TAKING MEASUREMENTS

All the following steps should be taken before taking the measurement

1. Precautions for use at the time of the measurement

Be aware of the contraindications, Warning, Caution and notes p.3

1. Wipes with Ethyl or isopropyl alcohol (70-90%) must be used for cleaning and disinfecting the reusable parts.
2. Wipes with Ethyl or isopropyl alcohol (70-90%) could be used as well for the electronic box, the Cables trunk, the calibration box if used, computer, keyboard and mouse (surfaces environment).
   The procedure must be repeated after each patient
3. The exam area should be comfortable and free of drafts and portable electric heaters.
4. The measurement is carried out with the patient in a sitting position (adult) and standing up (infant)
5. To take the blood pressure measurement, and remove the device before the exam
6. The patient is barefoot and removes or withdraws all metal objects (watch, bracelet, rings etc…) **in contact with the electrodes**
7. Any creams, make-up or foundation on the forehead are removed by wiping with alcohol, and then letting the area dry in air.
8. The feet and hands are cleaned with Ethyl or isopropyl alcohol (70-90%) , and then dried in the air.

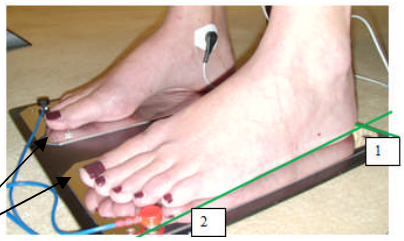


9. The patient rests the feet and hands flat on the metal electrode plates without excessive pressure and he has to insert the finger in the SPo2 probe.

Clinician Instructions

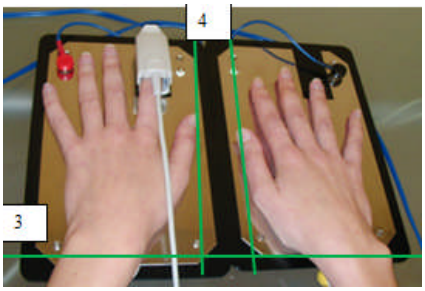
Reusable electrodes Placement.

Feet Electrodes – Place both feet flat & firmly down in the middle of the each foot electrode plate, being certain that the Red Lead is on the left side, and the Black Lead is on the right side. Ensure that the heel of each foot is placed at the back end of the electrode (as shown #1) and that the edges of the feet do not overlap the electrodes at any point (as shown #2). If the feet are bigger than the plates, the results are not affected. **Do not connect the clips on the small parts**

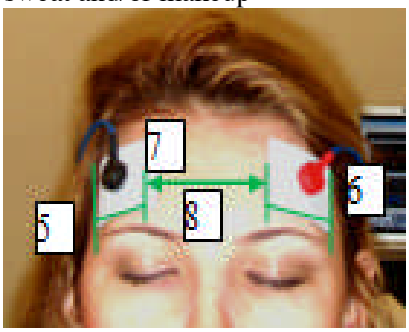


If the feet are bigger than the plates the feet should be overlap to the back of the electrodes and the results are not affected.

Hand Electrodes - Place both hands flat in the middle of the each of the hand electrode plates, being certain that the Red Lead is on the left side, and the Black Lead is on the right side. Be certain that the palm of each hand is placed at the back end of the electrode (as shown #3) and that the edges of the hands do not overlap the electrodes at any point (as shown #4). If the Hands are bigger than the plates, the results are not affected. The left Index finger will be inside the SpO2 probe.



Head Electrodes – First clean the forehead with alcohol to remove any sweat and/or makeup (as noted previously in step 5) which may lessen the electrodes' ability to stick firmly when placed. It may be helpful to place the electrode lead onto the electrode before actually placing the electrode on the forehead. The Red Electrode will be placed on the Left side of the forehead, and the Black Electrode will be placed on the Right side of the forehead. Be certain to align the lower edge of the electrode just above the eyebrow (as shown # 5) with the inside edges approximately in the middle of the eyebrow (as shown # 7), allowing the upper edge of the electrode to fall just before the hairline (as shown #6). Be certain that the electrode is not placed over the hairline at the sides of the forehead. This will leave an open space between the two electrodes as shown in the final picture with both electrodes placed properly. The distance between the 2 electrodes should be about 5 cm. (as shown with # 8).

