


Dental Image Analyzer (User's Guide)

Initial Information...

This document contains the basic information to work with DIA Tool. It explains how to start to use the Tool, and the main functionalities. There are more functionalities that are easy of using. You can explore this tool with more detail.

The DIA Tool is optimized to work with a display resolution of 1024 x 768.

DIA Tool only works correctly if the symbol  is activated, in the bottom right side of your screen.

How to load the DIA Tool?

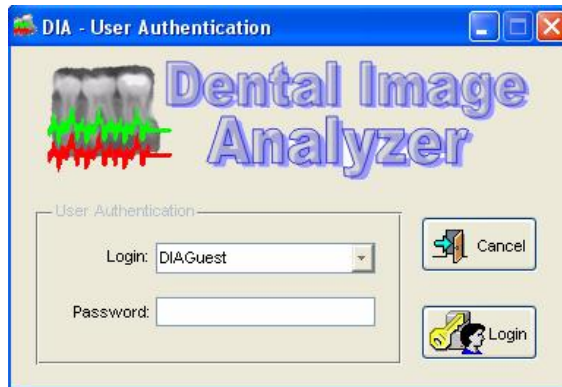
Note that: Before loading the DIA Tool, you have to initialize SQL Server Express, in order to initialize the DIADatabase.

You can load the DIA Tool in the Start menu ...

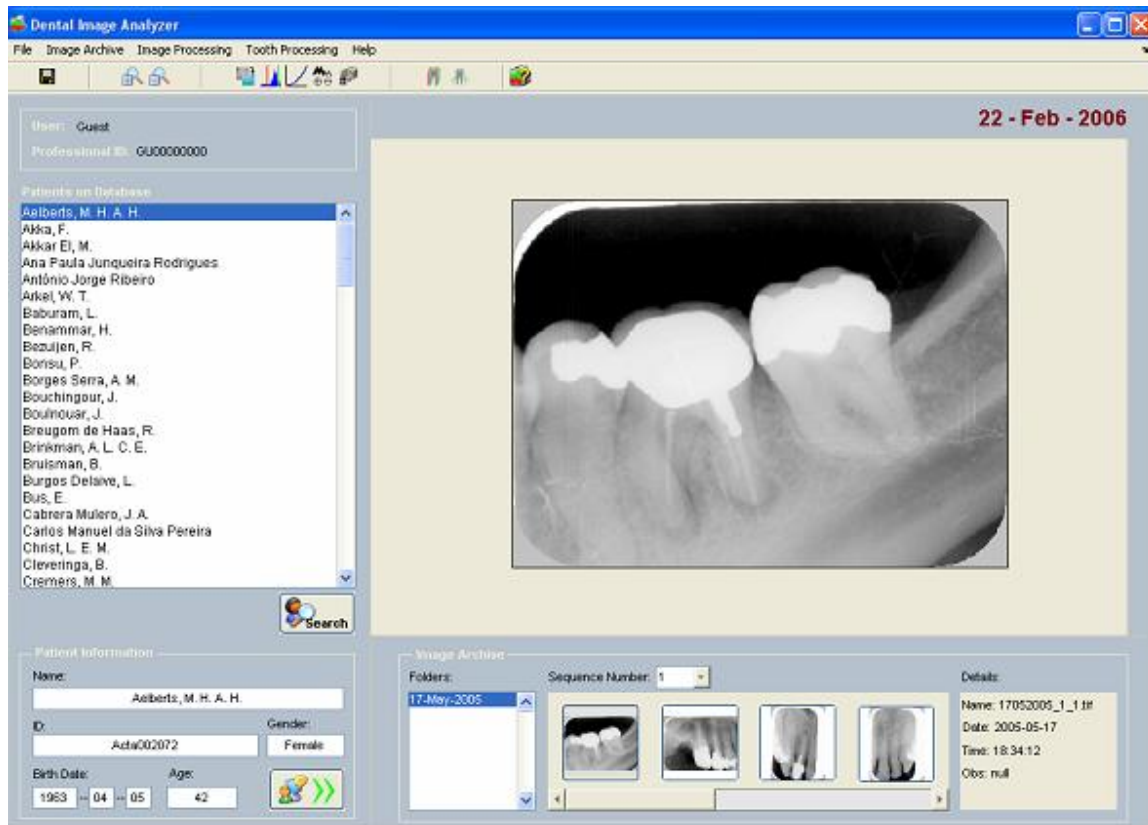
Start → Programs → ieeta-ua → dia 1.01 → DIAStartup.exe



Note: The first time that you run this Application, it will delay some time to load (~1 minute to configure the system in your computer). The next step is authentication stage. You have to put your login and password. For testing the DIA Tool, you should use "DIAGuest" as login without password. (If you want use other users, the passwords are: acta1 for user Acta1, acta2 for user Acta2, ...)

