

Appendix to User Manual

# Exams Manager



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# 1. General Information

**Neurosoft** company program keep the exams in a database. Database is a repository located on a local or network computer which contains the exams data. Database contents can be reviewed by means of “Exams Manager”. Database can be divided into the folder files including the patients’ folders. The patient folder can include one or several exams.

“Exams Manager” window (Fig. 1) is opened by **Exam|Open Exams Manager** command or “Open”  button on the toolbar of the program main window. The “Exams manager” window is also opened while reviewing the archive content (file with *.nsarc* extension). The name of the current database is shown in the left bottom corner of the window.

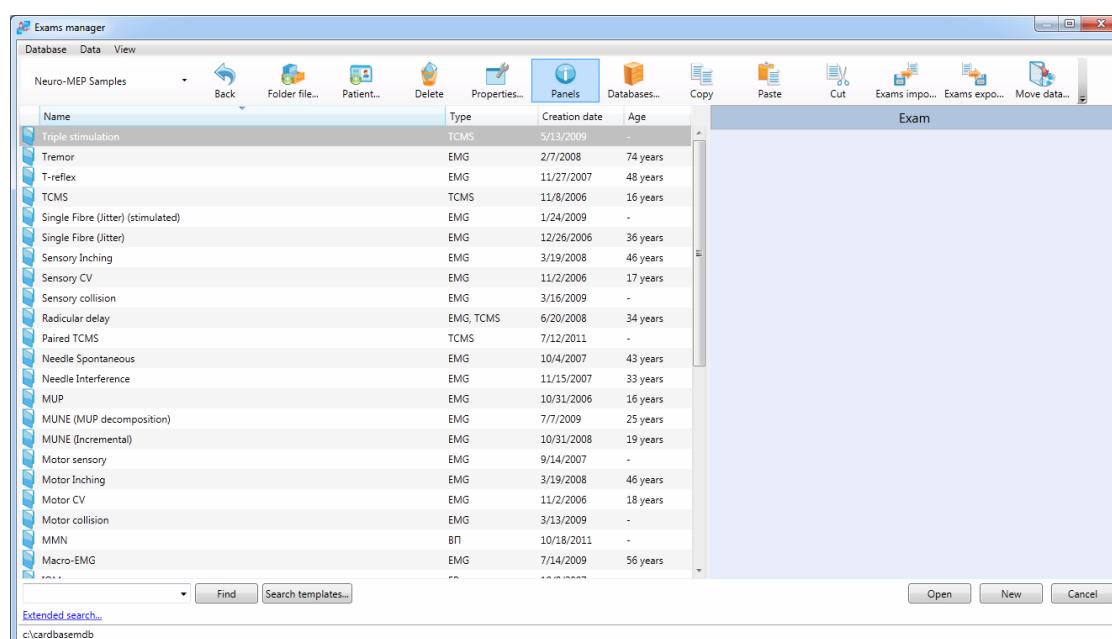





Fig. 1

The most part of the window represents a list of exams, patient folders and folder files.

Sign  in the beginning of the line shows that it is a patient folder; sign  represents an exam. Folder files are shown by  sign. The selected exam or the patient folder is colored. The line of the exam description or patient folder is divided into the columns (“Name”, “Type”, “Date of Creation” and etc.). To sort (organize) the lines, it is necessary to click on the title of the respective column. For example, for sorting according to the date of the exam creation, you have to click on the title of the “Date of Creation” column.

In the top part of the window there is a toolbar including the buttons of the main commands. The total list of the commands is accessible through the local menu which can be displayed by clicking the right mouse button on the list (Fig. 2).

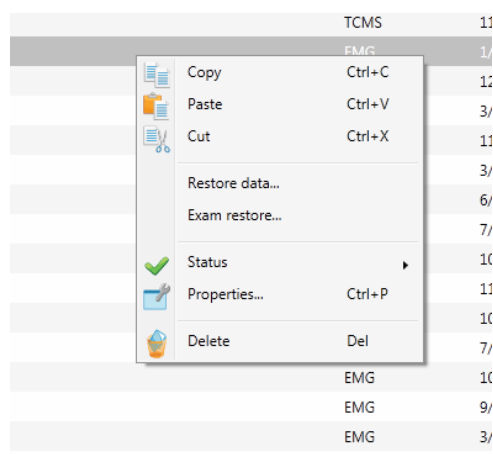


Fig. 2

The toolbar customization is described in chapter 16.3 “Toolbar Customization”.

On the left of the toolbar the combo box list with the name of the current folder file is located (Fig. 3).

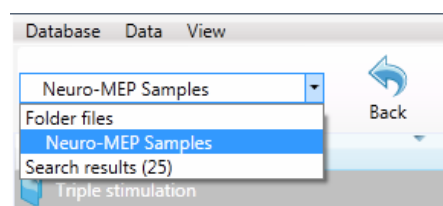


Fig. 3

A position of the current folder file in the hierarchy of the current database folder files can be reviewed by means of the combo box list. The top line of the list – “Folder files” – means the root folder file of the database.

The searching string (Fig. 4) is located in the bottom of the screen (see chapter 14 “Search of Exams”).

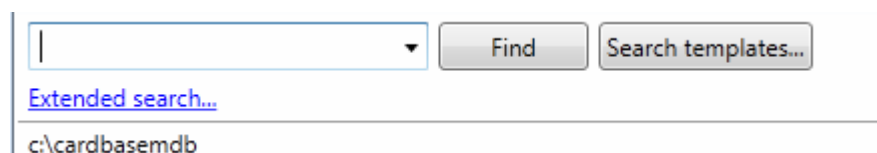


Fig. 4

## 2. Opening of Exam for Analysis

Choose the desired exam or patient folder in the list (Fig. 5).

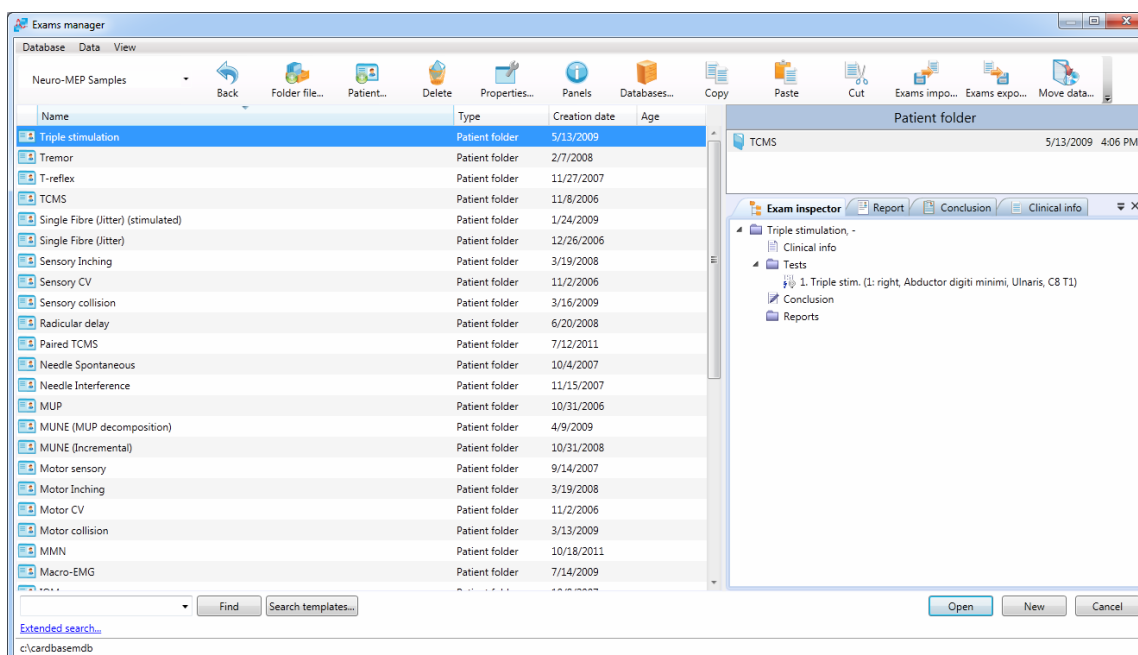



Fig. 5

To move along the list, use [↑] and [↓] keys. To exit the current folder file to the parents folder file, push the “Back”  button on the toolbar or **[Back]** key. To enter another folder file, use the combo-box of the toolbar. To open the patient folder chosen by you, push **[Enter]** key or “Open” button. The list of the exams performed for the given patient will be displayed (Fig. 7).

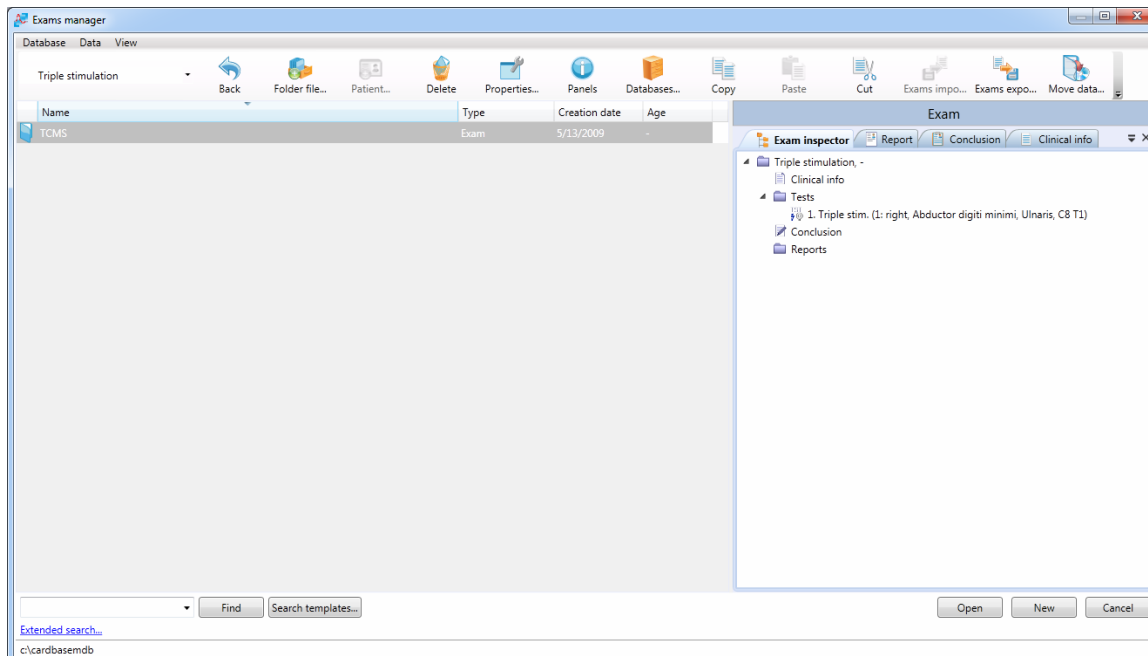



Fig. 6

Choose the exam in the list and push **[Enter]** key or “Open” button again. After that the exam review window will appear.

You may also open the exam without opening the patient folder. To do it, click  “Panel” button on a toolbar. At that a panel with the patient folder data will appear on the right of the list of the patients (Fig. 7).

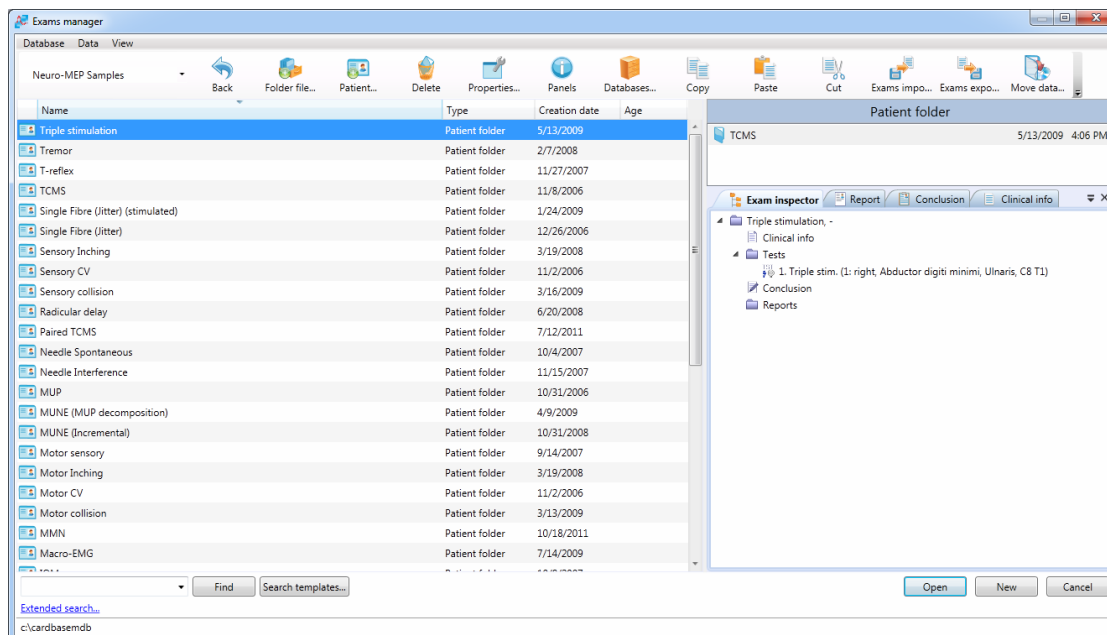


Fig. 7

The “Exams” list includes the descriptions of the exams performed for the current patient. Double click on the exam description line will open the respective exam.

Information about the exam chosen in the “Exams” list is located below on the tabs (see chapter 13 “Quick Review of Information about Exam”).

The exam manager window view depends on reviewing mode (see chapter 16.1 “Setup of Reviewing Mode”).



### 3. Creation of New Exam

When you are in the “Exams Manager” window you may create the new exam for the patient, who has already been recorded in the patient database. To do it, select the patient card or already performed exam and press “New” button. After that, you will be offered to create new exam for the selected patient.

### 4. Creation of New Folder File

To create the new folder file use “Folder file”  button on the toolbar, **[Ctrl+K]** keys or **Create|Folder file** menu command.

In the window arisen (Fig. 8) enter the name of the folder file and push **[Enter]** key or “OK” button.

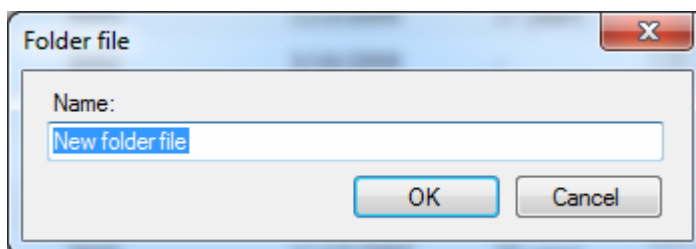


Fig. 8

The new folder file is created in the current database and the created folder file becomes the current one.

## 5. Creation of New Patient Folder

To create the new patient folder in the current folder file, push “Patient” button on the toolbar, use **[Ctrl+N]** keys or **Create|Patient** menu command. After that you will be offered to enter the patient’s data (Fig. 9).

Fig. 9

“Name” – enter the patient’s name.

“Sex” – enter the patient’s sex.

“Birth date” – enter the date of birth as follows: at first enter the day and press **[→]**, then enter the month number and press **[→]**, and enter the year afterwards.

“Department” – enter the name of the clinic department.

“Diagnosis” – enter the preliminary diagnosis. If you push “Standard diagnoses” button the dialogue window including the list of the standard medical diagnoses (ICD-10) will be displayed.

“ID:” — enter patient’s code to this input box (for example, patient’s code accepted for you organization).

On this page you may also add the photo to the patient folder. To do it, click on “Add photo” string and choose the file with the photo. If you have a camera connected to your computer, you can also make a photo using camera. In this case the list of the available cameras and the button to save the photo will be displayed under the snapshot.

You may hide or show some fields on the patient folder, for example, remove the photo or add the separate fields for the middle name or surname of the patient (see chapter 16.4 “Settings for Patient Folder and New Exam Window”).

On the “Additional” page (Fig. 10) you may specify the data such as the social security number, address, telephones, etc.

The screenshot shows a window titled "Patient" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside, there are two tabs: "Patient info" and "Additional". The "Additional" tab is selected. The form contains the following elements:


- A text box labeled "Social security number:".
- A text box labeled "Address:".
- Two text boxes side-by-side labeled "Phone:" and "E-mail:".
- A larger text box labeled "Comment:".
- A table titled "Additional parameters:" with two columns: "Name" and "Value". The table is currently empty.
- "OK" and "Cancel" buttons at the bottom right.

Fig. 10

“Additional parameters” table is used to enter the User’s parameters for the patient folder. The names of the additional parameters are given in the “Parameter” column, and you may enter their values in the “Value” column. The list of the additional parameters as well as the patient folder settings are determined by the program administrator. The program administrator is a User with the name “Admin”. The User’s name is specified when you enter the program. The proper User manual for the respective program describes the process of the User’s name entering. If the User with the name “Admin” is absent in the list of the authorized Users for this program then any User will be the program administrator.

The process of the patient folder setting up is described in Chapter 16.4 “Settings for Patient Folder and New Exam Window” of the present manual.

## 6. Editing of Data about Patient or Exam

To edit the patient folder or correct the exam information you have to choose the required exam or the patient folder, press “Properties”  button, use **[Ctrl+P]** keys or **Properties** menu command. Make the necessary corrections in the “Patient folder” dialog box arisen (Fig. 9, Fig. 10).

## 7. Removal of Exams, Patient Folders and Folder Files

Select one or several strings in the list. To select several strings, press **[Ctrl]** key and keeping it pressed click mouse on the string you are going to select. To select the whole block of the strings, please, click the first string you want to select, press and hold down the **[Shift]** key and click the last strings you want to select. The selected strings will be marked with color (Fig. 11).

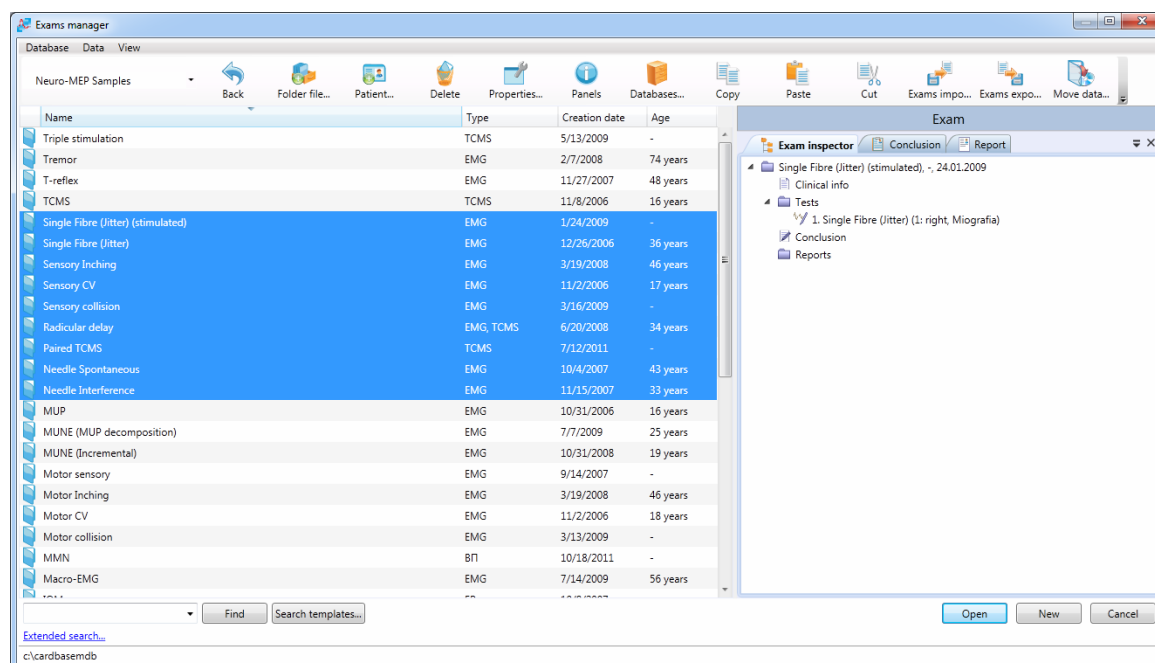



Fig. 11

To delete the selected exams, patient folders or folder files press “Delete”  button or **[Del]** key or use **Delete** menu command. After your confirmation the selected objects will be deleted from the database.

## 8. Copying and Moving of Exams, Patient Folders and Folder Files

You can copy exams, the patient folders and the folder files to the current or another database. The copying process includes the following steps: selection of the desired objects, their copying into the buffer and their pasting into the new place.

Select one or several strings in the list. To select several strings, press **[Ctrl]** key and keeping it pressed click mouse on the string you are going to select. To select the whole block of the strings, please, click the first string you want to select, press and hold down the **[Shift]** key and click the last strings you want to select. All the selected strings will be colored (Fig. 12).

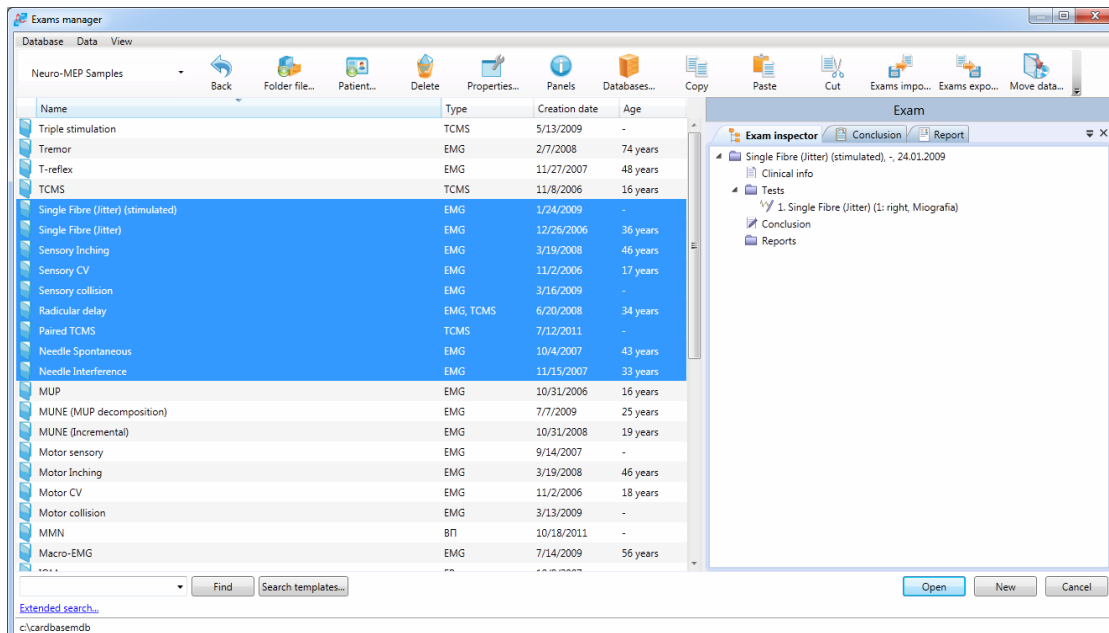





Fig. 12

Press “Copy”  button on the toolbar or **[Ctrl+C]** keys or use “**Copy**” menu command. This command will copy all the selected objects into the clipboard.

Move to the desired folder file or another database. Chapter 12 “Work with Database” describes how you can move to another database.

To create the copies of the objects located in the clipboard, press “Paste”  button on the toolbar or **[Ctrl+V]** keys or use **Paste** menu command. At that the duplication process starts.

To move the selected exams, press “Cut”  button on the toolbar or **[Ctrl+X]** keys or use **Cut** menu command. According to this command all the selected objects will be copied into the clipboard and disappear from the current list.

If you did not insert the cut exams, you will be offered to restore these exams at the previous place when exiting “Exams Manager”.

You may copy or transfer the selected exams or patient folders to the folder files specified beforehand in the current database or in another one. To create the list of such folder files, please, use the “Custom folders” command from the “Exams Manager” local menu. The dialog box with the list of folders (Fig. 13) will be displayed.

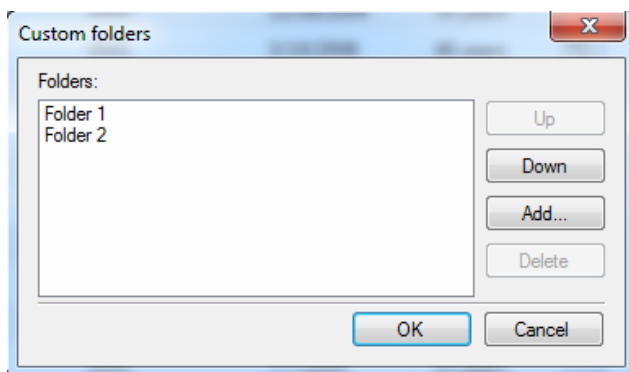


Fig. 13

In this window you may add the new custom folders, delete the unnecessary ones or exchange their places in the list.

To add the folder to the list, please, press “Add...” button. The dialog box (Fig. 14) including the list of the folders in the current database will be displayed.

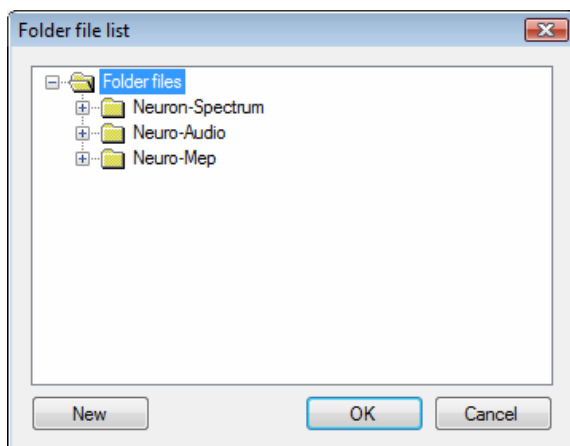


Fig. 14

Select the necessary folder file and press “OK”.

Now to copy the selected exams or patient folders to one of the Custom folder you have to select the “Copy to folder” item of the “Exams Manager” local menu and select the folder name from the combo box (Fig. 15).

