

Portable diagnostic complex

CARDIOTACHOMETER

«IM@GO-GRIF»

«IM@GO-AURA»

For control of spent treatment efficiency

Documentation of the user

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Preamble

The diagnostic complex «IM@GO-GRIF» + «IM@GO-AURA» is one of the updates of «Complex computer for an estimation of a functional condition of a human body "Dynamics" - «Lotos» + «Onix» (TU 9442-001-50904116-2005).

Purpose

The complex «IM@GO-GRIF» + «IM@GO-AURA» is intended for an estimation of a health state and control of treatment efficiency.

Feature of apparatus «IM@GO-GRIF» + «IM@GO-AURA» is ease and simplicity of its practical application. For work with the apparatus it is not required special medical education. Following to the detailed step-by-step instruction allows receiving quickly results of examination in the convenient form.

The apparatus «IM@GO-GRIF» + «IM@GO-AURA» allows in dynamics and in the evident form to show reaction of an organism to influence of medicinal agents and medical procedures.

Resources

- Registration of ECG with monitoring of functional condition indices in real time.
- Estimation of a cardiovascular and vegetative nervous system condition by methods of the variation analysis.
- Estimation of a neurohumoral regulation and power resources of an organism by method of the neurodynamic analysis.
- Estimation of a current psychoemotional condition by brain biorhythms mapping.
- Estimation of an organism adaptation level and degree of biological rhythms harmonization by method of the fractal analysis.
- Definition of the patient's biological age.
- Graphic interpretation of AURO and CHAKRO gram, MERIDIANS and their YIN/ JAN balance according to the carried-out cardiometry.
- Electronic card file of patients with the data import possibility.
- Simultaneous representation of results of two inspections for the comparative analysis.
- Printing of examination results.
- Dynamic supervision by results of measurements for occurring changes of functional parameters.

Application

«IM@GO-GRIF» + «IM@GO-AURA» is irreplaceable for daily control of a health state at out-patient treatment, at reception of biologically active food additives, at organism purification, medical starvation, manual, reflexo - and hirudotherapy.

Constant supervision over a state of health is necessary also at carrying out of various courses on weight reduction.

In case of house physiotherapeutic devices use, «IM@GO-GRIF» allows not only to supervise a state of health, but also to select time, duration and periodicity of influence.

The apparatus application is effectively for constant control of health at professional sportsmen and those who regularly visits gyms and fitness centers. Regular examinations in this case give the chance to select intensity and duration of physical activities individually.

The apparatus «IM@GO-GRIF» can be used by representatives of the pharmaceutical companies for presentation of medical preparations, biologically active additives, dietetic therapy products action. Possibility of a patient`s health state express examination allows to select effectively the necessary preparations, and patients have an opportunity actually to supervise the process of their treatment. This circumstance positively affects at a moral and psychological condition of surveyed and promotes trust increase to representatives of the pharmacomania.

Engineering manual

Module for registration of an electrocardiogram. Base model (portable)



Power supply of the module for registration is carried out from the computer through the USB-interface with optron decoupling.

The note: In some models of laptops at work from a network there are hum appears at electrocardiogram record. For noise elimination it is recommended to disconnect the adapter of an alternating current from a network for the period of record and to pass to supply of the laptop by accumulators.

At hum occurrence on the stationary computer it is recommended to use grounding. Also, on some laptops hum can be caused by the printer connected through the USB-interface. For noise elimination it is recommended to disconnect the printer from the computer for the period of an electrocardiogram record. The consulting room variant has no named lack.

Technical characteristics

Range of entrance voltage	0,03 - 5 mV
Entrance impedance, not less.....	5 MOM
Level of the internal noise led to an input, no more.....	10 mcV
Factor of in-phase signals easing on frequency of 50 Hz, not less.....	110 dB
Direct current in a chain of the patient, no more.....	0,1 mcA
Pass-band.....	0.03 - 500 Hz
Time constant.....	3,2 sec.
Frequency of digitization of an entrance signal.....	1000 Hz
Number of categories of quantization.....	12
Speed of data transmission on the consecutive communication channel RS232C.....	38 Kb\sec.

On an electrosecurity the apparatus corresponds to GOST P 50267.0 and GOST 50267.25 (MEK 601) for products of a protection class II, type BF.

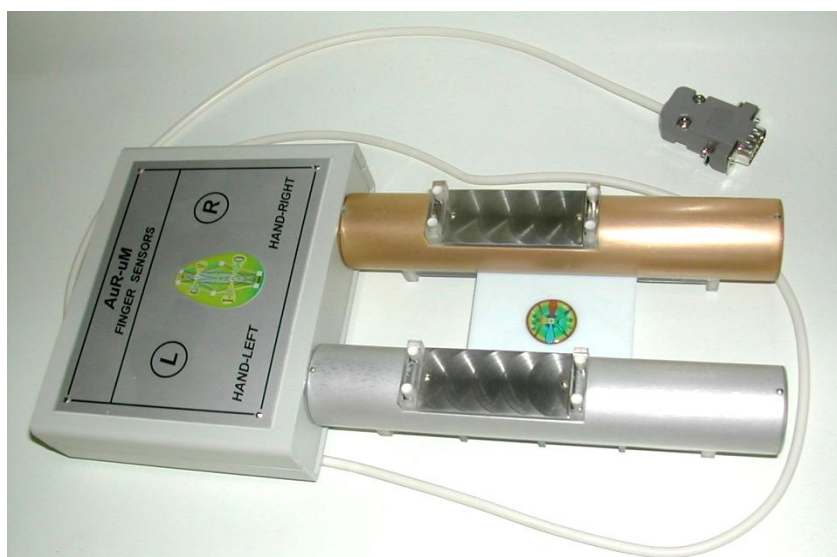
Variant of apparatuses «AuR-uM» for consulting room



Variant of apparatuses «GRIF@TOM» for consulting room



Sou-dzhok variant (manual contacts)



PREPARATION FOR WORK

Software installation

1. Will turn on the computer.
2. Insert a compact disc with the software into a drive of compact discs of the computer.
3. Open a window «My computer», click twice by the left button of the mouse an icon of a compact discs drive into which the compact disc with the software «IM@GO-GRIF» has been inserted.
4. In the opened window containing the list of folders, being on a compact disc with the software «IM@GO-GRIF». Double-click on the left button of the mouse to open a folder «IM@GO-GRIF» and then double-click a file «Install_Im@goGrif» to start. The master of installation the software «IM@GO-GRIF» will be started.
5. For installation the software «IM@GO-GRIF» with options by default press button "Further" in consistently opening windows of the master of installation, and further – button «Establish» in a window of the master of installation «All is ready to installation».
6. After end of installation of the software «IM@GO-GRIF» press button "Finish" for an exit from the master of installation.

Preparation of the module for registration of an electrocardiogram to use

Connect electrodes for base (portable) model to a leads cable, and securely fix tips by means of screws. The consulting room variant is ready at once to work. Connect the interface cable to the computer in free USB-port. Connect the interface cable to the remote module.

Connection of the module for registration of an electrocardiogram to the patient

Electrodes application is made on hands of the patient in the field of wrists, a contact platform on the skin.

The electrode with the red tip is put on the right hand, with the green tip – on left. In a place of contacts it is recommended to moisten a skin with a physical solution or water plentifully.

During examination the patient should be at rest, in position "sitting" or "lying".

In certain cases, at very low amplitude of a R-tooth the red electrode is imposed on a wrist of the right hand, and green – on the ankle of the left foot also plentifully moistened with water.

For reducing hum at electrocardiogram registration it is necessary to observe following rules :

- Hands of the patient should be motionless and weakened. In sitting position hands of the patient should be on lap, in a lying position – settle down along a body.
- In radius 1,5 - 2 meters from the patient extraneous people shouldn't be there.
- In the process of registration ECG the patient should be in comfortable and weakened condition as much as possible. It is not recommended to distract the patient by conversations and to show him the screen of the computer from a registered electrocardiogram. It is possible to suggest for the patient to close eyes.
- The consulting room variant is completed additionally with payment excluding hum influence on the receiving electrocardiogram. The patient can sit on a chair in the presence of the operator and together analyze the obtained data of chronobiology. However, it shouldn't do sharp muscular movements, including by a diaphragm at speeding up of respiratory movements of a thorax.

PROGRAM INTERFACE

The program window is conditionally divided on two areas: the list of patients and results of the patient examination.

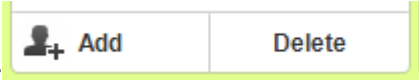
List of patients

There is a list of patients in the left part of a window. Its top part serves for display and change of the personal information on the chosen patient.

The personal information can be displayed as in the curtailed, reduced kind, and in expanded form at which it can be changed.

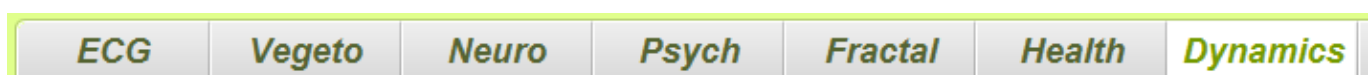
Switching between these kinds is carried out by means of click a strip, which there under the personal information of the patient, by the left button of the mouse.

The list of patients contains the information about all surveyed patients. Also there are elements of management by the list of patients in this part of a window:

- Buttons for a choice of a way to display list: 
- The field for fast search of the patient by the first letters: 
- Buttons for addition and removal the patients: 

Results of examination

There is the block for display the examination results of the present patient in the right part of a window. This block represents a set from several tabs. Buttons intended for switching between them are in the top part of the block:



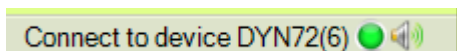
There are six inserts:

- 1st: «ECG» – the insert contains elements of management for registration and display the electrocardiogram of the patient. In this position the result of concrete examination moves on the print.
- 2nd: «B» – the insert serves for display of an organism's vegetative regulation estimation by the heart rate variability analysis. The result of comparison between the present examination and the earlier performed ones feeds to the print from this insert and the others subsequent.
- 3d: «C» – the insert serves for display of a hormonal regulation estimation by the method of the neurodynamic analysis.
- 4th: «D» – the insert serves for display of a psychoemotional state estimation by the method of the brain biorhythms mapping.
- 5th: «A» – the insert serves for display of an organism adaptation level estimation and for determination of biological age by the method of fractal analysis.

- 6th: «Health» – the complex analysis of a functional state is displayed on this insert.
- 7th: «Dynamics» - dynamics of functional state parameters and a daily forecast is displayed eventually.

The button  for displaying the information about the program authors and the button  for displaying the User Guide there are in the right top corner of a window of the program «IM@GO-GRIF».

Information about the connected device is displayed in the right bottom corner of the «IM@GO-GRIF» program window.



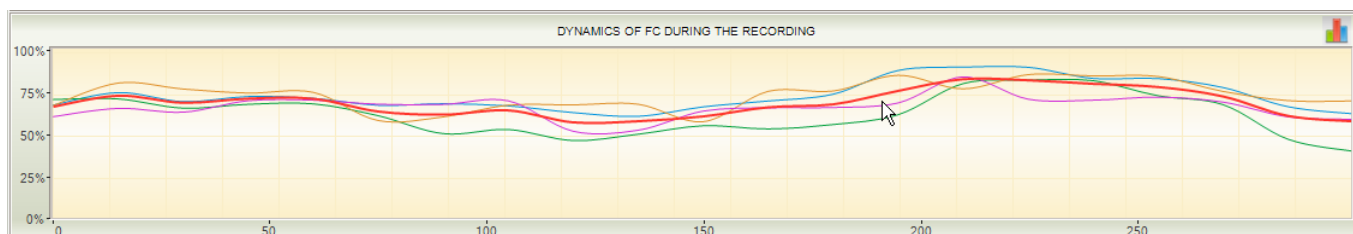
In brackets number of virtual USB port is specified. Color of a bulb means readiness of the device for work:

- the gray – the device isn't found;
- the red – it is connected the device from other hardware-software complex, not intended for work with the «IM@GO-GRIF» complex;
- the green – the device is ready to work.

The button /  allows turning on or off sound signals of the program.

The button  serves for display of the dynamics graph of functional state parameters during the record.

Dynamics of functional state parameters during the record



The dynamics graph of functional state parameters during the record is displayed changes of functional state parameters in the process of examination. It allows estimating reliability of the received results.

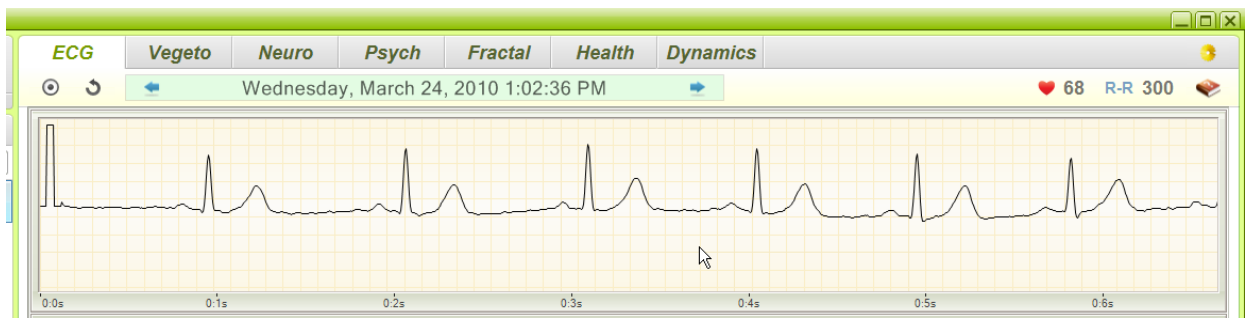
If the functional state parameters remain at one level throughout all examination, it means that examination is carried out correctly and its results can be trusted. If the dynamics graph of functional state parameters has sharp differences of level, it means that during carrying out examination the patient wasn't in a condition of absolute rest, or the signal of an electrocardiogram arriving from the patient was influenced by foreign noise waves.

Don't have to trust such results of examination, and it is meaningful to carry out re-testing, previously having eliminated the factors which are negatively influencing quality of a traceable signal of an electrocardiogram.

The button  serves for graph switching back in a mode of rhythmogram displaying.

The insert «ECG»

The insert includes the elements of management intended for registration and display the electrocardiogram of the patient.



The short description of elements of management:



The button of the beginning/end of ECG registration



The button for polarity change of an ECG signal which being registered (for base model).



It is the element of management for display results of the one earlier spent examination of the present patient. The choice of examination results is realized by buttons  and , allowing to choose earlier or later date of carried out examination accordingly. Besides, the menu of an examination choice there is opened in this element of management at click of the left mouse button by date. It is possible to choose results of anyone of earlier spent examination of present patient in this menu.

