

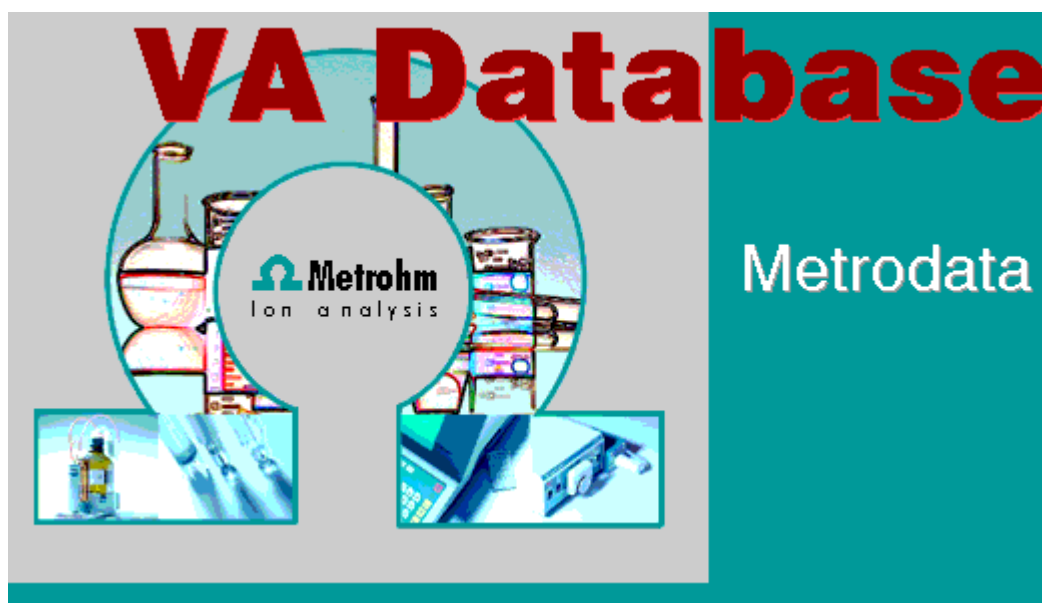
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**6.6016.103**

# **Metrodata VA Database 2.0**

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**8.746.8003 Instructions for Use**

15.07.97 / dö

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# 1 Introduction

## 1.1 Purpose of program

VA Database 2.0 is a database tool for archiving and administration of determinations and methods of the 746 VA Trace Analyzer and the 693 VA Processor.

Up to four 746 VA Trace Analyzers can be connected to one PC. All measurement data sent by the 746 VA Trace Analyzer is stored in a database. This data can be sorted and filtered with the help of different criteria. All curves and reports can be displayed and printed out. With the VA Report Generator it is possible to create format reports for single determinations and also table reports for a summary of sample series.

VA Database 2.0 can also be used for saving determination and method files on the PC. All other file types created by the 746 VA Trace Analyzer like sample tables and rack definitions can also be saved.

## 1.2 Installation

### Hardware requirements for the PC

Computer	Pentium with 133 MHz or higher
Operating system	Windows™ 95 or Windows™ NT
Free space on hard disk	5 MB for program files 50 MB recommended for data files
Working memory RAM	Windows™ 95: 16 MB Windows™ NT: 32 MB
RS232 Interfaces	1 for each 746 VA Trace Analyzer
Graphics resolution	640×480, better 1024×768 or more
Printer	Any printer supported by Windows™ 95/NT

## Full program and demo version

The **6.2145.030 Dongle** is part of the standard equipment of the **6.6016.103 Full Program version** and **6.6016.901 Update version**. Install this dongle into LPT port 1 or 2 (see *Hardware Installation*).

The **6.6016.108 Demo version** of VA Database contains only the software without dongle. This version can be used for 100 days. After this 100 days you may continue to use the program without the possibility to store determinations to a database. You can upgrade your demo version at any time if you install a 6.2145.030 Dongle into the LPT port.

