

PORTABLE DIAGNOSTIC FACILITY «ONIX»

User guide

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INTRODUCTION

Cardioanalyser ONIX is one of modifications of the Computer Facility for Organism Functional Status Assessment Dinamika (TU 9442-001-50904116-2005).

Purpose

The device ONIX as well as other SPC DINAMIKA'S products are designed to be used for assessment of health status as well as for control of treatment efficiency. However, it has its own distinctive features which make it unique among the diagnostic devices produced by the Company.

This device is intended for use by those who take an interest in natural philosophy of the East and, figuratively speaking, "are ready to check the harmony of the ancient sages' theory by applying the algebra of modern scientific methods".

According to the canons of the oriental medicine, the human body is a quite complex dynamic system inexorably associated with the environment, whose functioning is determined by the rate of accumulation and consumption of energy by the body's organs.

Traditional Indian medicine uses the concept of "chakras", which are perceived by Indian medical doctors as the points of intersection and "swirl" of the body's energy flows connecting the nervous and the endocrine systems. Chinese healers believed that the human body is "permeated" by a kind of "meridians" conducting the energy of the organs.

The modern methods of mathematical analysis make it possible to discover and to demonstrate the mysterious patterns which rule different organs of our body and to answer the question why ailments of internal organs manifest themselves in tenderness of some points on the skin and why the nervous disorder can be triggered by the internal pathology in the body.

What is conventionally defined in the Indian medicine as "chacras" and in the Chinese medicine as "meridians" is in fact nothing else but different ways of analyzing the state of the most complex energy matrix which the human body is.

Modern methods of research of heart rhythms make it possible to demonstrate with a mathematical precision the processes of accumulation and consumption of energy by our body's organs.

Each body organ consists of specific cells which have a particular structure and which function in a certain manner. The processes which take place in our body are determined by the specifics of the chemical reactions going on in the cells which form the organs.

Chemical reactions proceed in a different way but each chemical reaction is a process of energy release and absorption. To perform these reactions in an optimal mode each cell needs nutrients which are delivered to it with blood. The nutrients must not only get to cells but also find themselves "in the right place at the right time". For the cell to get a necessary amount of energy and at the right pace, each organ "makes a request" to the heart. That is why the balance of accumulated and consumed energy is reflected in the heart rhythms.

By recording cardiogram and analyzing the heart rhythm at different frequency ranges we can see the representation of the processes which take place at the cellular level of the internal organs and in this way get an insight into the state of these organs.

From the standpoint of the oriental natural philosophy, the first symptom of pathology is a slowing-down of the energy accumulation and consumption rates in internal organs. In this case the organ deprived of the possibility of receiving and releasing the necessary amounts of energy responds by various disease manifestations whose specifics is determined by shortage or excess of energy in the organ. For example, the shortage of energy in the so called “meridian of the liver” manifests itself in apathy and fast tiredness while the excess of energy in the same meridian provokes irritability and hyperactivity of unhealthy nature.

The mode which in terms of oriental medicine is conventionally referred to as “aura” is a representation of the energy status of the organism.

The human body is a kind of a generator of electromagnetic waves. The quality and the speed of release and absorption of energy by the human organism is determined by the quality and the speed of chemical reactions taking place in the organs of our body at the cellular level. Explaining the quality of energy exchange in human body, oriental natural philosophers use the concept of “aura”.

Reasoning scientifically, we cannot speak of existence of some magic methods allowing to “take picture” of aura or to detect it in some other way. However the analysis of energy processes inside human organs as well as of processes which are reflected in cardiorythms, gives us a possibility to develop an integral index which will objectively reflect the quality of the functioning of cardiovascular, nervous, endocrine and vegetative systems. Such an index will be by its physical characteristics close to the concept of “aura” in the sense it was perceived by oriental healers.

The characteristic properties of ONIX are its mobility and easiness of practical use. To operate the device no professional medical education is needed. Following the detailed step-by-step user guide enables to obtain survey results in a prompt and convenient way.

ONIX not only provides for a graphic representation of the body response to medicines and medical treatments but also enables to illustrate the processes going on in the body in the manner and with the aid of the terms which are used by the oriental medicine practitioners.

Features

- ECG recording with real-time monitoring of functional state indices.
- Assessment of functional state in accordance with the analytical models of the Indian medicine – “diagnostics by chakras”.
- Assessment of functional state in accordance with the analytical models of the Chinese medicine – “diagnostics by meridians”.
- Assessment of complex energy state of the body – “aura”.
- E-catalogue of patients with a feature of data import from Omega-M program.
- Simultaneous representation of the results of two surveys with a view of comparative analysis.
- Printout of survey results.

Application

The device ONIX is effective for health state control in patients who take nutritional supplements or undergo organism purification, hunger therapy, manual, reflex- and hirudotherapy, as well as in those who take up yoga or various spiritual practices.

Standards

The technology used by SPC Dinamika has been approved by Ministry of Health of the Russian Federation and is authorized for use for medical purposes. It is covered by patents and copyright certificates of the Russian Federation.

The software and the hardware of diagnostic facilities produced by SPC Dinamika meets the standards of measurement, physiological interpretation and clinical use of cardiac intervalometry indices, adopted by European Society of Cardiology and North American Association for Electrophysiology.

Production facilities of SPC Dinamika comply with the quality standards ISO 9001:2008.

Support

SPC Dinamika provides to its customers a full set of guidance materials and instructions as well as an ongoing consultancy support.

With the purpose of the user support SPC Dinamika has created a customized web portal offering the users of the products an opportunity of setting up a personal virtual office, receiving additional consultations and getting access to the new products of the company Dinamika.

The system developers will appreciate any feedback comments and requests regarding the software and the technical guides.

In view of constant upgrading of the facility, some differences between the present guide and the later software versions are possible.

Delivery Set



1. ONIX Software
2. ECG Registration Module. Model ONIX – 1 item
3. Cardiography Electrodes Skintact F 9024 AC – 2 items
4. Interface cable USB v2.0 – 1 item
5. Medical wallet – 1 item.

TECHNICAL DESCRIPTION

ECG Recording Module



Recording module is fed from the computer through the photo-coupled (optron) USB-interface.

Note: In some notebook models power line disturbances occur when recording ECG at main-fed operation. To eliminate the disturbances it is recommended to deenergize the altering-current adapter for the period of recording and to use battery supply. In case power line disturbances occur in the stationary computer it is recommended to use grounding.

In some notebooks power line disturbances can be caused by printer connected through USB interface. To eliminate disturbances it is recommended to disconnect

printer from computer for the period of recording ECG.

Technical Characteristics

| | |
|--|------------------|
| Input voltage range | 0,03–5 mV |
| Input impedance, not less than | 5 MOm |
| Inner noise level at the input, no more than..... | 10 mkV |
| Common-mode rejection ratio at frequency of 50 Hz, not less than | 110 dB |
| Direct current in circuit of the patient, not more than..... | 0,1 microamperes |
| Bandwidth..... | 0,03–500 Hz |
| Time constant | 3,2 s |
| Input signal sampling frequency..... | 1000 Hz |
| Quantization register length..... | 12 |
| The device's electrical safety meets State Standard (GOST) P 50267.0 and State Standard 50267.25 (IEC 601) for products of II protection class, BF type. | |

Warranty Liabilities

The guaranteed service life of the system is five years from the sale date. The guarantee services are provided in the technical center of the company in Saint Petersburg. In case of detecting faults during this period the Company ensures a free replacement of individual components, as well as of the whole facility.

During the whole operation life period users can update the software free of cost at the company's website www.dyn.ru.

PRE-STARTING PROCEDURES

Software Installation

1. Switch on the computer.
2. Insert the software compact disk in the CD-ROM of your computer.
3. Open the window My Computer, double click with the left mouse button the icon of CD-ROM in which the ONIX software CD has been inserted.
4. In the opened window containing the list of folders located on the ONIX Software CD open the folder ONIX by clicking the left mouse button and start by doubleclicking the file "ONIX.Multilang.<release_date>.exe". ONIX Software Installation Wizard will start.
5. To install the ONIX software with default settings click Next in the successively opened Installation Wizard windows, then in the Installation Wizard window Ready to Install click Install.
6. After the ONIX software installation is completed, press on Finish to exit the Installation Wizard.

Preparation of the ECG Recording Module for Use

Connect the electrodes to the lead cable and fix plugs securely with screws.

Connect the interface cable to the computer through a free USB port. Connect the interface cable to the distant module.

First Program Run

After the first program startup and connecting the device to the computer the operating system can display a warning that Windows Firewall has blocked some network features of the program "dnahost.exe". It is necessary to allow the program "dnahost.exe" to establish network connections both in private and in public networks. For that select the checkboxes "Private networks" and "Public networks", then click Allow Access. By doing so no user data are transferred to the network. The program "dnahost.exe" is a part of the device driver and transmits ECG signal to the program ONIX strictly within the computer through the virtual local network.

In case some other Firewall is installed on the user's computer, it is necessary to customize it so that it does not block the network features of "dnahost.exe". How to do it is described in the Firewall operating instruction.

Connecting the ECG Recording Module to Patient

The electrode pads are placed on the inside of the patient's wrists.

The electrode with the red plug is placed on the right arm, the one with the green plug is placed on the left arm. It is recommended to moisten the skin at the points of contact with Water.

During survey the patient should be at rest, in a sitting or lying position.

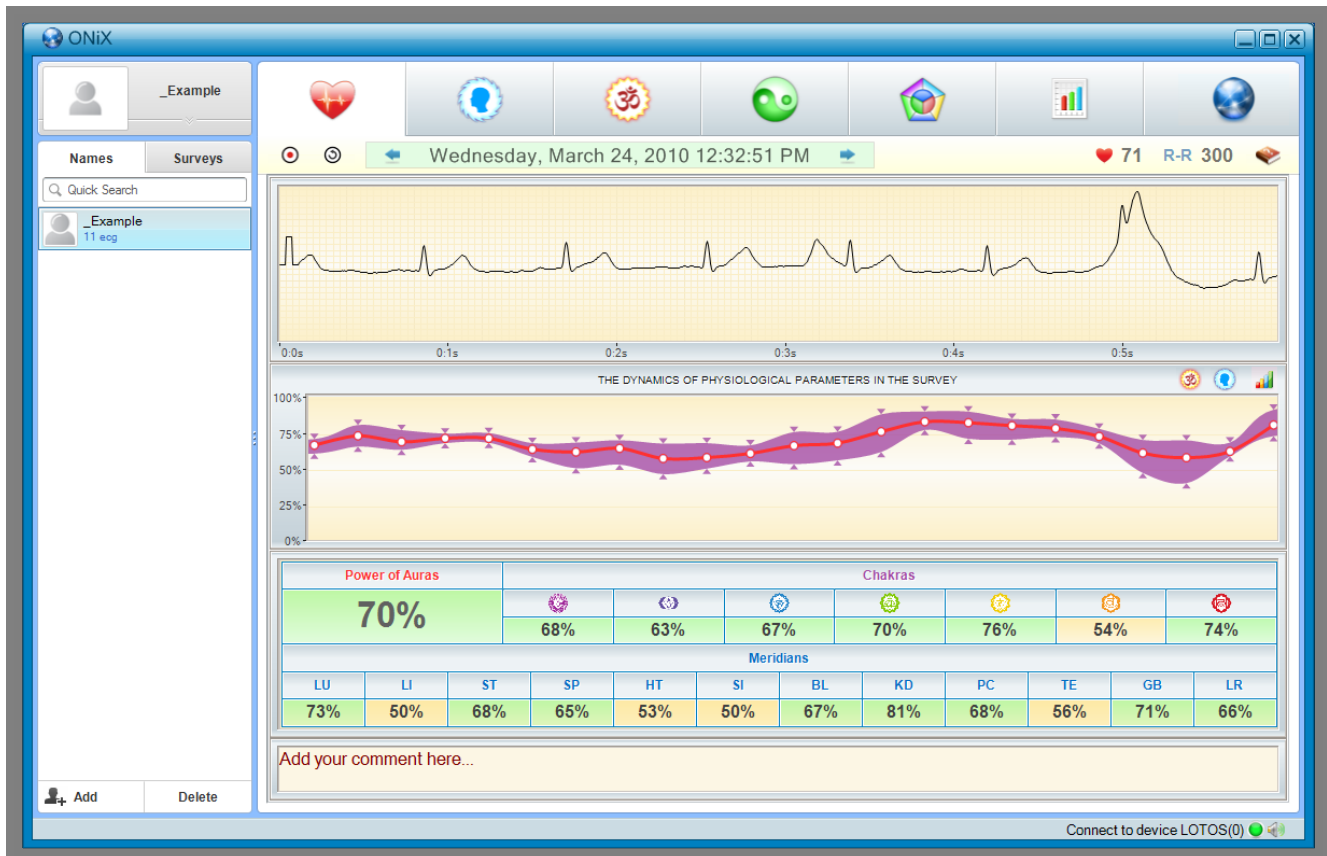
In some cases, if the R wave amplitude is too low, the red electrode is placed on the right wrist and the green one on the left ankle richly moistened with Water.

