Tooth library setup

Manual

Documentation by exocad GmbH

© 2013 exocad GmbH

Contact

exocad GmbH

Julius-Reiber-Str. 37

64293 Darmstadt

phone: +49-6151-629489-0

fax +49-6151-629489-9

e-mail: info@exocad.com

internet: www.exocad.com

Document history

version	state	written		approval		release	
		date	**name**	**date**	**name**	**date**	**name**
A	Draft	2013-08-26	mmp				
B	Final	2013-08-30	ts	2013-09-04	ts	2013-09-04	ts

exocad FB-420-009 • mk • rev. a • 10.05.2012

Table of contents

Tooth library setup

1   Prerequisites

1.1   Library of teeth and pontics

From tooth 1 to 8 in upper and lowerjaw created according to the instructions of the "exocad-guide-ToothLibraryModelEditor.pdf" using the "modeleditor" , both found in the "Modeleditor-2009-03-20-hires" on the partners site.
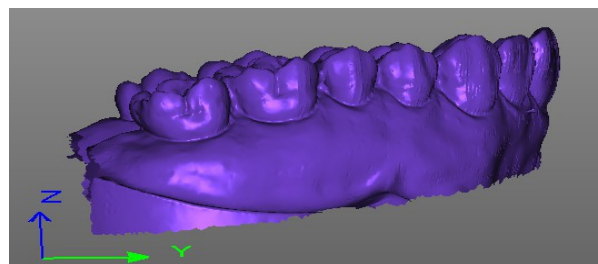
1.2   Upper and lower models

Scanned full upper and lower jaw setup that corresponds to library teeth, in STL file format.

 Both jaws have to be oriented with Z axis as the occlusal axis.
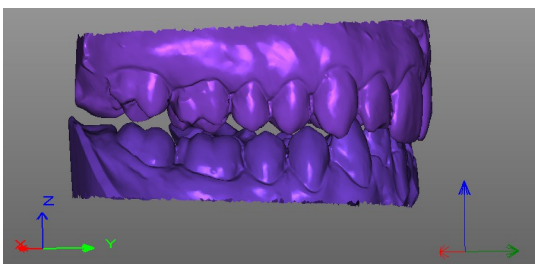
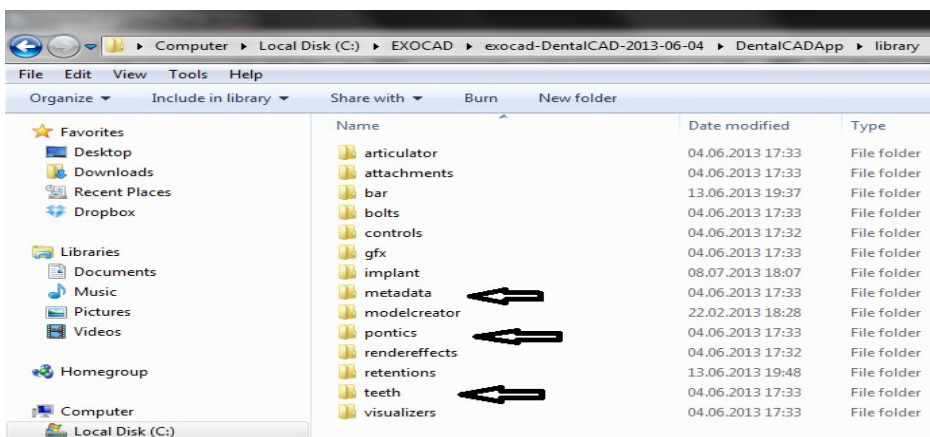**wrong (upper jaw oriented to negative z axis)**   **right**

2   Creating complete tooth library

2.1   Create directories

Go to directory DentalCADApp\library of the exocad installation.

Create a folder, example: "YourLib" in each one of these directories: metadata, pontics, teeth

2.2   Paste the libraries

Paste each respective library (named 1.eoff to 8.eoff) to **teeth** and **pontics** (into subdirectories named "upperjaw" and "lowerjaw" respectively. The directory/file layout should be same as in the "generic" subdirectory)

exocad
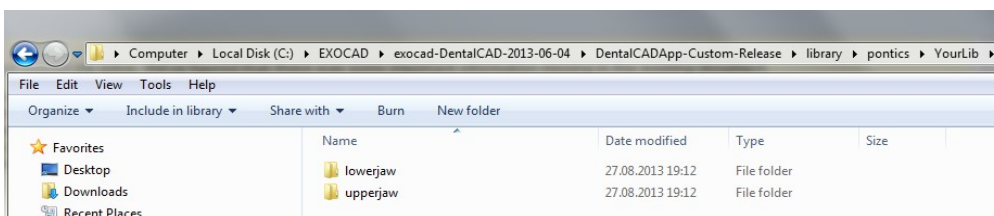
2.3 Copy tooth setup xml files (use generic library as template)