## Hardware Installation

1. Connect the RS232 interface 1 or the RS232 interface 2 on the rear side of the 746 VA Trace Analyzer or the 693 VA Processor to one of the serial **COM ports** of your PC with the 6.2125.060 RS interface cable (often COM port 1 is already used by a serial mouse). If the PC has only 9 pin connector, the 6.2125.010 adapter cable (25 pin to 9 pin) has to be used in addition.
2. If the PC has **one LPT port**, install the 6.2145.030 Dongle into the LPT1 printer port and the printer cable into the dongle.
3. If the PC has **two LPT ports**, install the printer cable into the LPT1 port and the 6.2145.030 Dongle into the LPT2 printer port.

## Software Installation

Insert setup disk 1 into drive "A:", click on <Start> and **Run**. Enter "A:\setup.exe". Follow the instructions given in the setup program.

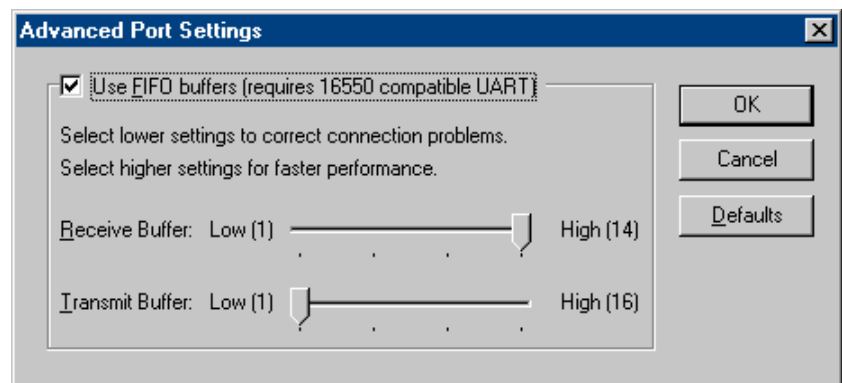
The software package will be installed in the desired directory. In addition to the program files, the following folders are installed:

<b>Data</b>	Folder for storage of databases and filters, contains a demonstration database <b>Demo.*</b> for first exercises and some example filtering criteria files *.vaf
<b>Backup</b>	Folder for storage of backup files with an example ( <b>Test747.*</b> )
<b>Templates</b>	Folder for storage of custom report files *.vat, contains some example templates

## Configure Windows 95 for VA Database

It is recommended to install the COM port driver with FIFO-Buffers. Proceed as follows:

1. <Start> → Settings → Control panel → System
2. In **SYSTEM PROPERTIES** window choose the tab **Device Manager**.
3. In the tree expand **Ports** by clicking on + and mark **COM1** or **COM2** depending to which port the 693/746 is connected.
4. Click on **Properties**, choose tab **Port settings** and click on <Advanced>.
5. Change the settings as follows.



6. Click on <OK> in each window.

## Configuration of 746 VA Trace Analyzer

On page "VA TRACE ANALYZER" the following settings are recommended:

Baud rate	9600
Data bits	8
Stop bit	1
Parity	none
Handshake	HW Short
Receive Mode	on
Printer Type	none
Printer Width	1.0
Remote keyboard	off

When the configuration of the interface has to be changed, it is important to save the new parameter by pressing the softkey <Save lfc.par.> (F7) before leaving the page.

---

**Note:** The COM port settings on both the 746 VA Trace Analyzer and the PC have to be the same.

---

## Compatibility with 693 VA Processor

The compatibility of the VA Database 2.0 program with a 693 VA Processor depends on the program version used:

- **Program 5.693.0010**  
Not compatible with VA Database 2.0. Ask your local representative for a program upgrade.
- **Program 5.693.0020, 5.693.0021, 5.693.0022**  
Not all functions of the VA Database 2.0 software are active. From substance views only the first replication (**VR = \*0**) is available. Calibration curves are not available at all.
- **Program 5.746.0100**  
Full compatibility with VA Database 2.0.

## Registration

Please send us your **8.746.8017 Registration card** as soon as possible so we can register you as an official user. Only registered users will get updated program versions at a special price.