To reduce the disturbances while recording ECG the following rules should be observed:

- The patient's arms should be motionless and relaxed. If the patient is in sitting position, his hands should be on his knees, if the patient is in lying position, his arms should rest at his sides.
- No other people should move around within the radius of 1,5-2 meters of the patient.
- In the course of recording the patient's state should be as relaxed and comfortable as possible. It is not recommended to distract the patient by talks or to show him the computer display with the ECG being recorded. You can suggest the patient to close his eyes.

THE PROGRAM INTERFACE

The program window is conditionally divided into two fields: *List of Patients* and *Patient Survey Results*.



List of Patients

The List of Patients is located on the left-hand side of the window. Its upper field serves to display and to change the selected patient's personal information.

Personal information can be displayed in a minimized or in an expanded mode, in the latter case it can be changed. Switching between the two modes is performed by clicking with the left mouse button on the bar situated below the patient personal information.

The List of Patients contains the information on all the examined patients. List of Patients control elements are also located on this side of the window:

Buttons of selection of List display mode:

Quick Search box:


Patient add and remove button:


Survey Results


Panel displaying Survey Results of currently selected patient is situated on the right-hand side of the window. This panel is basically a set of several tabs. Buttons at the top of the panel are used to switch between them.





Brief Description of the tabs:


 – Registration and Viewing of ECG Data tab contains the control elements for record and display of the patient’s electrocardiogram.


 – the Aura Portrait tab serves to display assessments of aura’s state.

 – the Chakras Activity Map tab displays the state of patient’s chakras

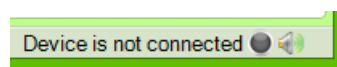
 – the Meridian Chart tab serves to display the assessment of patient’s meridian state.

 – the Doshas and the Five Elements tab displays the assessment of patient’s doshas.

 – the Dynamics of Functional Condition tab serves for comparative analysis of several surveys conducted in the same patient.

At the top right-hand corner of ONIX window the program logo button is located which serves to visualize the information on the program, as well as the button  used to visualize the reference information.

In the bottom right-hand corner of the program window information about the connected device is displayed.



In parentheses the number of surveys performed with the use of the device is indicated. The lamp color indicates the operational readiness of the device:

grey – the device is not detected;

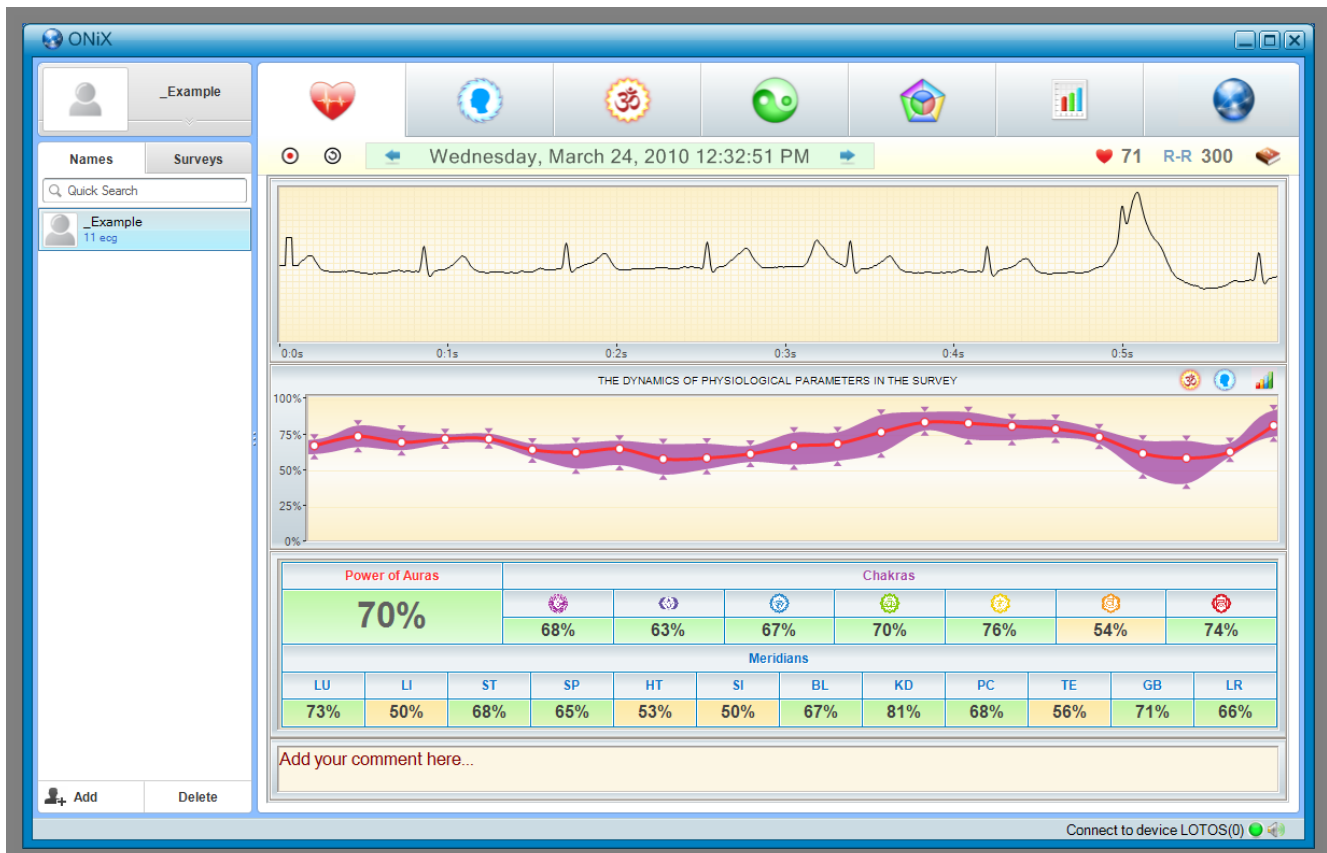
red – a device from other hardware and software system not destined for operation of ONIX facility has been connected;

green – the device is ready for operation.

Buttons  /  switch on and switch off the program audio signals.

The ECG Tab

The tab contains the control elements designed for recording and display of the patient's electrocardiogram.



Brief description of the control elements:

⏹/⏸ – ECG recording start/stop button.

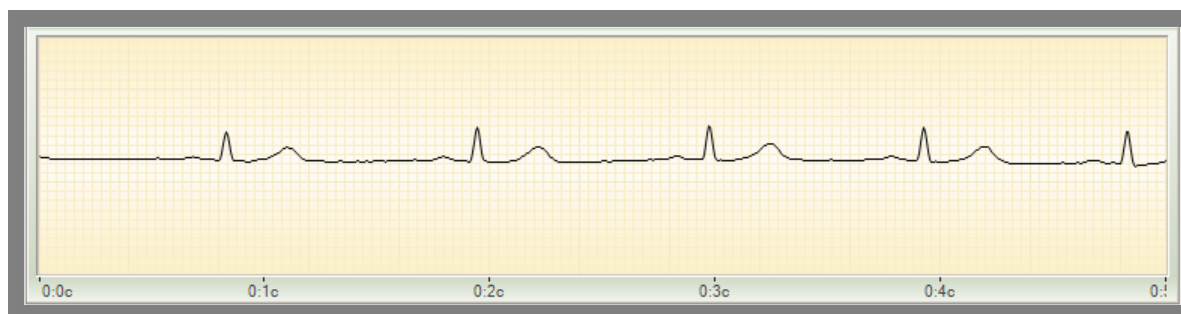
⏪/⏩ – button of polarity change of recorded ECG signal.

← Wednesday, March 24, 2010 12:32:51 PM → – control element used to display the results of one of previously conducted surveys of the patient. Selection of the survey results is performed by ⏪ and ⏩ buttons permitting to choose earlier or later survey date respectively. Additionally, by clicking the date with the left mouse button, survey selection menu is opened, where results of a previously conducted survey of the patient can be selected.

❤ 81 – heart rate.

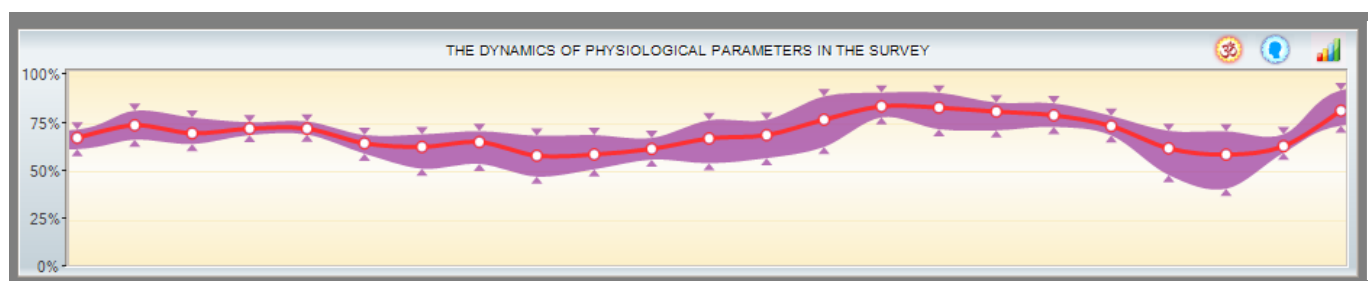
R-R 299 – number of recorded heart contractions.