Go to metadata, and copy upperjaw.xml and lowerjaw.xml from "generic" subdirectory into "YourLib".
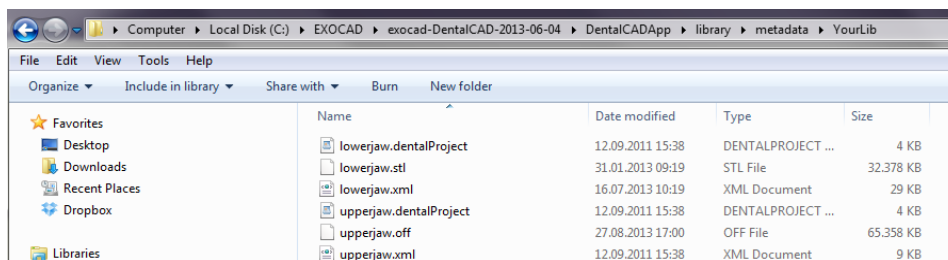

The library can now be used and set as default library. However, the tooth setup from the 'generic' library will be used (as you copied it from there). To get a better automatic placement, the tooth setup must be adjusted to match your new library.

3 Adjusting the default tooth setup to your library

You can optimize automatic placement by changing the "generic" tooth setup to match your new library. Follow these steps:

3.1 Settings

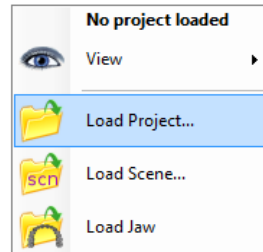Open CAD, right click on the screen. Go to View/ Settings and set the library to the one you've created

Set library to the one you just created
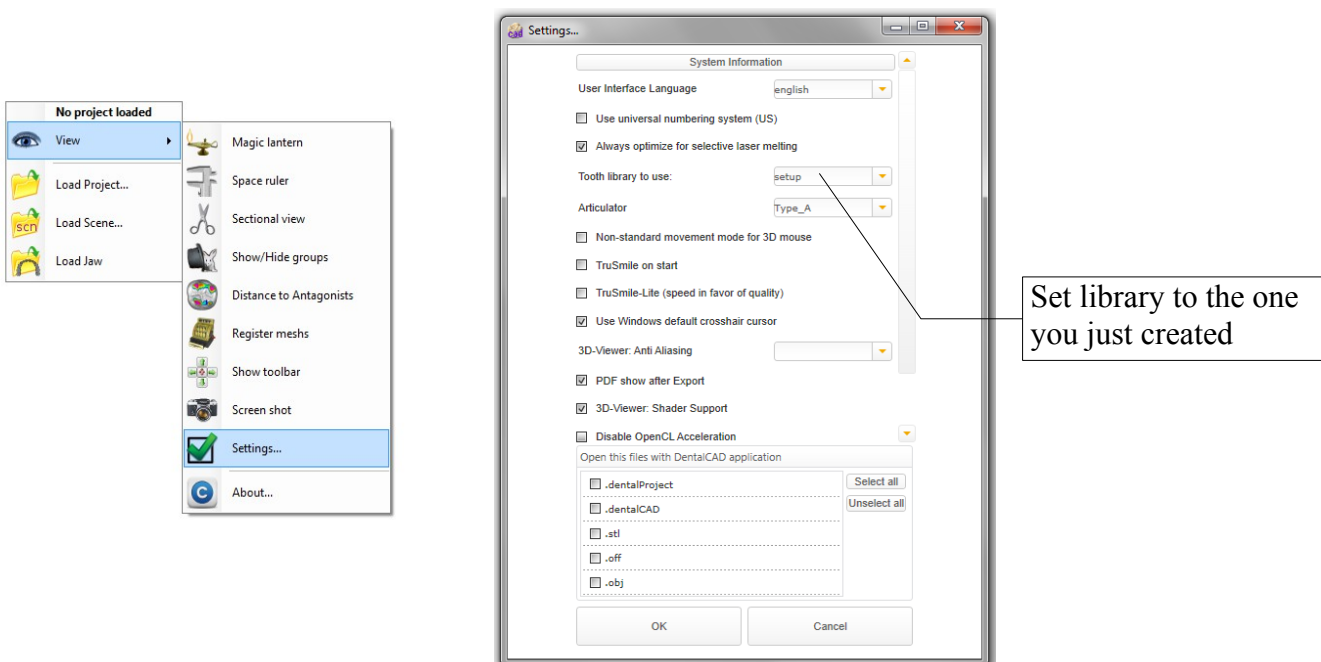
3.2 Restart

Click OK and restart the software.

3.3 Load project

Open the CAD again, right click on the screen and go to Load Project


Navigate to DentalCADApp\library\metadata\generic

and open the *upperjaw.dentalProject* (for upper jaw setup correction) or *lowerjaw.dentalProject* (for lower jaw).

The software will prompt you to load an STL file. Select the STL file of the scan of the setup (see 'prerequisite') of your library of teeth. Follow wizard steps.