## 1.3 Overview of program windows

VA Database 2.0 consists of different windows whose functionality is linked together. The different windows are:

<b>MAIN WINDOW</b>	Administration of databases, Display of reports and curves
<b>VA DATABASE TABLE</b>	Tabular view of database, Sorting and filtering possibilities
<b>VA DATABASE EXPLORER</b>	File manager view of database
<b>VA COMMUNICATION</b>	Transfer of data between 746 VA Trace Analyzer and PC
<b>VA REPORT GENERATOR</b>	User definable reports

Not all of the existing windows have to be used at the same time. Some of them can be closed.

## 1.4 Overview of file types

### File types of 746 VA Trace Analyzer

The following file types are produced by the 746 VA Trace Analyzer and the 693 VA Processor:

<b>*.dtm</b>	<b>Determination file</b> (binary file) Contains determination data and method. Determination files can be sent from the 746 VA
--------------	---

Trace Analyzer to the backup directory specified in the VA Database program and vice versa. The \*.dtm file is stored automatically in the database if a determination is added to the database.

*.mth	<p><b>Method file</b> (binary file) Contains the method. Method files can be sent from the 746 VA Trace Analyzer to the backup directory specified in the VA Database program and vice versa.</p>
*.smp	<p><b>Sample data file</b> (ASCII file) Contains data of the sample data table. Sample data files can be sent from the "SAMPLES" page of the 746 VA Trace Analyzer to the backup directory specified in the VA Database program and vice versa.</p>
*.aut	<p><b>Rack data file</b> (binary file) Contains data for racks of 695 Autosampler. Rack data files can be sent from the data card of the 746 VA Trace Analyzer to the backup directory specified in the VA Database program and vice versa.</p>
*.rpt	<p><b>Report file</b> (ASCII file) Contains all information about determination or method in ASCII format. By sending an actual determination report <b>Report ActDetm</b>, the contents of the *.rpt file are stored automatically in the database together with the corresponding binary file *.dtm. Additionally, the *.rpt file can be stored in the backup directory specified in the VA Database program together with the corresponding binary file *.dtm. By sending an actual method report <b>Report ActMeth</b>, the *.rpt file is stored in the backup directory specified in the VA Database program together with the corresponding binary file *.mth.</p>

## File types of VA Database

The following file types are produced automatically by the VA Database program when a new database is created:

*.vad	<p><b>Configuration file</b> Contains all current settings of the VA Database program and its windows.</p>
*.db	<p><b>Database file</b> Paradox database file.</p>

<b>*.mb</b>	<b>Database file</b> Paradox database file with blob fields (curves, binary determination file, etc.).
<b>*.px</b>	<b>Special database file</b> Special index file created automatically.

---

**Note:** These 4 files on the hard disk should never be renamed with the Windows Explorer or another file manager tool. For this purpose the function **Save Database As...** should be used.

---

The following file types are produced by the VA Database program when saving templates or filter definitions:

<b>*.vat</b>	<b>Database template</b> Template file for VA Report Generator.
<b>*.vaf</b>	<b>Filtering criteria file</b> Special file for storing defined filtering criteria (see <i>Filtering determinations</i> , page 32).

## Export file types

The following file types can be exported by the VA Database program:

<b>*.txt</b>	<b>ASCII text file</b> ASCII text file format for export of database table contents (see <i>Export of table text</i> , page 30).
<b>*.wmf</b>	<b>Windows metafile</b> Graphic file format for export of curve subwindows (see <i>Export of curves</i> , page 13).
<b>*.emf</b>	<b>Enhanced Windows metafile</b> Graphic file format for export of curve subwindows (see <i>Export of curves</i> , page 13).
<b>*.bmp</b>	<b>Bitmap file</b> Graphic file format for export of curve subwindows (see <i>Export of curves</i> , page 13).
<b>*.dat</b>	<b>Measurement data file</b> Data file format for export of measurement points (see <i>Export of measurement points</i> , page 31).

## 1.5 Context sensitive menus

Most of the menu functions of the program windows or subwindows are also accessible by clicking on the desired window or item and pressing the **right mouse button**. The pop up windows have different contents and functions depending on the selected active window or item type.

