

# Oldenburg Measurement Applications

Software package for  
audiometric and diagnostic  
measuring methods

*Operation manual*  
*Start dialog*



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## 2 General remarks

The following documentation describes the operation of the common start dialog of the software environment 'Oldenburg Measurement Applications'. This start dialog is shown after starting the 'Oldenburg Measurement Applications' (e.g. using the start menu). Using this start dialog all installed measurement applications can be started, general options can be adjusted and some helping procedures can be started. This documentation is subject to alteration.

## 3 Starting the 'Oldenburg Measurement Applications'

The installation of the 'Oldenburg Measurement Applications Basic Software' and the measurement applications themselves on your computer is described in a separate manual.

To start the measurement applications after a successful installation please select the corresponding item 'Oldenburg Measurement Applications' from the start menu or a corresponding desktop icon. During the startup and loading of files a startup screen is shown. This can take a while, especially when using a slow network connection.

**Attention:** During the first start after running an installation or an update some more processes such as database updates are executed. Please follow the displayed instructions where required.

**Attention:** After installing or updating the 'Oldenburg Measurement Applications Basic Software' some basic settings must be adjusted to get the software ready for use. This procedure is described in chapter 5.1. Please refer to this paragraph before proceeding.

In the following a warning is shown containing a hint that the 'Oldenburg Measurement Applications' may only be used for research purposes. (Figure 1):

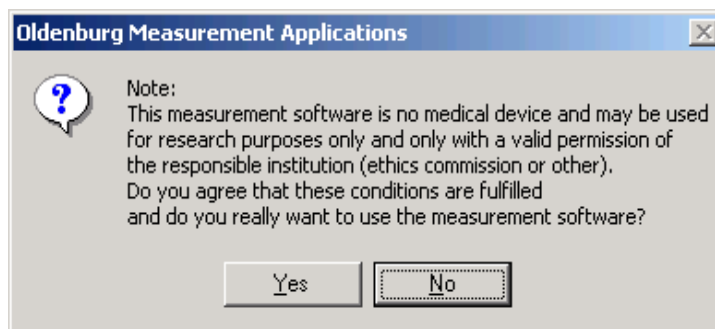


Figure 1

Please read this hint carefully. If all listed conditions are fulfilled please select 'Yes' otherwise click 'No'. If you select 'No' the program is terminated. After clicking 'Yes' the start dialog of the 'Oldenburg Measurement Applications' is shown (Figure 2):

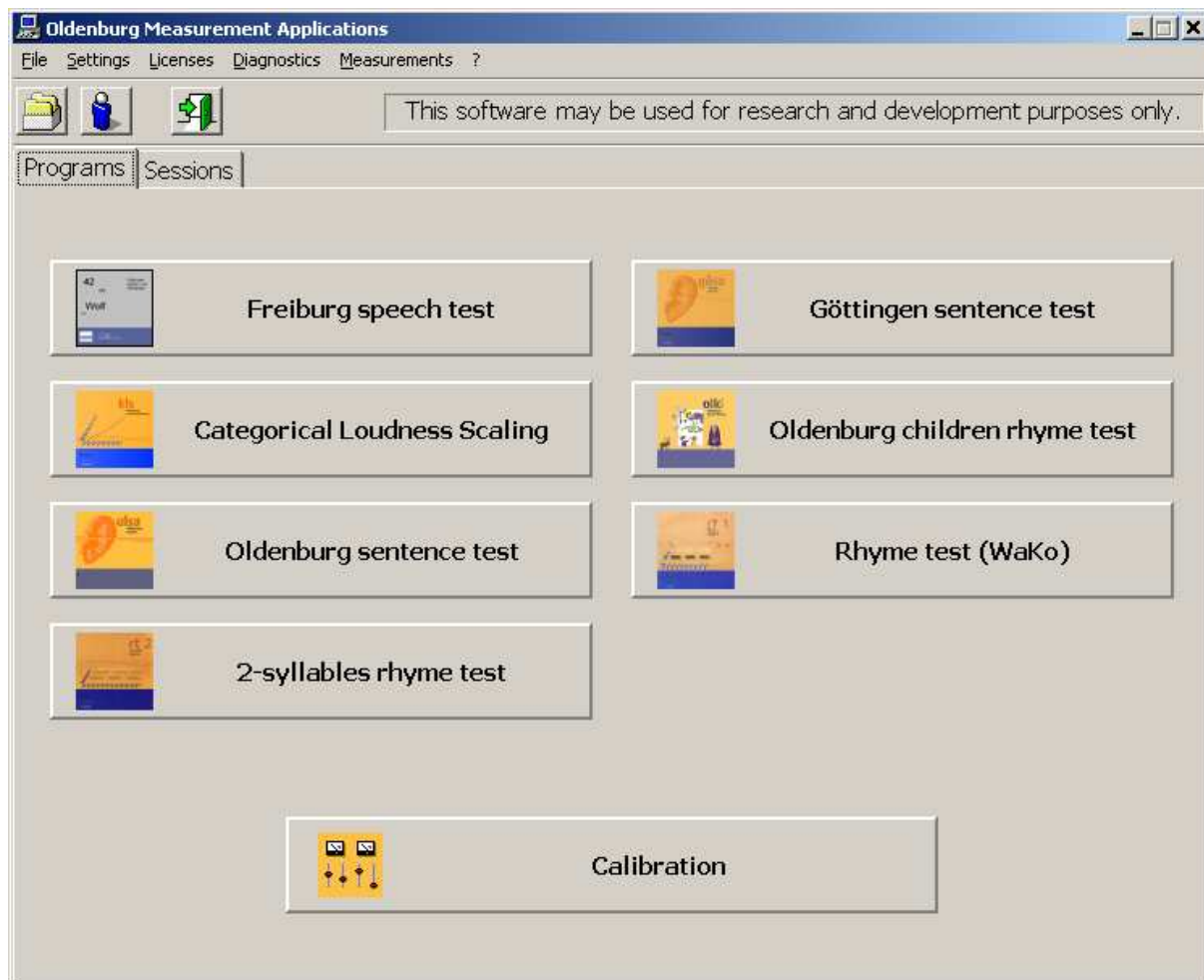


Figure 2

On the page 'Programs' you will find a button for each installed measurement application. You can start a measurement application by clicking the corresponding button. After installing additional measurement application you will find new buttons after the next start of the 'Oldenburg Measurement Applications'.

**Attention:** Usually you have to install valid licenses after installing the basic software or a measurement application. The 'Oldenburg Measurement Applications' are switched into a restricted demo mode until a valid license is installed. If a mandatory license is only missing for a particular measurement application this is shown on the button of the measurement. Depending on the particular measurement this application may be not executable or executable with some demo restrictions. The start dialog will be similar to Figure 3:

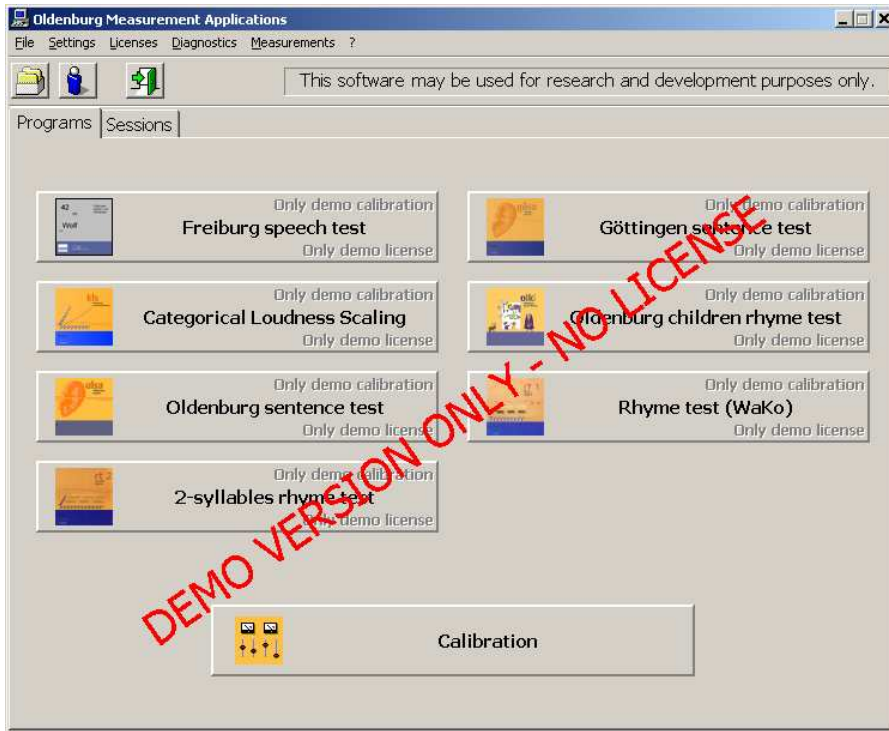


Figure 3

The demo mode is described detail in paragraph 4, for the installation of licenses, please refer to paragraph 6. Please read these chapters carefully and install your licenses before using your measurement applications. The basic settings (see paragraph 5) can be adjusted in demo mode and/or before installing any license and will be prompted automatically after installing the basic software.