ECG



As a function of the selected operation mode the program displays either an ECG signal registered previously in the course of the survey, or an ECG signal recorded immediately at the moment. The time in minutes and seconds elapsed from the registration start is laid off along the horizontal axis, the ECG amplitude is laid off along the vertical axis. The graph scaling is performed by moving the mouse with the right button pressed. Dragging the graph is performed by moving the mouse with the left button pressed.

The Dynamics of Physiological Parameters in the Survey



In the course of the ECG signal recording the program monitors uninterruptedly the changes in patient's current state and displays it at the graph "The Dynamics of Physiological Parameters in the Survey". This graph displays changes in values of such physiological parameters as chakras and the power of aura. The chakra values are represented in the form of the line of variable width changing in function of the largest or the smallest chakra value.

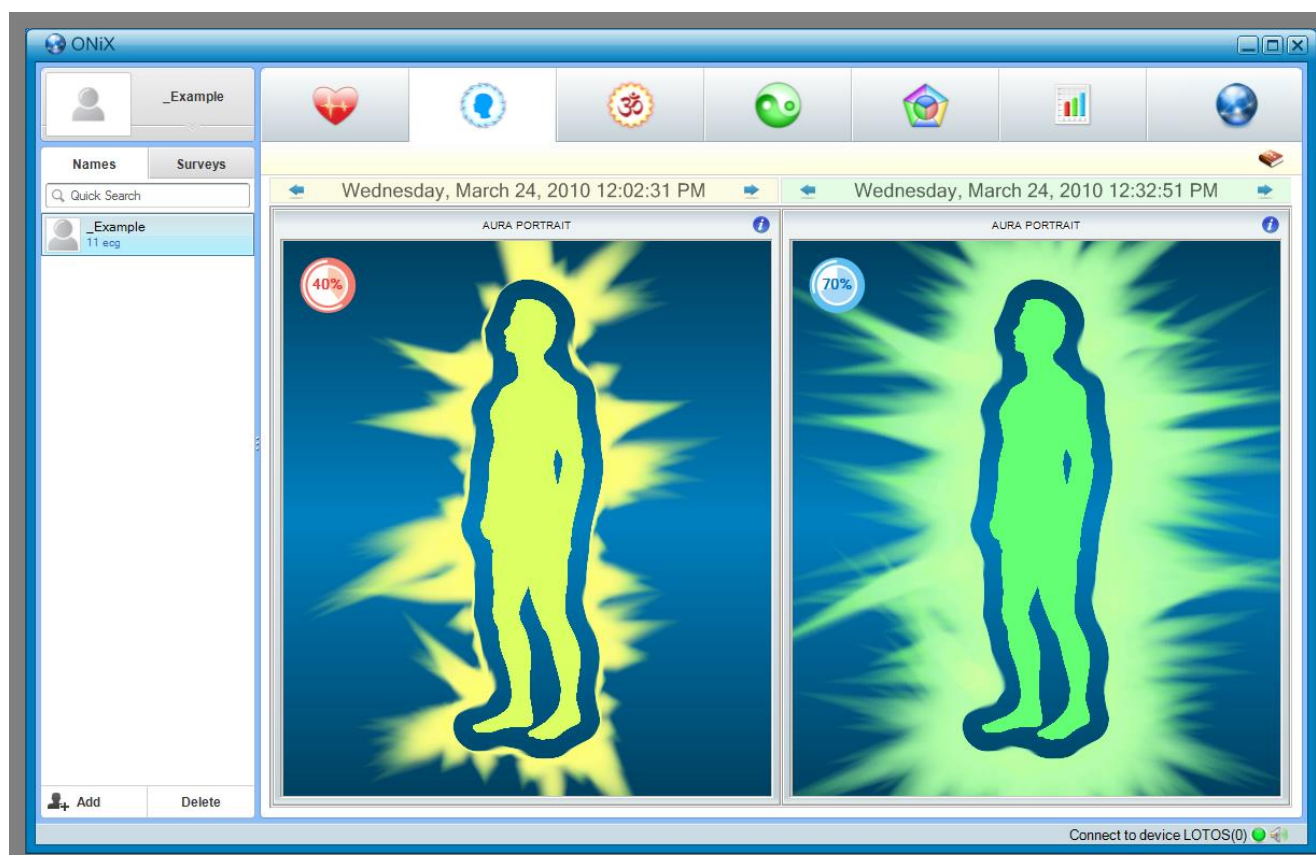
This graph enables to assess the quality of the recorded ECG signal. If the values of the aura's power and chakras varied greatly in the course of the survey, it means that the patient was not at rest during the survey. Such a recording is considered not reliable and the conclusions drawn on the basis of this recording do not reflect the true condition of the patient.

Table of Physiological Parameter Values.

In this table all the major physiological parameters calculated on the basis of the data received as a result of the viewed survey are displayed. For more detailed information about them see the other tabs of the program.

The AURA PORTRAIT Tab

In the tab AURA PORTRAIT information on the patient's aura status is displayed. The patient's aura is represented in the form of animated human figure. The aura's color is determined by its general condition. The relative power of the aura is displayed in the top left corner in the shape of pie chart.

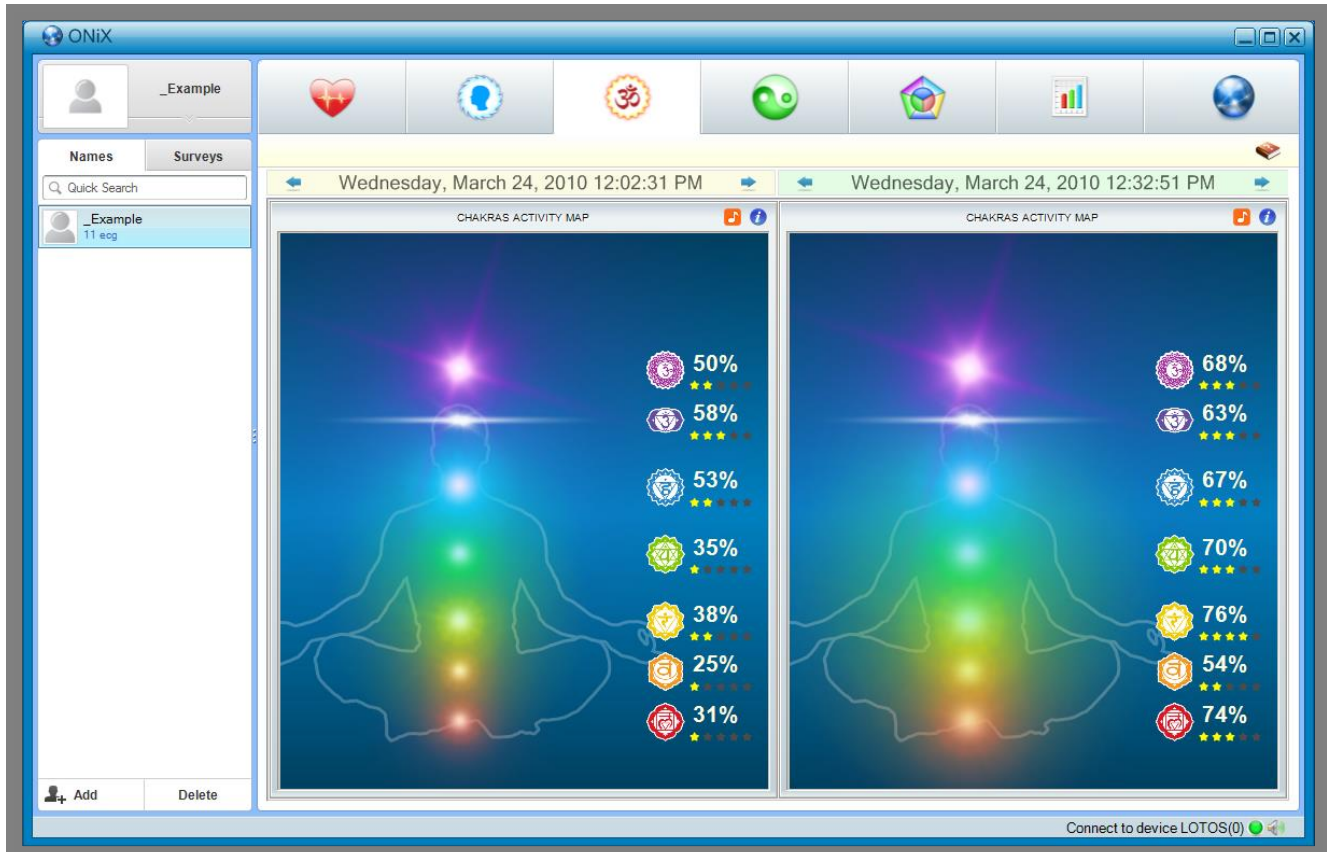



What Is Aura

The human body is a kind of generator of electromagnetic waves. The quality and the speed of release and absorption of energy by the human body is determined by the quality and the speed of chemical reactions which take place in the organs of our body at the cellular level. Reasoning on the quality of energy exchange in the human body, oriental natural scientists use the concept of "aura". From the scientific point of view, we cannot speak about the existence of some magic methods allowing to "take picture" of aura or to detect it in some other way. However the analysis of energy processes inside human organs as well as of processes which are reflected in cardiorythms, gives us a possibility to develop an integral index which will objectively reflect the quality of functioning of cardiovascular, nervous, endocrine and vegetative systems. Such an index will be by its physical characteristics close to the concept of "aura" in the sense it was perceived by oriental healers.

The CHAKRAS ACTIVITY MAP Tab

The Chakras Activity Map tab displays information on the state of the patient's chakras. The patient's chakras are represented in the form of human figure animation. The brightness and the size of a chakra represented in the animated image depends on the state of the respected chakra of the patient. The relative power of each chakra is displayed on the right of the figure and is conditionally expressed by the number of "stars" – from 0 (the worst state) to 5 (the best state).



The button  enables to create and to save on the computer's disk a specially designed audio file which by its listening has a positive effect on the patient's aura and thus improves its state as well as the general state of the patient.

Description of Chakras

1. Muladhara – the Base (Root) Chakra

Chakra location:

- in the perineum area, at the point situated between the genitals and the anus.

Hormone-producing glands related to the chakra:

- the sexual glands and the adrenal glands

Body organs related to the chakra:

- “solid” body organs – vertebral column, skeleton, bones, teeth and nails.
- excretory organs – anus, rectum, intestines.
- reproductive organs – prostate and genital glands, as well as blood and the cellular structure.

Problems and diseases caused by the chakra disbalance:

- constipation, hemorrhoid, tiredness, apathy, flabbiness, blood diseases, back tension problems, problems with joints and bones, problems with tissues and skin.



2. Swadhisthana – the Sexual Chakra

Chakra location:

- in the pelvis area, between the pubes.

Hormone-producing glands related to the chakra:

- genital glands – ovaries, testicles - prostate and lymphatic system.

Body organs related to the chakra:

- pelvis, lymphatic system, kidneys, gall bladder, genitals and all the body liquids (blood, lymph, digestive juices, seminal fluid).

Problems and diseases caused by the chakra disbalance:

- muscle cramps, allergy, physical fragility, constipation, sexual unbalance and loss of libido, sterility, disturbances and depression, lack of creativity.



3. Manipura – Solar Plexus Chakra

Chakra location:

- below the diaphragm, between the breastbone and the navel.