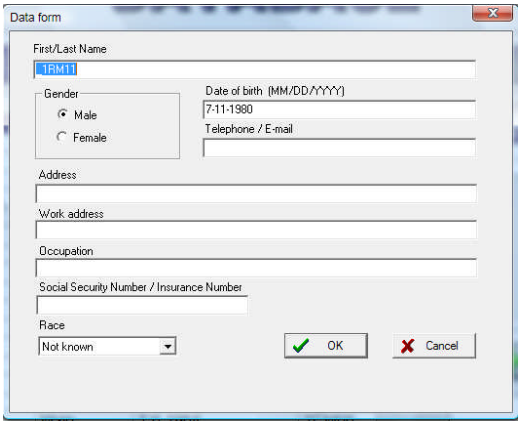


2. Patient registration

New Patient:

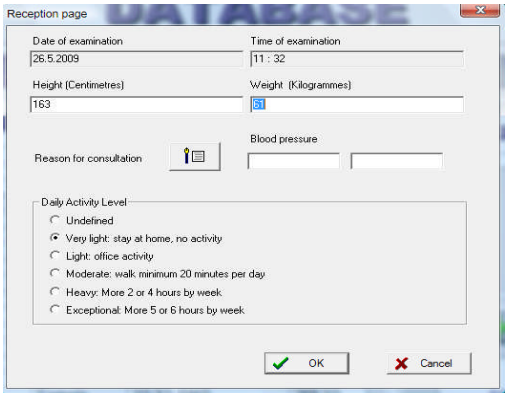
1. Click on the N Icon or the Registration button
2. The patient data sheet will open.
3. Enter patient's information: the minimum information required is:
    a. Name
    b. Date of birth (mm.dd.yyyy or dd.mm.yyyy: choose in the window "setting")
4. Make sure the gender is correct.

Then Click ***OK.***



The visit data entry page will open.

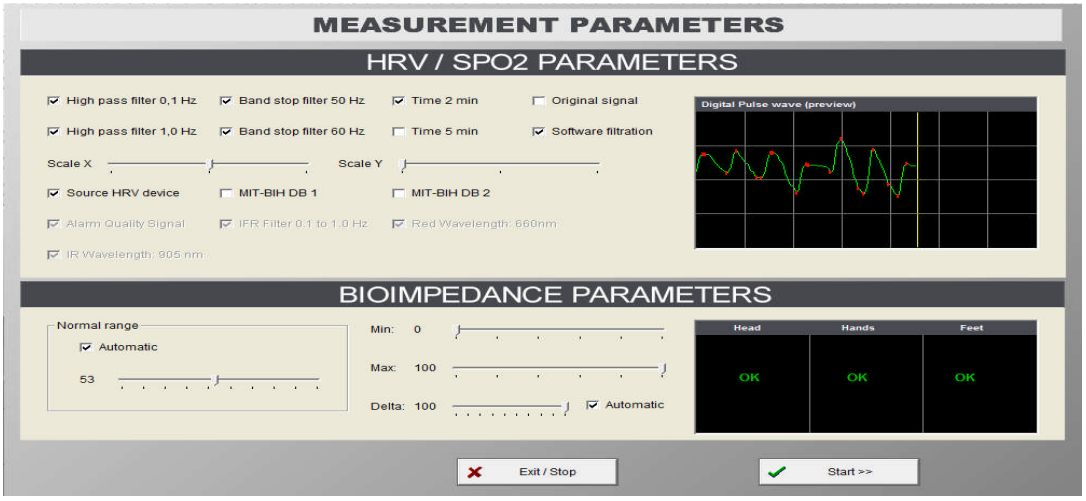
1. Enter patient's weight (Kg or pounds)
2. Height (in centimetres or feet: choose in the window "setting")
3. Daily activity level
4. Blood pressure measurement
5. Then, Click on OK



The patient's name, the date and time of the visit should appear below the Admin ID in the right hand lower corner of the window when the visit is properly registered.

