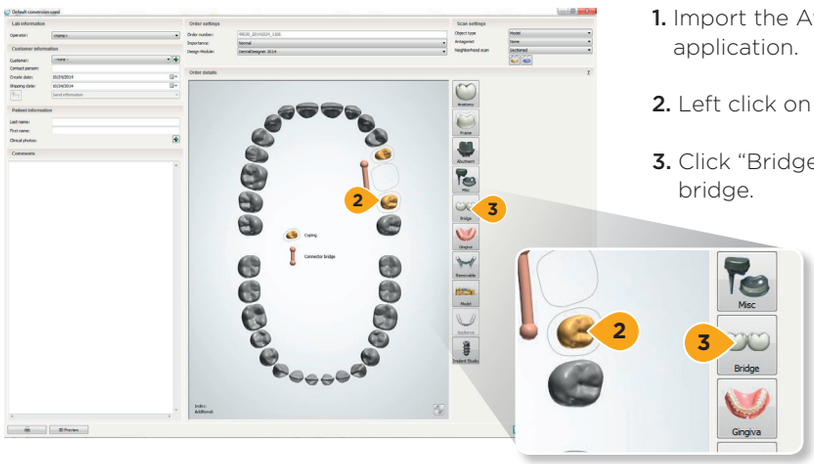
12. Click “OK” to proceed.

13. The initial design for a bridge with pontics is displayed.

Appendix D

Designing pontic with 3Shape

A pontic can be added and designed in the 3Shape application after downloading and importing the Atlantis Core File.



1. Import the Atlantis Core File into the 3Shape application.
2. Left click on an implant on the bridge.
3. Click “Bridge” to remove the existing connector bridge.

4. Left click on the missing tooth.
5. Select Pontic type from the “Frame” context menu.

6. Select all teeth needed for the bridge.
7. Select the bridge type from the “Bridge” context menu.
8. Click “Ok” to continue.

