

ANALOG
DIGITAL



ADM Messtechnik GmbH & Co. KG · Zum Wartturm 9 · 63571 Gelnhausen
Tel. (06051) 916557-1 · sales@adm-messtechnik.de · www.adm-messtechnik.de

MESSTECHNIK

ADM Messtechnik GmbH & Co. KG

GERÄTE UND SYSTEME FÜR FORSCHUNG • ENTWICKLUNG • VERSUCH • SERVICE

CONTENTS

1. INTRODUCTION	4
1.1 System installation and activation	4
1.2 Description of symbols used in the program	9
1.3 Use of computer networks	11
2. MAIN MENU	12
2.1 Instrument inventory	14
2.2 Inventory record parameters	24
2.3 Test report parameters	26
2.4 Users	28
2.5 Groups of instruments	30
2.6 Backup	31
2.7 Calibration procedures	33
2.8 Exit	35
2.9 Help	35
3. PROGRAM FUNCTIONS	37
3.1 Filter	37
3.2 Search	38
3.3 Codebooks	38
3.4 Importing XML records	39
3.4 Exporting XML records	43
4. PRINT	48
4.1 Preview	48
4.2 Printer	48
4.3 File	48
4.4 Report designer	49
4.4.1 Report designer menu	50
4.4.2 Tool bars	51
4.4.3 Object properties	53
4.4.4 Print Report properties	59
4.5 Print Reports Import	63
4.6 Print Reports Export	64

1. INTRODUCTION

The WinQbase software is designed for keeping a record of various types of measuring instruments using inventory records. Among other things, it includes execution and recording of calibrations, recording of instrument repairs, history of changes in inventory records and calibration records etc. The WinQbase program allows you to easily obtain different types of instrument overviews by selected criteria, select executed calibrations and a history of amendments to the records etc. A wide scale of printing features (such as print of records, calibration reports...) is one of its parts. Furthermore, the system allows creating of calibration procedures that is calibration procedure, for executing calibration and conceivably allows you to use calibration procedures created previously in programs of company MEATEST.

The system basis is a database environment. According to the customer's requirements, other programs, executing for example the actual calibration or creating calibration procedures, are then activated (without the user's interference).

All programs of this system can be controlled using both the keyboard as well as the mouse. You can also use "hot keys" to your advantage. Programs are easy to control by users, all information necessary for operation are displayed on the screen or contingently a brief help displays when you place the mouse cursor on the required object.

The program is created for PC networks. In practice it means that you can work on more computers in a network using a single database. For its operation the program requires valid registration code.

1.1 System installation and activation

The system is supplied on a CD-ROM disc. The installation set contains all necessary programs, created database structures and other auxiliary files and programs. The installation requires Pentium 1.5GHz, 2GB RAM at least. The program is designed for WINDOWS XP/Vista/7/8/10 operating system. During installation user must have Administrator access.

Installation process

Installation CD contains following types of WinQbase setups:

Full version (WinQbase.zip) – full version of the program with no limitation. This version requires registration code after first run.

Demonstration version (WinQbaseDemo.zip) - in demo version only 2 Groups of Instruments can be created, 3 Instrument inventory records for each group and 3 Calibrations for each Inventory item. Also backup is restricted in demo version and database can be located only in local machine. This version does not require registration code.

Viewer (WinQView.zip) – only for viewing database. This version does not require registration code.

First install the program to all computers on which you wish to use the system (if you have more computers for installation). Every installation must be registered with its own unique "Registration code".

Complete installation of WinQbase consists of one obligatory installation and four optionally installations:

1. WinQbase installation
2. GPIB card installation (only if it is used, see Caliber manual)
3. VISA driver installation (only if it is used, see Caliber manual)
4. CAMERA installation (only if CAMOCR module is used)

Installation number 1 is obligatory. Installations number 2, 3 and 4 are optionally.

WinQbase installation performs user-friendly installation of the whole system. When you insert the installation CD-ROM installation menu will appear and you can select desired type of installation. If the menu is not displayed automatically, you can find installation directly from "Install\Software" directory. Unpack (unzip) the package and run the installation by opening the "WinQbaseSetup.exe" file from newly unpacked folder.

The installation wizard starts with language selection. Available languages are: English, German, Russian, Hungarian, Slovak and Czech.

The next part of the installation is entering your user name, company name and name of a directory in which the program will be saved. We recommend you to confirm the offered directory.

The installation creates database programs, main database and auxiliary programs and files in the WinQbase directory. Separate directories "Archive1" and "Archive2" are created for back up in the "Data" directory.

Finally, a WinQbase program group is created, which is placed in the "Start", "Programs" menu.

During the installation you can be asked for computer restart.

If you are using a National Instruments **GPIB** card or **Camera** module, install appropriate driver.

Uninstall WinQbase

To remove the WinQbase software from your system, you should use the "Add/Remove Programs" control panel in Windows ("Start → Settings → Control Panel → Add/Remove Programs" from the Windows Start menu).

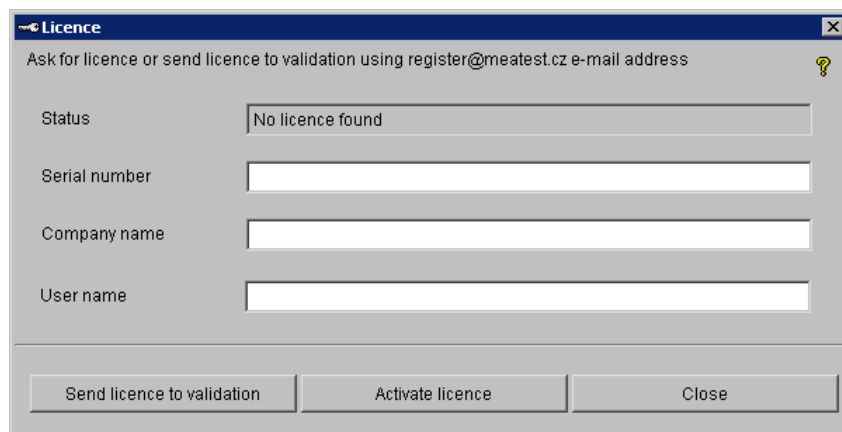
Program Caliber - module for calibrations

This program module is installed together with WinQbase.

Program registration

The program can be registered during its first run or by means of the "Help" menu and by the "About WinQbase" item activation. The registration consists of two steps:

Step 1 – Company identification



The 'Licence' dialog box has a title bar with a question mark icon. Below the title bar is a text label: 'Ask for licence or send licence to validation using register@meatest.cz e-mail address'. The dialog contains four input fields: 'Status' (with the text 'No licence found'), 'Serial number', 'Company name', and 'User name'. At the bottom, there are three buttons: 'Send licence to validation', 'Activate licence', and 'Close'.

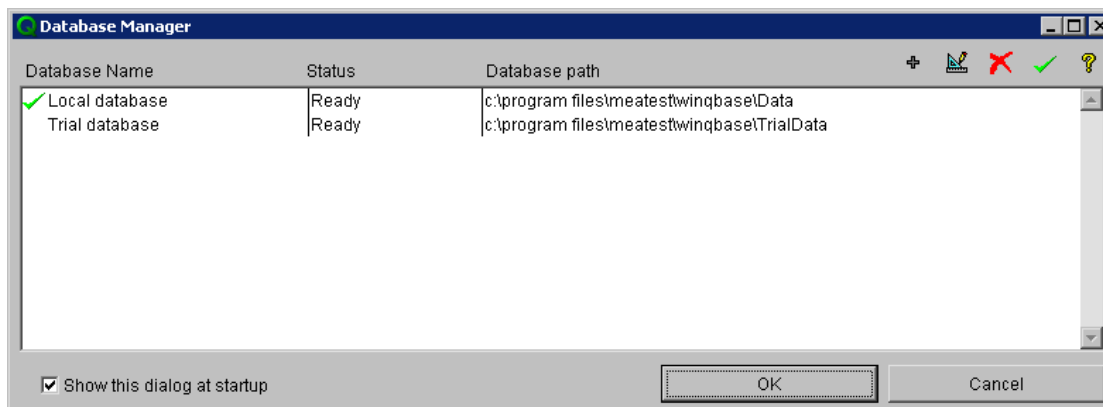
Set the Serial number, Company name and User name who the license is to be registered to. Serial number you can get from "Licence agreement" which is supplied with program package. Press the button "Send licence to validation". Program will ask for the path where to save the file with the information about the user. Send this file "SNXXXXXXXXX (QUERY).LCN" as attachment to the email register@meatest.cz.

Step 2 – Licence activation

In response to the email you will receive the activation file "SNXXXXXXXXX (ACTIVE).LCN". Use this file to complete the activation by pressing the "Activate licence" button.

The first program start






Full version of the program includes two separate databases. The first "Local database" is an empty database without any records. Local database is prepared for entering data of instruments in calibration laboratory. The second "Trial database" has already completed several records and is suitable for your first steps with the program. If you do not have enough experience with the WinQbase, start with the "Trial database". After the initial launch of the program, a dialog box "database manager" is displayed:



The 'Database Manager' dialog box has a title bar with a question mark icon. It contains a table with three columns: 'Database Name', 'Status', and 'Database path'. The table has two rows: 'Local database' and 'Trial database'. The 'Local database' row has a green checkmark in the 'Database Name' column and 'Ready' in the 'Status' column. The 'Trial database' row has 'Ready' in the 'Status' column. The 'Database path' column shows the paths for each database. At the bottom, there is a checkbox labeled 'Show this dialog at startup' which is checked, and two buttons: 'OK' and 'Cancel'.

Database Name	Status	Database path
✓ Local database	Ready	c:\program files\meatest\winqbase\Data
Trial database	Ready	c:\program files\meatest\winqbase\TrialData

This panel shows all the available databases. It is possible to add or remove database using buttons in the right top corner.

-  Add database – a path to the database. The database may or may not exist. It is thus possible to create a database on a remote server.
-  Modify database – modifies parameters of selected database. You can set the database name (only informative text) and the path to the database.
-  Remove database – remove the database from the list of active databases. The database is not be removed from a computer, but the program WinQbase will not use it.
-  Set as default – sets selected database as default. This database will be used each time you start the program until you change this default setting.
-  Help – displays internal help.

For each database, the list shows the name, status and path. Status informs the user about the current state of the database and whether it is possible to use it:

Ready - the database is ready and can be used.

Invalid path - the path to the database does not exist. Database cannot be created. Enter a new path.

Inactive - specified path does not contain the database, but it is possible to create a clean database after pressing "OK".

Read only - part of the database is read-only and cannot be used. The folder must be changed to read/write state.

Older structure – older database version. This database must be converted to the new format.

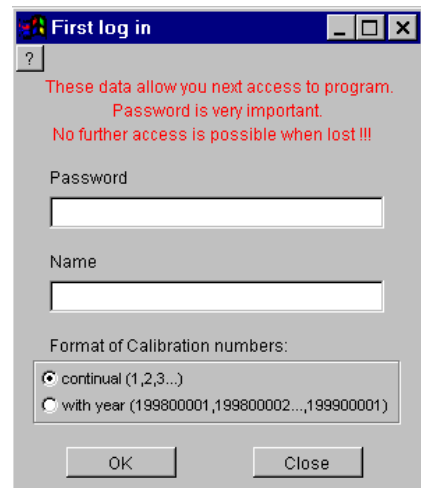
The program automatically converts the database after pressing "OK".

Packed – database is in packaged form. The database is extracted after pressing "OK".

The program checks the active database after pressing "OK" button. Database is launched automatically when it is ready. In case that it is not ready, the program displays a dialog box, and tries to correct the problem.

Note: Dialog "Database Manager" is not displayed if the checkbox "Show this dialog at startup" is not active. The state of this checkbox can be changed in the menu Options → Shown database selection. This dialog will always be displayed but when the active database is not ready.

At the first log in, it is also necessary to enter a password and name of the person who will “supervise” the operation of the WinQbase environment. Later this person will be authorized to make any changes to the system and determine access rights and passwords for other users. For that reason, write the set-up password down because you will not be allowed to enter the program without knowing the correct password. We should observe that the password is case sensitive. The user must also choose a method of numbering calibrations. Ascending numbering (1,2,...) is offered automatically, however, you can choose yearly numbering (199800001,199800002,...) where

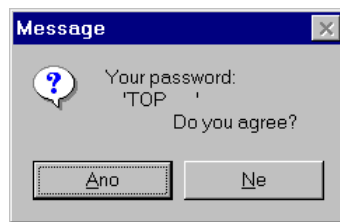


The image shows a Windows-style dialog box titled "First log in". It contains the following elements:

- A question mark icon in the top-left corner of the dialog area.
- Red text warning: "These data allow you next access to program. Password is very important. No further access is possible when lost !!!".
- A "Password" label followed by a text input field.
- A "Name" label followed by a text input field.
- A label "Format of Calibration numbers:" followed by two radio button options:
 - ☒ continual (1,2,3...)
 - ☐ with year (199800001,199800002...,199900001)
- "OK" and "Close" buttons at the bottom.

calibrations will be numbered from number one at the beginning of each year. It is not possible to change the numbering method hence.

When you press the OK button the program checks the entered password and requires a confirmation.



1.2 Description of symbols used in the program

There are several functional buttons used in the program, which have the same function in all the used windows. The symbols are the following:



Go to the first item.



Go to the previous.



Go to the next item.



Go to the last item.



Record new item in the database. For example a new inventory record, new type of instrument, new calibration procedure etc.



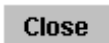
Edit the displayed database item. For example modification of a record, calibration procedure etc.



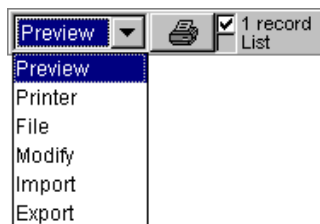
Remove the displayed item from the database. This button is only functional for some items.



Displays active items in the form of a list (each item is on one line), which you can leaf through. You can set up the width of individual columns arbitrarily.



Closes the active window and goes to the previous item.



Prepares a test report of the displayed item and, according to the selected function, sends it either to the printer or to a file or displays a view of the test report. It concurrently allows adjustment of the report format. The “Import” and “Export” items are designed for recording or retrieving created test reports. For a more detailed description of report adjustments see chapter 4.0. Fields to the right from the printer have the following

function. If you check the “1 record” field only the currently displayed item is printed. If you check the “**By lines**” field all selected items in a compressed form (line display) are printed.



Data import in XML format. It is possible to import individual codebooks, calibrations or inventory records with all related codebooks.



Data export in XML format.



Search tool.



Filters tool.



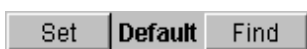
Confirmation of changes or a new entry and storing new data in a database.



Cancels made changes. No record to the database is made.



Covers (restores) a record. See the main menu “Options”, “Cover records”.




For so-called codebooks you can set one item as “Sample”. You can then find it easily using the “Find button”.

1.3 Use of computer networks

WinQbase supports work within a computer network. All computers that have installed the full version of WinQbase have access to a common database. Demo version is limited to the local database only. WinQView (freeware program that is distributed together with the full version) supports access to the common database, but records can't be changed.