In most conditions it is necessary to calibrate the signal output after installing a new measurement application and the corresponding license (see Calibration user manual). Buttons of measurement applications that require a calibration are disabled until this calibration was performed successfully (Figure 4):

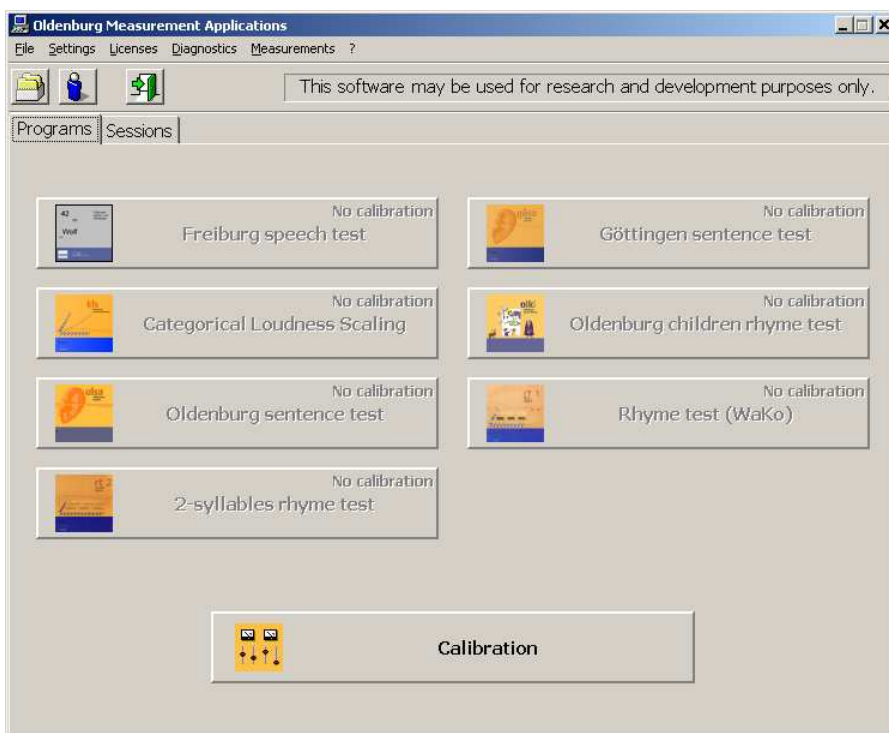


Figure 4

Please start the calibration by clicking the button 'Calibration' at the bottom of the start dialog and follow the displayed instructions.

**Attention:** Please read the separate manual for the calibration procedure carefully. After a successful calibration you can start the corresponding measurement application.

Each measurement applications as well as the calibration are described in separate manuals. From the start dialog you can - besides starting the measurement applications - adjust common settings, access various information and run common tools. These tools consist of user and client selection (database administration), selection and adjustment of hardware and devices, license and (software-)diagnostics functions, and access to the user manuals. In the following paragraphs the functions and menu items of the start dialog are described.

## 4 Demo mode

If no valid license is installed for the 'Oldenburg Measurement Applications', the software is switched into a restricted demo mode. This demo mode allows a free trial of the basic software and the measurement applications. Two operating modes are available in demo mode:

1. Without a basic license the complete software package is running in demo mode. This is clearly shown in the start dialog (Figure 3).
2. If a valid license is only missing for a particular measurement application, only this measurement will be executed in demo mode. All other measurements with valid licenses can be used in full mode.

**Attention:** Running the second operating mode may result in restrictions when running demo mode applications and full licensed applications subsequently. If a measurement application with a valid license cannot be started correctly in please switch the demo mode explicitly on or off using the menu item 'Licenses' or restart the complete software.

**Attention:** The following special features are used when the software is running in demo mode:

- There is no need to calibrate the measurement applications before they can be started (but calibration is possible).  
In this demo mode, a special demo calibration is always used which is available even without having done a real output level calibration. **WHEN USING THE DEMO CALIBRATION, THE ACTUAL OUTPUT LEVELS ARE NOT NECESSARILY CORRECT.** Furthermore, signals presented in demo mode are usually not adapted to particular transducers (headphones). Any result obtained in demo mode will therefore differ from regular measurement results and **MUST NOT** be used or considered in any way as a valid measurement result.
- **ATTENTION:** When presenting signals in demo mode, the output levels might be incorrect and especially too high due to the demo calibration. This may lead to health damage, severe injury or damage to the equipment during a measurement due to high output levels. It is thus essential to ensure that the actual presentation levels do not exceed the nominal, displayed levels in demo mode (e.g. by an appropriate amplification or attenuation and its verification). A real calibration of output levels can be done even in demo mode and is highly recommended.

**Attention:** The following restrictions apply when the software is running in demo mode:

- No user or client data can be entered. Only fixed database records are used.
- Signal output is restricted to 16 bit resolution. Therefore restrictions in the audio quality might be audible.
- Broadband signals are not freefield equalized in measurements with headphones.
- The transducers (headphone and speakers) are labeled with a fixed demo name.
- Measurement data can not be stored or printed.

- Additional restrictions may apply for particular measurement applications, e.g. available testlists and/or signals. These measurement specific restrictions are described in the documentations of the particular tests.

## 5 Settings, menu item 'Settings'

### 5.1 Hardware settings

By selecting the menu item 'Settings/Hardware settings ...' you can adjust/change the selection and settings of the devices (soundcard, audiometer, response box). These settings correspond to the settings that have to be adjusted after the installation or an update of the basic software. Therefore concerns the installation procedure as well. In the following the special issues are described.

#### 5.1.1 Installation/update of the basic software

After installing or updating the 'Oldenburg Measurement Applications Basic Software' you have to adjust some basic settings concerning the devices to be used for the measurements. The selected settings will be used for all subsequently installed measurement applications. These settings can be changed subsequently (see below).

Aft first after the installation/update the name of the system (computer) has to be entered (Figure 5):

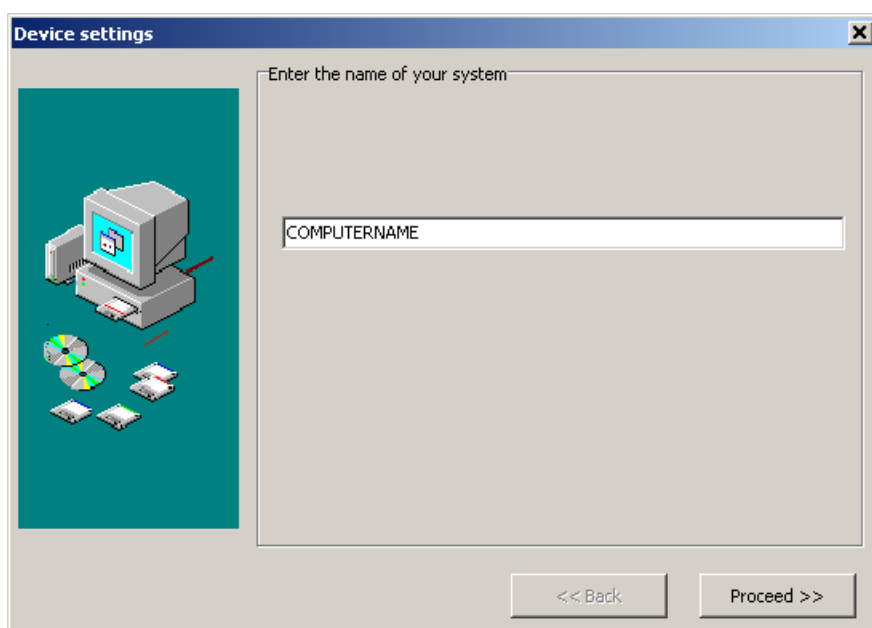


Figure 5

The default name is the name of your computer and should not be changed without need.

In the next steps you are prompted for the initial selections and/or settings for your output device (soundcard), output device for freefield measurements, audiometer type, headphone and response box. These settings are described in the following paragraphs in detail. After the installation/update of the basic software you are guided automatically through all pages. When calling the hardware settings dialog from the start dialog you have to select the pages for the particular devices manually. Therefore the displayed dialogs may differ slightly (headings and page selection/buttons). This has no effect on the displayed device settings. Please adjust the settings in the automatic mode according to the paragraphs below.

**Attention:** Messages and/or instruction may be shown concerning the selected devices and their settings. Please read these hints carefully and follow the instructions. If such a hint contains a

warning concerning the incompatibility of a particular device, the configuration may be continued and the software may run anyway. However, when using a not supported device, the correct execution of the 'Oldenburg Measurement Applications' can not be guaranteed.

After the initial device selections and settings are requested (see below) a final hint concerning acoustical signals and operating system sounds respectively is shown (Figure 6):

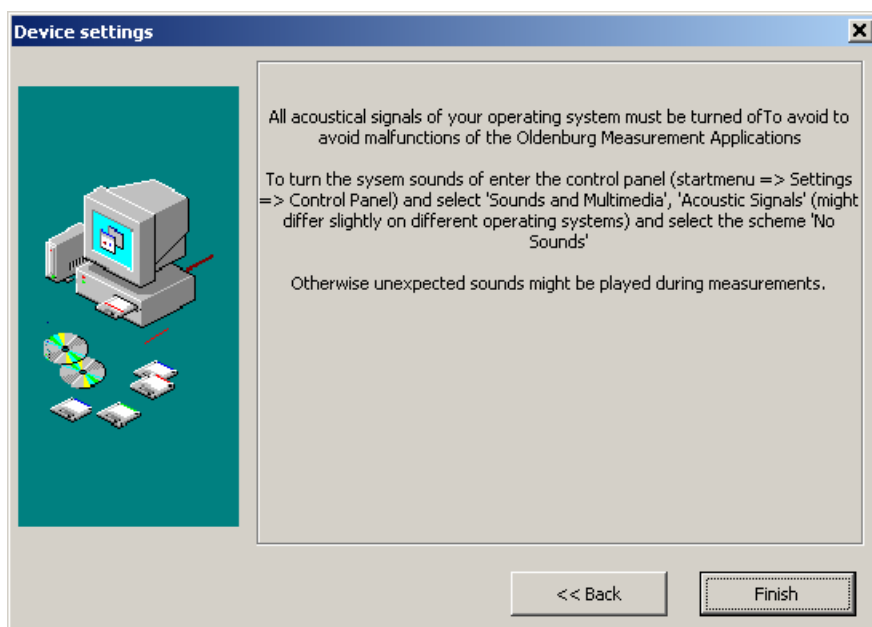


Figure 6

It is essential to follow this hint and switch off all system sounds according to the description to avoid the output of such signals during a measurement via headphones or freefield speakers (see also chapter 15.1.1). If operating system sounds are activated when running the 'Oldenburg Measurement Applications' some unexpected errors might occur leading to aborted measurements, erroneous measurement results or even to health damage, severe injury or damage to the equipment.