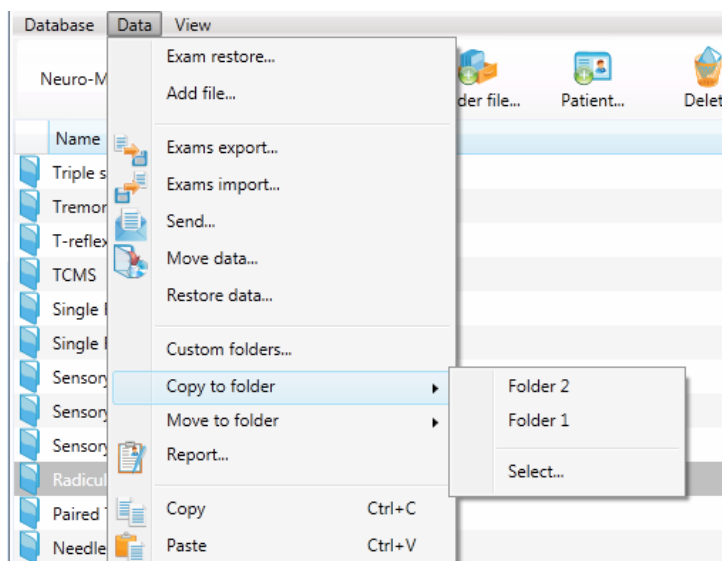



Fig. 15

If the necessary folder is absent in the list then use “Select” menu command. You will be offered to select the folder manually.

You can also move the selected exams or patient folders into the custom folder in the similar way by using “Move to folder” command of the local menu.

## 9. Export of Exams to File

The exam export makes it possible to copy exams to the external file with *nsarc* extension; *nsarc* files are the archive files peculiar to **Neurosoft** Ltd.

Select the necessary exams, patient folders or the entire folder files in the list and press “Export”  button on the toolbar or use **Export** menu command.

In the “Save as” window arisen (Fig. 16) enter the name of the archive file and specify its location.

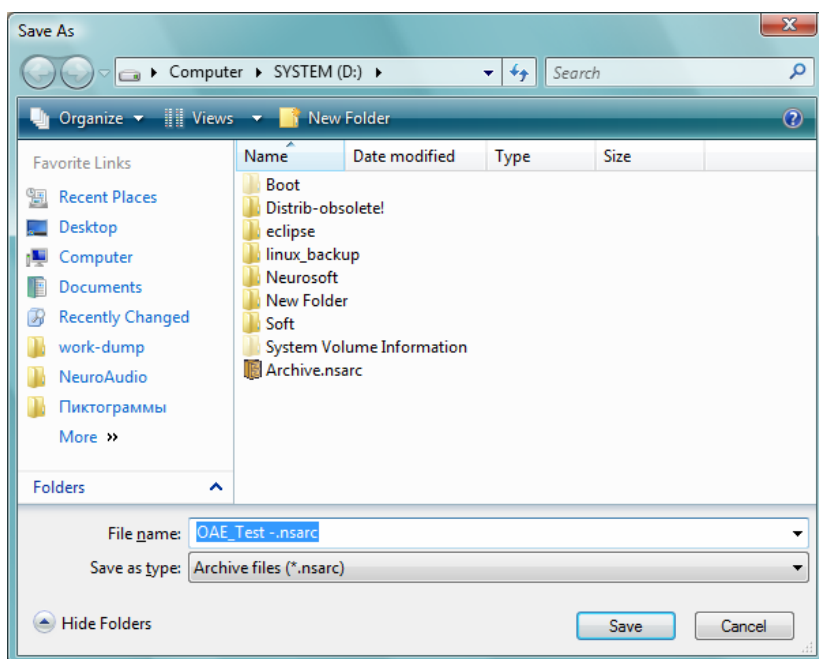


Fig. 16



You can save an exam in one file with `.nsarc` extension or divide the archive to several files of the specified size, the so called multi-volume archive. To create the multi-volume archive select the “Multi-volume archive” string in the “File type” dropdown list (Fig. 23).

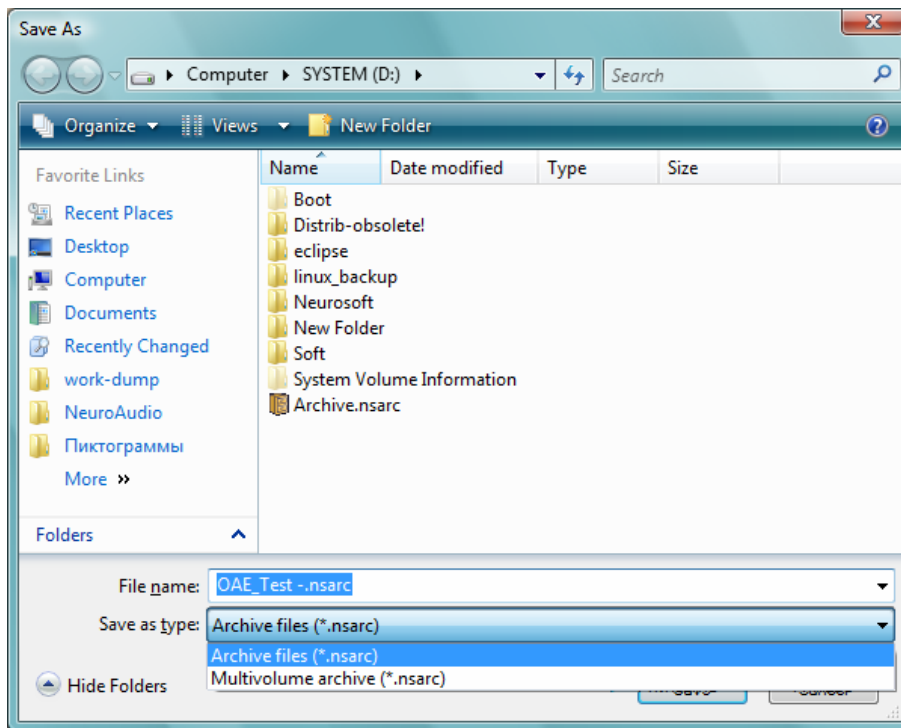


Fig. 17

In this case the program will request the maximal size of one file for multi-volume archive from you (Fig. 24).

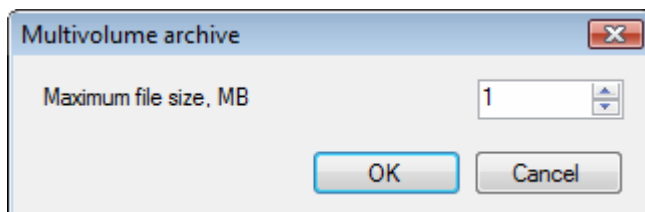


Fig. 18

If you choose the existing file you will be offered two options for further actions (Fig. 19).

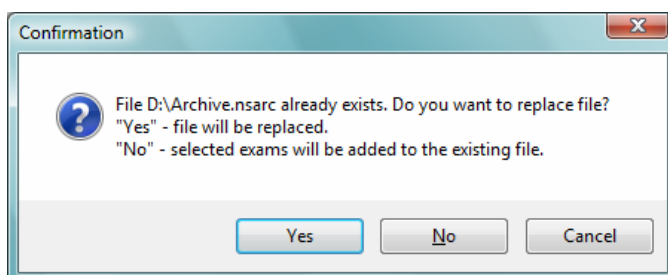



Fig. 19

If you press “Yes” the new archive will be recorded in place of the existing file, i.e. the data previously saved in the existing file will be deleted. If you press “No” the exams selected by you will be added to the existing file.

After that the selected exams copying to the archive will start. In case you generate the multi-volume archive, you should obtain one file with *.nsarc* extension and one or several files with *.nsarc\_1...nsarc\_N* extension. Each file should not exceed the maximal file size of the multi-volume archive indicated by you.

## 10. Import of Exams from External File

You may copy the exams to the current database from the external files having *nsarc* extension; *nsarc* files are the archive files for the exams peculiar to **Neurosoft** Ltd. To copy the exams from the external file press “Import”  button on the toolbar or use **Import** menu command.

In the “Open” window arisen (Fig. 20) select one or several archive files and press “Open” button.

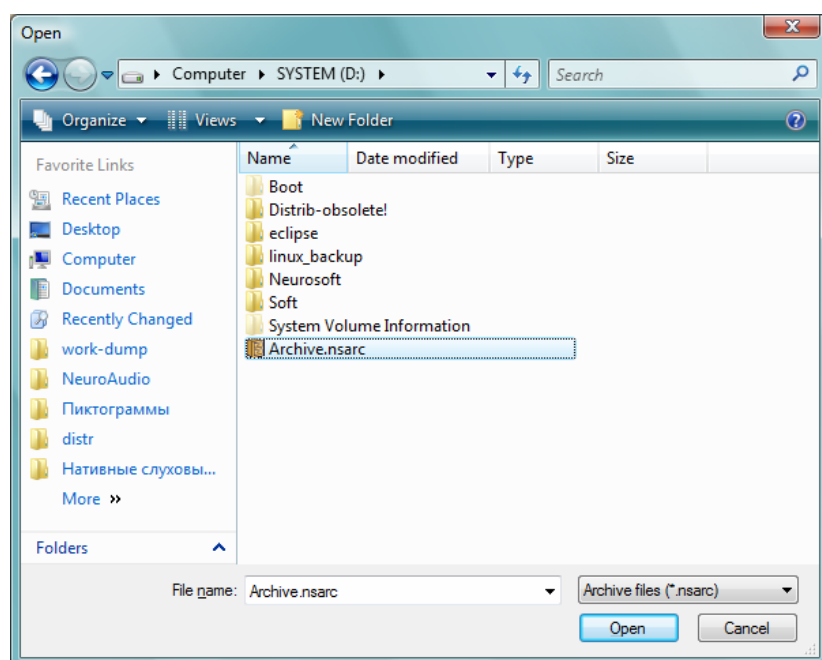


Fig. 20

After that the dialog box showing the archive contents (Fig. 21) will appear.

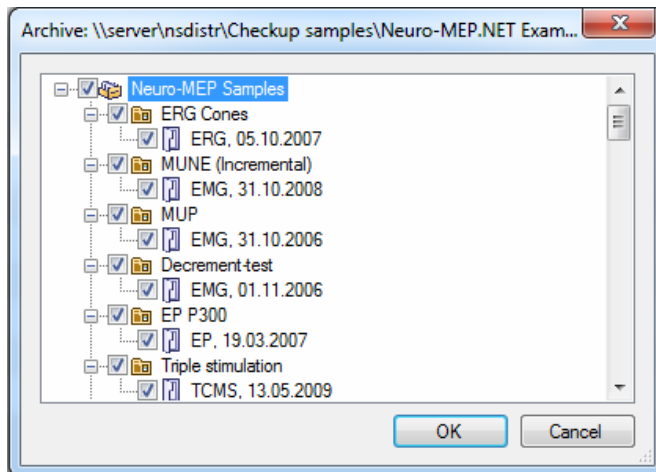


Fig. 21

The window shows the patient folders with the exams included into them. The patient folders can be combined into the folder files. The check box on the left of the exam name or the patient folder shows that the given object will be copied into the current database. You may uncheck the strings showing the undesired exams or patient folders. Then press “OK”.

After that the archive data copying to the current database will start.

## 11. Sending of the Exams via E-mail


You may send the selected exams via e-mail as an archive file, i.e. as a file with *nsarc* extension.

To do it, please, select one or several exams in the list and click the right mouse button. In the appeared menu select **Send** command. The selected exams will be saved in the archive file which will be attached to the e-mail message and sent by e-mail. The mailing window will be displayed, and you will have to enter the receiver's address there. The appearance of the window depends on the mailing software installed on your personal computer (PC).

## 12. Work with Database

Database is a repository located on the local or network computer and containing the exams data. Any **Neurosoft** company application software can work with several databases. Databases, with which the application software works, are called the registered databases. To make the database registered, the new (empty) database should be created or the existing database should be connected. **Neurosoft** Company software can operate with “MDB”, “Microsoft SQL Server” or “MySQL” databases.

In the “Exams Manager” window you may switch from one database to another, create the new databases or delete the undesired ones.

For the quick switch between the registered databases press “Database”  button. In the combo box select the required database (Fig. 31). The selected database becomes an active one.

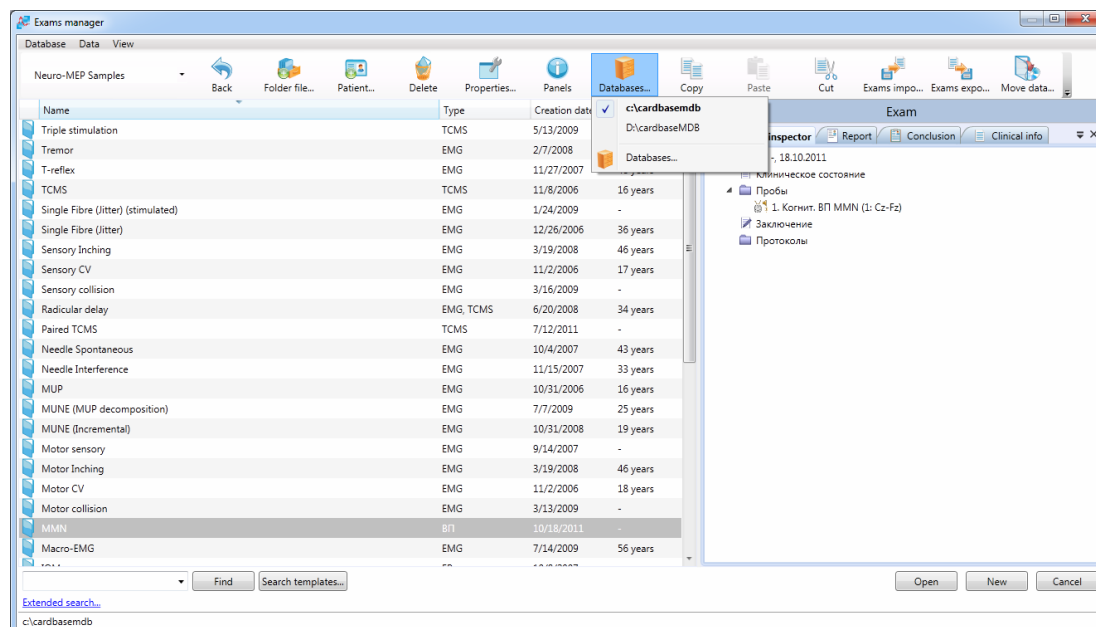


Fig. 22.

For connection (the authorization or registration) of the database, which is absent in the combo box, press the “Database”  button itself or use **Database** menu command.

In the “Database list” dialog box arisen (Fig. 23) you can see the registered databases and also you can create the new database, connect the existing one or delete the unnecessary one.

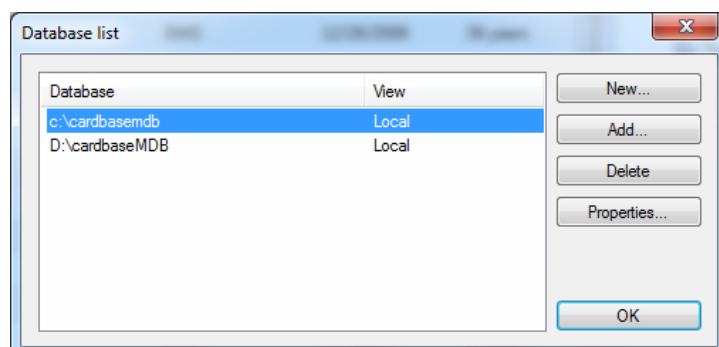


Fig. 23

To determine the size of the database, please, press “Properties” button (Fig. 24).

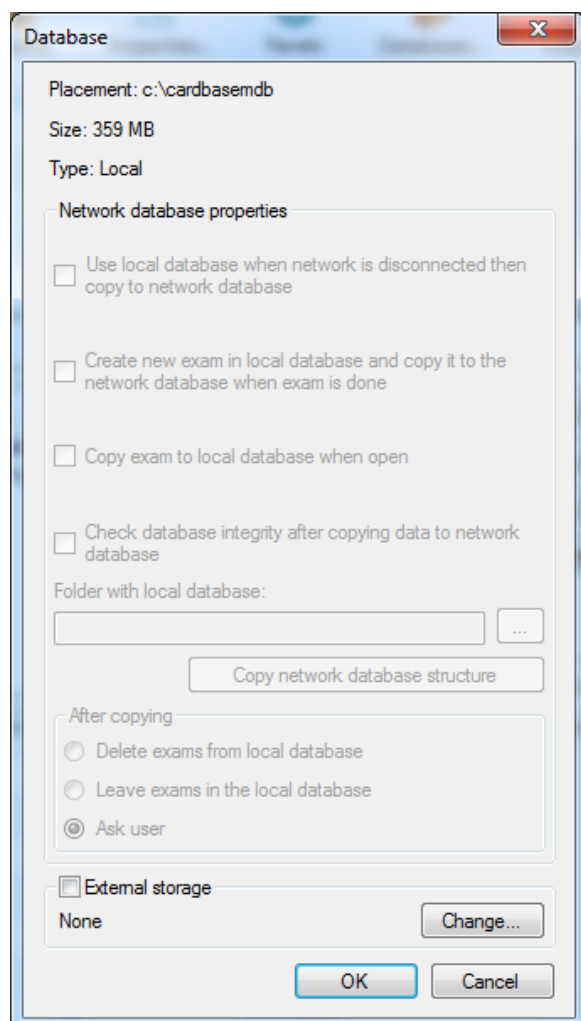


Fig. 24

The databases are divided into two types: local and network.

The local database is the database located on your computer. The network database is located on other computer of the local network.

If the selected database is a network database then the additional settings are accessible for it (see chapter 12.3 “Setup of Network Database”).

## 12.1. Creation of New Database

To create the new database, press “New” button in the “Database list” dialog box (Fig. 23). The “Database type” dialog box will appear on the screen (Fig. 25).

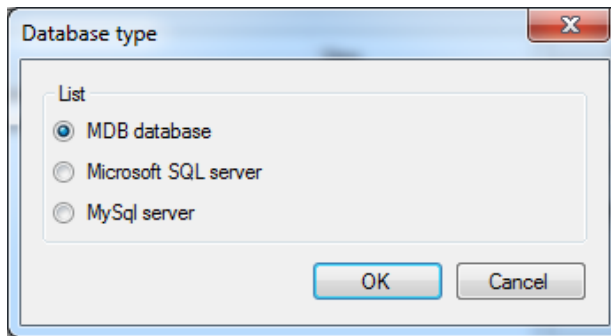


Fig. 25

"MDB database" is the database used by default and it does not require the installation of the additional software.

"Microsoft SQL Server" is the database operating under control of *Microsoft SQL Server*.

"MySQL server" is MySQL database distributed free of charge.

Select the type of the created database and press "OK" button.

### 12.1.1. Creation of MDB Database

In "Select folder" dialog box (Fig. 26) select an empty folder where the new database will be created.

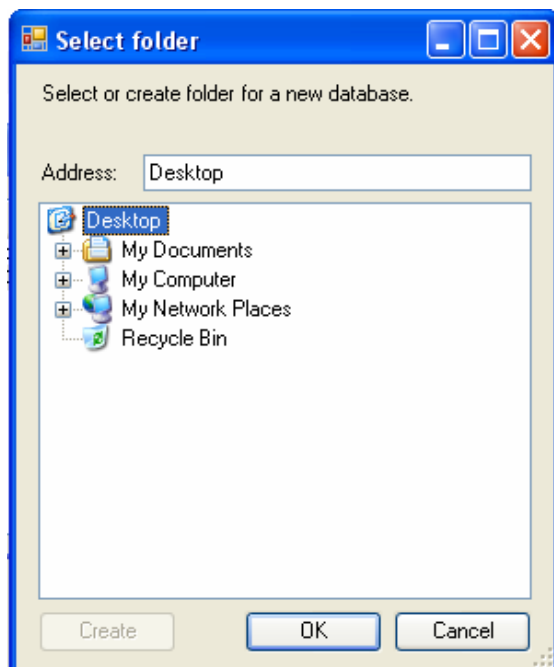


Fig. 26

To create the new folder for the database, press "Create" button and enter the folder name.

## 12.1.2. Creation of Microsoft SQL Server Database

To connect to “Microsoft SQL Server” database, the corresponding software (*Microsoft SQL Server 2005* and higher) should be installed on the server.

In “SQL server connection” dialog box (Fig. 27) press “Update” button to refresh the list of available SQL servers.

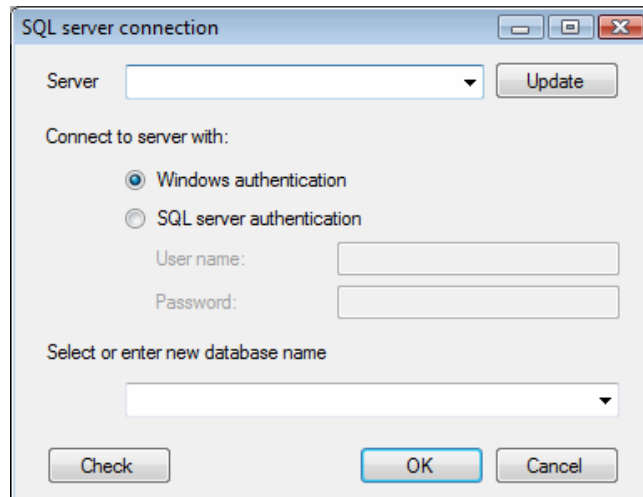


Fig. 27

In the “Server” combo-box select the server name (the computer with the installed *Microsoft SQL Server*) or enter the name manually. After that choose “Windows authentication” or “SQL server authentication” option depending on authentication type selected for the access to the indicated SQL server. In case you select “SQL server authentication” option, enter the user name and password. These data can be obtained from a person who is in charge of SQL server installation.

After that in “Select or enter new database name” combo-box, enter the database name.

Press “OK” button. The created database will appear in the list of registered databases.

### 12.1.3. Creation of MySQL Database

In “SQL server connection” dialog box (Fig. 28) indicate the server name (computer with *MySQL* server). Enter “root” in “User name” input box. Type the password indicated by you while installing *MySQL* server (see “Appendix 1. Installation of *MySQL* Database Server”).

In “Select or enter new database name” input box enter the name of the created database.

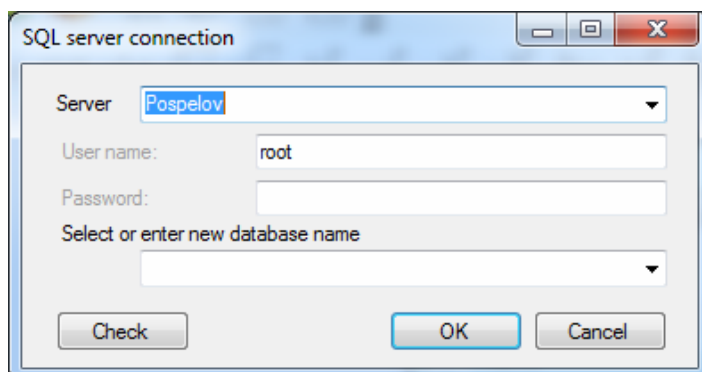


Fig. 28

As soon as you have finished, press “OK” button. The created database should appear in the list of the registered databases.

**Do not select “localhost” line as server name.**

## 12.2. Connection of Existing Database

To connect the existing database, i.e. the database, which exists on the PC disk but is not registered for the application software, press “Add...” button in the “Database list” dialog box (Fig. 29).

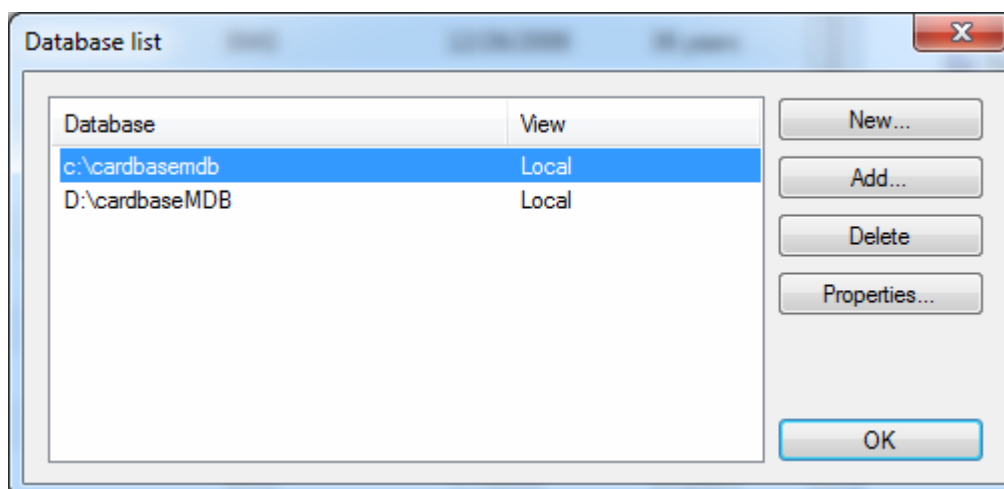


Fig. 29



The “Database type” dialog box will appear on the screen (Fig. 30).

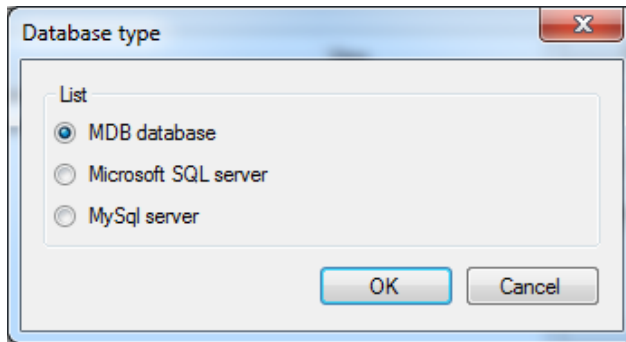


Fig. 30

Select the type of the connected database and press “OK” button.

### 12.2.1. Connection of Local MDB Database

If the connected database is located on the computer where the application is run, this database is called “local” one.

In the “Select folder” dialog box (Fig. 31) select the folder with the connected database and press “OK” button. You can also enter the full path to the database in the “Address” field.

