FANALYSIS User Manual

Fanalysis is a web-based Rhinoplasty application. The system, which can be accessed from https://www.fanalysis.net, includes tools that will allow a physician to easily make calculations related to his patient.

1 Introduction to Fanalysis

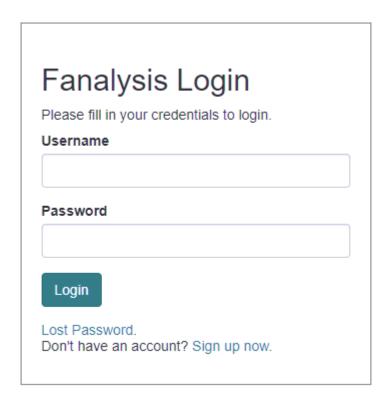


Figure 1 Fanalysis Home Screen

When entering the web page, the physician's login screen is encountered (Figure 1).. On this screen, the user name and password previously created by the physician are written and the system is entered. But if it's your first time logging in, click the "Don't have an account? Sign up now" link. In the new user screen (Figure 2) it is necessary to enter some basic information. This information includes the user name, the physician's Name and Surname, E-mail address, place of work and telephone number.

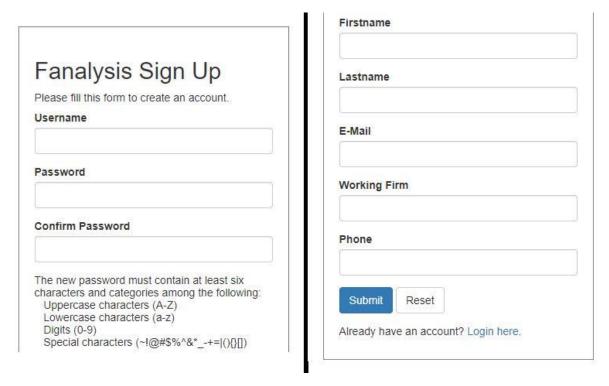


Figure 2 Fanalysis new user Regstration screen

Once the user is created, they will automatically log in to the system, return to the "Welcome" screen and be ready for use (Figure 3).

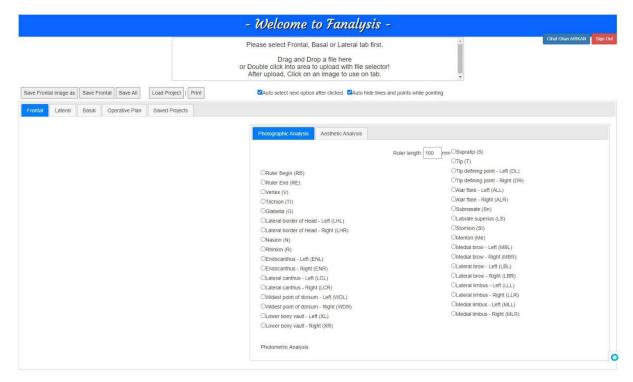


Figure 3 Fanalysis logged in screen view

If the user wants to change the data entered during registration or wants to log out from the system, he can use the buttons in the upper right-hand part of the screen. Can update their

information and password by pressing username-last name. You can also log out of the system by pressing the "Sign out" button.



Figure 4 Fanalysis user update and logout links

2 Fanalysis Tools

There are 3 basic sections on the usage screen (Figure 5). These sections are respectively the area for uploading the patient photographs (1), the selection of the working zone (2) and the entry areas of the standard determination points and patient details determined according to the mode of operation (3). The features of these areas, respectively, are described in detail below.

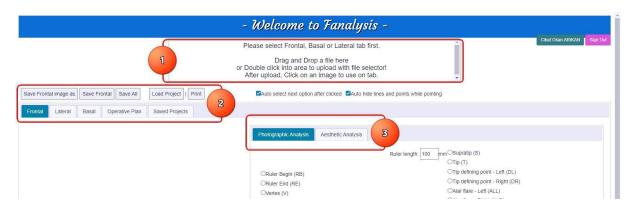


Figure 5 Fanalysis process menu sections

2.1 Patient Photos Upload Area

The photo upload area allows the patient's previously taken photos to be made ready for use. This field works in two ways. The photos that are requested to be uploaded can be dragged and dropped directly into this area in the window or loaded using the image selection window by double-clicking on the area with the mouse .

Uploaded images are shown scaled down in space (Figure 6). Whichever of these photos will be worked with in the working area, it is ensured that the photo on the loading area is clicked once and transferred to the relevant area.



Figure 6 Loaded pictures view

After the photos are uploaded to the upload area, the physician must select in which area to work (Frontal, Lateral, Basal) on and the photo will be transferred to the bottom-left side by clicking once on the desired image (Figure 7). After transferring the photograph to the relevant area, Photographic analysis operations of the selected area can be performed.