Hormone-producing glands related to the chakra:

- pancreas and adrenal glands.

Body organs related to the chakra:

- respiratory system and diaphragm, digestive system, stomach, pancreas, liver, spleen, gall bladder, small intestine, adrenal glands, lower back and sympathetic nervous system.

Problems and diseases caused by the chakra disbalance:

- mental and nervous exhaustion, unsociability, communication problems, gallstones, diabetes, digestive problems, ulcers, allergy, heart diseases.



4. Anahata Chakra



Chakra location:

- parallel to the heart, in the center of the body.

Hormone-producing glands related to the chakra:

- thymus gland.

Body organs related to the chakra:

- heart, circulatory system, lungs, immune system, thymus gland, upper back, skin, hands.

Problems and diseases caused by the chakra disbalance:

- respiratory diseases, heart pains, heart attacks, hypertension, tension, dissatisfaction with life insomnia, tiredness.

5. Vishuddha – Throat Chakra



Chakra location:

- throat.

Hormon-producing glands related to the chakra:

- thyroid and parathyroid gland.

Body organs related to the chakra:

- throat, neck, vocal cords and organs, thyroid, parathyroid, jaw, apex of the lung, ears, muscles, arms and nerves (not everybody share this opinion).

Problems and diseases caused by the chakra disbalance:

- difficulties expressing thoughts, mutism, diseases of respiratory organs, headaches, neck, shoulder and back of the head pains, throat deseases including those infectious ones, vocal chords diseases, communication difficulties, low self-esteem, lack of creativity, infectious ear diseases, inflammatory processes and hearing problems.

6. Ajna – the Third Eye Chakra



Chakra location:

- center of the forehead.

Hormon-producing glands related to the chakra:

- hypophysis and pineal gland

Body organs related to the chakra:

- brain and all its parts, central nervous system, face, eyes, ears, nose and sinuses.

Problems and diseases caused by the chakra disbalance:

- eye diseases, ear diseases, respiratory tract, nose and sinuses diseases, facial nerve diseases, headaches, nightmares.

7. Sahasrara – the Crown Chakra



Chakra location:


- Crown of the head.

Body organs related to the chakra:

- brain.

The MERIDIAN CHART Tab

In the MERIDIAN CHART tab information on the state of the patient's meridians is displayed. On the screen the meridian chart is displayed whose form and shape depend on the state of the patient's meridians. Also assessment of energy giving and receiving capacity of each meridian during the meridian giurnal cycle is displayed. Additionally, relative values of each meridian of the patient are displayed on the screen.

The button  displays reference information on the meridians.



Description of Meridians

1. P – Paired Meridian of the Lungs

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|---|--|
| Less than 30% | Excess of energy | pneumonia, small lung capacity, severe cough with pain, nummular sputum. | Diseases of lungs and upper respiratory tracts with congestion phenomena, as well as diseases of cardiovascular system. | To quit smoking, to avoid excessively cold or hot air, to breath fresh air |
| | Lack of energy | fever, hacking cough, nasal cold | | |

2. G – Paired Meridian of the Large Intestine

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|--|--|
| Less than 30% | Excess of energy | noises in the digestive tract, xerostomia and xerostomia, constipation | Restriction of movement and pains in joints of upper extremities, inflammatory processes along the meridian, digestive disturbances, particularly those of intestines. | To quit smoking, to avoid excessively cold or hot air, to breath fresh air |
| | Lack of energy | pain and non-motility of shoulders and arms, giddiness, diarrhoea, sometimes constipation | | |

3. E – Paired Meridian of the Stomach

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|---|--|
| Less than 30% | Excess of energy | overeating, heat in the body, pains and cramps on the outside (lateral) leg | Digestive disturbances, pains along the meridian. | To avoid overeating, not to consume alcohol and sweets, to avoid humidity. |
| | Lack of energy | loss of appetite, sometimes up to complete apastia (refusal to eat), weakness in legs and their coldness | | |

4. RP – Paired Meridian of the Spleen and Pancreas.

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|---|---|
| Less than 30% | Excess of energy | unstable appetite, heaviness and numbness in the body, a frequent need to lie down and to have rest. | Pains in the pit of the stomach, in the hypochondrium and in the chest. | To refrain from overeating, not to consume alcohol and sweets, to avoid humidity. |
| | Lack of energy | passion for sweets, memory impairment and somnolence during the day, meteorism | | |

5. C – Paired Meridian of the Heart

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|---|---|
| Less than 30% | Excess of energy | heart, shoulder, forearm pains, excitability, heaviness in the chest, sometimes temperature elevation and dry mouth | Precordialgia, cardiac rhythm disturbance, anxiety state, defective memory. | Increase the food intake frequency, reduce the quantity of food, the food taken during one meal must be of the same kind. |
| | Lack of energy | indecisiveness, depression, apprehensiveness, agitation, tachycardia, shortness of breath, vertigo. | | |

6. IG – Paired Meridian of the Small Intestine

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|---|------------------------|
| Less than 30% | Excess of energy | pain in the area around the neck or in one hemisection of the head, ear noise, hearing impairment. | Intestinal patency disorders, pains along the meridian, neuropsychic disorders. | |
| | Lack of energy | temple pains, back neck pain, forearm pain, extremity coldness. | | |

7. V – Paired Meridian of the Urinary Bladder

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|--|--|
| Менее 30% | Excess of energy | pains in the small of the back and in the lower extremities, frequent and painful urination in small amounts, eye pain, headache, calf muscle cramps. | Cystitis, cystalgia, nephritis, heart diseases, eye diseases, spine and hip joint pains, headaches, nose bleeding, haemorrhoids. | To abstain from sexual life, to avoid physical and mental overload, humidity, excessive heat or cold, to reduce the consumption of liquids and salt. |
| | Lack of energy | rare infrequent urination, spine pains, heaviness in legs and back, vertigo, visual deterioration | | |

8. R – Paired Meridian of the Kidneys

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|---|--|
| Less than 30% | Excess of energy | unusual burst of energy, a tendency to work without break, ear noise, dark brown color of the urine. | Urine passage disorder, diseases of genitals, neuropsychiatric disorders, weakened vitality and a predisposition for tiredness. | To abstain from sexual life, to avoid physical and mental overload, excessive heat or cold, humidity, to reduce the consumption of liquids and salt. |
| | Lack of energy | decreased willpower and libido, impatience, inconfidence, cold feet, neck tension. | | |

9. MC – Paired Pericardium Meridian

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|---|---|
| Less than 30% | Excess of energy | pain, heaviness, head fever, stomach ache, constipation, ardor in palms. | Diseases of heart and lungs, psychic disorders, pains along the meridian. | To reduce up to 1/3 the usual food intake, to avoid physical and mental overload. |
| | Lack of energy | bad sleep with many dreams, shortness of breath, fear of height, fatigability, a need to lie down for a while, diarrhoea. | | |

10. TR – Paired Meridian of Triple Heater

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|--|------------------------|
| Less than 30% | Excess of energy | amblyacousia, pain in the neck, shoulders, scapulas, upper extremities, ears, bad heat tolerance, irritability, insomnia. | Arthritis of hand joints, ear noise, deafness, depression. | |
| | Lack of energy | pain in the temples, fever, weakness. | | |

11. VB – Paired Meridian of the Gall Bladder

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|---|---|---|
| Less than 30% | Excess of energy | feeling of stomach fullness, heaviness and headaches, pains and cramps in hypochondrium. | Gall bladder disorder, pains along the meridian, gastrointestinal tract disorders, nervous and mental disturbances. | To stop injections and medicine intake, to consult a doctor in charge, to quit consuming alcohol and meat, to avoid physical load and ocular fatigue. |
| | Lack of energy | decline of strength, tearfulness, chill, vertigo, heavy breathing, heavy and deep-drawn sighs, rickety walk | | |

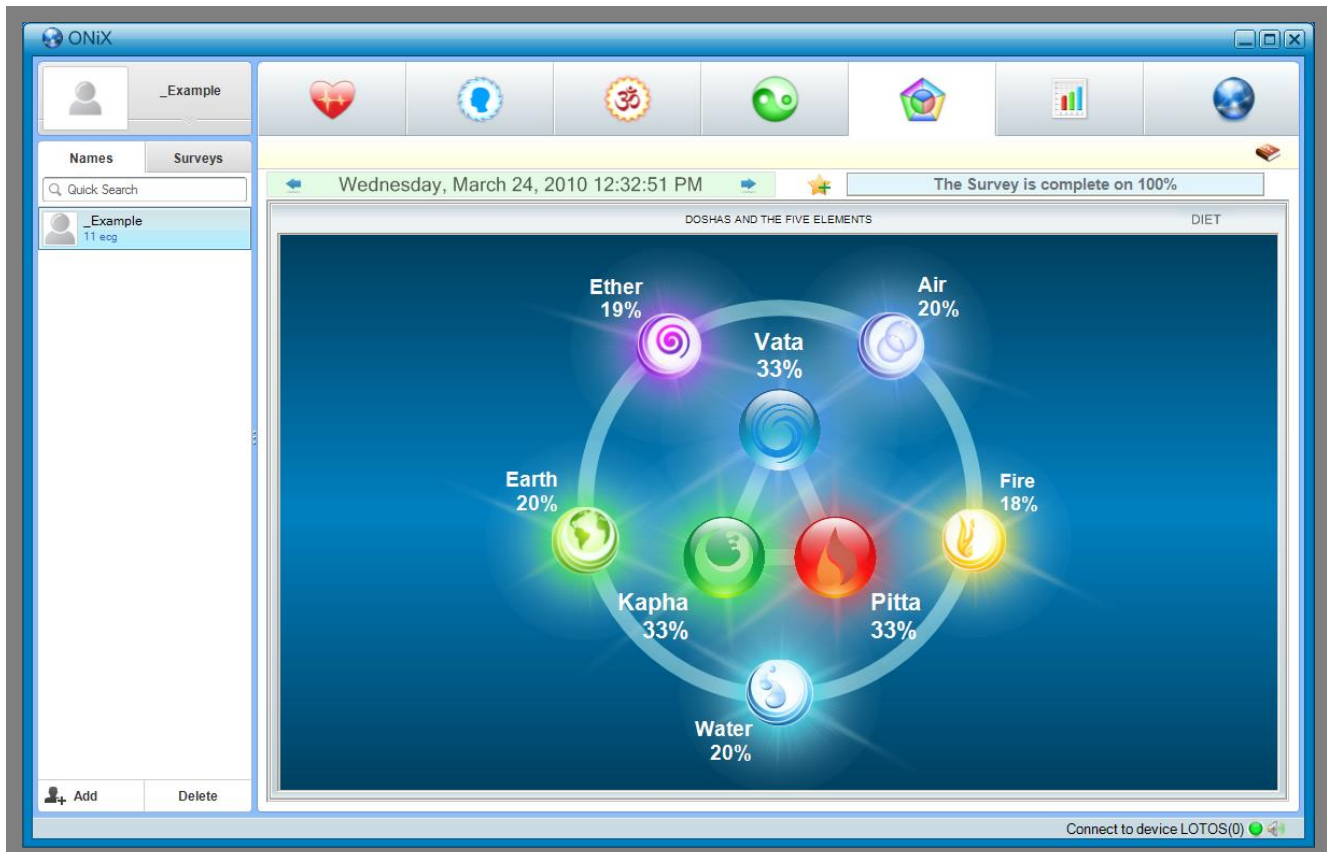
12. F – Paired Meridian of the Liver

| <i>Energetic activity</i> | <i>Energy balance</i> | <i>Symptoms</i> | <i>Diseases</i> | <i>Recommendations</i> |
|---------------------------|-----------------------|--|--|---|
| Less than 30% | Excess of energy | easy crying, irritability, hot temper, sickliness, impulsivity, a tendency to work without a break, till all the work is finished. | Pains in the right hypochondrium, jaundice, pains along the meridian, pains in the small of the back, genital diseases, cold, fever. | To stop injections and medicine intake, to consult a doctor in charge, to quit consuming alcohol and meat, to avoid physical load and ocular fatigue. |
| | Lack of energy | vacillating steps, heaviness, vertigo, easy fatigability | | |

The DOSHAS AND THE FIVE ELEMENTS Tab

The Doshas and the Five Elements Tab displays information on the proportions of doshas and the five main elements of the patient.

