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Guangzhou Linuo Beauty Electronic Technology Co., Ltd.

## LN-6021 Magic Mirror

### User manual



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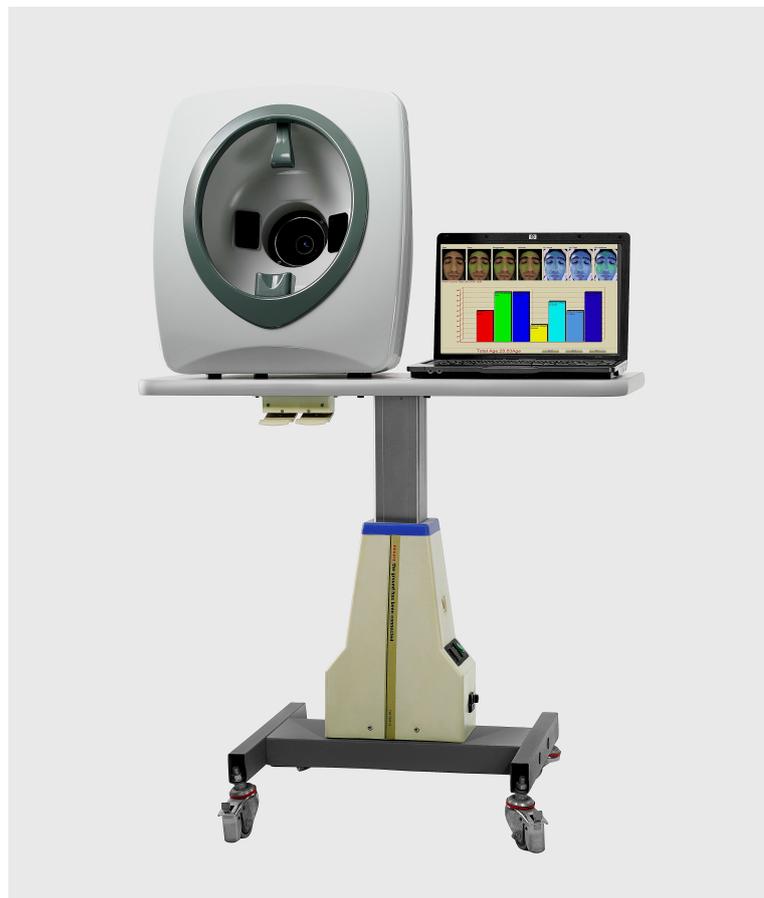
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## 1. Introduction

Skin Analyzer System is one of the most advanced system on detecting facial skin problems and analysis, also called “Skin CT”. which is using the RGB and UV spectrum technology, can precious and manual analysis the density and number of pigment, pores and wrinkle, acne, if skin is lack of moisture and evenness, and also can detect the extent of damaged and analysis that bad quality cosmetics, ultraviolet or sunlight etc. it is the necessary consultant equipment for clinic, hospital and beauty center.



## 2. Hardware connection and software installation

## 2.1 Hardware connection

Magic Mirror is using the web camera to collect photo, so connection is very simple, so can use the following 2 ways:

1) See figure 2-1, use a USB cable to connect computer and Magic mirror.

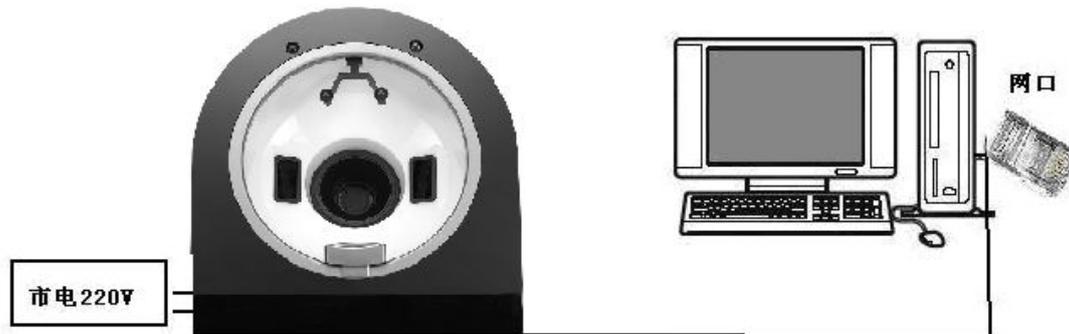


Figure 2-1

2) Using router/switch/concentrator as transit hole. (See figure 2-2)

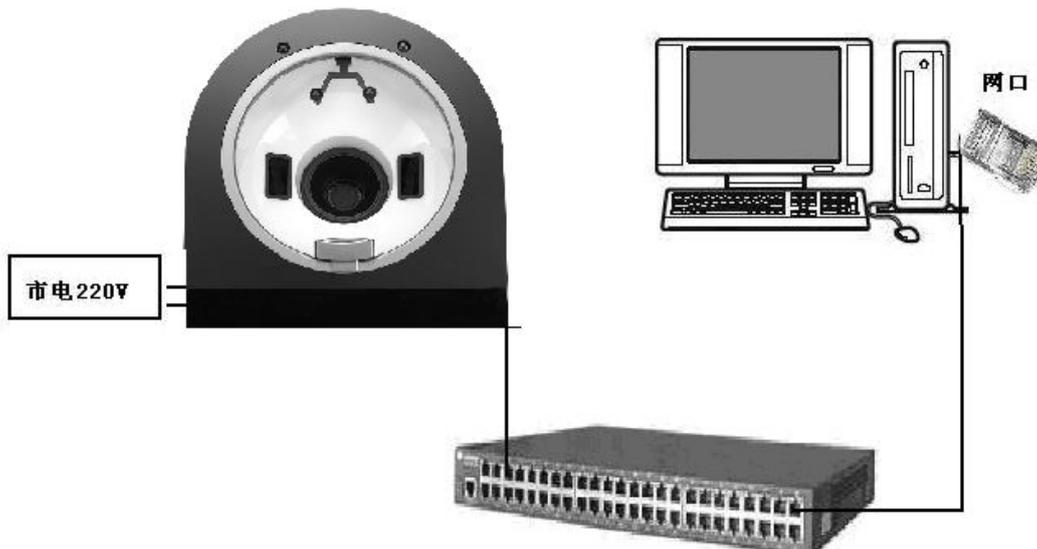
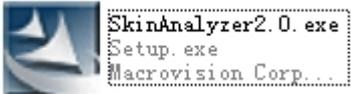


