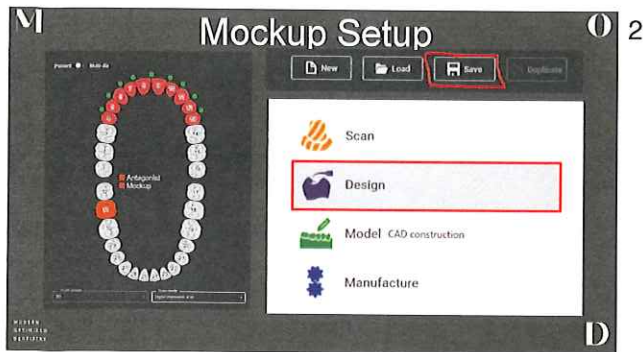
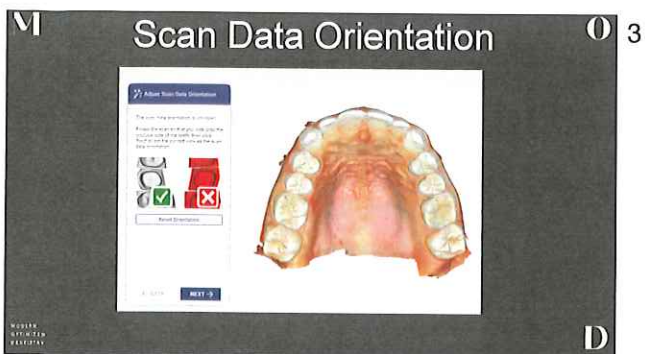


Name your case and select the most posterior tooth you plan to design to begin setup. Select "Mockup", "PROV_AD", and then click OK. This will return you to the screen with the odontogram.



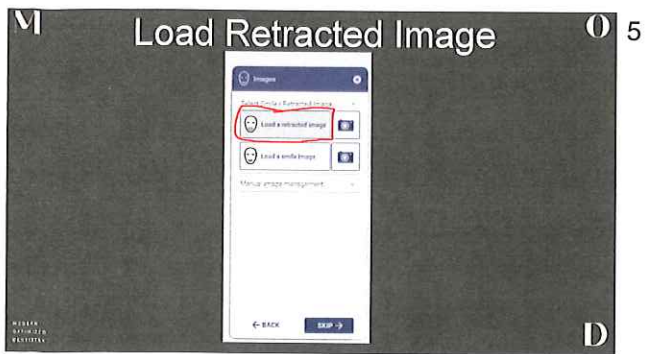
From here, hold SHIFT + Left Click the most posterior tooth you want to design on the opposite side of the arch. This will select all teeth between the first tooth you setup and the tooth you clicked on. If you wanted to selectively setup a few teeth around the arch, you can left click and drag from the tooth to a "grey" tooth to match the setup. Select Scan mode as "Digital Impression scan". Finally, left click any tooth on the mandibular arch and set it up as "Antagonist". Click "Save" from the menu in the upper left corner and finally "Design" from the menu on the right side of the screen.



Now, a Window will open asking you to load the "Jaw" scan. This is your scan of the maxilla. Then, it will ask for the "Antagonist". This is your scan of the mandibular arch. Now, using RIGHT CLICK, rotate the model until there is no red showing. This is a critical step and will complicate design if not done correctly. Click "Next".



A window will appear. Click the button that says "Start Smile Creat



First we will load a retracted image. Click "Load a retracted image" and a file explorer window will open. Load the retracted photo. You will now be automatically prompted to align the photo with the intraoral scan.