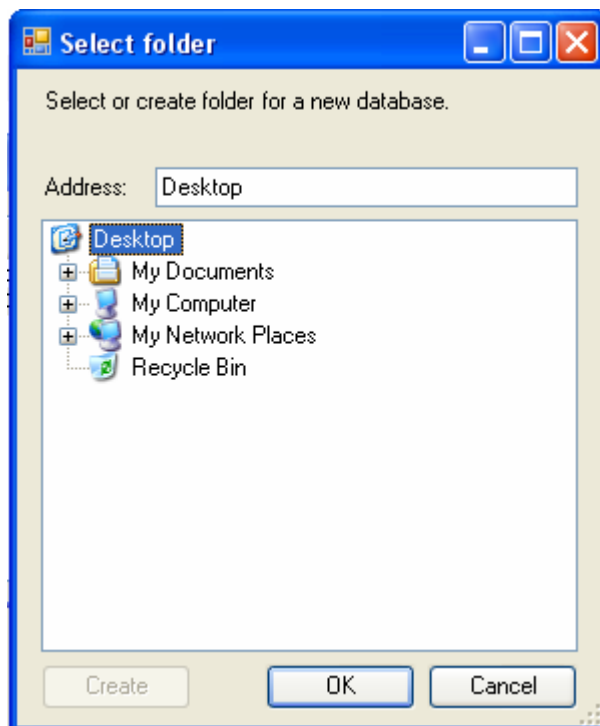


Fig. 31

The selected database will appear in the list of the registered databases.

## 12.2.2. Connection of Network MDB Database

To connect the network database, i.e. the database located on another PC of the local network, you have to perform the following actions. At first make the database folder accessible for reading and recording via the network. To do it, run "Windows explorer" on the PC containing the database, which you are going to make accessible through the network. Find the folder with database and press the folder name with right mouse button. In the "Properties" dialog box (Fig. 32) select the "Sharing" tab.

The examples of the dialog boxes from *Windows 7* operating system are given on Fig. 32–Fig. 38.

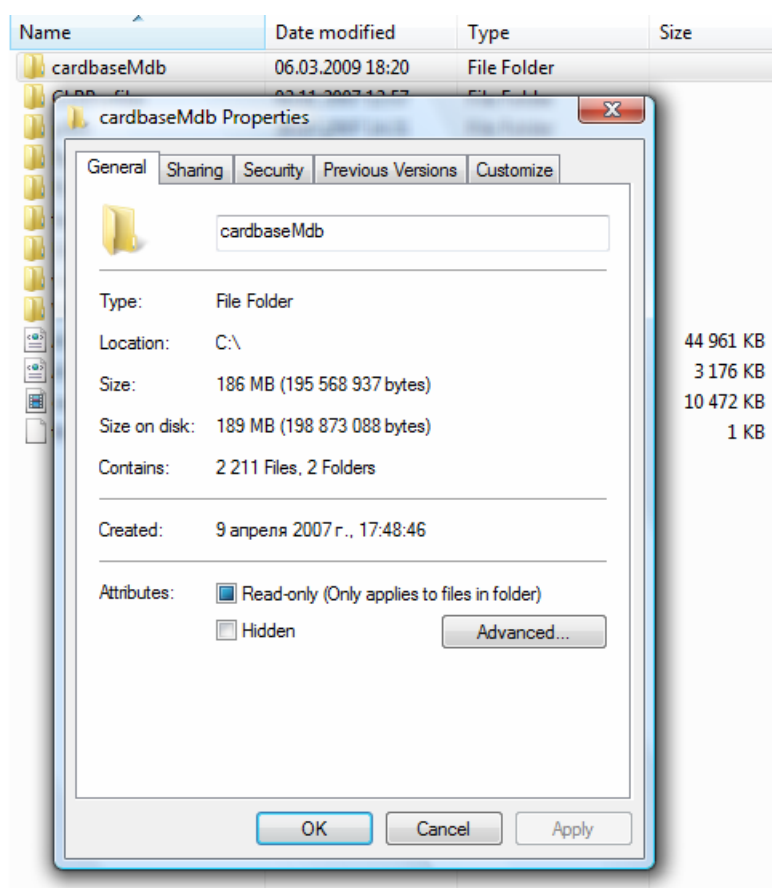


Fig. 32

On the “Sharing” tab (Fig. 33) press “Share...” button.

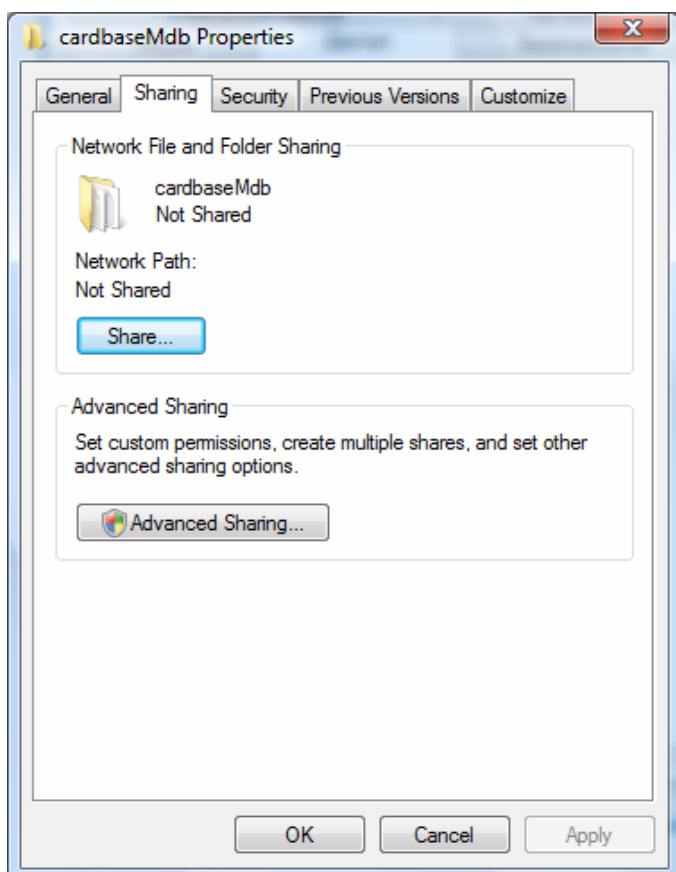


Fig. 33

In the appeared “File Sharing” dialog box (Fig. 34) you can select the users who will have an access to the given folder via the network.

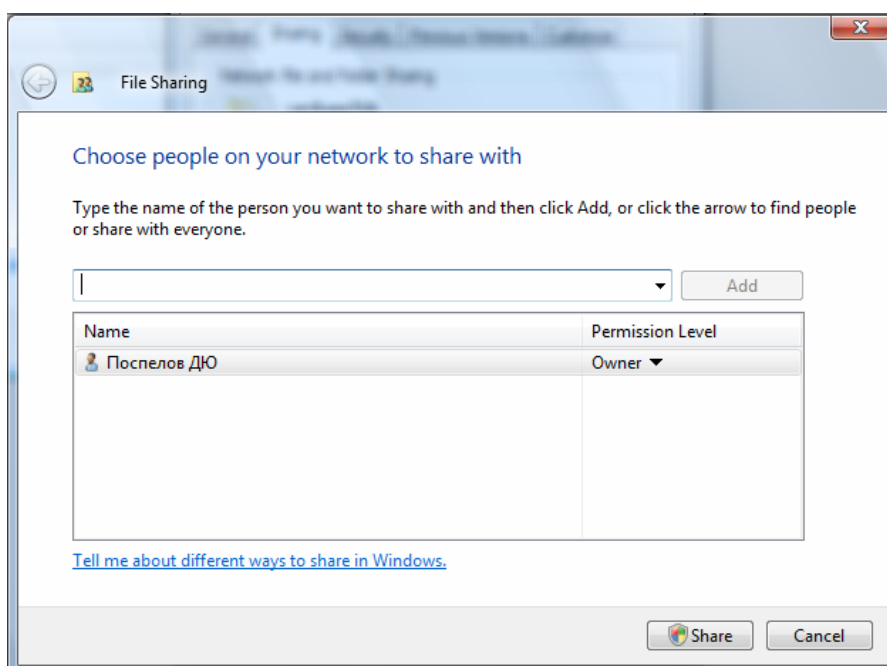


Fig. 34

In the combo-box select “Everyone” row and press “Add” button to the right of the combo-box. The “Everyone” row will appear in the table (Fig. 35).

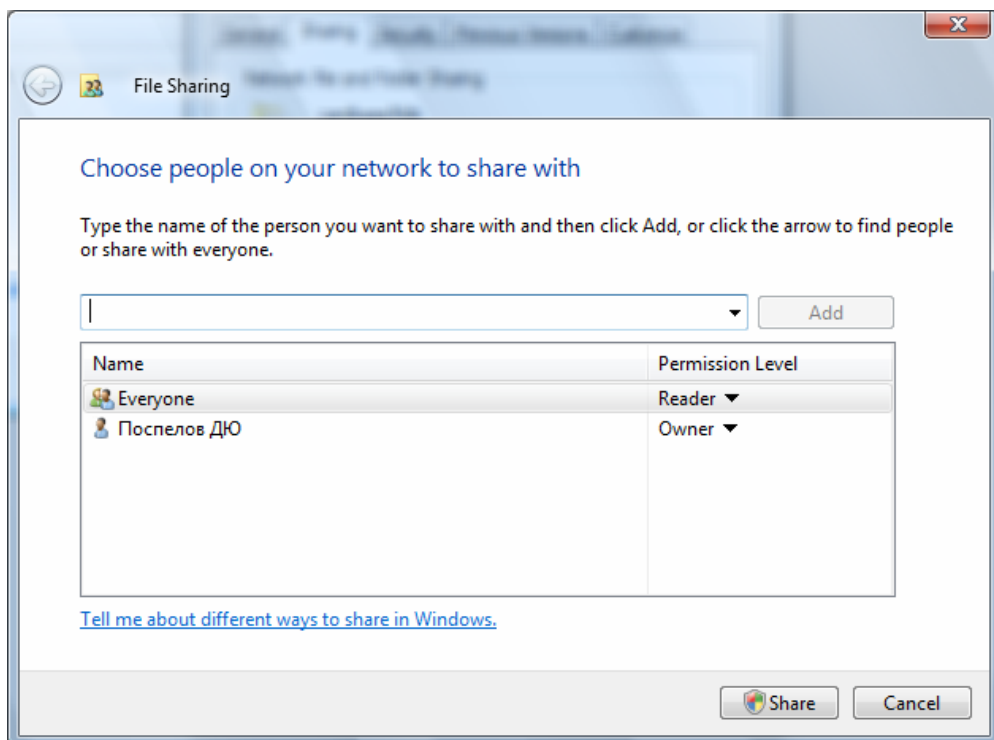


Fig. 35

After that press “Share” button.

Now the folder is accessible for reading via the network. To make the folder accessible for recording as well, press “Advanced Sharing...” in the “Settings” dialog box (Fig. 33). “Advanced Sharing” dialog box will appear on the screen (Fig. 36).

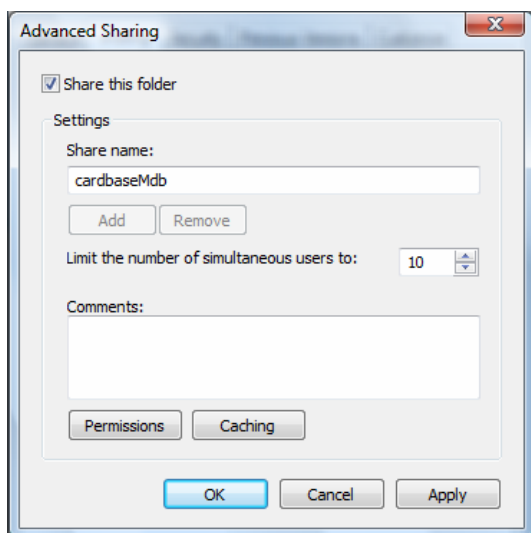


Fig. 36

Press “Share Permissions” tab and in the appeared “Permissions for cardbaseMdb” dialog box (Fig. 37) select the “Everyone” row in the “Group or users names:” list and check “Allow” checkbox in the “Full Control” row.

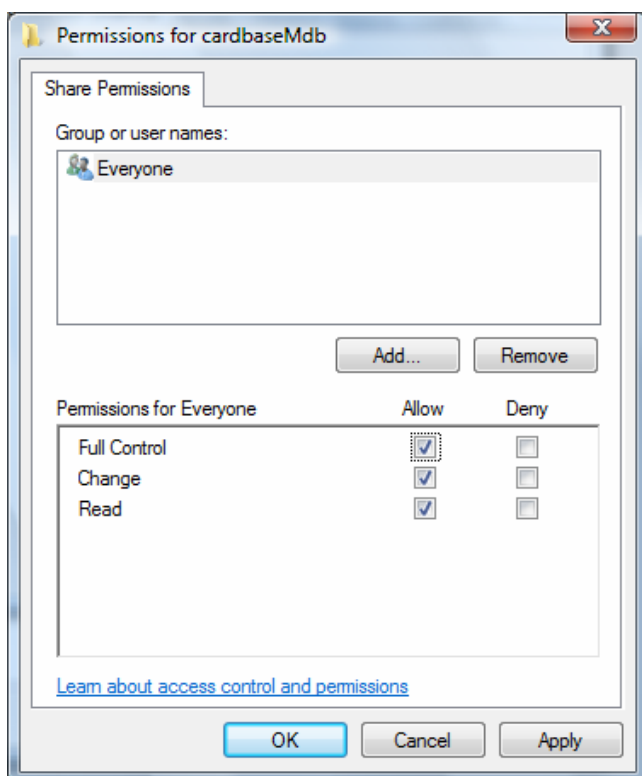


Fig. 37

After that press “Apply” and “OK” buttons in the “Permissions for cardbaseMdb” (Fig. 37) and “Advanced Sharing” (Fig. 36) dialog boxes. If you have any problems when proving the access rights to the database folder, please, contact the network administrator.

Now the database located in the given folder can be accessible from the other PCs of the network and you may come back to the program setup on the user’s PC.

To connect the network database on the user's PC, it is required to press "Add..." button in the "Database list" dialog box (Fig. 23). In the "Select folder" dialog box (Fig. 38) open the "Network", find the PC where the database is located, find the database folder which was made accessible for reading and recording. Then press "OK" button.

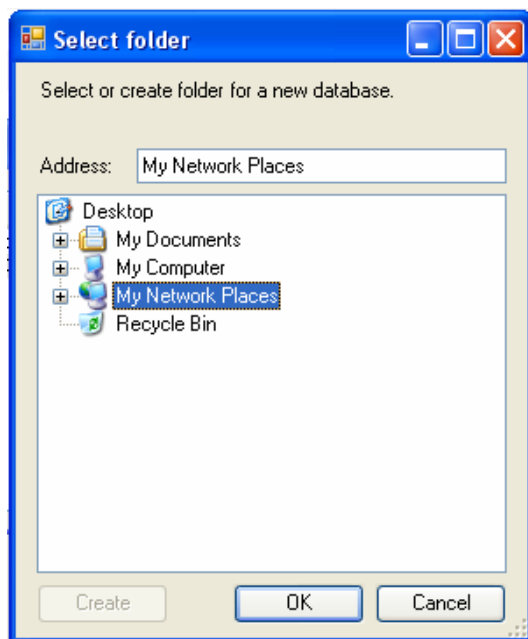


Fig. 38

The selected database should appear in the list of the registered databases.

### 12.2.3. Connection of Microsoft SQL Server Database

To connect to “Microsoft SQL Server” database, the corresponding software (*Microsoft SQL Server 2005* and higher) should be installed on the server.

In the “SQL server connection” dialog box (Fig. 39) press “Update” button to renew the list of available SQL servers.

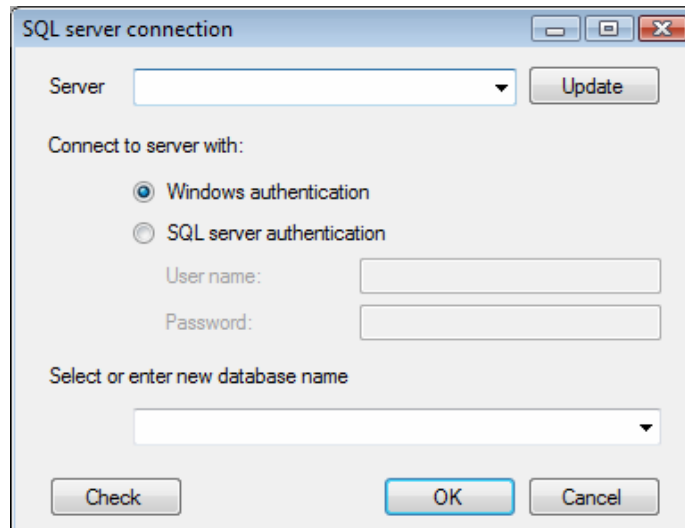


Fig. 39

In the “Server” combo-box select the server name where the database is located. Then select “Windows authentication” or “SQL server authentication” option depending on what authentication type of access to the indicated SQL server is selected. In case you choose “SQL server authentication” option, enter a user name and password. These data can be received from a person who is in charge of SQL server installation.

After that, enter the name of database in “Select or enter database name” combo-box.

The user with the indicated name should have the rights of owner in the selected database.

Then press “OK” button. The database will appear in the list of registered databases.

### 12.2.4. Connection of MySQL Database

To connect to MySQL database, the corresponding software should be installed on the server and the database should be created. The process of *MySQL* server installation is described in chapter “Appendix 1. Installation of MySQL”.

In “SQL server connection” dialog box (Fig. 40) enter the server name where MySQL server database is located.

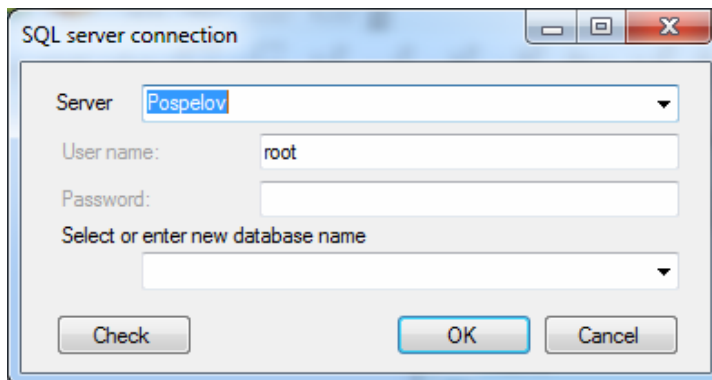


Fig. 40

**Do not select “localhost” line as server name.**

Also enter “root” in the “User name:” input box and the password in the “Password:” input box set while MySQL server was installed. Then type the database name. If the indicated database does not exist, it will be created.

As soon as you entered these values, press “OK” button. If the connection with the database on the server was successful, the database indicated by you will appear in the list of the registered databases.

In case the error occurred at the connection to the database, check the correctness of the entered data or address to the network administrator.

## 12.3. Setup of Network Database

The network database is the database located on other computer of local network and the optional settings are available for it.

The network database can operate in the following modes:

1. General mode. In this mode the database is not accessible if the network connection is not available, i.e. you may not open and create new exams.
2. Mode in which the new exam can be created on the local disk of your PC when the network connection is not available. If later the connection with the network database is detected then the program will offer to move the exams which had been created under unavailable network connection to the network database.
3. Mode in which any new exam is created on the local PC whether the network database connection be available or not. When the new exam is being closed it will be copied to the network database automatically if it is accessible. Otherwise the exam will be copied to the network database at the moment of the subsequent program starting if the network connection is detected.



4. Mode in which when the exam is being opened from the network database it is copied to the local PC and User works with a local copy of the exam. When you close the exam it is copied to the network database again.

To activate one of these modes, select the network database and press “Properties...” button in the dialog box representing the list of the databases (Fig. 41).

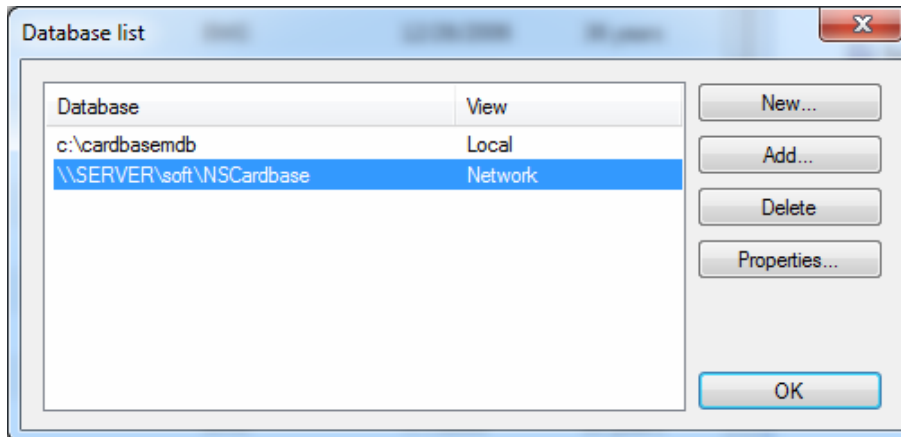


Fig. 41

If in the appeared dialog box (Fig. 42) all the checkboxes concerning the network database properties are unchecked it means that the given database operates in the first mode. Check the first checkbox to activate the second mode, the first and the second checkboxes – to activate the third mode. The third checkbox activates the fourth mode.

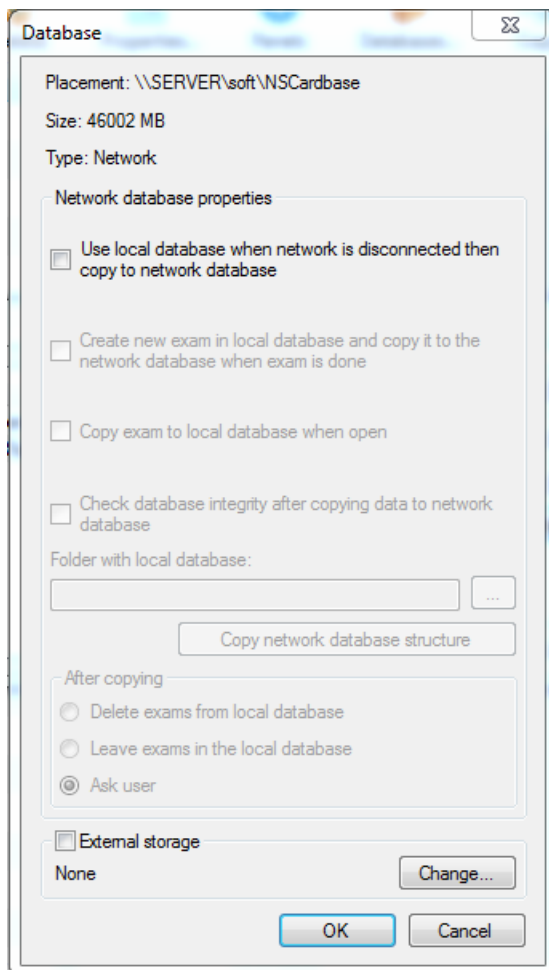


Fig. 42

The “Check database integrity after copying data to network database” checkbox means that after the exams copying to the network database they will be checked to confirm that they are saved completely. In case of any copying fault, the error message will be displayed, and the data remain in the local database.

If you push “Copy network database structure” button the network database structure is copied to the temporary database which is used when the network connection is not available. In this case you can see the contents of the network database but can not open the exams until the network connection is resumed.

“After copying” radio buttons allow you to specify what to do with exam copies which are remain in the local database after copying to the network database. If you choose “Remove exams from local database” option, the exam copies will be removed. The second option allows to save exam copies in the database. If you choose the third option, the program will ask you what to do with exam copies in local database.

“External storage” checkbox makes it possible to use external data storage. The external data storage allows to save data out of the database. In this case the database size is diminished because it contains only basic patient’s and exam data. To connect the external data storage, check the “External storage” checkbox. In the “Select storage” dialog box specify the name of the storage where you want to save exam data.

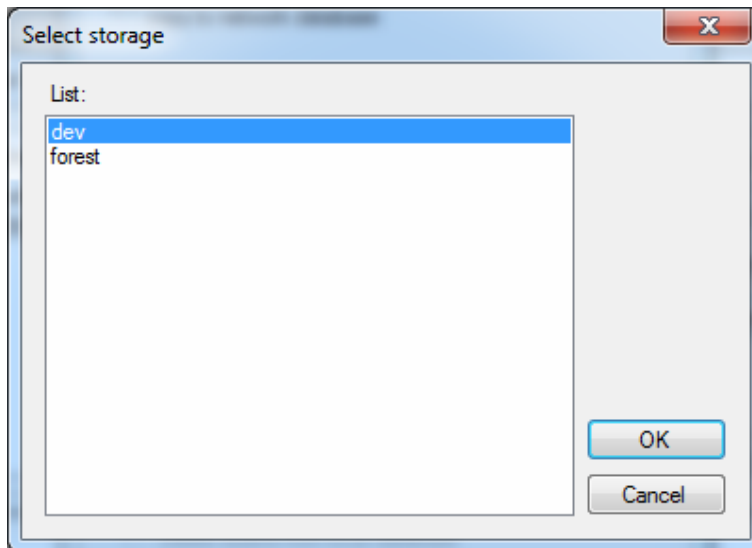


Fig. 43

Preliminarily you should install corresponding software on any computer in the local network, which will be used as external data storage. You can find the detailed information on data storage software installation in the "Appendix 2. Data Storage Server Setup".

## 12.4. Database Removal

To delete the registered database, press "Delete" button in the "Databases list" dialog box (Fig. 44).