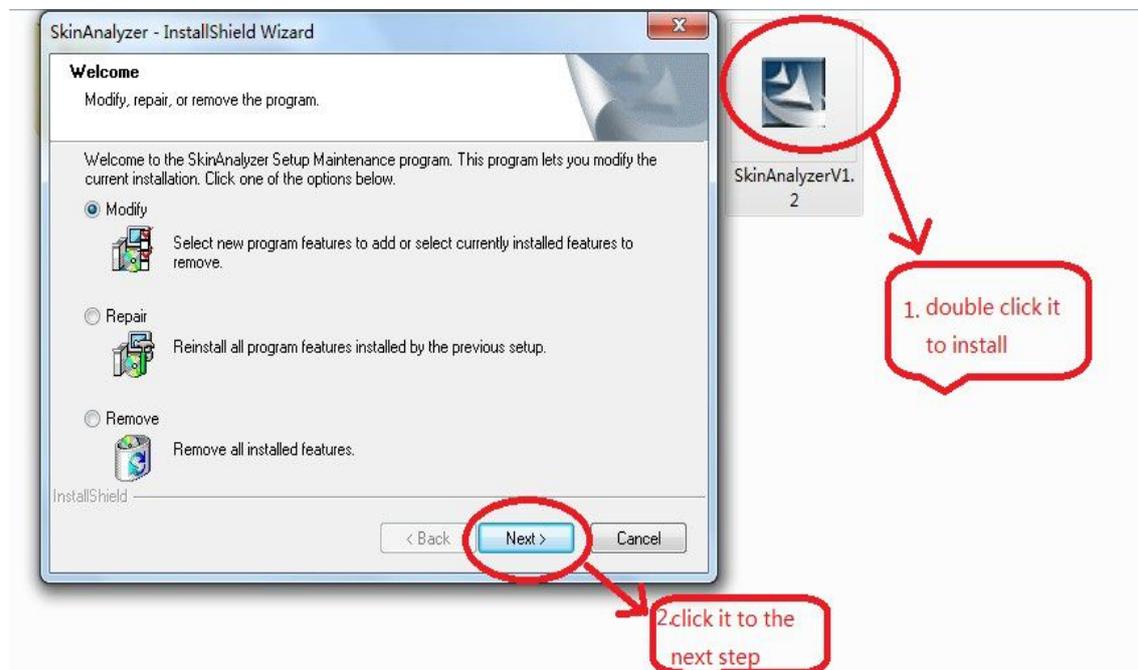
Figure 2-2

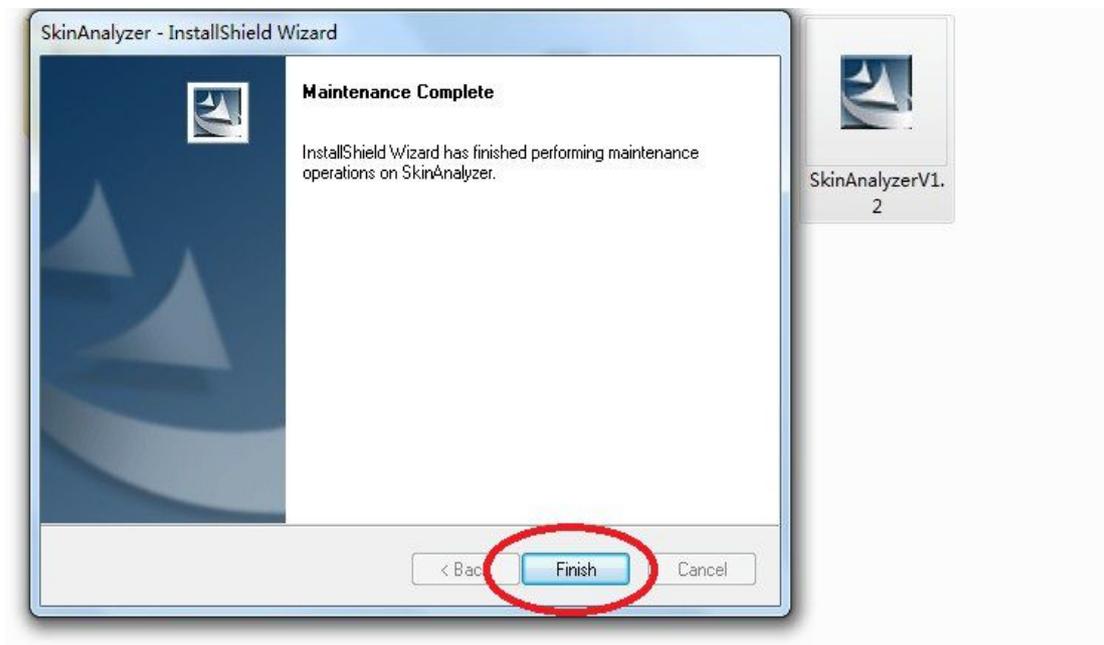
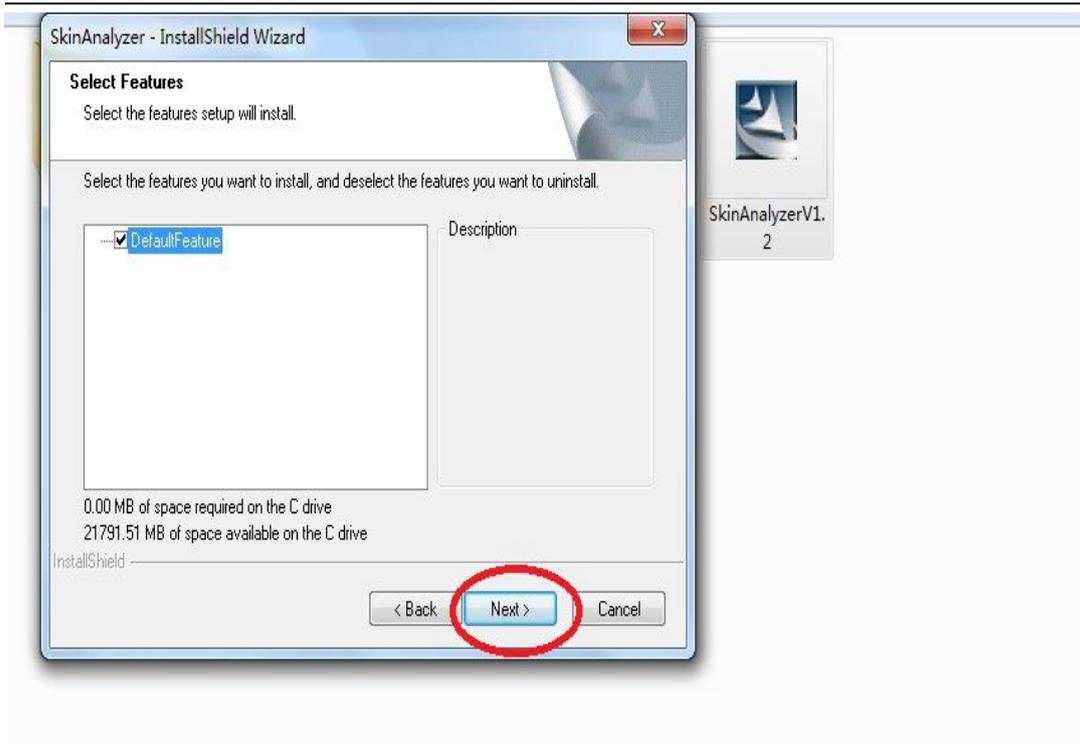
## 2.2 Software installation

1). Take out the CD from the box, and insert the CD into CD-Driver of computer and open it, double click the icon  , then “NEXT” till finished installation.