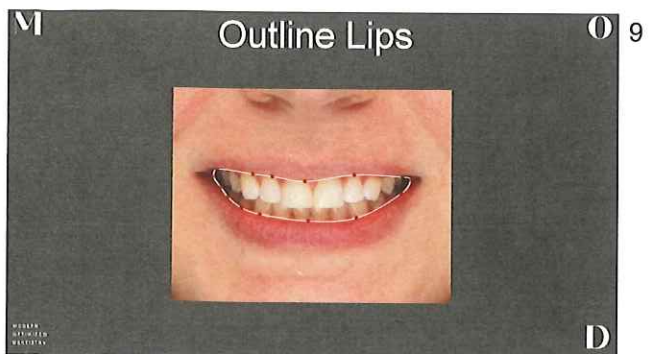
A split window will appear. Rotate the model using RIGHT CLICK to match the orientation of the teeth in the retracted photo. Then, LEFT CLICK to drop a colored ball on the scan. Choose a point near the tip of the canine. Select the same point on the image on the right side of the screen. Repeat for a second point near the CEJ of the opposite canine. Click "Next".



There are 3 tools you will use to align the model to the retracted photo. RIGHT CLICK will ROTATE the model. LEFT CLICK will TRANSLATE the photo. LEFT CLICK the points to scale and rotate the photo. You want to adjust these until there is no to minimal "haloing" around the maxillary incisors. Click "Next".



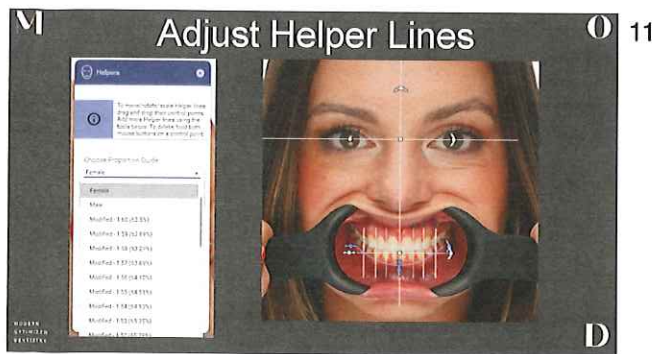
Now, click "Load a Smile Image". Double click on the smile photo file. Exocad will automatically attempt to align the photo focusing on the teeth. You will see blurring of the eyes and face. That is normal. Adjust the photos as needed using the green and blue balls. Click "Next".



Exocad will automatically attempt to outline a lip curve. Adjust the line using the red dots. You can click points along the white line to add more adjustment points as needed. Click "Next".



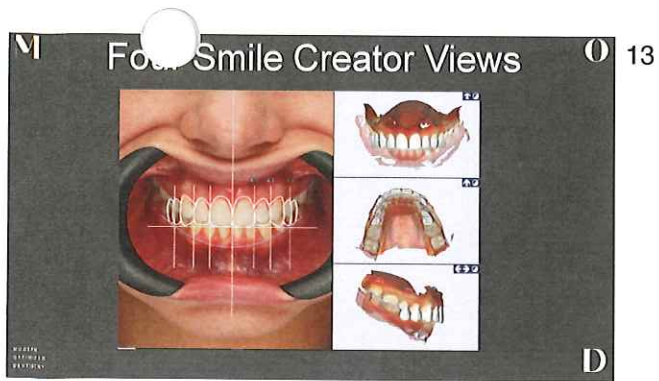
Align the Blue and Green dots in the center of the patient's pupils. Click and drag. Click "Next".



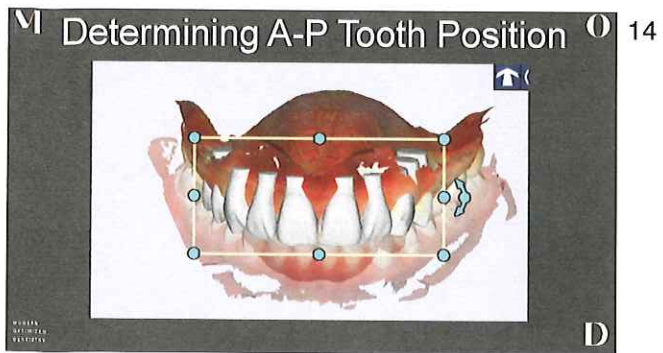
The first step is to choose your proportion guide. Click the dropdown from the menu on the left and select proportions suitable for your patient. Next, align the patient's dental midline with the midline of the proportion guide. It is difficult to move a midline in a mockup and achieve a good result. Then, Scale the proportion guide to achieve your desired incisor width. Adjust the horizontal line of the guide to achieve the desired incisor length. Once you are satisfied with your proportions, click "Next".