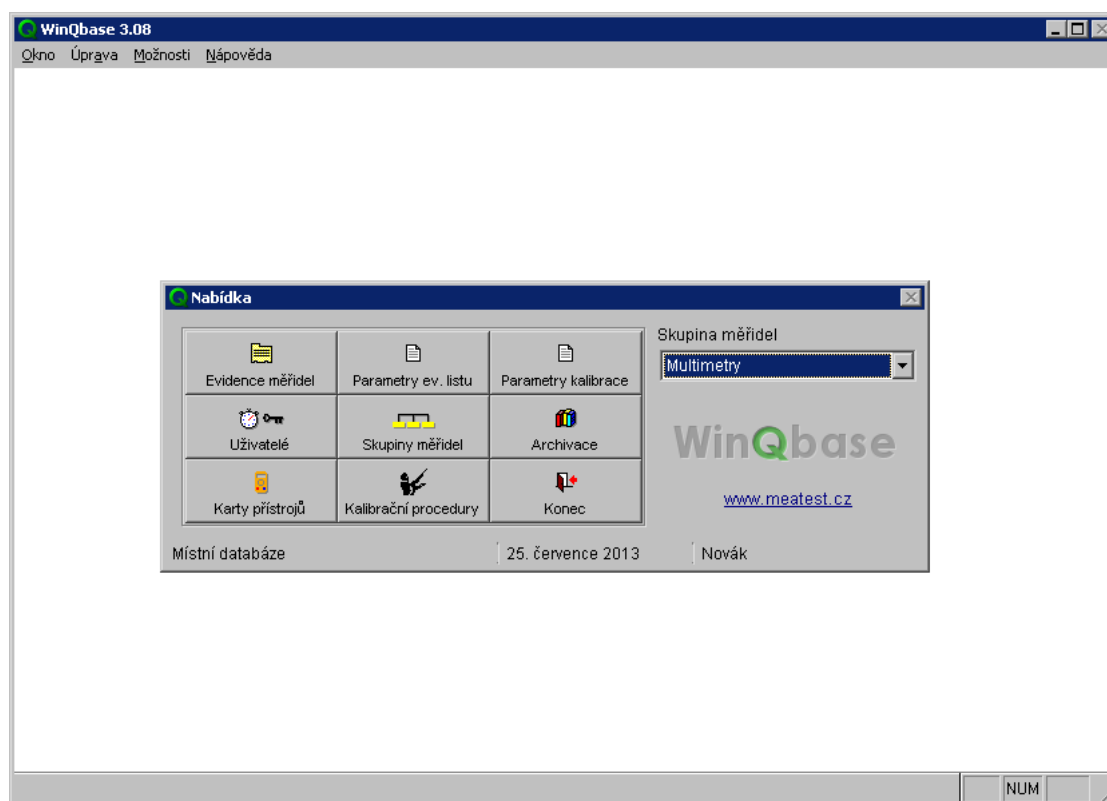
Newly installed WinQbase has access to two local databases, located in the \ WinQbase \ Data \ (basic database) and \ WinQbase \ Trialdata \ (test database). Basic database can be shared over the network. "Test" database is always local, and therefore every computer has its own "test database".

It is recommended to use the following procedure to set sharing a common database among multiple computers:

- a) Select a computer that will contain the shared database (server). This computer should be has been in continuous operation. If not, other computers cannot work with the database.
- b) Install the program WinQbase on all computers. You will need individual license for each computer.
- c) Run the program WinQbase on one of the client computers. If the "Database Manager" panel is not displayed automatically, you must activate this option from the menu *Options* → *Shown database selection* and restart the WinQbase program. Press Add button  on the "Database Manager" panel and browse database path where you want to create a new database. This path must already exist, but the folder may be empty. New database is created automatically. It is also possible to browse an existing database.
- d) In case that new database was created, WinQbase requires to fill in the form for the first login. This is due to the fact that the database server is not yet formatted. When filling out the data you need to proceed cautiously and well remember the password you enter as this will continue to be used by the system administrator. Likewise, numbering protocol cannot be changed further. See chapter "The first program start" for more details.
- e) Specify the path to an existing database server for all other clients on the panel "Device Manager."

All client stations are equal and limits are set on the basis of the password used to access the database. Access permissions are defined by the system administrator (user password with the highest level of access) on the "Users" window.

2. MAIN MENU



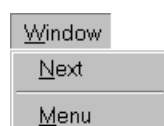
The main menu displays when you enter a password. The screen consists of three parts. These are the following:

1. Upper menu bar of the program (contains menus for selecting windows, editing functions and help).
2. Program desktop (displays active windows of the program).
3. Bottom status line (displays information about the selected item, operation of the program and keyboard status).

Click the selected item (using the left mouse-button) to invoke the required operation. Operation of the program is intuitive with usage common in WINDOWS.

The program automatically displays help for the selected item on the bottom status line. For some items it also displays description next to the mouse cursor. You can switch off the help display on the program menu bar in the “Help” menu (the “Show tips” option).

Upper menu bar



Next activates the next window.

Menu displays the main menu from which you can launch the required window.

The first four items of this function are only active when you modify or add a new record.

Edit	
Undo	Ctrl+Z
Redo	Ctrl+R
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Select all	Ctrl+A
Find...	Ctrl+F
Replace...	Ctrl+L

Undo cancels the last executed operation.

Redo executes the last canceled operation.

Cut extracts the selected text and saves it in memory.

Copy copies the selected text to the memory.

Paste inserts the last text saved in memory to the cursor location.


Select all selects the whole text as a block.

Find... enables search in the displayed text.

Replace... enables automatic replace in the selected text.

Options	
<input checked="" type="checkbox"/> Show database selection	
Hide records	
Hide history	
TH meter	▶
Printer	

Shown database selection database management panel is displayed when you start the program.

Hide records does not display items marked 

Hide history does not display the history of inventory and calibration records.

TH meter allows cooperation with laboratory environment monitor (M010 or TM185D) by selecting a serial socket COM1

through COM32.

Printer displays a panel to set the default printer used in the WinQbase.

Help	
Using help	
<input checked="" type="checkbox"/> Show tips	
About	

Using help displays contents of the WinQbase program help.

Show tips disables and enables display of brief help at the buttons when you move the mouse cursor.

About displays the WinQbase program information and allows program reregistration.

You can find more information about help in chapter 3.

2.1 Instrument inventory



This function allows you to modify and create new inventory records and their relevant calibration records.

An inventory record is a kind of an instrument “identity card”. It accompanies the instrument during its usage as well as after it has been put out of service.

One inventory record always belongs to one physical instrument.

Calibrations executed on an instrument and its repairs refer to an inventory record. Permissible changes made to the inventory record data are recorded with the option to find the person who made the change.

Press the “Instrument inventory” button to enter the inventory record index. Here you can view and modify individual existing records or enter new records. To the existing records you can execute or add calibrations and write supplements (repairs, standard data and other). An inventory record contains many details of which some are compulsory and without them you cannot save the record in the database.

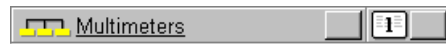
Information about executed calibrations and repairs of this instrument will apply to a new created inventory record. You cannot execute a calibration for an instrument with no inventory record.

A new inventory record should be created with high responsibility. Before creating a record, the user should always know details about the instrument, such as its registration number, manufacturer and other items, which he is required to enter. If for some reason it is not possible to enter an item, the record cannot be stored in the database.

Some items are selected using an auxiliary table (so-called ‘codebook’), which is a list of all values that can be entered in the given item (for example the question is a list of instrument manufacturers). If you cannot find the required item in the codebook (the

manufacturer is not in the list), you can enter the new value immediately and next time it will be included and displayed in the range. We will explain this point later in greater detail.

Since all inventory records are divided into groups of instruments, you must have a relevant group of instruments selected (multimeters, wattmeters...) before you enter the database of inventory records. You can only choose from the given values. Naturally, you can extend the database to another group of instruments. However, this function is only accessible to persons with the highest access level (level 7 – see chapter 2.4). Users usually work with inventory records of only one group of instruments. Nevertheless, users with access to all groups of instruments are allowed to switch off the filter for a group of instruments and thereafter view records of all groups. A button with the following symbol, located in the upper part of the form, enables this option:



Each inventory record includes the following items:

1. **Type of inventory** describes an instrument from the point of view of its relation to a calibrating laboratory. For this item exists a codebook, in which the “Calibrating”, “Internal” and “External” values are pre-defined. Calibrating instrument is an instrument, which the laboratory itself uses for calibrations, internal instrument is an instrument of the given organization and external instrument is an instrument delivered for calibration by a customer of a different organization. If you change this item, a history of the inventory record is created automatically.
2. **Quantity** defines the laboratory in which the given instrument is checked. For example, if you have a laboratory for electric, magnetic and longitudinal quantities, fill in the items in the codebook as “Electric”, “Magnetic” and “Longitudinal”. If you change this item, a history of the inventory record is created automatically.
3. **Category** of instrument describes an instrument from the point of view of its function in the company. For this item exists a codebook, in which the “Standard”, “Appointed instrument”, “Working instrument” and “Informative instrument” values are predefined. When the item is changed, a history of the inventory record is created automatically.
4. **Model** of instrument contains standard marking of the instrument, for example PU500, M3650, DU10 etc. If you change this item, a history of the inventory record is created automatically.
5. **Manufacturer** contains information about the instrument manufacturer, for example METRA, HP, FLUKE etc. If you change this item, a history of the inventory record is created automatically.
6. **User’s item 1** is an item purely for special user requirements. This item also has a codebook assigned, which you can predefine fully in accordance with your needs (for example, differentiate instruments by application sphere). If you change this item, a history of the inventory record is created automatically. You can change the name of this item by double clicking this item in the inventory record form (for users with the highest access). This item supports file hyperlinks (see “Test report” field).
7. **User’s item 2** is another item for the user, for which he can choose the name and the function. This item is not a codebook and it is not necessary to enter it. This item supports file hyperlinks (see “Test report” field).
8. **Inventory serial number** is assigned to the created records by the computer. The user cannot interfere in this numbering. The numbers do not have to form a consecutive sequence. Some numbers can be skipped.

9. **Asset number** of an instrument has not a codebook assigned and allows you to enter any combination of 20 characters at most. If you change this item, a history of the inventory record is created automatically.
10. **Documentation** only allows you to enter yes (checked box) and no (unchecked box) values. It informs you about the existence of documentation for an instrument. Changing this item does not result in creating a history of the inventory record.
11. **First recorded on** of an inventory record is entered by the computer. The user cannot interfere in this item.
12. **Price** determines the purchase price of an instrument. This item has not a codebook and allows you to enter any numerical data. Changing this item does not result in creating a history of the inventory record.
13. **Serial number** of an instrument has not a codebook assigned and allows you to enter any combination of 10 characters at most. If you change this item, a history of the inventory record is created automatically.
14. **Activated on** contains the date on which an instrument was put into service. This item is not compulsory and has not a codebook assigned. Changing this item does not result in creating a history of the inventory record.
15. **Discarded on** contains the date on which an instrument was put out of service. This item is not compulsory and has not a codebook assigned. Changing this item does not result in creating a history of the inventory record.
16. **Customer** and **Phone** contain information about an instrument owner. This is an item with a codebook assigned. If you change this item, a history of the inventory record is created automatically.
17. **Traceability** contains information about standards to which an instrument can be traced. This item is not compulsory and its change does not result in creating a history of the inventory record.
18. **Specification** contains information about instrument accuracy (table, text expression etc.). This item is not compulsory and its change does not result in creating a history of the inventory record.
19. **Comment** is designed for your comments relating to the given inventory record. This item is not compulsory and its change does not result in creating a history of the inventory record.
20. **User's item 4 ... 11** are additional items that may be included in the inventory record. These are the text items and their properties can be set on the panel "Back up" → "Database structure". Their use can be defined by the user and their change does not result in call history list. These items support file hyperlinks (see "Test report" field).
21. **HISTORY** allows you to trace changes made to inventory records. You can determine who made a change, when it was made and what the state of the record was before the change was made. Using the right and left pointers you can go through all the changes made to a record. It should be observed that changes are not recorded for all the items in an inventory record. In the text above you can find which items invoke creating a history of the record and which do not.
22. **CALIBRATION** the locked button enables display of the date, validity and result of the last calibration on the inventory record of an instrument. You can switch this option off because it slows down leafing through records. This slowdown develops especially on less powerful computers.

Each inventory record has calibration records and alternatively records of instrument repairs assigned. These records are accessible after entering an inventory record.

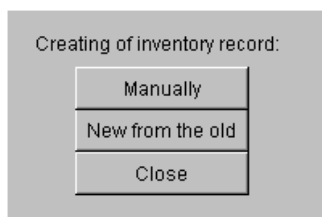
In the inventory records window you can also display results of the last calibration. Use the calibration button to switch this function on. The background color changes for the validity item as follows:

1. more than 1 month - green
2. 0 to 1 month - yellow
3. validity expired - red
4. not entered - neutral

It is recommended to have this feature switched off on slower computers - leafing through inventory records is faster.

Creating a new inventory record

When you press the '+' button, the program offers you a few methods of creating an inventory record. You can choose from the following methods of creating an inventory record:



1. **Manually** creates a new inventory records in such a manner that you enter all items on the inventory record. This record enters the creation mode and automatically marks items that can be entered. White spaces allow you to enter data directly, items for which there is a codebook symbol displayed (...) require you to enter data from this codebook. To enter data press the symbol of the relevant codebook. Find the required item in the codebook and press the „Close“ button to enter it in the inventory record. If the required item is missing in the codebook, you can add it. You cannot change other items; they are only informational. After filling an inventory record you can either store it in the database or cancel it.
2. **New from the old** allows you to enter individual items on the inventory record based on the information said on an existing inventory record. This feature is very convenient if you have an inventory record created for the same type of instrument. The new inventory record is created based on the currently displayed record. Before storing this record in the database you can modify any items.
3. **Close** will close this option without creating an inventory record.

Editing an inventory record

Changes to a created inventory record can only be made in the edit mode (relevant level of access to data is a requirement). In the edit mode, you can change individual items like when creating a new record. According to the changes made, a history of the inventory record can be created. A **history** is created if one of the following items is changed (type of inventory, quantity, category, model, manufacturer, user item 1, serial number, asset number or customer). The program queries whether to create a history or rewrite the original inventory record.

After changes are made, you can either store the new record or cancel the changes.

Printing an inventory record

The program allows you to print selected inventory records on a printer. A button with a printer icon serves to this purpose. Fields next to the printer icon allow you to choose a printing method. Using these fields you can print 1 inventory record (displayed on the screen) or all (selected) inventory records. You can also print selected inventory records in the form of line display or in the form of inventory records. Naturally, all types of test reports can be modified).

Calibration of an instrument

Instrument Inventory

INSTRUMENT INVENTORY

Calibration No. 50000002 Calibration procedure M3800

Inventory serial No. 1 Report name Caliber

Temperature [°C] 22.3 Result Passed

Humidity [%] 56 Calibrating person John Brown

Users item 3

Test report

Function	Range	Standard	UUT	Deviation	%spe	Allowed	Uncertainty
VDC-2W	200 mV	20.0 mV	20.0 mV	10 uV	5	200 uV	62 uV ok
VDC-2W	200 mV	180.0 mV	179.8 mV	-200 uV	-20	999 uV	66 uV ok
VDC-2W	200 mV	-180.0 mV	-180.2 mV	-200 uV	-20	1001 uV	66 uV ok
VDC-2W	2 V	0.200 V	0.200 V	0.30 mV	15	2.00 mV	0.58 mV ok
VDC-2W	2 V	1.800 V	1.800 V	0.10 mV	1	10.00 mV	0.58 mV ok
VDC-2W	2 V	-1.800 V	-1.800 V	0.00 mV	0	10.00 mV	0.58 mV ok
VDC-2W	20 V	2.00 V	2.00 V	2.0 mV	10	20.0 mV	5.8 mV ok

Comment

Date received Date of calibration Calibration period Verify to Station

2.8.2013 12 2.8.2014 Central station

Preview 1 record List Browse Close

You can only execute a calibration for an instrument that has an inventory record created. First, find the inventory record of the instrument you wish to check and select the „Calibration“ **bookmark**. If there has not been a calibration executed for this instrument so far, the window showed above will display. If the instrument had any calibrations, details about the last calibration will display. You can only view calibrations and supplements of a single inventory record (instrument) – implicitly, or you can switch this filter off. A button with the following symbol (“1” means one inventory record), located in the upper right corner of the form, enables this option:

Further, users with access to all groups of instruments can switch off a filter for a group of instruments and thereafter view inventory records, calibrations and supplements from all groups of instruments. A button with the following symbol, located in the upper part of the form, enables this option:

Each calibrations window contains the following items:



1. **Calibration No.** is assigned to individual calibrations by the computer. The user cannot interfere in the numbering. There are two ways of creating numbers: continuous (SCCCCCC) - the number of calibration "C" is constantly increasing, regardless of year and annual (RRRRSCCCC) – the number of calibration starts from zero at the beginning of each year and the number is preceded by the prefix created from the year "R". Type numbering is set only once at the first log in to the new database. Both types of numbering system contain one digit unique number station "S". Blue background indicates the last calibration (which is the last depends on the calibration date).
2. **Inventory serial No.** is assigned to individual calibrations by the computer. This item shows an inventory record, to which the given calibration is assigned. The user cannot change this number.
3. **Temperature [°C]** contains information about the environmental temperature during calibration. If M010 or TM185D laboratory environment monitor is connected to the computer, the temperature is read from this device automatically during calibration. You can switch this option off using the „Options“ menu. The user can change this option with the change resulting in creating a history of the calibration record.
4. **Humidity [%]** contains information about environmental humidity during calibration. If M010 or TM185D is present, the data are read automatically. You can switch this option off using the „Options“ menu. The user can change this option with the change resulting in creating a history of the calibration record.
5. **Calibration procedure** is the name of the procedure by which the calibration was executed. A calibration procedure name cannot be changed after it has been entered. The name for calibrations, which are not executed by computer (test reports are imported), is „Not entered“.
6. **Report name** is a type of report, which is used for printing a calibration in its full form (not by lines). Predefined are “One-page certificate”, “More-page certificate” and “Caliber”.