Attention: never change the path during the installation, just click “NEXT” till completed.

See pic







And then you will found an icon in your desktop of computer.

2) .Install the ACCESS database



Microsoft Office  
Access2003.EXE  
Producer [zw]

Double click the icon , click “NEXT” till completed.

3) . Change the computer IP address as 192.168.2.X ( EXCEPT 192.168.2.1, 192.168.2.55, 192.168.2.240 ) , and subnet mask: 255.255.255.0.

The procedure/steps following:

Network neighborhood → attribute → lock connect → attribute → double click internet agreement ( TCP/IP ), change the IP and subnet mask ( see below picture )

For example:

IP (I): 192.168.2.10

The subnet mask (U): 255.255.255.0

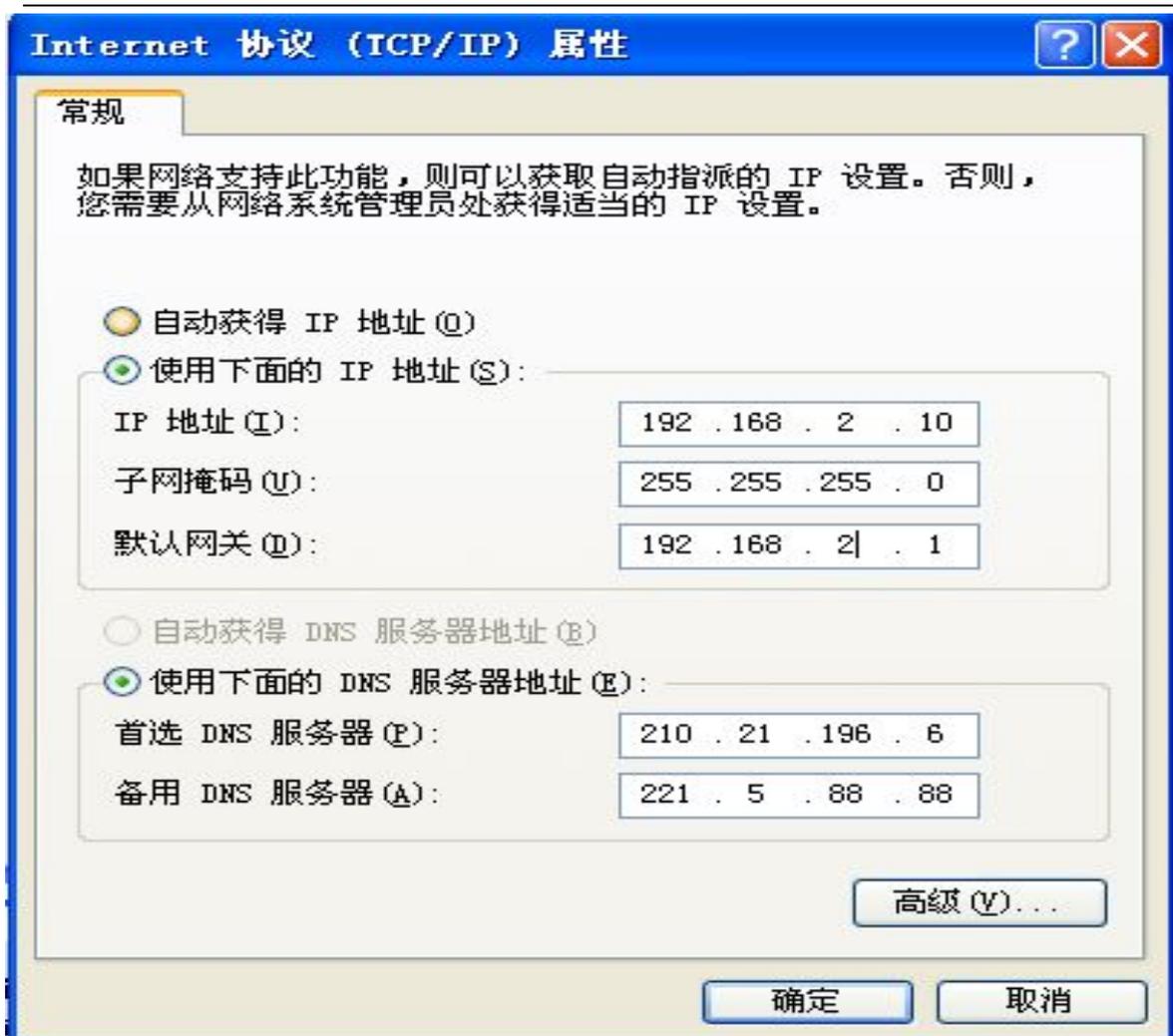


Figure 3-1

Note: The size of LCD display for computer prefers to be 19inch, and resolution: 1280\*800.

### 3. Operation Index

#### 3.1 Entering

Double click the icon  and enter into system (see figure 4-1) ,

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input user and password, and press “Yes” button, enter into skin analyzer window (see figure 4-2) . The defaulted operator is “admin”, password is“1234”, then choose the right language.



Figure 4-1

### 3.2 Client info management

Enter into registration window (see figure 4-2)