After completing the device selections and settings the start procedure continues.

### 5.1.2 Output device

On the page 'Output' or at the prompt 'Select output device' respectively, the output device (soundcard) for headphone measurements is selected (for freefield signals another device may be selected, see below). Usually the Windows™ output device (Waveform Playback Device) is a stereo channel of a particular soundcard. The output devices that are available in the system (depending on the soundcards that are available in the system) are displayed (Figure 7):

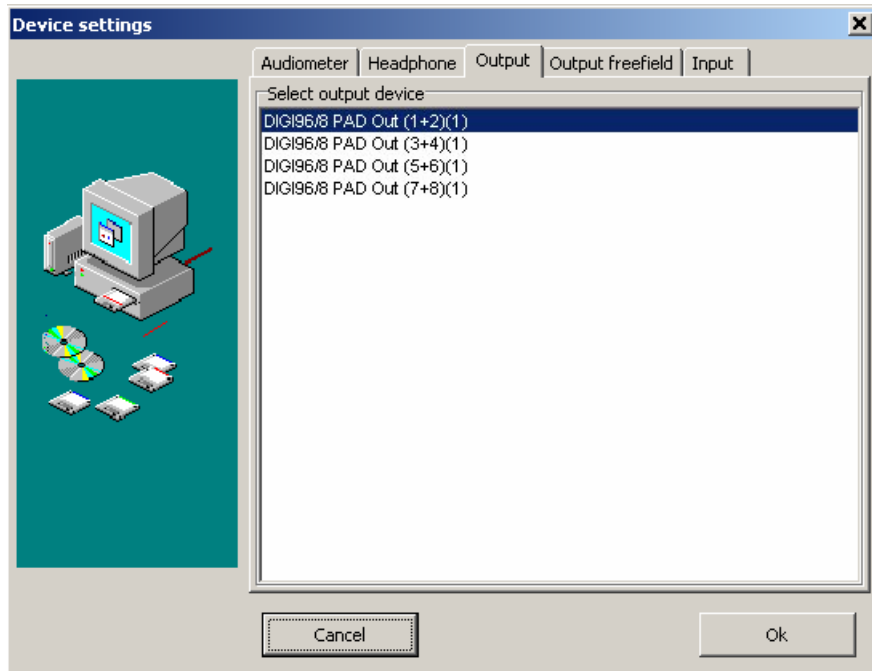


Figure 7

Select the desired output device, i.e. that output device that is connected to the audiometer or any other suitable equipment for the playback of headphone signals. Finally confirm the selection with 'Ok' or 'Proceed' respectively.

**Attention:** Depending on the selected output device some additional hints and/or settings may be shown. Read these hints carefully and follow the instructions.

### 5.1.3 Output device for freefield signals

On the page 'Output freefield' or at the prompt 'Select freefield output device' respectively, the output device (soundcard) for freefield measurements is selected. This device may be identical to the output device selected for headphone signals (e.g. if only one channel is connected to one audiometer). Depending on the system configuration this device may differ (e.g. another channel of the soundcard). The available devices are the same as in the output device selection above. All hints mentioned in the paragraph 'Output device' above apply here as well (replace 'Headphone' with 'Freefield').

### 5.1.4 Audiometer / audiometer type

On the page 'Audiometer' or at the prompt 'Select audiometer device' respectively, the audiometer device to use is selected. This must be one of the listed audiometer types (Figure 8). The devices are described in a separate manual 'Technical notes' (all audiometers except for the 'Virtual audiometer' are devices that are controlled via a serial interface. The 'Virtual audiometer' is a pure digital level adjustment within the computer):

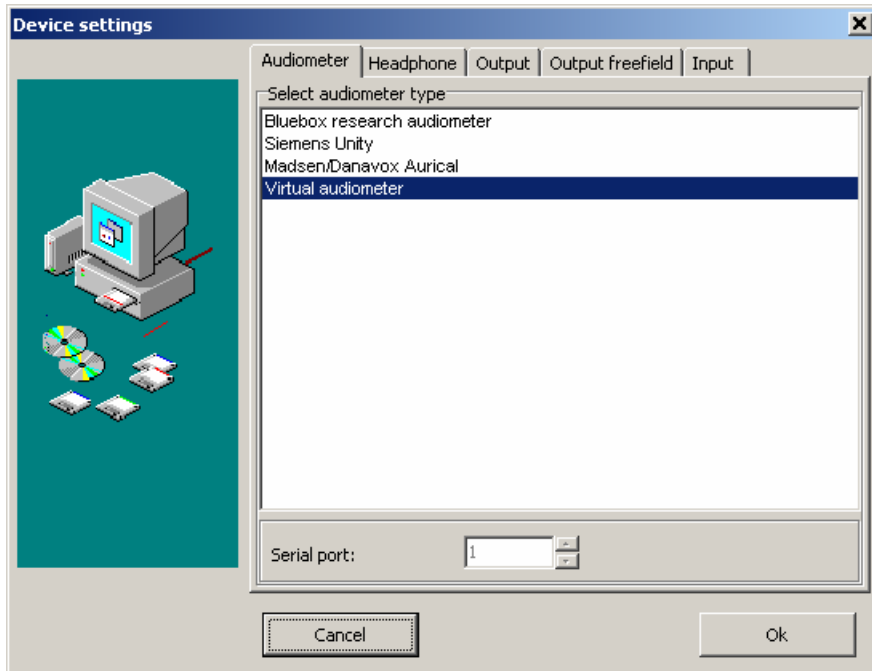


Figure 8

Please click on the used audiometer type. If the selected audiometer is connected to a serial port of your computer (this applies for all audiometers except for the ‘Virtual audiometer’) please adjust the serial port to use.

**Attention:** At the moment no other connection type (e.g. USB) is supported!

There is no need for the audiometer to be enabled or even connected to the serial at this moment, the connection is not tested. An error will occur when you try to run a measurement without having an enabled audiometer connected.

Finally confirm the selection with ‘Ok’ or ‘Proceed’ respectively.

### 5.1.5 Headphone

On the page ‘Headphone’ or at the prompt ‘Select headphone type’ respectively, the headphone type to use is selected (Figure 9). This selection determines which headphone dependant signals and/or frequency response and level corrections will be applied during the measurements. These corrections depend on the audiometer selection as well. When using the audiometer types ‘Bluebox’, ‘Aurical’ or ‘Virtual audiometer’ these corrections are applied headphone dependant by the software. When using the audiometer ‘Unity’ no correction is applied since the audiometer applies a headphone correction itself. Please select the correct headphone anyway because the name of the headphone is stored in the measurement results for documentation purposes.

If the signals for a particular headphone are not present because they were deselected during the installation procedure of the corresponding measurement application, you can install them later by re-running the installation and select the missing signals for the headphone only.

**Attention:** It is mandatory to select the correct headphone from the list by clicking on the corresponding name. Please check the type name carefully for small differences (e. g. TDH-39 vs. TDH-39P) on your headphone! Selecting the wrong headphone may lead to differences in the frequency response (depending on your audiometer type). This may lead to incorrect measurement results:

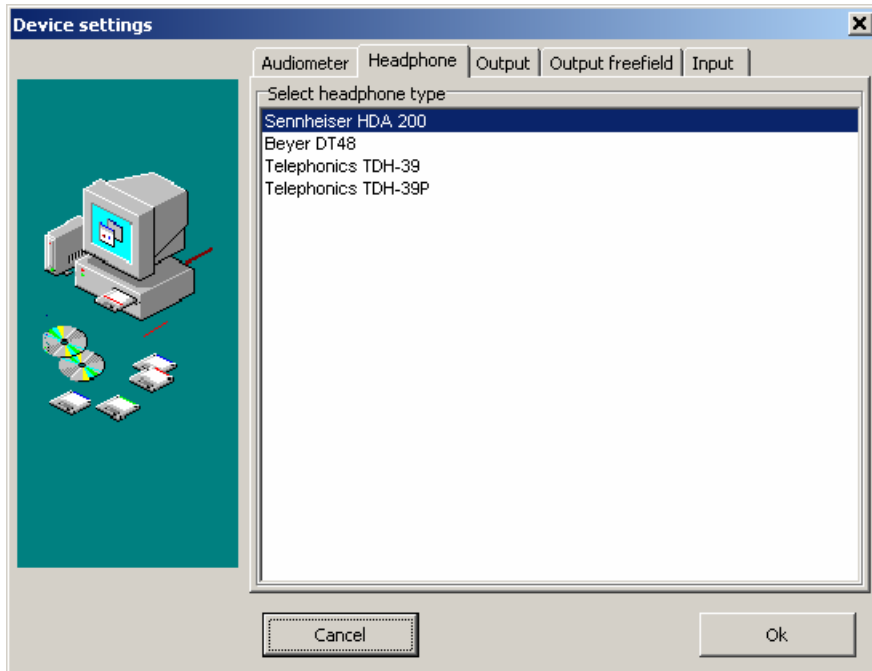


Figure 9

Finally confirm the selection with 'Ok' or 'Proceed' respectively.

### 5.1.6 Input / Input device

On the page 'Input' or at the prompt 'Select input device' respectively, the display or the input device to use for answer display and input is selected (Figure 10).