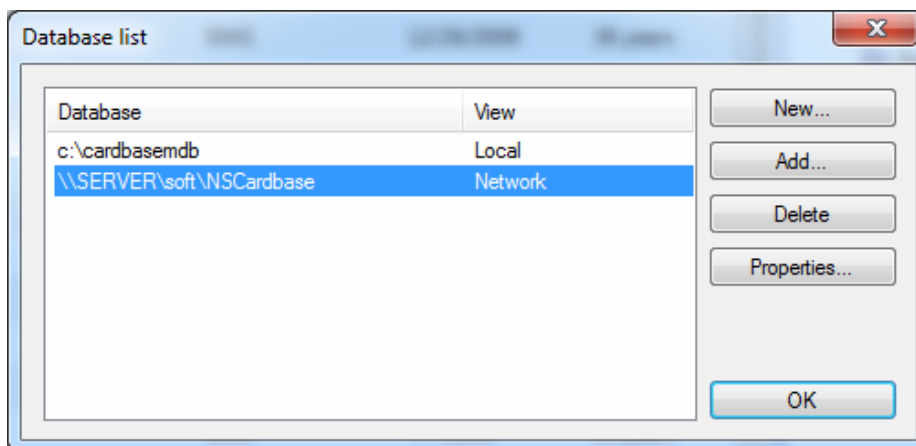


Fig. 44

After that the dialog box will appear where you have to confirm the given database deleting (Fig. 45).

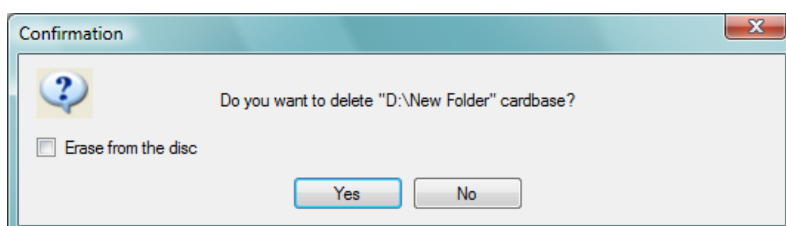


Fig. 45

If you check “Erase from the disc” checkbox, then the given database will be eliminated from the disk physically otherwise the database will be deleted only from the list of the registered databases and will be kept on the disk.

**It is impossible to delete the network database physically. The network database removal can be made only from the PC where it is located. In case of Microsoft SQL Server or MySQL databases, the physical removal of database is performed with the use of software for these databases management.**

## 13. Quick Review of Information about Exam

In “Exams Manager” window you can review information about the selected exam without opening it (for example, “Exam inspector”, “Report”, “Conclusion” or “Clinical info”). The given information is located on the panel on the right of the exams list (Fig. 46).

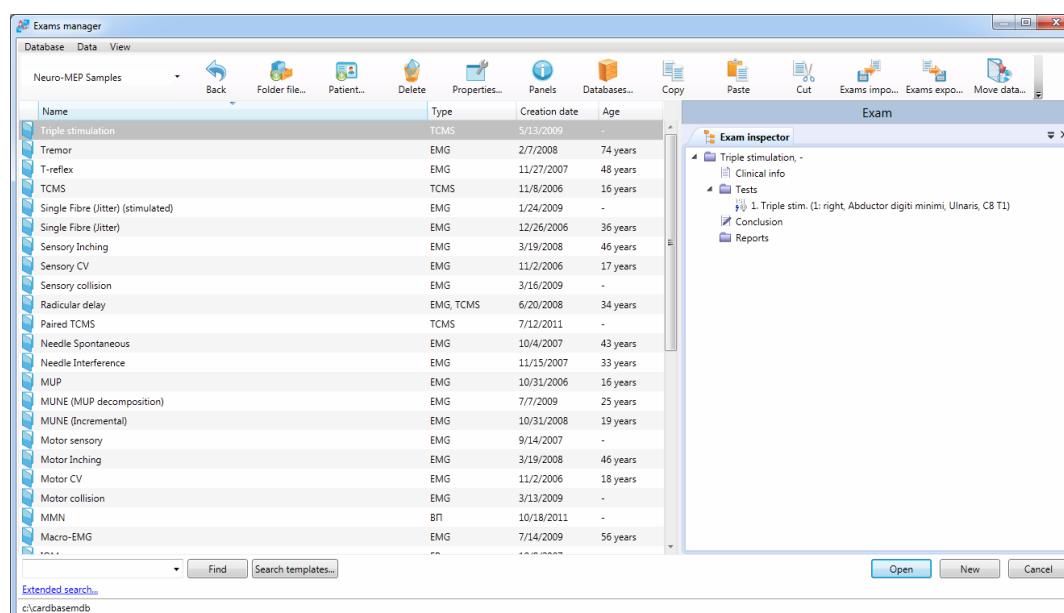


Fig. 46

To show or hide tabs press the “Panel”  button on the toolbar or use **View|Panel** menu command (Fig. 47).

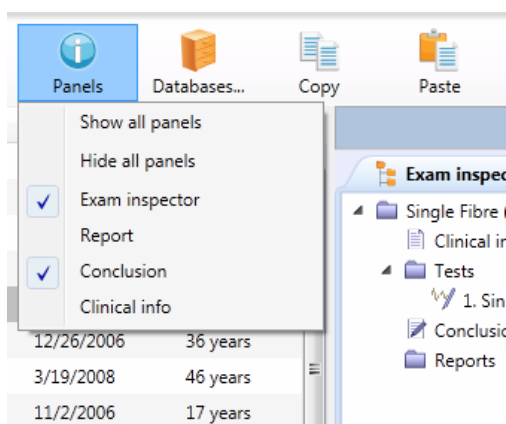


Fig. 47

Visible panels are shown in the dropdown list. To make all panels visible, use “Show all panels” menu command. To hide all panels, use “Hide all panels” menu command.

## 13.1. Exam Inspector

“Exam inspector” (Fig. 48) makes it possible to evaluate the constituent parts of the exam and it is an analogue of “Exam inspector” which is available in the program when you review the opened exam.

To display it on the information panel select “Exam inspector” tab.

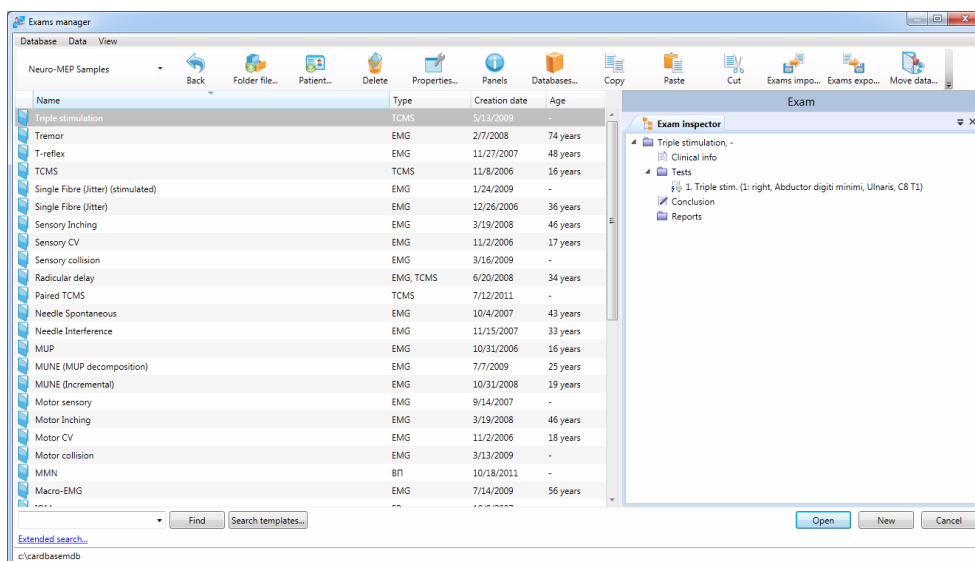


Fig. 48

Double mouse click on the element of the tree-view will open the exam and the window which corresponds to this element of the tree-view.

## 13.2. Report

“Report” panel makes it possible to see the exam report without opening the exam itself (Fig. 49).

To show it on the information panel, select the “Report” tab.

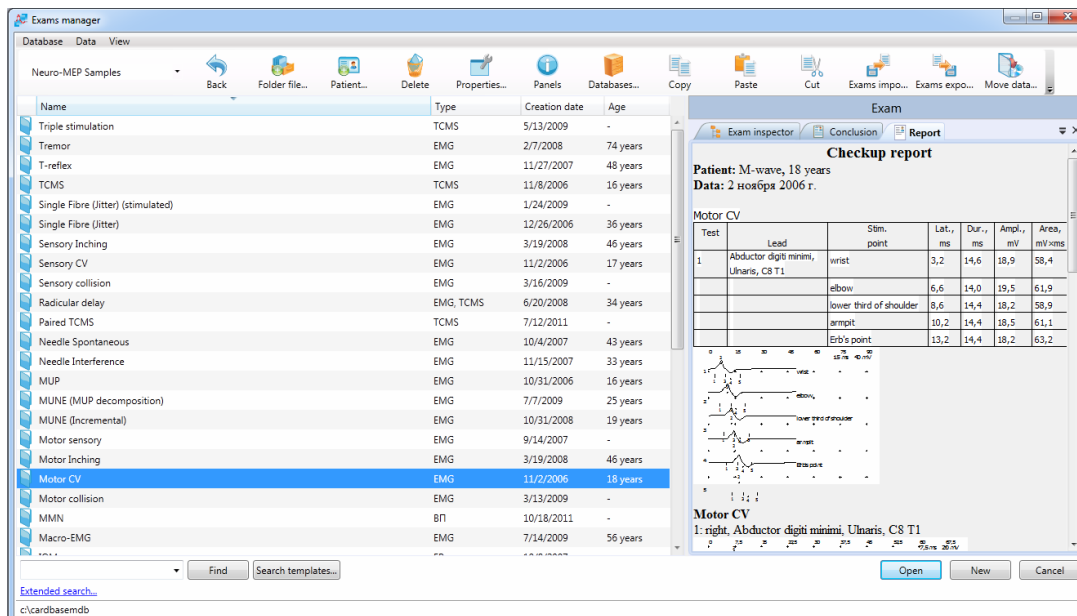


Fig. 49

## 13.3. Conclusion or Clinical Info

“Conclusion” or “Clinical info” panel (Fig. 50) makes it possible to review the conclusion (or clinical info) made by a doctor based on the results of the exam without opening the exam itself.

To show them on the information panel select “Conclusion” or “Clinical info” tab.

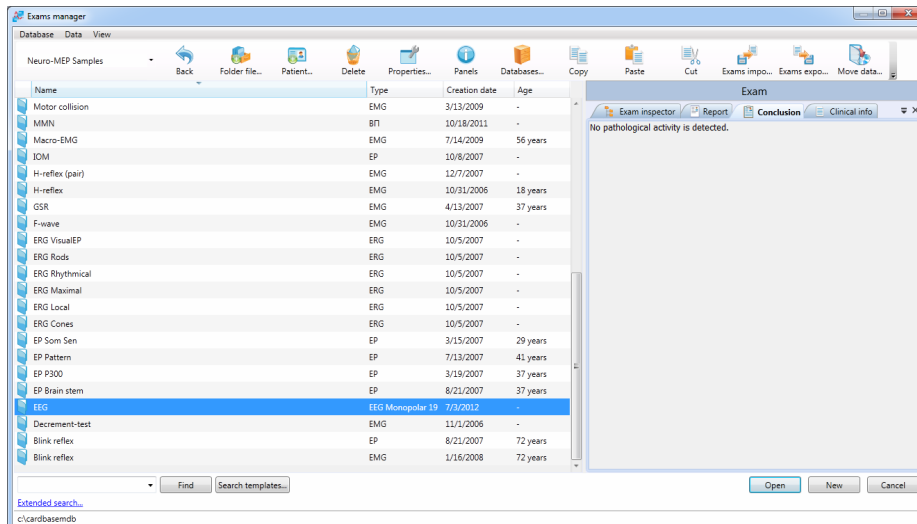


Fig. 50

## 14. Search of Exams

To search the required exams you have to enter a part of a patient's name or of an exam name in the input box located in the bottom part of the screen and press the "Search" button (Fig. 51).

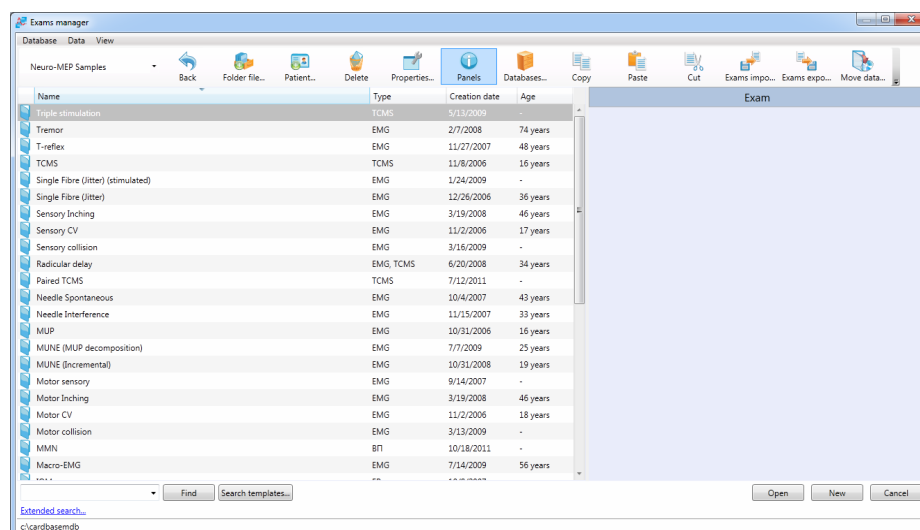


Fig. 51

After that, the found exams satisfying the request will appear in the list. The given list is called "Search results", and it is kept until the next searching operation. Quantity of the found exams will be shown in the brackets (Fig. 52).

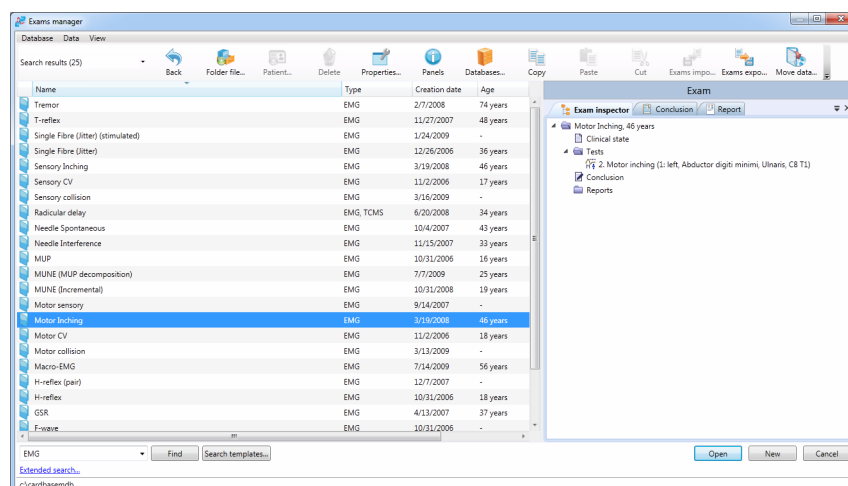


Fig. 52

In all other aspects the work with the list of the search results does not differ from the work with the ordinary list of exams, i.e. you may open the exams from the list, copy or move them.



The list of search results is saved during the program operation. To switch to the list with the search results, select the “Search results” item in the card files combo-box (Fig. 53).

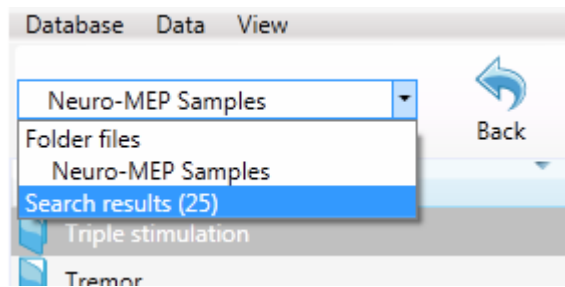
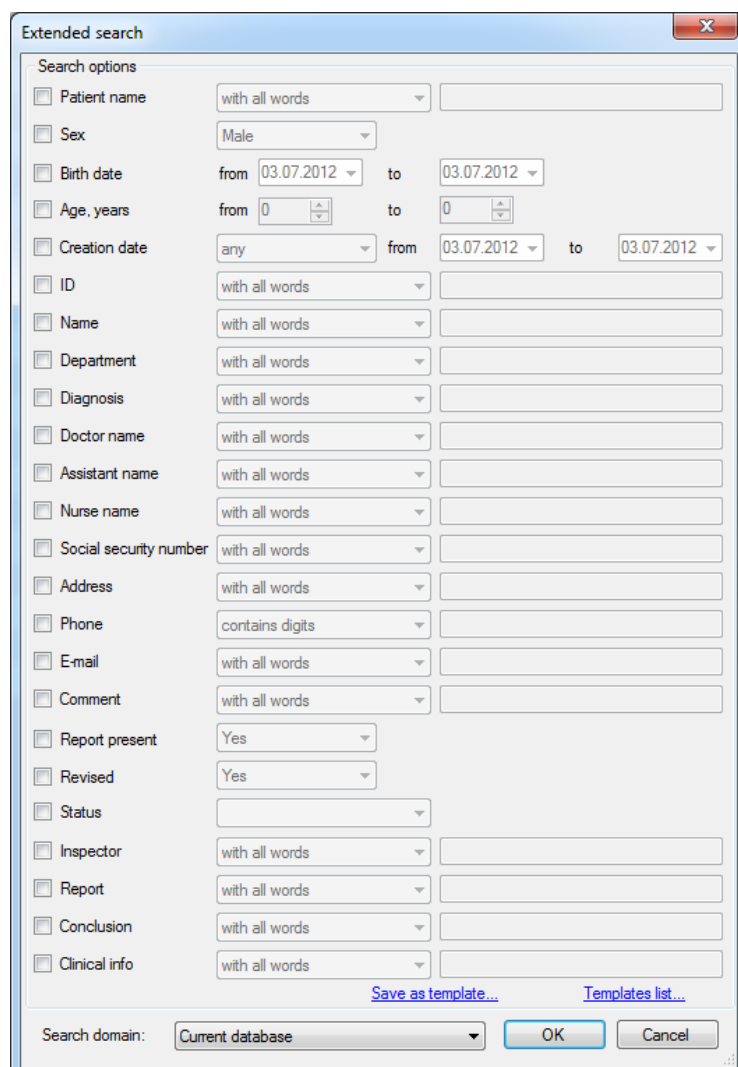


Fig. 53

## 14.1. Advanced Search

To switch on the advanced search mode, press “Extended search” string under the search string. The dialog box with the extended search parameters will appear (Fig. 54).



The image shows a screenshot of the 'Extended search' dialog box. It has a title bar with a close button (X). The main area is titled 'Search options' and contains a list of search parameters, each with a checkbox and a corresponding search type dropdown menu and an input field. The parameters are: Patient name, Sex, Birth date, Age, years, Creation date, ID, Name, Department, Diagnosis, Doctor name, Assistant name, Nurse name, Social security number, Address, Phone, E-mail, Comment, Report present, Revised, Status, Inspector, Report, Conclusion, and Clinical info. The 'Search domain' is set to 'Current database'. At the bottom, there are links for 'Save as template...' and 'Templates list...', and 'OK' and 'Cancel' buttons.

Search options	Search type	Input field
<input type="checkbox"/> Patient name	with all words	
<input type="checkbox"/> Sex	Male	
<input type="checkbox"/> Birth date	from 03.07.2012 to 03.07.2012	
<input type="checkbox"/> Age, years	from 0 to 0	
<input type="checkbox"/> Creation date	any from 03.07.2012 to 03.07.2012	
<input type="checkbox"/> ID	with all words	
<input type="checkbox"/> Name	with all words	
<input type="checkbox"/> Department	with all words	
<input type="checkbox"/> Diagnosis	with all words	
<input type="checkbox"/> Doctor name	with all words	
<input type="checkbox"/> Assistant name	with all words	
<input type="checkbox"/> Nurse name	with all words	
<input type="checkbox"/> Social security number	with all words	
<input type="checkbox"/> Address	with all words	
<input type="checkbox"/> Phone	contains digits	
<input type="checkbox"/> E-mail	with all words	
<input type="checkbox"/> Comment	with all words	
<input type="checkbox"/> Report present	Yes	
<input type="checkbox"/> Revised	Yes	
<input type="checkbox"/> Status		
<input type="checkbox"/> Inspector	with all words	
<input type="checkbox"/> Report	with all words	
<input type="checkbox"/> Conclusion	with all words	
<input type="checkbox"/> Clinical info	with all words	

Search domain: Current database

Buttons: OK, Cancel

Links: [Save as template...](#), [Templates list...](#)

Fig. 54

To add the required search parameter, check the corresponding checkbox located to the left of parameter name. In case you search by character field, enter the search line to input box and indicate the search type in combo-box. The following search variants are possible:

- “with all words” – the field being searched should contain all entered words;
- “with phrase” – the field being searched should contain the whole phrase;
- “with any word of” – the field being searched should contain any of indicated words;
- “without words” – the field being searched should not contain indicated words.

You can search by following parameters:

- “Patient name” – search by patient’s name or part of name.
- “Sex” – search by patient’s sex. Select the sex being searched in combo-box.
- “Birth date” – search by birth day. Indicate the range (from - to).
- “Age, years” – search by patient’s age. Indicate age range in years.
- “Creation date” – search by exam creation date. Indicate the range or specify time interval (per today, per week, per month, per year) in the combo-box.
- “ID” – search by patient card ID.
- “Name” – search by exam name.
- “Department” – search by department name where a patient is registered.
- “Diagnosis” – search by diagnosis text.
- “Doctor name” – search by name of doctor who performed exam.
- “Assistant name” – search by name of assistant who performed exam.
- “Nurse name” – search by nurse’s name.
- “Social security number” – search by name or health insurance policy number.
- “Address” – search by patient’s address.
- “Phone” – search by phones indicated by patient.
- “E-mail” – search by e-mail address of patient.
- “Comment” – search by comment text in patient’s card.
- “Report present” – search of exams with report. In the combo-box select “Yes” to search exams with reports and choose “No” to search exams without report.
- “Revised” – search of exams revised by doctor. In the combo-box select “Yes” to search exams revised by doctor and choose “No” to search exams that are not revised by doctor.
- “Inspector” – search by exam inspector text (see chapter 13.1 “Exam Inspector”).
- “Report” – search by exam report text.
- “Conclusion” – search by conclusion text.
- “Clinical info” – search by clinical information about patient.

Using the “Search domain” combo-box you can indicate where to search the exams: in the current database, in the current card file (list) or in all registered databases.

As soon as you select all required search parameters, press “OK” button.

You may keep the current search conditions as a template, which makes it possible not to enter them from a keyboard every time. To do it, press “Save as a template...” string. In “Template name” dialog box (Fig. 55) enter the name of the search template.

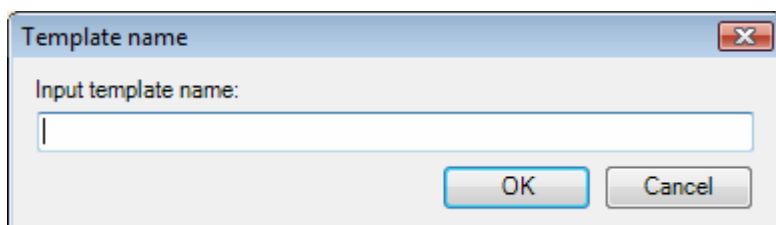


Fig. 55

To search the exams by means of the template, use “Search templates...” button and choose the required template from the combo-box (Fig. 56).

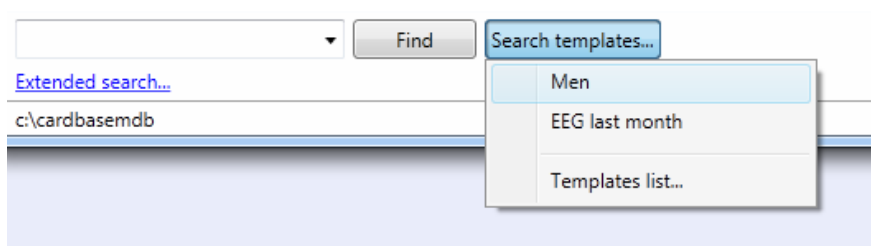


Fig. 56

Using the “Templates list...” menu command you may edit the list of existing search templates (Fig. 57).

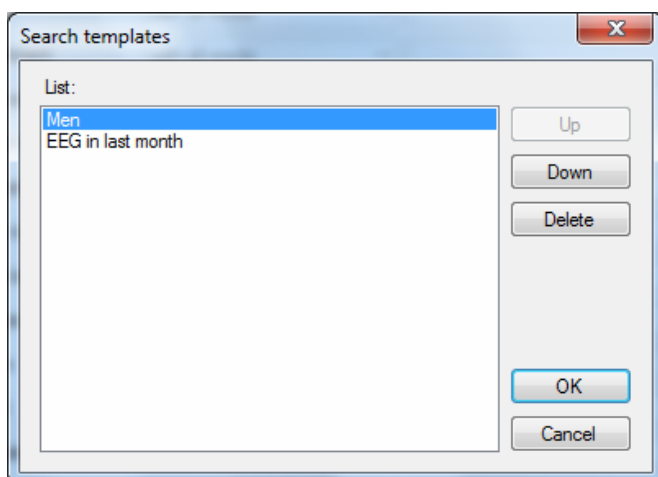


Fig. 57

To relocate the template in the list, use “Up” and “Down” keys. To delete the template from the list, press “Delete” button.

To edit the template, select the required string and press “OK”. The search parameters corresponding to the template will be shown on the search panel. Make necessary changes and press “Save as a template...” button. In “Template name” dialog box (Fig. 55) press “OK” button without changing the name. If you change the name, the template will be saved with another name.

## 15. Statistical Report Generation

Using “Exams manager” you can make statistical reports in *Microsoft Excel*, *Open Office Calc* programs or text editor.

The statistical report is a table where the rows contain the exams or list of patients selected by you and the columns can contain the information about the exam such as patient name, exam name, patient age, etc. The parameters of the analysis results can also be included in the table.

Before the statistical report generation it is required to define the list of exams to be included in the report. To do this, use the search function for the exams (see chapter 14. “Search of Exams”). The “Search results” list will contain the exams which will be included in the statistical report. To include all exams available in the current database to the report, switch to the root card file (“Folder files” item in the card-files combo-box (Fig. 58)).

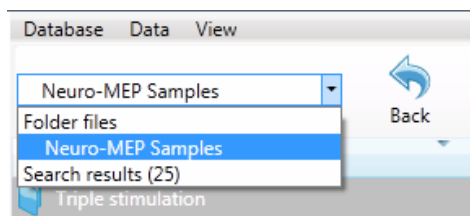



Fig. 58

To include the exams from the separate card file to the report, switch to this card file. In any case, the exams located in the current list of “Exams manager” will be added to the report including those located in the subcard-files.