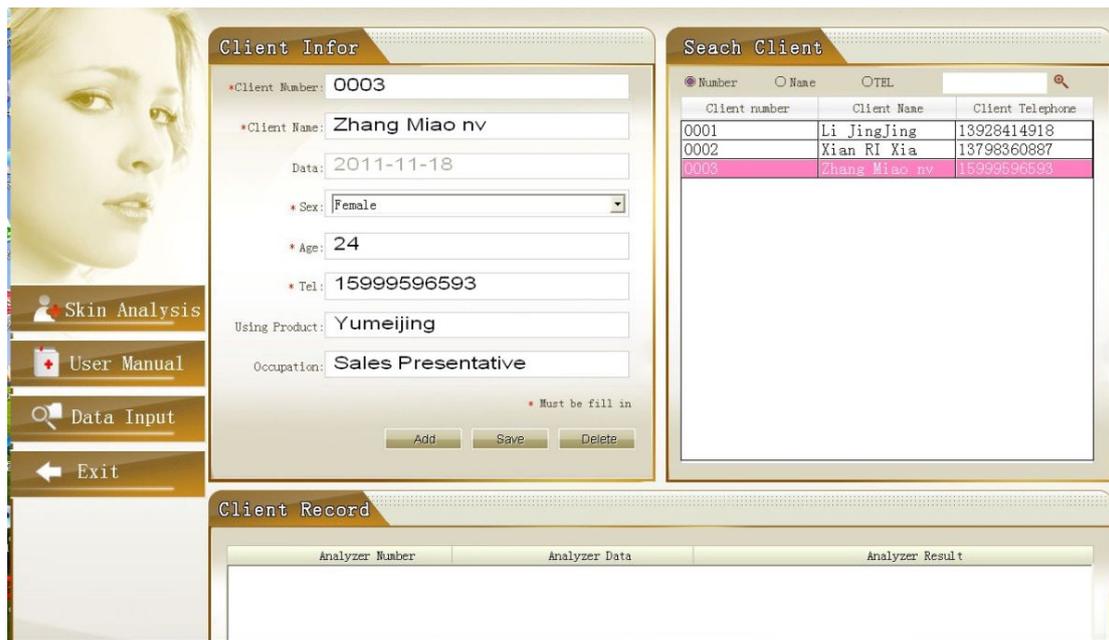


Figure 4-2

### 3.2.1 Add clients

Single click “ADD” button to clear the info column, and then fill out the client’s information, click “SAVE”, then you will see the right database have this clients information, see steps:

- A) “Client Number、 “Gender/Sex”、 “Client name”、 “Age”, “ TEL” ) are necessary items, must fill out.
- B) The client number MUST more than 3 numbers, (for example: 0001)
- C) Age: scope shall 1~100
- D) TEL# shall fill out more than 3 numbers.

### 3.2.2 Delete Client

In the right side of interface: database, search the client’s name and

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pitch up by click the left button of mouse, then click “DELETE” button, this client will be deleted completely.

### 3.2.3 Change the client’s information

In the right side interface: database, search the client name and pitch up by click the left button of mouse, then you can change the information freely, after changed, shall press “SAVE” button. See figure 4-2.

### 3.2.4 Search Clients

There are 4 kinds way for search:

- 1) Client number
- 2) Client name
- 3) Tel.
- 4) By eyes

Choose one way in the database, and fill out the name or number etc, then click “SEARCH”.

## 3.3 Operator account information management

Use administrator account to enter into system, ( see figure 4-2 ),

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click “Data Input”, then go to “Operator information (see figure 4-3).

number	name
2	admin

Figure 4-3

### 3.3.1 Add operator

Based on the situation to fill out “Name”, “Password”, “confirm password”, then click “ADD”.

### 3.3.2 Delete Operator

Choose the operator you want to remove, and then click “Delete”.

### 3.3.3 Change Operator

Choose the operator you want to change, and then according to the situation to change the name, password and confirm password, and

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then press “SAVE”.

### 3.3.4 Operator authority management

Only administrator account can add, delete and change branch operator’s authority and add and delete products and suggested treatments.

## 3.4. Product management

Use the admin account enter into the main window, (see figure 4-2), click “Data input” and “Product”(see figure 4-4)

The screenshot displays a software interface for product management. At the top, there are five tabs: "Operator", "Product", "Case 1", "Case 2", and "Case 3". The "Product" tab is selected. Below the tabs, there are two main sections:

**input products**

This section contains four input fields:

- name:** DHC lotion
- cost:** 800
- effective:** Shrink pores and moisture
- usage:** (empty)

**list of products**

This section contains a table with the following data:

number	name	effective	usage	cost
15	Elight	remove wrinkle	1 time per day	1000
16	Q10 Eye cream	remove wrinkle and moisture	2 time per day	300
17	Lancome	remove spot or pigment	2 time per day	800

At the bottom of the interface, there are four buttons: "Add", "Save", "Delete", and "Exit".

Figure 4-4

### 3.4.1 Add products

**Click “ADD” to clear the column and then fill out the 点 product name, effective, usage and cost, and then press “SAVE”.**

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### 3.4.2 Delete Product

**Choose the one you want to remove, click “Delete”.** 3.4.3

### Change the old products

Choose the products which you want to change, then change the effect, usage, cost and press “SAVE”.

NOTE: Product name CANNOT change.

## 3.5 Treatment Making

Use the admin account enter into system, see figure 4-2, and then use search function to find the client and pitch up, click “Data Input” to enter into Suggestion 1, 2, 3(See figure 4-5) .