The first step is to select your desired tooth library. This should be a patient specific decision. After this step, it is very difficult to change libraries, so choose wisely.



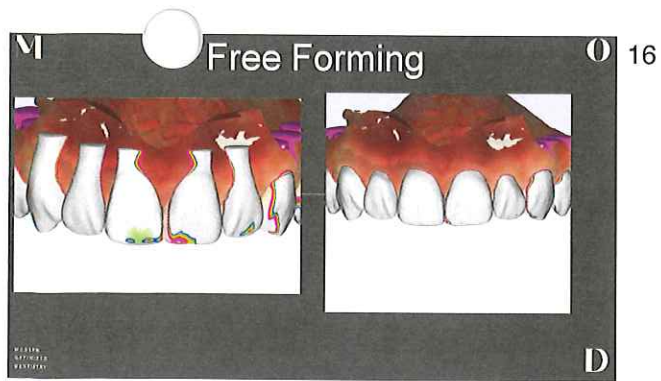
Smile Creator provides you with four views of the teeth. Using these views, align your teeth based on the proportion guide. Left click and drag to create a box and select all of the teeth. In this step, focus primarily on the position of the maxillary front six teeth. This step should take no more than 3-5 minutes.



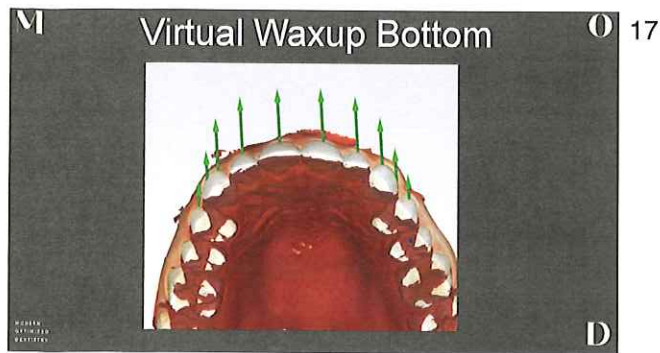
When determining the Anterior-Posterior position of teeth, ensure that there is enough of the library teeth penetrating through the model. When the library is cut, you do not want giant holes in the facial surfaces. Click "Next". A screen with a "Preview" will appear. Skip this by clicking "Done".



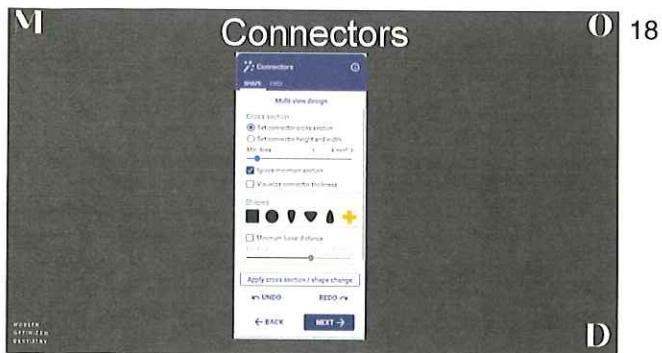
Before continuing with Tooth Placement, disable "TruSmile" from the menu on the right side of the screen. Next, click "Chain Mode" from the menu on the left side of the screen. Click the green dots above the front 4 teeth to turn them red and lock in their position. Continue to rotate and move teeth until you have them in an ideal position. Click "Next".