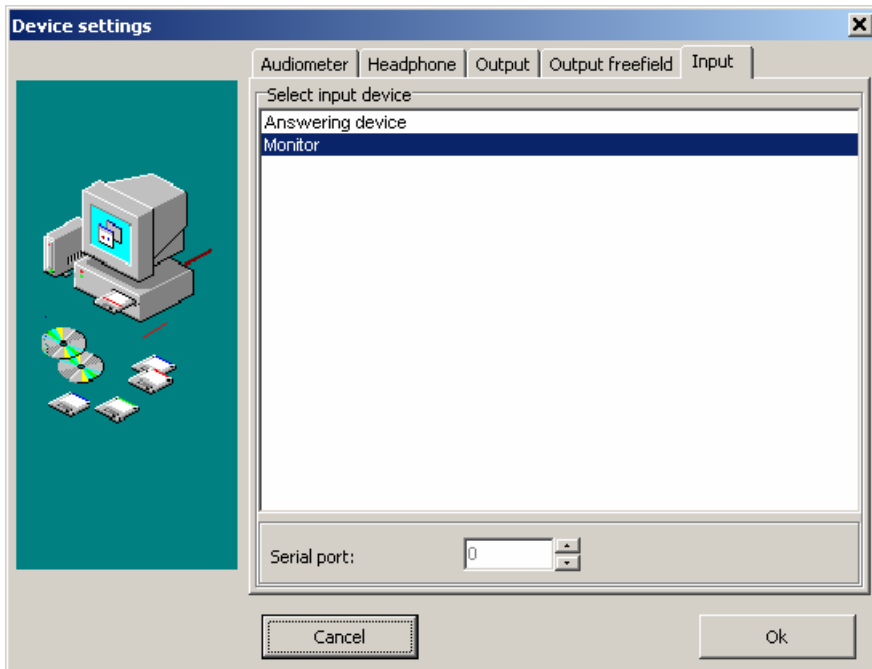


Figure 10

The default setting is 'Monitor', i.e. the display of the answering alternatives is shown on the computer screen and the input by the user or the client (depending on the test) is performed with the mouse or a touch screen (that is technically spoken a screen with integrated mouse) respectively.

If you want to use an external answering device (extra device) please select 'Answering device'. In this case you have to select the serial port that the device is connected to as well. At the moment

the following external answering devices are supported: Epson EHT-10 (not available any longer), Windows™ CE 2.11 computer (e.g. Palm-size PC, Pocket-PC, Tablet-PC) and other computers running on Windows™ 9x/Me/NT/2000/XP (e.g. notebooks). To use these external devices as answering device for the 'Oldenburg Measurement Applications' an additional software has to be installed on the particular device. This additional software is available on request.

Finally confirm the selection with 'Ok' or 'Proceed' respectively.

## 5.2 Print settings

You can adjust the appearance of the printout of measurement results by selecting the item 'Print settings ...' from the menu 'Settings'. The following dialog is shown (Figure 11):

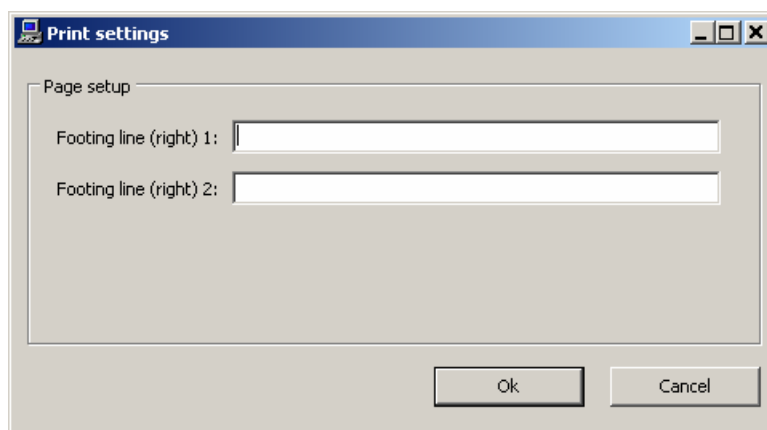


Figure 11

In the box 'Page setup' you can enter two optional lines that will be printed in the footer of the printout. If you leave these lines empty a default text is printed instead.

Confirm your changes by clicking 'Ok' or close the dialog without storing any changes with the 'Cancel' button.

## 5.3 Response box settings

You can adjust the appearance of the response box (type 'Monitor', see above) by selecting the item 'Response box settings ...' from the menu 'Settings'. The response box is shown on the screen. Now you can adjust e.g. the position and size of the response box permanently. Shifting the response box to a secondary monitor (e.g. a touch screen) is possible as well and will be stored for use in the measurements. To exit and save the actual settings please activate the context menu of the response box with a right mouse click and select the menu item 'Exit'.

**Attention:** These settings are only valid for the on screen display of the response box. If you want to change the settings of an external device you have to start the corresponding application on the external device and change the desired settings there. Please note, that the context menu on external devices will only be available after clicking the upper left and the lower right corner of the response box with the left mouse button.

You can adjust some more settings of the response box by selecting the item 'Options...' from the context menu of the response box (Figure 12 or similar):

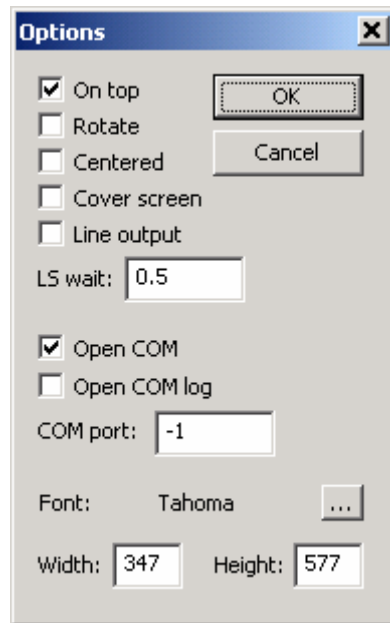


Figure 12

If 'On top' is checked the windows of the response box will stay on top of all visible windows..

Checking 'Rotate' will turn the response box by 90 degrees.

If 'Centered' is checked the response box will be centered on the screen automatically.

If 'Cover Screen' is checked the complete screen will be covered with an empty panel.

If 'Line output' is checked all lines on the response box will be centered and the character spacing will be optimized.

In the field 'LS wait:' you can adjust the behaviour in loudness scaling experiments. If you enter 'o' into the field the usual display is used (an 'X' is shown when the response box wait for the input of an answer) If you enter a number > o (decimal separator is ':') the text 'Signal...' (or similar) is displayed during the signal presentation and 'Response?' (or similar) is displayed when the response box wait for the input of an answer. The size of the text is calculated by the number times the size of the regular text (e.g. 0.5 will lead to a text half the size of the text describing the categories).

If 'Open COM' is checked the serial port entered in the field 'COM port:' is opened automatically when the response box is shown.

In the field 'COM port:' the number of the serial port that should be used by the response box is entered. Negative values represent virtual connections within the computer (without a real cable connection).

You can select the font to use by clicking the button '...' at right of the field 'Font:' (this function may not be available on some external devices).

Additional fields for more settings may be shown.

## 5.4 Network settings

By selecting the item 'Network settings...' from the menu 'Settings' you can configure the database for shared use locally or via a local network (Figure 13).

**Attention:** If your configuration of the 'Oldenburg Measurement Applications' or not conform to the standard configuration (especially your database settings), this settings dialog may be not available.

If multiple workstations (computers) running the 'Oldenburg Measurement Applications' are interconnected in a network or are connected to a server they can share a database (e.g. client data and/or measurement results). The same holds for multiple independent installations instances of the 'Oldenburg Measurement Applications' on the same computer. In this case the necessary procedures have to be performed locally rather than in the network.

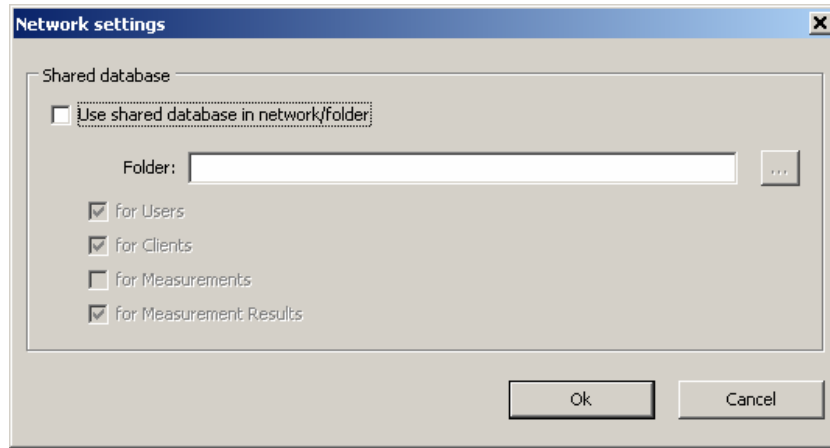


Figure 13

**Attention:** Databases should only be shared across identical software versions (and thus identical database versions)!

Before you can share the database you have you have to perform the following steps to make the database available in the network (usually these steps have to be performed by a system administrator):

1. Select one existing local database that should be used as shared database. After a standard installation 'Oldenburg Measurement Applications' this database can be found in the subdirectory DBC.LSQL of the installation directory (this directory usually contains files of type \*.DEF and files named MESSOL\*.\*. If you can not locate this directory please contact the customer support).
2. Copy the complete subdirectory to the server or to a shared folder on a computer respectively in the network.
3. Grant network access to this subdirectory (or directory on a higher level).
4. Map a network drive to the shared directory created in 3 on every workstation. It is highly recommended to map a drive letter to the shared directory rather than using the server name and path, a so called UNC.

If you have problems accessing the shared directory please contact your system administrator.