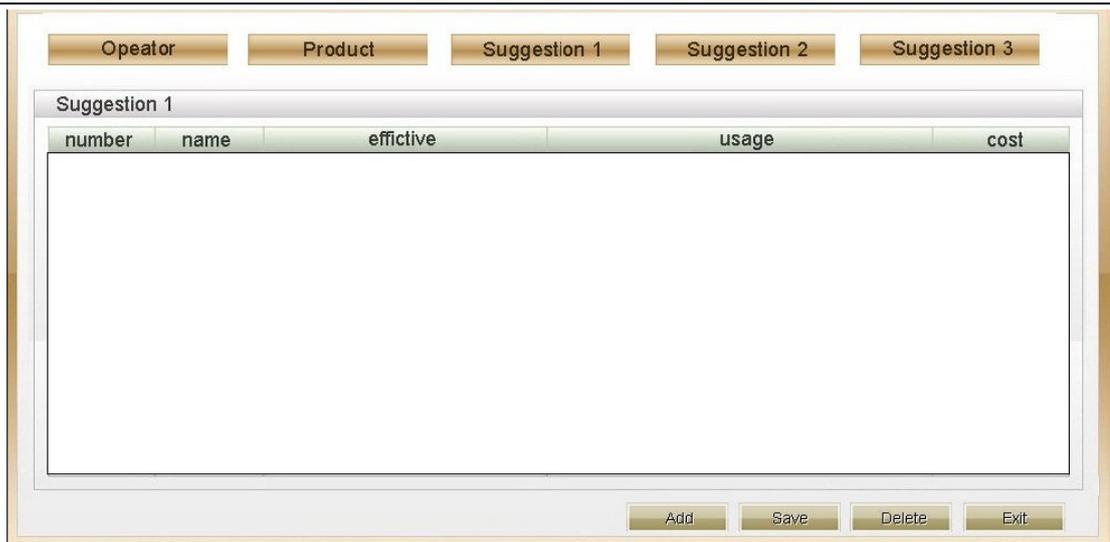


Figure 4-5

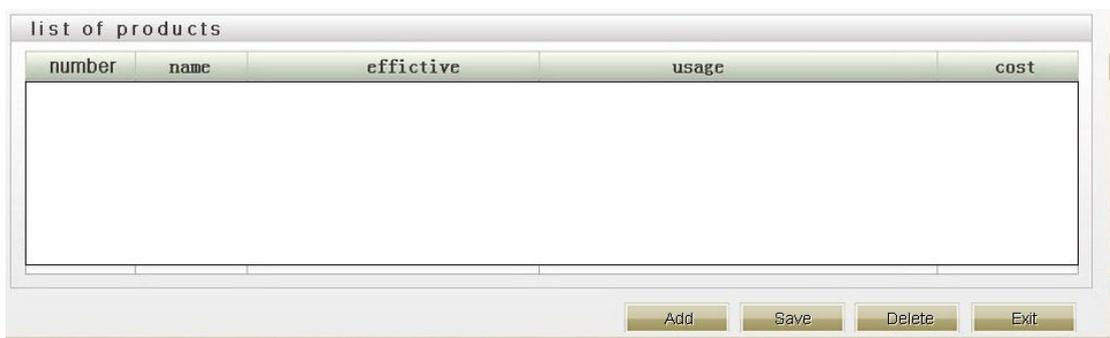


Figure 4-6

### 3.5.1 Add product

Enter into suggestion see figure 4-5, click “Add” and then the products list will come out(see figure 4-6, )according to requirements to choose products or delete products.

### 3.5.2 Delete product

In the product list, choose one products and then press “delete”.

### 3.5.3 Suggestions

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In this software, there have 3 pre-input suggestion treatments:

Suggestion 1: for the bad skin.

Suggestion 2: for the normal skin.

Suggestion 3: for the good skin.

### **3.6. User Manual management**

Enter into system (see figure 4-2), press “user manual”, will open the file to see.

### **3.7. Go to skin analyzer**

Enter into main window (see figure 4-2), press “Skin Analysis”, to take shooting and analysis window, when camera and computer connected failed, there will have a error tip (see figure 4-7); If successes, you will see the video preview in the right window.

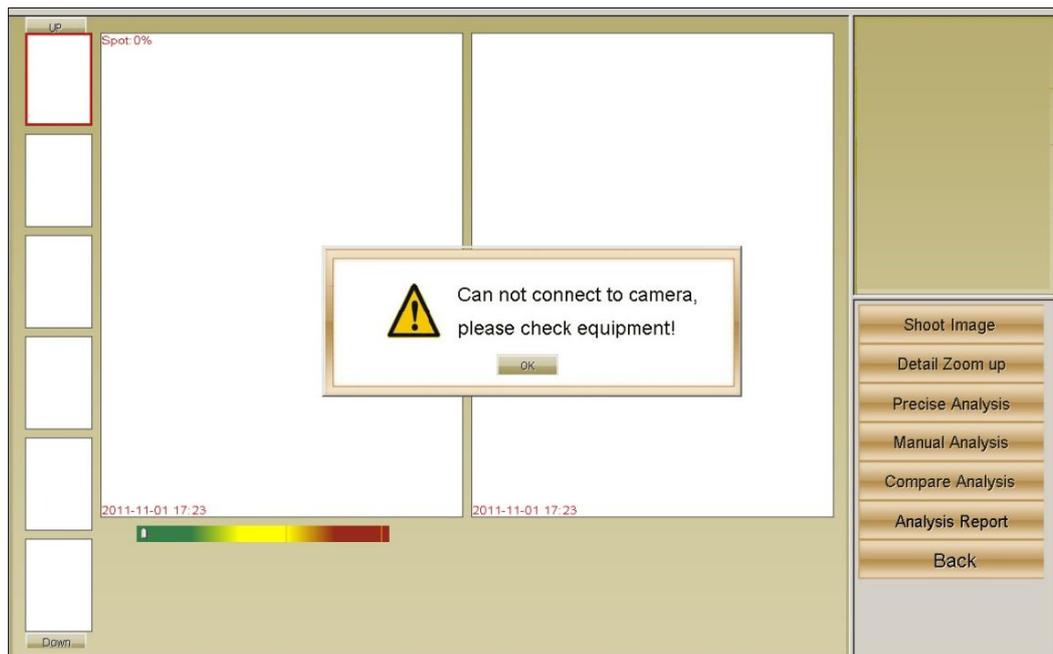


Figure 4-7

### 3.7.1 Shooting

Connected to camera successfully, ask the client to put the face into magic mirror scan area, and according to the requirements to choose photo's position (Left, Front, Right), see figure 4-8, click shooting.

Note: The client shall not move until 2 times flashes, then shooting finished.

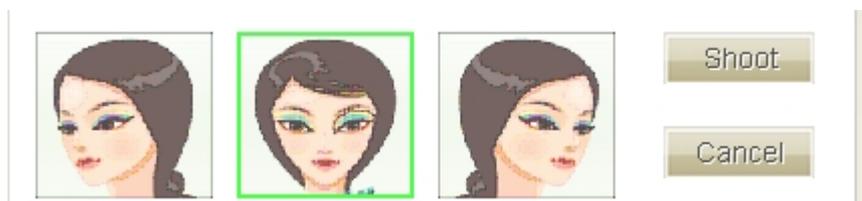


Figure 4-8

### 3.7.2 Details Magnify

Details magnify, move mouse to RGB photo area, in magnify window,

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you can see the RGB photo get zoom up, and more clear, see figure 4-9.

In the left photo, single click the right mouse to lock/unlock, in magnify window, click right mouse to hide/show the points

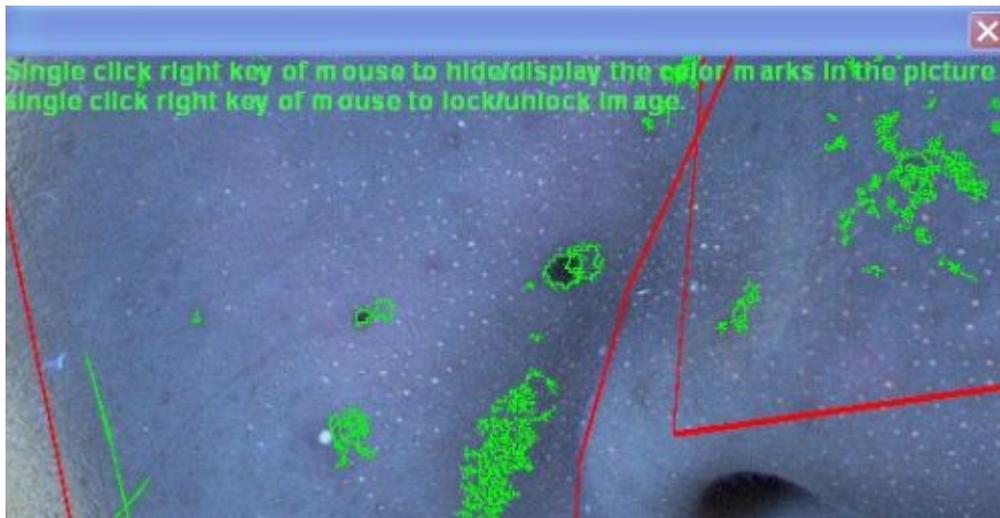


Figure 4-9

### 3.7.3 Precious Analysis

Including Data analysis, RGB pores, spot, wrinkle, roughness, UV spot/pigment, acne, moisture, sensitive, parameter setting functions...