Item “**One-page certificate**” is suitable for printing of one-page calibration certificates. This certificate is created, if unit under test in only one point is calibrated. Typical example is calibration of standard resistor. In this print form all information are on the first page. Item “**More-page certificate**” is suitable for calibration, which was performed with older calibration modules MEACA or MEACU. Certificate consists of several pages with appended test report with all results of all calibration points.

Item “**Caliber**” is suitable for calibration, which was performed with calibration module CALIBER. Certificate consists of several pages with appended test report with all results of all calibration points. Difference between two last print forms is in different formatting of test report.

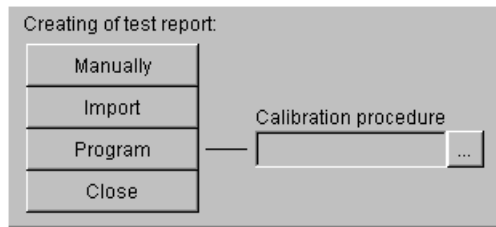
User can extend the relevant codebook to other types if needed. This item can be changed, however a history of the calibration record is created. Before creating a history, the program verifies whether you really wish to change the item. After confirming your intention press the button again to store the history in the database.

7. **Result** contains the result of a calibration. Again, you select this item from a codebook, which has the following types of results predefined: “**Pass**”, “**Pass except points**” and “**Failed**”. For calibrations executed by computer, the WinQbase program evaluates and determines the result automatically. For other calibrations, the user must make this assignment. You can find a more detailed discussion about the evaluation method and codebook options in chapter 2.3. This item can be changed, however a history of the calibration record is created. Before creating a history, the program verifies whether you really wish to change the item. After confirming your intention press the button again to store the history in the database.

8. **Operator** when a calibration record is created, this item is identical with the “Author” item in the “History” box. Nevertheless, before entering a calibration to the database it is necessary to enter the name of the person who physically executed this calibration (this person does not have to be the same person who stores it in the database). The name of the calibration author must be selected from a codebook of users. These persons do not need to have access passwords assigned.
9. **User’s item 3** similarly to an inventory record, this is an item for which the user selects its name and at his discretion. On a report this item is used as “Request No.”. This item supports file hyperlinks (see “Test report” field).
10. **Test report** contains recorded data (supplement) for calibrations created by the program. For other calibrations it usually contains the whole test report inclusive of the front sheet. This item can be changed, however a history of the calibration record is created. Before creating a history, the program verifies whether you really wish to change the item. After confirming your intention press the button again to store the history in the database. This item supports hyperlinks and it is possible to insert references to external calibration certificates for example in PDF format. In this case program WinQbase does not care of their printing. The hyperlink must be either a valid file path or file name without a path, in this case, the file must be located in the "User" folder and it must be located in the active database (eg. C:\Program Files\Meatest\WinQbase\Data\User). The "User" folder is backed up.
11. **Comment** is designed for additional information relating to the given calibration record. This item is not compulsory and its change does not result in creating a history of the calibration record.
12. **Export** this button allows you to export the contents of the “Test report” window to a text file or Microsoft Excel sheet (this program must be installed). Caution – only recorded data are exported, not the whole test report including the front sheet. When Microsoft Excel sheet is selected, WinQbase search for source file “report.xls” placed in WinQbase directory. First row of the file must contain names of columns you want to export.
13. **User’s item 12...20** are additional items that may be included in the certificate. These are the text items and their properties can be set on the panel "Back up" → "Database structure". Their use can be defined by the user and their change does not result in call history list. These items support file hyperlinks (see “Test report” field).
14. **Parameters** allow you to complement and alternatively modify codebooks containing test report parameters. For detailed codebook descriptions see chapter 2.3.
15. **HISTORY** allows you to trace changes made to calibration records. You can determine who made a change, when it was made and what was the state of the calibration record before the change was made. Using the right and left pointers you can go through all the changes made to a record. It should be observed that changes are not recorded for all the items in a calibration record. In the text above you can find which items invoke creating a history of the record and which do. It depends on the user whether he will keep individual phases of changes in the database as well (on making each change the program queries whether to save it in the database).

Creating a new calibration

You can create a new calibration (or enter it to the database) using the ‘+’ button. The program inquires about the method you wish to use for calibration. There are the following possibilities:



1. **Manually** means that you rewrite a calibration test report in the “Test report” window. After entering the test report, complement the remaining details (“Result”, “Type of report” etc.).
2. **Import** is for reading a calibration test report from a text file. After reading the test report, complement the remaining details (“Result”, “Type of report” etc.).
3. **Program** enables calibration by the computer based on the created calibration procedure (this can also be created at this point). The name of the methodology by which the calibration will be executed must be selected from the “Calibration procedure” codebook. When you press the button, control is transmitted to the executive program, which will perform the actual calibration. The name of this program is stated in the database of groups of instruments under the “Measuring file” item. You can find descriptions of these program operations in their user’s manuals.
4. **Close** will close this option without creating a test report.

Printing a calibration certificate

The program allows you to print a selected calibration record in its full form (always only one) or in a short form by lines (implicitly all referred to the selected instrument). Naturally, you can choose arbitrary conditions for which test reports will be printed (you can choose either within one group of instruments or all groups of instruments) using filters. When printing a full form, the program selects the type of report (form of test report), which is stated in the “Type of report” item.

For calibrations, the program WinQbase program divides a calibration report test report into sheets by number of lines. You can set up the number of lines on the actual form. Pre-defined value is 50 lines and it also matches pre-defined type of calibration report. When you change this report (for example font sizes on test reports), you can obtain correct text layout by changing number of lines.

Moreover, you can enter two control characters into a test report, which will affect test report paging:

1. Character with code 12 always invokes a beginning of a new page.
2. Character with code 11 tells the WinQbase program that the next four lines are the header and the program places this header automatically at the beginning of a page until it finds a new header. If the program does not find a header, it does not create any.

These characters are always created automatically in programs of company MEATEST.

Supplements

The screenshot shows the 'Instrument Inventory' window with the 'Supplements' tab selected. The window has a title bar 'Instrument Inventory' and a menu bar with 'INSTRUMENT INVENTORY', 'Calibrations', and 'Supplements'. Below the menu bar, there are three tabs: 'Instrument Inventory', 'Calibrations', and 'Supplements'. The 'Supplements' tab is active. It contains a form with the following fields:

- Type of supplement: A dropdown menu with 'Repair' selected.
- Repair No.: A text box with '1'.
- Inventory serial No.: A text box with '1'.
- Date: A text box with '5.2.2002'.
- Current time: A text box with '5.2.2002 7:55:08'.
- Comment: A text box.

Below the form, there is a 'Content' section with a text area containing the following text:

```
Failure on current ranges. Meter doesn't measure.
Fail internal fuse 30A.
Fuse was exchanged. New calibration done.
```

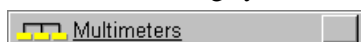
There are 'Import' and 'Export' buttons to the right of the text area. At the bottom of the window, there is a toolbar with various icons, including a 'Preview' button, a '1 record' checkbox, a 'List' checkbox, and 'Browse' and 'Close' buttons.

Supplements allow you to enter other items to an inventory record. Each supplement is always related to an inventory record. Further, supplements are classified by so-called types of supplements. The number of types is practically unlimited. Two types of supplements are pre-defined: repair and standard data. For example, if you need to enter a new repair, an inventory record to which the repair appertains is selected (in the Inventory record bookmark), in the Supplements bookmark a type of supplement is selected and the repair can be entered. If you need to create a new supplement, you must activate the Types of supplements button from the main menu (only enabled for users with the highest access level).

You can only view supplements of a single inventory record (instrument) – implicitly, or you can switch this filter off. A button with the following symbol, located in the upper right corner of the form, enables this option:



Furthermore, users with access to all groups of instruments can switch off a filter for a group of instruments and thereafter view supplements from all groups of instruments. A button with the following symbol, located in the upper part of the form, enables this option:



Supplements contain the following items:

1. **Type of supplement** is a codebook, which content should represent the character of a supplement. The “Repair” and “Standard data” supplements are implicitly stored in the database.

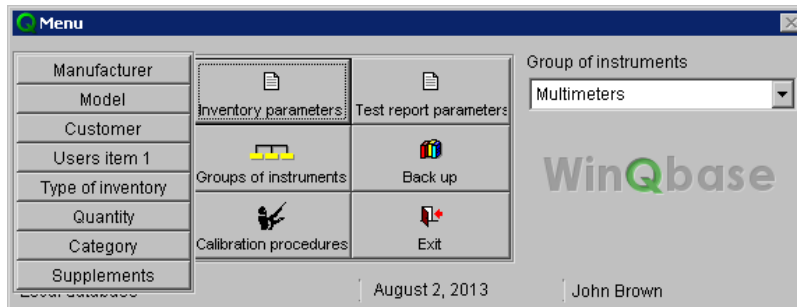
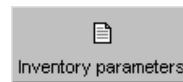
2. **Supplement No.** is assigned to individual supplements by the computer. The user cannot interfere in this numbering. The numbers do not have to form a consecutive sequence.
3. **Inventory serial No.** is assigned to individual repairs by the computer. This item refers to an inventory record to which the given supplement is assigned. The user cannot change this number.
4. **Current time** contains information about the time and date of entry in the database. Computer determines this item and the user cannot change it.
5. **Date** is set by the computer according to the current date; the user cannot change this date.
6. **Comments** are an item containing 20 characters. The user can choose the meaning of this field except for standard data, where a standard name must be entered under which this standard will then be accessible in calibration programs. This item is optional.
7. **Content** is a text or a binary item of unlimited length. For repairs a repair description is stated here, and for standard data the standard calibration data. You can also import to this field using the import button. This item is optional.

To enter a new supplement to an inventory record, press the '+' button. Supplements database has no history; therefore changes made here cannot be traced. If the selected type of supplement is "Standard data", no changes can be made. When you change standard calibration data, you must create a new "Standard data" record. In such cases calibration programs always use current (latest) data.

Printing a supplement

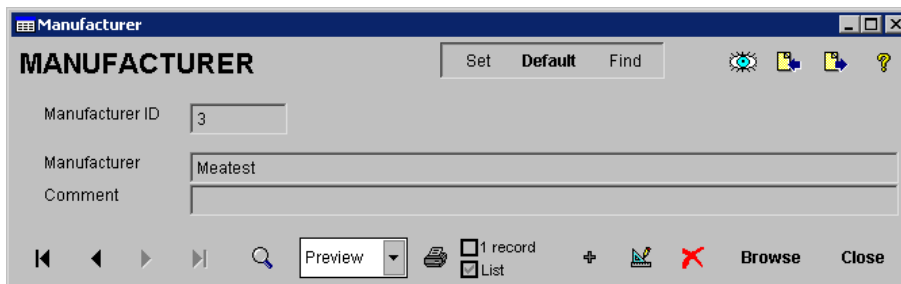
The program allows you to print a supplement in its full version (with the supplement description) or by lines, where all selected supplements are printed. Each type of supplements has separate reports.

2.2 Inventory record parameters



This function allows you to set codebooks for inventory records. Codebooks are separate databases containing, for example, names of all instrument manufacturers. Codebooks are common for all groups of instruments. You can extend a codebook to another item either using the “Inventory record parameters” option, or directly when entering a new inventory record. You can delete codebook items as well. Nevertheless, only on condition that this item is not used in any calibration record. The following codebooks refer to inventory records:

- 1. Manufacturer** database of instrument manufacturers. Press the “List” key to display a



database of manufacturers in line display. Most lists order records automatically in

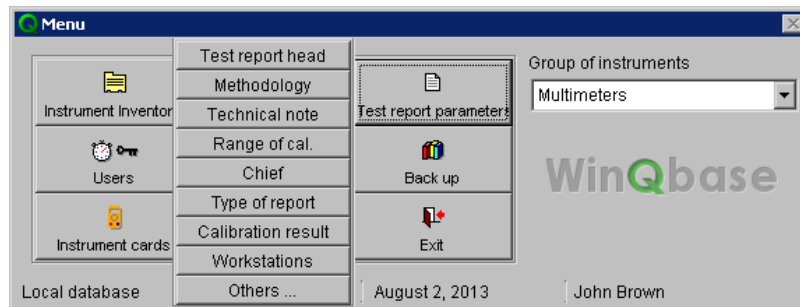
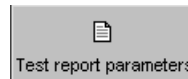
[illegible]

alphabetical order. Use the “Close” key to switch to the main menu. You can hide any records and set any record as default. You can find a record set as default any time using the “Find” button.

2. **Type of instrument** a database of types of instruments. You can hide any records and set any record as default.
3. **Customer** a database of customers. It contains information about the instrument owner. You can hide any records and set any record as default.
4. **User's item 1** a database by the user's choice. The user can choose the function and the name of this item (for example differentiate instruments by application sphere; he can then determine it by this function in a test report). You can hide any records and set any record as default.

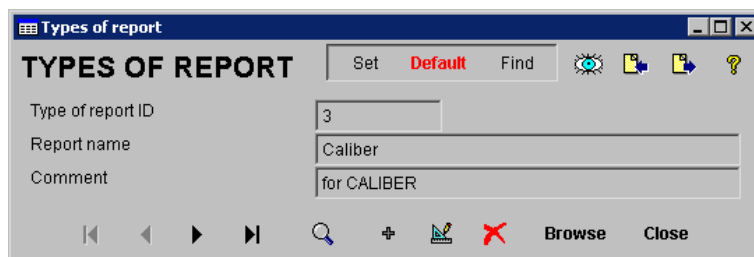
5. **Type of inventory** a database of types of inventory records. Pre-defined types are “Internal”, “External” and “Calibrating”. However, you can enter other types of inventory records. You can hide any records and set any record as default.
6. **Quantity** a database of places executing calibrations of instruments (laboratories). For example electric, magnetic, longitudinal etc. You can hide any records and set any record as default.
7. **Category** a database of instrument characters (informative, working standard etc.). You can hide any records and set any record as default.
8. **Supplements** list of supplements for inventory record. Supplements are used as additional information. By default there are two types of supplements: repair and standard data.

2.3 Test report parameters



Use this function to setup codebooks for calibration records. Codebooks are common for all groups of instruments. If you wish to extend a codebook to another item, you can do it either directly at a new calibration or using the “Calibration parameters” option. You can also delete items from codebooks. Nevertheless, only on condition that this item is not used in any calibration record. To calibration records refer the following codebooks:

1. **Test report head** database of test report heads. It usually includes the calibrating laboratory name and address. A new test report automatically uses the head from the previous test report. The head consists of three lines, which are placed to the appropriate place in the test report and centered. You can also use a figure as head by placing an OLE object – such as .DOC document if you have the Microsoft Word application installed. You can hide any records and set any record as default.
2. **Methodology** contains information about used calibration procedure. On a calibration report this item is used as “Calibration procedure”. You can hide any records and set any record as default.
3. **Technical note** is used on a preset calibration report as “Measuring conditions”. You can hide any records and set any record as default.
4. **Range of cal.** determines, which parameters are the subject of calibration for the given instrument. For example AC/DC voltage, AC/DC current and other. This item is not used on the preset report, however you can add it. You can hide any records and set any record as default.
5. **Chief** shows the name of the worker responsible for laboratory operation. You can hide any records and set any record as default.
6. **Type of report** differentiates a type of report, which will be used when printing calibration. When installed, this codebook contains “One page cert” – single-page calibration, “More pages cert” – multipage calibration and “Caliber” – multipage calibration made by CALIBER software. You can extend it to other types if needed. You can hide any records and set any record as default.