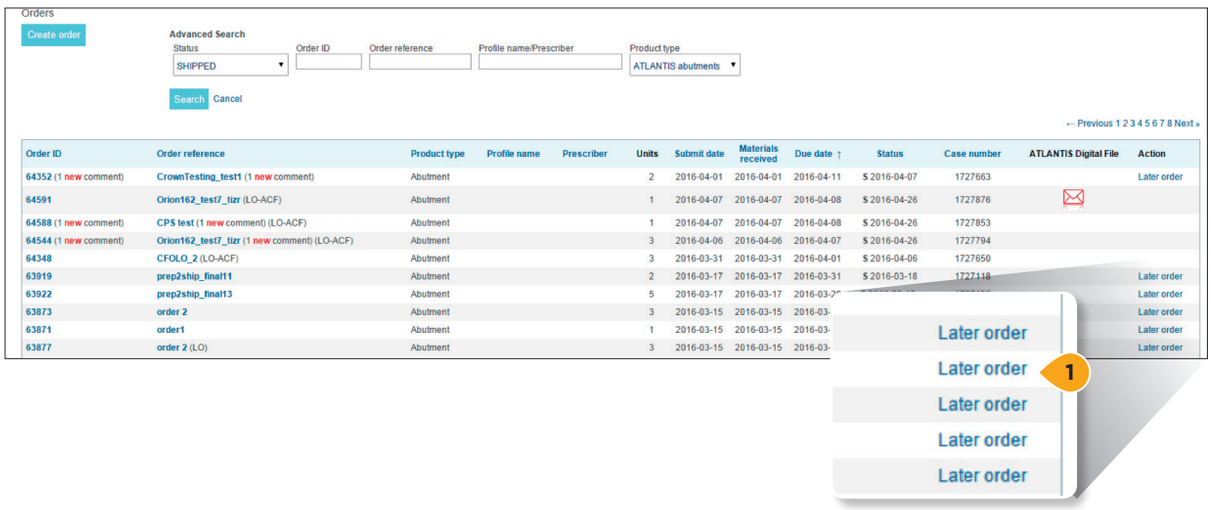
Appendix E

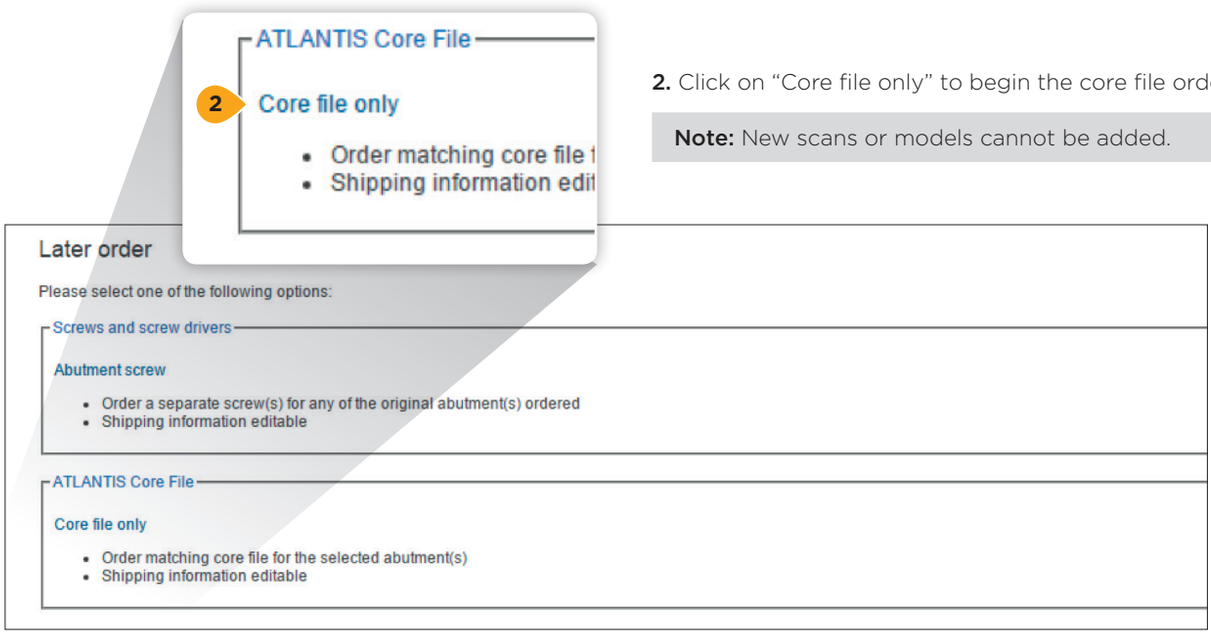
Later order

Atlantis Core File can also be ordered after receiving the physical Atlantis Abutment. This service will be handled as a “Later order,” but will only include the core file (not the abutment).

Note: The earliest a later order for Atlantis Core File can be submitted is when the initial Atlantis Abutment order is in the “Shipped” status.
It is important to note that no other later order can be made with the specific core file (e.g. not valid for any abutment, screw, etc.) The later order for core file is unit-based.

1. Log into Atlantis WebOrder, locate the order in which you would like to order a core file(s), and click on “Later order.”