Then press “Report...”  button located on the toolbar or use **Report...** command of the local menu (Fig. 59).

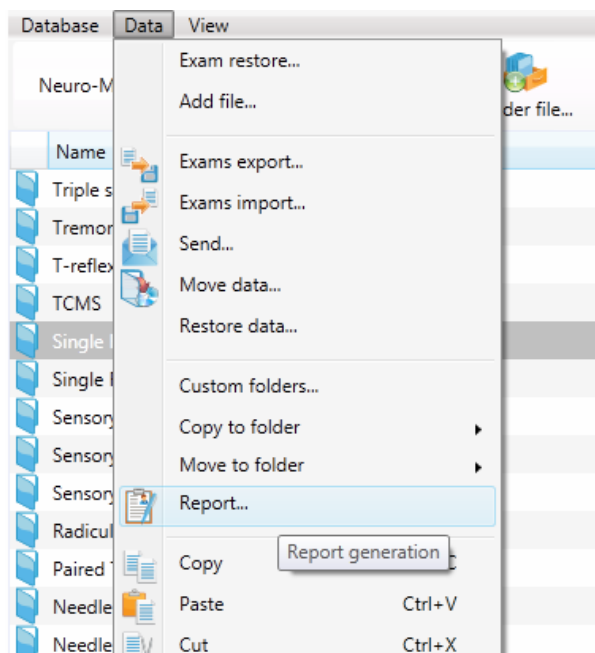


Fig. 59

The “Report” dialog box will appear on the screen (Fig. 60).

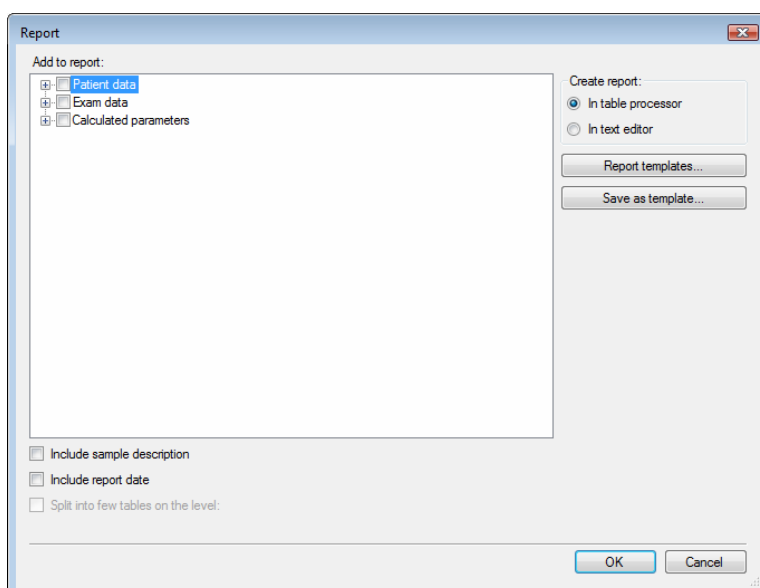


Fig. 60

The “Add to report” list contains the description of the columns which you can include in the statistical report. The list has a tree structure and is divided into three sections.

The “Patient data” section contains the description of the columns with data from the patient card (Fig. 61).

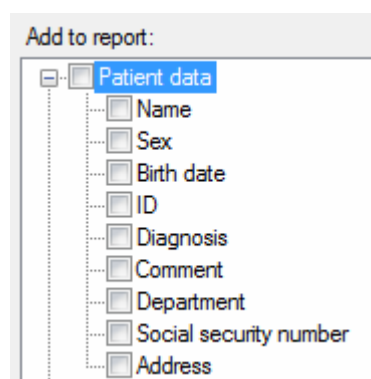


Fig. 61

The “Exam data” section contains the description of columns with main exams data (Fig. 62).

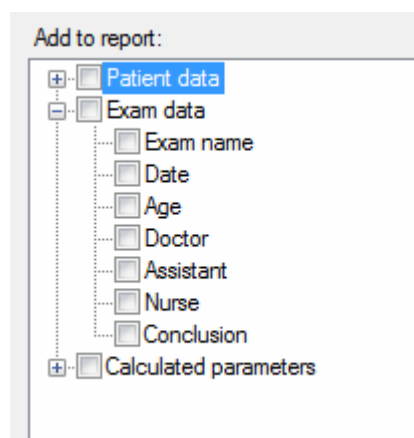


Fig. 62

The “Calculated parameters” section (Fig. 63) contains the description of parameters of analysis results which can be included into the report. The list of calculated parameters depends on the exams type which will be included in the report.

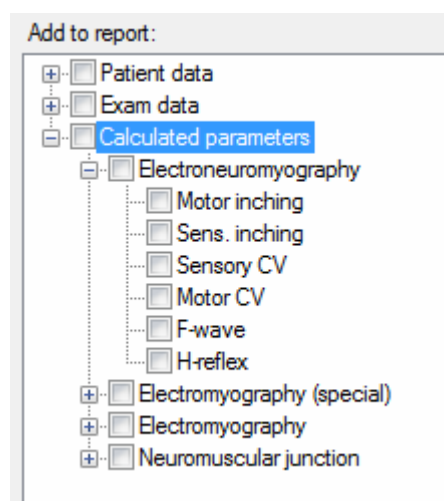


Fig. 63



Usually the calculated parameters are grouped by techniques, functional tests and leads.

**If the list of calculated parameters is empty, it means that the exams were saved without statistical information or were not analyzed. To save the statistical information for the exam, open it and resave.**

To include the columns with patient data, exam data or calculated parameters to the report, it is required to open the corresponding list and mark the required parameter. To do this, check the corresponding checkbox leftward the parameters name (Fig. 64).

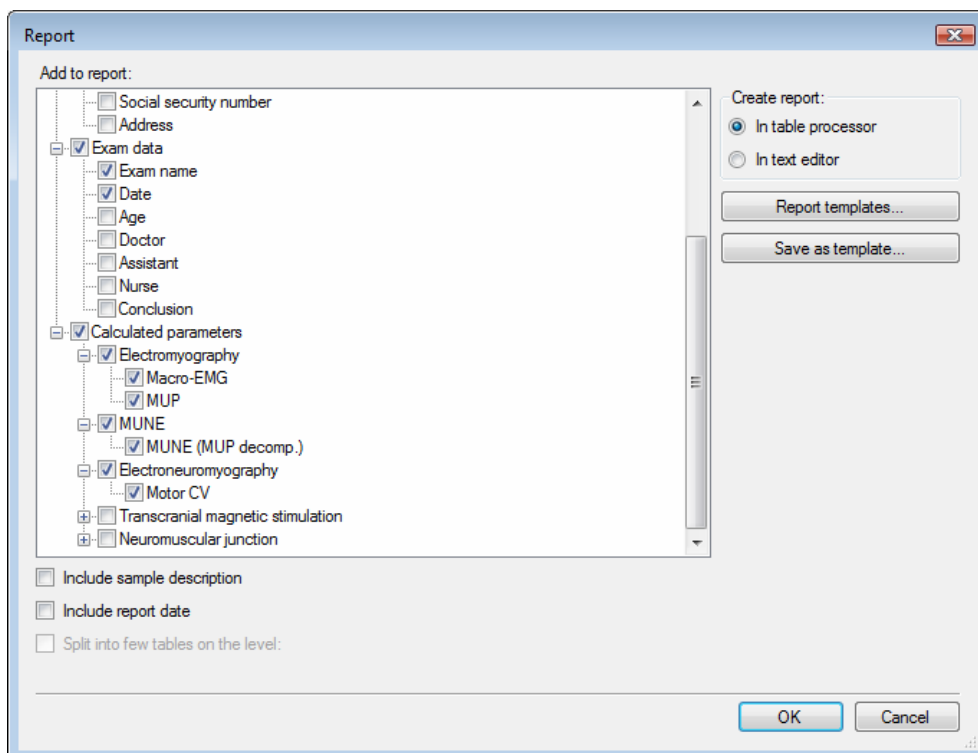


Fig. 64

If only the patient data are marked, the report will contain the list of patients.

Using “Create report” radio buttons you can select the program where the report will be made.

If you selected “In table processor” option, the report will be generated in the spreadsheet program installed on your computer. If *Microsoft Excel* program is installed on your computer, the report will be generated in it. In case *Microsoft Excel* is not installed, the program will try to open *Open Office 3.0 Calc*. If this application is also not installed on your computer, you will be offered to save a report as a file with \*.*Xml* extension. You can copy this file to the computer where the software described above are installed or send it via e-mail.

The example of the report generated in *Microsoft Excel* program is given on Fig. 65.

	A	B	C	D	E	F	G	H
1	N	Name	Sex	Exam name	Date	Age		
2	1	Motor Inching	Female	EMG	19.03.2008	46 years		
3	2	Sensory Inching	Female	EMG	19.03.2008	46 years		
4	3	T-reflex	Male	EMG	27.11.2007	48 years		
5	4	Needle Interference	Male	EMG	15.11.2007	33 years		
6	5	Needle Spontaneous	Female	EMG	04.10.2007	43 years		
7	6	GSR	Male	EMG	13.04.2007	37 years		
8	7	Jitter	Male	EMG	26.12.2006	36 years		
9	8	Sensory	Unknown	EMG	02.11.2006	17 years		
10	9	Motor	Male	EMG	02.11.2006	18 years		
11	10	Decrement-test	Unknown	EMG	01.11.2006	-		
12	11	MUP	Unknown	EMG	31.10.2006	16 years		
13	12	F-wave	Unknown	EMG	31.10.2006	-		
14	13	H-reflex	Unknown	EMG	31.10.2006	18 years		
15								
16								
17								
18								
19								

Fig. 65

If you selected “In text editor” option, the report will be generated in the text editor which is installed on your computer, for example, in *Microsoft Word* or *WordPad* editor built in *Windows*.

If “Include sample description” checkbox is checked, the search string used for the given exams list generation will be included in the report.

If “Include report date” checkbox is checked, the string with date of report generation will be added to the report.

You can generate the report consisting of several pages. To do this, select the node in the “Calculated parameters” tree list of and check “Split into few tables on the level” checkbox. For example, if you decided to cut the report on “Calculation parameters” level (Fig. 66), in the result the report consisting of the “Electromyography”, “MUNE” and “Electroneuromyography” tables will be generated.

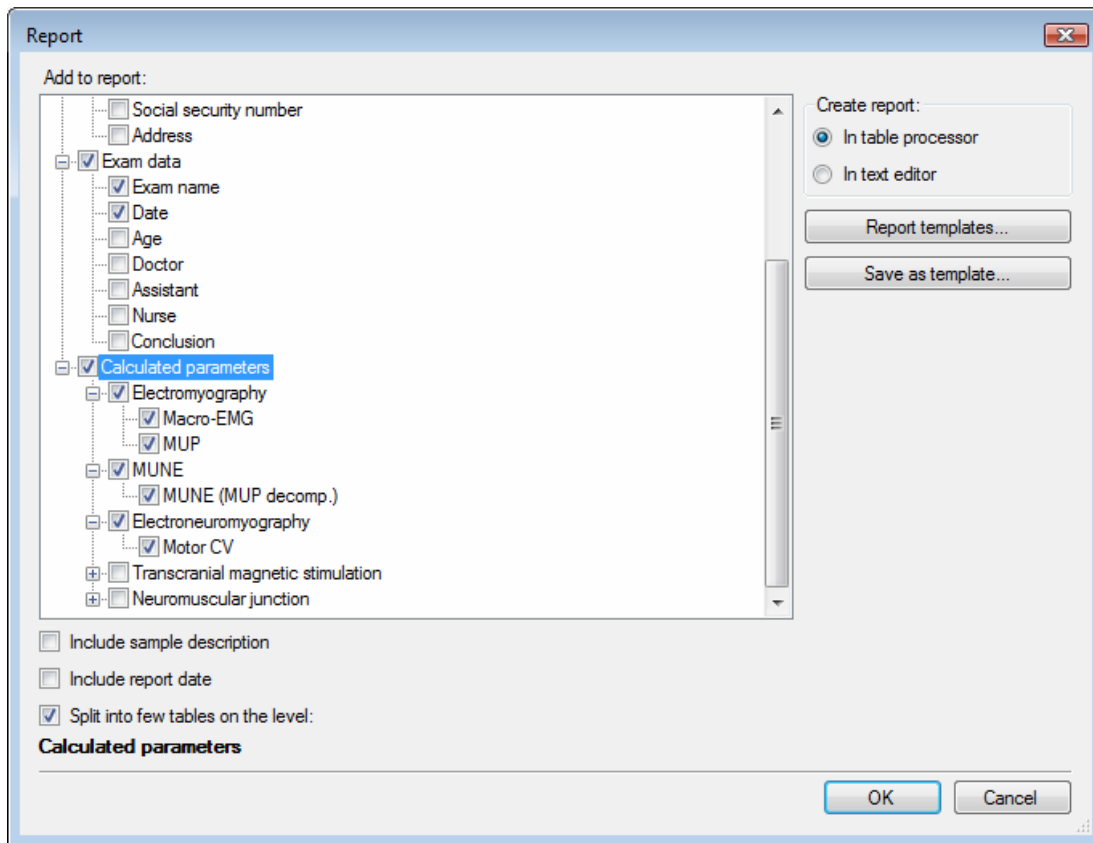


Fig. 66

The example of the multipage report generated in Microsoft Excel program is represented on Fig. 67.

	A	B	C	D	E	F	G	H	I	J	K
1	N	Name	Sex	Exam name	Age	Macro-EMG	MUP				
2	1	Macro-EMG	Female	EMG	56 years	1					
3	2	MUNE (MUP decomposition)	Female	EMG	25 years						
4	3	Triple stimulation	Unknown	TCMS	-						
5	4	Sensory collision	Unknown	EMG	-						
6	5	Motor collision	Unknown	EMG	-						
7	6	Single Fibre (Jitter) (stimula	Unknown	EMG	-						
8	7	MUNE (Incremental)	Male	EMG	19 years						
9	8	Radicular delay	Male	EMG, TCMS	34 years						
10	9	Motor Inching	Female	EMG	46 years						
11	10	Sensory Inching	Female	EMG	46 years						
12	11	Tremor	Male	EMG	74 years						
13	12	Blink reflex	Female	EMG	72 years						
14	13	H-reflex (pair)	Male	EMG	-						
15	14	T-reflex	Male	EMG	48 years						
16	15	Needle Interference	Male	EMG	33 years						
17	16	ICOM	Male	EP	-						
18	17	ERG Local	Male	ERG	-						
19	18	ERG VisualEP	Male	ERG	-						
20	19	ERG Rhythmical	Male	ERG	-						
21	20	ERG Cones	Male	ERG	-						
22	21	ERG Maximal	Male	ERG	-						
23	22	ERG Rods	Male	ERG	-						
24	23	Needle Spontaneous	Female	EMG	43 years						
25	24	Motor sensory	Male	EMG	-						
26	25	EP Brain stem	Male	EP	37 years						

Fig. 67

You can save the current settings of the statistic report as a template for the further use. To do this, press “Save as template...” button. In the appeared “Template name” dialog box (Fig. 68) enter the template name and press “OK” button.

Fig. 68

Next time to generate the report using this template, press “Report templates...” button. In the “Templates” dialog box (Fig. 69) select the required template from the list of the saved templates and press “OK” button.

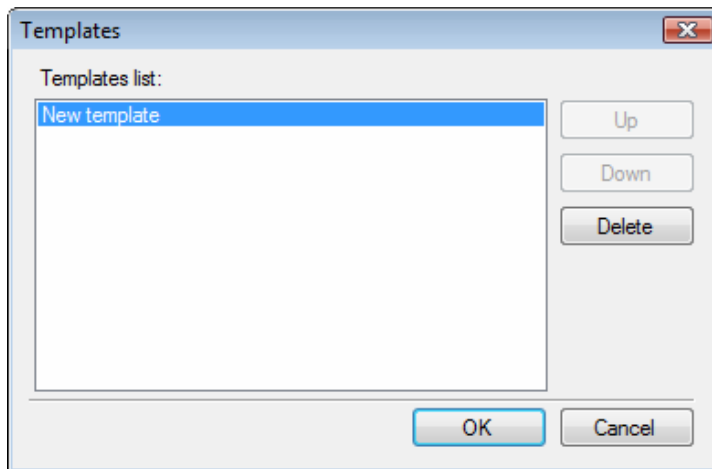


Fig. 69

After that, the corresponding columns will be selected in the “Add to report:” list.

In the “Templates” dialog box you can also remove the unnecessary report templates (“Delete” button) or transpose them in the list (“Up” and “Down” arrow buttons).

You can save the current settings of the report as a file. To do this, right-click on “Add to report:” list and select “Export...” local menu command (Fig. 70).

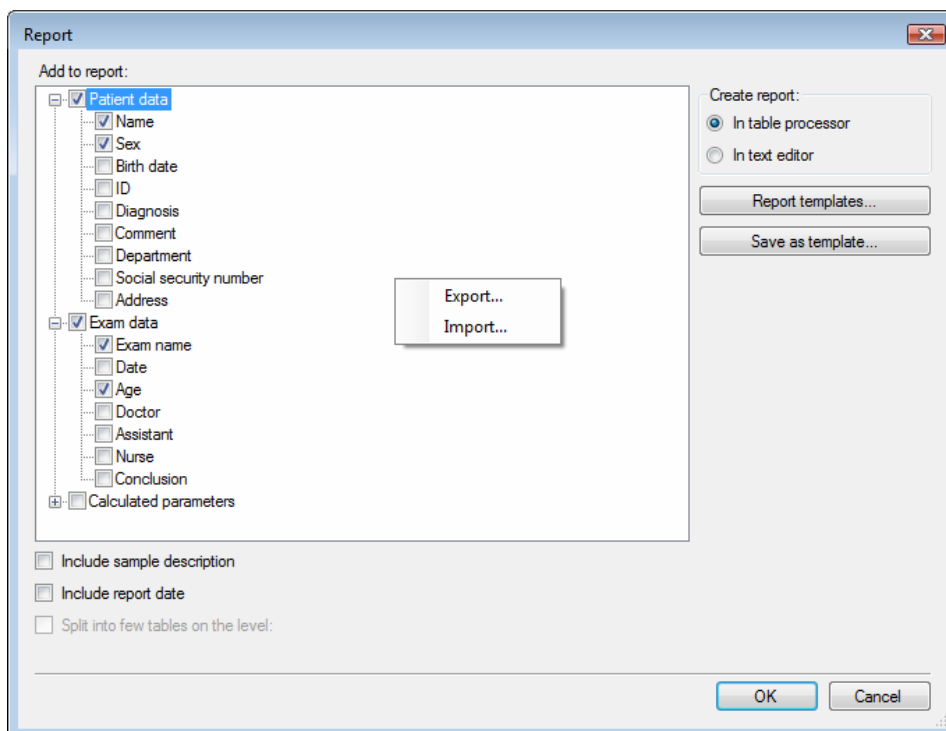


Fig. 70

Then in the dialog box represented on Fig. 71 enter the file name with \*.rpt extension.

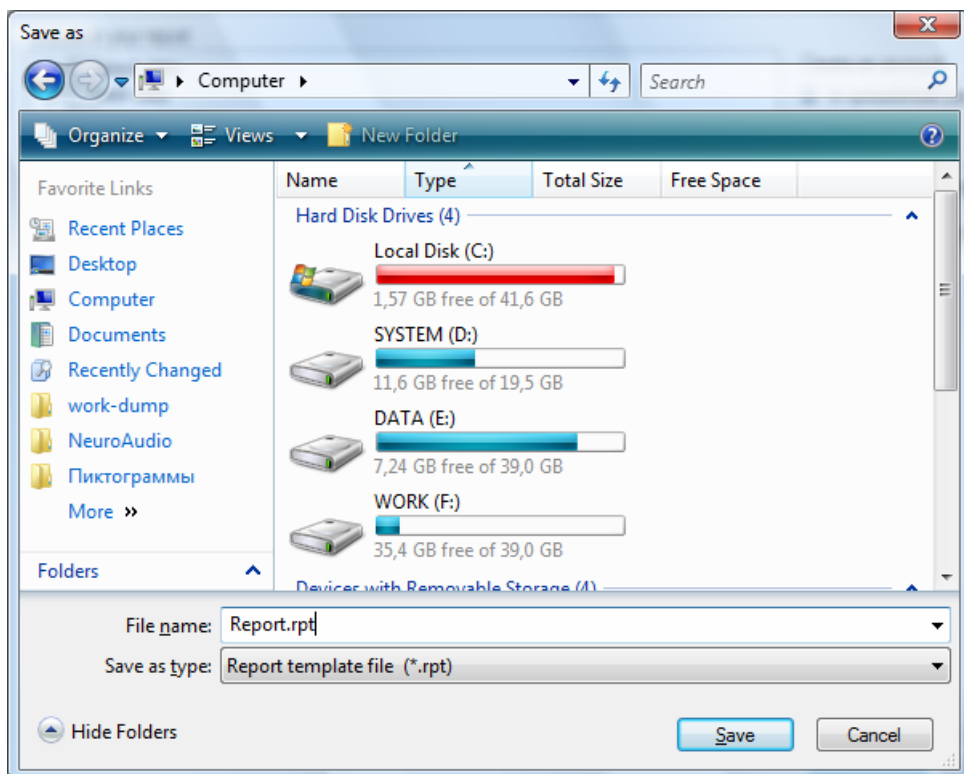


Fig. 71

To import the setting of the report from file with \*.rpt extension, use “Import...” local menu command (Fig. 70). In “Open” dialog box (Fig. 72) select the file with report settings being saved earlier.

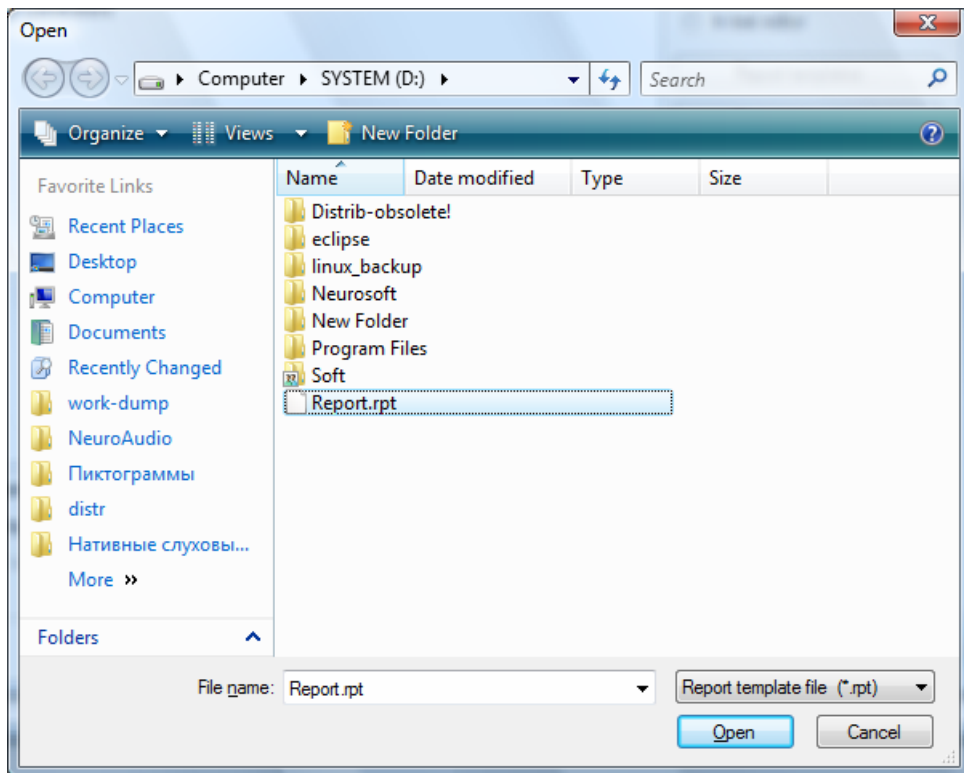


Fig. 72

## 16. "Exams Manager" Settings

### 16.1. Setup of Reviewing Mode

You may review the database contents in the two modes: "Exams" and "Patients". In the first case you may see only the exams in the list without the patient folders. In the second case you have to open at first the patient folder or switch to the "Patient folder" panel with the list of the exams.

To set the reviewing mode, press the right mouse button and select **View|[Mode name]** (Fig. 73) item in the submenu.

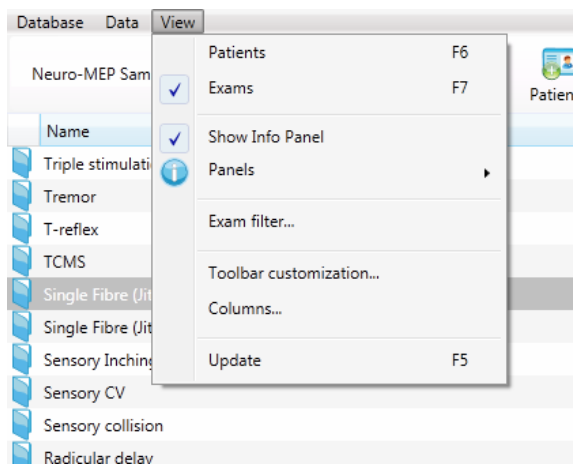



Fig. 73

In the “Patients” reviewing mode to review the exams included into the patient folder, switch on the “Patient folder” panel. To do it, use the “Panel”  button on the toolbar or “Panel” menu command. The panel including the patient’s data (Fig. 74) will appear on the right from the list.