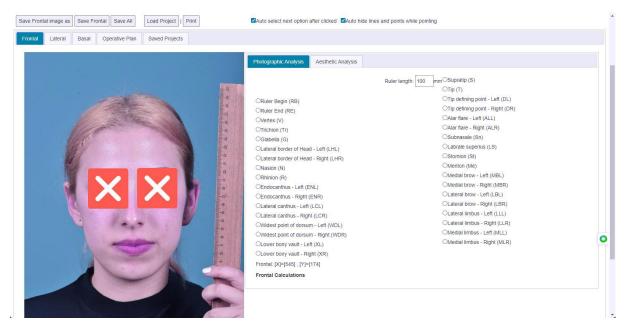


Figure 7 Picture loaded and selected from the loader area

2.2 Work Region Selection

The working region is used to define the data of the physician's patient before the procedures to be performed. By selecting one of the Frontal (Frontal), Lateral and Basal (Bottom) appearance shapes, it is ensured that the data of the relevant section are prepared.

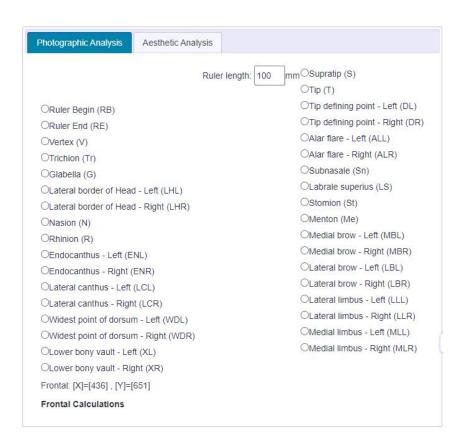


Figure 8 Photographic analysis options for Frontal area

The first operation to be performed in the photographic analysis section is ruler calibration. When taking pictures, there may be a deviation from the actual dimensions depending on the ambient distance or the characteristics of the camera. For this reason, it is usually ensured that the actual dimensions of the patient are proportioned with the help of a ruler. For ruler orientation in Fanalysis, the ruler length in the Photographic analysis section is written. Then Ruler Begin (RB) is marked from the trading points and a point on the ruler on the picture on the left part is clicked with the left button. Ruler End (RE) is selected and this time a point forward to the specified ruler length is clicked with the left button. Thus, the pixel length in the RB-RE range is calculated and the ratio between the actual width of the photo and this length is used in other calculations. During the marking of the points, the area hovered over the picture is zoomed in to make it seen more clearly.

When marking the decisive points, if the "Auto select next option after clicked" option at the top is active, the next point is automatically selected as soon as the left mouse button is pressed. When each point is selected, the mouse is moved over the picture and the left button is pressed on the relevant point and it is marked. If the "Auto hide lines and points while pointing" option is active, when each point is selected, the previous points are automatically hidden to prevent the points from overlapping each other. When the mouse is pulled out over the picture, all the marked points are shown together on the picture.

2.3 Analysis Details Selection

During the determination of facial regions, there are different determining points in each section (Frontal, Lateral, Basal). For this reason, the process should be started by selecting the

part to be studied. After the section is selected, the options on the right automatically change and the necessary information is entered by the physician. The information entered by the physician is selected in 2 stages (Figure 9).

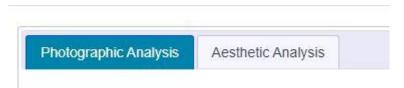


Figure 9 Working section options selector

In the photographic analysis section, it is ensured that facial areas are marked on the patient picture. In the aesthetic analysis section, there are options where the studies planned to be carried out by the physician on the patient are determined. As the points in the photographic analysis options are marked on the picture, the data that needs to be calculated depending on these points is automatically calculated and shown in the "Frontal/Lateral/Basal Calculations" fields at the bottom of the screen (Figure 10).

Apart from the numerical data about the patient, the "Aesthetic Analysis" tab is used for the features that the physician will specify for the purpose of visual evaluation (Figure 11).



Figure 10 Frontal/Lateral/Basal Calculations values

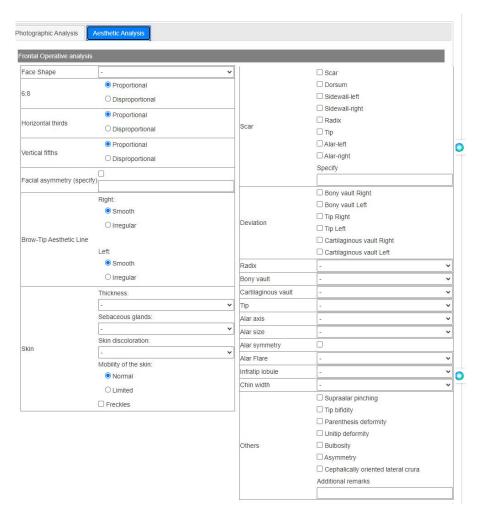


Figure 11 Aesthetic Analysis section options for Frontal area

3 Fanalysis Operative Planning

It is the section where the physician determines the procedures that he / will apply on his patient. The options in this section are optionally selected (Figure 12).