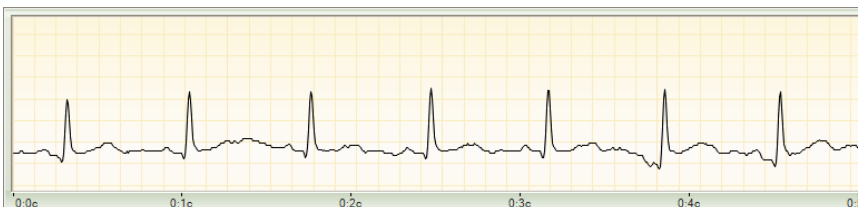


The rate of cardiac contractions in an instant.

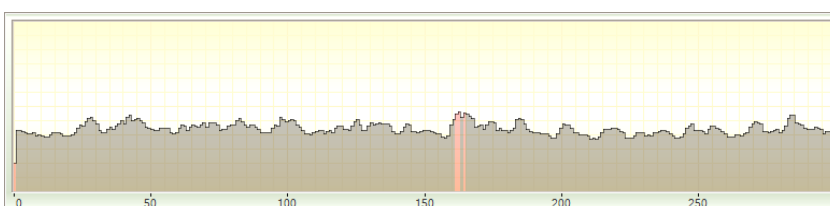


Quantity of the registered cardiac contractions.

ECG



The program displays either earlier registered ECG signal, or a registering signal at present, which depend on an operating mode. Time in minutes and seconds from the registration beginning is ticked on a horizontal axis, on a vertical axis – amplitude of an electrocardiogram.



Graph scaling on electrocardiogram height is carried out by mouse movement upwards-downwards with the pressed right button.

Graph moving is carried out by mouse movement forward-back or upwards-downwards at the pressed left button.

Rhythmogram

The program displays either earlier registered rhythmogram, or a registering one at present, that depend on an operating mode.

Rhythmogram is the graph on that the number of «R-R» interval is ticked on a horizontal axis, on a vertical axis – duration of «R-R» interval in seconds. The «R-R» interval – is time interval between the next beats of heart.

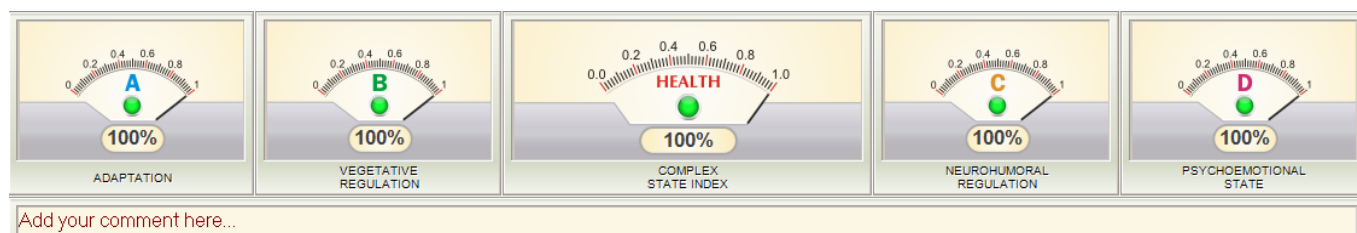
Artifacts, extrasystoles or measurement noise, are in red ink at rhythmogram.

Graph scaling is carried out by the right mouse button, moving – left.

The program doesn't record result at a considerable quantity of artifacts during electrocardiogram reading, but it repeats measurement from an initial fragment independently, without active actions of the operator.

Below is: «The field for notes to examination». It allows saving and changing the text notes having to do with present examination.

Functional state indicators



Normalized values of functional state parameters are showed on indicators.

Green color: norm

Yellow color: insignificant deviations (functional character)

Red color: considerable deviations demanding correction and dynamic supervision over improvement.

Mobile pointers of indicators provide guidance on dynamic parameters of investigated processes.

- «A» – level of an organism adaptation
- «B» – the index of vegetative regulation
- **«Health» – complex index of health** - on the middle
- «C» - the index of neurohumoral regulation
- «D» – the index of psychoemotional state

The inserts «A», «B», «C», «D», «Health» and «Dynamics»

These inserts serve for displaying the detailed information about a functional condition of the patient. They are organized by a uniform principle and differ with only displayed information.

Each insert is conditionally divided into two half – left and right. In each half of insert the parameters concerning one of spent before examinations of the patient are displayed. Using management elements in the top part of an insert it is possible to choose date of examination. Thus, it is possible quickly, simply and visually to estimate change dynamics of a functional condition at the patient.

Thus each insert displays two functional parameters:

- On the insert «B» - an «R-R» intervals histogram and an autocorrelated portrait.
- On the insert «C» - a neurodynamic matrix and an energy pyramid.
- On the insert «D» - a spline-map of electrical activity and spectrum of brain activity.
- On the insert «A» - a fractal portrait of biorhythms and a geriatric curve.
- On the insert «Health» - parameters of a functional condition and the complex index of health.
- On the insert «Dynamics» - dynamics of functional state parameters eventually and daily forecast.

For any functional parameter it is possible to look a norm for comparison and competent interpretation, having pressed the button  in a window of the corresponding parameter.

OPERATING PROCEDURE

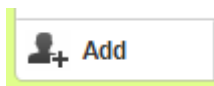
Program start

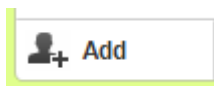
For program start bring the mouse pointer to a badge «IM@GO-GRIF» on a desktop and click two times the left button.

After loading on the screen the program window will open:

In the right bottom corner of the basic window the green indicator  should shine, it means readiness of the apparatus for work. If it doesn't occur, it is necessary to check up correctness of connection USB - a cable, presence and serviceability of the COMPUTER free ports and operability the cardi tachometer of «IM@GO-GRIF» driver, established before.

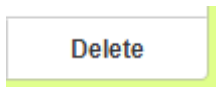
Addition of the new patient

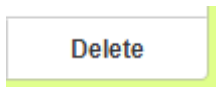


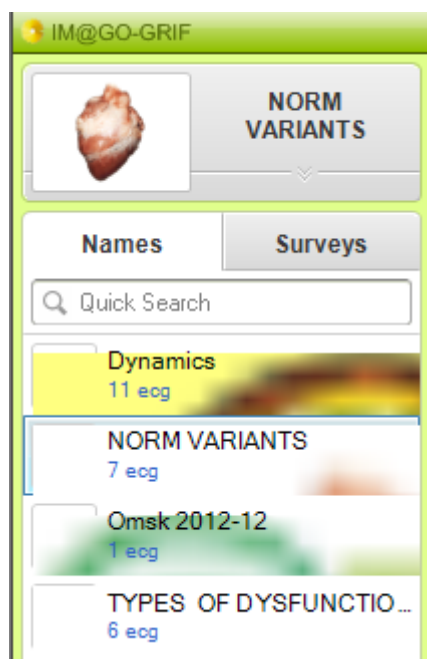
Press the button . In the list of patients the new patient with the blank personal information will be added. For its filling in the top part of the patients list the window of the personal information change will be developed. It consists of four input parameters: «patient photo», «sex», «full name» and «birth date».

Removal of the patient from the list

For the patient removal from the list it is necessary to choose this patient in the list and click



 by the left button of the mouse. If the chosen patient has any data of examinations, the window of acknowledgement removal of the patient will be displayed to the user. If examination of the chosen patient wasn't spent, it will be removed without additional questions to the operator.



Enter the surname, name and patronymic of the additional patient in the «full name» field. Point his sex. For this purpose it is necessary to click a male badge  in the «full name» field by the left button of the mouse. After one click the sex badge changes to the female badge , after repeated click – back to the male badge .

It is necessary to enter birth date of the added patient in the «Birth date» field. To enter date it is possible as in a digital form (in a format «DD.MM.YYYY» - thus program interprets 5 6 56 as 05-06-1956), and by means of a calendar which appears at click a badge  by the left button of the mouse.

For addition of a patient photo it is necessary to click the left button of the mouse at the field «patient photo». Standard window of Windows for a choice a file with the patient photo thus will open. It is

possible to use any image as a photo.

When the change of the patient personal information will be finished, it is necessary to click a management element  in the bottom part of the window of the patient personal information change by the left button of the mouse to reduce it.

Change of the patient data

For data change of any patient it is necessary to choose this patient in the list and to click by the left button of the mouse, then click the management element  in the bottom part of the window of a patient personal information change to increase it. Change of the patient personal information has been in detail described in the section «Addition of the new patient».

Patient fast search

For fast search in the list of any patient it is necessary to use the "Search" field located in the top part of the list of patients.

At input in this window of initial letters of a patient surname, the patient which surname begins on the letters entered in the "Search" field will get out at once in the list of patients. If any letter isn't entered in the "Search" field it means that in the list of patients there is no surname of the patient which begins on this letter. Thus the cursor in a database will move towards letters entered by you for fast search.

ECG recording

Be convinced that there is the green indicator  in the bottom right corner of a window of the program. That means: the module of an electrocardiogram registration is ready to work. If the indicator is of gray color, it means that the module of an electrocardiogram registration isn't connected to the computer, is faulty, or isn't distinguished by an operating system. In a case if the indicator is of red color, it means that the module of an electrocardiogram registration is connected to the computer won't do for work with the author's program «IM@GO-GRIF».

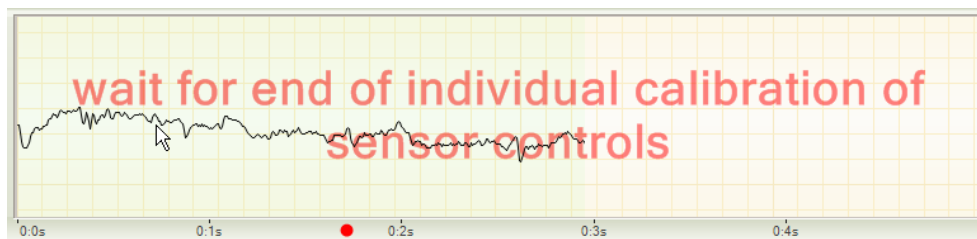
Connect electrodes to the patient as it is described in the section «Connection of the module for registration of an electrocardiogram to the patient». Choose the respective patient in the list of patients by click of the left button of the mouse.

Press the button . In the display field of a patient electrocardiogram there should appear a loading frequency signal of calibration – synchronization and follow - a registered signal of an electrocardiogram. Check up polarity of a signal in an R-tooth direction upwards and if necessary change it by button .

After the program «IM@GO-GRIF» has found out a steady electrocardiogram signal, recording of it will automatically begin. Thus the note «recording is in progress» will appear in the electrocardiogram display field:



If for any reasons the registered signal of an electrocardiogram contains a much measurement noise, or its polarity is mixed up, the warning note «quality of a signal is unsatisfactory» will be displayed in the electrocardiogram display field.



Thus the program will continue registration of an electrocardiogram signal until quality of a signal doesn't become good or while registration process won't be interrupted by pressing the button .

In the process of record the program continuously supervises quality of a written down signal. Arising noise will be displayed by pink color at rhythmogram. In case the quantity of measurement noise is great, record process will be interrupted also the program will begin registration of an electrocardiogram signal anew. For the early termination of an electrocardiogram signal registration it is necessary to press the button .

At registration of an electrocardiogram signal the patient pulse rate and also, in process of a data set, normalized values of tested parameters of a functional condition are being displayed. If essential changes of these parameters are observed at making of a record, it means that the patient isn't at rest.

Also during signal record the quantity of registered «R-R» intervals is displayed. After record of 300 intervals record process will automatically come to the end, and the program will pass to the mode of an examination results viewing.

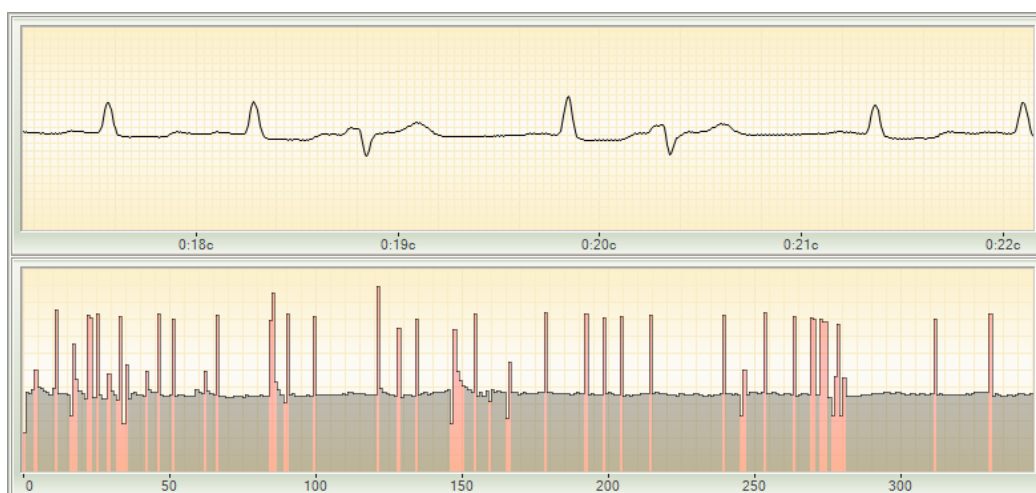
Attention! If the patient has a ciliary arrhythmia or an obviously expressed extrasystole, the calculation of functional condition parameters won't be made truly.

Testing of functional condition parameters in all modes can be made only at absence at the patient of cardiac rhythm abnormalities!