# 2 Main window

## 2.1 Main Window overview

The **MAIN WINDOW** is the center of the VA Database software. From here the current working database is opened. In the window detailed information about the stored determinations (reports, voltammograms, and calibration curves) can be displayed in subwindows. The content of the displayed subwindows can be printed and exported. The other VA Database windows are also opened from the **MAIN WINDOW**.

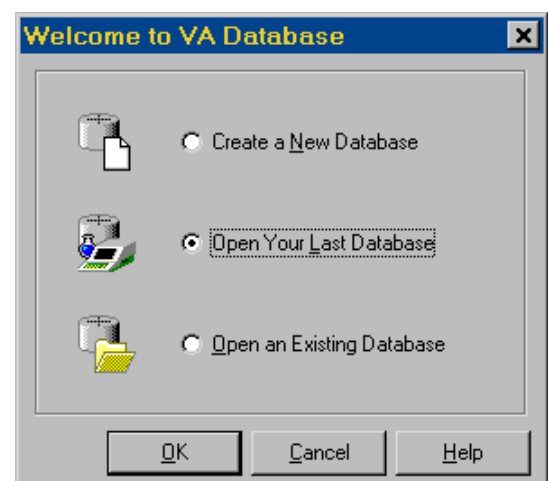
## 2.2 Starting/closing the program

### Starting the VA Database program



Vadb.exe **Start the Program**

Double-click the VA Database icon or the **VADB.EXE** file to start the VA Database 2.0 program. The **WELCOME TO VA DATABASE** window appears. Select the desired option for creating a new, open the last or open an existing database and click **<OK>**.




---

**Note:** If you start the program after dongle installation for the first time, you are asked to restart Windows 95/NT to complete the dongle installation.

---

## Closing the VA Database program

### MAIN WINDOW / File / Exit

Quit the VA Database 2.0 program. The current database will be closed and saved (the same function can be done by pressing the  button of the **MAIN WINDOW**).

## 2.3 Databases

### Database organization

Each database consists of the 4 files \*.vad, \*.mb, \*.db, \*.px, which are created automatically when a new database is created (see also *File types of VA Database, page 5*). All changes in the database will be stored immediately to this 4 files on the hard disk.

---

**Note:** These four files on the hard disk should never be renamed with the Windows Explorer or another file manager tool. For this purpose the function **Save Database As...** should be used.

---

The current working database may be different from databases opened in background for data transfer (see *Data transfer, page 54*).

### Handling of databases

In order to handle measurement data sent by a 746 VA Trace Analyzer these data must be stored in a database.



#### MAIN WINDOW / File / New Database

Create a new database. The **CREATE NEW VA DATABASE** window appears where the name of the database configuration file \*.vad and its directory have to be entered. Then the new database will be opened.



#### MAIN WINDOW / File / Open Database...

Open an existing database. The **OPEN VA DATABASE** window appears where the name of the database configuration file \*.vad and its directory have to be selected.

**MAIN WINDOW / File / Save Database As...**

Save the current database under a new name. The **SAVE VA DATABASE** window appears where the name of the database configuration file **\*.vad** and its directory have to be entered.


**MAIN WINDOW / File / Close Database**

Close the current database.