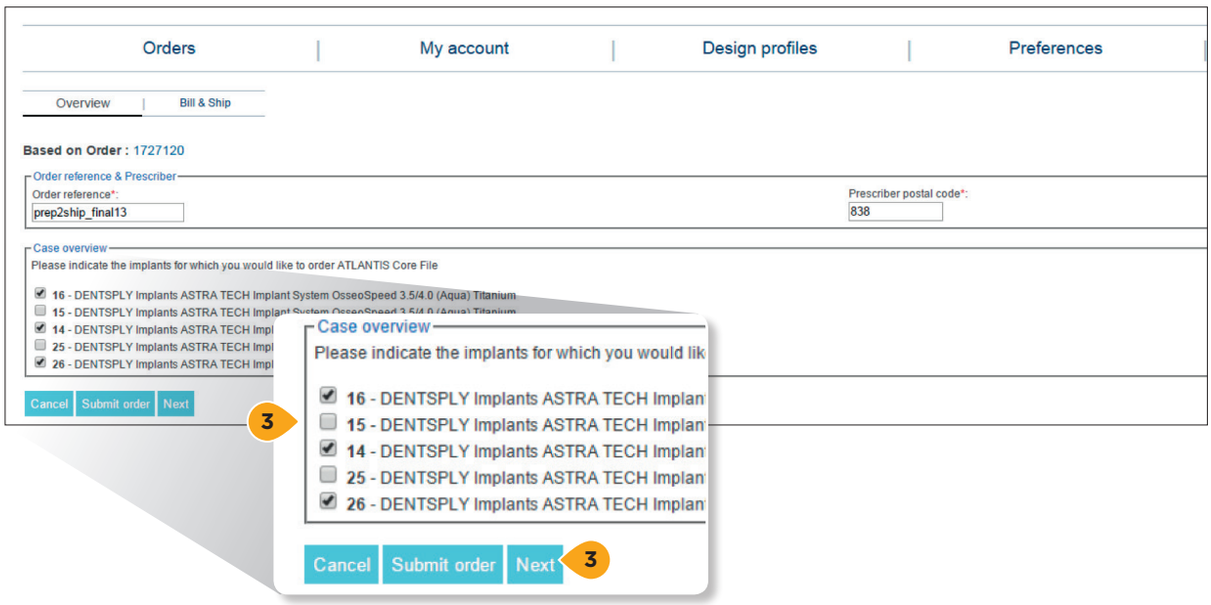




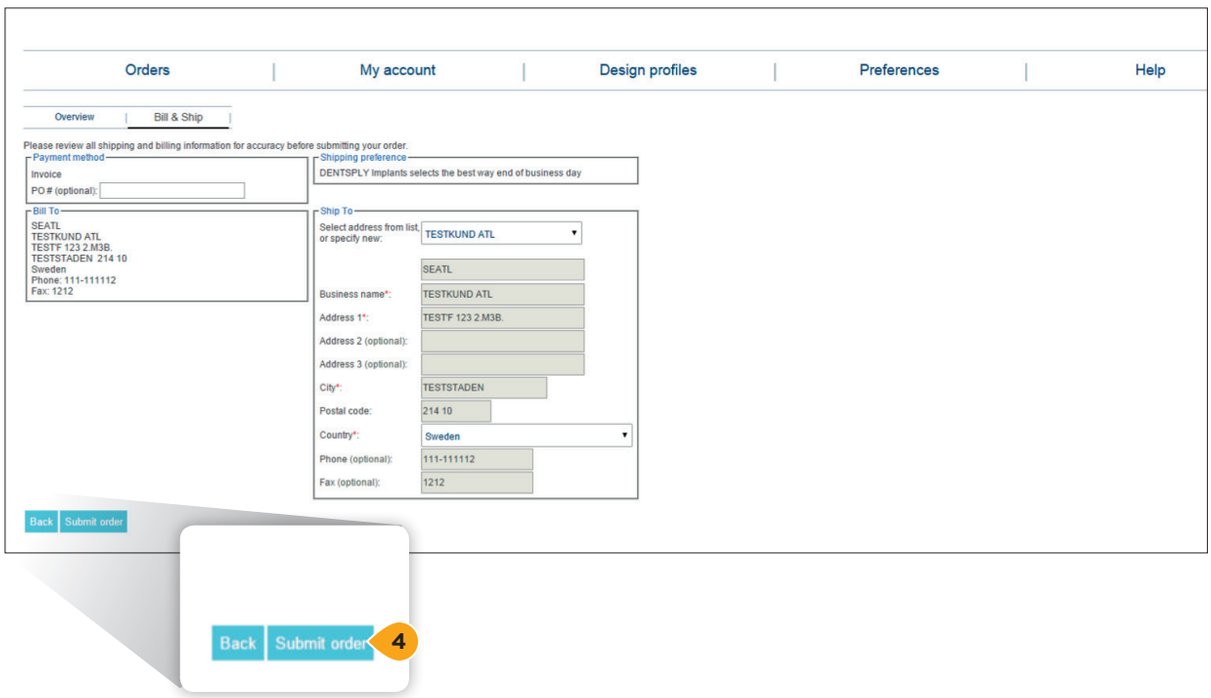
2. Click on “Core file only” to begin the core file order.

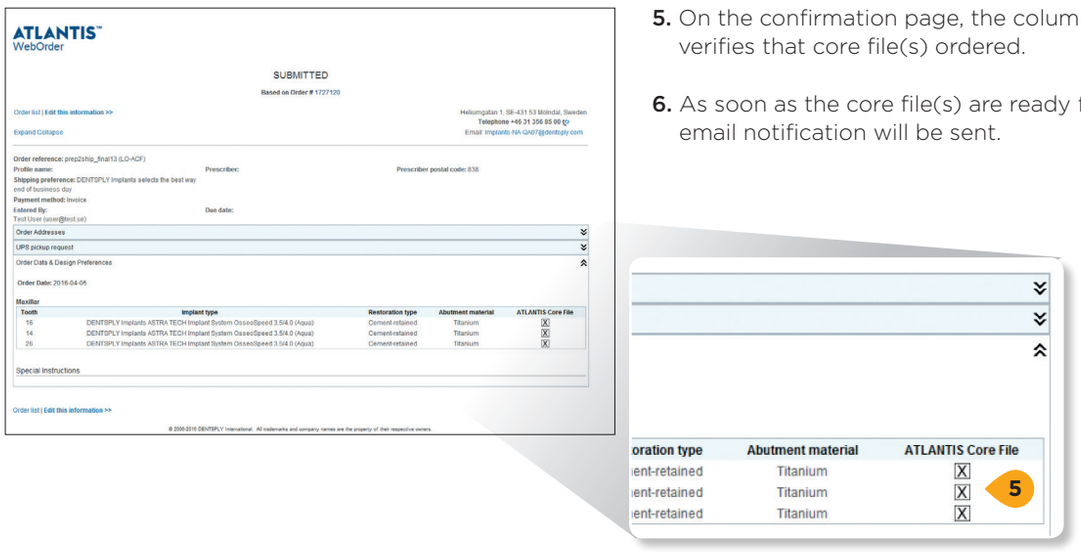
Note: New scans or models cannot be added.