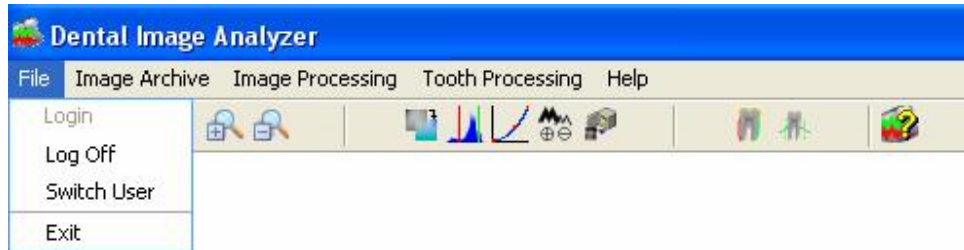


After you doing the login, the DIA Tool will be open and you can begin working with it.

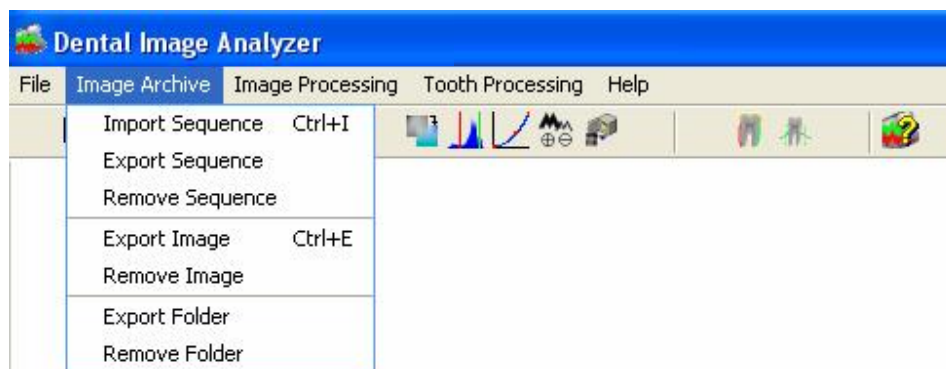


Menu Description...