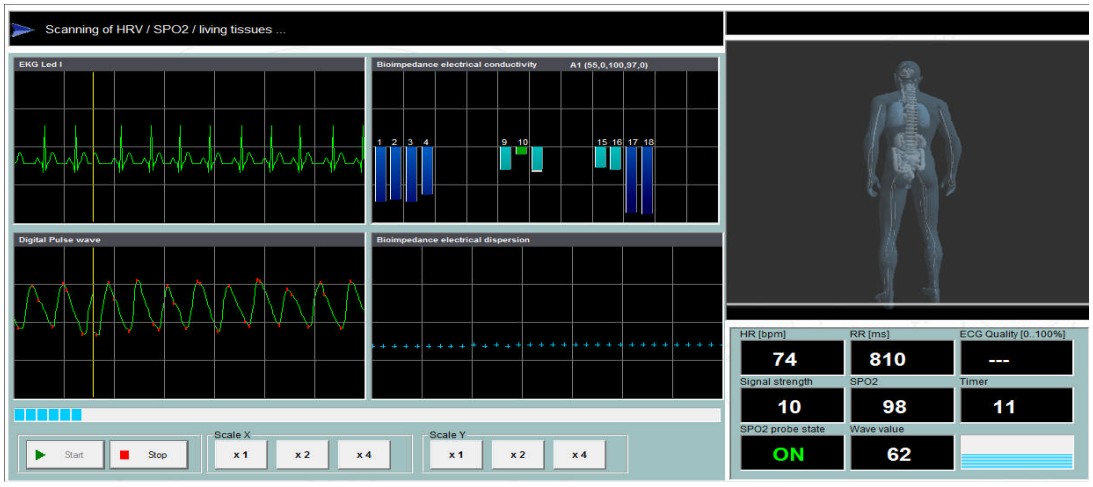
***Be careful to check this area** to be sure you are working on the correct patient…it is possible to attempt to select a patient from the client listing by double clicking, and if you did not click quickly enough to register the double click, the client selection will appear to be correct in the listing (it will be highlighted purple), but it will not have the change reflected in the right hand lower corner listing of the patient being worked with, and therefore you will still be working with the previous patient's data.

Icon successive measurements
The following window will open:



⚠ **Do not click on Start before the right screens will display the pulse wave and OK for the 3 electrodes pairs.**
Do not change any parameters in the window.

Then click on Start to run the measurement.



- The right down screen display in real time:
- ✓ The Heart rate
- ✓ The Pulse rate
- ✓ The time between each heart beat.
- ✓ The SPo2 %
- ✓ Parameters of the vascular wave form
- The left up screen display in real time the simulated tracing EKG (lead I)
- The left down screen display in real time vascular wave form (PTG) showing the systolic and diastolic phases.
- The middle up screen display in real time the standard deviation of the electrical conductivity of each segment.
- The middle down screen display in real time the segmental electrical dispersion of each segment.

At the end of the measurement, the program will open the mains results page.

TROUBLE SHOOTING

Error messages during the measurement:
During the examination, error messages will appear in the event of bad installation, (cables or other disconnections) or of important electrostatic discharges, or poor signals. This prevents a measurement continuing and prevents invalid performance of the device.