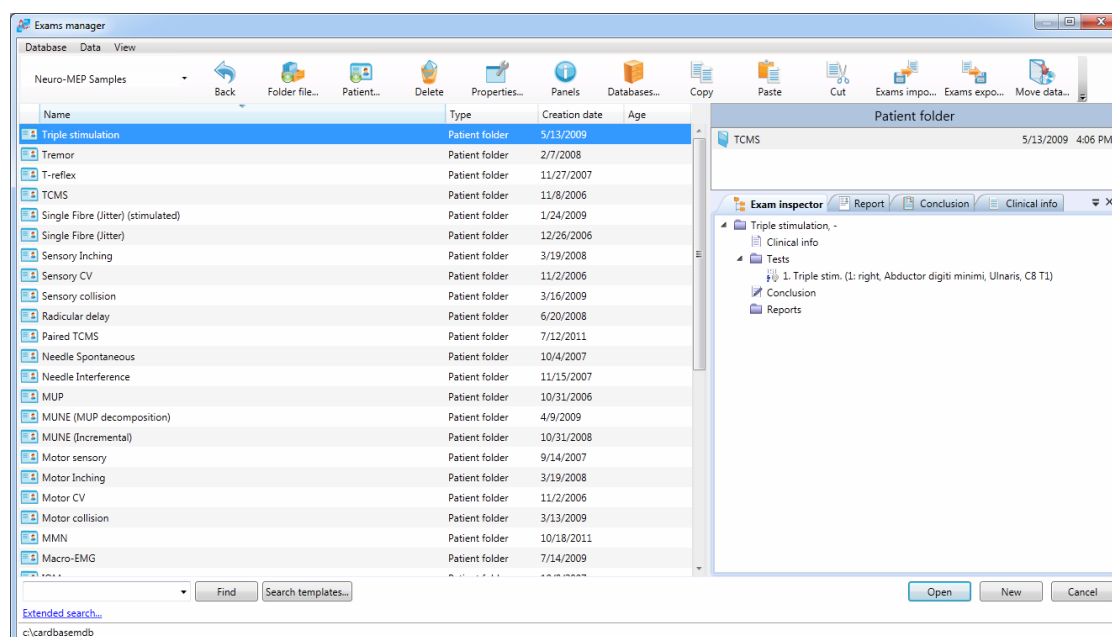



Fig. 74

The “Exams” list includes the descriptions of the exams carried out for the given patient. The double mouse click on the line with the exam description will open it. Information about the selected exam is shown below on the tabs. To select the exam data to be displayed, use the “Panel”  button on the toolbar or “Panel” menu command and select the required data.

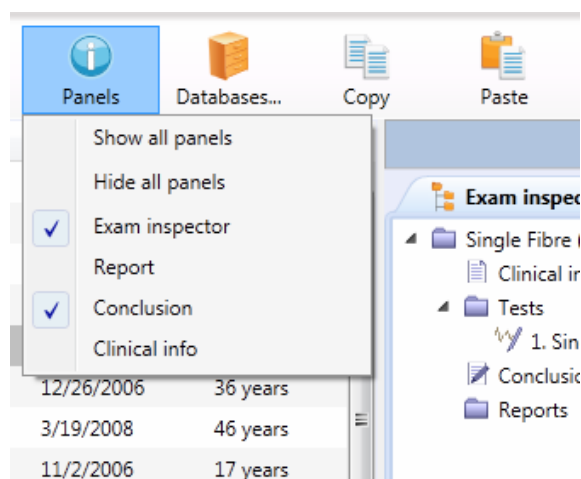


Fig. 75



In "Exams" review mode the list contains only exams without patient cards (Fig. 76).

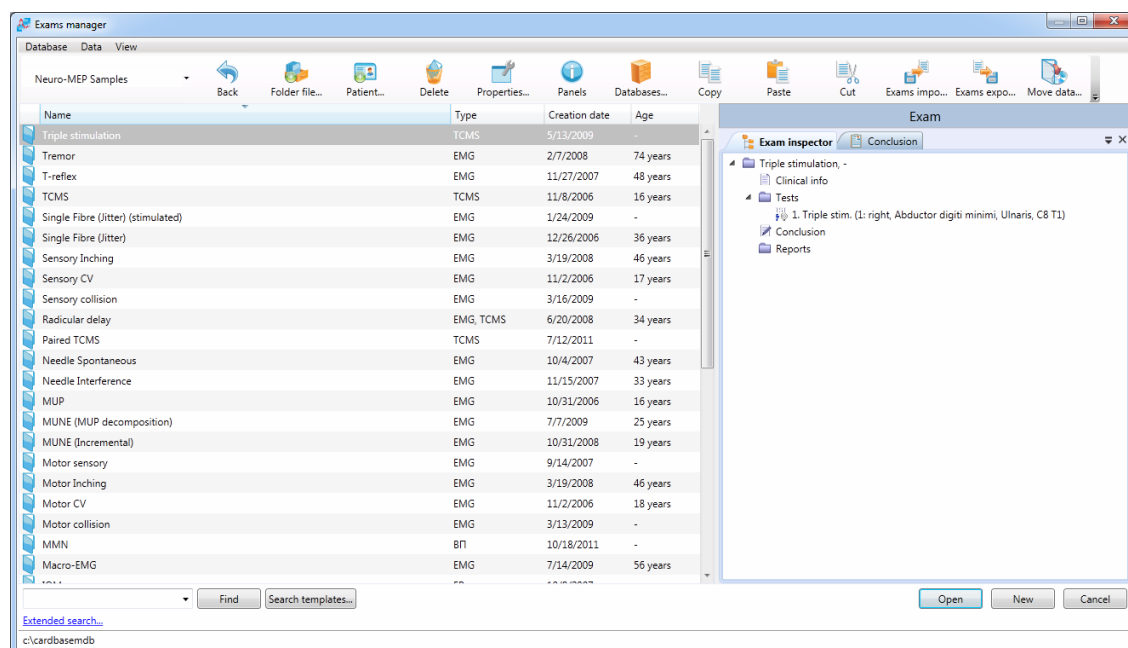


Fig. 76

## 16.2. Columns Setup

You may set the quantity and the sequence of the columns with data in the list of the exams. To do it, press the right mouse button and select the **View|Columns...** command in the local menu (Fig. 77).

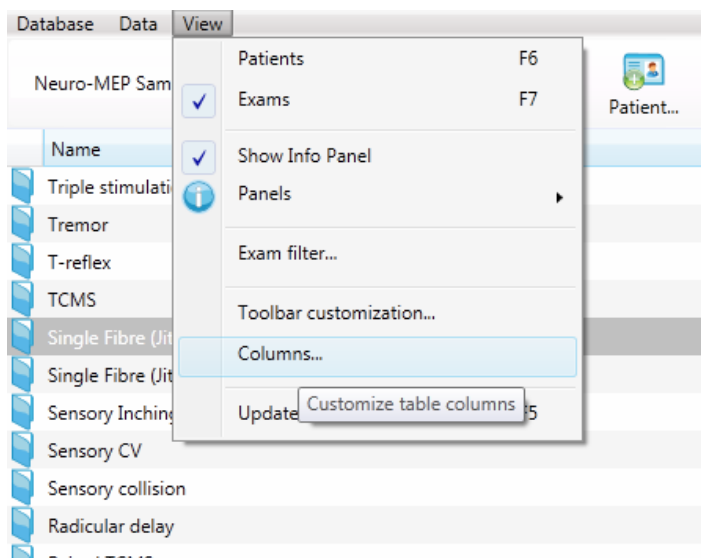


Fig. 77

In the “Columns” dialog box (Fig. 78) check the desired columns and set their sequence order by means of “Up” and “Down” buttons.

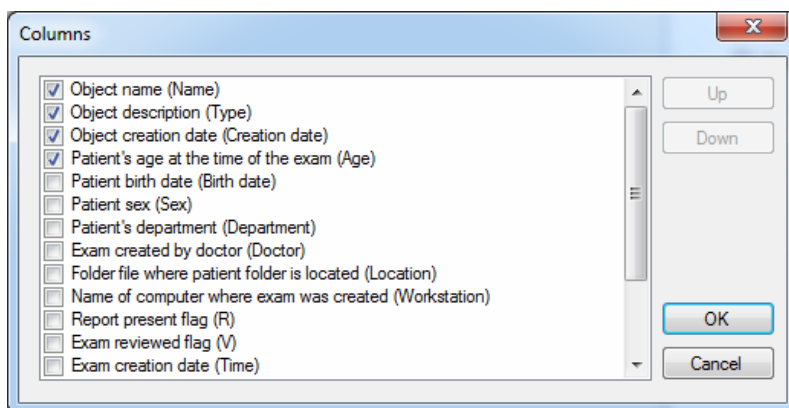


Fig. 78

The following columns can be used in the "Exams Manager":

- "Object name (Name)" – the patient's name or the folder file name.
- "Object description (Type)" – the exam name.
- "Object creation date (Creation date)" – date of the exam, patient folder or folder file creation.
- "Time of the exam creation (Time)" – time when the exam, patient folder or folder file was created.
- "Patient birth date (Birth date)" – date of the patient's birth.
- "Patient's age at the time of the exam (Age)" - age of the patient at the moment of the exam.
- "Patient sex (Sex)" – the patient's sex (M - male, F - female, N – not entered).
- "Patient's department (Department)" - Department from where the patient is sent.
- "Exam created by a Doctor (Doctor)" – Doctor who created the exam.
- "The assistant doctor (Assistant)" – assistant doctor who carried out the exam.
- "Folder file where the patient folder is located (Location)" – the folder file in which the patient folder is located.
- "Name of computer where exam was created (Workstation)" - the name of the PC on which the exam recording was made.
- "Report present flag (R)" – it is set if the report is generated in the exam.
- "Exam reviewed flag (V)" – it appears if the exam had been reviewed by the doctor.
- "The patient's code (Code)" – the patient's code in the database

The changes made by you come into force after pressing "OK".

You may also set any column width manually. To do it, you have to move the mouse cursor to the dividing line between the columns and by pressing the left mouse button set the desired width of the column.

## 16.3. Toolbar Customization

You can customize the “Exams Manager” toolbar by the buttons adding or removal from the toolbar; you can also change the button size. To do it, use the **View|Toolbar customization** local menu command. The “Toolbar setup” dialog box will appear on the screen (Fig. 79).

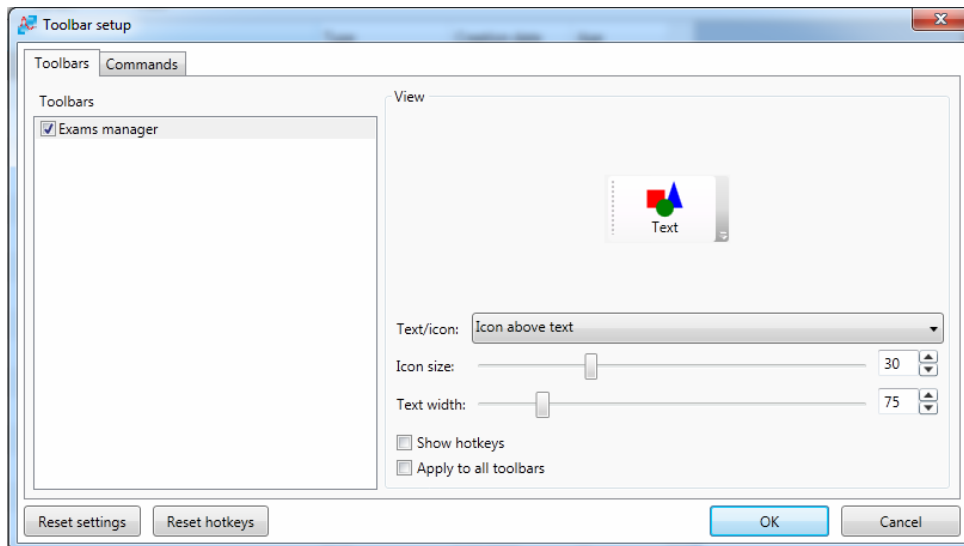


Fig. 79

Using this dialog box you can choose the button view, the text and icon arrangement on the buttons and its size.

You can also specify commands to be presented on the toolbar using “Commands” tab.

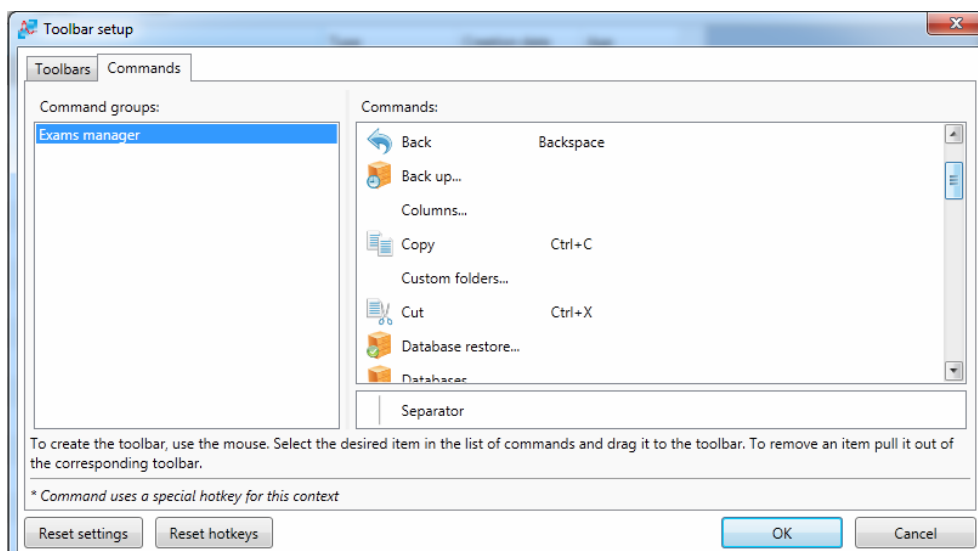


Fig. 80

To add the button to the toolbar you should drag the corresponding command from the command list to the toolbar. To delete the button from the toolbar, drag it from the toolbar to the command list.

You can also assign shortcuts for commands.

## 16.4. Settings for Patient Folder and New Exam Window

Setting of the patient folder or the new exam window makes it possible to remove or show various parameters of the patient folder or exam. It should be noted that these settings are the common settings for all the Users on the given PC, and they are accessible for the program administrator only. The program administrator is a User having "Admin" login, and if the User with "Admin" login is absent then any User is an administrator.

Setting of the patient folder or the new exam window is performed from the "Setup" dialog box which can be called by **Setup|Change** main menu command of the application software (Fig. 81).

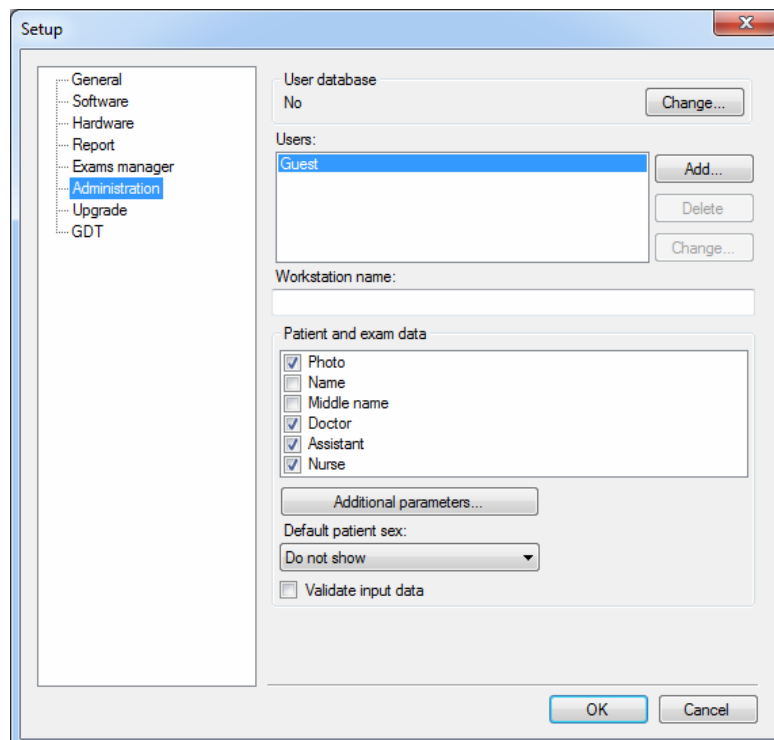


Fig. 81

Select "Administration" tab. In the "Patient and exam data" list the fields are specified which will be present in the "Patient folder" and "New exam" dialog boxes if the proper check box is checked.

You can change the names of the “Doctor”, “Assistant” and “Nursery” fields. To do it, double click on the corresponding line and set a new name.

To set the list of the patient’s additional parameters press “Additional parameters” button. In the “Additional parameters” dialog box (Fig. 82) you may specify the list of the parameters and their type.

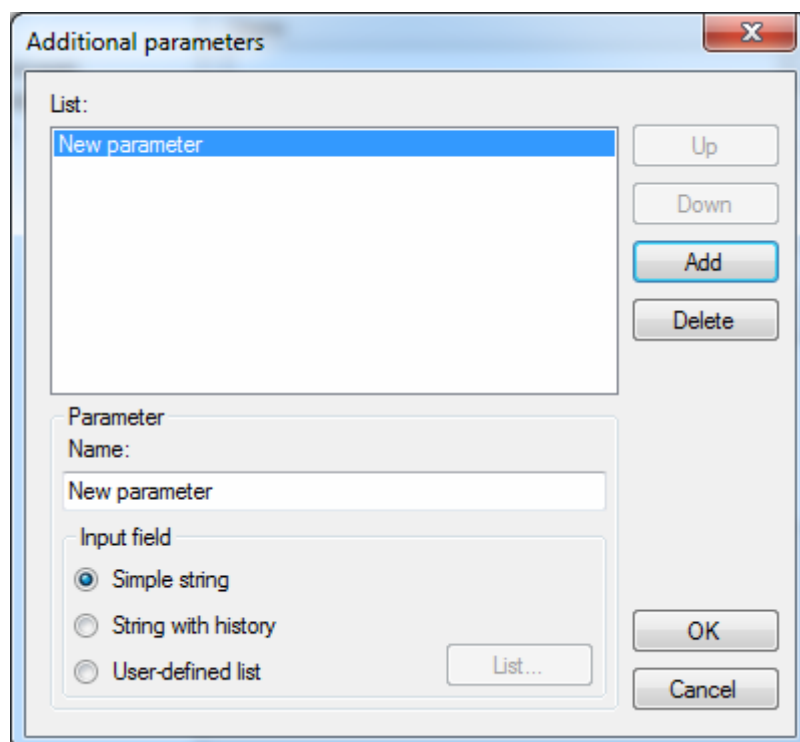


Fig. 82

To add the new parameter, press “Add” button. The “New parameter” new string will appear in the list. In the “Parameter name” string enter the desired name of the parameter. Using “Input field” radio buttons you may specify the way of the parameter value entering:

- Simple string – the ordinary input string is used to enter the parameter value.
- String with history – the input string keeping the list of the previous values is used to enter the parameter value.
- User-defined list – the combo box including the predefined values is used to enter the parameter value.

Any parameter can be deleted from the list by means of “Delete” button. To change the parameters sequence order use “Up” and “Down” buttons.

As a result of the above the parameters specified by you will appear in the Table "Additional parameters". The example of the table with the additional parameters is shown on Fig. 48: "Parameter 1" – simple input string, "Parameter 2" – input string with history, "Parameter 3" – only the parameters from the specified list can be entered.

The screenshot shows a window titled "Exam" with two tabs: "Patient info" and "Additional". The "Additional" tab is active. It contains a form with the following fields:

- Social security number: [text input]
- Address: [text input]
- Phone: [text input]
- E-mail: [text input]
- Comment: [text area]

Below these fields is a section titled "Additional parameters:" containing a table:

Name	Value
Parameter 1	[text input]
Parameter 2	[dropdown menu]
Parameter 3	[dropdown menu with list: Value 1, Value 2, Value 3]

At the bottom of the dialog are "OK" and "Cancel" buttons.

Fig. 83

On the "Administration" tab (Fig. 81) you may also specify the patient's sex value which is set by default during the patient folder or exam creation.

If the "Validate input data" checkbox is checked, then the program will not permit to create the patient folder until the below data are entered: "Name", "Sex" and "Date of birth".

## 17. Backup

**The creation of database backup using the method described below is applicable only for MDB databases. For other databases (Microsoft SQL server or MySQL) the backup and the restore is carried out by standard means of the indicated databases.**

Backup allows you to create the database or exam copies for their further recovery in case of any errors during the work with the database or exam.

To create the backup copy, use “Backup” local menu command. The “Backup” dialog box will appear on the screen (Fig. 84).

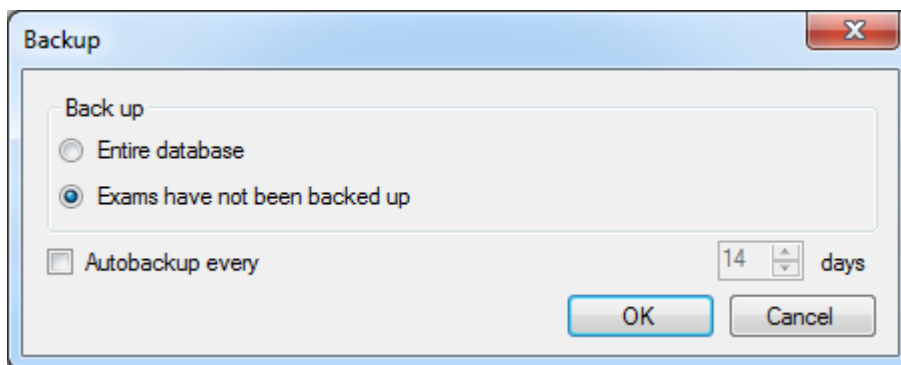


Fig. 84

If you select the first item, then the backup copy of the whole database will be created. In second case only the exams, which have not been backed up yet, will be saved in the backup copy. Then you will be offered to choose the folder for the backup copy saving (Fig. 85).



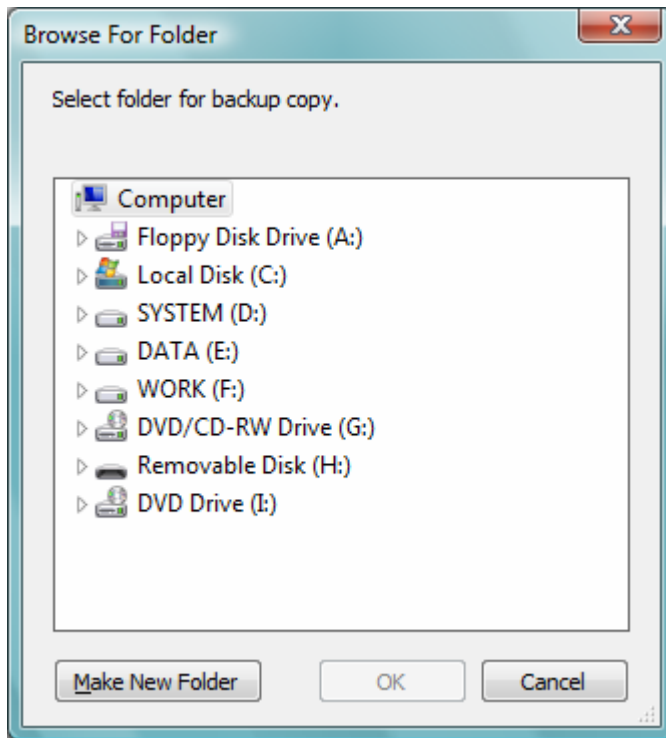


Fig. 85

If you check “Autobackup every ... days” checkbox, the program will automatically offer you to make a backup copy of the current database in a specified number of days.

## 18. Database and Exam Restore

**The database restore using the method described below is applicable only for MDB databases. For other databases (Microsoft SQL server or MySQL) the backup and the restore is carried out by standard means of the indicated databases.**

To recover the database in case of any fault, please, use “Database restore...” local menu command. In the “Database restore” dialog box (Fig. 86) select the method of recovering.

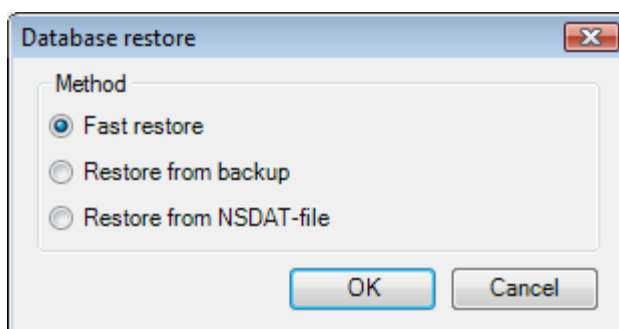


Fig. 86

“Fast restore” – the program will try to recover the database without backup copy requesting. This method is suitable if no backup copy was created for this database. Unfortunately, this method can not always recover the database correctly.

“Restore from backup” – database recovering from the backup copy. If at least one backup copy was created for the given database then the program will show the list of backup copies (Fig. 87).

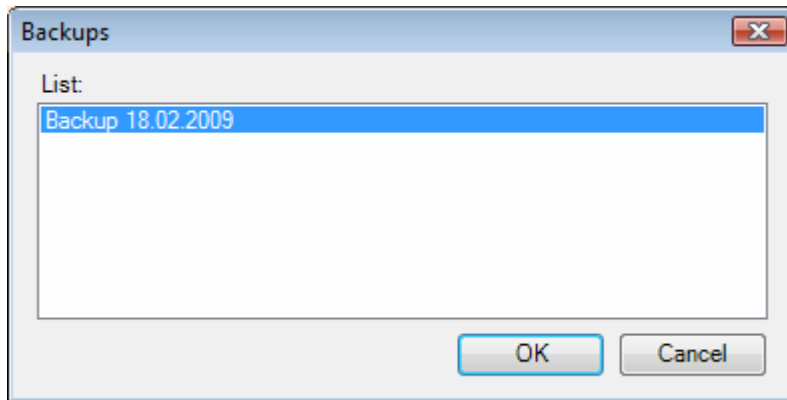


Fig. 87

Choose the name of the backup copy, from which you are going to recover the database, and press “OK”. If the program can not find the specified backup copy you will be offered to specify its location.

In this case the database state at the moment of the backup copy creation will be recovered, i.e. all the further records will be lost.

“Restore from NSDAT -file” – recovering of the exams for which NSDAT files are available. This method makes it possible to recover the exams if the first two methods were not successful. This method does not recover the database structure.

If you need to recover one exam only, use “Restore exam” menu command. In respond to this command you will be proposed to choose the backup copy from the list (Fig. 87).