#### 3.7.3.1 Data Analysis

After taken photos, in RGB image to adjust the analysis area, and then click "Data Analysis" to start analysis these problems and then provide a result to assess the quality of skin, the whole procedure

need 2-3 minutes.

#### 3.7.3.2 Checking Result

After analysis finished, click these problems button to see the situation clearly.

### 3.7.3.3 Analysis parameter Setting

Can adjust all analysis value to best accurate, see figure 4-10.

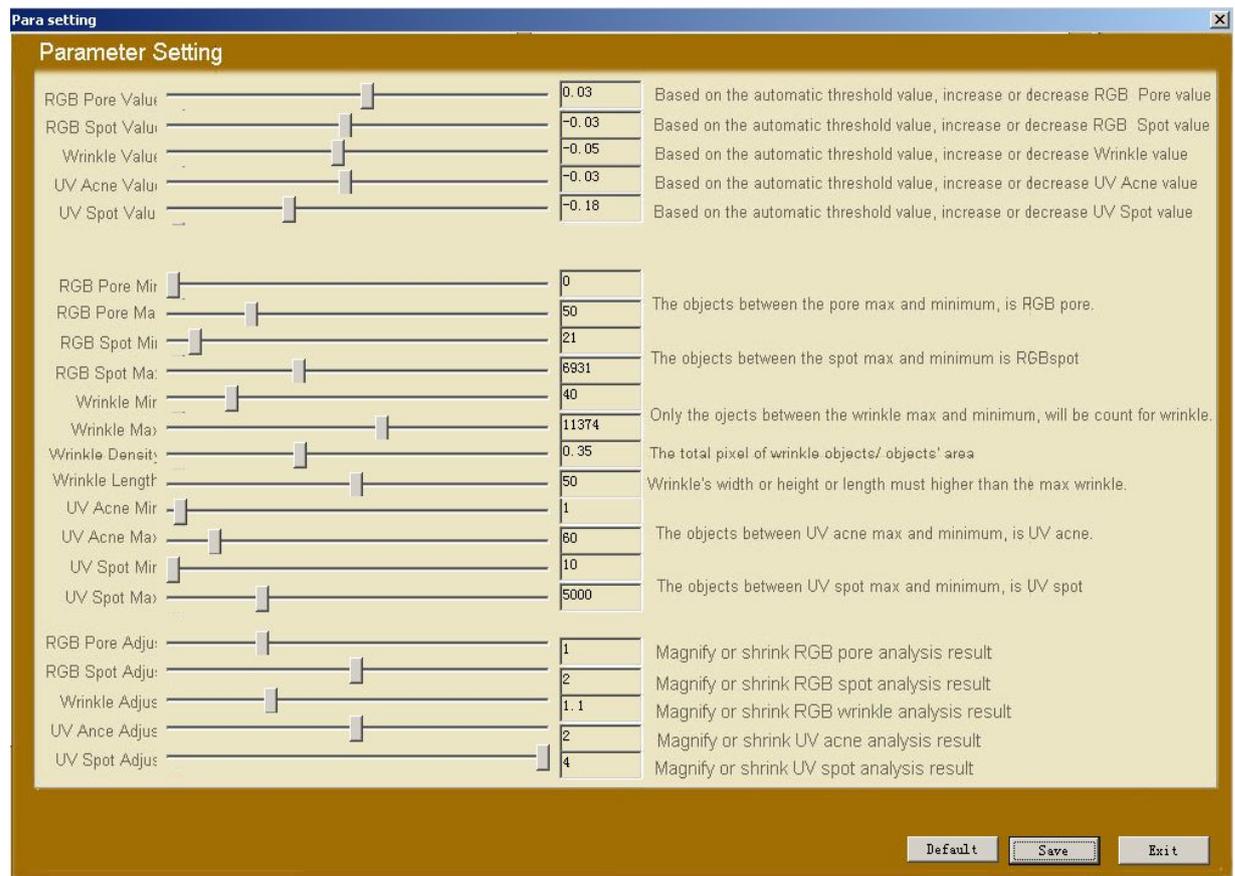


Figure 4-10

Note: We suggested using the defaulted parameter.

### 3.7.4 Manual Analysis

In manual analysis, the skin has been split in several types: oily, dry, normal (middle) and mixed.

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Click “Manual analysis”, if the previous analysis have been finished, there will come out a window to remind you “if need re-analysis again”, click “NO”, then the result will come out automatically.

If still not start previous analysis, shall click “YES” to start analysis, which need 2-3 minutes.

### 3.7.5 Comparison

1) Click “Compare analysis” button, there will have a figure come out, see figure 4-11.

2) Then, in the left side, each photo have an accurate date and time, so you can know when you take the photos. And choose 2 photos: before and after.

3) left click the RGB/UV photo to pitch up and then move the mouse to comparison area and left click again, then there will have 2 pictures fixed, lock them, press “analysis”, and there will come out a compare result (see figure 4-12).

If before and after photos, have after photo not previous analysis, there will come out a window to warning if need previous analysis and