3. Be sure to **uncheck** the abutments that you do not need a core file for and click "Next." All abutments are checked by default.



4. Submit the order.

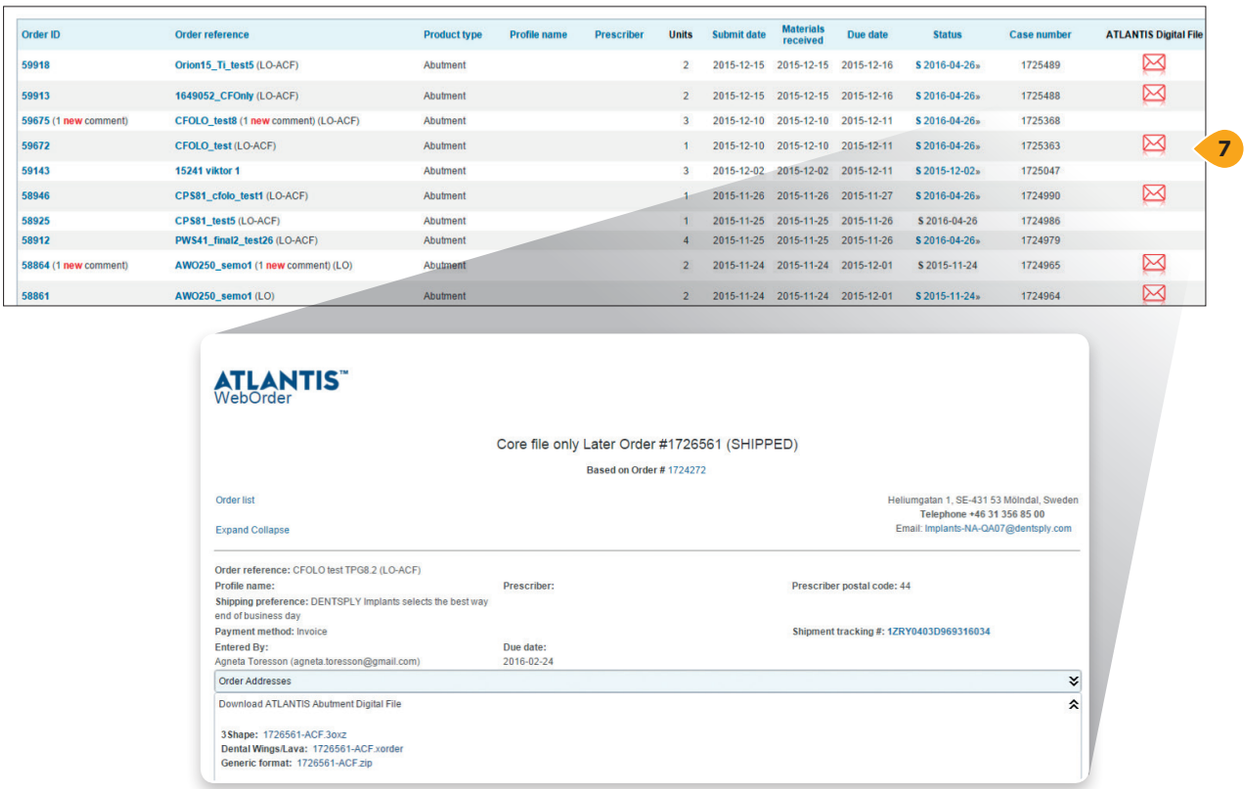




5. On the confirmation page, the column the right verifies that core file(s) ordered.

6. As soon as the core file(s) are ready for download, an email notification will be sent.

7. In the order list, a red envelope icon will appear which indicates that the core file is ready for download.



About Dentsply Sirona Implants

Dentsply Sirona Implants offers comprehensive solutions for all phases of implant therapy, including Ankylos®, Astra Tech Implant System® and Xive® implant lines, digital technologies, such as Atlantis® patient-specific solutions and Simplant® guided surgery, Symbios® regenerative solutions, and professional and business development programs, such as STEPPS™. Dentsply Sirona Implants creates value for dental professionals and allows for predictable and lasting implant treatment outcomes, resulting in enhanced quality of life for patients.

About Dentsply Sirona

Dentsply Sirona is the world's largest manufacturer of professional dental products and technologies, with a 130-year history of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering including dental and oral health products as well as other consumable medical devices under a strong portfolio of world class brands. As The Dental Solutions Company™, Dentsply Sirona's products provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dentistry. Dentsply Sirona's global headquarters is located in York, Pennsylvania, and the international headquarters is based in Salzburg, Austria. The company's shares are listed in the United States on NASDAQ under the symbol XRAY.

Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.

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