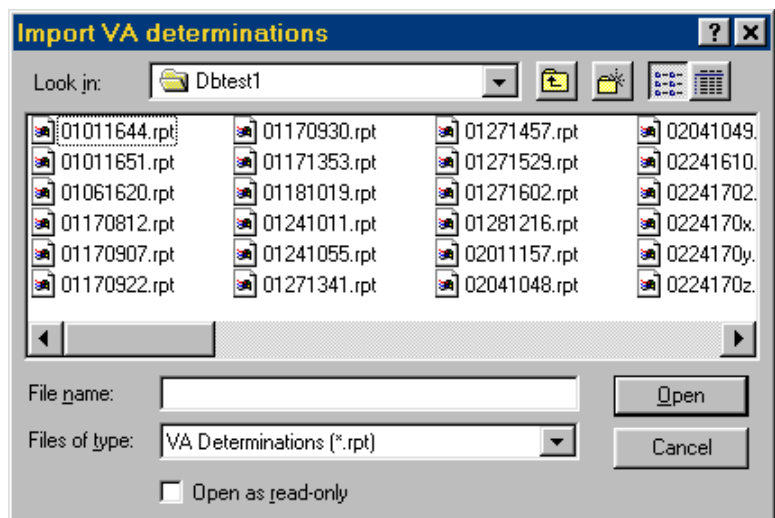
**MAIN WINDOW / File / 1 ... #**

The list of the previous opened databases. When an entry of the list is clicked on the corresponding database will be opened.

## Import VA determinations

**MAIN WINDOW / File / Import VA Determinations**

Import determinations which had been transferred to the PC with the 6.6017.000 «VA Back Up» program. In the appearing **IMPORT VA DETERMINATIONS** window the list of existing **\*.rpt** files (ASCII reports) is shown.



Select the file(s) which should be imported and click the **<Open>** button.

---

**Note:** It is necessary that a **Report ActDtm** has been transferred from the page "DOCUMENTATION" of the 746 VA Trace Analyzer to the PC. Then two files with the same file name but with the two extensions **\*.dtm** and **\*.rpt** respectively are present. If one of those is missing the import will not be carried out. With the function **<Copy to><RSIfc.1>** on the page "METHODS" or "DETERMINATIONS" of the 746 VA Trace Analyzer only the binary file (**\*.dtm**) will be transferred.

---

## Backup database files

Changes in the database will be stored immediately to the 4 database files \*.vad, \*.mb, \*.db, \*.px on the hard disk and can not be canceled by an undo function. So if you want to return to a former version of the database, this database must have been copied before by means of the function **Save Database As...** under a new name. This backup copy can then be opened again and stored under the original name with **Save Database As...** .

---

**Note:** These 4 files on the hard disk should never be renamed with the Windows Explorer or another file manager tool. For this purpose the function **Save Database As...** should be used.

---

## 2.4 Printing of text and curves

### Document printing



MAIN WINDOW / File / Print... (Ctrl+P)

Print the content of the selected subwindow. The number of prints and the pages to be printed can be selected in the appearing **PRINT** window which depends on the selected printer.

### Document print preview



MAIN WINDOW / File / Print Preview

The **PRINT PREVIEW** window appears. The content of the current window is shown in the appearance formatted for the desired printer. The following functions are available by pressing the corresponding buttons or selecting the menu items in the **PRINT PREVIEW** window or in the context sensitive menu:







**F**irst Page      Go to first page



**P**revious Page      Go to previous page



**N**ext Page      Go to next page

	<b>L</b> ast Page	Go to last page
	<b>P</b> rint...	see <i>Document printing</i>
	<b>P</b> age <b>S</b> etup...	see <i>Document page setup</i>
	<b>C</b> lose	Close preview window