## 19. Adding of External File to Patient Folder

You may add any external file (for example, text document or any picture) to the patient folder. To do it, use “Add file...” local menu command. File chosen by you will be added to the current patient folder. The file is opened in the same way like any exam. The proper software installed on your computer to review the files of this type is used for the file reviewing.

## 20. Database Administration

Administration makes it possible to set the rights for access to the current database or to the individual folder files in the database. The User's rights can be modified by the administrator, i.e. the User having the name "Admin" or the User with the administrator's rights. The User's name is specified when he enters the program. Description of the process of the User's name specification is given in the User manual for the corresponding program. If the current database was not administered (for instance, during the first connection to the database) then any User has the rights of the database administrator.

To set the rights for access to the entire database, select the root folder of the database. To do it, choose "Folder files" line in the combo box on the toolbar (Fig. 88).

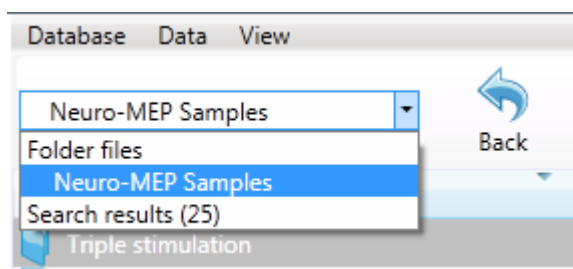


Fig. 88

Then use **Base|Administration** local menu command. If you are the administrator of this database then "Administration" dialog box will be displayed (Fig. 89).

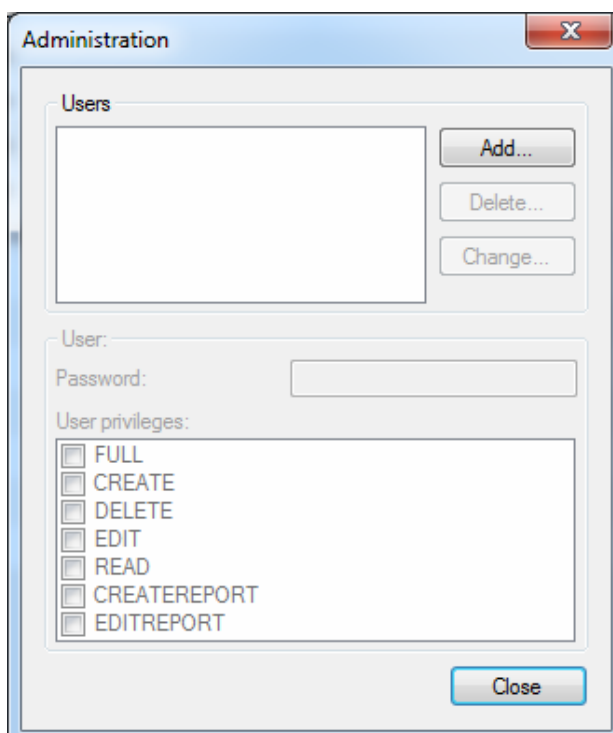


Fig. 89

In the "Users" list you can see the names of the Users authorized for work with this database. If the list is empty it means that the given database was not administered,

and each of the Users who is connected to the given database has the full rights in it. If any Users' names are shown in the list, then the Users absent in it have no rights in this database. To add any User to the list, press "Add" button and enter the login of the new User. To delete any User from the list, use "Delete" button. To change the User's login press "Change" button.

The password and the rights of the User chosen in the list are shown under the list. In the "Password" field enter the User's password. It should be the same as the password used when the User entered the program. If the User changes his password he has to inform the database administrator about it, otherwise he will not be able to work with it.

The "User's privileges" list includes description of the rights which belong to the User in the given database or in the folder file. The line "Entire database" means that the rights are set for the entire database otherwise the name of the folder file, for which the rights are set, is displayed.

The User may have the following rights:

- FULL – full rights (administrator's rights), i.e. right to read, create, delete and edit the exams and reports as well as the right to assign the rights to the other Users.
- CREATE – right to create the new exams, the patient folders or the folder files.
- DELETE – right to delete the exams, the patient folders or the folder files.
- EDIT – right to open and edit the exams.
- READ – right only to review the exams without opportunity to edit them.
- CREATEREPORT – right to create the exam reports.
- EDITPREPORT – right to edit the exam reports.

You can use any database as user database for Neurosoft software. The software synchronizes list of its users with the list of database users. Besides user settings are also saved in database. Consequently, if a user logs in to the program under his or her own login and password, he or she works with the personal settings irrespective of whether PC the user run an application.

To specify the user database, open the "Setup" dialog box in the program.

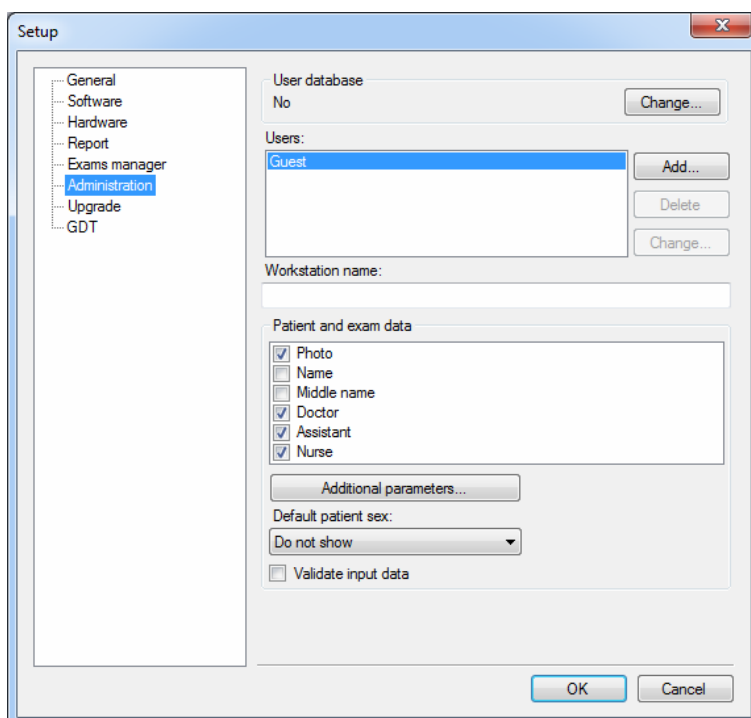



Fig. 90

To specify the user database on the “Administration” tab press “Change...” button and choose database. In the field below you will see the “Users” list, which contain the list of users who are registered in this database. Only database administrator can add new users to this list.

## 21. Exam Data Move to Compact Disk

To decrease the database size on the PC it is possible to move the exam data to CD or DVD, and only brief information about the patient and the exam can be kept in the database. In this case when you try to open such an exam, the program will require to insert the CD or DVD with the exam data into the drive.

Specify the exams, data from which you are going to move to the CD or DVD. Then choose “Move data...” local menu command. Data from the chosen exams are firstly transferred to the temporary database on your PC. If the size of the temporary database amounts to the specified value, the program burns the exams from the temporary database on the CD or DVD and then continues the exam transfer to the temporary database. The exams, data from which have been moved, are marked with  picture.

CD or DVD capacity is set in the application software settings by means of **Setup|Change...** menu command. In the program setup window appeared choose “Exams Manager” tab (Fig. 91).

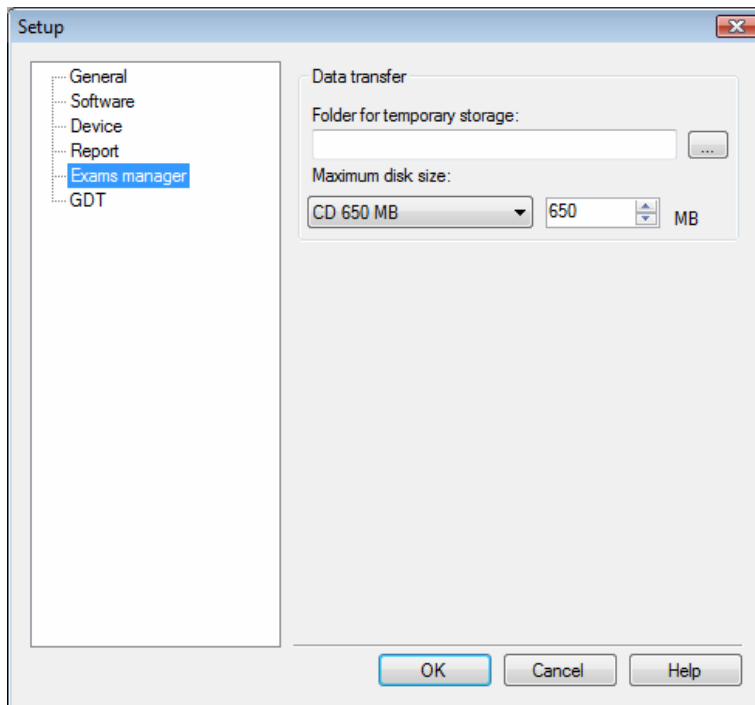


Fig. 91

On this tab you can specify the folder for the temporary database and the CD or DVD capacity. There is an opportunity to choose the standard CD or DVD capacity in megabytes or specify it manually.

To copy the data extracted earlier from external data medium back to the database, use “**Restore data**” menu command.

## 22. Appendix 1. Installation of MySQL Database Server

To operate with MySQL databases, it is necessary to install the software of MySQL server on the required computer. The given software is distributed free of charge.

To install the software of MySQL server, open *Distributives\MySql\Server* folder on the manufacturer's CD with the distributives of Neurosoft Ltd. software and run *Setup.bat* file from this catalogue.

You can also download the distributive of MySQL server from official site of Neurosoft Ltd. using the link <http://www.neurosoft.ru/soft/>. To get an access to the distributive of MySQL server, use "MySQL" user name and empty password. After the distributive downloading also run *Setup.bat* file.

In the appeared "MySQL Server – Setup Wizard" dialog box (Fig. 92) select the "Custom" setup type.

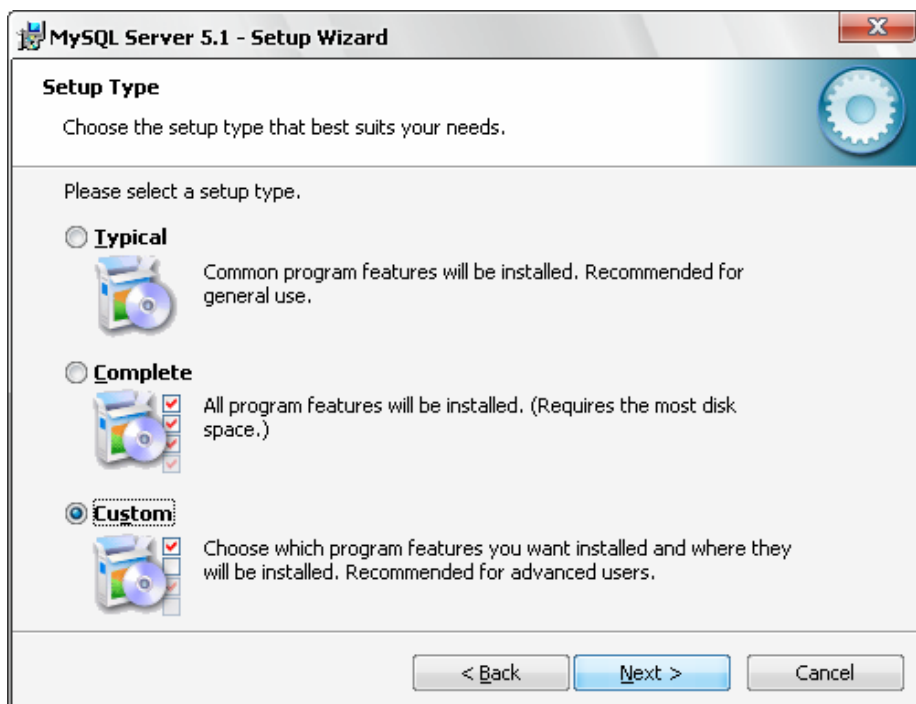


Fig. 92

Press "Next" button.

In the next dialog box (Fig. 93) you can select the extra components and change the installation directory.

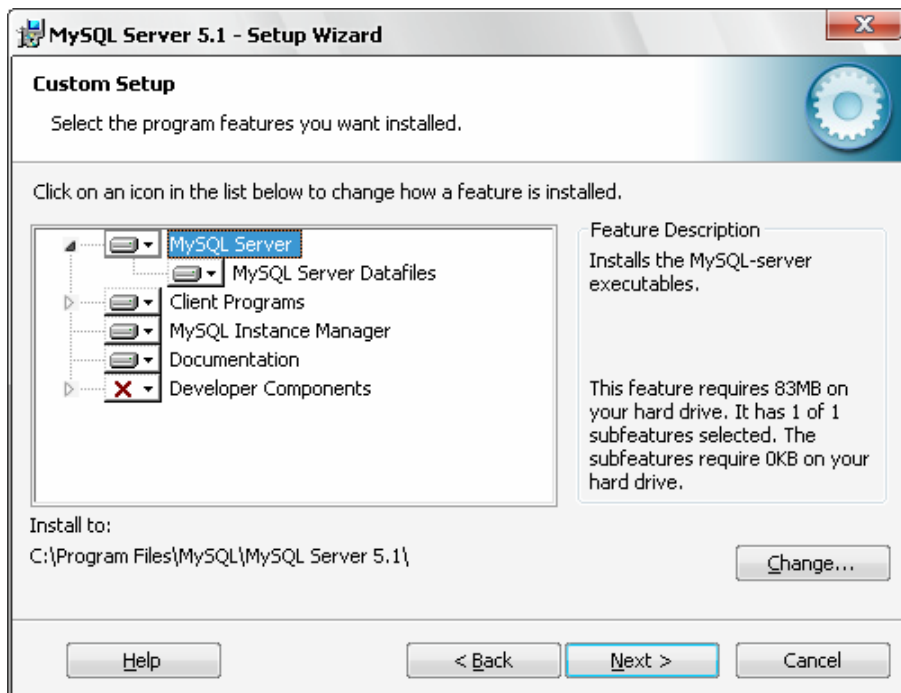


Fig. 93

Press "Next" button.

In new dialog box (Fig. 94) the selected installation parameters are displayed.

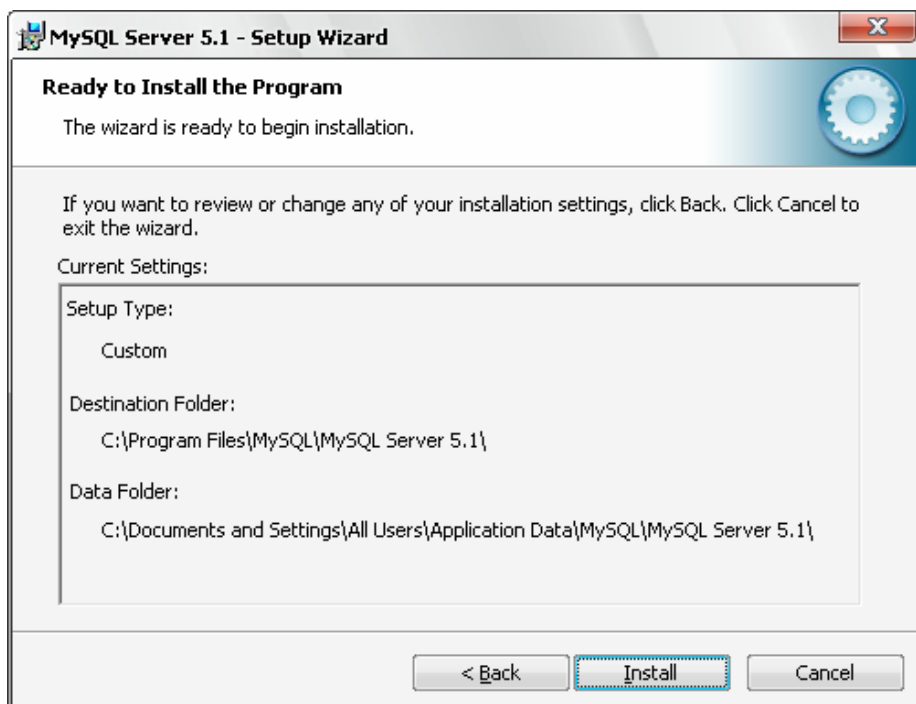


Fig. 94

Press "Install" button to start files copying.



As soon as the process of files copying is finished, the following dialog box will appear on the screen (Fig. 95).



Fig. 95

The “Configure the MySQL Server now” checkbox should be checked.

If you do not want to register MySQL server now, uncheck “Register the MySQL Server Now” checkbox.

Press “Finish” button and start to configure MySQL server.

In “MySQL Server Instance Configuration Wizard” dialog box (Fig. 96) select “Detailed Configuration” option.

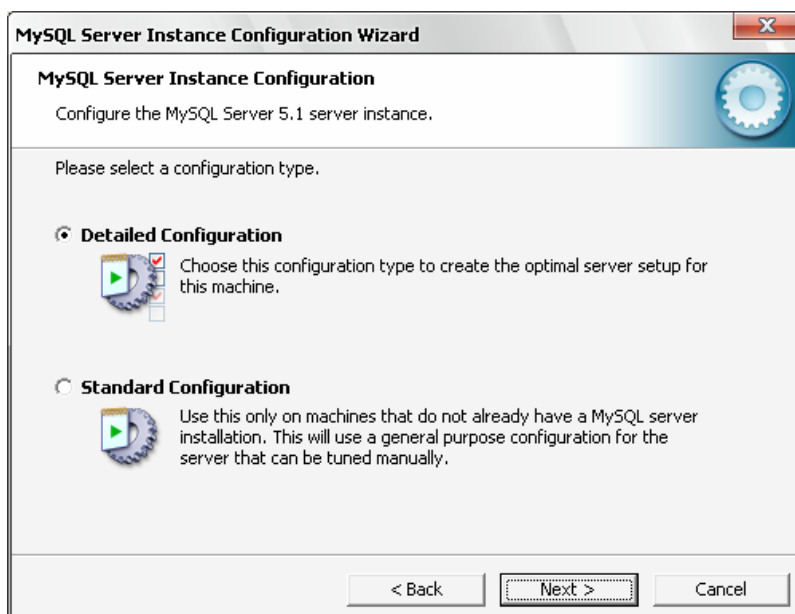


Fig. 96

Press “Next” button.

In the next dialog box (Fig. 97) select “Server Machine” item.

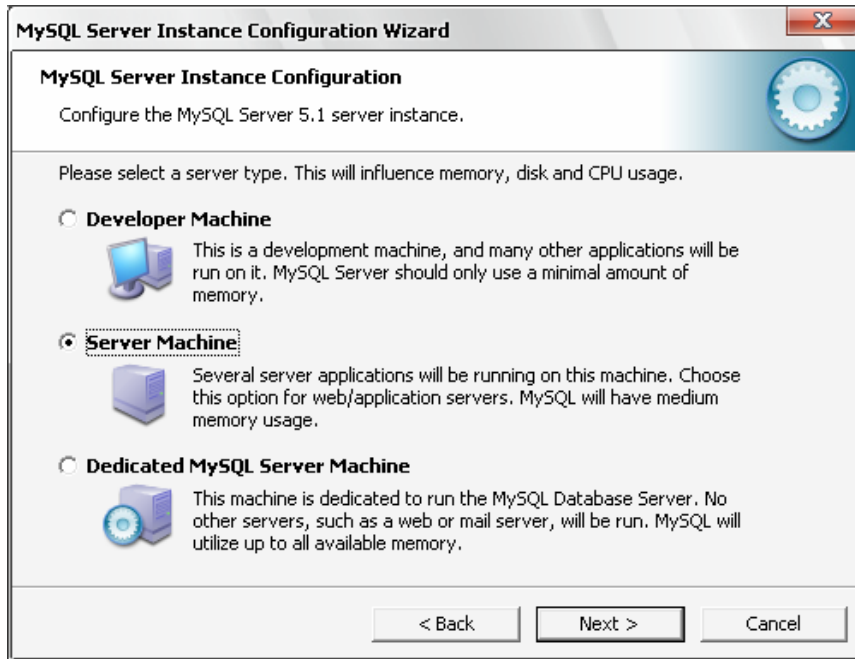


Fig. 97

Press “Next” button.

In the new dialog box (Fig. 98) select “Multifunctional Database” item.

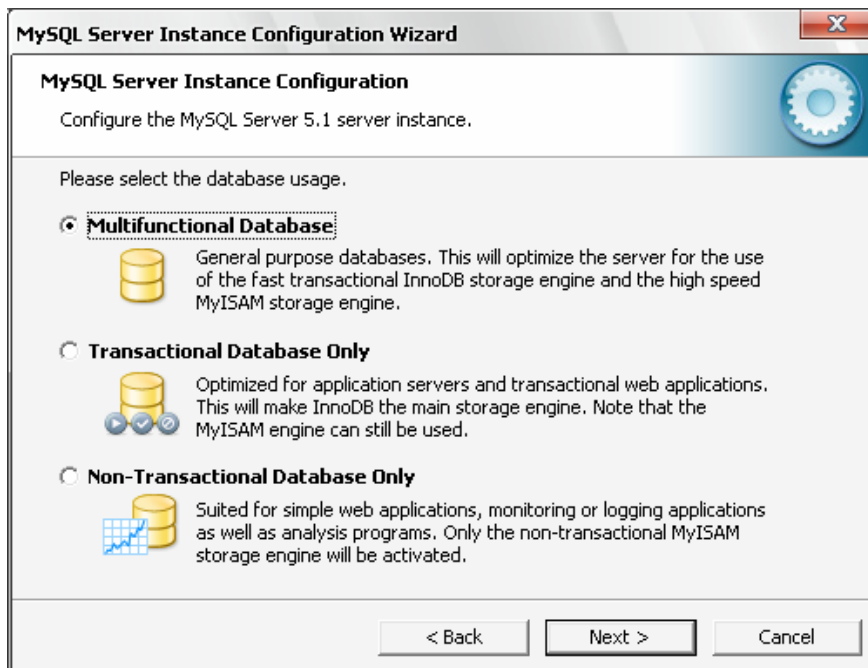


Fig. 98

Press “Next” button.

In the appeared dialog box (Fig. 99) select the directory for database installation.

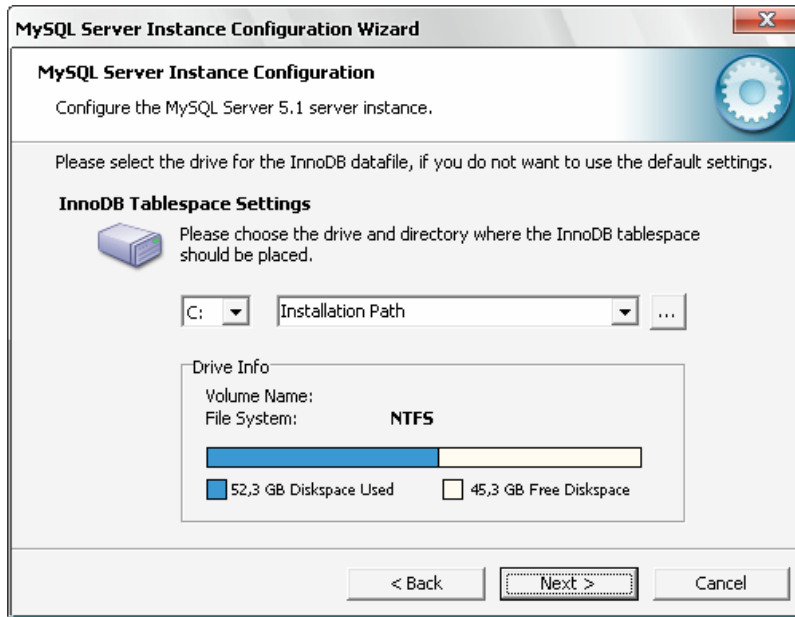


Fig. 99

First, select the disk and then directory in the combo-boxes for the database installation. Press “Next” button.

In the next dialog box (Fig. 100) select “Manual Settings” item and indicated the number of connections to MySQL server which corresponds to the number of workstations.

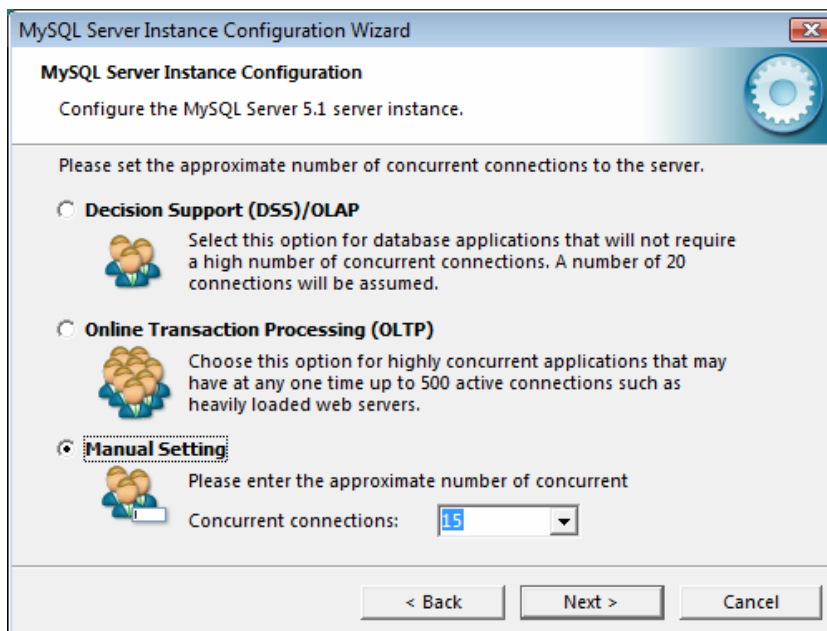


Fig. 100

Press “Next” button.

In the new dialog box set the parameters as shown on the figure (Fig. 101).