The button DIET at the upper right of the window serves to display recommendations on the patient's diet.



According to Ayurveda, the human organism consists of the material as well as non-material components. Interaction between these two parts of the human being determines its physical and mental health. One of the major principles of Ayurveda is that none of the constituent parts can function independently but only conjointly and strictly synchronously. The disbalance or desynchronization of functioning of material and non-material components causes diseases.

In the Indian philosophy it is believed that the universe and everything that it contains consists of the five material elements or substances: "Air", "Fire", "Water", "Earth" and "Ether". In the light of the modern scientific knowledge the five elements are not construed literally. They signify particular properties of those substances of which they are a part. This kind of generalizations enables us to understand better the nature of the universe constituents.

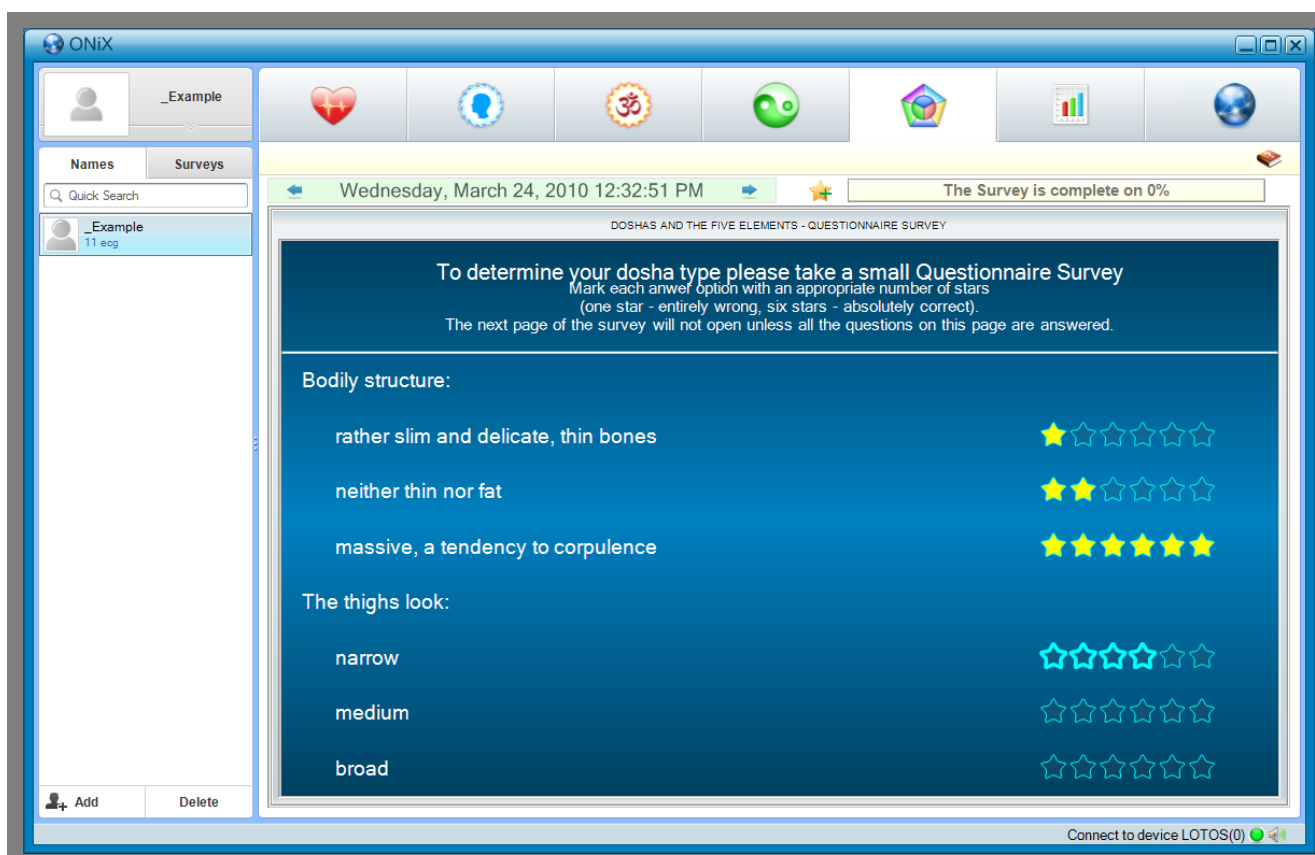
"Air" represents the motion and all kinds of movement. "Fire" reflects all the phenomena related to the production of heat and light. The properties of "Air and Fire" are inherent in any life form. "Air and Earth" are the basic "building material" which all the body structures consist of. From the point of view of Ayurveda all the body components, even the smallest ones, consist of all the five elements.

Like everything in the concept of Ayurveda, the five elements are indissolubly related to each other. In a healthy organism their quantity and thus their properties are in harmony and synchronized with each other. Disharmony and its incipient form, desynchronization, are a reflection of a disease in the

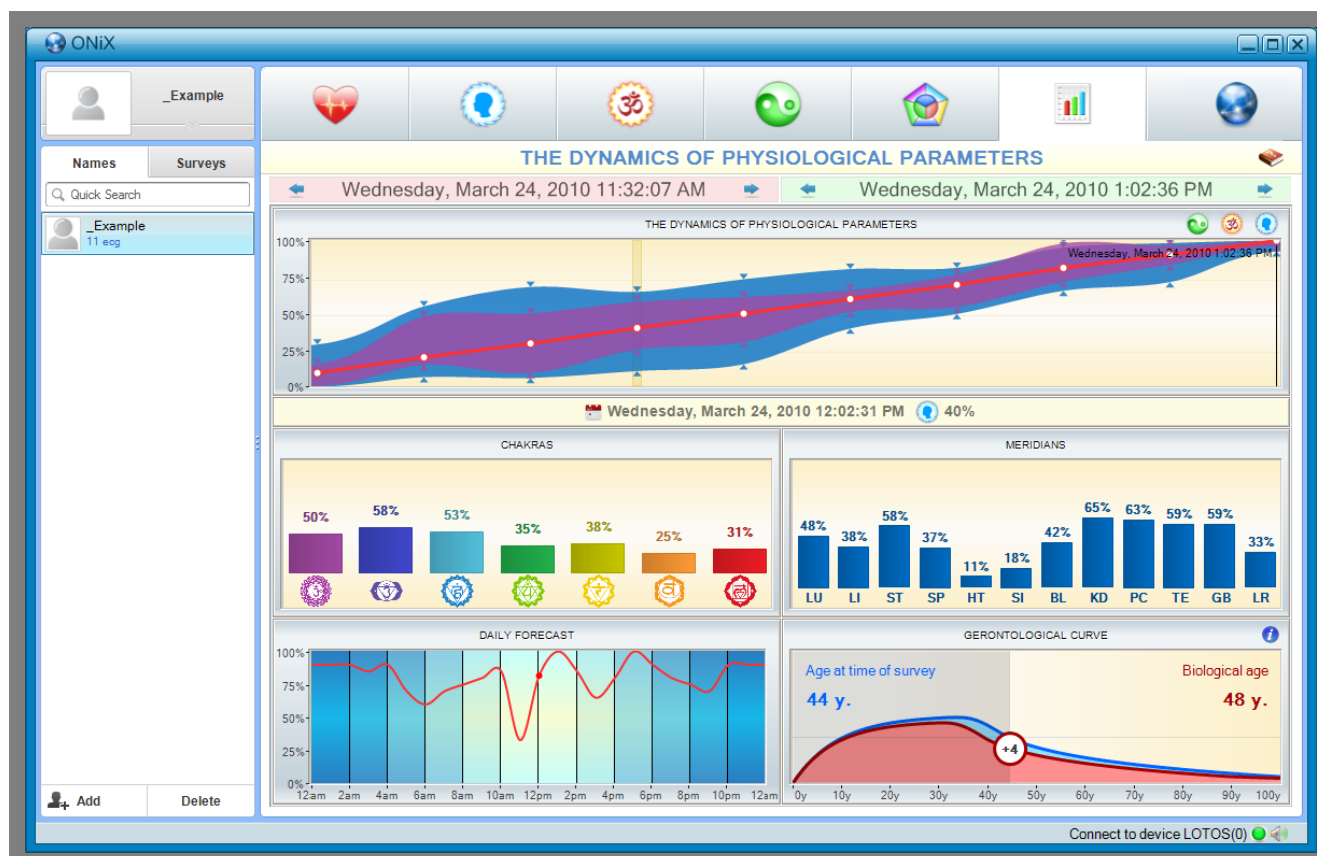
body which has a strictly determined genotype formed by the five elements of nature. The idea of Ayurveda treatment methods is preventing disturbances and recovering the disturbed synchronization and harmony of the properties of the five material elements in the human body.

Indeed, in all the material particles of the living organism, in the subcellular, cellular, tissue and organ structures the non-material component is there. In Ayurveda the spiritual principle in the body bears the name of the three doshas: Vata, Kapha and Pitta. Each dosha comprises the properties of two of the five elements: Vata Dosha has a number of properties which are specific to the elements of the Creation – “Ether” and “air”, Pitta Dosha – those specific to “Fire” and “Water” and Kapha Dosha combines the properties of “Earth” and “Water”.

The correlation of the doshas, Vata, Kapha and Pitta is genetically predetermined. The dosha’s correlation in the organism determines the physiological characteristics of the body as well as the psychological features of a person. In order to determine them, Dosha Questionnaire Survey is used.



The DYNAMICS OF PHYSIOLOGICAL PARAMETERS Tab



In THE DYNAMICS OF PHYSIOLOGICAL PARAMETERS tab several of the previously conducted surveys of one and the same patient can be compared. At the top of the tab two elements of the survey date selection are located. They enable to select the period for the survey comparison. The left element selects the starting date of the displayed period and the right element selects the final date of the displayed period.

In The Dynamics of Physiological Parameters tab all the surveys conducted during the selected period are displayed. You can select one of the surveys by clicking it with the left mouse button. Hereat the selected survey will be highlighted in yellow and in the bottom part of the DYNAMICS tab a detailed report on this survey will be displayed.

The graphs "Chakras" and "Meridians" represent the values of the corresponding physiological parameters for the currently selected survey.