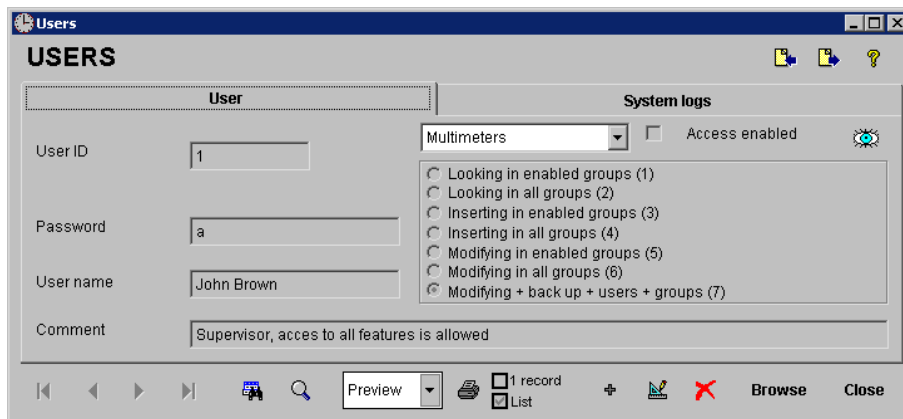


7. **Calibration result** differentiates possible results of calibration. When installed, this

codebook contains the “Pass”, “Pass except points” and “Not pass” items. Into these three categories the program automatically places calibrations executed by computer based on the calibration procedure. If all checked points are correct, the calibration result is “Pass”, if all points are out of allowed tolerance, the result is “Not pass”. If a checked instrument only has some points out of tolerance, the calibration result is “Pass except points” and this text is on the first report page complemented by “Marked as ...”, where symbols used for marking points out of tolerance are specified. Usually, points out of allowed tolerances are marked by the ‘*’ symbol and points within deviation allowed +/- uncertainty are marked by the ‘?’ symbol. However, the user can change these symbols in measuring programs. You can hide any records and set any record as default.

8. **Workstations** are used for individual calibration stations identification. Stations may be 0 ... 9 and this number is a part of calibration numbering system. It is primarily used to refer to the database. Basic shared database should be set to 0 station - all computers that will be sharing this database will use 0 External database, eg laptop used for external calibrations creating that contains its own local database will be set to some higher position. Numbering calibration will not interfere with each other and will be able to import calibrations from external databases into a central database while maintaining data. Workstation number can also be used to distinguish individual workstations within a single database. In this case workstation can be identified according to the calibration number.
9. **Others** allows to set the number of lines on one side of the calibration reports. This setting is only for older protocols established programs (MEAC, MEAC, MEACW). This setting is not important for the CALIBER software.

2.4 Users



This function is accessible only for users with the highest access level (level 7 – see below). Use it to set access rights for individual program users or authors of calibrations. Concurrently, it keeps a record of program usage. It records who and when worked with this program.

Each user can have access rights of level one through seven assigned:

1. Viewing inventory records in specific groups of instruments. Each group to be accessible for a user must be marked in the “Access allowed” field.
2. Viewing inventory records in all groups of instruments.
3. Inserting new inventory records and creating test reports in specific groups of instruments. Each group to be accessible for a user must be marked in the “Access allowed” field.
4. Inserting new inventory records and creating test reports in all groups of instruments.
5. Modifying inventory records and test reports in specific groups of instruments. Each group to be accessible for a user must be marked in the “Access allowed” field.
6. Modifying inventory records and test reports in all groups of instruments.
7. Same as 6 plus data back up, user checks and creating new groups of instruments.

To enter a new user into inventory, use the ‘+’ button for entering new records. Set the “Password” and “User Name”. If a user only has the right to work in specified groups of instruments, do not forget to set up access rights for these groups. If you do not enter a password for a user, he will not have access to the database and his name can only be used as “Author”.

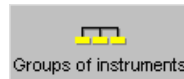
The “USERS” function also includes an System logs file. Here you can trace who and when used this program. At each startup the program records the time and password using which it was launched, and at shutdown it records time of exit. If time of exit is missing for some items, it was caused by illegal shutdown (for example, the computer was switched off while the program was running).

List of users or System logs can be printed on a printer.

The image shows a screenshot of the 'Users' window in WinQbase 3.08. The window has a title bar with the text 'Users' and standard window controls. Below the title bar, the word 'USERS' is displayed in a large, bold font. To the right of 'USERS' are three small icons: a yellow folder, a blue folder, and a yellow question mark. The main area of the window is divided into two tabs: 'User' and 'System logs'. The 'User' tab is currently selected. Below the tabs, there are four input fields with labels to their left: 'Access ID' with the value '10', 'Log in time' with the value '2.8.2013 12:48:17', 'Log out time' with the value '...', and 'User name' with the value 'John Brown'. At the bottom of the window is a toolbar containing several icons: a left arrow, a right arrow, a magnifying glass, a 'Preview' button with a dropdown arrow, a printer icon, a checkbox labeled '1 record' which is unchecked, a checkbox labeled 'List' which is checked, a plus sign, a minus sign, and a close icon. To the right of the toolbar are the buttons 'Browse' and 'Close'.

User		System logs	
Access ID	10		
Log in time	2.8.2013 12:48:17		
Log out time	...		
User name	John Brown		

2.5 Groups of instruments



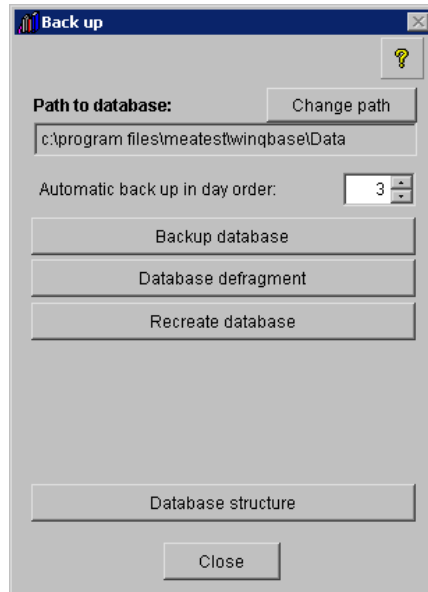
This function is accessible only for users with the highest access level (level 7 – see below). Use it to create new groups of instruments and alternatively management of existing groups. Each group of instruments has the following items:

1. **Group of instruments** contains the name of the given group. For example Multimeters, Wattmeters, Manometers, Weights up to 20kg etc.
2. **Units** contain the name of units used for this group of instruments. The unit name is important if you create methodologies using a universal program GPSU. If you have special equipment for the given group of instruments (such as P1106 – Multimeter calibrations, P1026 – Wattmeter calibrations etc.), the unit name is not important.
3. **Function** contains an abbreviation of the name of quantity, which this group uses for measuring. For example V-DC, WEIG, PRESS etc. Like for “Units”, the “Function” name is only important if you use the GPSU program.
4. **Comment** any text relating to the given group of instruments.
5. **Procedure generator** shows the name of a program that launches WinQbase when you wish to generate a new measuring methodology for the given group of instruments. If WinQbase is delivered together with calibration module CALIBER for calibration of multimeters, this program will be prior offered. Confirm it if you don't use any of older programs like GPSA or GPSU.
6. **Calibration engine** is the name of a program that launches the WinQbase program when you wish to execute a calibration of an instrument. Again confirm offered CALIBER software.

2.6 Backup



This function is only available for users with the highest access level (level 7 – see chapter 2.4.). It enables recovery or backup of data managed by the WinQbase program.



Backup database

This function is launched automatically after predefined time period (in days) when the last user logs out. Automatic backup file is stored alternatively into two subdirectories ARCHIVE1 and ARCHIVE2. These subdirectories are located in the DATA database directory on a server. Backup file in these subdirectories is named “Qbase. pck”. It is recommended to set a number of days for automatic backup higher than zero.

Apart from automatic backup, you can also backup your data by pressing the “Backup database” button. Nevertheless, only on condition that no other users are logged on. This option allows you to backup directly on a selected media (external disk, CD ROM and other). Here backup files are also named “Qbase. pck”.

Database defragment

Database defragmentation removes all deleted records, executes conversion of the database checking all records and redefines all table indexes. It is recommended to backup the database before its defragmentation. Defragmentation is only possible if no user is logged on to the database.

Recreate database

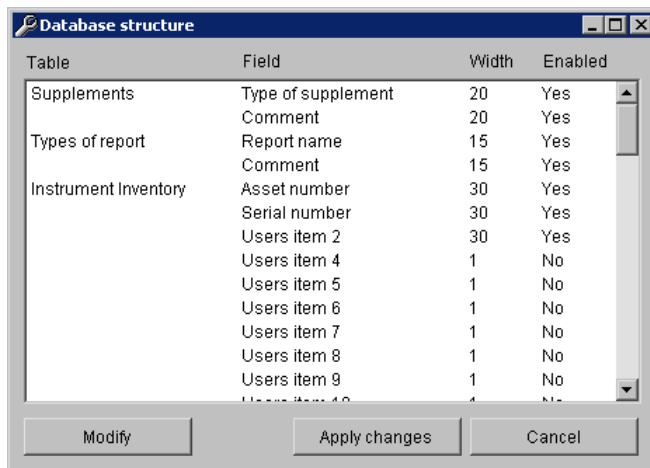
Database recreation is initiated when you press the “Recreate database” button and it is only possible if no users are logged on to the database. If the WinQbase program is running on another computer, the “Database in use!” message is displayed and it is not possible to recreate the data. If the database is not being used, its recreation is executed from a selected media or directory.

Change path

When you press this button, the path to a shared database is changed. You must close and start the program again. The program asks for the new path. This path will also be used automatically for data backup and database backup will be created here.

Database structure

This button activates the panel where can be changed features of individual database fields. It is possible to change the width of the text fields, name of user items and enable/disable user items.



Modify – displays editing panel for the currently selected field.

Apply changes - all changes will be saved. In case that width of any field has been changed, new width is used after database defragmentation (Backup → Database defragment).

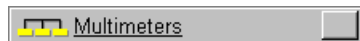
Cancel - the changes will be discarded.

2.7 Calibration procedures



This function manages a database of calibration procedures. It is possible to create new calibration procedures, import and export calibration procedures and modify them (depending on the access level assigned in this program). It is also possible to delete a calibration procedure from the database, if it is not used for any calibration.

Users with access to all groups of instruments can switch off a filter for the Group of instruments and consecutively view all calibration procedures in the database. A button with the following symbol, located in the upper part of the form, enables this option:



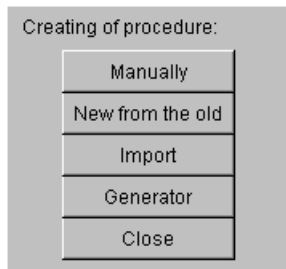
In the database of calibration procedures you can find the following items:

1. **Calibration procedure ID** displays the identification number of a calibration procedure (for internal purposes of WinQbase). The user cannot change this number.
2. **Procedure name** displays the name of a calibration procedure. Calibration procedure is selected according to this name. The user cannot change the name of calibration procedure. The only option is to create a copy of calibration procedure with a new name.
3. **Author** contains the name of the user who created the calibration procedure. The program assigns this name automatically (according to the password entered at logon).
4. **Date** contains the date on which a calibration procedure was loaded to the database. The program assigns the date automatically.
5. **Procedure** displays basic information about the procedure.
6. **Comment** serves for better orientation only. It can contain any text.
7. **Export** is provided for creating a file containing the selected calibration procedure in a text format. Calibration procedures created by CALIBER software have “pre” extension. These procedures can be imported into another WinQbase system and also to an independent Caliber installation.

Creating calibration procedures

When you press the '+' button, the program offers you several methods of creating a calibration procedure.

You can choose from the following methods of creating a calibration procedure:



1. **Manually** creates a new calibration procedure in such a way that you write the given calibration procedure directly in the "Procedure" window. Nevertheless, for this method you need to know command syntaxes impeccably. For that reason it is useful for experienced programmers an older procedures (Meaca, Meacu). This method cannot be used for CALIBER procedures.
2. **New from the old** allows you to copy an existing calibration procedure to a new file, to which you then assign a new name. This function is useful if you have a calibration procedure created for a similar instrument. You can then modify the newly created calibration procedure.
3. **Import** imports CALIBER procedures in "pre" format and also older procedures in "riz" format. For older procedures WinQbase offers automatic conversion of the code page.
4. **Generator** creates a calibration procedure using a program in an interactive way. WinQbase uses a program whose name is written in the "GROUPS OF INSTRUMENTS" database in the "Procedure generator" item. Mostly it will be the CALIBER software. You can find detailed descriptions of these programs in their user's manuals.

Newly created calibration procedure can be saved into the database or can be cancelled.

Printing calibration procedures

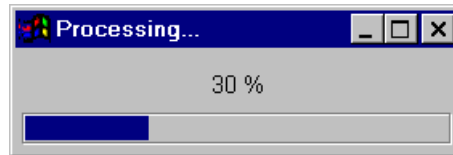
The program allows you to print calibration procedures in their full versions or by lines. You can select records using filter conditions.

2.8 Exit



This function serves for a legal termination of the WinQbase program. When you close the database, automatic backup is executed, provided that all necessary requirements are met (no user is logged on, the predetermined number of days have passed).

Database backup:



2.9 Help

The program is provided with a help system. It provides very brief help on the bottom line (it describes the current object here). Furthermore, it displays help when you point the mouse cursor to some objects. You can switch this short help in the “Help” menu using the “Show tips” item. Full help is provided when you press the <F1> key. You can cancel display of help using the ESC button.

3. PROGRAM FUNCTIONS

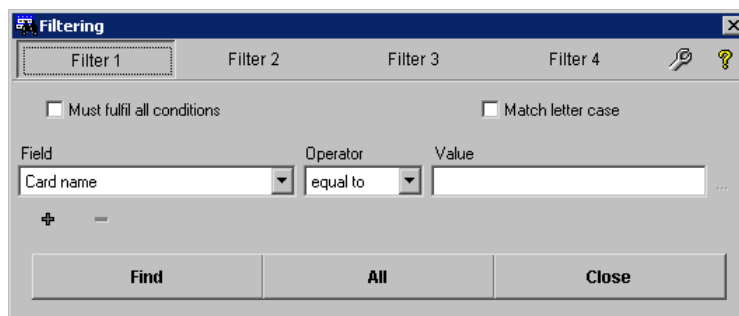
Following functions can be used on most program panels and are accessible after activation appropriate program button.

3.1 Filter



It is possible to find required records using the Filter function. Only filtered records are displayed in all views. All other records are hidden. Filtered records can be browsed, printed or exported. It is possible also to use Search function among filtered records.

Filtering panel is displayed after pressing Filter button. All Filter options must be set on this panel. Records are filtered until new filter conditions are set or filter is deactivated.



Filter 1...4 – there are four independent filters. Each filter remembers its own settings. The first step is to select one of these filters. All other settings will be applied to the currently selected filter.

Filter Settings – sets the label (name) for the selected filter.

Help – displays help for the current panel

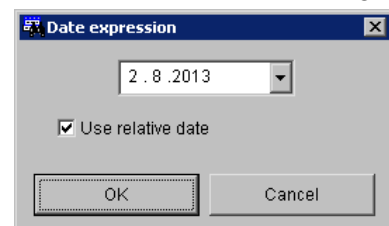
Must fulfil all conditions – if this box is checked all filter conditions must be valid together to select a record (logical AND). Otherwise any filter condition must be valid to select a record (logical OR).

Match letter case – filter is case sensitive if checked

Field – a table field that is the subject of filtering. The menu displays all fields valid for the active window.

Operator – logical filter condition (is smaller between, equal, etc.). It also contains a function that can detect part of the whole text (e.g. M 3 - finds all items containing M3 - M 3800, M 3850). NULL condition means that the item has never been entered (in the windows indicates the character '-').

Value – value for the filter logical condition. Some values are entered from related codebook.



It depends on selected Field. Date can be entered using special panel. Date can be automatically adjusted (relative to the actual date) if Use relative date is active. It can be useful for the future use of the same filter.

Add field – adds another line to the filter conditions. It is possible to use up to 10 lines.

Remove field – removes the last row from filter conditions.

Find – activates filter according to selected conditions. Program displays warning message if no record is found. Filter conditions must be changed in this case.

All – selects all records (last selected filter is cancelled). However records can be still filtered by:

Group of instruments selection (registration certificates, calibration accessories, control files)

Inventory record selection (calibration, and accessories)

Hide records selection (all)

Hide history selection (record sheets, calibration)

Close – reverts changes in selected filter and leaves the Filter panel.

3.2 Search



It is possible to find individual record using the Search function. Item is searched among the filtered items only. If the program finds a match, displays found record and identifies the field where the searched expression was located. Search algorithm is smart and if you write more words separated by spaces, all sentences containing these words will be found. Search is not case sensitive.



Search history records – also historical records (inventory and calibration) will be searched if checked.