then comparison, shall click “YES” and then quit the compariso

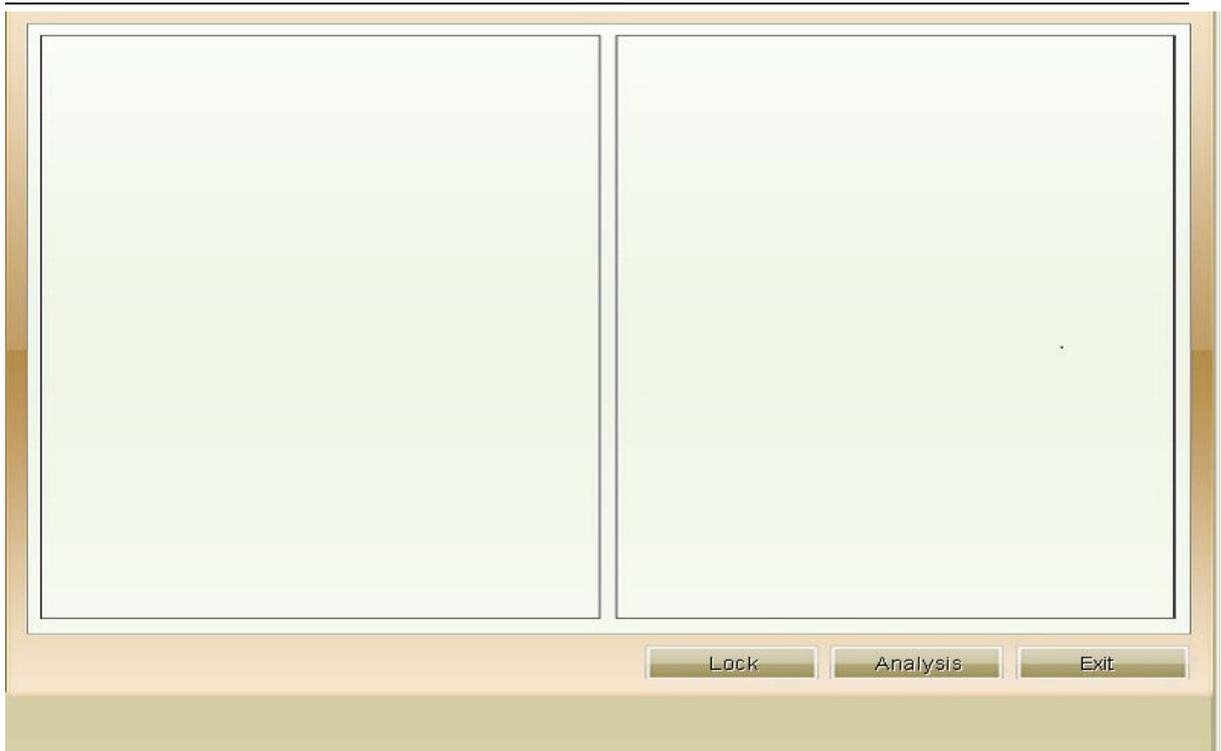


Figure 4-11-1

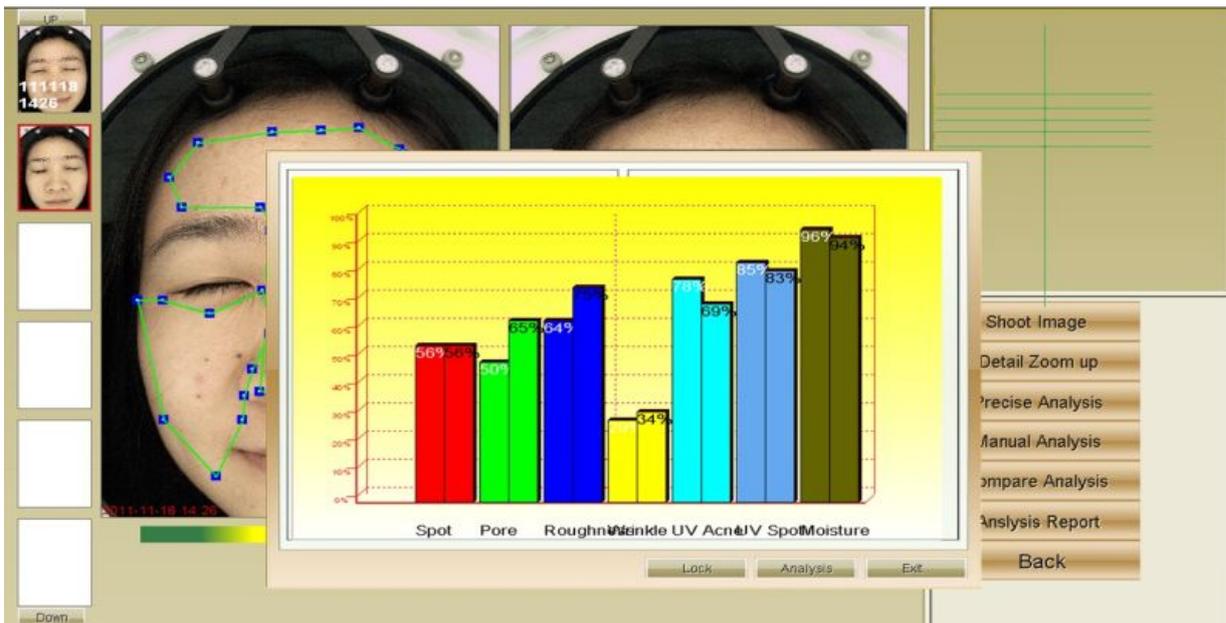


Figure 4-11-2

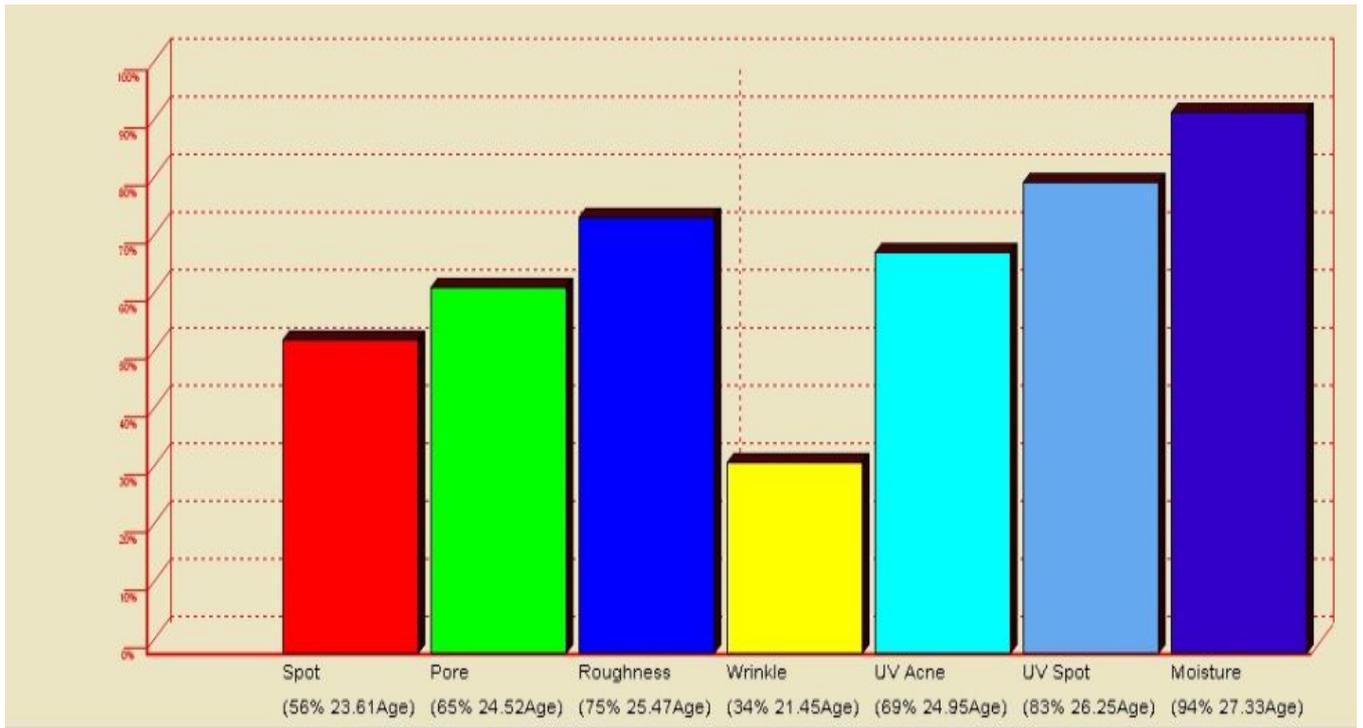


Figure 4-12

### 3.7.6 Delete Photo

During the shooting, when the photo is not good, shall delete (see figure 4-12), the way: choose the photo, and right click ---Delete.