The graph "Daily Forecast" enables to assess the patient's general condition within one day. This forecast is calculated on the basis of the values of the patient's physiological parameters for the last month, counting from the last survey date displayed in the graph "The Dynamics of Physiological Parameters".

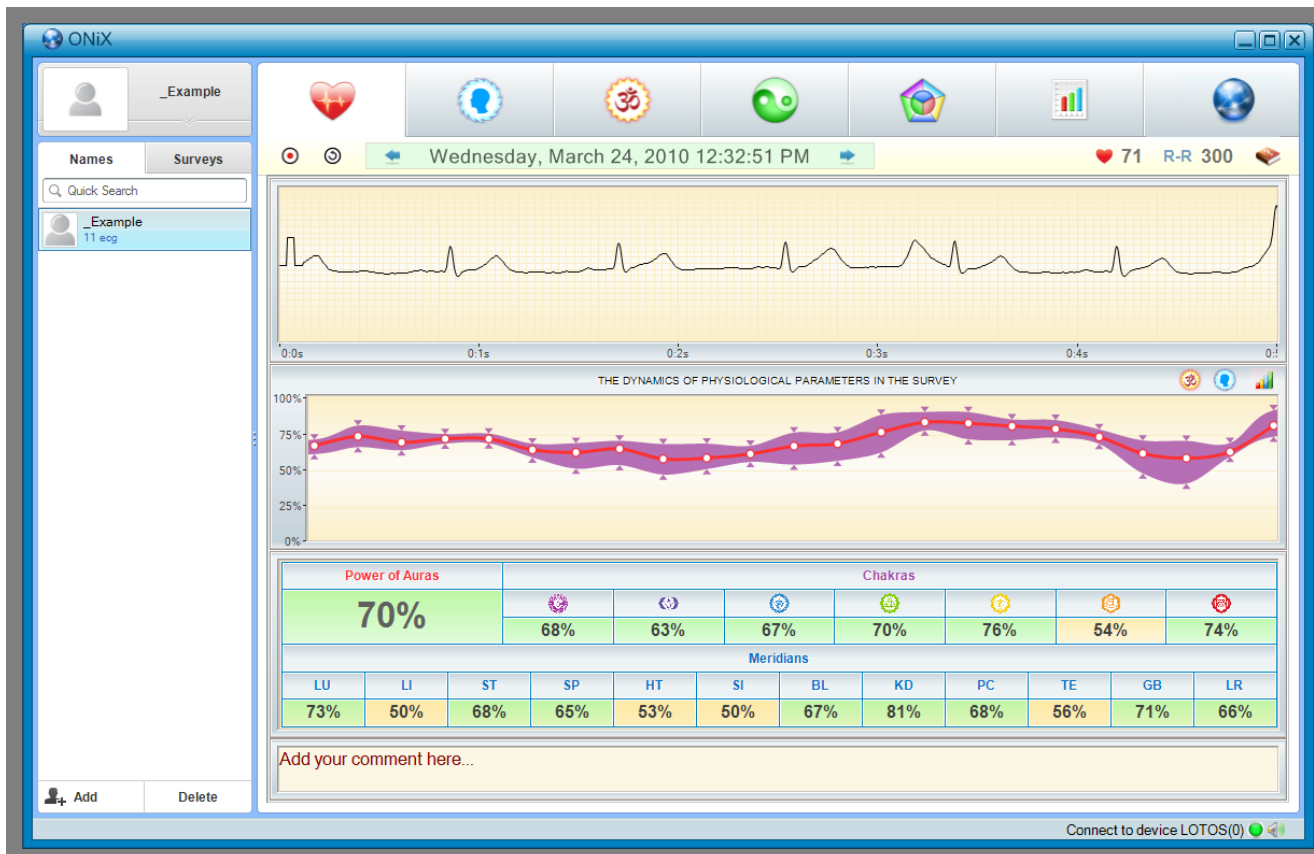
The "Gerontological Curve" represents the so called "biological age" of the patient and compares it with the patient's calendar age.


THE PROGRAM OPERATION

Program Start


To start the program point with the mouse pointer to the ONIX icon on the desktop and double-click with the left mouse button.

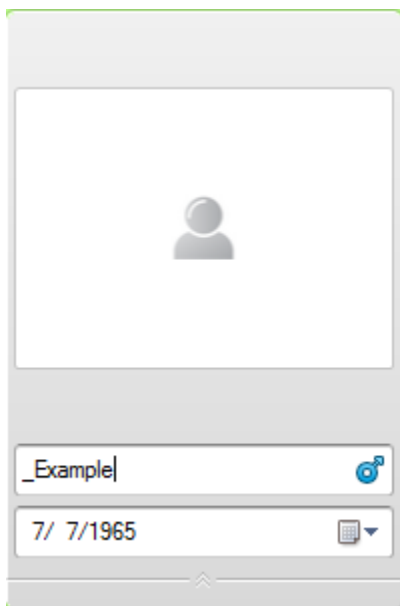
Once the program has loaded, the program window will be displayed on the screen:







In the bottom right corner of the primary window green lamp must be on , it indicates that the device is ready for operation.

Adding a New Patient


Press the button  Add. A new patient with unfilled personal information field will be added to the List of Patients. In order to fill it in, window of selected patient's personal information change will open at the top of the list. It consists of three entry fields: "Patient's Photo", "Name" and "Birth Date".




In the field "Name" enter the name and the last name of the added patient. Patient's sex must be entered as well. For that click with the left mouse the male sex icon . When clicking once the sex icon switches to the female sex icon , after iterated click it switches back to the male sex icon .

In the field "Birth Date" the added patient's date of birth should be entered. The date can be entered numerically (in "DD/MM/YYYY" format) or by using the calendar which is visualized by clicking the icon  with the left mouse button.


To add the patient's photo click with the left mouse button the field "Patient's Photo". By doing so standard Windows panel will open so as the patient's photo file can be selected. Any image file can be used as the patient's photo, without any image size limitations.

Upon completing patient's personal information change click with the left mouse button the control element  at the bottom of patient's personal information change window in order to minimize it.

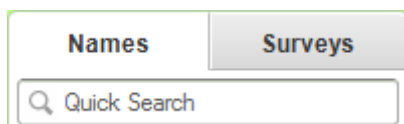
Changing Patient's Data

To change a patient's personal data choose the patient from the List of Patients by clicking the left mouse button, then click with the left mouse button the control element  at the bottom of the window of patient's personal information change to maximize it. Patient's personal information change is described in detail in the clause "Adding a New Patient".

Removing a Patient from the List

To remove patient from the List of Patients select the patient whose information should be deleted and click with the left mouse button . If the selected patient has any survey data, then the window of patient removal confirmation will be displayed. If no surveys have been conducted, the patient will be removed without any additional questions to the user.

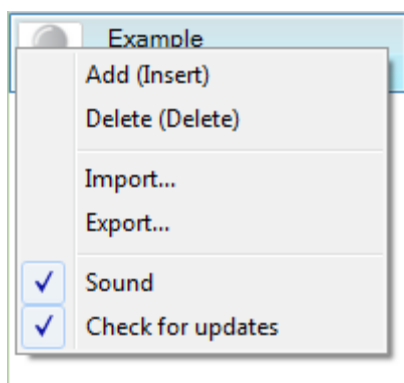
Quick Patient Search



To search quickly a patient in the List of Patients use the field “Search” situated at the top of the List of Patients.

When entering in this field the first letters of the searched patient’s last name, patient whose last name starts with the letters entered in the Search field will be immediately selected. If some letter cannot be entered in the Search field, it means that in the List of Patients there is no patient whose last name starts with these letters.

Import of Data from the Program Omega-M



Data of patient surveys performed by means of Omega-M can be added to the database of the program ONIX. For that end click with the right mouse button any spot in the List of Patients. A dropdown menu will open in which Import should be selected. After that standard window of file selection will open, where survey data archived by Omega-M should be selected. Read the Omega-M operation manual on how to archive the survey data in the program Omega-M.


To add data from several archives select these archives in Windows Files Explorer, then drag and drop them on the window of the program ONIX (“Drag&Drop” function).

Export of Data into Archive




Patient database can be saved into an archive file. For that click with the right mouse button any spot in the List of Patients. Dropdown menu will open, in which “Export...” should be selected. Thereafter standard Explorer window will open, where name of the created archive and its location should be indicated. Then press the button Save and wait till the archiving of the List of Patients is completed.

An archive created in this way can be later on imported into the program ONIX. Process of import of data from the archive is the same as the process of import of data from the program Omega-M.

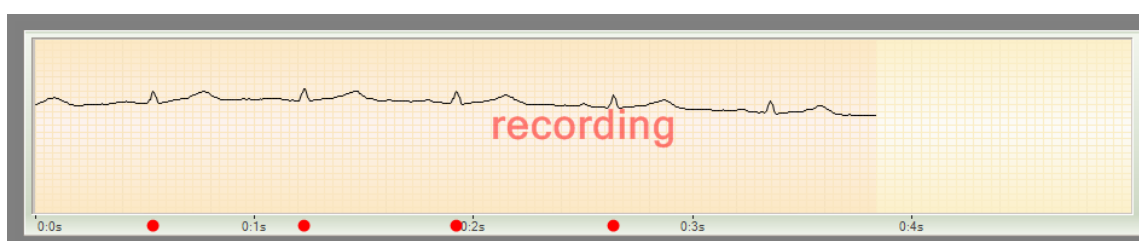
ECG Recording

Make sure that in the bottom right corner of the program window green lamp is on . It means that the ECG Recording Module is ready for operation. If the lamp is of gray color, it means that the ECG Recording Module is not connected to the computer, invalid or not detected by the operating system. In case the lamp is of red color, it means that the ECG Recording module connected to the computer is unfit for operation by the program ONIX.

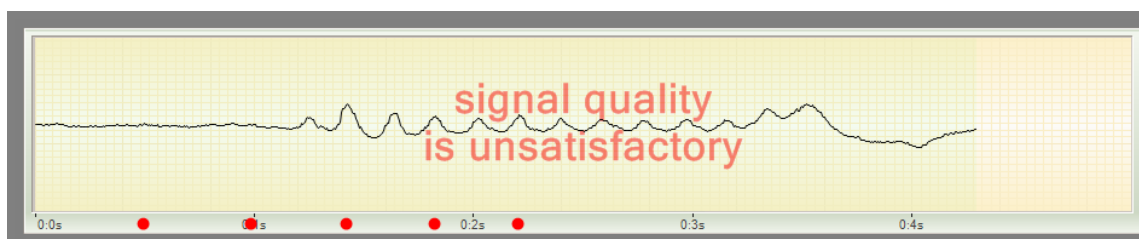
Connect the electrodes to the patient the way it is described in the section “Connecting the ECG Recording Module to Patient”. Select the patient by clicking with the left mouse button the patient name in the List of Patients.


Press the button . In the ECG Display Field the registered ECG signal will be displayed. Check the signal polarity and if necessary change it with / button.

As soon as the program ONIX has detected the correct and stable ECG signal, its record will start automatically. At the same time in the ECG Display Field “Recording” will be displayed.




In case the registered ECG signal has for some reasons many disturbances or its polarity is confused, a warning will be displayed in the ECG Display Field:



The program will continue to register ECG signal till the signal quality normalizes or till the recording is interrupted by pressing the button .