## Document page setup

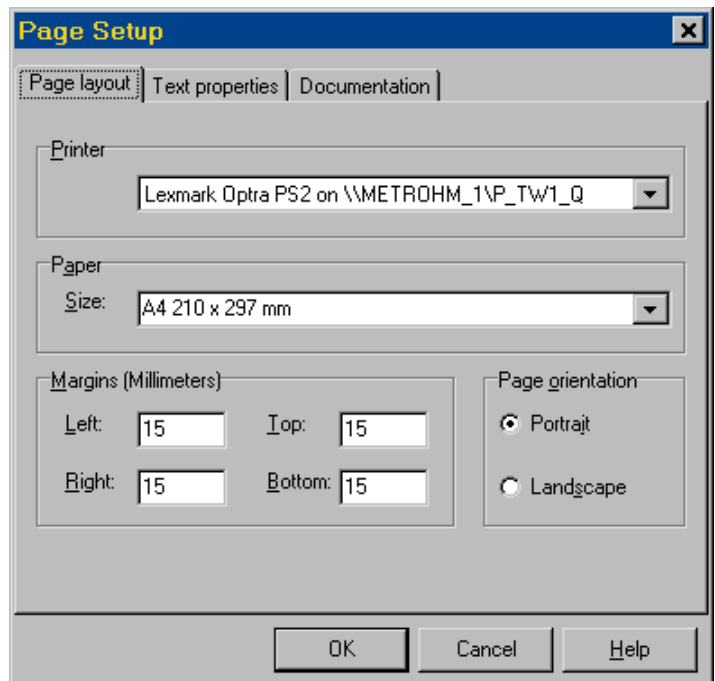


### MAIN WINDOW / File / Page Setup...

The format of the page to be printed can be changed in the appearing **PAGE SETUP** window which contains up to three tabs:

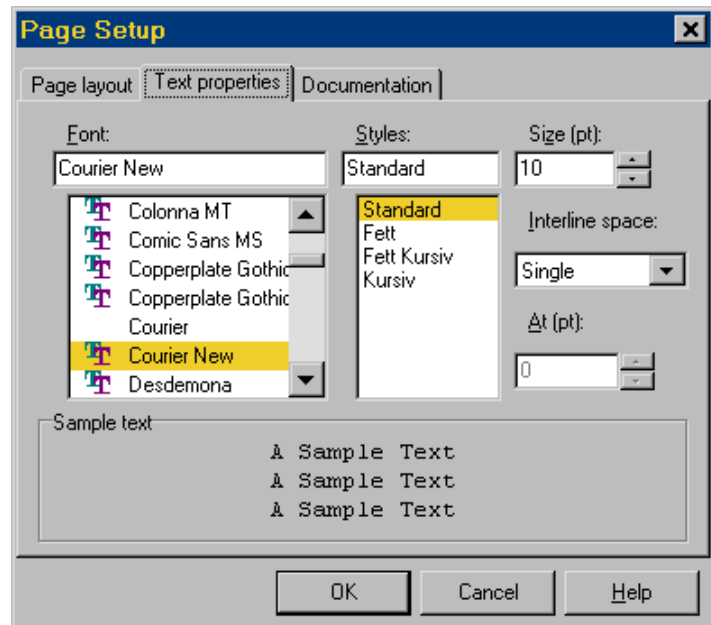
#### Page layout

The printer, the paper size, the page margins, and the page orientation are adjustable.



#### Text properties (only for text windows)

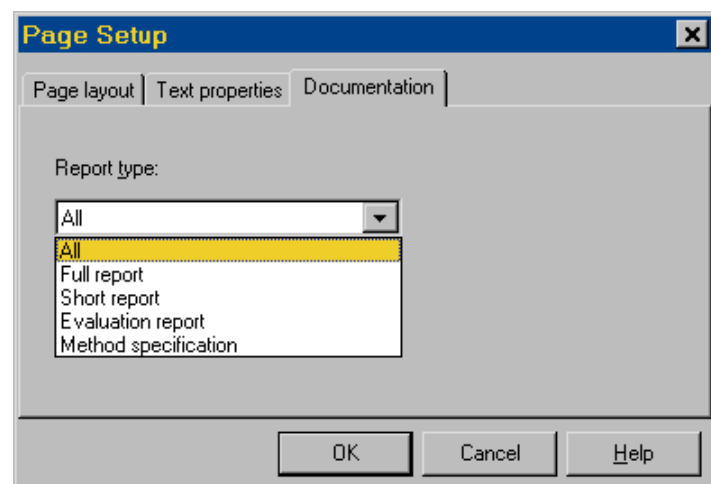
Font, font style, font size and line spacing for text printing can be changed. With **I**nterline space set to **Exactly**, the space can be adjusted exactly to the desired point value.



**Note:** The selected settings is not saved permanently and reset to the default values if a new text report is opened. These default settings can be changed in the **GENERAL PREFERENCES** window (see *Text report settings*, page 24).

#### Documentation (only for text windows)

The type of text report to be printed can be specified. The formats of the text reports are identical to the formats available on the 746 VA Trace Analyzer.