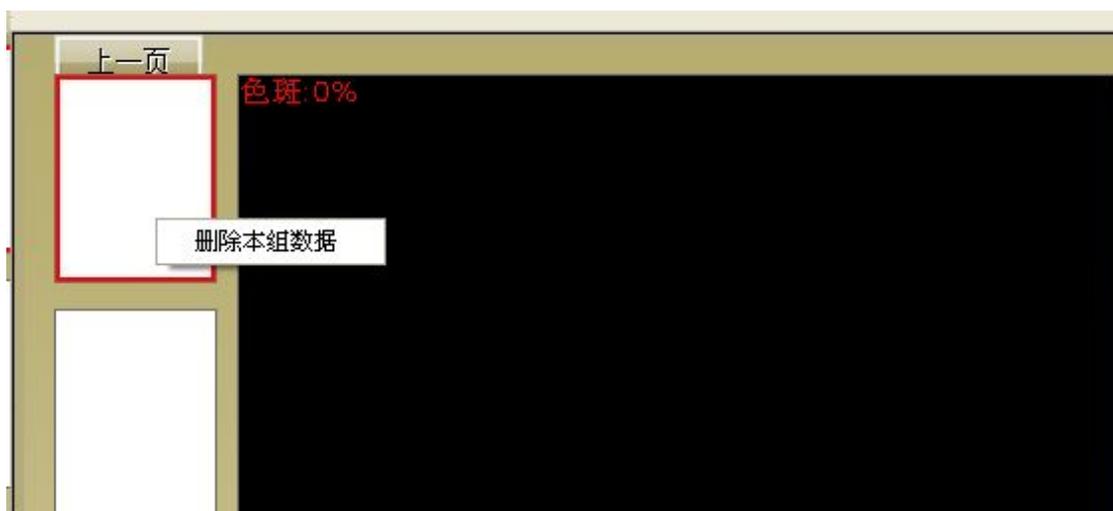


Figure 4-12

## 3.8. Client Report

Press “Analysis Report”, can see these RGB pores, spots, wrinkle, roughness, UV spot, UV acne, UV moisture result, and total age for the skin (see figure 4-13)

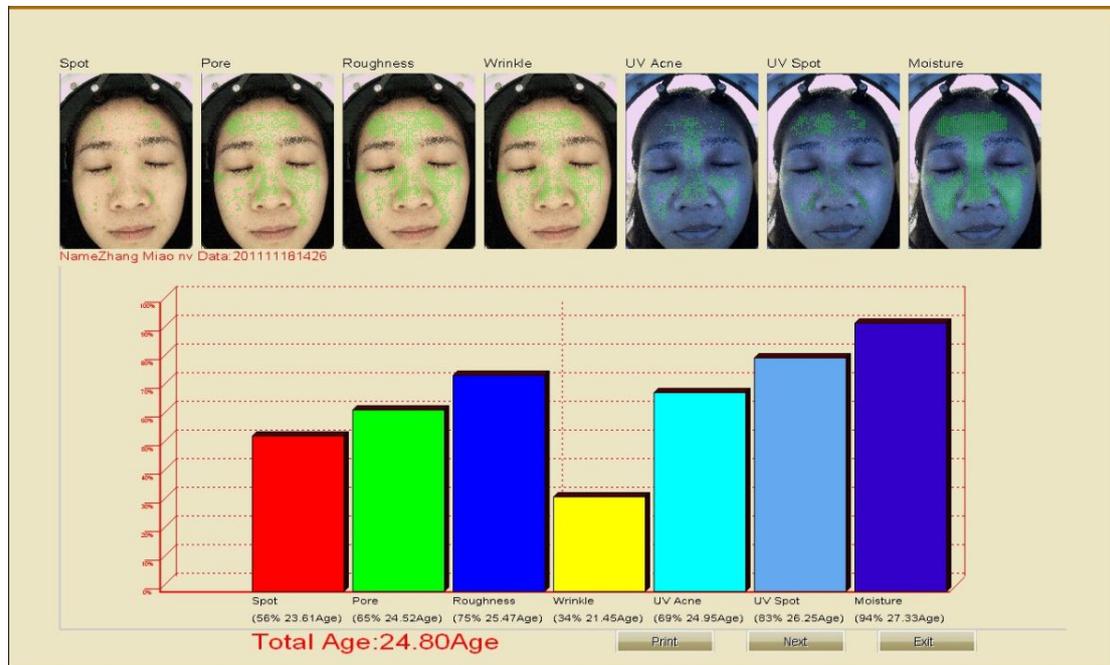


Figure 4-13

Click “NEXT” and go to suggestion treatment to improve these problems.

## Analysis Report

good  
 normal  
 bad

RGB Spot <input type="text" value="0%"/> RGB Pore <input type="text" value="0%"/> RGB Roughness <input type="text" value="0%"/> RGB Wrinkle <input type="text" value="0%"/> UV Acne <input type="text" value="0%"/> UV spot <input type="text" value="0%"/> UV moisture <input type="text" value="0%"/>	Skin Oil <input type="text"/> Oil <input type="text"/> Dry <input type="text" value="-----"/> Normal <input type="text"/> mix <input type="text"/> Sensitive <input type="text" value="0%"/> Flexibility <input type="text"/>
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## Treatment Scheme

Number	Name	Effective	Usage	Cost
<div style="border: 1px solid #ccc; width: 100%; height: 100%;"></div>				

Total Money:0.00

Figure 4-14

In suggestion treatment, system will base on the analysis result: good, normal, bad, automatically put the pre-input products into suggestion; in the meantime, you also can delete or added more.

#### 4. Database backup and recovery

Backup: Installation directory—System C/ Program File/ Skin Analyzer/userdb2000.mdb and photos/ copy into computer and saved.

Recovery: replace these files such as userdb2000.mdb and all photos into installation directory to do recovery.

#### 5. Maintenance

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## **5.1 Cleaning of the system**

Keep the machine and camera system clean, when not use, shall use a cloth to cover it.

## **5.2 Check the lamp**

When the RGB lamp or UV lamp get broken or failed or out of life, not working, shall check or replace a new one. **Or contact to the manufacture's technician for repair or instruction.**