1. **The device shorts:** Improper connection, excessive electrostatic discharges, poor contact between 2 electrodes or running a test with cables and electrodes not connected properly will short the device. In such a case a message appears:

The device is disconnected.
Measurement cannot be taken.
Please check connections box/electrodes and box/PC
Electrostatic discharges can also produce this accident.
Unplug the cables box/electrodes and run a new test (icon on the window "Setting")

2. Cables disconnected or defective or subject not in contact with the electrodes:

If the software detects an absence of connection on an electrode, measurement is stopped and an error message appears**:**

> **The examination is not valid. Please check the connection of the cables leadwires and electrodes.**

1. Message: GDI

If you begin taking a measurement and the software stops immediately and comes back to the home page: you have a problem with the graphic card (i.e. see requirements for the configuration of your computer)

2. Message: sliptter.exe

You can get a splitter.exe message if you do not wait for the end of the analysis process of the software. Some results need a few minutes, please wait.

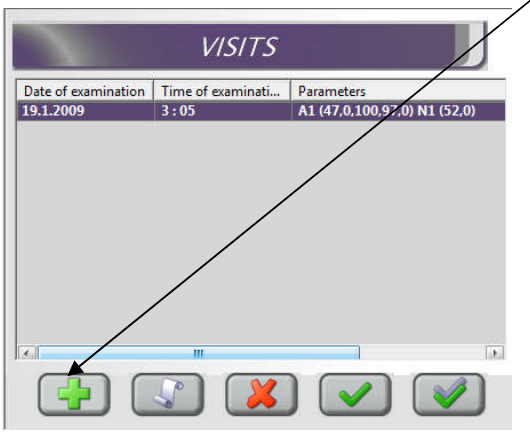
3. Bad signal of the measurement.

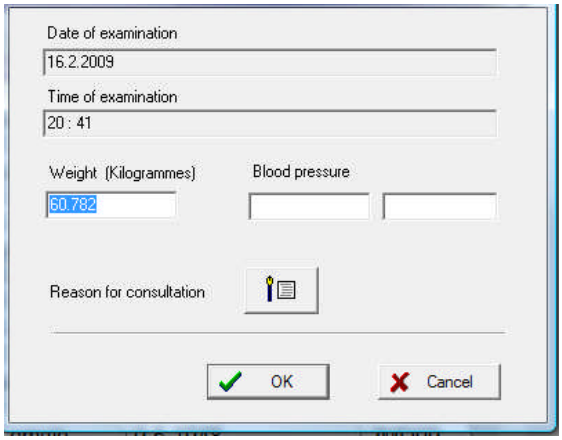
If the patient has moved during the measurement, after software analysis the results cannot be displayed and an error message appears

> **The quality of the signal is inferior 80%**
> **The results cannot be provided.**

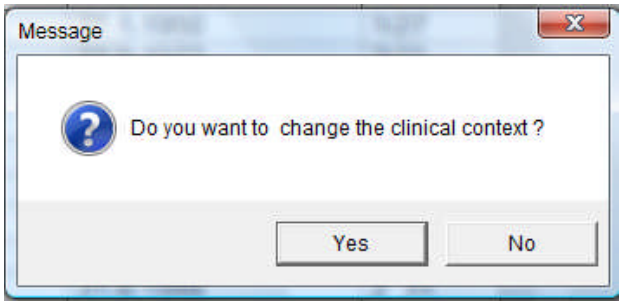
Taking a New measurement for a patient already in the database

Click twice on the patient's name, and then "+" the visit in the window as shown.





The visit sheet opens and you may confirm or change the patient's weight. Insert the new blood pressure and if the reason for the consultation has not changed, simply click OK. If anything has changed, make the applicable changes and then click OK.