After installing the shared database you can select this database with the dialog shown above (Figure 13): First you have to check the option 'Use shared database in network/folder'. After clicking the button '...' right of the 'Folder:' field you can browse to the location of the shared database (the network drive connected in 4). After completing the selection the correct directory path must be shown in the 'Folder:' field (Figure 14):

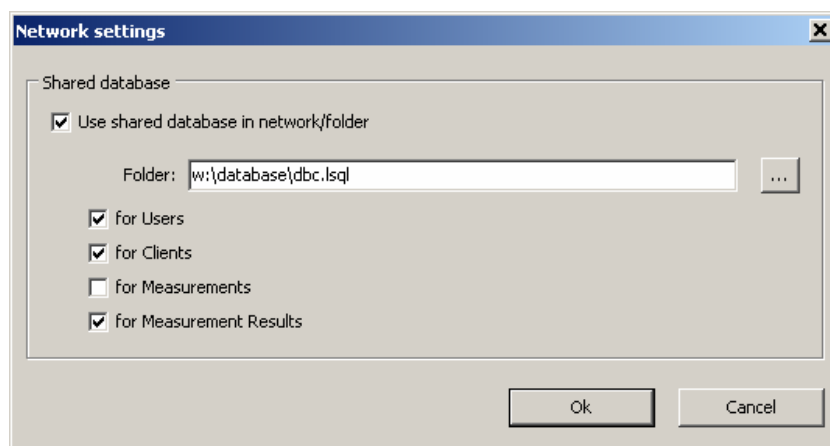


Figure 14

Additionally you can specify which data should be used from and should be written to the shared database. The default setting for shared data is set to user data, client data and measurement result data (see above). The option ‘for Measurements’ contains information on the installed measurement applications and their configuration. Attention: since not all measurement applications might be installed on all computers and the configuration might be different, these data should usually **not** be shared! When sharing the ‘Measurement’ data the installation of a new measurement application on one computer will affect the settings of all computers, but these measurements will not be executable or will cause errors on the other computers.

After closing this dialog with the ‘Ok’ button the specified database from the network will be used. If multiple workstations are accessing this database simultaneously new data sets or changes to data sets may be shown immediately. In this case please close the view with the (not actualized) data sets and reopen it again. It is not necessary to restart the ‘Oldenburg Measurement Applications’.

**Attention:** Never delete, rename or change the local database even if you use a shared database! Some parts of the local database are still used for the ‘Oldenburg Measurement Applications’.

Finally confirm the settings with ‘Ok’ or close the dialog without storing any changes or settings by clicking ‘Cancel’.

## 5.5 Language settings

By selecting the item ‘Language settings...’ from the menu ‘Settings’ you can select the preferred language(s) for the user interface of the ‘Oldenburg Measurement Applications’ ():

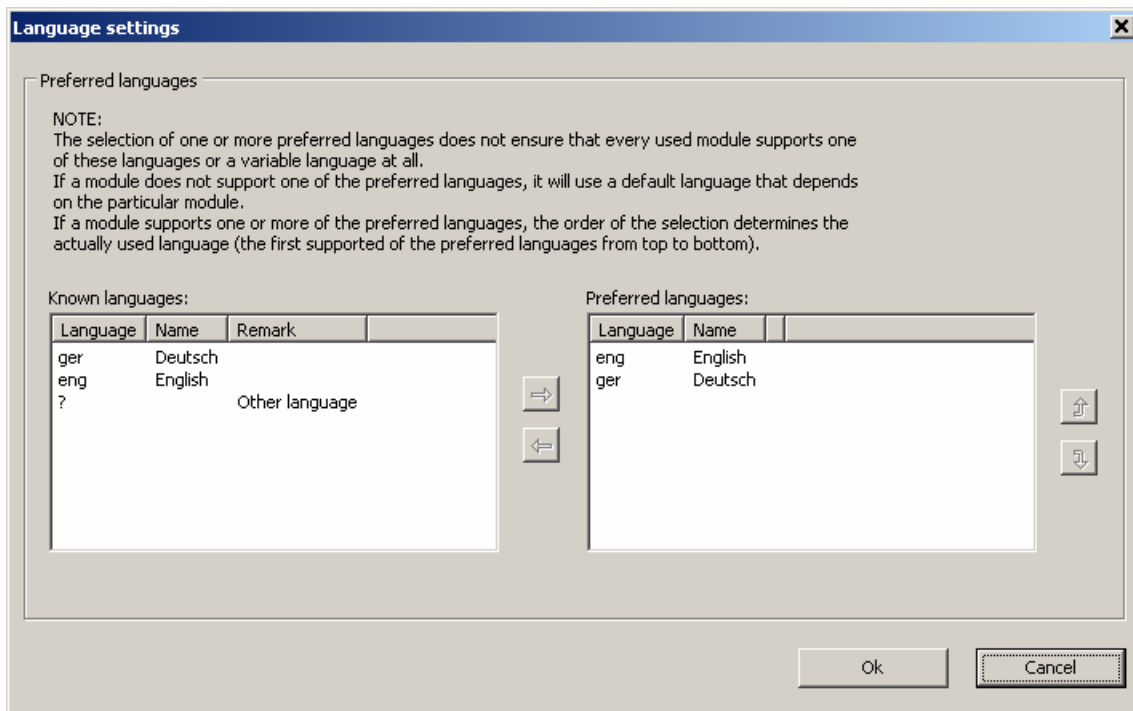


Figure 15

On the left panel all known languages are listed. This list is loaded from a file and does not necessarily mean that a language is available or not available. On the right panel the actually preferred languages are listed in the descending preferred order.

To add a language to the list of preferred language please select it in the left list and click the button ⇒ to add it to the right handed list. If a particular language is missing in the left handed list it can be added by clicking ‘?’ and entering the corresponding language (language abbreviation). Click ⇐ to add the new language to the right handed list. This may be useful if a particular language is known to be available for a specific measurement application, but is not

listed in the list of known languages (left handed list). You can get information on this issue at the customer support.

To change the order of the preferred languages please use the arrow buttons  $\uparrow$  and  $\downarrow$  respectively to move them up or down.

To remove a language from the list of preferred languages select the corresponding language in the right handed list and click the button  $\leftarrow$ .

**Attention:** Please read the hint on the dialog carefully. The selection of one or more languages does not necessarily mean that all measurement applications or all parts of the ‘Oldenburg Measurement Applications’ support these languages. Each module will consider the preferred languages in the displayed order (from top to bottom). If a module does not support any of the selected languages it will use its own default language.

**Attention:** The selected language has no effect on the language of the speech material used for speech tests. If you change the language, the language of the user interface will be changed but not the speech material.

Finally confirm the settings with ‘Ok’ or close the dialog without storing any changes or settings by clicking ‘Cancel’.

## 6 Licenses, menu item ‘Licenses’

The license administration of the ‘Oldenburg Measurement Applications’ is managed with the menu ‘Licenses’. If you want to install a license please start the ‘Oldenburg Measurement Applications’ and select the corresponding menu item from the menu ‘Licenses’.

**Attention:** The ‘Oldenburg Measurement Applications’ are shipped with a copy protection system (interface jack = dongle). Please do **not** connect the dongle to your computer (USB or parallel port) before you have installed your license(s)!

### 6.1 *Install license(s)*

By selecting the item ‘Install license(s)’ from the menu ‘Licenses’ you can install a license file shipped with the ‘Oldenburg Measurement Applications’ or sent to you by the customer support.

Select the corresponding license file in the following file open dialog (only license files are supported). After selecting the file all licenses from the file are installed, where licenses that are already present on the system are skipped.

**Attention:** The ‘Oldenburg Measurement Applications’ are shipped with a copy protection system (interface jack = dongle). Therefore the license installation procedure checks if the hardware driver for the dongle is already installed on your computer. If this is not the case the driver will be installed automatically. To complete the installation of the driver on Windows™ NT/2000/XP or a corresponding operating system you have to be logged on as an administrator or as user with administrator access rights. On some operating systems it may be necessary to restart your computer to complete the installation process. If you are installing licenses for the first time do not connect the dongle to your computer (USB or parallel port) before the installation process is complete.

### 6.2 *Demo mode on*

By selecting the item ‘Demo mode on’ from the menu ‘Licenses’ you can switch the ‘Oldenburg Measurement Applications’ into demo mode as a whole.

All measurement applications subsequently will run in the restricted demo mode (see chapter 4). You can toggle this feature at any time, see next paragraph.

### 6.3 Demo mode off

By selecting the item 'Demo mode off' from the menu 'Licenses' the demo mode is deactivated (see last paragraph).

**Attention:** The demo mode is only switched of if valid licenses are found.


### 6.4 License information

Selecting the item 'License information' from the menu 'Licenses' will show a list of all installed licenses in the 'Diagnostic window'. In case of license related problems this information may be useful when contacting the customer support.

### 6.5 Device information

Selecting the item 'License information' from the menu 'Licenses' will show information about the copy protection system and the corresponding hardware driver. In case of license related problems this information may be useful when contacting the customer support.

## 7 User selection

By selecting the item 'Select user...' from the menu 'File' or by clicking the button  on the toolbar you can select a user from the database or enter data for a new user.