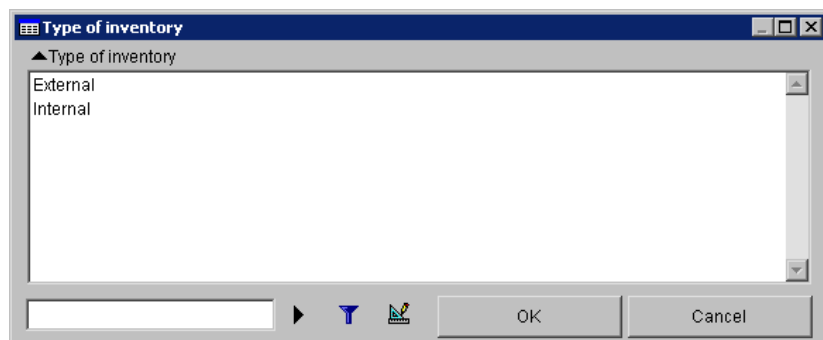
Find – starts searching

Cancel – close the Search panel

3.3 Codebooks




Codebook is a pre-set list of items. Codebooks are mainly used in Instrument inventory and Calibration certificates for items that are repeatedly used. Required value is then selected from the list (codebook) and it is not necessary to repeatedly enter the same value. Codebook panel can be accessed during modification of Instrument inventory or Calibration certificate, but also during preparing filter conditions. Following panel is displayed:





Name of the codebook is displayed in the title bar. List of available items is in the middle panel. Lower side contains search field and following buttons:

Sort – sorts items in ascending or descending order. key is pressed again in alphabetical

order. If the list has more columns, you can also choose according to which column the sort to perform.

Find Next  – finds the next search item on the list. Search algorithm is smart and if you write more words separated by spaces, , all sentences containing these words will be found. Search is not case sensitive.

Show only filtered items  – this function can reduce the list of items using the filter. If the filter is active list of items is reduced by the specified expression. If the filter is not active, item can be traced using "Find Next" button. If the expression is not specified than the list is not reduced.


Go into edit mode  – changes the type of codebook panel. It is possible to edit records in this panel. This function is not available from the "Filter condition panel".

OK - applies selected item from the list and closes the panel.

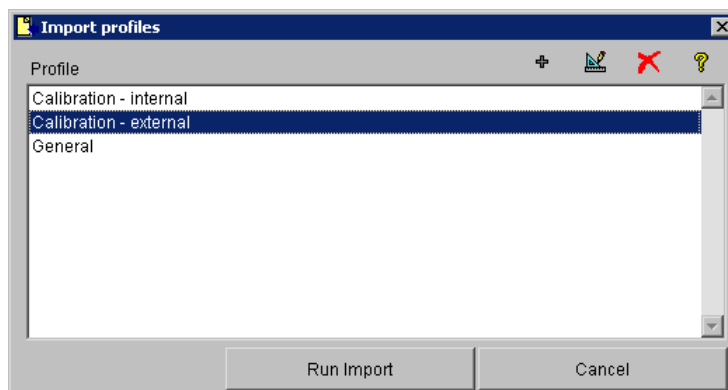
Cancel – closes the panel and no item is selected.

3.4 Importing XML records


The program supports importing records in XML protocol. The import function is available on most windows and is activated by pressing:


Import  - imports records from an XML file.


The first step is to select the desired panel (for example Calibration panel for calibration certificates importing). The second step is to press Import button. The program will ask for the imported XML file, checks if the file actually contained Calibration certificate and displays the "Import profiles" panel. Profiles are used to facilitate the import and store all the necessary import settings.



Add Profile  – adds new profile to the list.

Edit Profile  – edits selected profile.

Delete Profile  – deletes selected profile.

Help  – displays help for the current panel.

Run Import – starts the import with currently selected profile.

Run Import – cancels the import.

Panel contains a list of all profiles. There are three profiles by default. These profiles can be changed or next profiles can be added.

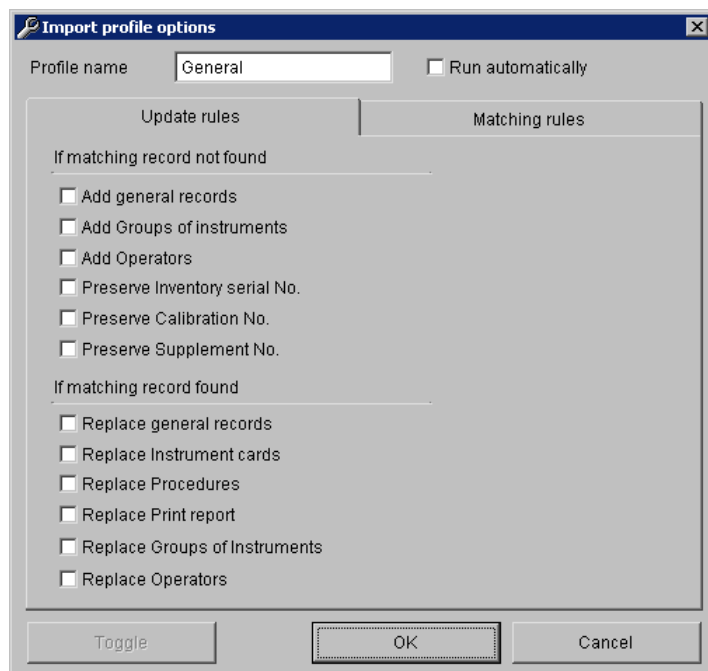
Calibration internal - this is the profile for a calibration certificate import. This profile is used if data are imported between two databases with the same structure (homogenous databases import). For example calibration made outside on notebook with the same database. Notebook must have a different number than the central station database, to avoid collision calibration numbers that each station generates separately. Import will be performed only if the central database doesn't contain calibration with the same number.

Calibration external - this is also the profile for a calibration certificate import. This profile is used if data are imported between two different databases. Program checks if this calibration certificate hasn't been imported. Number of the calibration certificate is created by the central database.

General - generic profile for all other imports.

Note: All profiles are exemplary. It is recommended to make database backup before the import.

Import profile options



Profile name – name of the selected profile

Run automatically – import is running automatically when activated. User is informed about discrepancies only.

Update rules – this tab enables/disables actions during automatically running import (default rule is indicated by green stripe in case of manual import).

If matching record not found

Add general records – enables adding of a new record except for the following:

Add Groups of instruments – enables adding of a new Group of instruments

Add Operators – enables adding of a new Operator

Preserve Inventory serial No. – Inventory serial No. from the imported file is used. If the box is not checked, new serial number is created.

Preserve Calibration No. – Calibration No. from the imported file is used.

Preserve Supplement No. – Supplement No. from the imported file is used.

If matching record found

Replace general records – existing record is replaced by imported record except for the following:

Replace Instrument cards – instrument cards with the same name will be replaced. Instrument cards are a part of XML calibration certificate. It is important to note that instrument cards can be overwritten when you import a calibration certificate.

Replace Procedures – procedures with the same name will be replaced. Procedure is a part of XML calibration certificate. It is important to note that procedure can be overwritten when you import a calibration certificate.

Replace Print report – print reports with the same name will be replaced. Print report is a part of XML calibration certificate. It is important to note that print report can be overwritten when you import a calibration certificate.

Replace Groups of instruments – groups of instruments with the same name will be replaced.

Replace Operators – operators with the same name will be replaced.

Matching rules – this tab defines rules how to identify identical records - record in the database and imported record. Record is evaluated as identical if all active conditions are met.

Toggle – button enables/disables selected matching rule. Button is active in the "Matching rules" tab only.

OK - applies changes in matching rules.

Cancel – closes the panel without changes.

New records are added into the database during the import. Some records can be overwritten according to the import rules above. Import is processed from child tables and codebooks until the main table. The imported XML file can contain more records (eg Instrument inventories) and the above procedure is repeated for each such entry. If the import is not running in automatic mode or if any discrepancy is found during the import, a dialog box "Import Record" is displayed. This box helps to find a solution.

Field	New record	Current record
Manufacturer	Metex	METEX
Comment		Korea maker
Hidden	False	False

Buttons: Add as new record, Replace existing record, Use existing record, Run automatically, Stop Import

Table – information window in the top part displays imported record. Table is displayed in the hierarchical structure (including the parent table). Current imported table is the last name in the structure.

Field – displays important fields from imported table. Symbol ! indicates a difference between the database and imported field.

New record – value of the field from imported XML file.

Current record – value of the field in the database. This column is displayed only if the same record (according to the rules in import profile) has been found. There is a button ... above

the column that can be used for selection existing database record. This record will be overwritten after pressing “Replace existing record” button.

Add as new record – imported record is added to the database as a new record. Record in the database remains unchanged.

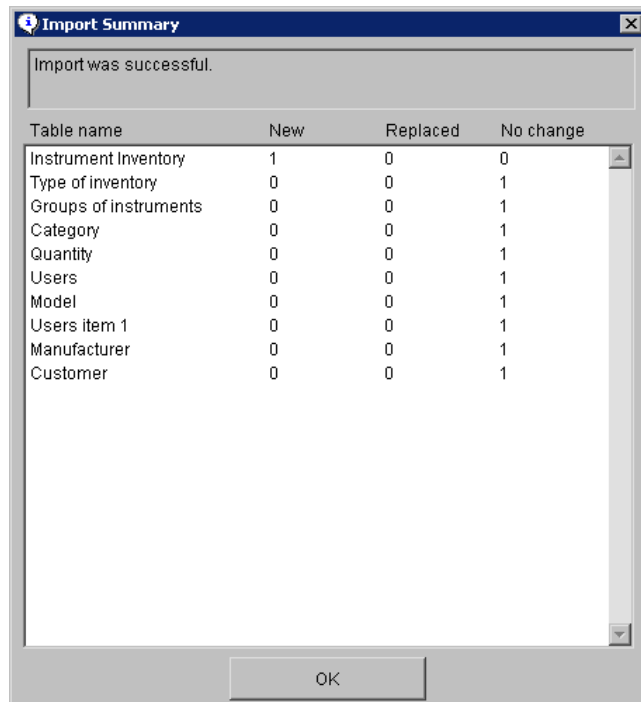
Replace existing record – imported record overwrites the database record (right column overwrites middle column).

Use existing record – record is not imported. Database remains unchanged.

Run automatically – import will continue in automatic mode. Dialog panel is displayed only if necessary.

Stop import – stops the import. No other record will be imported, but all previous imports remain in force.


There is displayed summary window in the end of the import:



Status of import is displayed in the top of the window. Below is a list of all imported tables with information how many tables were new, overwritten or kept.

3.4 Exporting XML records

The program supports exporting records in XML protocol. The advantage of this export is that output file contains complete formatted information from the database. The export function is available on most windows and is activated by pressing:

Export  - exports records into an XML file.

The first step is to select the desired panel (for example Calibration panel for calibration certificates exporting). The second step is to press Export button. The program displays “Export options” panel:



Export options – displays selection how many records will be exported.

Actual record – only actual report will be exported

All filtered records – all records will be exported (number can be limited by the filter)

OK – starts the export.

Cancel – cancels the export.

Note: If exported record contains a codebook (child table), the codebook is exported along with the record. E.g. there are exported “Instrument inventory”, “Procedure”, “Instrument cards”, “Print report” and all child codebooks together with the “Calibration” record. Calibration record couldn’t be rebuilt without these additional tables.

Export of calibration certificate contains following tags:

<calibration> - identification of the calibration certificate	
<cal_id>	Calibration → Calibration ID
<cal_number>	Calibration → Calibration No.
<cal_inventoryid>	Calibration → Inventory ID
<cal_inventorynumber>	Calibration → Inventory serial No.
<cal_version>	Calibration → Version
<cal_date>	Calibration → Date of calibration
<cal_received/>	Calibration → Date received
<cal_temperature>	Calibration → Temperature
<cal_humidity>	Calibration → Humidity
<cal_period>	Calibration → Calibration period
<cal_verifyto>	Calibration → Verify to
<cal_note/>	Calibration → Comment
<cal_protocol>	Calibration → Test report
<cal_history>	Calibration → History
<cal_hide>	Calibration → Hide record
<cal_user3>	Calibration → Users item 3
<cal_pro_name>	Calibration → Procedures → Name
<cal_pro_date>	Calibration → Procedures → Date
<cal_pro_note>	Calibration → Procedures → Comment
<cal_pro_content>	Calibration → Procedures → Procedure
<cal_pro_hide>	Calibration → Procedures → Hide record
<cal_pro_gro_name>	Calibration → Procedures → Groups of instruments → Name

<cal_pro_gro_unit>	Calibration → Procedures → Groups of instruments → Units
<cal_pro_gro_function>	Calibration → Procedures → Groups of instruments → Function
<cal_pro_gro_note>	Calibration → Procedures → Groups of instruments → Comment
<cal_pro_gro_generator>	Calibration → Procedures → Groups of instruments → Generator
<cal_pro_gro_engine>	Calibration → Procedures → Groups of instruments → Engine
<cal_pro_gro_hide>	Calibration → Procedures → Groups of instruments → Hide
<cal_pro_ope_name>	Calibration → Procedures → Author (Users) → Name
<cal_pro_ope_note>	Calibration → Procedures → Author (Users) → Comment
<cal_pro_ope_hide>	Calibration → Procedures → Author (Users) → Hide
<cal_tec_line1>	Calibration → Technical note → First item
<cal_tec_line2>	Calibration → Technical note → Second item
<cal_tec_line3>	Calibration → Technical note → Third item
<cal_tec_line4>	Calibration → Technical note → Fourth item
<cal_tec_line5>	Calibration → Technical note → Fifth item
<cal_tec_hide>	Calibration → Technical note → Hide
<cal_res_name>	Calibration → Calibration result → Calibration result
<cal_per_name>	Calibration → Calibrating person (Users) → Name
<cal_per_note/>	Calibration → Calibrating person (Users) → Comment
<cal_per_hide>	Calibration → Calibrating person (Users) → Hide
<cal_ran_line1>	Calibration → Range of cal. → First item
<cal_ran_line2>	Calibration → Range of cal. → Second item
<cal_ran_line3>	Calibration → Range of cal. → Third item
<cal_ran_line4>	Calibration → Range of cal. → Fourth item
<cal_ran_hide>	Calibration → Range of cal. → Hide
<cal_rep_name>	Calibration → Report name → Name
<cal_rep_note>	Calibration → Report name → Comment
<cal_rep_hide>	Calibration → Report name → Hide
<cal_rep_pri_file>	Calibration → Report name → Print table → File
<cal_rep_pri_frxx>	Calibration → Report name → Print table → Frx
<cal_rep_pri_frt>	Calibration → Report name → Print table → Frt
<cal_hea_line1>	Calibration → Test report head → First item
<cal_hea_line2>	Calibration → Test report head → Second item
<cal_hea_line3>	Calibration → Test report head → Third item
<cal_hea_hide>	Calibration → Test report head → Hide
<cal_chi_name>	Calibration → Chief → Name
<cal_chi_hide>	Calibration → Chief → Hide
<cal_met_line1>	Calibration → Methodology → First item
<cal_met_line2>	Calibration → Methodology → Second item
<cal_met_line3>	Calibration → Methodology → Third item
<cal_met_line4>	Calibration → Methodology → Fourth item
<cal_met_hide>	Calibration → Methodology → Hide
<cal_inv_id>	Calibration → Instrument inventory → Inventory ID
<cal_inv_number>	Calibration → Inst. Inv. → Inventory serial No.
<cal_inv_version>	Calibration → Inst. Inv. → Version
<cal_inv_founded>	Calibration → Inst. Inv. → First recorded on
<cal_inv_assetnumber>	Calibration → Inst. Inv. → Asset number
<cal_inv_price>	Calibration → Inst. Inv. → Price
<cal_inv_serialnumber>	Calibration → Inst. Inv. → Serial number
<cal_inv_activated>	Calibration → Inst. Inv. → Activated on
<cal_inv_discarded>	Calibration → Inst. Inv. → Discarded on
<cal_inv_document>	Calibration → Inst. Inv. → Documentation
<cal_inv_specification>	Calibration → Inst. Inv. → Specification
<cal_inv_traceability>	Calibration → Inst. Inv. → Traceability to
<cal_inv_note>	Calibration → Inst. Inv. → Comment
<cal_inv_history>	Calibration → Inst. Inv. → History
<cal_inv_hide>	Calibration → Inst. Inv. → Hide
<cal_inv_user2>	Calibration → Inst. Inv. → User item 2