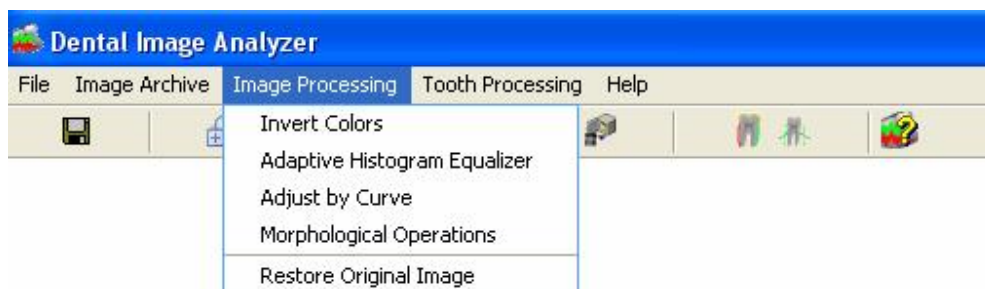
1. File Menu



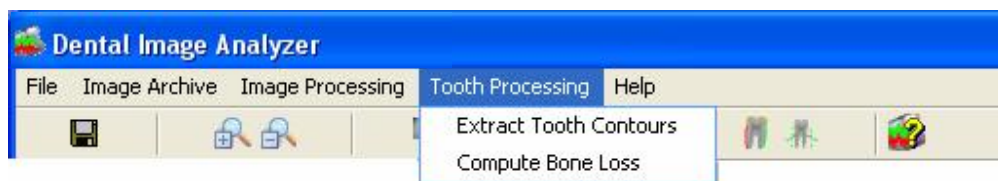
2. Image Archive



3. Image Processing

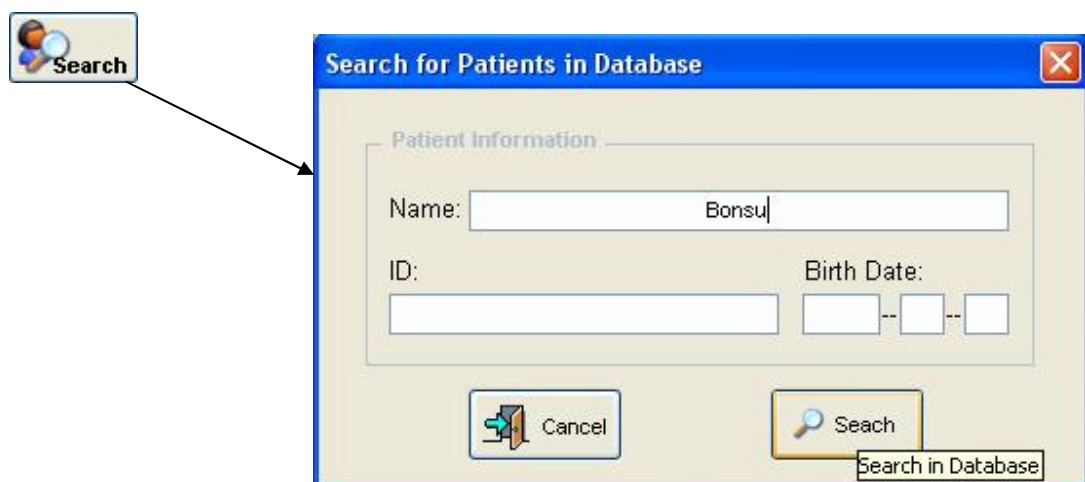


4. Tooth Processing



How to accede to the Patient's Information?

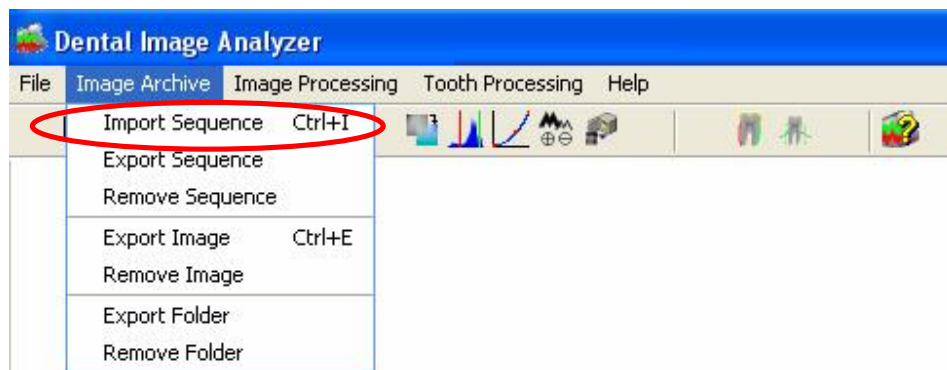
You can access to the patient information by clicking on Patient name in the left listbox. You can also search for patients in the database by the Search button.



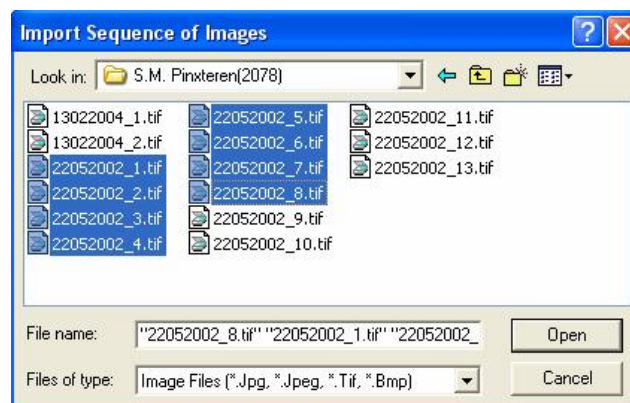
Please see the video [SearchPatientOnDBVideo.avi](#) on the Help Videos folder for more details about the searching of patients in Database.

How to Import a sequence of images for the folder of the current Patient?

You can import a sequence of images for the folder of the current patient by the following menu.



After you click in the *“Import Sequence”*, it will appear an open dialog in order to select the images to importing to the database. If you want to import multiple images you have to click *Ctrl + Image...*

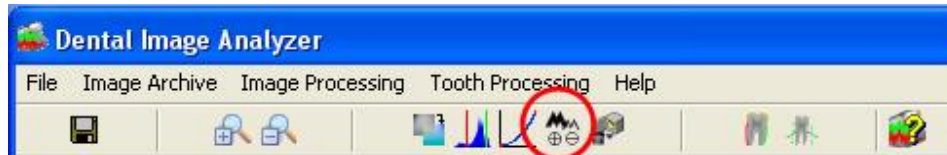


Please see the video [ImportImageSeqVideo.avi](#) on the Help Videos folder, for more details about how to import a sequence of images to the database.