If nothing has changed in the clinical context, click no. If something has changed, click yes and the clinical context window will be open. Enter the new information and then click OK

Clinician Instructions

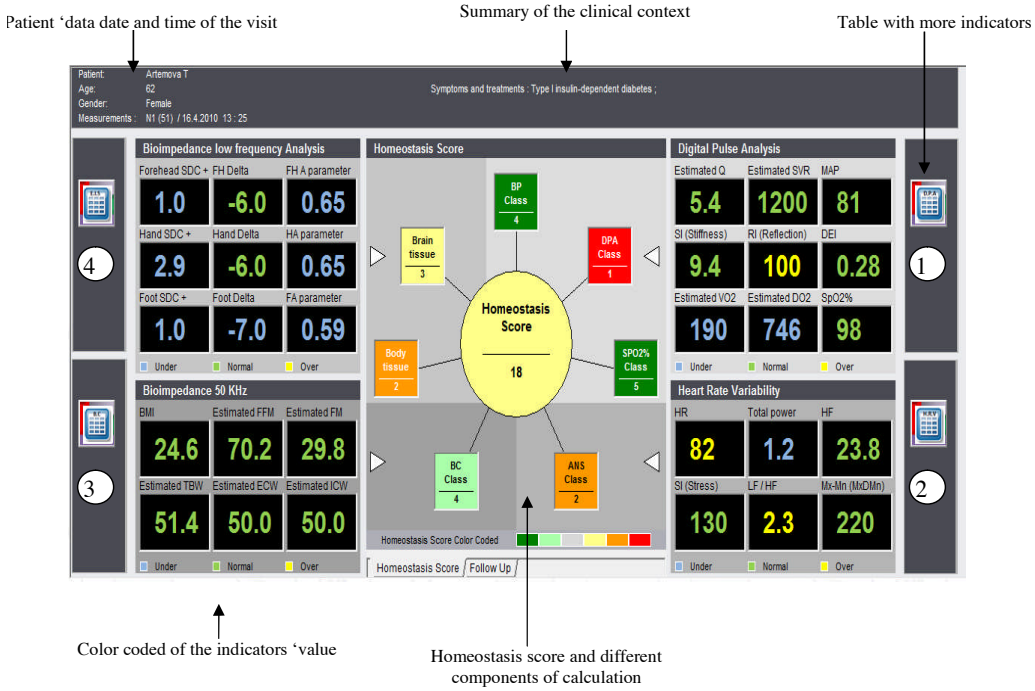
SCREEN CAPTURE INSTRUCTIONS: Click on printer Icon in ES Complex. Word document opens. Close ES Complex and Open IDMG (Green Icon) Click on "RESULTS"

1. To take a screen capture to add to the patient report: Go to the screen you would like to capture click on "Snip It" tool and click "New"
2. Cross hairs will appear on the screen. Drag the cross hairs over entire portion you would like to capture and release.
3. Go to patient report in the "word" document and place cursor where you would like to place screen capture and click paste.

RESULTS

At the end of the measurements or by clicking on the icon 

The following window with the mains indicators and the homeostasis score will be displayed.



Clinician Instructions

OPERATIONAL PROCEDURES:

START OF DAY:
Turn on computer and wait 5 min. Enter password and wait 10 min. Make sure internet is NOT connected and click on ES Complex App to enter NEW patient. Note: Internet should NOT be connected during testing of patients. Only turn internet on for end of day procedures.

END OF DAY:
To save & print reports save the word document as a PDF on the Desktop. Upload all reports daily on thumb drive and delete from desktop.

Connect computer to internet and at the end of the dyad wait 30 min for any software updates.

After 30 Minutes; disconnect internet and turn off computer.

Clinician Instructions

Bio Scan Screening Explanation

The Bio Scan sends a low bio - polar current through the tissue measuring the frequency and conductivity or the amount of resistance as it passes through the tissue.

The software applies an algorithm to identify what type of diseases are present and how much of the disease you are susceptible to or the risk of disease.

You will receive a wellness score which ranges from 10 on the low end which is poor health to 30 which is the highest score you can receive.

The objective of the system is for preventative screening of Diabetes, Insulin Resistance, Metabolic Syndrome, Thyroid Dysfunction, Hepatitis, Prostate Cancer, Major Depression, ADHD Children, Dyslipidemia, Coronary Heart Diseases, Heart Failure, Kidney Disorders, Digestive Disorders, and Carotid Atherosclerosis and unbalanced biochemical substance

Clinician Instructions