<cal_inv_gro_name>	Calibration → Inst. Inv. → Groups of instruments → Name
<cal_inv_gro_unit/>	Calibration → Inst. Inv. → Groups of instruments → Unit
<cal_inv_gro_function/>	Calibration → Inst. Inv. → Groups of instruments → Function
<cal_inv_gro_note/>	Calibration → Inst. Inv. → Groups of instruments → Comment
<cal_inv_gro_generator>	Calibration → Inst. Inv. → Groups of instruments → Generator
<cal_inv_gro_engine>	Calibration → Inst. Inv. → Groups of instruments → Engine
<cal_inv_gro_hide>	Calibration → Inst. Inv. → Groups of instruments → Hide
<cal_inv_man_name>	Calibration → Inst. Inv. → Manufacturer → Name
<cal_inv_man_note>	Calibration → Inst. Inv. → Manufacturer → Comment
<cal_inv_man_hide>	Calibration → Inst. Inv. → Manufacturer → Hide
<cal_inv_cus_name>	Calibration → Inst. Inv. → Customer → Name
<cal_inv_cus_company>	Calibration → Inst. Inv. → Customer → Company
<cal_inv_cus_city>	Calibration → Inst. Inv. → Customer → City
<cal_inv_cus_street>	Calibration → Inst. Inv. → Customer → Street
<cal_inv_cus_zip>	Calibration → Inst. Inv. → Customer → ZIP
<cal_inv_cus_phone>	Calibration → Inst. Inv. → Customer → Phone
<cal_inv_cus_note>	Calibration → Inst. Inv. → Customer → Comment
<cal_inv_cus_hide>	Calibration → Inst. Inv. → Customer → Hide
<cal_inv_mod_name>	Calibration → Inst. Inv. → Model → Name (Model)
<cal_inv_mod_note>	Calibration → Inst. Inv. → Model → Comment
<cal_inv_mod_hide>	Calibration → Inst. Inv. → Model → Hide
<cal_inv_ity_name>	Calibration → Inst. Inv. → Type of inventory → Name (Type)
<cal_inv_ity_hide>	Calibration → Inst. Inv. → Type of inventory → Hide
<cal_inv_ope_name>	Calibration → Inst. Inv. → Author (Users) → Name
<cal_inv_ope_note>	Calibration → Inst. Inv. → Author (Users) → Comment
<cal_inv_ope_hide>	Calibration → Inst. Inv. → Author (Users) → Hide
<cal_inv_use_name>	Calibration → Inst. Inv. → User item 1 → Name
<cal_inv_use_note>	Calibration → Inst. Inv. → User item 1 → Comment
<cal_inv_use_hide>	Calibration → Inst. Inv. → User item 1 → Hide
<cal_inv_qua_name>	Calibration → Inst. Inv. → Quantity → Name
<cal_inv_qua_hide>	Calibration → Inst. Inv. → Quantity → Hide
<cal_inv_cat_name>	Calibration → Inst. Inv. → Category → Name
<cal_inv_cat_hide>	Calibration → Inst. Inv. → Category → Hide
<cal_ope_name>	Calibration → Inst. Inv. → Author (Users) → Name
<cal_ope_note>	Calibration → Inst. Inv. → Author (Users) → Comment
<cal_ope_hide>	Calibration → Inst. Inv. → Author (Users) → Hide
<cal_inv_user4>	Calibration → Inst. Inv. → User item 4 (if enabled)
<cal_inv_user5>	Calibration → Inst. Inv. → User item 5 (if enabled)
<cal_inv_user6>	Calibration → Inst. Inv. → User item 6 (if enabled)
<cal_inv_user7>	Calibration → Inst. Inv. → User item 7 (if enabled)
<cal_inv_user8>	Calibration → Inst. Inv. → User item 8 (if enabled)
<cal_inv_user9>	Calibration → Inst. Inv. → User item 9 (if enabled)
<cal_inv_user10>	Calibration → Inst. Inv. → User item 10 (if enabled)
<cal_inv_user11>	Calibration → Inst. Inv. → User item 11 (if enabled)
<cal_user12>	Calibration → User item 12 (if enabled)
<cal_user13>	Calibration → User item 13 (if enabled)
<cal_user14>	Calibration → User item 14 (if enabled)
<cal_user15>	Calibration → User item 15 (if enabled)
<cal_user16>	Calibration → User item 16 (if enabled)
<cal_user17>	Calibration → User item 17 (if enabled)
<cal_user18>	Calibration → User item 18 (if enabled)
<cal_user19>	Calibration → User item 19 (if enabled)
<cal_user20>	Calibration → User item 20 (if enabled)
< / calibration >	

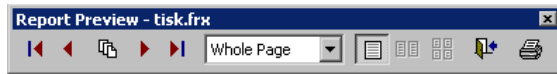
Export of instrument inventory contains following tags:

<inventory> - identification of the instrument inventory	
<inv_id>	Instrument inventory → Inventory ID
<inv_number>	Inst. Inv. → Inventory serial No.
<inv_version>	Inst. Inv. → Version
<inv_founded>	Inst. Inv. → First recorded on
<inv_assetnumber>	Inst. Inv. → Asset number
<inv_price>	Inst. Inv. → Price
<inv_serialnumber>	Inst. Inv. → Serial number
<inv_activated>	Inst. Inv. → Activated on
<inv_discarded>	Inst. Inv. → Discarded on
<inv_document>	Inst. Inv. → Documentation
<inv_specification>	Inst. Inv. → Specification
<inv_traceability>	Inst. Inv. → Traceability to
<inv_note>	Inst. Inv. → Comment
<inv_history>	Inst. Inv. → History
<inv_hide>	Inst. Inv. → Hide
<inv_user2>	Inst. Inv. → User item 2
<inv_gro_name>	Inst. Inv. → Groups of instruments → Name
<inv_gro_unit>	Inst. Inv. → Groups of instruments → Unit
<inv_gro_function>	Inst. Inv. → Groups of instruments → Function
<inv_gro_note>	Inst. Inv. → Groups of instruments → Comment
<inv_gro_generator>	Inst. Inv. → Groups of instruments → Generator
<inv_gro_engine>	Inst. Inv. → Groups of instruments → Engine
<inv_gro_hide>	Inst. Inv. → Groups of instruments → Hide
<inv_man_name>	Inst. Inv. → Manufacturer → Name
<inv_man_note>	Inst. Inv. → Manufacturer → Comment
<inv_man_hide>	Inst. Inv. → Manufacturer → Hide
<inv_cus_name>	Inst. Inv. → Customer → Name
<inv_cus_company>	Inst. Inv. → Customer → Company
<inv_cus_city>	Inst. Inv. → Customer → City
<inv_cus_street>	Inst. Inv. → Customer → Street
<inv_cus_zip>	Inst. Inv. → Customer → ZIP
<inv_cus_phone>	Inst. Inv. → Customer → Phone
<inv_cus_note>	Inst. Inv. → Customer → Comment
<inv_cus_hide>	Inst. Inv. → Customer → Hide
<inv_mod_name>	Inst. Inv. → Model → Name (Model)
<inv_mod_note>	Inst. Inv. → Model → Comment
<inv_mod_hide>	Inst. Inv. → Model → Hide
<inv_ity_name>	Inst. Inv. → Type of inventory → Name (Type)
<inv_ity_hide>	Inst. Inv. → Type of inventory → Hide
<inv_ope_name>	Inst. Inv. → Author (Users) → Name
<inv_ope_note>	Inst. Inv. → Author (Users) → Comment
<inv_ope_hide>	Inst. Inv. → Author (Users) → Hide
<inv_use_name>	Inst. Inv. → User item 1 → Name
<inv_use_note>	Inst. Inv. → User item 1 → Comment
<inv_use_hide>	Inst. Inv. → User item 1 → Hide
<inv_qua_name>	Inst. Inv. → Quantity → Name
<inv_qua_hide>	Inst. Inv. → Quantity → Hide
<inv_cat_name>	Inst. Inv. → Category → Name
<inv_cat_hide>	Inst. Inv. → Category → Hide
<inv_user4>	Inst. Inv. → User item 4 (if enabled)
<inv_user5>	Inst. Inv. → User item 5 (if enabled)
<inv_user6>	Inst. Inv. → User item 6 (if enabled)
<inv_user7>	Inst. Inv. → User item 7 (if enabled)
<inv_user8>	Inst. Inv. → User item 8 (if enabled)
<inv_user9>	Inst. Inv. → User item 9 (if enabled)

<inv_user10>	Inst. Inv. → User item 10 (if enabled)
<inv_user11>	Inst. Inv. → User item 11 (if enabled)
</inventory>	

4. PRINT

4.1 Preview



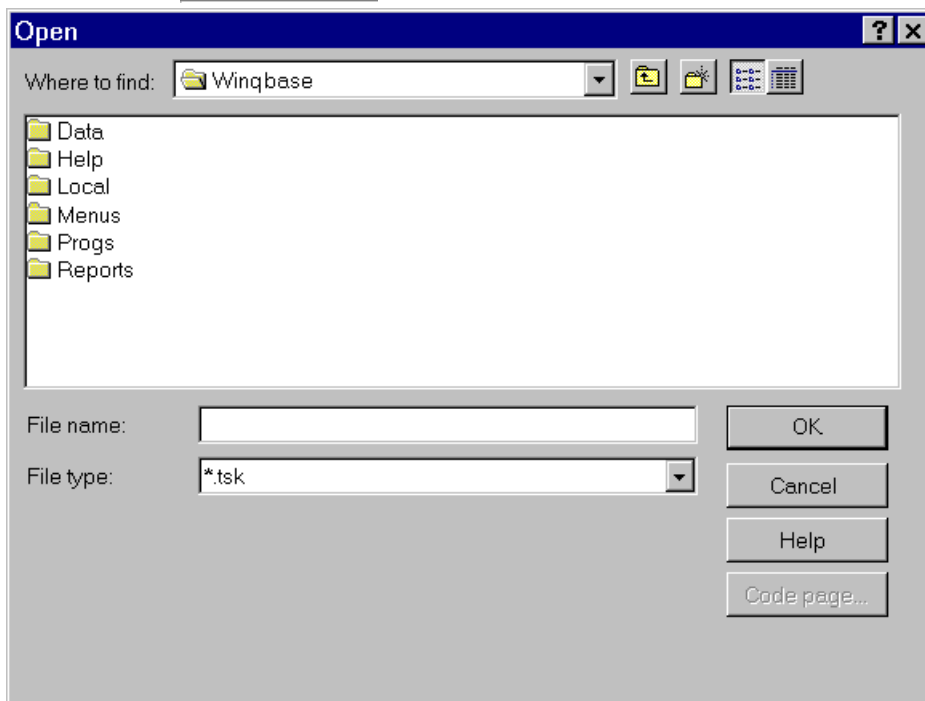
Displays a report preview. Use this tool bar to switch to any side of the report, select a display scale, close the preview or print the report.

4.2 Printer



Prints the current report on a printer. Default printer can be set in WinQbase menu. If the default printer isn't set in WinQbase, program will use WINDOWS default printer.

4.3 File



This option exports a report to a file. Press the printer icon and enter a file name. The report is saved in a binary form, which implicitly suits the default printer. If you wish to print the report, send the file to the printer. The created file has the “. TSK” suffix.

4.4 Report designer



All printouts contain implicitly defined reports. The user can modify these reports according to his needs using the report designer panel. Newly created reports are stored in the central database.

Use following procedure to open print report in the report designer:

- select the "Modify" item at the printer icon
- press the printer icon
- following screen is displayed for calibration certificate:

The screenshot shows the 'Report Designer - task.frx - WinQbase 2.39' window. The interface includes a menu bar (File, Edit, Help, Format, Report) and a toolbar with icons for report design. The main area displays a calibration certificate form with the following fields and labels:

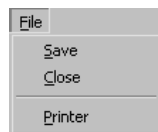
- Calibration laboratory of**: A text field with a ruler above it showing values from 0 to 7.
- Calibration certificate No.**: A text field containing the formula `ALLTRIM(STR(cislo`.
- Registration number**: A text field.
- Object:** A text field containing `UZIV_TEXT`.
- Manufac**: A text field containing `VYROBCE`.
- Type:** A text field containing `TYP_MERID`.

On the right side of the form, there is a descriptive text: "This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the International System of Units (SI)."

At the bottom left, a status bar indicates "Mouse: Vertical: 1.95 Horizontal: 2.80". At the bottom right, there is a button labeled "NUM".

4.4.1 Report designer menu

„File“ menu

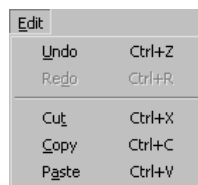


Save – saves the new report modification in the database. All users can use this print form immediately.

Close – closes the report modification program. The system queries whether you wish to save the file. If your answer is negative, the new print report is not saved and the original print report is preserved.

Printer – displays panel for the printer properties definition

„**Edit**“ is typical for the Windows environment and is provided for copying and moving blocks or restoring the last changes.



Undo – erases the last change

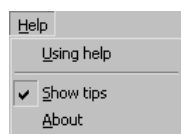
Redo – reverses the last Undo command

Undo – removes the selected object and stores it into the clipboard

Copy – copies the selected object and stores it into the clipboard

Paste – inserts object from clipboard in the selected position

„Help“ menu

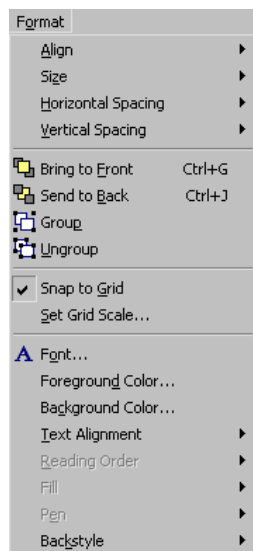


Using help – displays contents of the WinQbase program help.

Show tips – disables / enables displaying of brief help at buttons focused by the mouse

About – displays information about the program.

„**Format**“ menu. This menu is used for arranging items in the print report and for changing the text font.



Align – align objects in print report.

Size – sets the size of selected items.

Horizontal Spacing – horizontal spacing between selected objects.

Vertical Spacing – vertical spacing between selected objects.

Bring to Front – selected object is moved to foreground.

Send to Back – selected object is moved to background.

Group – groups selected objects into one object.

Ungroup – ungroups object combined using “Group” command

Snap to Grid – place objects in the grid.

Set Grid Scale – invokes a panel for grid size setup.

Font – invokes a panel for font setup.

Foreground Color – sets foreground color of selected object.

Background Color – sets background color of selected object.

Text alignment – text alignment and formatting.

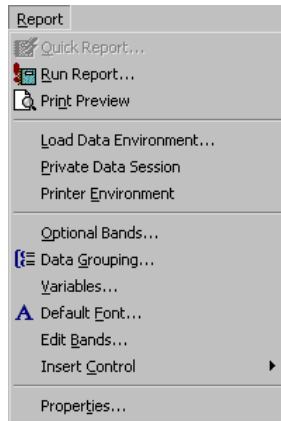
Reading order – not used in the menu.

Fill – Set the style of the frame's fill.

Pen – sets the width of lines and their style for lines and boxes.

Backstyle – sets transparency or non-transparency for selected objects.

„**Report**“ menu contains advanced settings of the print report. Typically there is no need to use this menu as all delivered print reports contain these settings and definitions.



Run Report – it is not recommended to run the report from this menu as there are not prepared database data for some reports.

Print Preview – it is not recommended to print preview from this menu as there are not prepared database data for some reports.

Load Data Environment – displays Data Environment panel. Data environment is set in all reports and there is no need to change it.

Private Data Session – are not used in the WinQbase reports. It is recommended not to use them.

Printer Environment – is not used in the WinQbase reports.

Optional Bands – setting of a new bands in the print report.

Data Grouping – is used in WinQbase for creating additional bands and subsequent formatting of print report. Data Grouping is defined on existing print reports. It is not recommended to use data grouping

without knowledge of VisualFoxPro environment.

Variables – is used for creating a new variables and formulas.

Default Font – newly created objects inherit the properties of the font.

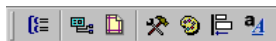
Edit Bands – sets features of defined bands.

Insert Control – inserts a new object into the print report.

Properties – displays panel with the print report properties.

4.4.2 Tool bars

Print reports can be edited also using tool bars. Tool bars are located in the upper left corner of the Report Designer panel.



Data Grouping – is used in WinQbase for creating additional bands and subsequent formatting of print report. Data Grouping is defined on existing print reports. It is not recommended to use data grouping without knowledge of VisualFoxPro environment.

Data Environment – is used for access to the data source (database). Data environment is defined in all print reports. There is no need to change the data environment.

Page Setup – quick access to the "Page Setup". It is used for definition of page printable area.

Report controls toolbar – it's the main toolbar to create objects in a print report. It is automatically displayed when modifying reports.



It is possible to add the print report texts, field values from the database, lines, frames or pictures using this toolbar.

Select objects – selects one or more objects in the print report.

Label – places any text in a selected place of the print report.

Field – places any database item in the print report. The program offers you a list of items available for the given report automatically.

Line – places a line in the print report.

Rectangle – places a rectangle in the print report.