3.4 Position teeth

Place the teeth in the correct place either by moving them with the Tooth placement wizard or by right clicking on the screen background (not the models) and going to View/Register mesh (Tip: re-open the "Register meshs" window individually for each tooth you register).
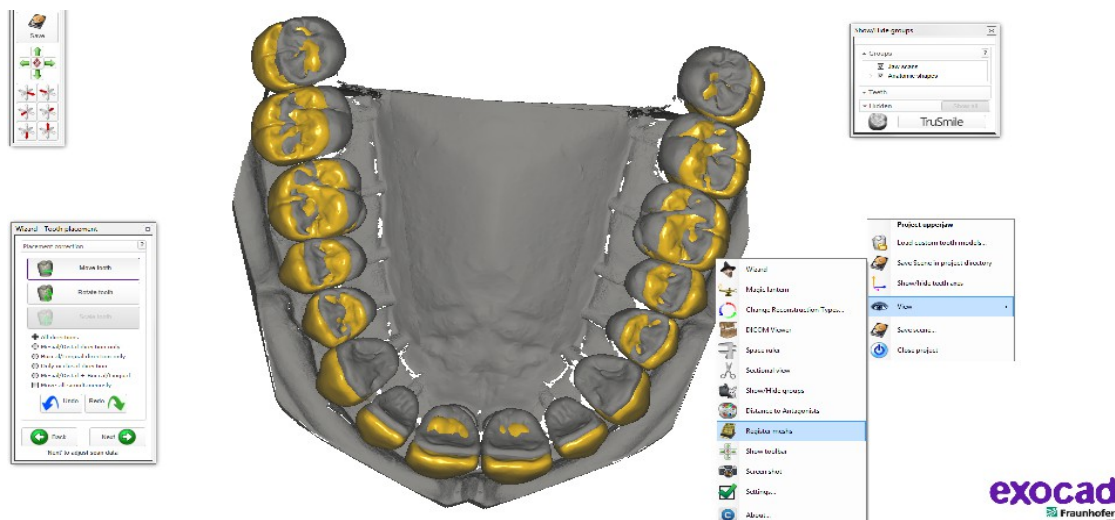

It's **important that the contact points of adjacent teeth (displayed as little red dots) are as close to each other as possible**. If necessary, correct position of contact points in Model Editor. Do invest the necessary time here to get this perfectly right. It is crucial for optimal automatic placement.
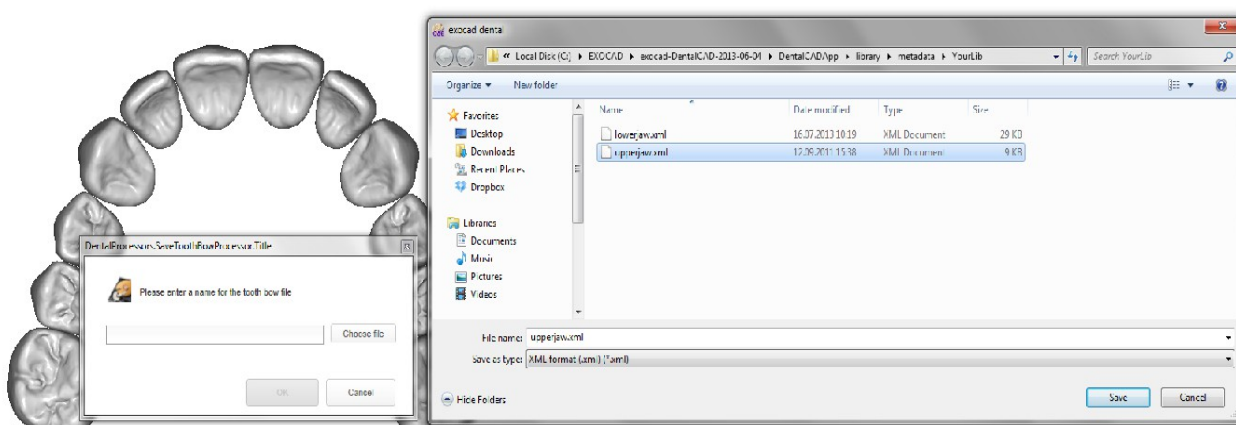
3.5   Save setup

Once the teeth are correctly placed, close the Tooth placement wizard by saving the changes, choosing "Close and accept current changes".

Right click again and chose "Save tooth bow to file"
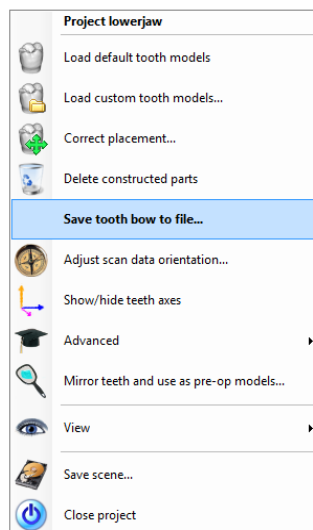
Save the file as DentalCADApp\library\<YourLib>\lowerjaw.xml or upperjaw.xml by replacing the existing one

The library with its optimized setup is now ready to be used in exocad.