Examples of such abnormalities are shown in following pictures:

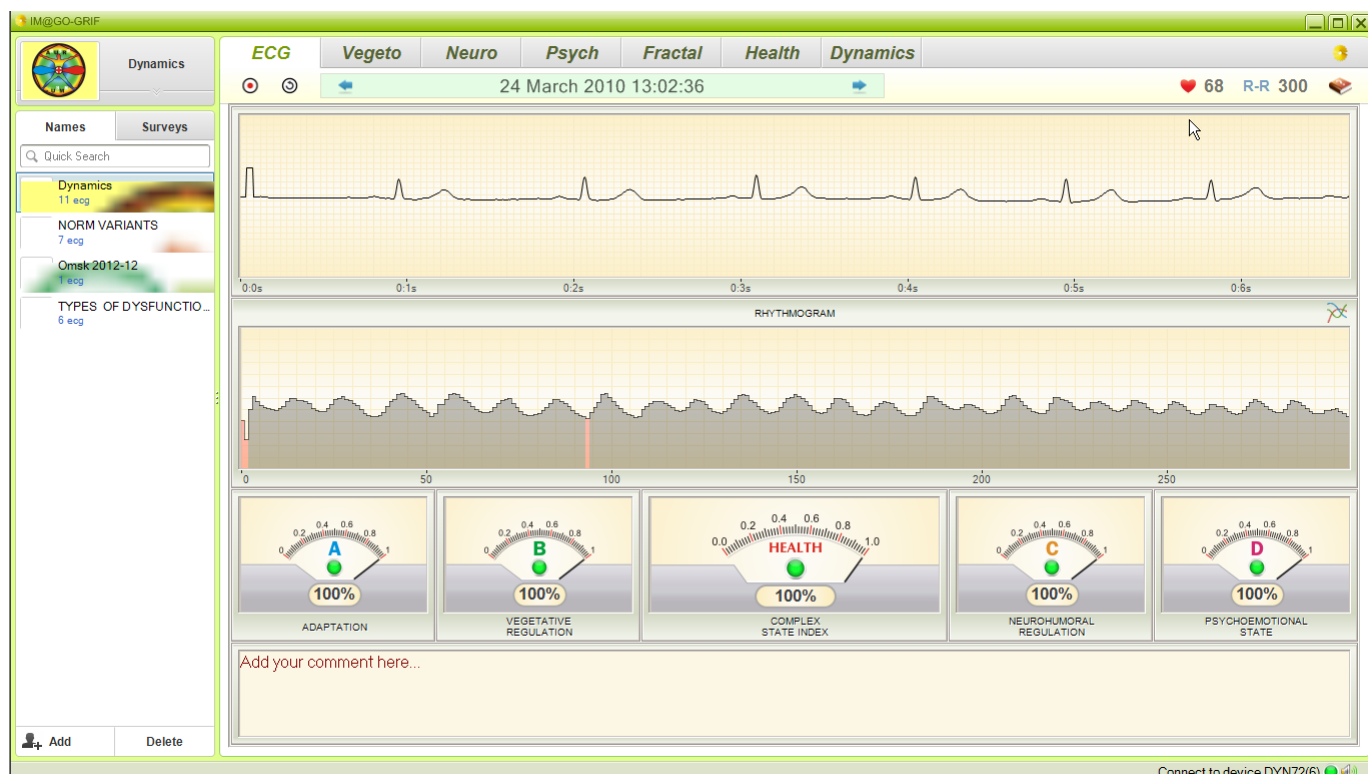


Ciliary arrhythmia



Extrasystole

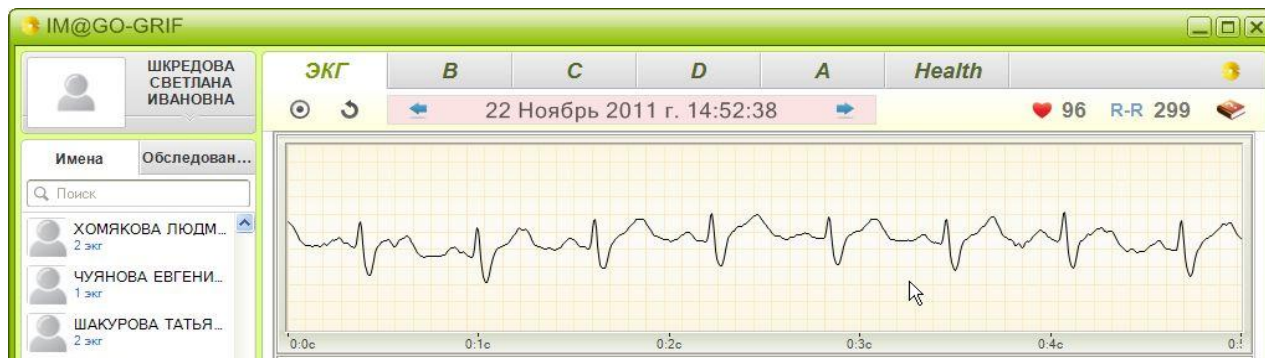
ECG viewing



For viewing of patient examination results it is necessary to choose this patient in the list. If necessary it is possible to use function of fast search of patients. At clicking with the left button of the mouse on any patient in the list, his latest examination results, divided on six inserts, are displayed in the block of results displaying. For a choice of another date of examination it is necessary to use a management element «examination date choice».

Variants of ECG structure abnormalities:

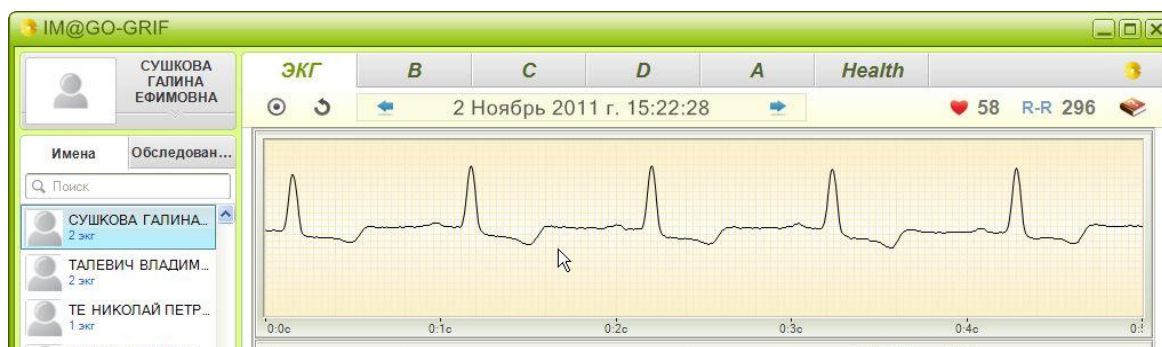
1. Splitting of the R wave, tachycardia (rapid pulse, more than 86 beat per minute):



2. The amplitude of the R wave is sharply lowered:



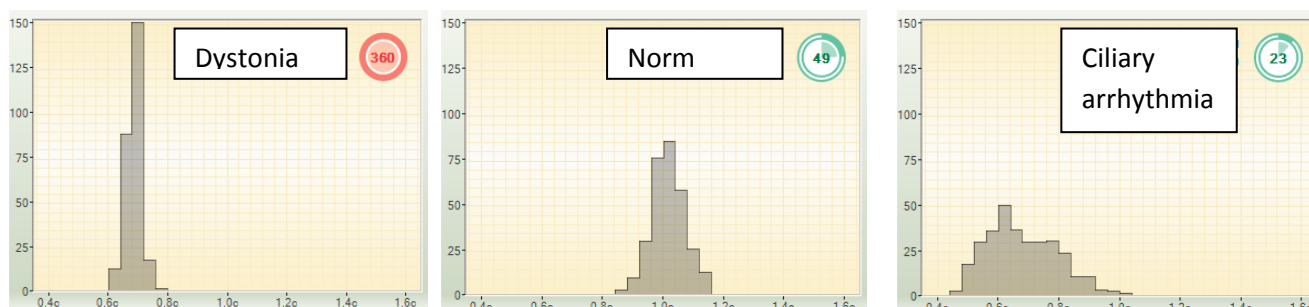
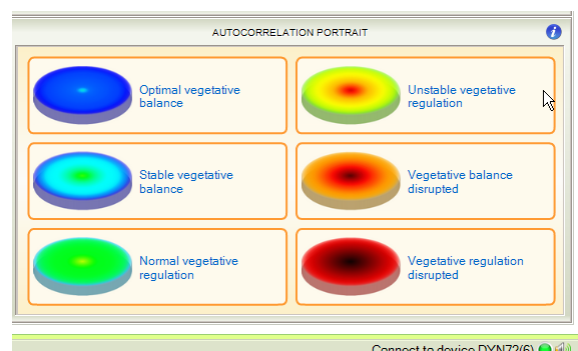
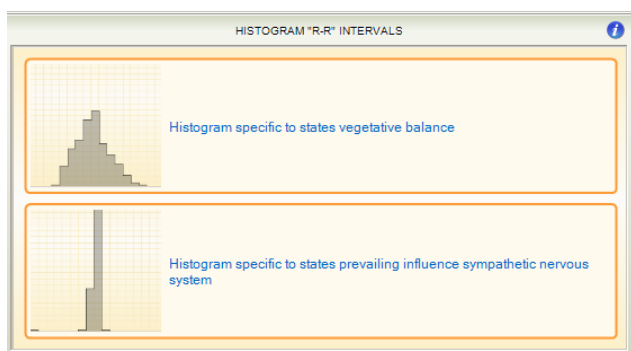
3. Negative polarity of the T wave, bradycardia (slow pulse, less than beat per minute):



«B» – vegetative regulation

On the insert «B» the information about vegetative regulation parameters of the patient is displayed.

Vegetative regulation is carried out by vegetative nervous system which operates of physiological processes, irrespective of human consciousness. It operatively reacts to changes of the external and internal environment, operating on the cardiovascular system, effective work of which provides the organism by oxygen and nutrients.



Histogram of «R-R» intervals is the ratio diagram of duration of all «R-R» intervals. There is duration of «R-R» intervals on an abscissa axis, probability of their occurrence is on an ordinate axis (i.e. quantity of «R-R» intervals been found in appropriate range). A histogram step – 0,04 seconds.

Basis range of the diagram – from 0,32 to 1,64 seconds.

Norm: The central arrangement of the diagram columns with localization of the highest column (mode) in a range 0,7 -1,0 seconds is typical of a condition of vegetative balance.

Considerable displacement to the left the histogram bases is characteristic in case of prevailing action of sympathetic department of vegetative nervous system.

When parasympathetic action is dominant, the opposite effect is observed.

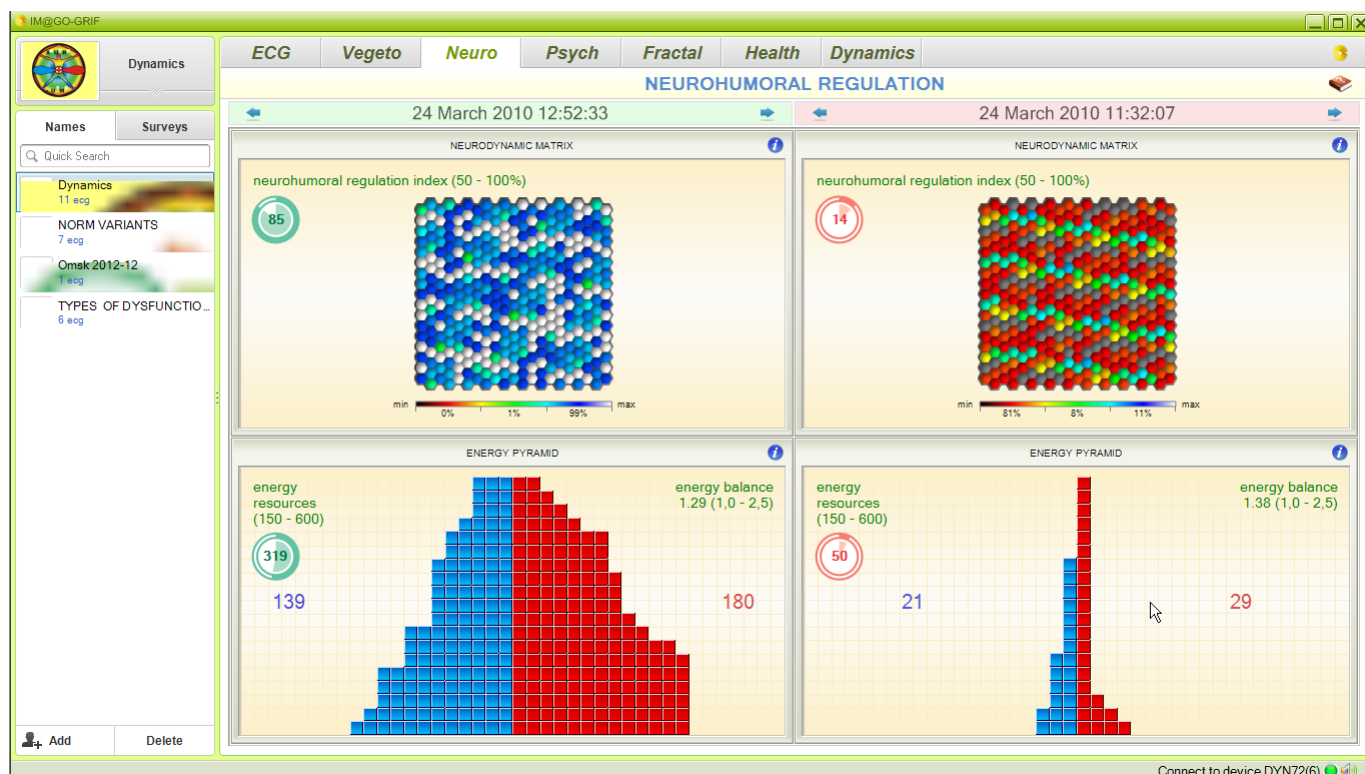
The intensity index characterizes degree of cardiac muscle (a myocardium) tension.

The autocorrelation portrait characterizes degree of rhythmogram various fragments similarity.

The index of vegetative balance characterizes a ratio between activity of sympathetic and parasympathetic departments of vegetative nervous system.

«C» – neurohumoral regulation

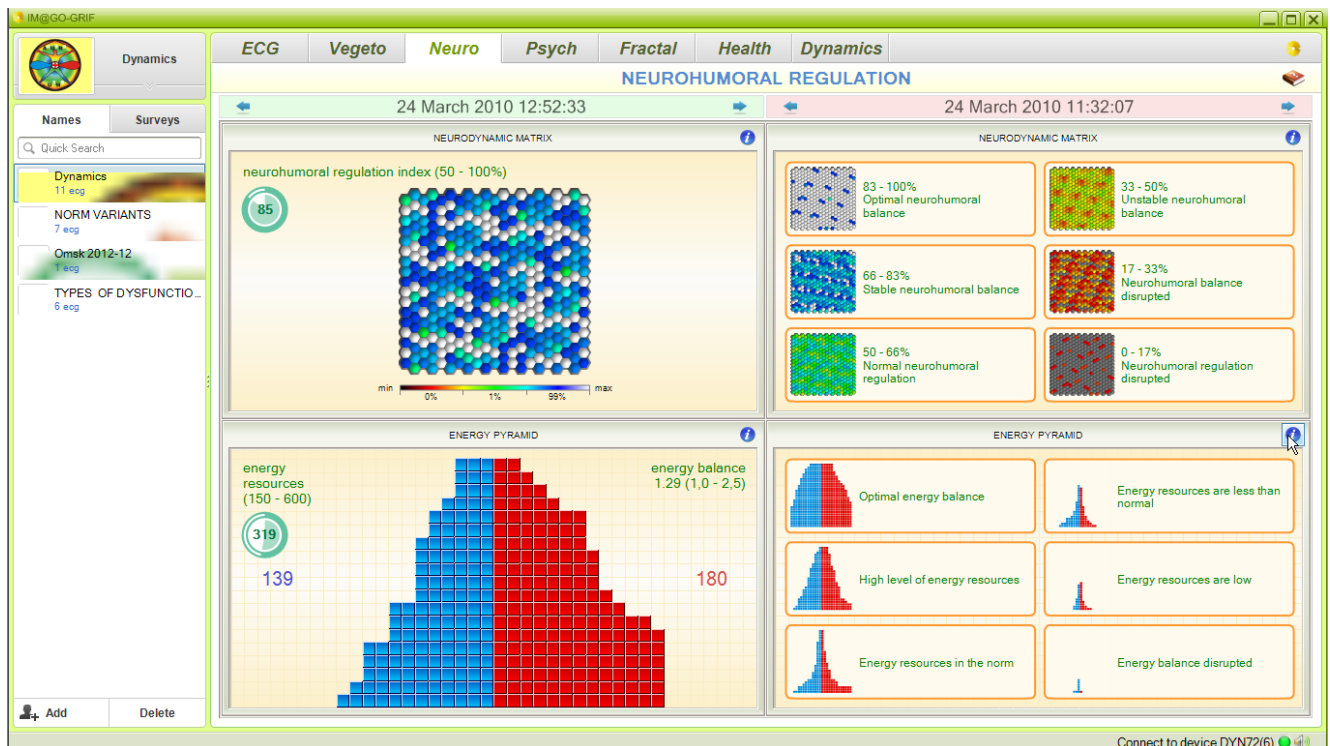
There is information about patient neurohumoral parameters is displayed on the insert «C».