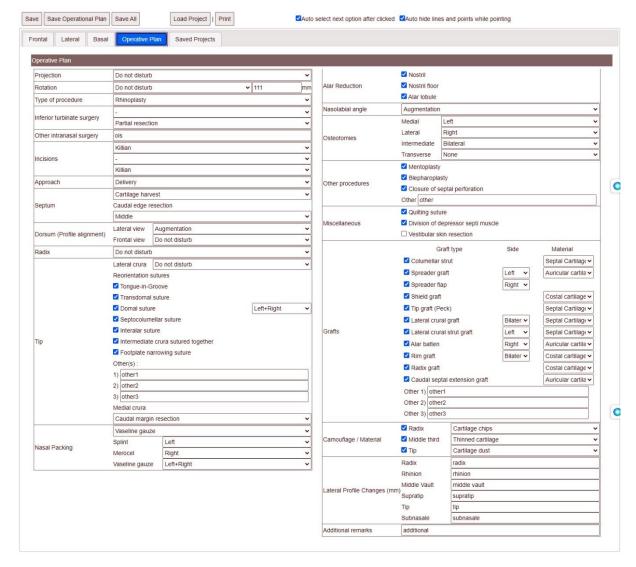


Figure 12 Fanalysis Operative Planning options

Operative Planning options can be modified and filed according to the patient's condition at different dates, so that changes in the patient can be easily tracked.

4 Fanalysis Save/Load Options

The operations on the pictures of the patient performed with Fanalysis can be saved with the recording options and then used later again. Recording operations (Figure Figure 13 are as follows: saving the marked photograph in the working area in JPG format (Save Frontal/Lateral/Basal/Op.Plan image as); saving all markings and settings on a region-by-region basis (Save Frontal/Lateral/Basal/Op.Plan); saving all processed regions in a single file (Save All) Available.

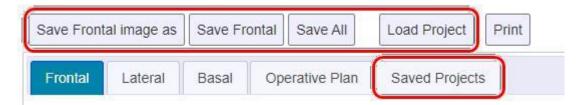


Figure 13 Fanalysis Save-Load options

The data recorded with Fanalysis is stored as files with the extension ".rhw". During saving, the physician can give the file the name he wants. These files are stored on the server and downloaded to the computer via the internet browser to be a backup immediately after recording. The data held on the server can be accessed via the "Saved Projects" tab (Figure 14).

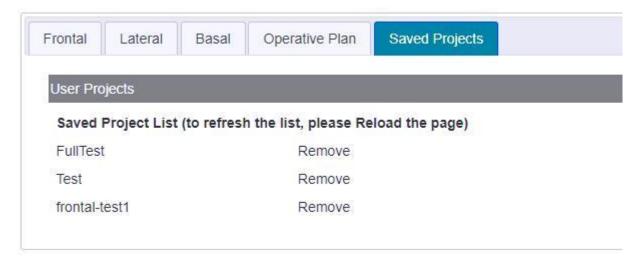


Figure 14 Fanalysis saved projects page

The projects on the page where the data stored by the physician are listed, can be reloaded by clicking on them. However, if the relevant record is desired to be deleted from the server, it is possible to delete it by clicking the "Remove" button.

5 Fanalysis Reports

All transactions performed in the Photographic analysis and Aesthetic analysis sections of Fanalysis can be recorded as a report. The "Print" option in the options on the screen instantly displays the report for the active section. The reports show the results of the calculations made according to the marked determining points, the results of aesthetic analysis and the photograph used in the relevant sectionFigure 1515).

The report for each section must be taken separately. The reports shown on the screen can be printed out or, if desired, saved in PDF format and used later.

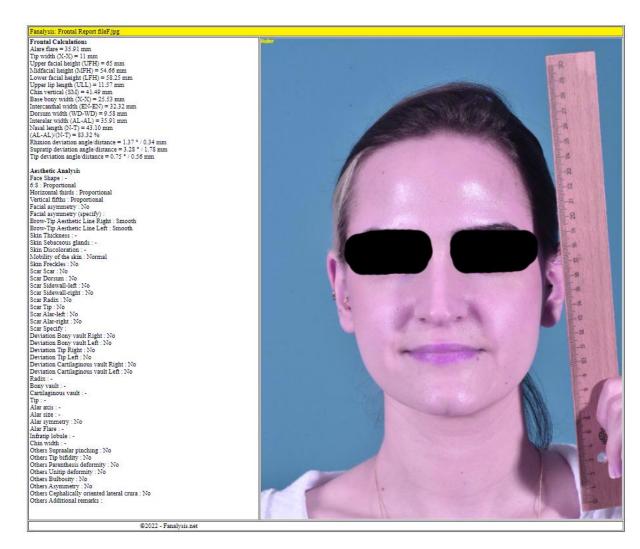


Figure 15 Fanalysis Reports example for Frontal section