Rounded Rectangle – places a rectangle with round corners in the print report.

Picture/OLE Bound Control – places a figure in the BMP, JPG, GIF format or an OLE object in the print report.

Button Lock – locks a selected function on the tool bar. This is useful if you place more identical elements in the print report.

Color Palette toolbar – foreground and background color definitions for individual objects.



Foreground Color – a two-state button. Its lower (pressed) position means active function.

Background Color – a two-state button. Its lower (pressed) position means active function.

Palette of 16 colors – by activating one of the colors the color of the pre-selected object changes directly.

Other Colors – displays a standard palette of other colors.

Layout toolbar - it allows aligning and ordering of individual items.



Align Left Sides – selected objects will be aligned to the left.

Align Right Sides – selected objects will be aligned to the right.

Align Top Edges – selected objects will be aligned to the top.

Align Bottom Edges – selected objects will be aligned to the bottom.

Align Vertical Centers – selected objects will be aligned to the vertical centre.

Align Horizontal Centers – selected objects will be aligned to the horizontal centre.

Same Width - selected objects will be adjusted to the same width.

Same Height - selected objects will be adjusted to the same height.

Same Size - selected objects will be adjusted to the same size.

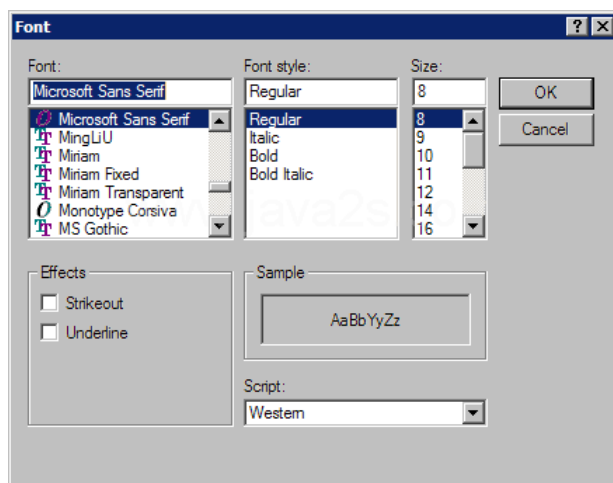
Center Horizontally - selected objects will be centered horizontally.

Center Vertically - selected objects will be centered vertically.

Bring to Front - selected objects will be brought to front.

Send to Back - selected objects will be sent to back.

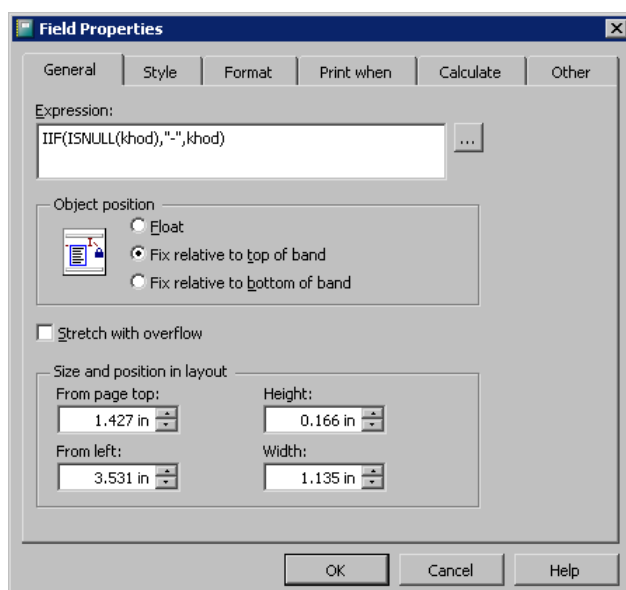
Font properties – is allows to set the font of selected object. The object may be a label or a field from the database.




4.4.3 Object properties

Panel object properties is displayed by double click on any object. All objects have similar panels. The following section is a description of the “Field properties” panel. It is the most complex and important “Properties” panel because it provides printing records from the database.

Object properties – General



Expression – defines what will be printed. The expression can be very complicated. There is a tool for its editing and viewing. The tool is activated by pressing  button.

Object position – any object is placed in a belt (title, page header, body, footer, summary, etc.). Object position determines behaviour of the object inside the Belt. Some bands can change their size according to the printed content.

Float – the object is dynamically moved according to the size of the objects above it.

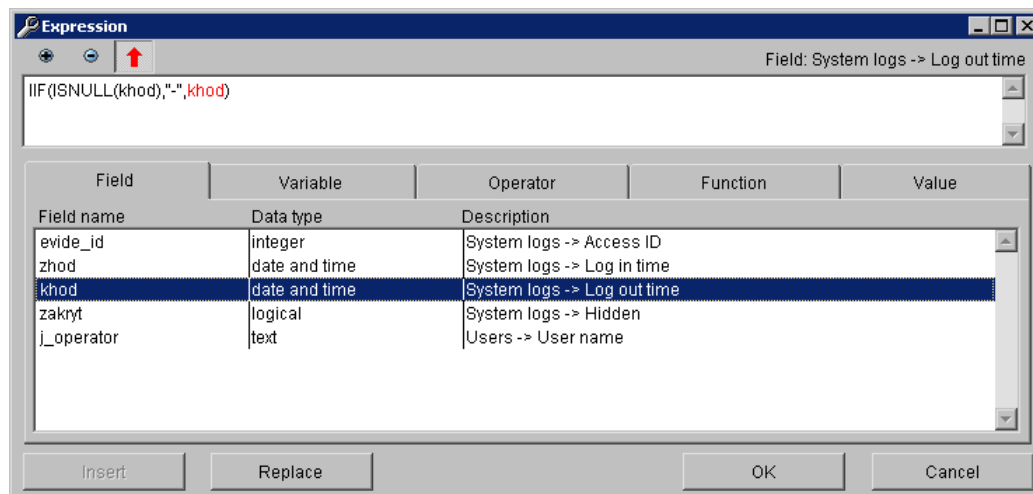
Fix relative to top of band - the object is in a fixed position relative to the top edge of the band.

Fix relative to bottom of band - the object is in a fixed position relative to the bottom edge of the band.

Stretch with overflow – if the content object type field does not fit into the dimensions of the object, two possibilities arise. The first possibility is that the content is cut off, the second possibility is that the object changes its height (increase the number of lines), so that the entire contents of the box is printed.

Size and position in layout – definition of the position and dimensions of the object. However it is easier to place and resize the object interactively using the mouse and keyboard. Coordinates "From the top of the page" is not very meaningful, because it's the position in the editor.

“Expression” edit window for the object type "Field":



There is wide text box at the top of the window, which displays the entire expression. This box works in two modes - writing and selection. This mode is toggled by the / buttons. Any part of expression can be highlighted in the selection mode. Help to highlighted part is displayed in the bottom window. The figure shows an example of the selected string "khod". Automatically is displayed the tab field because the program evaluates the type of this part of expression and locates the field in the field list and highlight it as well. Short hint is displayed at the same time in the top right of the "Pole: Evidence of arrivals -> Exit". In edit mode can be expression written directly or can be compiled by the insertion of individual items at the bottom of the window.

Zoom in – increase the font in the expression window. Font size should be set so that the expression is well-read, and it is possible to select text with the mouse, but at the same time to squeeze in to the text window.

Zoom out – the font in the expression window is decreased.

Switch to writing mode – switches expression window to the writing mode where you can edit the expression.

Switch to selection mode – switches expression window to the selection mode, where

you can click the corresponding part of the expression and display context-sensitive help.

Field – list of all fields that can be used in the print report. Each print report has its own data environment and therefore also different possibilities of inserting individual fields. The first column contains name. If you want to use the field in the expression you must use exact this name. Each field has a data type that is shown in the second column. All fields in expression must have the same data types. It is possible to use Functions for data type conversion (usually to text Data type). Text expressions can also be easily connected using the operator "+". The third column is the Description of the database field information. Prior to the field name is the name of the table from which the field comes from.

Variable – list of all variables that can be used in the print report. There are variables for page numbering and there is also a list of custom field names.

Operator – list of all operators that can be used in the Expression. Operators must be used according to the data types. "AND" operator can only be used for logical data type. Most universal operator is "+". However this operator behaves differently for different data types. For example numbers are added and texts are combined.

Function – list of the frequently used functions. Functions are native to the Microsoft Visual FoxPro. Functions usually translated data types (VAL, STR, TTOC, DTOC, ASC, CHR), test variables (ISNULL, EMPTY). An interesting feature is the IIF. It returns the first or the second variable depending on the actual state of the condition.

Value – fixed value entered by the user. There are two possibilities to enter values: text or number. Text must always be placed in double or single quotes. It is possible to combine the values of fields with fixed text. Such combination could be better placed into the print report.

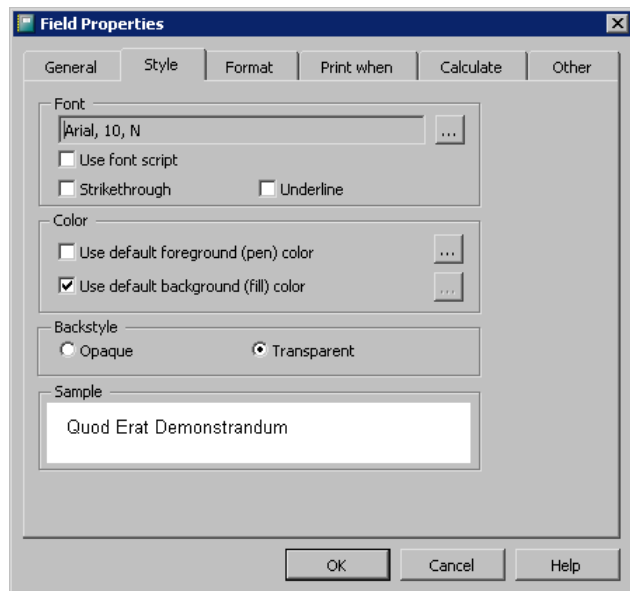
Insert – enters selected item from the bottom window into the expression. It is important to select required position in the expression before inserting.

Replace – replace item selected in Expression with the item selected in the bottom window. This method can be used in the selection procedure.

OK – Expression is used in the print report.

Cancel – Expression window is closed without any changes.

Field Properties - Style



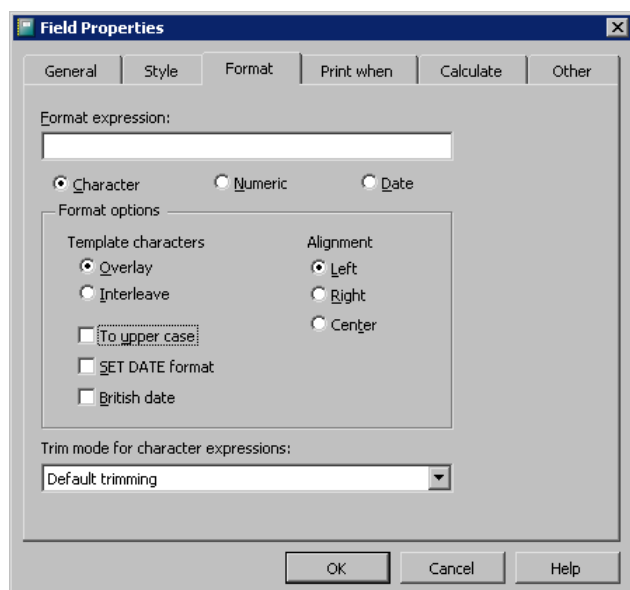
Font – type, size and style of the font.

Color – foreground and background object color. It is possible to use a specific color or the default color. The default foreground color for printing is black, background is white. Colors from the Windows system are applied in the editor.

Backstyle – sets the transparency of the object. “Opaque” background must be selected if specific background color is required.

Sample – how the result should look like.

Field Properties - Format



There can be specified text displaying properties. In fact there is no need to set anything except of alignment.

Format expression – text box is not displayed and requires knowledge of Microsoft Visual FoxPro environment.

Character – will be selected if the expression is a "text". Subsequently, it displays a menu of formats for text.

Numeric – will be selected if the expression is a "number". Subsequently, it displays a menu for number formats.

Date – will be selected if the expression is a type "Date" or "Date and Time". Subsequently, it displays a menu of formats for date and time.

Alignment – aligns the content of the object:

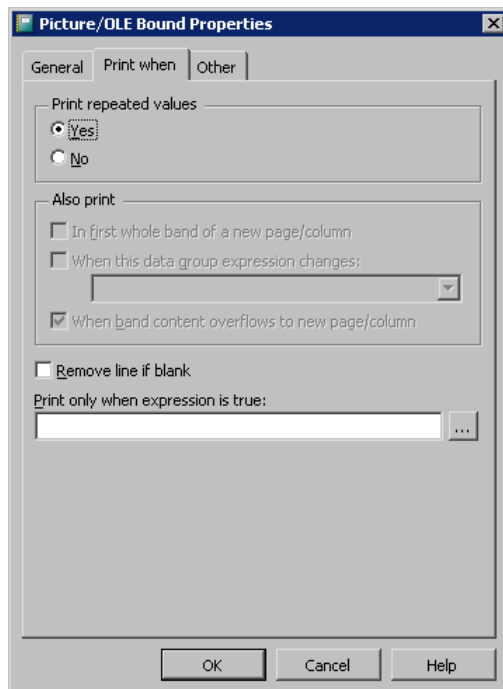
Left – aligns the content to the left edge of the object

Right – aligns the content to the right edge of the object

Center – aligns the content to the center of the object

Trim mode for character expressions – sets how to display text when the text is cut off, because it does not fit to the size of the object.

Field Properties – Print when



Print repeated values – how to print the same multiple values.

Also print – how to print field value in special cases.

In first whole band of a new page / column – prints the value in the new page (only in case it is not allowed to print repeating values).

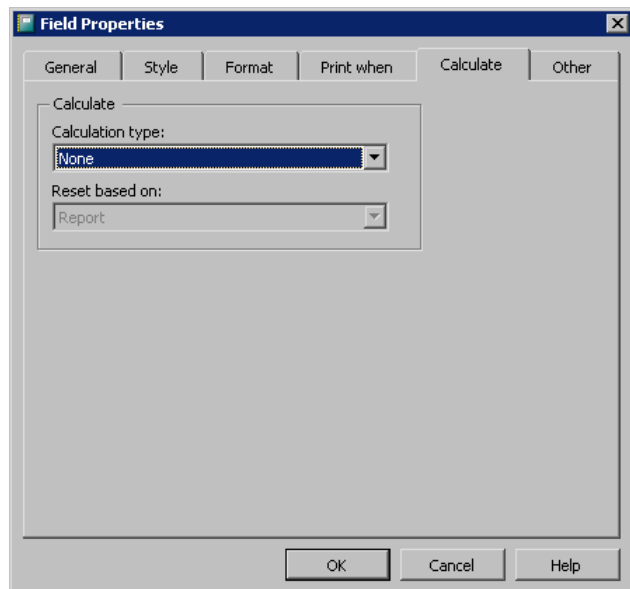
When this data group expression changes – prints the value when the group is changed (only in case it is not allowed to print repeating values). Groups on existing reports are created and it is not recommended to create a new.

When band content overflows to new page / column – prints the value when the band continuous on the next page.

Remove line if blank – if the field contains blank lines, they will not be printed and band will be shorter. Otherwise, blank areas will be printed.

Print only when expression is true – it is possible to define logical condition if the object is printed. The expression must be a logical value – Boolean data type. Expression builder can be used. Any field or variable can be used to prepare the condition. It is not possible to compare text data type with numeric data type. Only the same data types can be compared.

Field Properties – Calculate

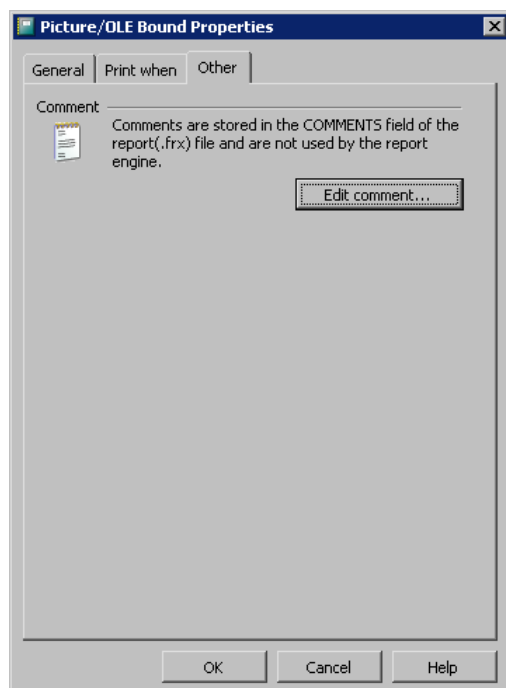


There can be defined calculations performed with the given expression. Calculations are performed with an expression that has a numeric data type.