The system of neurohumoral regulation controls biochemical substances composition and biochemical reactions rate in an organism, providing a constancy of the internal environment and the organism adaptation to changing living conditions.

The structure of physiological rhythms is presented in a kind of the neurodynamic matrix, each element of which characterizes dynamics of appropriate rhythms (more than 400). Separate elements of the matrix are the rhythms of various organism systems, and color of each element defines conformity degree of these rhythms parameters to the uniform universal law of wildlife functioning – to the law of two exponents.

Parameters of «ideal exponent» submit to the "golden section" 5:8. Observance of such parameters provides as much as possible effective work of life-support systems of an organism at the minimum power expenses. Yellow-red-gray colors of matrix elements give warning that the parameters of the rhythm are far from the optimum.



The index of neurohumoral regulation characterizes efficiency of the endocrine system and defines as far as optimum the organism uses own energy and physiological resources. The system of neurohumoral regulation is responsible for a constancy of the internal environment and the organism adaptation to changing living conditions.

Red zones characterize inadequate parameters according to autoregulation reaction.

Gray zones make it possible to reveal the latent functional blocks demanding correction and dynamic supervision.

The energy pyramid characterizes total scope of an organism physiological resources and balance between receipt cycles (a red zone) and expenditure cycles (a dark blue zone) of these resources at an existing rhythm of life. The volume of a pyramid dark blue part (A - anabolism) is proportional to time of resources restoration, the volume of a red part (K - catabolism) – to time of resources expenditure. The ratio between the left and the right parts areas of the "pyramid" characterizes dynamics of anabolic and catabolic processes running in an organism. In norm $A < K$, i.e. the processes of catabolism (energy production) always must be dominant (It forms energy reserves). The minimum volume of whole pyramid signals about an exhaustion of an organism physiological resources.

«D» – psychoemotional status

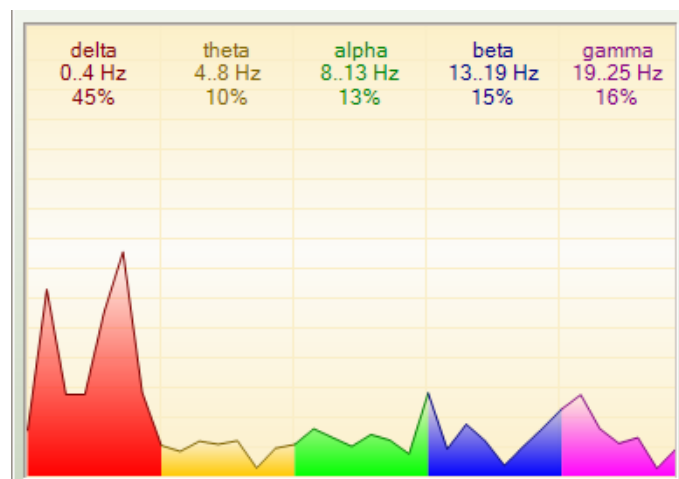
The mode «D» displays the information about parameters of the psychoemotional status.

The spline-map – the result of spline-interpolation of peak values of the basic brain rhythms. Spline-cards of electrical activity represent a set of two-dimensional distributions of the central nervous system (CNS) rhythms in functional spaces of a brain and characterize integrated activity of CNS in these spaces.

Sites with black and red-yellow color gamma signal about the lowered activity of a brain owing to a disease state, overfatigue and stress consequences.



The index of **psychoemotional state** characterizes as far as deep destructive influence of stress was had on an organism.

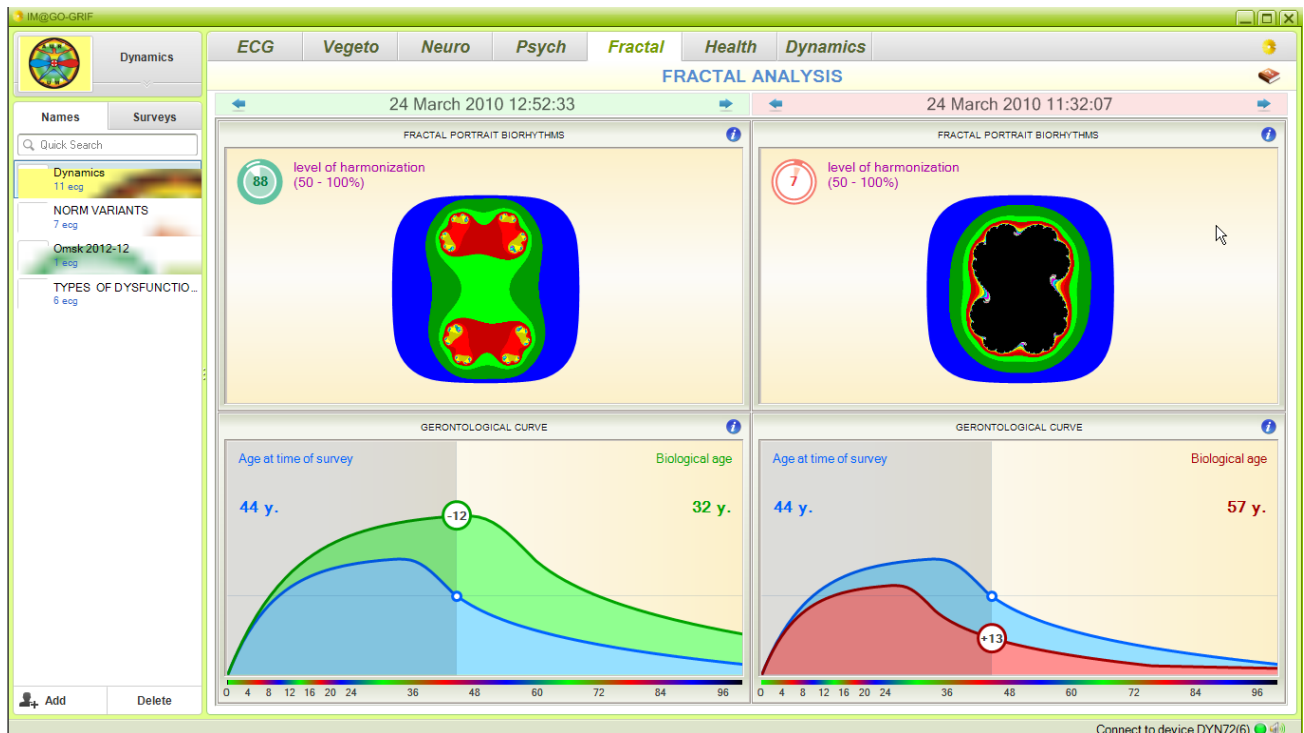


The frequency **spectrum of brain activity** is received by overlay of heart rhythms on a frequencies range of brain rhythms. The received spectrum is divided into ranges, appropriate to frequencies of delta, theta, alpha, beta and gamma rhythms.

Even distribution of rhythms on all range of frequencies corresponds to normal state. Prevalence of delta rhythm indicates of a disease state, overfatigue and stress.

«A» – fractal analysis

On the insert «A» is displayed the information about the fractal analysis of a patient state.



The fractal analysis is intended for selection and a visual estimation of harmonization degree of biorhythms of an organism's various organs and systems having fractal liked structure, for the purpose of revealing of functional and pathological changes, an estimation of the organism immune status and of the forecast of patient health state change.

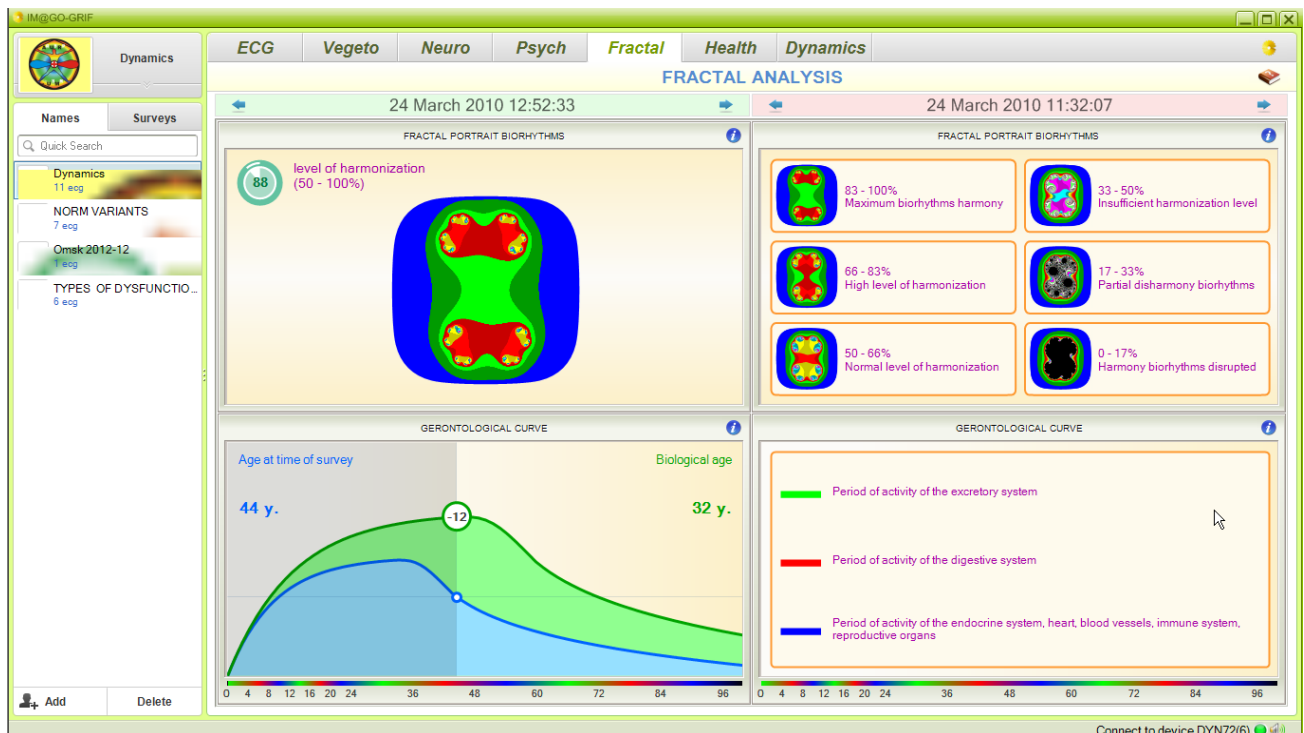
The fractal analysis makes it possible to reveal similarity in laws of dynamic parameters of the rhythms characterizing physiological processes in a human body. Rhythms having fractal liked structure, shown in the form of universal reactions to external and internal influences, are selected in the process of the electrocardiogram analysis. Degree of a coordination of these rhythms defines quality of ability to live during the set moment of time.

Ability to maintenance and preservation of such harmony throughout the long period is reflections of quality of organism's adaptable possibilities to changing conditions of the external and internal environment or the "immunity".

The index of a **fractal portrait** is an information index of the immune status of the organism, showing of its ability to adaptation at new conditions. The fractal portrait is the solution of the equation of Mandelbrot which parameters are dynamic parameters of an electrocardiogram. The fractal portrait characterizes degree of harmonization of physiological rhythms and shows, how in concord the organs and systems work in an organism.

Fractal harmony of biorhythms at all levels of regulation indicates the big energy resources of an organism, optimum balance of energy maintenance and the favorable forecast in health state changes. Partial disharmony of biorhythms in separate organs and organism systems makes it possible to speak about presence in them of functional deviations from norm.

Reduction of energy resources and energy disbalance is characterized by disorder of fractal concord of organism biorhythms that corresponds to serious functional disturbances, or pathological changes in separate organs.



Degree of biorhythms harmonization characterizes coordination degree of regulatory systems, reflects quality of adaptable possibilities of an organism to changing conditions, and also serves as the information indicator characterizing a condition of immune system.

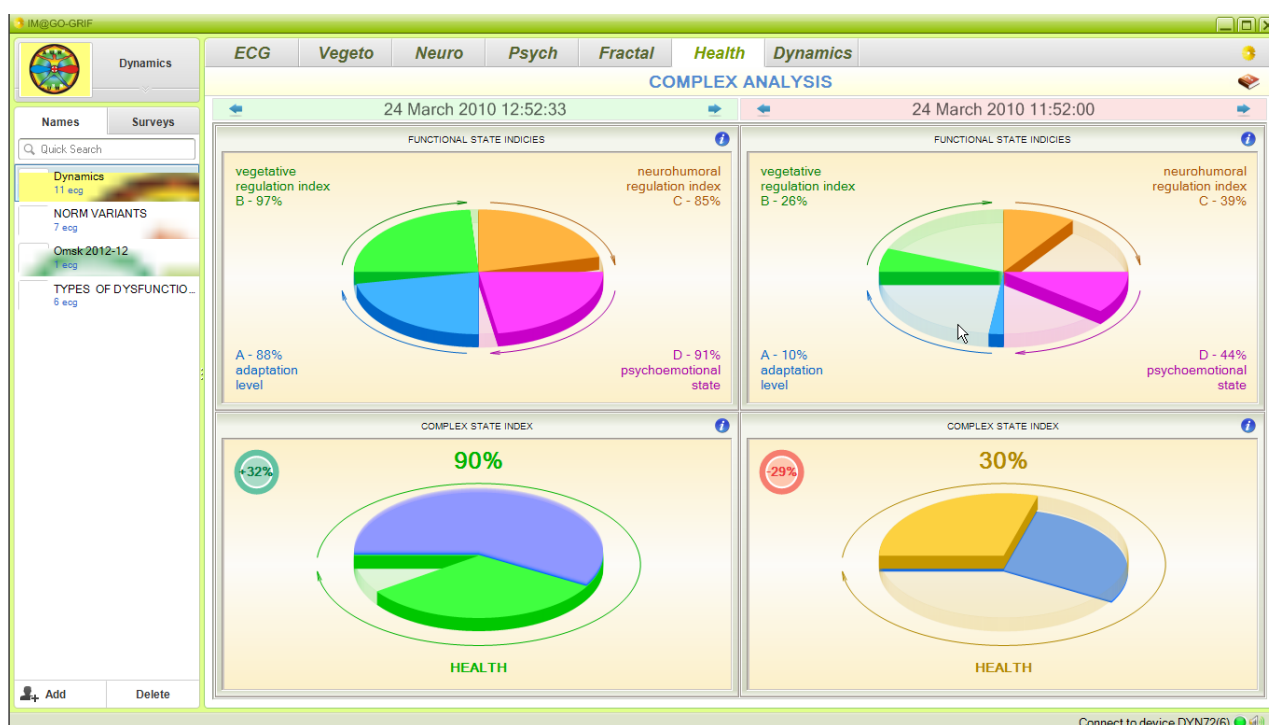
The gerontological curve is the slowest biological rhythm of an organism. Its period is defined by life span and makes 90-128 years. It graphically reflects a ratio between rates of accumulation by an organism of vital resources and rates of an expenditure of these resources. It is a combination of the logarithmic and the exponential curves.