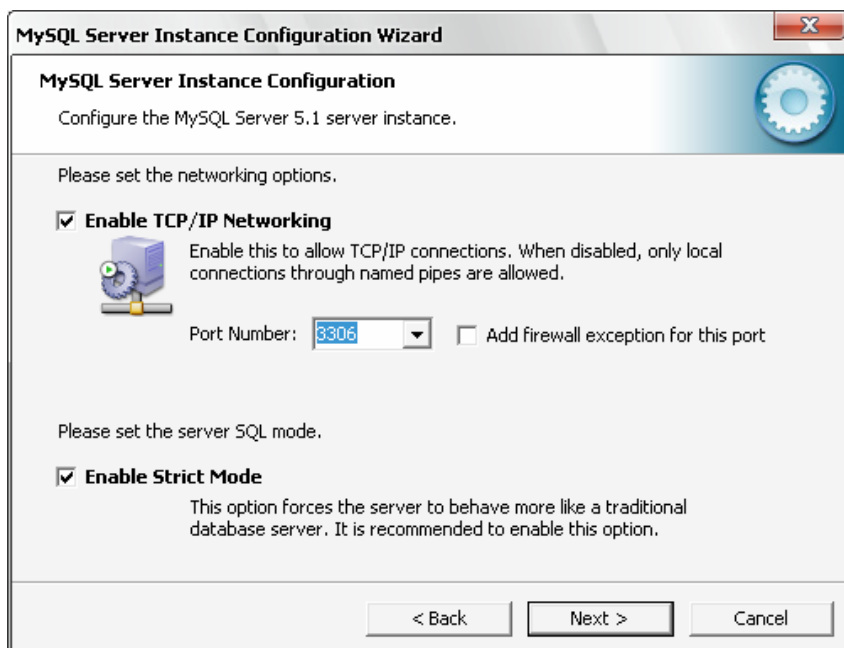


Fig. 101

Press "Next" button.

In the appeared dialog box (Fig. 102) select "Best Support For Multilingualism" option.

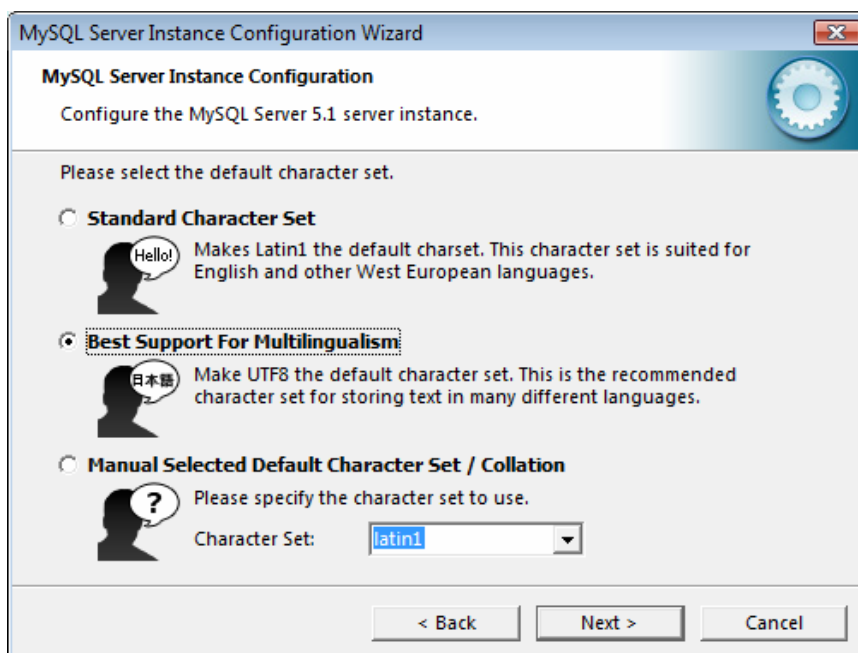


Fig. 102

Press "Next" button.

In the next dialog box set the parameters as indicated on the figure (Fig. 103).

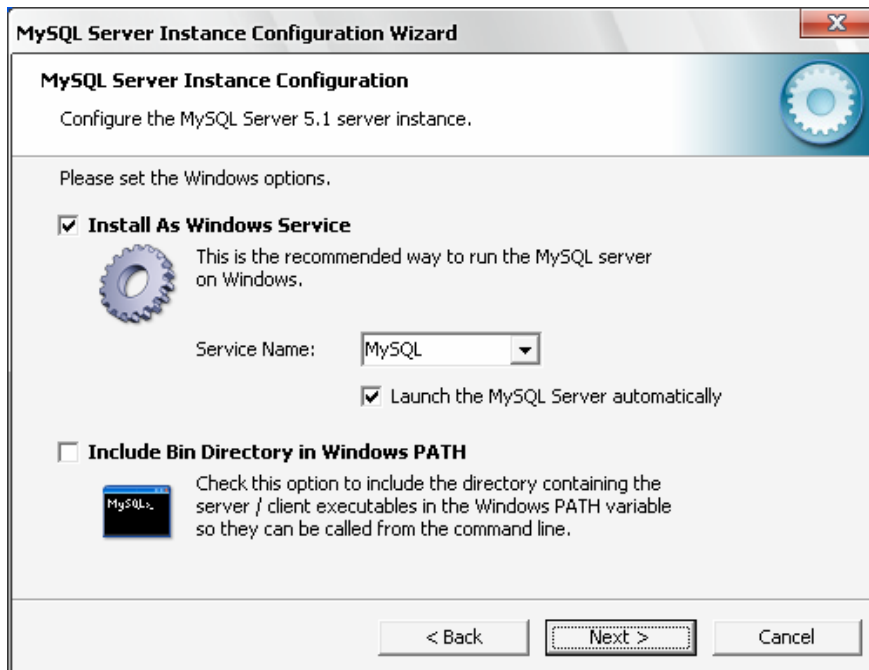


Fig. 103

Press “Next” button.

In the next dialog box (Fig. 104) enter “root” password. “Root”-password is the user password with “root” name. To create the database or connect to the existing one you can indicate “root” user name and the password entered by you. It is required to indicate some password. Also check “Enable root access from remote machines” check-box.



Fig. 104

Press “Next” button. After that the process of MySQL server installation and configuration will start. If the installation process is successful, the dialog box will appear on the screen (Fig. 105).

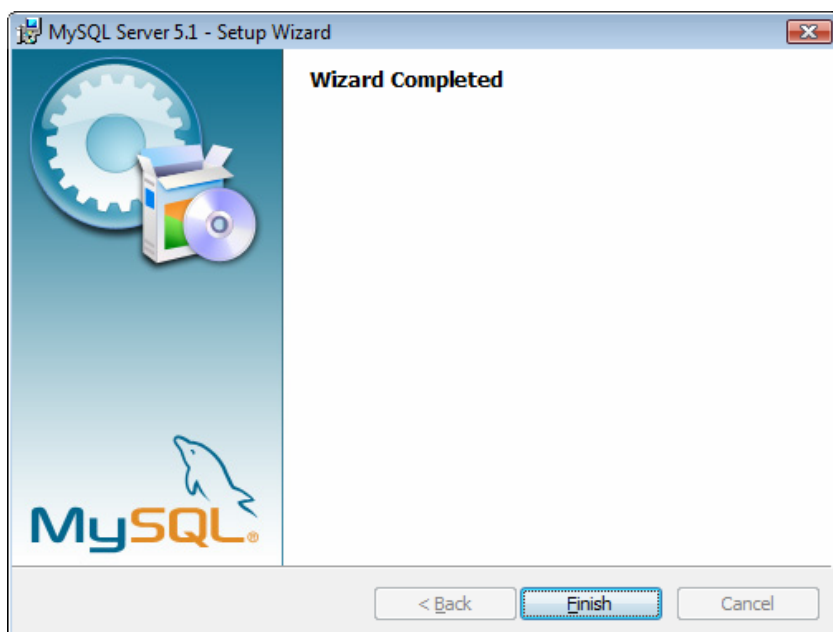


Fig. 105

Press “Finish” button.

After that the “Neurosoft File Transfer Service” setup wizard will start (Fig. 106).

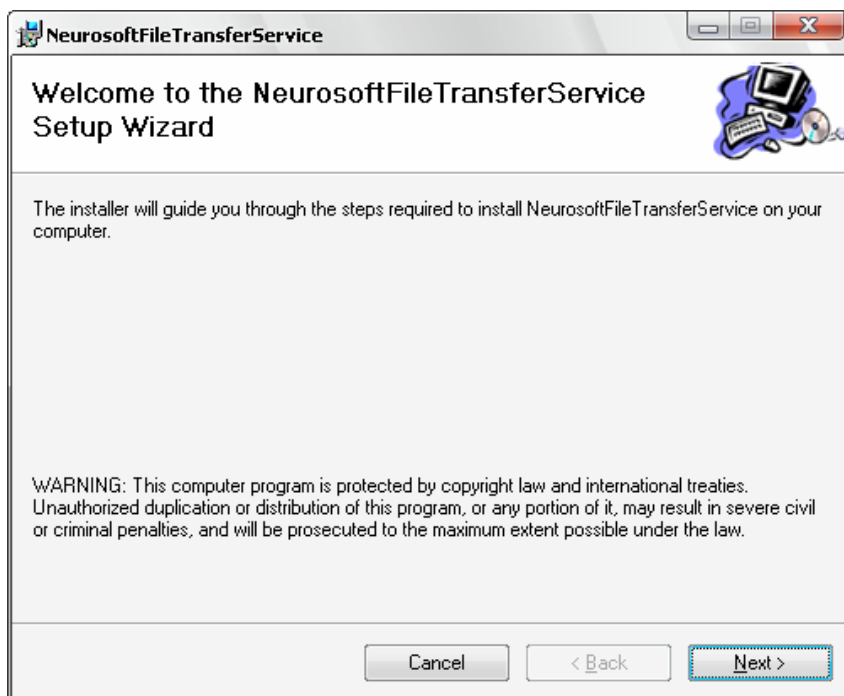


Fig. 106

Press “Next” button.

In the next dialog box (Fig. 107) you can select the folder for the service installation.

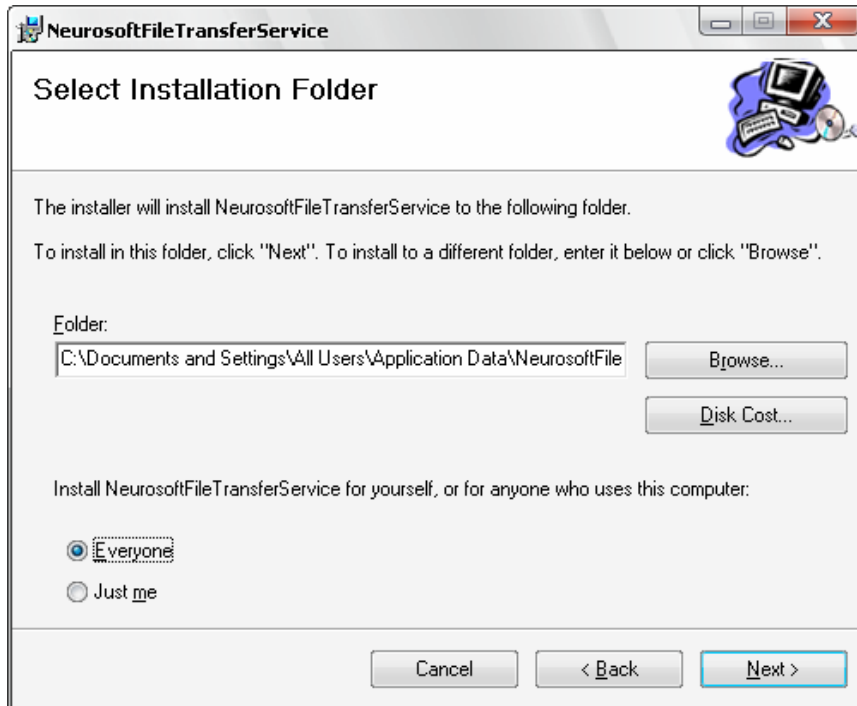


Fig. 107

Press "Next" button. As soon as the installation process is finished, press "Close" button in the dialog box (Fig. 108).

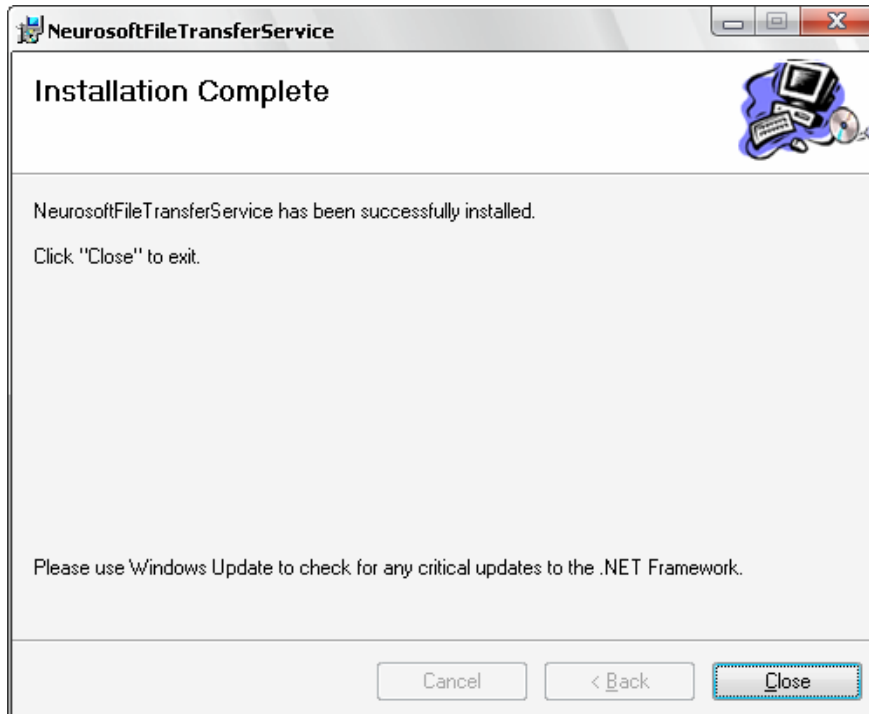


Fig. 108

The process of MySQL server installation is finished.

**If firewall is installed on your computer, for example, Windows firewall, allow functioning of several programs via firewall to provide the correct operation of MySQL server.**

The example of Windows Vista firewall setup is given below.

1. Press “Start” button located in the left bottom corner of the screen.
2. Select **Setup|Control Panel** menu item or **Control Panel** item.
3. Double-click “Windows Firewall” icon of “Control Panel” window (Fig. 109).

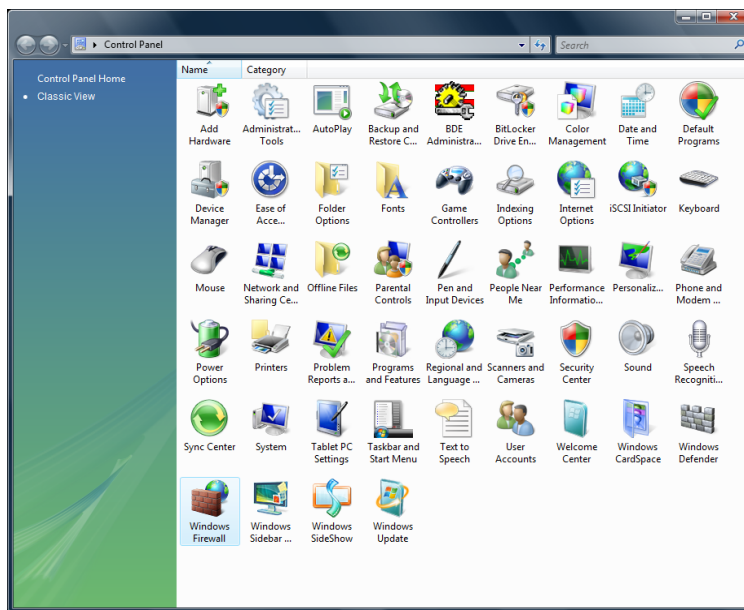


Fig. 109



4. In “Windows Firewall” dialog box (Fig. 110) select “Allow a program through Windows Firewall” item.

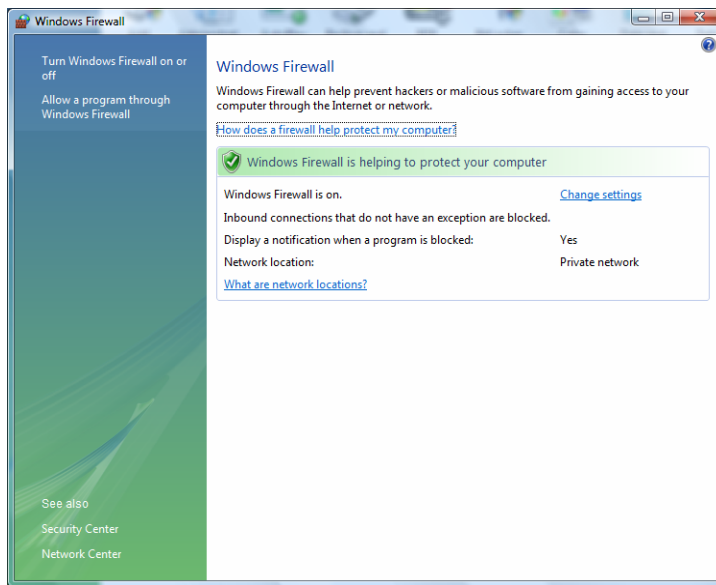


Fig. 110

5. In “Windows Firewall Settings” dialog box (Fig. 111) press “Add program...” button on “Exceptions” tab.

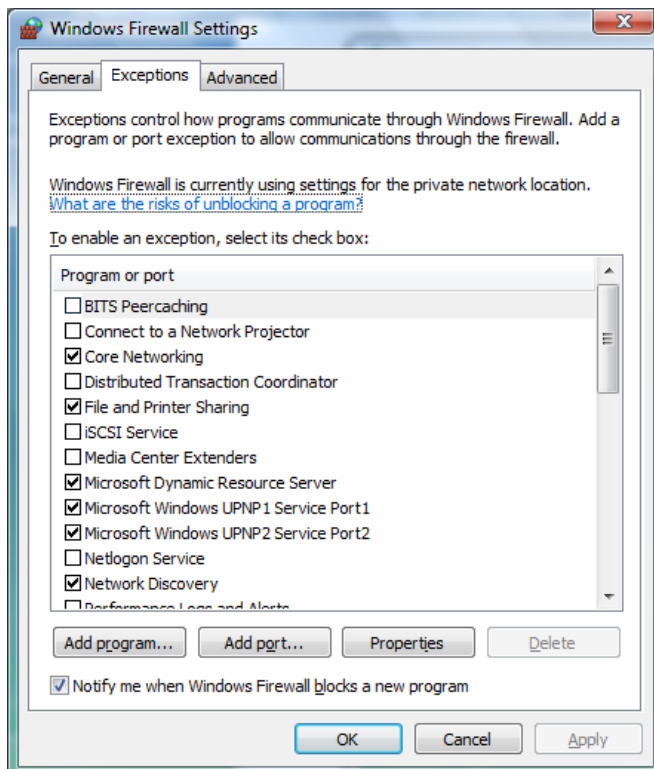


Fig. 111

6. Press “Browse...” button in “Add a Program” dialog box (Fig. 112).

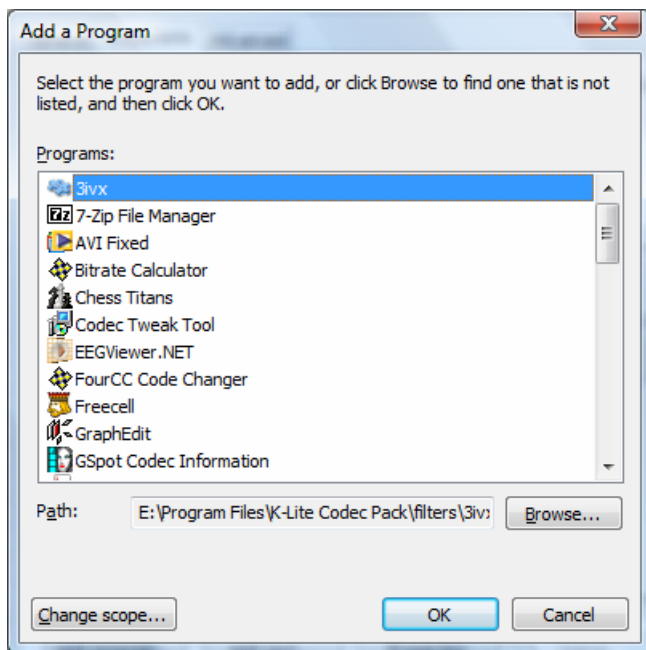


Fig. 112

7. Select *C:\Windows\System32\FileTransferService.exe* file in “Browse” dialog box (Fig. 113) and press “Open” button.

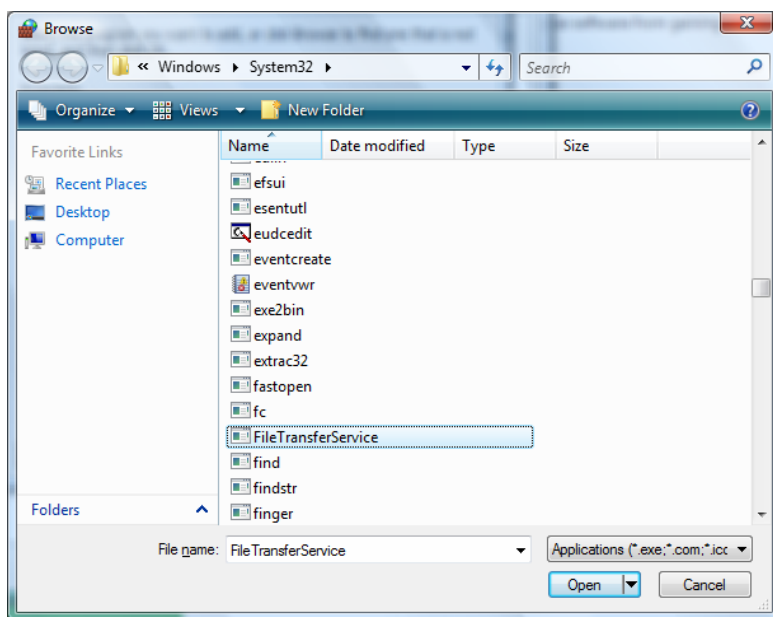


Fig. 113

After that, *FileTransferService.exe* file will appear in the list of programs (Fig. 114).

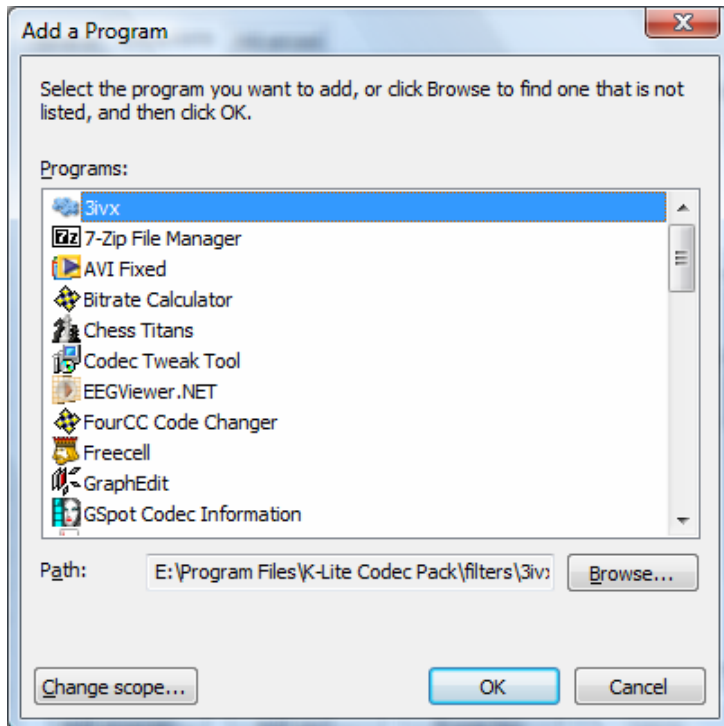


Fig. 114

Press “OK” button.

8. Repeat operations 5-7 for *mysqld.exe* file located in *C:\ProgramFiles\MySQL\MySQLServer\bin* folder.
9. Then close the dialog box (Fig. 111) using “OK” button.

## 23. Appendix 2. Data Storage Server Setup

To store exam data out of the database, use data storage server. In this case the database contains only patient's and exam basic data, and consequently its size diminished considerably. Data storage server can be located on any PC within the local network. Moreover, you can setup several servers on different PC's.

Launch the setup wizard of data storage server (Fig. 115).



Fig. 115

Press "Next" button.

At the “Choose install location” stage you can specify folder to store data (Fig. 116).

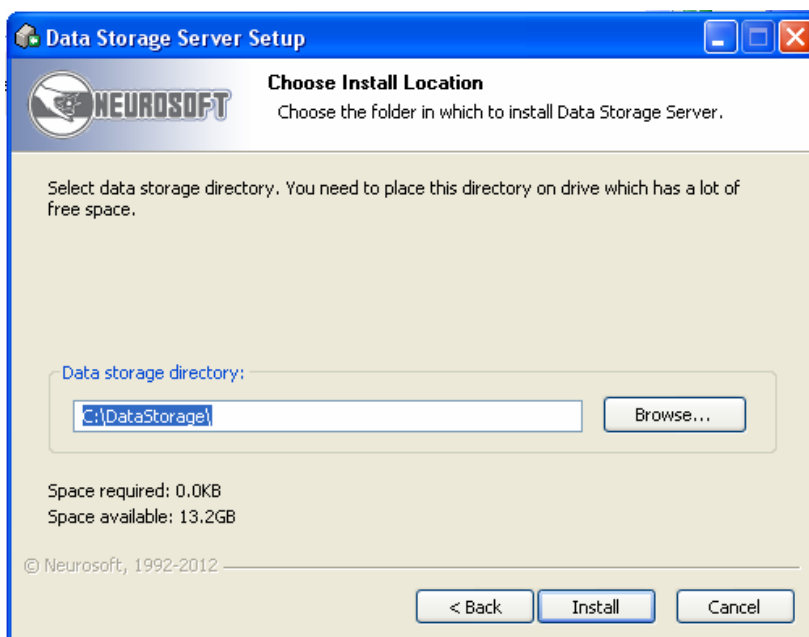


Fig. 116

After the setup the server is ready for operation (Fig. 117).



Fig. 117