In the process of recording the program controls uninterruptedly the quality of the recorded signal. Whenever disturbances occur, they will be visualized in the rhythmogram in red. In case there are a lot of disturbances, recording will be interrupted and the program will start ECG recording anew.

To stop the ECG signal recording prematurely press the button .

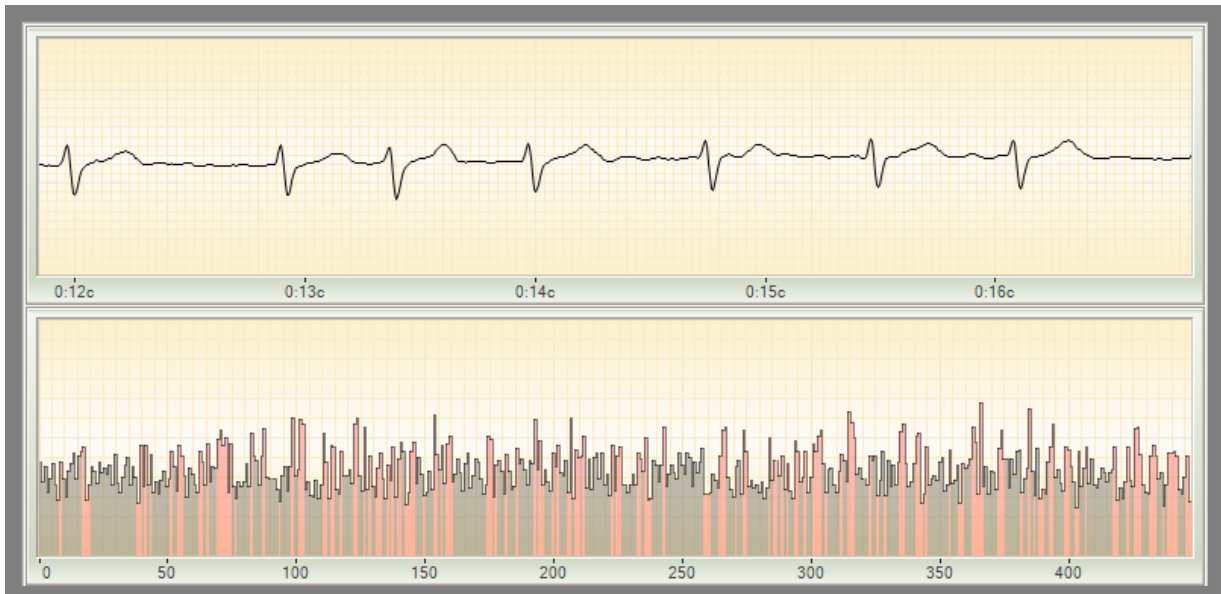
During the real time ECG signal recording the patient's pulse rate is displayed and, as the data are accumulated, normalized values of the current functional status indices as well. If in the course of recording significant changes of these indices are observed, it means that the patient is not at rest.

Also during signal recording number of registered RR intervals is displayed. Upon recording 300 intervals the recording will end automatically and the program will switch to the mode of survey results viewing.

Attention!

If the patient has ciliary arrhythmia or expressed extra systole, the functional state indices will be calculated incorrectly. The functional state indices may be determined in all modes only in case patient has no heart rate disturbance!

Examples of such disturbances are shown at the following images:



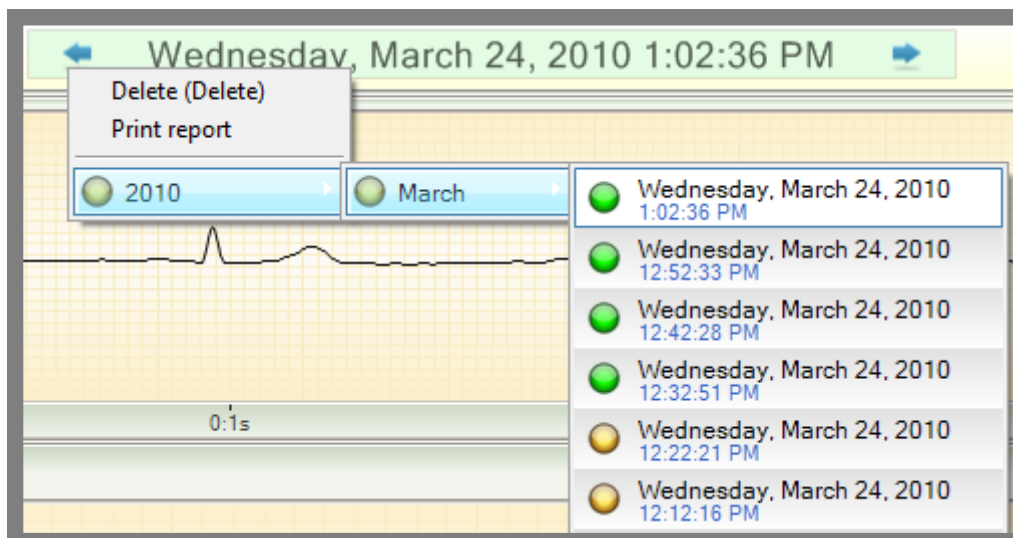
Ciliary arrhythmia



Extra systole

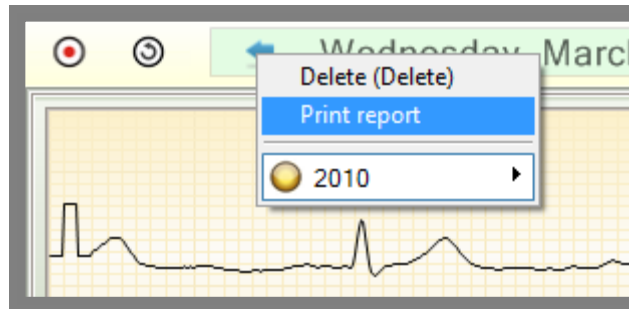
ECG Viewing

To view the Results of patient's survey select in the List of Patients the patient whose survey Results have to be viewed. The function of quick patient search can be used if necessary. When clicking with the left mouse button on any patient in the List of Patients, the Survey Results Panel displays the Results of the last survey of the patient distributed in six tabs. To choose another survey date use the control element Select Survey Date.

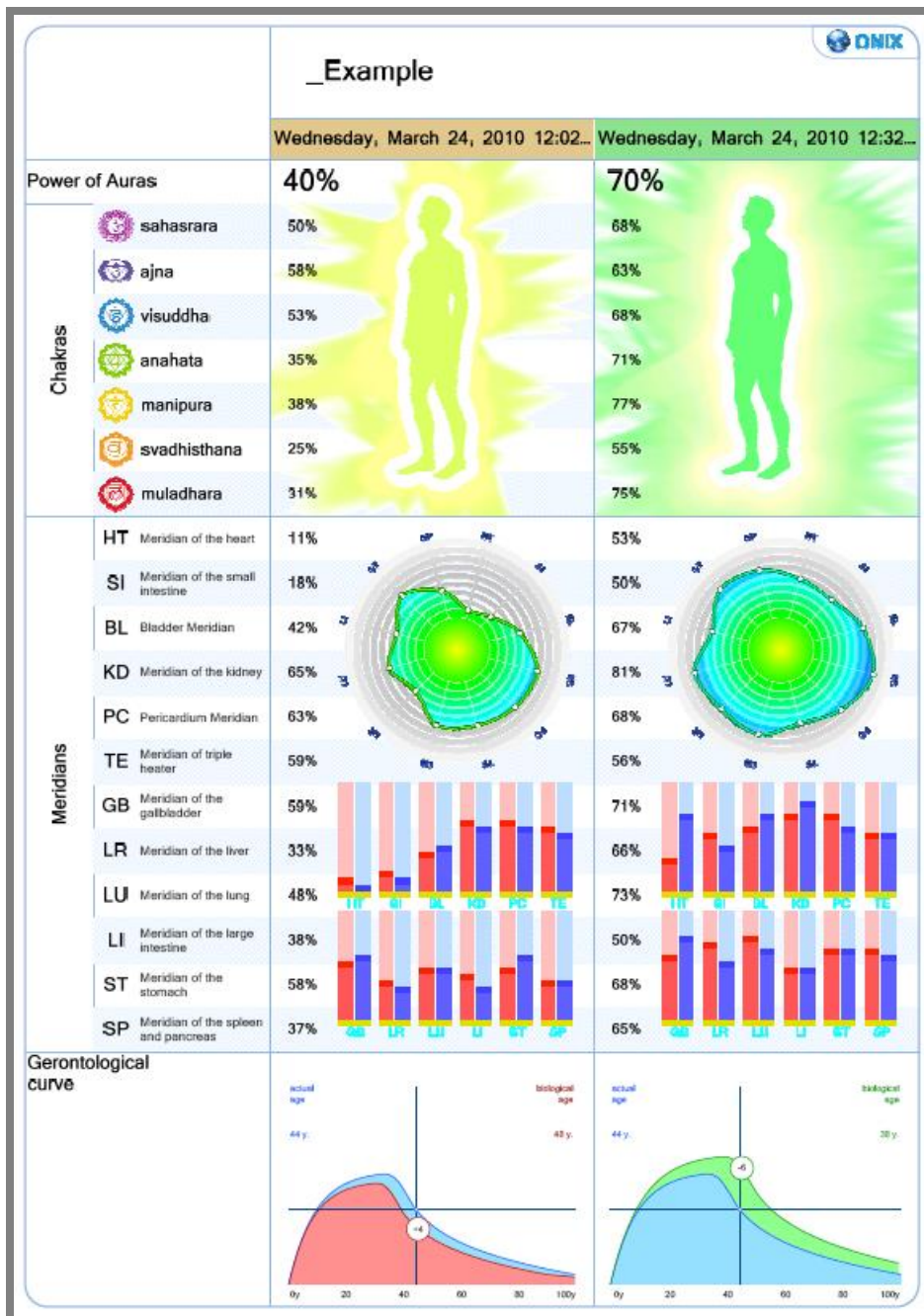


Printout of Survey Results

To print the results of any patient's survey click with the left mouse button the control element Select Survey Date, in the opened menu select Print Report.



Example of printed survey results of a patient:



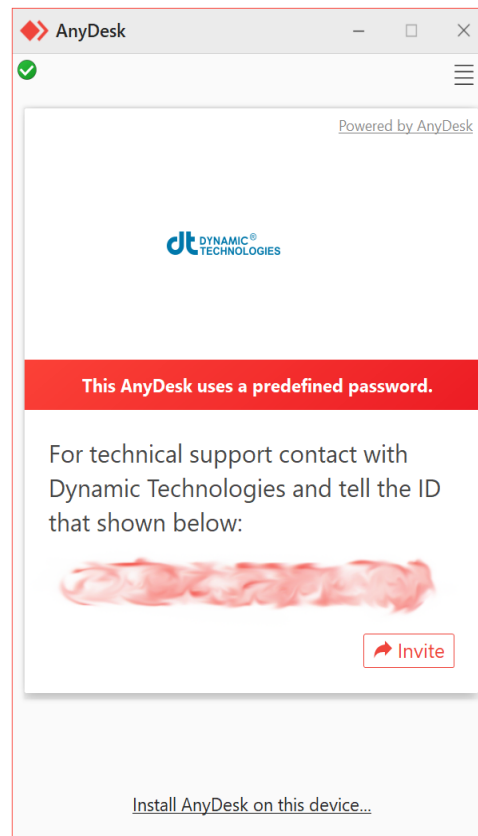
REMOVAL OF FAULTS

Despite the fact that all the components of the diagnostic facility have been repeatedly checked for intactness and reliability, occasionally faults can arise while operating the facility. If this is the case, it is recommended to search the solution of a problem in this section of the User Guide.