For "reference" gerontological curve these relations correspond to "golden section" parameters. Conditional "point" in which accumulation of vital resources passes in process of their slow expenditure is defined by an empirical way and approximately corresponds to human age at 48-60 calendar years.

The calendar age is measured on the hours located out of an organism, and biological age – on hours in an organism.

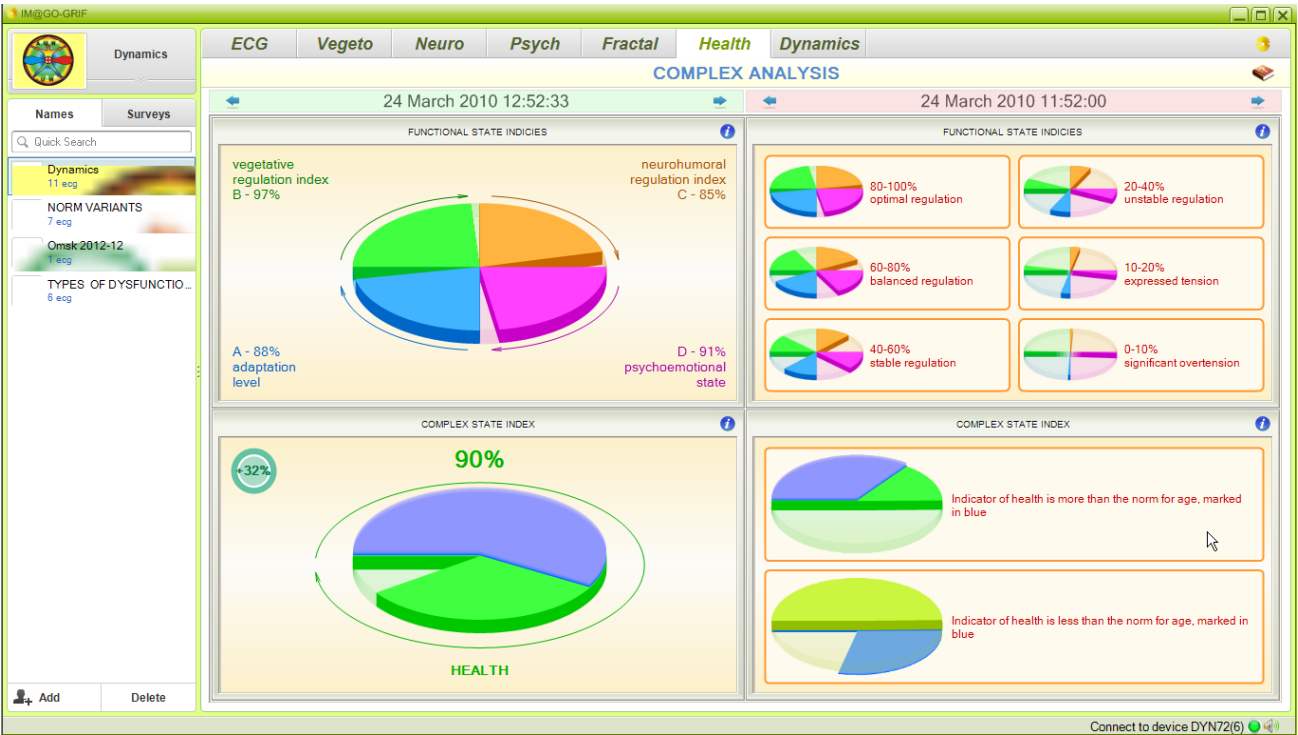
People can be younger or older of their passport age, thereof diseases and the death, connected with aging, come at various calendar ages.

The reasons of these distinctions are basically the genetic. Therefore the true age of the person is defined not by time which has passed from the moment of a birth, but by the indicators reflecting its viability. Degree of viability of an organism is defined as biological age. Biological age is a measure of system decomposition of an organism in the process of aging.



«The complex index of health» is quintessence of all previous parameters and serves as conditional mathematical expression of "a patient health state». With its help it is probably to estimate the general quality of physiological processes of an organism and degree of their equation.

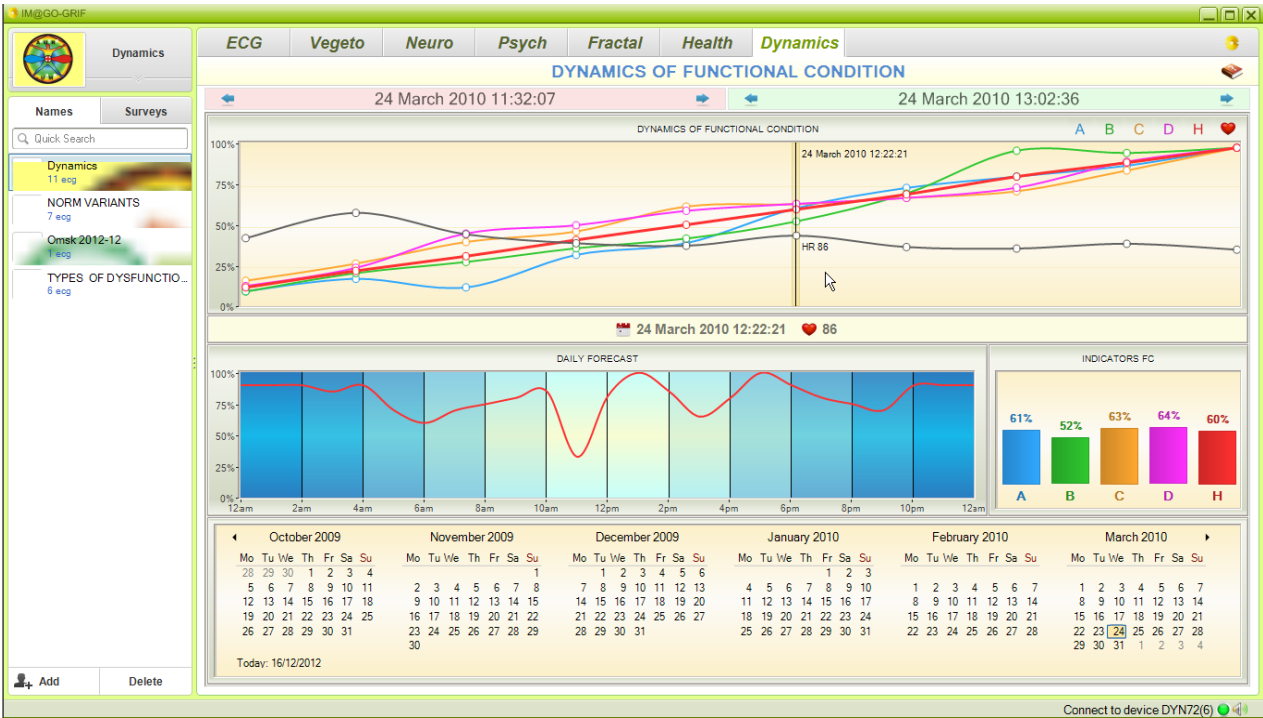
«Health degree» actually is the degree of effort, which is required for the regulatory systems of human body to come to balance with habitat.



The thin blue disk on the chart of a complex index of health designates norm for the average patient of this age. Really measured index of health can be bigger or smaller than norm. In the left top corner of the chart the difference between real and average value is displayed.

Insert "Dynamics"

At the insert "Dynamics" is displayed the process of functional state parameters changing.



In the top part of the insert there are two elements of date management for specifying the analyzed period. No more than ten last examinations are analyzed by default.

Results of all analyzed examinations are displayed on graphics «Dynamics of functional state parameters». Buttons  at the top part of the graphics allow hide or display the corresponding parameter on graphics.

By means of the mouse left button it is possible to choose on graphics one of examinations for display of more detailed information on it. The chosen examination is marked with a yellow vertical strip.

Under the graphics information about chosen examination is displayed.

It is displayed examination date and time, rate of cardiac contractions during examination and values of functional state parameters. Besides, the forecast of a fortune of the patient within days is made by the results of the considered examinations analysis. Accuracy of a forecast directly depends on number of analyzed examinations, thus the examinations which have been carried out more than a month ago, at calculation of a forecast aren't considered.

In the lower part of the insert “Dinamica” the calendar is located, which displayed all days of examinations. Color of a mark characterizes a condition of the patient this day, thus, if in any day some examinations were carried out, color of a mark will correspond to average value of the patient condition. Click by the left button of a mouse on the marked date allows operator to choose corresponding examination on graphics «Dynamics of functional state parameters».

Results of examination printing

For printing of examination results use two variants: the print of the current examination parameters on one sheet, if the bookmark «ECG» and «the printing of comparison results of the current and chosen previous examination by date» or any other bookmark is opened. For this purpose it is necessary to click by the left button of the mouse the management element «Examination date choice» and in the appeared menu to choose the point «Report print».

The example of printed out results of the patient examination in the mode for comparison of spent medical actions efficiency:

It is visually shown the increase of "The complex index of health» from 31 % to 79 % and reduction of "Biological age» from 34 years till 24 years at passport values - 31 years. That in dynamics denotes positive effect of spent treatment at the surveyed patient for the last period of time.

Assessment of treatment efficiency

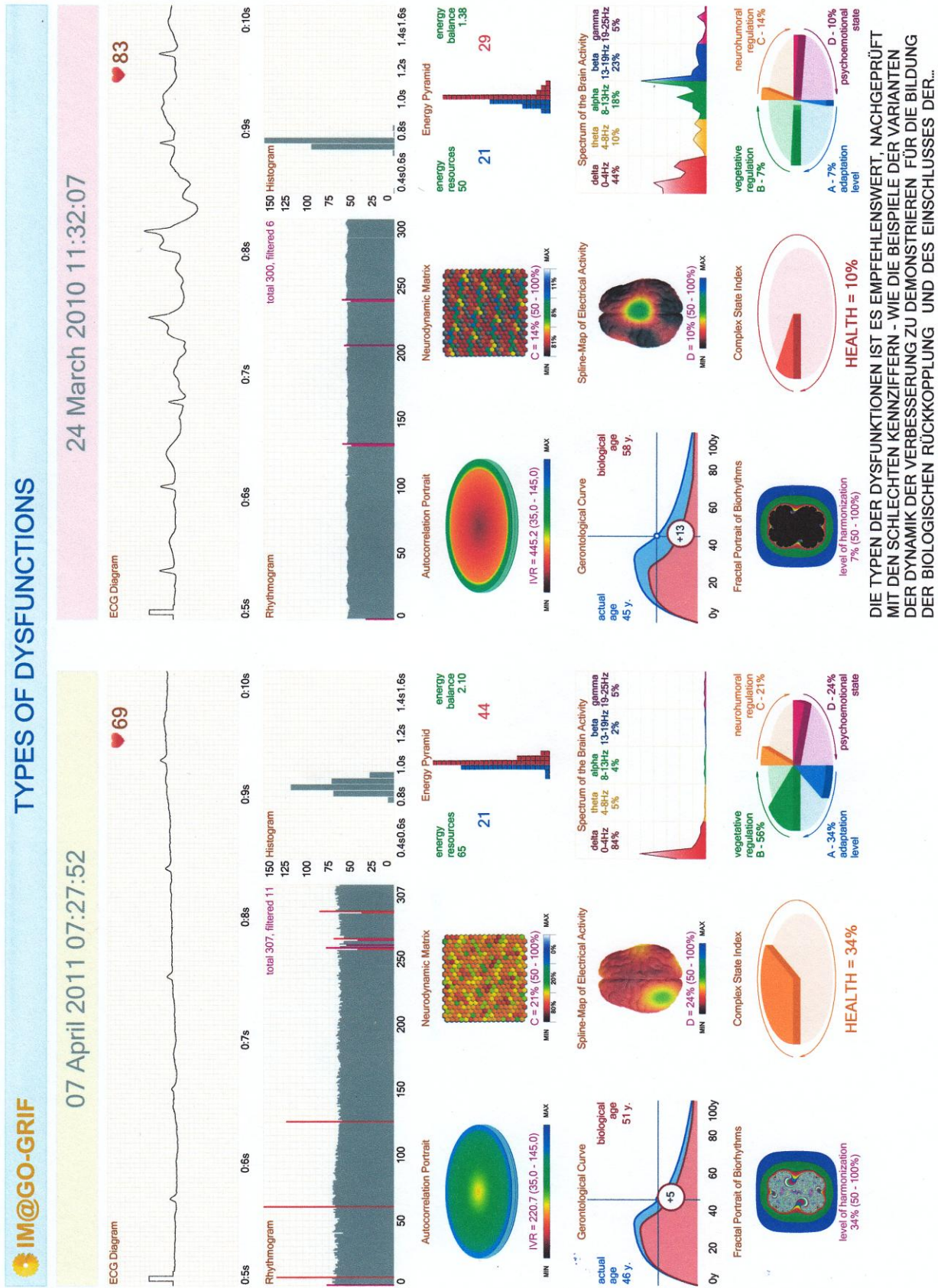
The assessment of treatment efficiency can be carried out by a way of express control and a way of long-term supervision.

Express control

The method of express control is applied at such types of treatment when the result of influence can be appreciable at once.

At first measurement of initial patient parameters is carried out, then medical influence of any form is had on the patient (reception of high-speed medicines, physiotherapy, reflexotherapy, etc.) and directly after influence repeated tests is carried out.

Results of repeated scanning are compared to primary scanning.



If the functional condition improved at once, influence means rendered a positive effect.