Calculation type – type of calculation selection.

Reset based on – defines conditions when is calculation reset – starts again. Calculations can be performed within the whole print report, page or group (if defined).

Field Properties – Other

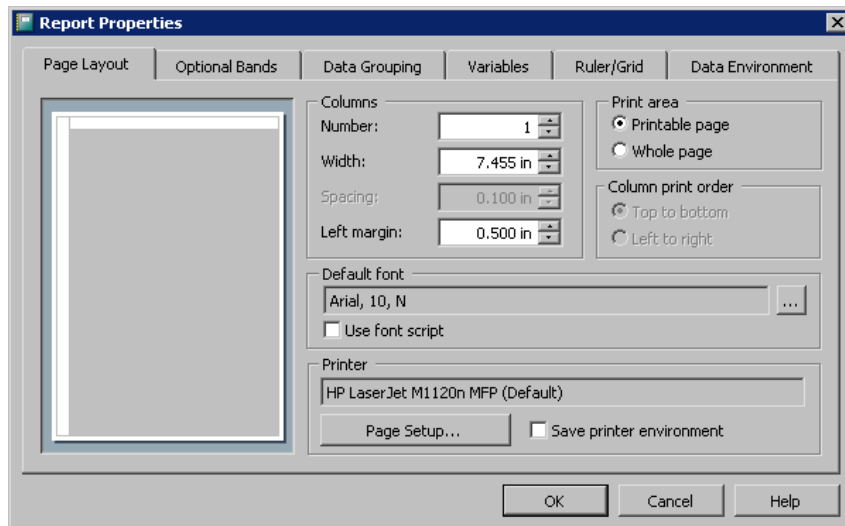


There can be entered a comment for each object.

4.4.4 Print Report properties

Global properties of the print report can be set in this panel. Panel contains 6 tabs and some of them are activated from the print report menu. Universal link to this menu from the panel *Report* → *Properties*.

Page Layout



There can be defined print area and columns on the page.

Columns – number of columns, size and position

Number – number of columns on the page

Width – width of the column

Spacing – gap between the columns (available only if the number of columns is greater than one)

Left margin – gap between the left edge of the page and the first column

Print area – print area of the page

Printable page – report will use whole area in which the printer can print. There will be borders around.

Whole page – report will use the whole page without borders. Objects must be placed in printer printing area.

Column print order – sets the order in which records will be printed on (the option is available only if the number of columns greater than one).

Top to bottom – printing starts in the first column and will proceed downward. Then continues to the next column.

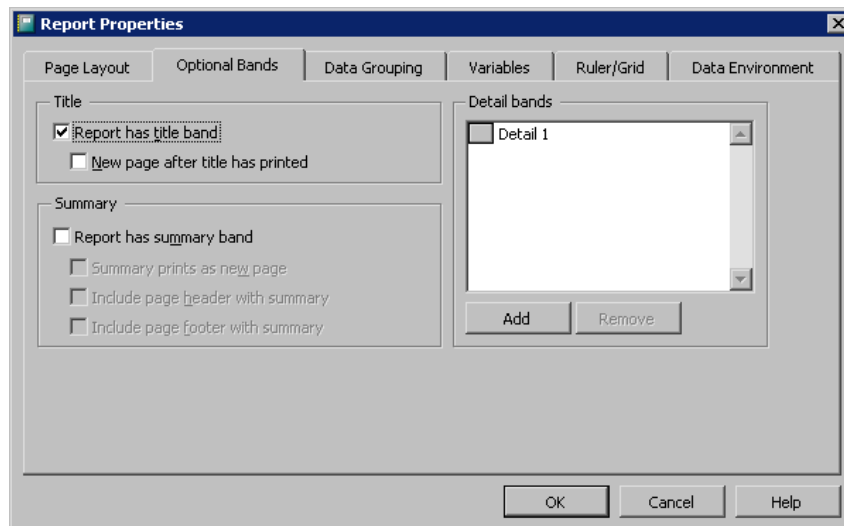
Left to right – printing starts in the first column and will proceed to the next column. After the last column continues to the next line.

Default font – font that will be used for the new object.

Printer – printer properties setting.

Save printer environment – printer properties will be stored along with the print report. It is preferable not to allow this store because printing on a different printer could be problematic

Optional bands



There can be defined bands present on the print report. Bands on existing print reports are defined and there is no need to change them. Bands are independent print areas placed on the print report. Each report must contain following bands – page header, page footer and detail. Additionally, it is possible to define a title, summary and groups.

There can be following bands on the print report:

Title – appears at the beginning of the print report.

Page header – appears at the beginning of each page within the print report. Page header is not included in the first page, if the title is used.

Group header – the band is included in the print report whenever the group changes.

Detail – is the main part of the print report. It contains individual records from the database.

Group footer – the band is included in the end of each group.

Page footer – appears at the end of each page within the print report. Page footer is not included in the first page, if the title is used.

Summary – appears at the end of the print report.

It is easy to adjust the height of each band directly in the print report using the mouse and dragging the name of the band. The band is always above the name. Band size is determined by the distance to the nearest band or to the top of the page.

Title – can add or remove the title from the print report.

Report has title band – title is included if the box is checked.

New page after title has printed – title will be placed on a separate page.

Summary – can add or remove the summary from the print report.

Report has summary band – summary is included if the box is checked.

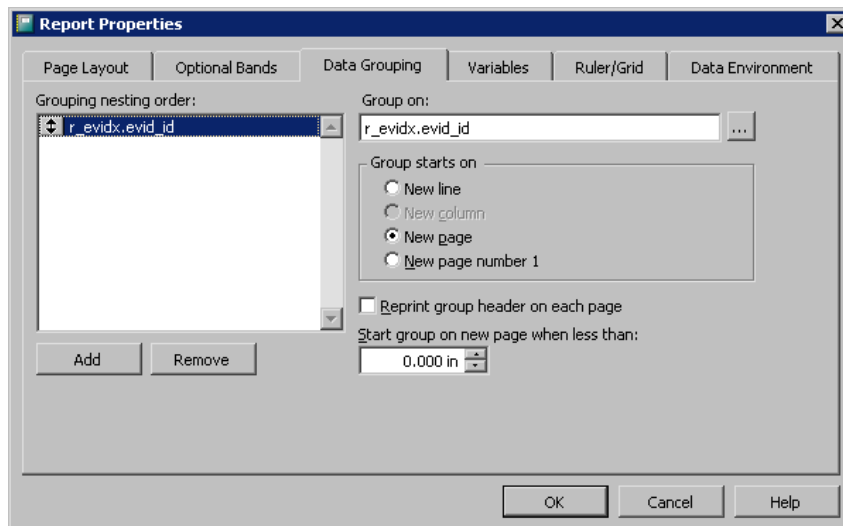
Summary prints as new page – summary will be placed on a separate page.

Include page headers with summary – summary will contain the page header.

Include page footer with summary – summary will contain the page footer.

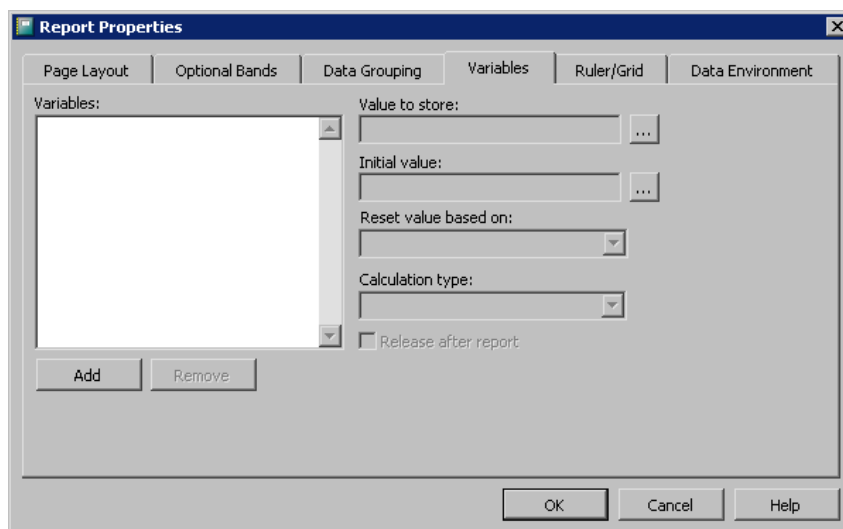
Detail bands – there are all detail bands used in the print report. One basic band is present here and cannot be removed. You can add more, but these bands are not used in the WinQbase.

Data Grouping



Data grouping is used for sorting records within a group. The program uses WinQbase groups for easier formatting Instrument inventory and Calibrations. There is sorting of instrument inventory in the picture. The group is created by the Instrument inventory ID. It means that new group starts for each unique Instrument inventory ID. It is recommended to use predefined print reports as the basis for any new print report and not to change sorting by groups.

Variables



Variables are used for calculations in print reports or can be directly printed.

Variables – contains list of defined variables for the print report.

Add – adds a new variable. Name is created by the user.

Value to store – direct value to which the variable is set.

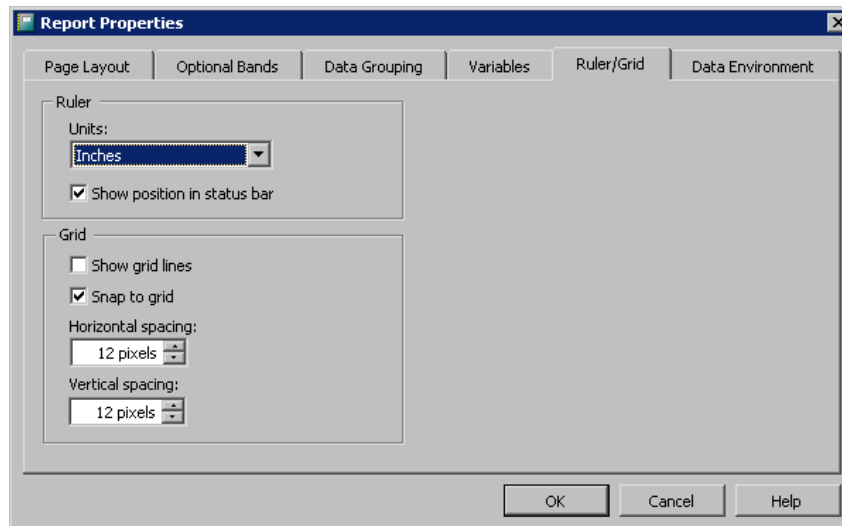
Initial value – value used for repeated calculations. It is the value to which the variable will be set after each reset.

Reset value based on – condition when the value reset is.

Calculation type – calculation type that will be applied to the variable.

Released after report – determines whether the variable will be stored after the report is printed.

Ruler/Grid



This panel is used to set the auxiliary grid in the Report Designer and units to define dimensions.

Ruler – units setting

Units – units selection (inches, metric/cm, pixels).

Show position in status bar – cursor position is displayed in the bottom information line. There is displayed also position and size of active object.

Grid – grid setting

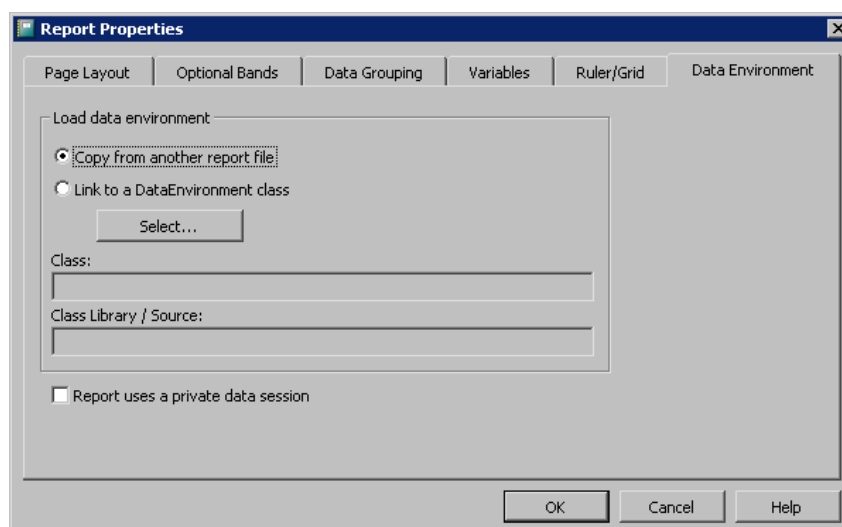
Show grid lines – grid will be visible in the editor.

Snap to grid – enables and disables snap to grid.

Horizontal spacing – horizontal spacing in pixels.

Vertical spacing – vertical spacing in pixels.

Data Environment

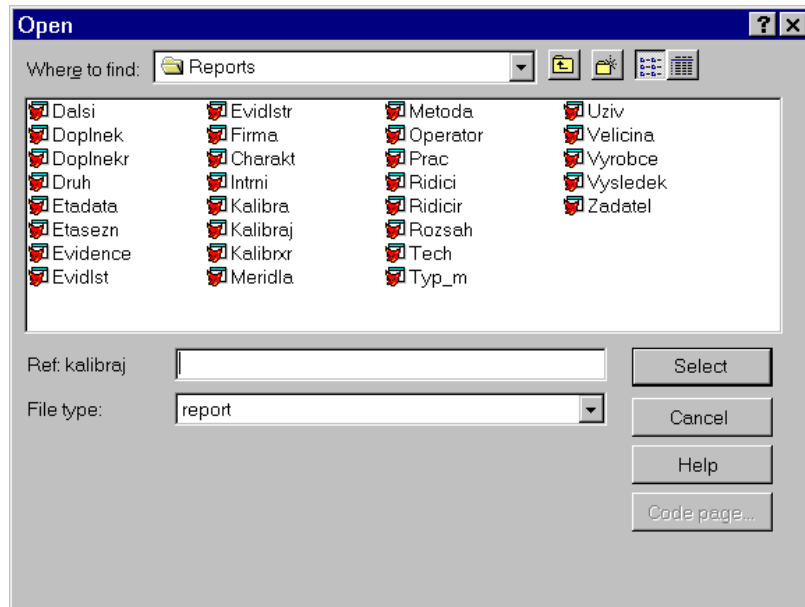


Data environment is left here only for completeness, but it is not recommended to change it. All print reports have data environment defined. New print reports should be based on a modification of original print report. All reports are imported into the database and their backups are stored as files in a folder WinQbase \ Reports and can be imported using the Import Print reports tool.

4.5 Print Reports Import



This function allows you to open a print report. All reports supplied with the program are placed in the \WinQbase\Reports\ directory. If you fail to set a report correctly, you can return to the original report any time using the “Import” command.



When selecting a file, the program offers you a help message with the name of the original file to the left from the entry field (Ref: kalibraj).

Predefined Print reports:

Caliber – Calibration certificate for calibrations made by Caliber software
 Card – Instrument card (line format)
 Dalsi – Type of supplement (line format)
 Doplněk – Supplement to Instrument inventory
 Doplněk – Supplement to Instrument inventory (line format)
 Evidence – System logs (line format)
 Evidlst – Instrument inventory
 Evidlstr – Instrument inventory (line format)
 Firma – Test report head (line format)
 Charakt – Category (line format)
 Intrni – Type of inventory (line format)
 Kalibra – Calibration certificate for calibrations made by Meaca software
 Kalibraj – Single page calibration certificate
 Kalibxr – Calibration certificate (line format)
 Meridla – Groups of instruments (line format)
 Metoda – Methodology (line format)
 Operator – Users (line format)
 Prac – Chief (line format)
 Ridici – Procedures

Ridicir – Procedures (line format)
Rozsah – Range of calibration (line format)
Tech – Technical note (line format)
Typ_m – Model (line format)
Uziv – User text 1 (line format)
Velicina – Quantity (line format)
Vyrobce – Manufacturer (line format)
Vysledek – Calibration result (line format)
Zadatel – Customer (line format)

Note: There can be defined more print reports for calibration certificate. It is important to take care when importing. All calibration certificates using the imported print report will be changed! If you want to create new Calibration Test report, add the new Test report first. New Test report can be created in Test report parameters → Type of report. This new test report must be add to any Calibration certificate. The last step is to modify the test report of this calibration certificate.

4.6 Print Reports Export



This function allows you to store a print report. Naturally, a new created report is saved in the central database. Furthermore, you can create its backup as a file. This system allows you to create several reports (calibration procedures) for the same printout.