The 'user' is the person that operates the software and the measuring equipment. The user selection is done for documentation purposes, the user abbreviation is stored with the measurement result. The selection of a user is mandatory before you can select a client or start a measurement. For selecting a user the following dialog is shown (Figure 16 or similar):

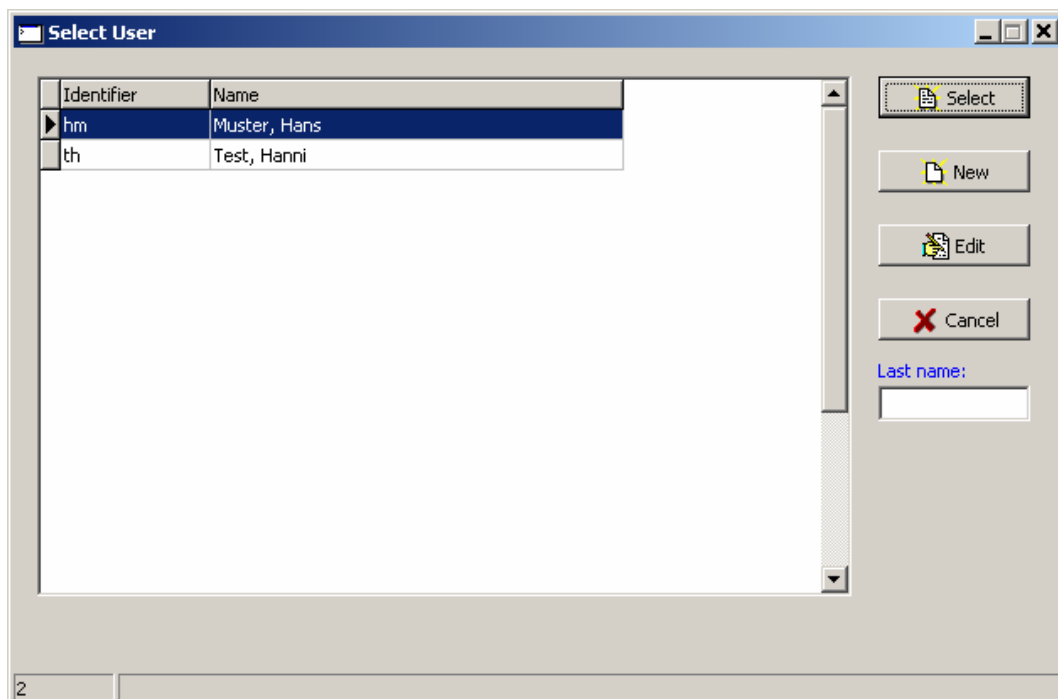


Figure 16

To select an existing user please double click the corresponding item or select the item and click 'Select'. If you enter something into the edit field 'Last name:' the selection is scrolled to the first item that starts with your input.

To enter data for a new user please click the button 'New'. The following dialog will be displayed (Figure 17 or similar). This dialog will be shown automatically if no user data exist at the moment the user selection is required:

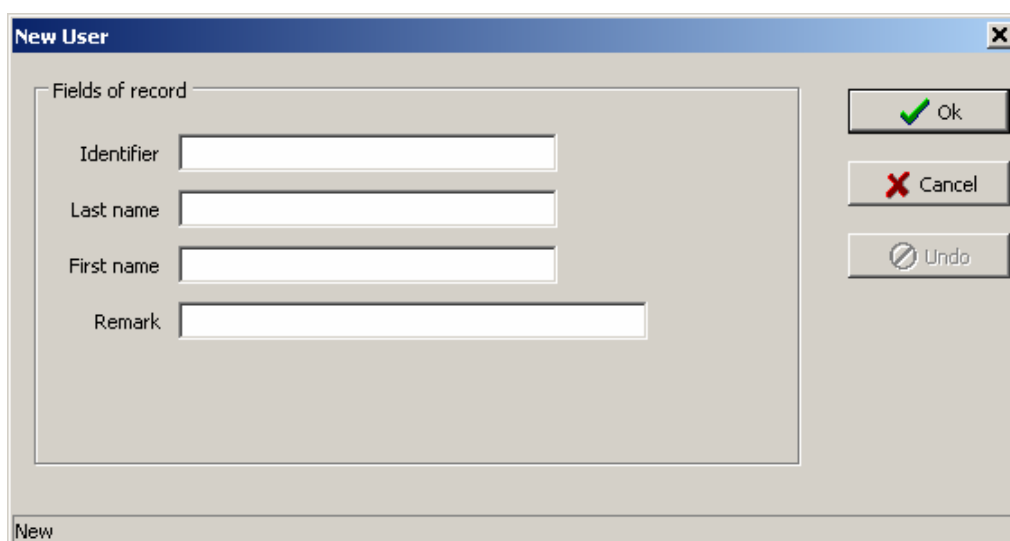



Figure 17

Please enter all requested information. At least a unique abbreviation (identifier) and a name has to be entered. If the selected identifier is already in use for another user, you have to enter another identifier. After entering all necessary data the new data are stored by clicking 'Ok'. The new user can now be selected in the user selection dialog.

The user selection dialog can be used to change the data of an existing user by selecting the corresponding user and click 'Edit'. The identifier itself can not be changed to preserve the integrity of the database.

## 8 Client selection

By selecting the item 'Select client...' from the menu 'File' or by clicking the button  on the toolbar you can select a client from the database or enter data for a new client.

The client is the test person that the measurement application is applied to. All executed measurements are related to the actual selected client and will be stored with the corresponding client identifier. Before a measurement application can be started you are prompted automatically for the selection of a client. The name of the selected client is shown in the caption of the start dialog and is valid until another client is selected manually. For the selection of a client the following dialog is shown (Figure 18)

To select an existing client please double click the corresponding item or select the item and click 'Select'. If you enter something into the edit field '**Last name:**' the selection is scrolled to the first item that starts with your input.

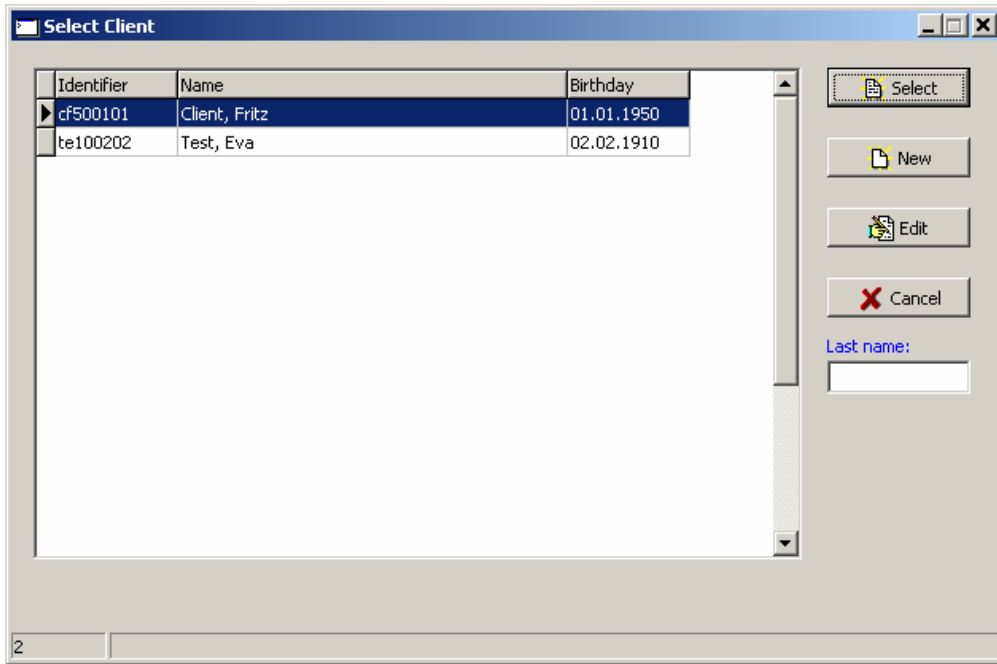


Figure 18

To enter data for a new client please click the button 'New'. The following dialog will be displayed (Figure 19 or similar). This dialog will be shown automatically if no client data exist at the moment the client selection is required:

Figure 19

Please enter all important data. At least the first name, last name and the birthday (use the date format shown on the dialog, D=day, M=month, Y=year) have to be entered. A unique client identifier is generated automatically from these data; this identifier will be shown in the field 'Identifier'. You can create or change this identifier manually by checking the option 'Create manually'. In this case you must enter a unique identifier. If the desired identifier is already in use for another client you are prompted to enter another identifier. After entering all necessary data the new data are stored by clicking 'Ok'. The new client can now be selected in the client selection dialog.

The client selection dialog can be used to change the data of an existing client by selecting the corresponding client and click 'Edit'. The identifier itself can not be changed to preserve the integrity of the database.

## 9 Sessions

The so called session list contains all measurement for the actual selected client that are stored in the database sorted by date and time. To show the session list please select the page 'Sessions' on the start dialog (Figure 20):