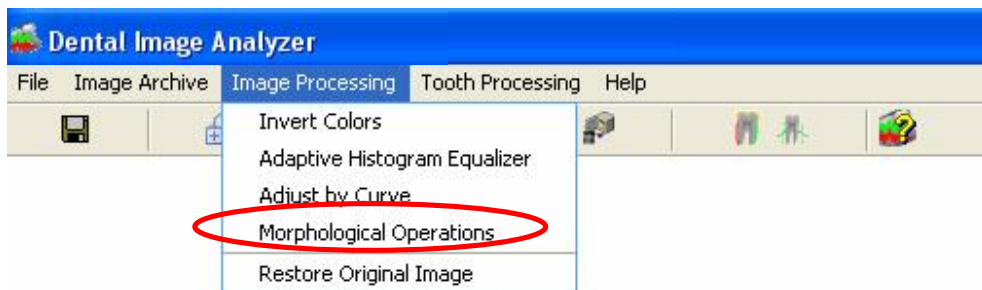
You can also remove a sequence of images from the database by selecting the option of *“Remove Sequence”*, or you can also remove a single image by selecting an image and then choose the option *“Remove Image”*. The exportation of sequences or single images to the hard disk is also possible (*“Export Sequence”*, *“Export Image”*).

How to Pre-process the image?

Sometimes it's necessary to enhance the contrast of the image. You can do this by using the Morphological operations, for example.



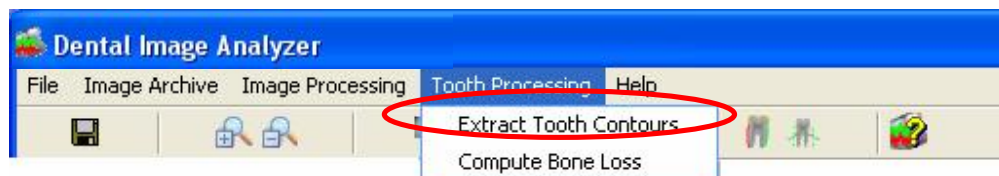
Or



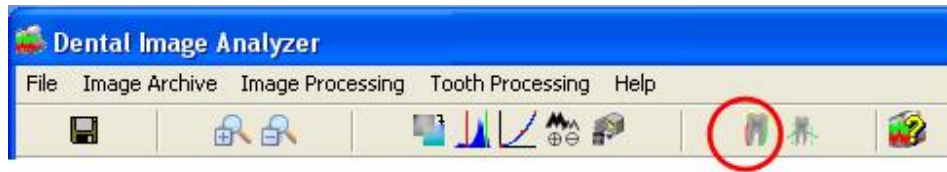
Please see the video [ImagePreprocessingVideo.avi](#) on the Help Videos folder for more details about the image pre-processing.

How to Extract the Tooth Contours?

You can extract the tooth contours by one of the next two options. After you extract the tooth contours you can compute the bone loss values (Mesial side, Distal Side and the worst case). You can also save the values on database.



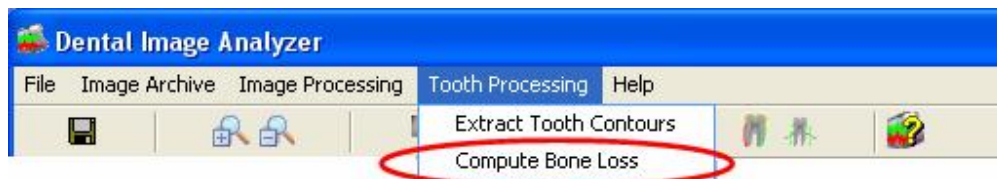
Or



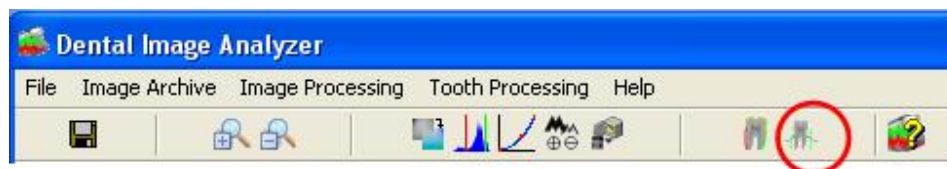
Please see the video [ExtractToothContoursVideo.avi](#) on the Help Videos folder for more details about the Extraction of tooth contours.

How to Compute bone loss (manually)?

You can compute bone loss (manually) by one of the next two options. You can compute Mesial value, Distal value and the worst case. You can also save the values on database.



Or



Please see the video [ComputeBLManuallyVideo.avi](#) on the Help Videos folder for more details about the Extraction of tooth contours.