If you have not managed to repair the fault on your own, then before contacting the technical support service it is recommended to undertake the following preparatory steps:

- Switch on the computer on which the problem has been detected. Install the diagnostic facility software and connect the device to this computer. Connecting electrodes to the patient is not required.
- In most cases the problem can be solved in a much faster and easier way by permitting technical support specialist to connect to your computer through the internet. The program AnyDesk is designed for that. To use it, it is necessary to download and start the client-end portion of AnyDesk software by the following link:

<http://dyn.ru/distrib/ADCen.exe>



Upon starting the downloaded file “ADC.exe” the AnyDesk’s window with your ID and Password will be displayed on the screen. Be ready to tell them to support specialist.

Once the support specialist has been connected to your computer, please do not touch the keyboard and the mouse unless the talk has been completed.

The Program Is Not Starting

Fault symptom: when trying to start the program nothing happens or the error message is displayed.

Check the Operating System Version

- The program is designed to be operated only by OS MS Windows Vista, MS Windows 7 и MS Windows 8. The highest efficiency is ensured when operated by MS Windows 7.

Reinstall the Program

- The program files might be damaged by some other program. The easiest way to rectify this fault is to reinstall the program. By doing so no patient data will be affected.

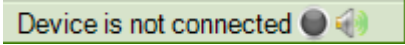
It is recommended to download the latest version of the software from the manufacturer's website. This can be done from one's personal account at the website of the company Dinamika (www.dyn.ru). To get a personal account, registration at the company's website is needed.

Check Your Antivirus Software

- It is possible that the diagnostic facility software has been blocked for some reason by the antivirus software installed on your computer. This might be caused by a virus attack on your computer, which resulted in diagnostic facility software infection by virus and its subsequent blocking by antivirus.

It is recommended to thoroughly check the computer for viruses and then reinstall the diagnostic facility software. It is strongly recommended that the latest version of the software be downloaded again from the website of the company Dinamika.

The Program is Failing to Detect the Device

Fault Symptom: the program has been started and the device connected to the computer but the ECG recording cannot be started and in the bottom right corner of the program the message "Device is not Connected" is displayed: 

Check the Connection of the Device to your Computer:

- USB-cable connecting the device to the computer must not be longer than 2 meters. The use of longer cables as well as of different extenders might impede the correct functioning of the device.
- USB-cable connecting the device to the computer must be of "USB 2.0" standard. The cable armor normally bears the corresponding identification marks. Cables of "USB 1.0", "USB 1.1" are not fit for the device.
- Check the operating capacity of the computer's USB port by connecting to it some known-functioning USB-device, for example, USB-storage device (so called flash drive). If the computer has several USB-ports, try to connect the device to different USB-ports.

Check the Device:

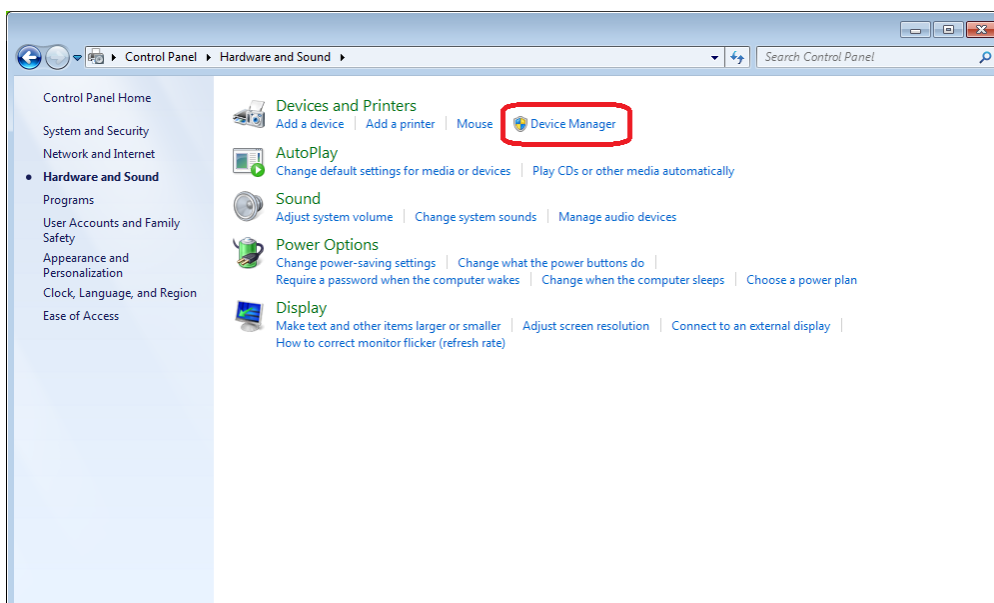
- The device and the interface cables must not have any visible damages. In case the USB-cable has been damaged, you can replace it on your own with any equivalent one. If USB-cable the device or the electrodes' cables have been damaged, you have to contact the technical support service.
- On the device connected to the computer, red light-emitting diode must be on, while the blue light-emitting diode must be off (it only shortly twinkles the moment the device is connected to the computer). If both light-emitting diodes are on, it is indicative of the device's internal error. In this case you should contact the support service.
- Check the sticker on the back of the device.



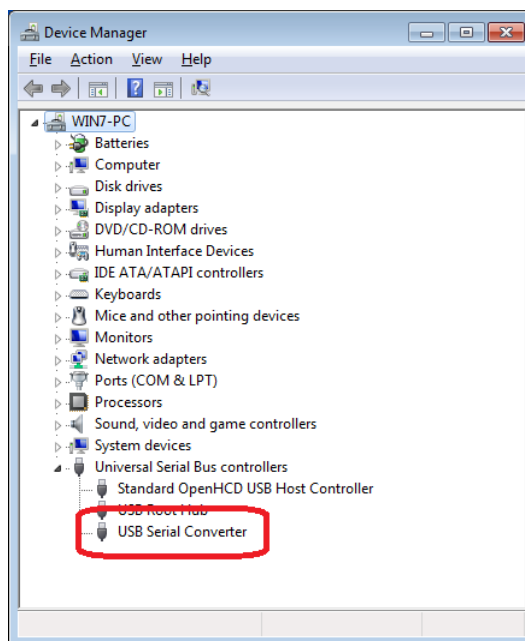
At the bottom of the sticker the serial number of the device is indicated. The first two figures of this number must be “71” or “72”, for example “DIN721234”. If this is not the case, then it is possible that you are using the device incompatible with this diagnostic facility. Use only the device which was in one set with this diagnostic facility.

Check the Driver of the Device:

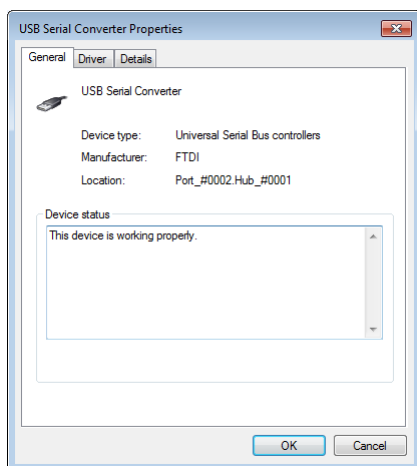
- Make sure that the device has been correctly detected by your computer's operating system. For that open the Windows OS Control Panel and start the Device Manager (it is situated in the applet Sounds and Audio Devices):



Open USB Controllers group in the Device Manager and make sure that the device “USB Serial Converter” is included in the list.



Click with the right mouse button on “USB Serial Converter” and in the appeared menu select “Properties”. The device property window will open.



Make sure in the Device Status field “This device is working properly” is indicated, then switch to the tab “Driver” and make sure that the version of the installed driver is “2.8.14.0”.

If something from the listed above does not correspond to the actual situation, it is recommended to reinstall the driver of the device. For that open the menu Start of OS Windows, select All Programmes, then the folder “Dinamika/Onix/Install Device Driver”. Before installing the driver, make sure that the device

is connected to your computer.

Faults in the List of Patients

Fault Symptoms: The List of Patients does not contain any names, some patients cannot be deleted, the entered names and birth dates of patients are not saved.


Run the Program As Administrator

- Such fault arises because the program is not entitled by the operating system to access the List of Patients on PC disk.

To work properly with the List of Patients it is necessary to run the program as administrator. For that find the program icon on the desktop, click it with the right mouse button and in the

appeared menu select Run as Administrator. You might need the administrator password; you can get it from the person who installed the operating system on your computer.

Problems by ECG Signal Recording

Fault Symptom: The device has been detected by the program but when pressing the button  nothing happens.

Check your Firewall Settings

- It is possible that your computer's Firewall has blocked the signal pickup from the device. To undo the block, read the section "Pre-starting Procedures" of this Guide.

Fault Symptoms: The signal is picked up but the recording does not start.

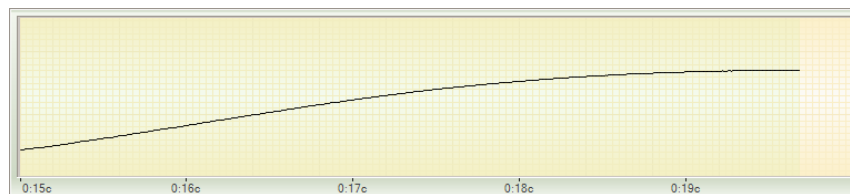
Make Sure that the Electrodes are Connected Correctly

- The electrodes must be put on the patient's arms the way it is described in the section "Pre-starting Procedures" of this Guide.

Check the Integrity of the Electrodes' Cables

- Long and inaccurate use of the cables connecting electrodes to the device can cause their rupture. However, visually this damage is not noticeable as only the copper wire is damaged, not its plastic armor.

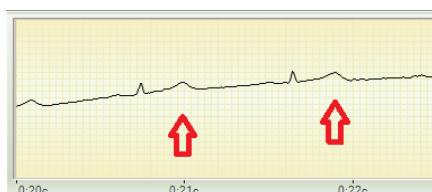
To check the integrity of the cables it is necessary to start the ECG signal registration by the program and then join the two plugs of the device so that their metallic parts are in tight contact with each other. By doing so the registered ECG signal must take the shape of straight line till the electrodes are joined.



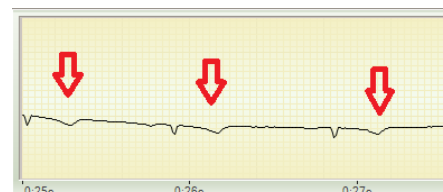
If this has not happened and the signal is still chaotic, it is indicative of the cable internal rupture. If this is the case, you need to contact the support service.

Check the Signal Polarity


- It is possible that the signal polarity is disturbed as the electrodes for the right and the left hand have been confused. This can be easily recognized by the shape of the registered ECG signal:



Correct Signal



Polarity is disturbed

To rectify this, it is enough to press the polarity change button  in the program or to interchange the position of the electrodes on the patient's hands.