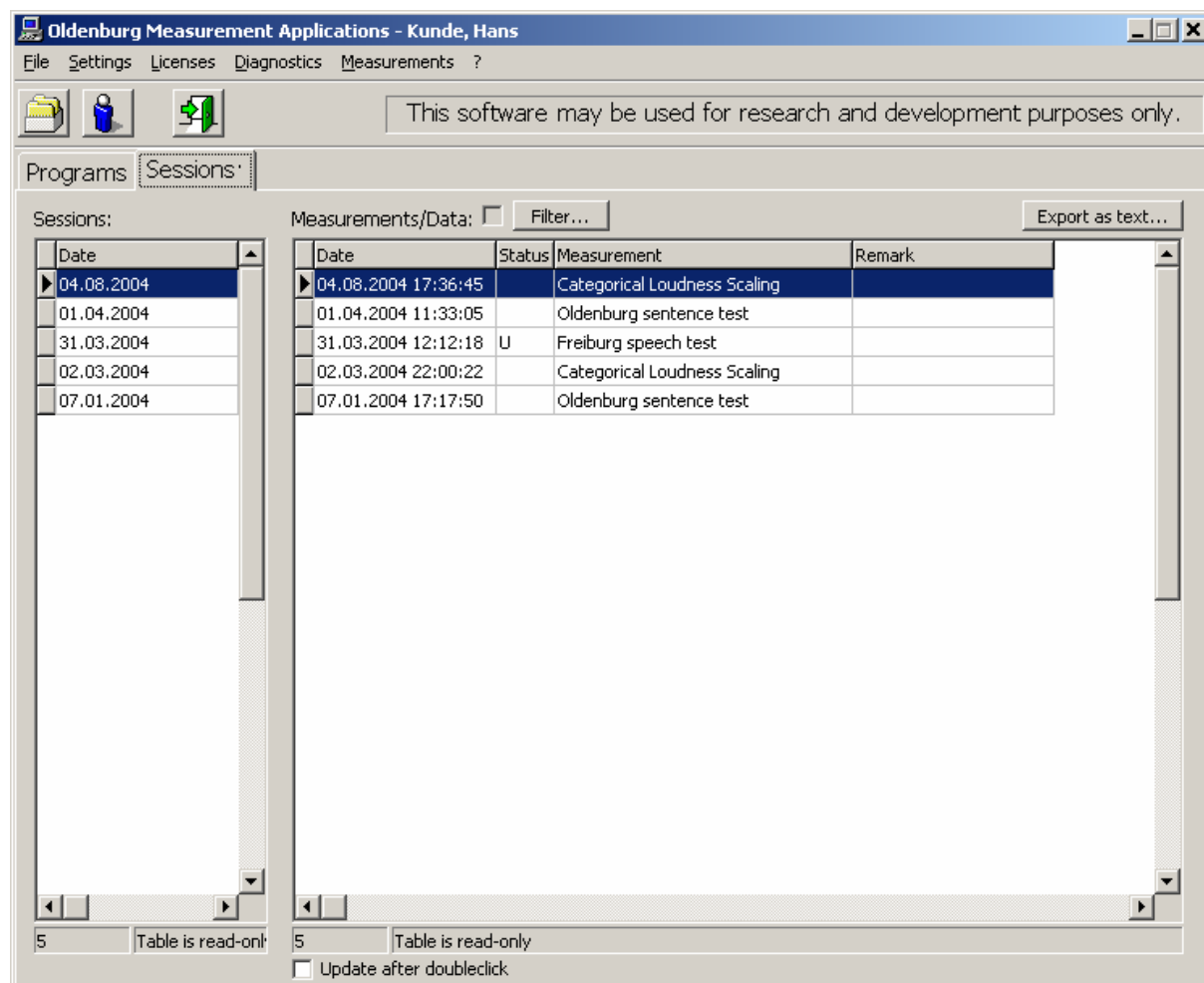


Figure 20

If you select one session (i.e. one date) in the session list (left list) the list on the right is scrolled automatically to the first measurement stored at the corresponding date. A double click on a specific measurement invokes the corresponding measurement application (the same action can be invoked by starting the corresponding measurement application from the

'Programs' page and selecting the particular measurement from the measurement selection dialog).

### 9.1 Filter

Using the 'Filter...' button (top of the list) you can limit the display of data sets (measurements) to a subset of all existing measurements. For this purpose the following dialog will be shown (Figure 21):

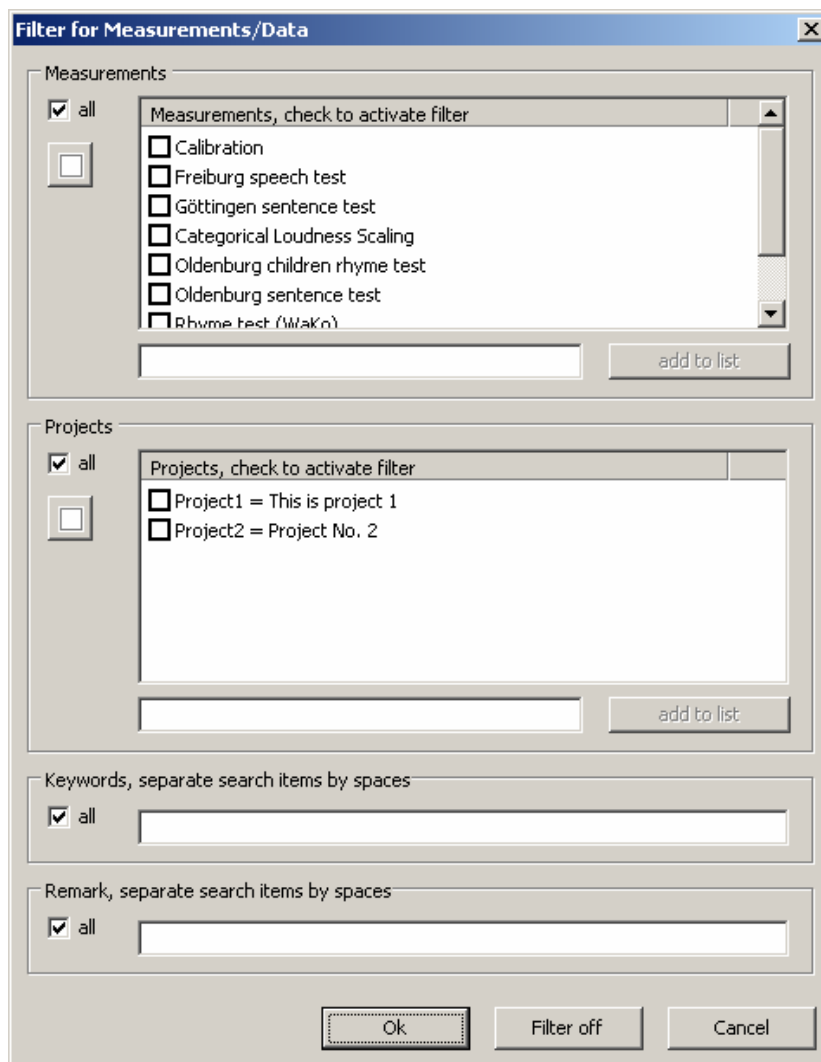


Figure 21

Filters can be applied to the measurement themselves and to the data fields 'Project' and 'Keywords'. within a particular measurement.

In the area 'Measurements' you can select one or more measurements by setting the corresponding check mark to limit the displayed measurements to the type of the selected measurement(s). The option 'all' deactivates the limitation on particular measurements, the button  additionally removes all check marks from the list of measurements. An additional measurement name can be added to the list by entering the name into the edit field below the list and pressing the 'add to list' button. This is useful only if the database contains measurement results of measurement applications that are not actually installed on the system.(e. g. if third party data were imported into your database or if the corresponding measurement application was removed from your system).

In the area 'Projects' you can select one or more projects by setting the corresponding check mark to limit the displayed measurements that are assigned to the particular project, i.e. that contain the corresponding project title in the data field 'Project'. All user defined projects displayed in the list. For the configuration of user defined projects please refer to paragraph

'Project list'. The option 'all' deactivates the limitation on particular measurements, the button  additionally removes all check marks from the list of projects. An additional project can be added to the list by entering the name into the edit field below the list and pressing the 'add to list' button. This is useful if desired project name is not listed (e.g. if a project name was manually entered during a measurement).

You can enter one or more keywords into the field in the area 'Keywords'. Afterwards only measurements will be displayed that contain at least one of these keywords in the data field 'Keywords'. The comparison is not case sensitive. The option 'all' deactivates the limitation on particular measurements.

You can enter one or more words into the field in the area 'Remark'. Afterwards only measurements will be displayed that contain at least one of these words in the data field 'Remark'. The comparison is not case sensitive. The option 'all' deactivates the limitation on particular measurements.

After confirmation with the 'Ok' button only measurements will be displayed in the session list that match all filter settings.

As long as any filter is active a check box is displayed next to the 'Filter...' button. Details on the active filter are displayed after clicking the 'Filter...' button. To deactivate the filter the filter dialog has to be invoked again. On that dialog click the button 'Filter off' and confirm the deactivation with 'Ok'.

## 9.2 Export as Text

Measurement results can be exported as text file (ASCII format) by clicking the button 'Export as text...' above the session list. The following dialog will be shown (Figure 22):

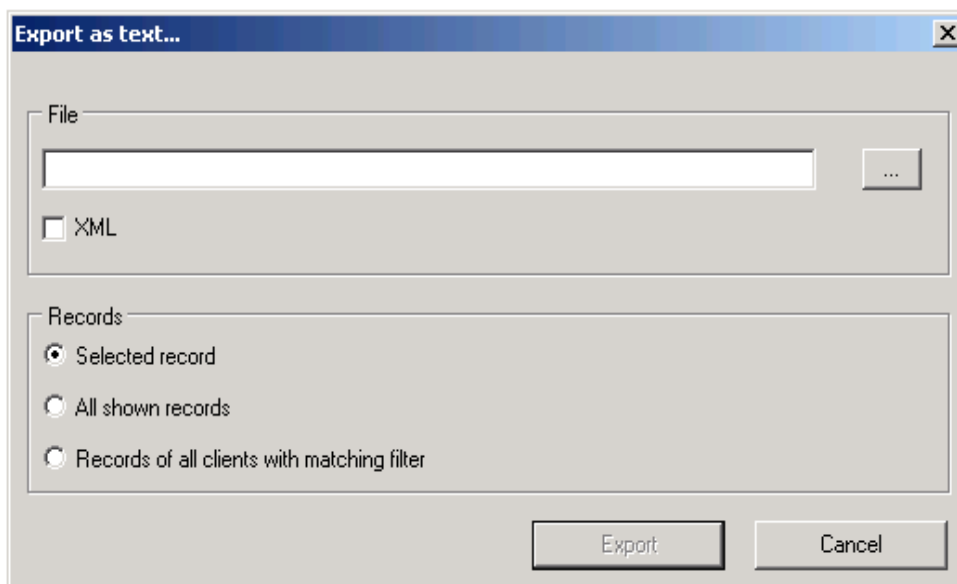


Figure 22

The filename for the exported data can be entered directly into the edit field 'File' or can be selected/entered on the file save dialog after clicking the '...' button. Depending on the selected option in the 'Records' field only the actual selected (highlighted) record, all displayed records, or all records for all clients that match the active filter are exported.

If the specified file already exists, the exported data are appended to the file. If the option 'XML' is activated, the data are exported into an XML-file. Details to the standard file format or the XML-file format respectively of the exported data are available on request.

### ***9.3 Update after double click***

Below the measurements list you can an additional option 'Update after double click'. If this option is checked the measurements list will automatically be updated after a measurement application was invoked by a double click on a measurement result. This database operation may take a few seconds. If this option is not checked the session list will stay unaltered until the session list was closed and opened again. The check state of this option is stored and will be restored after a restart of the 'Oldenburg Measurement Applications'.