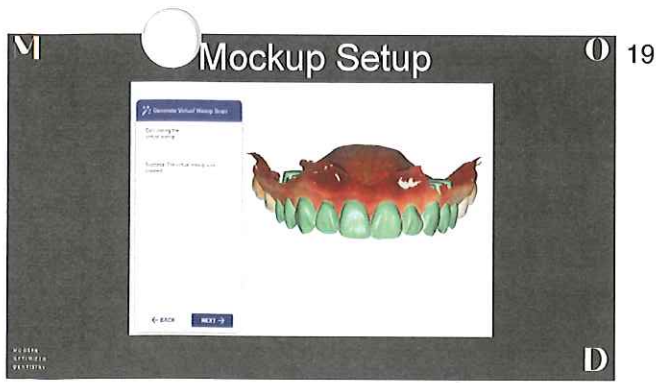
Use the Free Forming tools to eliminate thin spots on the facial aspects of teeth, as well as to melt away all of the lingual aspects of the tooth library. Also, take the opportunity at this time to melt the necks of the teeth back to the FGM. You can simulate crown lengthening by leaving the tooth necks extended beyond the FGM. Click "Next". The software will prompt you to cut intersections. Click "Next" again.



Rotate the model to the facial view. Click "Set Insertion Direction from View". This set a facial insertion path. Click "Next".



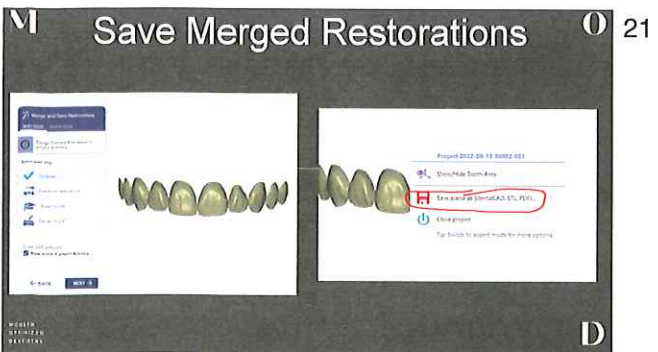
Select the "Plus" shaped connectors. Click "Apply cross section / shape change", then click Next.



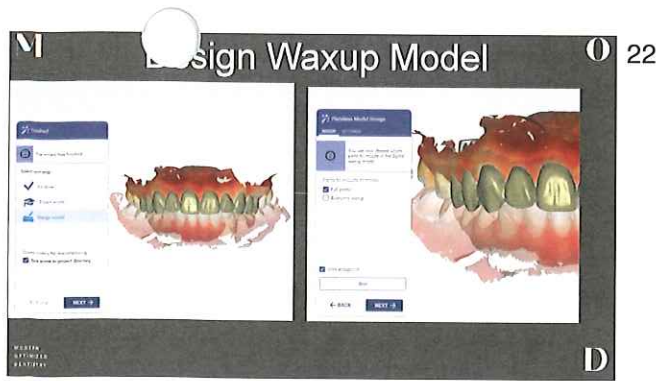
Generate Virtual Waxup Scan will appear. Click "Next".



Exocad will bring you back to the "Free Forming" step. Go to the "Adapt" tab and select "Adapt design to jaw scan (hard cut)". Click "Next".



Design is now complete. Right click anywhere in the scene and click "Save Scene As". Select file type as "Plain STL". Name and save the file in a location associated with the patient. You are now ready to print your mockup on your 3D Printer of choice. Now we should design a model for designing final restorations.



Click "Design Waxup Model" under the Finished menu and click "Next". Set Model type as "Digital Waxup Model". Click "Next". Under "Parts to Include in Waxup", select "Full Pontic". Click "Next". Another window will appear and ask about model attachments. Simply click "Next".



Save your waxup model. Hide all objects from the scene except the waxup model. Right click an empty space in the scene and click "Save Scene As". Save as a Plain STL.