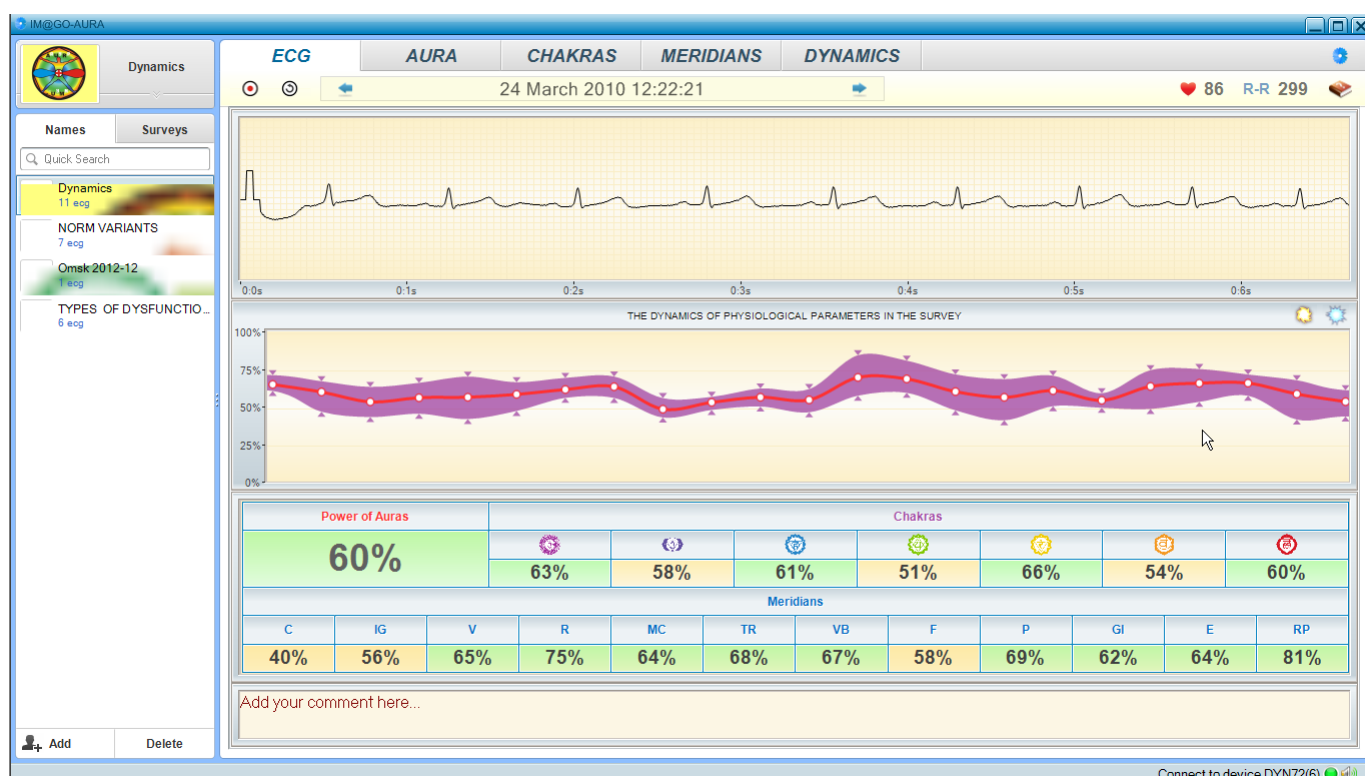
Happens that medical influence starts recovery process, and thus results of a human body tests worsen since forces on fight against an illness are required to an organism. If after influence results of tests worsened, it is recommended to wait some time (15-30 minutes) and to carry out the third measurement.

Long-term supervision

Long-term supervision is applied to regular control of a functional state of the patient during planned treatment. Before the beginning of treatment course it is also necessary to carry out measurement of initial parameters, then to carry out periodic scanning. For receiving objective results it is desirable that all examinations were spent at the same time and through identical periods.

The program «IMAGO-AURA» allows carrying out independently cardiometry or to use earlier received results of cardiometry in the IM@GO-GRIF program and to interpret them as biocybernetic parameters: AURO-gram, CHAKRO-gram, and also as results of MERIDIONAL diagnostic.

This apparatus is intended for those who is interested in East physiophilosophy, and, being expressed figuratively, «is ready to check theory of the ancient wise men by algebra of modern scientific methods».



According to canons of east medicine, the human body is the most difficult dynamic system inseparably linked with world around. Functioning of it is defined by speed of an energy accumulation and consumption in our body. The traditional Indian medicine operates with the concept "charkas", which, in understanding of Hindu physicians, represent points of intersection and "turbulences" of power streams in an organism, connecting nervous and endocrine systems. The Chinese healers assume that the human body "is penetrated" by "meridians" on which energy of separate bodies goes.

Modern methods of the mathematical analysis allow to reveal and visually to present those mysterious regularities, on which various organs of our body cooperate, and to answer the question why the illness

of an internal is really expressed in morbidity of separate points on skin and why nervous breakdown can be provoked by internal pathology of an organism.

That in the Indian medicine it is accepted to call "charkas" or in the Chinese medicine – "meridians", actually is no other than different ways of the analysis of a condition of that most difficult power matrix which represents a human body.

Modern methods of registration of cardiac contractions rate allow illustrating with mathematical accuracy processes of an energy accumulation and consumption in our body. Each body consists of the specific cells having special structure and functioning definitely. The processes, progressing in our organism, are defined by specifics of the chemical reactions, taking place in cells of organs.

Chemical reactions in cells proceed differently; many of them are accompanied by an energy absorption or release. For implementation of these reactions in an optimum mode the cell needs nutrients, which are delivered to it by blood.

Nutrients should get not simply to a cell, but also appear at «the necessary time in the right place». So the cell receives necessary quantity of energy in the right rhythm, as each organ «sends inquiry» to the heart. For this reason the balance of consumed and spent energy finds reflection in the rhythm of cardiac contractions.

Having recorded the cardiogram, and having analysed the rhythm of cardiac contractions in various ranges of frequencies, we can see reflection of processes which taking place in an internal of the body at cellular level, and thus to receive conception of a condition of these organs.

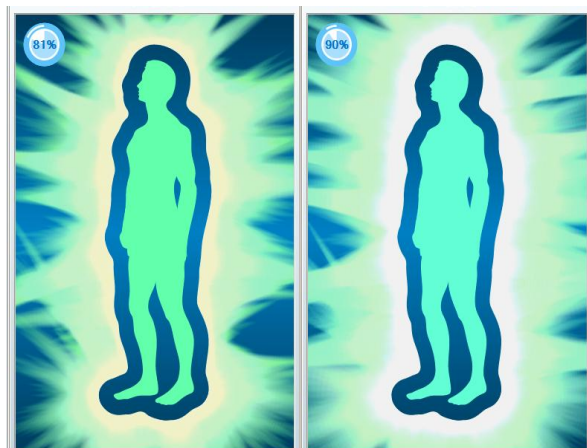
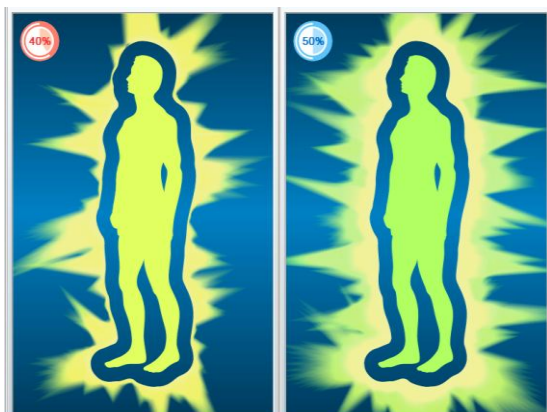
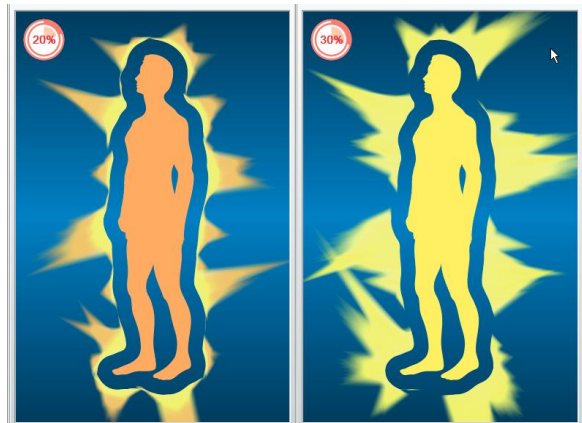
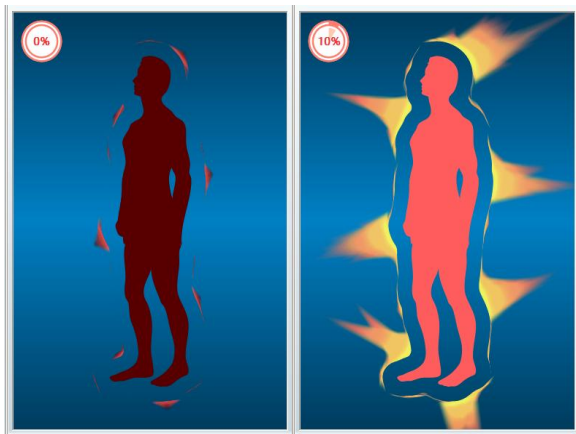
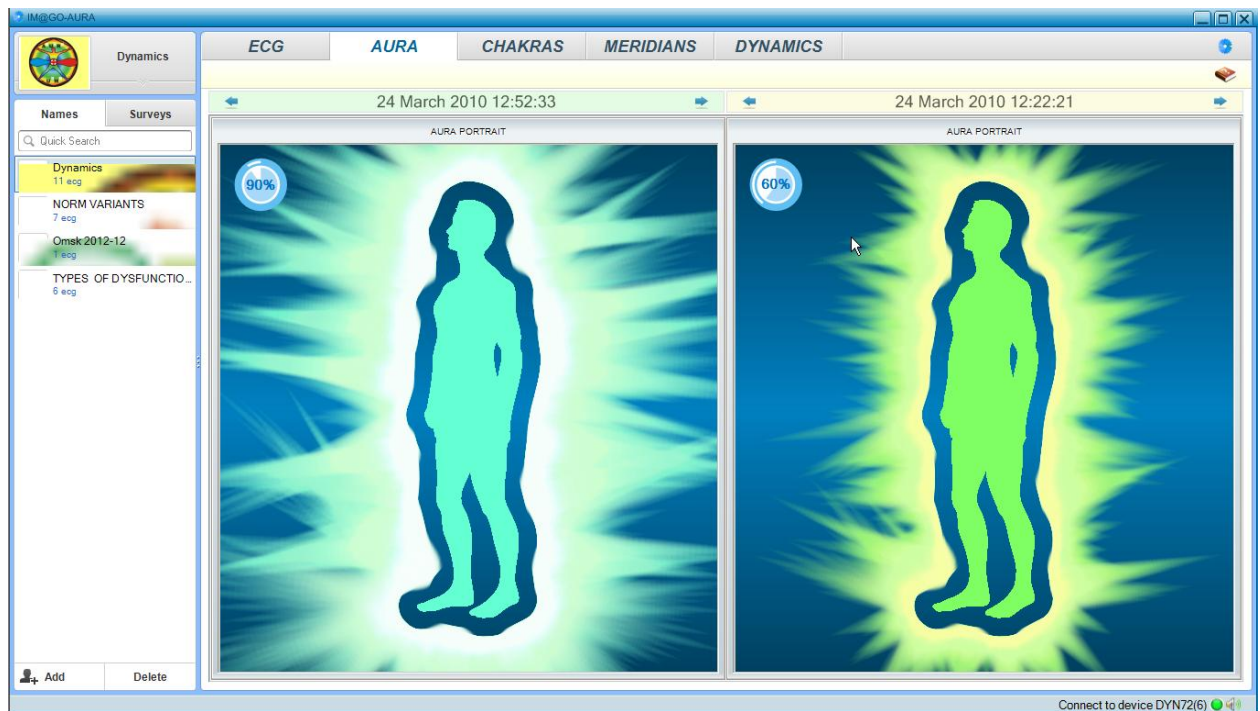
From the point of east naturofilosofiya view, delay of rates of an energy accumulation and consumption by internal becomes the first symptom of pathology. In this case the organ, deprived of possibility to receive and release sufficient quantity of energy, reacts by the various painful manifestations, which is defined by, whether this organ has a shortcoming or excess of energy. For example, apathy and fast fatigue become manifestation of a lack of energy in so-called «a liver meridian», and excess of energy in the same meridian will provoke irritability and a hyperactivity having, however, unhealthy character. The mode, which in terminology of east medicine it is accepted to call "aura", is intended for an illustration of a power condition of an organism.

What is the aura

The human body represents a peculiar generator of electromagnetic waves. Quality and speed of energy absorption and its release by a human body is defined by quality and speed of chemical reactions which progress in organs of our body at cellular level. Arguing on quality of a power exchange in a body of the person, east naturalistic philosophy representatives operate with the concept "auras". The analysis of power processes in human organs and processes, which find the reflection in cardiorhythms, allows us to create an integrated parameter, which will objectively reflect quality of cardiovascular, nervous, endocrine and vegetative systems work. Such parameter according to the physical contents will be close to the concept "auras", in that sense as east healers understood it.

The button  allows creating and saving on a computer disk specially sound file allowing at its listening well to influence aura of the patient and thus to improve both her condition, and the general condition of the patient.

integrated index and its dynamics.



Description of chakras

1. The Crown Chakra - its colour is Violet/Purple and it's at the top of our head. The Crown Chakra is our sense of Beauty, Creativity & Inspiration. It relates to self knowledge & spiritual awareness and is the union with our higher self. Disease (Dis-ease) can result with an in-balance of energy in this Chakra, either too much, or too little. The purple energy of the Crown connects us to our spiritual self bringing guidance, wisdom & inner strength. It purifies our thoughts & feelings and gives us inspiration in all of our actions. It enhances artistic gifts & creativity.

Associated problems with the Crown Chakra are: Depression, Parkinson's disease, Schizophrenia, Epilepsy, Senile Dementia, Alzheimer's, many mental disorders, confusion and dizziness.

Personality Traits are: Inspirational leadership, kind & fair, humanitarians, visionary, self sacrificing, creative and mentally strong.

2. The Third Eye Chakra - its colour is Indigo and is in the centre of your the forehead. The Third Eye Chakra is our Intuition, Mysticism & Understanding. It is related to the eyes, lower head and sinuses. Indigo relates to responsibility of the self, being responsible for your own life and to follow your soul's path. To trust your own intuition. Indigo energy connects us to our unconscious self (not the thinking self/ego) and give us the experience of being part of the universe. the Third Eye Chakra strengthens imagination, psychic powers & increases our dream activity.

Associated problems with the Third Eye Chakra are: Tension, headaches, migraine, visual defects, short and long-sightedness, cataracts, glaucoma, sinus problems and ear ache/problems.

Personality Traits are: Intuitive, fearless, idealistic, practical, wise and a truth seeker.