## **10 Project list**

The 'Oldenburg Measurement Applications' support a so called 'project list' for user defined projects. This 'project list' contains a list of projects with an optional short description. Each measurement can be assigned to a particular project by selecting the project from the field 'Project' on the main measurement dialog. This provide the opportunity to find or filter measurements that are assigned to a particular project (see paragraph 9.1 'Filter').

At the moment the project list is defined in a simple text file named

```
.\user\userprojects.txt
```

where '.' denotes the installation directory of the 'Oldenburg Measurement Applications'. Each line in the file defines a project, where the first word is the name of the project, the rest of the line represents the description that is only used for the display in the project selection. Blanks (spaces) are not allowed in project names. A few examples::

```
Project1  
Project2 This is project No. 2  
Project3: One more description  
Work_Study_XY: Started 2004/01/01
```

Empty lines and lines starting with the character # are ignored. The project list can be edited with any text editor and is left to the user.

## **11 Menu item 'Diagnostics': trouble shooting**

The menu 'Diagnostics' contains several tools for advanced trouble shooting.

### ***11.1 Diagnostics-window***

If you select the menu item 'Diagnostics window' from the 'Diagnostics' menu a second window for text based diagnostic messages and error messages about the measurement application and/or the connected devices is displayed. This window is displayed automatically if an error occurs when running the software.

If a measurement application does not run correctly or if a connected hardware device can not be controlled you can use the diagnostics window to get further information about the error and its causes.

In the following example the hardware settings were adjusted to use an external response box connected to a serial port of the computer. A measurement application was started but the response box was not switched on. This resulted in the following error messages (Figure 23):

```
WinShell32 Messages
Diagnostics window
Loaded file '..\bin\wepsf.dll'
Loaded file '..\bin\wfef.dll'
Loaded file '..\bin\mhff.dll'
*** error: Epson not ready
*** error: Creation of virtual screen is invalid !
*** error: hf: command 'cmd: initmodule eps Measurement=183756694' failed
```

Figure 23

In the next example a measurement application was started without switching on the audiometer (here Siemens Unity, Figure 24):

```
WinShell32 Messages
Diagnostics window
Loaded file '..\bin\wepsf.dll'
Loaded file '..\bin\wfef.dll'
Loaded file '..\bin\mhff.dll'
*** error: receive timeout: no response from audiometer
*** error: ..\src\audi.cpp 382:
Init of Module 'unity' failed !
*** error: hf: command 'cmd: initmodule audi Measurement=181842466' failed
*** error: ..\src\audi.cpp 1117:
Cmd 'stumm' failed, Module not initialized !
*** error: hf: command 'audi: stumm' failed
```

Figure 24

If an error occurs repeatedly please contact the manufacturer or the customer support respectively. In this case please make the text output of the diagnostics window available to facilitate the ongoing trouble shooting. You have several options to save this text output (e.g. for sending it to the customers support):

The simplest possibility is to save the complete text output to a log file. This is described below in the paragraph **Switch file logging on**. Furthermore the contents of the diagnostics window can be copied to the Windows clipboard using the 'Copy to clipboard' menu item from the system menu (invoke the system menu by clicking the symbol at the left of the caption of the diagnostics window). Another possibility to copy text to the clipboard is to mark the desired text (move the mouse above the text while pressing the left mouse button) and copy it to the clipboard pressing the keys Ctrl+C. After copying the text to the clipboard you can paste it into a text editor email using the keys Ctrl+V to save or send the error messages.

### 11.2 Diagnostics window (verbose)

In some cases it may be necessary to activate a special verbose mode in the diagnostics window (on request by the customers support). This can be achieved with the menu item 'Diagnostics window (verbose)' from the menu 'Diagnostics'. Usually the text output in the diagnostics window no will use multiple colors that will not be stored in the log file or the clipboard.

### ***11.3 Diagnostic window permanent off***

The diagnostics window is automatically displayed on error. This behaviour can be switched off by selecting the menu item 'Diagnostics window permanent off' from the menu 'Diagnostics'.

### ***11.4 Switch file logging on***

Selecting this menu item switches on the logging of all messages from the diagnostics window to a file. If the log file should be used for trouble shooting this options must be switched on before the error occurs. The log file will be created in the subdirectory .\ETC\LOG in the installation directory of the 'Oldenburg Measurement Applications' (e. g. C:\MOL\ETC\LOG) with the name **WINSHELL\_DATE.LOG** (where *DATE* is the actual date in the format YYYYMMDD).

This option is only valid until the 'Oldenburg Measurement Applications' are terminated. After a restart logging is switched off.

### ***11.5 Switch file logging off***

This menu item switches the file logging described above off immediately.

### ***11.6 Test hardware***

This menu item calls a script (command file) that initializes and test the communication to all hardware selected in the hardware settings dialog (audiometer, soundcard...). If any error occurs a corresponding hint is displayed.

## **12 Menu item 'Measurements': special functions**

In the menu 'Measurements' you may eventually find special functions, that were installed by particular measurement applications. These functions are listed in submenus named after the particular measurement application. Additionally some more functions may be available in the 'Calibration' submenu are any other additional submenu.


If a particular measurement application supports any additional functions depends on the application itself and on the configuration of the software. These functions are described in the documentation of the particular measurement or the calibration respectively.

## **13 Menu item '?': Help and information**

The menu '?' contains links to the online documentations of the 'Oldenburg Measurement Applications'. (the documents are stored in PDF format, a recent version of the Acrobat® Reader™ for displaying these documents is available at <http://www.adobe.com/>).

Selecting the menu item 'Info' will show information on the installed version of the 'Oldenburg Measurement Applications'

## **14 Exit**

Selecting 'Exit' from the 'File menu' or clicking the button  on the toolbar terminates the 'Oldenburg Measurement Applications'.

## 15 Error messages

This chapter contains the description of common error messages and their causes.

### 15.1 On startup of the 'Oldenburg Measurement Applications'

#### 15.1.1 Control panel, sounds and multimedia

Eventual message on startup:

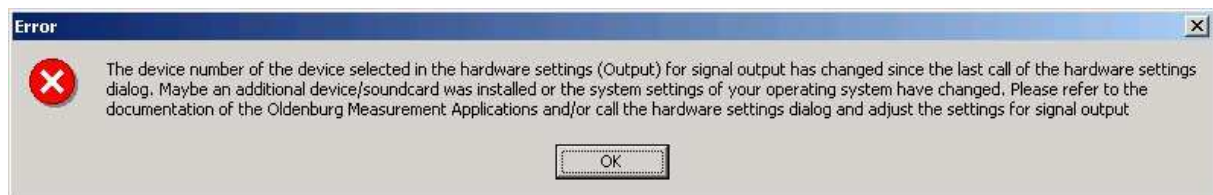


To ensure that the 'Oldenburg Measurement Applications' are running accurately it is mandatory to switch off all acoustical signals of the operating system (system sounds).

If the system sounds of your computer are not deactivated starting the 'Oldenburg Measurement Applications' the error message shown above will be displayed. In this case please exit the 'Oldenburg Measurement Applications' and run the item 'Sounds and multimedia' from the control panel (start menu => Settings => Control panel). Select 'System sounds' (or similar, the name of this item may vary on different versions of the operating system) and select the scheme 'No sounds'. After deactivating the system sounds you may run the 'Oldenburg Measurement Applications' again.

#### 15.1.2 Control panel, sounds and multimedia

Eventual message on startup:



To ensure that the 'Oldenburg Measurement Applications' are running accurately the settings of your soundcard(s) are checked on every startup of the software. In particular it is ensured that the enumeration/mapping of the soundcard selected for sound output within the 'Oldenburg Measurement Applications' has not been changed by the operating system. If this mapping has changed the error message shown above will be displayed.

The change of the mapping of soundcards may have several causes:

1. An additional soundcard was installed into your computer or a soundcard has been removed from your computer.

Solution: Call the menu item 'Hardware settings...' from the menu 'Settings' of the 'Oldenburg Measurement Applications'. Check and/or adjust all hardware settings and save the settings by clicking 'Ok'. The settings are adjusted to the new hardware configuration and the error message should not reappear.

2. You are running the 'Oldenburg Measurement Applications' on the Windows XP operating system and multiple users are using this computer with individual accounts. The above error only occurs with users other than the user that installed the 'Oldenburg Measurement Applications'.

Explanation: On Windows XP operating system the so called 'Preferred output device' is stored user dependant and the enumeration/mapping of the soundcards is adjusted accordingly. Therefore this mapping may vary between different users.

Solution: to solve this problem there are two solutions:

- a) Select the identical 'Preferred output device' for all users that are using the 'Oldenburg Measurement Applications' (the same than for the user who has installed the software). To achieve this, please run the item 'Sounds and multimedia' from the control panel (start menu => Settings => Control panel). Select 'Sounds and audio devices' (or similar, the name of this item may vary on different versions of the operating system). On the tab 'Audio' select the identical soundcard for 'Sound output'=>'Default device' that is selected for the user who has installed the 'Oldenburg Measurement Applications'. Attention: This procedure and the names of the items, buttons and tabs may vary on different version of the operating system and its configuration. If you have any question concerning the audio configuration please contact your system administrator.
- b) Run the hardware settings dialog of the 'Oldenburg Measurement Applications' again from the account of the user that gets the error message and adjust the settings as described in 1. This user will not get an error messages afterwards, but other users may run into the same problem after changing the settings.

## ***15.2 Database errors***

The 'Oldenburg Measurement Applications' are using standard third party databases .

If you encounter any errors with the database files the corresponding database has to be restructured or repaired respectively using special tools available from the corresponding third party. Errors that indicate that such a repairing procedure may be necessary are error messages like 'index error' or invalid or missing database file errors. Please contact the customer support if any database error occurs on your system.