3. The Throat Chakra - its colour is blue and it of course located in our throat. The Throat Chakra relates to our Knowledge, Health & Decisiveness. Blue is the colour of spirit and relates to self expression, speech, communication, the ability to communicate our needs, it's the spirit of Truth & Purpose. Blue has a pacifying effect on the nervous system & brings beautiful relaxation which is ideal for insomnia, and hyper-active children. It brings clarity to our speech and gives us wisdom.

Associated problems with the Throat Chakra are: Thyroid problems either over or under active, anorexia, asthma, bronchitis, hearing problems, tinnitus, mouth ulcers, sore throats and tonsillitis.

Personality Traits are: Loyal, tactful, affectionate, inspiring, inventive, caring & cautious.

4. The Heart Chakra - its colour is green and it governs self control, love and balance. It relates to love/self love and the ability to give and take it unconditionally. When we are balanced we are able to give love as well as love and nurture ourselves. Green helps relax our muscles, nerves and thoughts. The heart cleanses & balances our energy to give a feeling of rebirth, peace & harmony.

Associated problems with the Heart Chakra are: Heart disease, AIDS, Chronic Fatigue Syndrome, allergies and breast cancer. Pink also relates to the heart being the colour of love.

Personality Traits are: Understanding, adaptability, sympathetic, compassionate, generous, humane, a lover of nature, romantic and self controlled.

5. The Solar Plexus Chakra - its colour is yellow and is situated just below the ribs. It governs our wisdom, clarity & self esteem. Yellow is a creative colour and it relates to our self worth, how we feel about ourselves and how others view us. This is the area of our personality, ego & intellect. It gives us clarity of thought, increases our awareness and stimulates interest and curiosity. Yellow energy is related to the ability to perceive & understand, it connects us to our mental self.

Associated problems with the Solar Plexus Chakra are: Diabetes, pancreatitis, liver disease, peptic ulcers and gall stones.

Personality Traits are: Good sense of humour, optimism, wisdom, confidence, practical and intellectual.

6. The Sacral Chakra - its colour is orange and it is situated in the lower abdomen. It governs our happiness, confidence and resourcefulness. Orange is the colour of success and relates to self respect; having the ability to give ourselves the freedom to be ourselves and helps us to expand our interests and activities. Orange brings joy to our workday & strengthens our appetite for life. It's the best emotional stimulant! It connects us to our senses and helps to remove inhibitions, makes us social and independent.

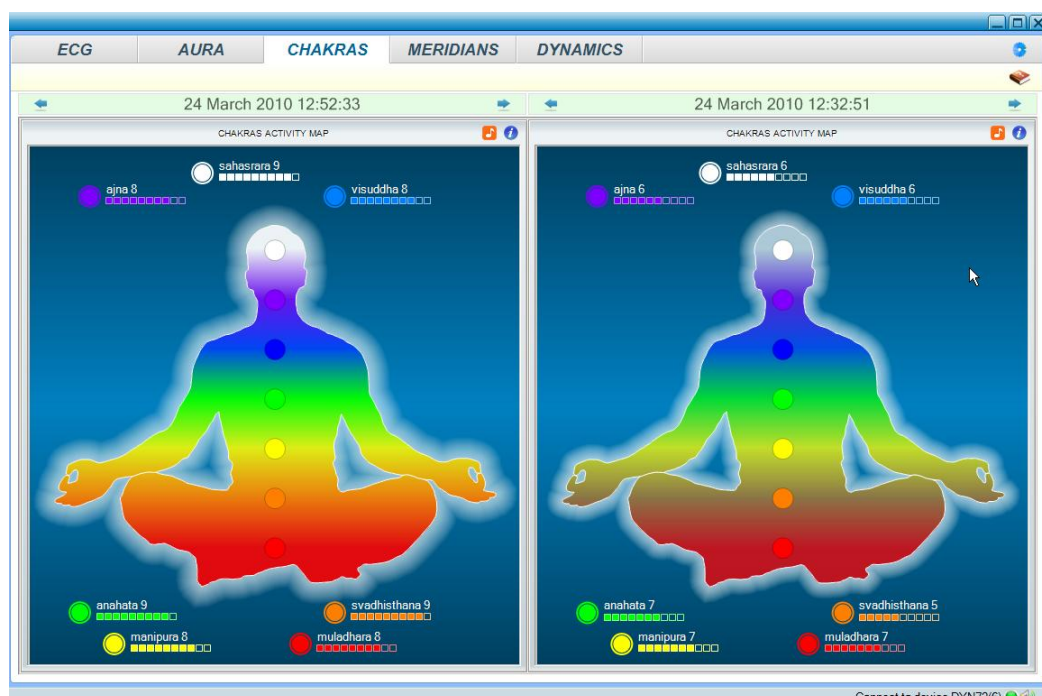
Associated problems with the Sacral Chakra are: pre-menstrual syndrome, problems with menstrual flow, uterine fibroids, ovarian cysts, irritable bowel syndrome, endometriosis, testicular disease and prostate disease.

Personality Traits are: Enthusiastic, happy, sociable, energetic, sporty, self assurance and constructive.

7. The Base Chakra - its colour is red and it is situated at the base of the spine. It governs our vitality, courage & self confidence. Related organs are the kidneys, bladder, hips and legs. Red relates to self awareness and is the area of survival and your place on this earth. Red provides the power from the earth and gives us energy on all levels. It connects us to our physical body...everything that is to be commenced needs the vitality of red!

Associated problems with the Base Chakra are: Constipation, diarrhea, piles, colitis, Crohn's disease, cold fingers and toes, frequent urination, high blood pressure, kidney stones, impotence, hip problems, legs and feet. Pink can also be used in this area for a more gentle energy if required.

Personality Traits are: Courageous, confident, humanistic, strong willed, spontaneous, honest and extroverted.



In the analysis of the meridional diagnostic data it is marked the most inactive meridian for forecasting of an expected target organ. Then it is estimated his Yin – Jan power. It gives the possibility to choose competently methods of individual correction and to check in dynamics an expected result!

	Seventh Chakra – CROWN Located at the top of the head. Affirmation : "I Am" , "I Understand"	Spiritual Centre, Development of Psychic Abilities, Enlightenment, Unity. Balancing this chakra helps Central nervous system, muscular system, skin
	Sixth Chakra – THIRD EYE Located in the centre of the forehead Affirmation : "I Know" , "I Think"	Perception Centre; Psychic Consciousness; Wisdom; Intuitive Ability; Visualization; Power Of Mind. Balancing this chakra helps brain and neurological system, eyes, ears, nose.
	Fifth Chakra – THROAT Located in the centre of the throat Affirmation : "I Speak" , "I Express"	Expression Centre; Communication; Inner Voice; Speaking from Truth; Expression of Creativity (Arts, Music) ; Will Power. Balancing this chakra helps throat and thyroid, esophagus, trachea, mouth, jaw, teeth, neck, vertebrae
	Fourth Chakra – HEART Located in the centre of the chest Affirmation : "I Love"	Love Centre; Compassion; Unconditional Love; Hope; Forgiveness. Balancing this chakra helps heart, circulatory system, ribs, breast, thymus gland, lungs, shoulders, arms, hands, diaphragm.
	Third Chakra – SOLAR PLEXUS Located in the area above the naval Affirmation : "I Can" , "I Do"	Power Centre; Self-confidence and Esteem; Manifestation. Balancing this chakra helps stomach, pancreas, adrenals, upper intestines, liver, gall bladder, middle spine
	Second Chakra – SACRAL Located in the lower abdomen, genitals, wombs Affirmation : "I Feel" , "I Want"	Creativity and Sexuality; Relationship with Money, Career and Power; Procreation; Ability to Feel Joy and Pleasure. Balancing this chakra helps sexual organs, large intestine, lower vertebrae, pelvis, hip area, urinary bladder
	First Chakra – ROOT Located at the base of the spine Affirmation : "I Do" , "I Am"	Survival and Security Centre; Family Connections; Animal Instinct; Controls Fear; Helps in Grounding. Balancing this chakra helps Spinal column, rectum, legs, bones, feet. Energizes body, Increases overall health.

At visual analysis of AURO-gram it is estimate the general portrait (color, intensity of aura, existence of gaps and protuberances), percent of the general. In the analysis of chakrogram it is compare their activities on intensity of radiation or in a percentage ratio:



At the insert “MERIDIAN” is displayed the information about condition of patient’s meridians. On the screen the diagram of meridians is displayed. Form and color of this depend on a condition of patient’s meridians. Also on the screen the assessment of ability of each meridian to accept and give energy during a daily cycle of meridians is displayed.

Besides, relative sizes of activity of patient’s meridians are showed on the screen.





Description of human meridians

1. P – Pair Meridian of Lung

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	pneumonia, small capacity of lungs, a strong cough with a pain, plentiful phlegm	diseases of lungs and upper airways with the stagnation phenomena, and also diseases of cardiovascular system	to refuse smoking, to avoid some excessive cold and hot air, to breathe fresh air
	lack of energy	algor, tussiculation, feeling cold		

2. G – Pair Meridian of Large Intestine

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	rumbling in a digestive tract, dryness of lips and in a mouth, a lock	restriction of movement and pain in joints of the top extremities, inflammatory processes along the Meridian, frustration of digestive organs, especially the intestines	to refuse smoking, to avoid some excessive cold and hot air, to breathe fresh air
	lack of energy	a pain and immovability in shoulders and hands, dizziness, diarrhea, sometimes a lock		

3. E – Pair Meridian of Stomach

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	overeating and a heat in a body, a pain and spasms on external lateral surface of legs	digestive disorders, a pain along the Meridian	not to allow an overeating, not to take alcohol and sweets, to avoid humidity
	lack of energy	appetite loss, sometimes a complete refusal of food, a weakness in feet and their cold snap		

4. RP – Pair Meridian of Spleen

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	unstable appetite, feeling of weight and numbness in a body, an aspiration frequent to have a rest, and to lie down	pains in the area epigastria, below the ribs and in the chest	not to allow an overeating, not to take alcohol and sweets, to avoid humidity
	lack of energy	a passion to sweets, memory impairment and drowsiness at the afternoon, meteorism		

5. C – Pair Meridian of Heart

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	a heartache, a pain in shoulders and forearms, excitability, feeling weight in breast, sometimes temperature increase and dryness in a mouth	a pain in the heart area, cardiac rhythm disorders, an anxiety, decrease in memory	to increase frequency of food intake, to reduce its quantity, in one reception the food should be same
	lack of energy	indecision, depression, sensation of fear, excitement, tachycardia, short wind, dizziness		

6. IG – Pair Meridian of Small Intestine

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	a pain round a neck or in one half of the head, noise in ears, decrease in hearing	disorders of passableness through the intestines, pains along the Meridian, psychological frustration	to increase frequency of food intake, to reduce its quantity, in one reception the food should be same
	lack of energy	a pain in temples, lateral surface of a neck, forearms, a cold snap of extremities		

7. V – Pair Meridian of Urinary Bladder

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	pains in a waist and lower extremities, frequent painful urination with small amount of urine, an eye pain, a headache, spasms in gastrocnemius muscles	Cystitis, cystalgia, nephritis, heart troubles, diseases of eyes, pains in a backbone and a coxofemoral joint, a headache, bleeding from a nose, hemorrhoids	to abstain from sexual life, to avoid physical and intellectual overloads, humidity, excessive heat and cold, to reduce liquid and salt consumption
	lack of energy	rare plentiful urination, backbone pains, feeling weight in feet and a back, dizziness, decrease in sight		

8. R – Pair Meridian of Kidney

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	an unusual inflow of forces, an aspiration to work without interruption, noise in ears, dark brown color of urine	urinary disorders, diseases of genitals, neuropsychic disorders, weakening of vital forces and a predisposition to fatigue	to abstain from sexual life, to avoid physical and intellectual overloads, humidity, excessive heat and cold, to reduce liquid and salt consumption
	lack of energy	decrease in will power and sexual inclination, impatience, uncertainty, a cold feet, intense neck		

9. MC – Pair Meridian of Pericardium

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	a pain, feeling weight and heat in the head, a belly-ache, a lock, heat in palms	diseases of heart, lungs, mental disorders, pains along the meridian	habitually used quantity of foods is to lower to 1/3 and to avoid physical and intellectual overloads
	lack of energy	bad dream with a large number of dreams, short wind, a fear of height, fatigue, desire to lie down, diarrhea		

10. TR – Pair Meridian of Triple Heater

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	weakening of hearing, a pain in the neck, shoulders, shovels, top extremities, ears, bad tolerance of heat, irritability, sleeplessness	arthritises of hands joints, noise in ears, deafness, depressions	habitually used quantity of foods is to lower to 1/3 and to avoid physical and intellectual overloads
	lack of energy	a temple pain, algor, weakness		

11. VB – Pair Meridian of Gall Bladder

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	feeling of completeness in a stomach, weight and pains in the head, a pain and a spasm in cubcostal area	disorders of Gall Bladder functions, pains along the Meridian, an impairment of a gastroenteric tract, neuropsychic disorders	to stop injections and drug intake, to address to the attending physician, to refuse alcohol, meat, to avoid physical activities and weariness of eyes
	lack of energy	breakdown, tearfulness, feeling cold, dizziness, hindered breath, heavy and deep sighs, a lurch gait		

12. F – Pair Meridian of Liver

Power activity	Power balance	Signs	Diseases	Recommendations
Less than 30%	excess of energy	tearfulness, irritability, irascibility, morbidity, impulsiveness, an aspiration to work without interruption while all work won't be finished	Pains in the area below ribs at right, jaundice, pains along the Meridian and in the waist, diseases of genitals, a cold, fever	to stop injections and drug intake, to address to the attending physician, to refuse alcohol, meat, to avoid physical activities and weariness of eyes
	lack of energy	a lurch gait, awkwardness, dizziness, fast fatigue		



РОССИЙСКАЯ ФЕДЕРАЦИЯ



СВИДЕТЕЛЬСТВО

о государственной регистрации программы для ЭВМ

№ 2011617414

Информационно-справочная экспертная система Г-Р-И-Ф

Правообладатель(ли): **Общество с ограниченной ответственностью «Центр новых технологий» (RU)**

Автор(ы): **Бут Юрий Станиславович (RU)**

Заявка № 2011615621

Дата поступления 27 июля 2011 г.

Зарегистрировано в Реестре программ для ЭВМ
23 сентября 2011 г.

Руководитель Федеральной службы по интеллектуальной собственности, патентам и товарным знакам

Б.П. Симонов



РОССИЙСКАЯ ФЕДЕРАЦИЯ



ПАТЕНТ

НА ПОЛЕЗНУЮ МОДЕЛЬ

№ 32986

ПОРТАТИВНАЯ СИСТЕМА ДЛЯ
САМОСТОЯТЕЛЬНОГО КОНТРОЛЯ
СОСТОЯНИЯ ЗДОРОВЬЯ

Патентообладатель(ли): **Общество с ограниченной ответственностью «Научно-исследовательская лаборатория «Динамика»**

Автор(ы): **Смирнов Константин Юрьевич, Смирнов Юрий Алексеевич**

Приоритет полезной модели 16 мая 2003 г.

Зарегистрирована в Государственном реестре полезных моделей Российской Федерации 10 октября 2003 г.

Срок действия патента истекает 16 мая 2008 г.

Генеральный директор Российского агентства по патентам и товарным знакам

А.Д. Корчагин



EC Certificate – Production Quality Assurance
Directive 93/42/EEC on Medical devices, Annex V

ORKI certifies that the manufacturer

Number of certificate: 5-553-500-0810

Research and Production Company "DINAMIKA" Ltd.
Moskovskoe street 16
196158 Saint Petersburg
Russia

with authorized representative in EU

Medical Devices s.r.o.
Nemocnica 16
99001 Velky Krtis
Slovakia

for the products

DIGITAL CARDIO RHYTHM ANALYZER "DINAMIKA"

applies a quality system in the manufacturing process which ensures that the products are manufactured in conformity with the technical documentation (referred to in Annex VII and kept by the manufacturer)

Number of the audit report on the assessment: TI-42/011/2008

Provided the yearly surveillance is carried out successfully this certificate is valid until:

2013-10-16

Issued by ORKI a Notified Body for the Council Directive 93/42/EEC with identification number 1011.

This certificate is valid only with the attachment.

First issued: 2008-10-16

Budapest, 2010-01-08

General Director Certification Office



ORKI A 4765

The validity of the certificate is verifiable at the Certification Office of the Institute for Healthcare Quality Improvement and Hospital Engineering.

Egészségügyi Minőségfejlesztési és Kórháztechnikai Intézet
Institute for Healthcare Quality Improvement and Hospital Engineering



Előző név: Orvos- és Kórháztechnikai Intézet
Institute for Medical and Hospital Engineering
Diós árok 3. H-1125 Budapest

Tel: +36 1 356 1522
Fax: +36 1 375 7253
Internet: www.emki.hu



РОССИЙСКАЯ ФЕДЕРАЦИЯ
РОССИЙСКОЕ АГЕНТСТВО ПО ПАТЕНТАМ
И ТОВАРНЫМ ЗНАКАМ
(РОСПАТЕНТ)

СВИДЕТЕЛЬСТВО

Об официальной регистрации программы для ЭВМ

№ 2003611172

На основании Закона Российской Федерации "О правовой охране программ для электронных вычислительных машин и баз данных", введенного в действие 20 октября 1992 года, Российским агентством по патентам и товарным знакам выдано настоящее свидетельство об официальной регистрации программы для ЭВМ

Скрининг-диагностика функционального состояния пациента

Правообладатель(ли):

Общество с ограниченной ответственностью «Научно-исследовательская лаборатория «Динамика» (RU)

Автор(ы):

**Смирнов Юрий Алексеевич, Смирнов Константин Юрьевич,
Жафов Максим Викторович,
Свиштуленко Владимир Александрович (RU)**

Страна: Российская Федерация

по заявке № 2003610722, дата поступления: 27 марта 2003 г.

Зарегистрировано в
Реестре программ для ЭВМ
г. Москва, 20 мая 2003 г.

Генеральный директор

А.Д. Корчагин



СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р
ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ РОСС RU.ИМ35.В00035
Срок действия с 09.11.2010 по 08.11.2013 № **0459374**

ОРГАН ПО СЕРТИФИКАЦИИ рег. № РОСС RU.0001.11ИМ35. Автономная некоммерческая организация "Экспертный Совет "Медицина Северо-Запада". 195273, Санкт-Петербург, ул. Руставели, 13, помещение 29Н, тел. 8-812-448-48-00, факс 8-812-448-48-00, E-mail expert@medcertificate.ru.

ПРОДУКЦИЯ Комплекс компьютерный для оценки функционального состояния организма человека «Динамика». ТУ 9442-001-50904116-2005. Серийный выпуск. код ОК 005 (ОКП): 94 4280

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ
ГОСТ Р 50444-92 (р.р. 3,4), ГОСТ Р 50267.0-92 (МЭК 601-1-88), ГОСТ Р МЭК 60601-1-1-2007, ГОСТ Р 50267.0.4-99 (МЭК 60601-1-4-96), ГОСТ Р 50267.0.2-2005 (МЭК 60601-1-2-2001) код ТН ВЭД России:

ИЗГОТОВИТЕЛЬ ООО Лаборатория «Динамика». Адрес: 196158, Санкт-Петербург, Московское шоссе, д.16, корп.1, оф.174, ОКПО 50904116.

СЕРТИФИКАТ ВЫДАН ООО Лаборатория «Динамика». Адрес: 196158, Санкт-Петербург, Московское шоссе, д.16, корп.1, оф.174, ИНН 7810277733. Телефон (812)697-37-37, факс (812) 683-72-36.

НА ОСНОВАНИИ протокола испытаний № 26078-10-СИЦ от 24.08.2010 ИЛ НП "СИЦ", рег. № РОСС RU.0001.21МЕ95; регистрационное удостоверение Федеральной службы по надзору в сфере здравоохранения и социального развития № ФСР 2010/09117 от 01.11.2010

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Место нанесения знака соответствия: на изделии на таре (упаковке) на сопроводительной технической документации.

Руководитель органа  Е.Е. Дмитриев
Эксперт  А.Д. Доко.

Сертификат имеет юридическую силу на всей территории Российской Федерации


ФЕДЕРАЛЬНАЯ СЛУЖБА ПО НАДЗОРУ В СФЕРЕ ЗАРОВООХРАНЕНИЯ
И СОЦИАЛЬНОГО РАЗВИТИЯ

РЕГИСТРАЦИОННОЕ УДОСТОВЕРЕНИЕ

от 01 ноября 2010 года № ФСР 2010/09117
Срок действия: не ограничен.

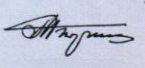
Настоящее удостоверение выдано
ООО Лаборатория "Динамика", Россия, 196158, Санкт-Петербург, Московское шоссе, д.16, корп.1, кв. 174
и подтверждает, что изделие медицинского назначения (изделие медицинской техники)
Комплекс компьютерный для оценки функционального состояния организма человека "Динамика" по ТУ 9442-001-50904116-2005 производства
ООО Лаборатория "Динамика", Россия, 196158, Санкт-Петербург, Московское шоссе, д.16, корп.1, кв. 174
класс потенциального риска 2а ОКП 94 4280
соответствующее комплекту регистрационной документации
КРД № 60103 от 08.09.2010
приказом Росздравнадзора от 01 ноября 2010 года № 10189-Пр/10
разрешено к производству, продаже и применению на территории Российской Федерации
Врио руководителя Федеральной службы по надзору в сфере здравоохранения и социального развития  Е.А. Тельова
010953

РОССИЙСКАЯ ФЕДЕРАЦИЯ

СВИДЕТЕЛЬСТВО
на товарный знак (знак обслуживания)
№ 246611

На основании Закона Российской Федерации "О товарных знаках, знаках обслуживания и наименованиях мест происхождения товаров", введенного в действие 17 октября 1992 года, Российским агентством по патентам и товарным знакам выдано настоящее свидетельство на товарный знак (знак обслуживания)
Правообладатель: Бут Юрий Станиславович
644083, г.Омск, пр.Менделеева, 21/4, кв.19 (RU)
В отношении следующих товаров (услуг):
09 - аппаратура высокочастотная; машины вычислительные; обеспечение программное для вычислительных машин; (см. на обороте)
по заявке № 2002700188, дата подачи 08.01.2002
Приоритет от 08.01.2002

Регистрация товарного знака действует на всей территории Российской Федерации до истечения 10 лет с 08 января 2002 г.
Зарегистрировано в Государственном реестре товарных знаков и знаков обслуживания Российской Федерации
г. Москва 21 мая 2003 г.

Генеральный Инспектор
 А.И. Керков

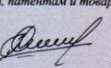
РОССИЙСКАЯ ФЕДЕРАЦИЯ

СВИДЕТЕЛЬСТВО
на товарный знак (знак обслуживания)
№ 333046

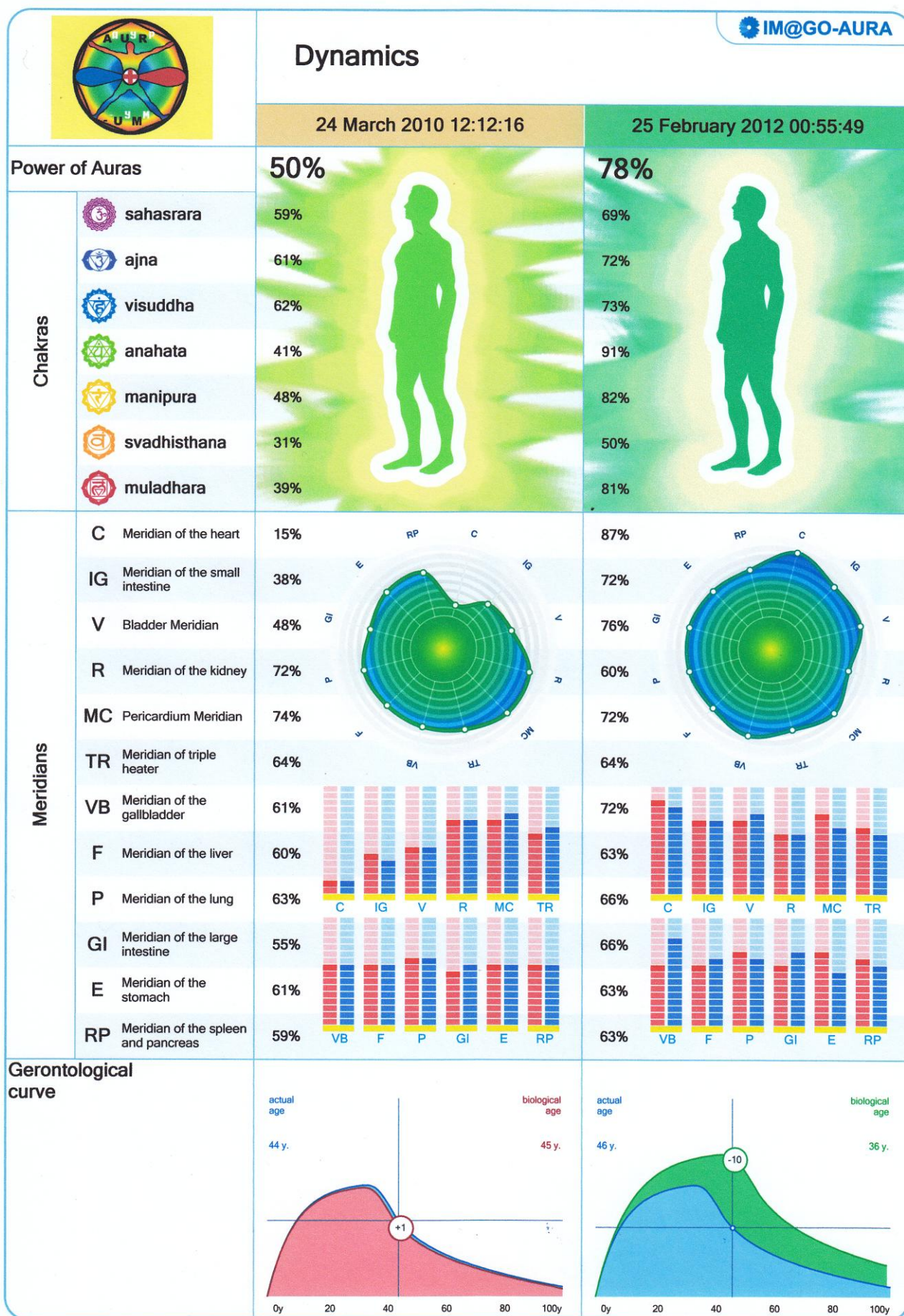
IM@GO
IM@GO

Правообладатель: Общество с ограниченной ответственностью "Центр новых технологий", 644043, Омская область, г.Омск, ул. Волочаевская, 19 (RU)

Заявка № 2006720983
Приоритет товарного знака 27 июля 2006 г.
Зарегистрировано в Государственном реестре товарных знаков и знаков обслуживания Российской Федерации 31 августа 2007 г.
Срок действия регистрации истекает 27 июля 2016 г.

Руководитель Федеральной службы по интеллектуальной собственности, патентам и товарным знакам
 Б.П. Симонов

Example of the unpacked results of the patient examination:





Certificate of Warranty

гарантийный сертификат

Warranty - 5 years from date of sale.
During all warranty period, company «Dinamika» guarantees customer a free repair or replacement of faulty equipment.

Warranty service is available at: Russia, Saint-Petersburg, Moskovskoe sh., 14/1, of. 166.

Гарантийный срок - 5 лет. Начало гарантийного срока исчисляется с даты продажи.

В течение всего гарантийного срока компания «Динاميكا» гарантирует покупателю бесплатный ремонт или замену неисправного оборудования.

Гарантийное обслуживание осуществляется по адресу: Санкт-Петербург, Московское шоссе д. 14/1, офис 166.

Heart Rate Variability Monitor «Dinamika»

Комплекс компьютерный для оценки функционального состояния
организма человека «Динاميكا»

Serial number
Серийный номер

DIN72431

Seller
Продавец

"Центр новых технологий"
Россия, Омск
ул. Волочаевская, 19
тел.: +7 (3812) 21-24-42
www.image-grif.ru

Date of sale
Дата продажи



Manufacturer: Dinamika Technologies, Russian Federation, Saint-Petersburg, Moskovskoe sh., 14/1, of. 166, tel.: +7 (812) 697-37-37, tel./fax: +7 (812) 683-72-36, e-mail: mail@dyn.ru, web: www.dyn.ru.

Производитель: Научно-производственная фирма «Динاميكا», Санкт-Петербург, Московское шоссе д. 16, тел.: +7 (812) 697-37-37, тел./факс: +7 (812) 683-72-36, электронная почта: mail@dyn.ru, сайт: www.dyn.ru.



Certificate of Authenticity

сертификат подлинности

This Certificate is your assurance that the software you obtained with system «Dinamika» is legally licensed. If you have concerns about the legitimacy of this Certificate or the software, call the Dinamika +7 (812) 373 97 37, or contact your local dealer.

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FOR DISTRIBUTION ONLY WITH DINAMIKA HARDWARE
ТОЛЬКО ДЛЯ РАСПРОСТРАНЕНИЯ С ОБОРУДОВАНИЕМ ДИНАМИКА



Manufacturer
Производитель

НПФ "Динاميка"
Россия, Санкт-Петербург
Московское шоссе, 16
тел.: +7 (812) 697-37-37
www.dyn.ru

Date of sale
Дата продажи



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