**Note:** The selected **Report type** is not saved permanently and reset to **All** if a new text report is opened. This default setting can be changed in the **GENERAL PREFERENCES** window (see *Text report settings*, page 24).

## 2.5 Export of text and curves

### Copy text or curves to clipboard



MAIN WINDOW / Edit / Copy (Ctrl+C)

**Text report:** Copy the selected text in the text subwindow to the clipboard. If no text is selected, the whole content of the subwindow is copied.

**Curves:** Copy substance, segment or calibration curve to the clipboard.

---

**Note:** With VA Database under Windows 95, curves are copied to the clipboard in square size. If you import the curves into other programs from the clipboard, always resize the graphic window to its initial aspect ratio, otherwise axes, labels, and texts are not displayed correctly. Alternatively, export and import the curve in the \*.emf, \*.wmf or \*.bmp format where the aspect ratio is retained.

---

### Export of curves

MAIN WINDOW / Edit / Export as Metafile... (\*.wmf)

MAIN WINDOW / Edit / Export as Enhanced Metafile... (\*.emf)

MAIN WINDOW / Edit / Export as Bitmap... (\*.bmp)

The content of the current curve subwindow will be saved as a graphics file on the hard disk. The destination directory and the file name have to be entered in the appearing **EXPORT** window.

The graphics file can be imported into other programs like Microsoft Word or Excel.

---

**Note:** Some programs (e.g. Microsoft Word 6 and 7) cannot import of files in the \*.emf format. In this case, export and import the curve in the \*.wmf or \*.bmp format.

For exporting curves to graphic files it is recommended to use the \*.wmf or \*.emf format for better resolution and the possibility to rescale the graphics.

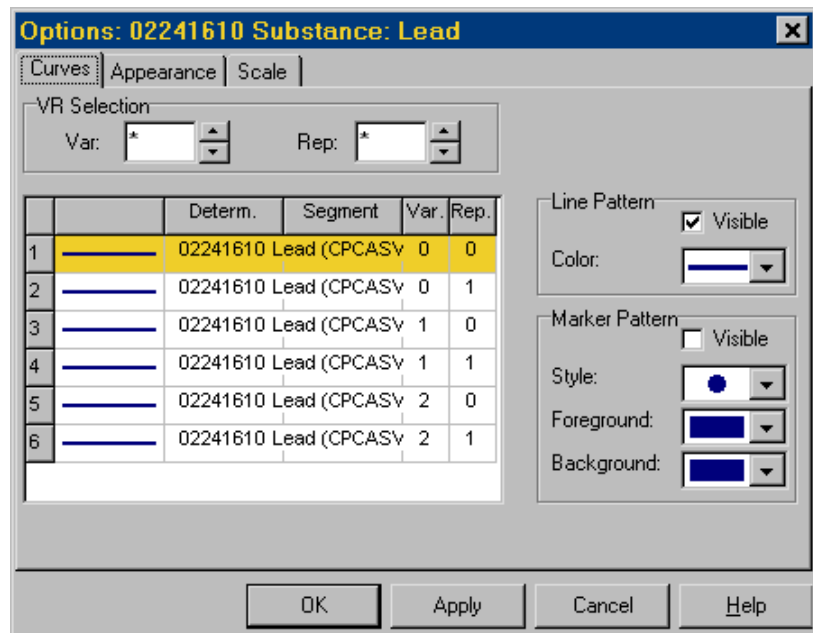
---

## 2.6 Display of curves

### Display of substance and segment curves

MAIN WINDOW / Edit / Options...

The display of substance and segment curves can be changed in the appearing **OPTIONS** window with the tab **Curves**:



#### VR Selection

Selection of curves to be displayed by means of the two fields **Var** (Variation) and **Rep** (Replication). Selections have to be done in the same way as in the 746 VA Trace Analyzer.

---

**Note:** With determinations recorded by the 693 VA Processor (program version 5.693.0022 or older) only the replications "0" (**VR = \*0**) are available for display of substance curves.

---

#### List of curves

The list shows all existing curves. The not selected curves of the determination are marked with "**not visible**".

#### Line Pattern

Make line visible or not and change color.

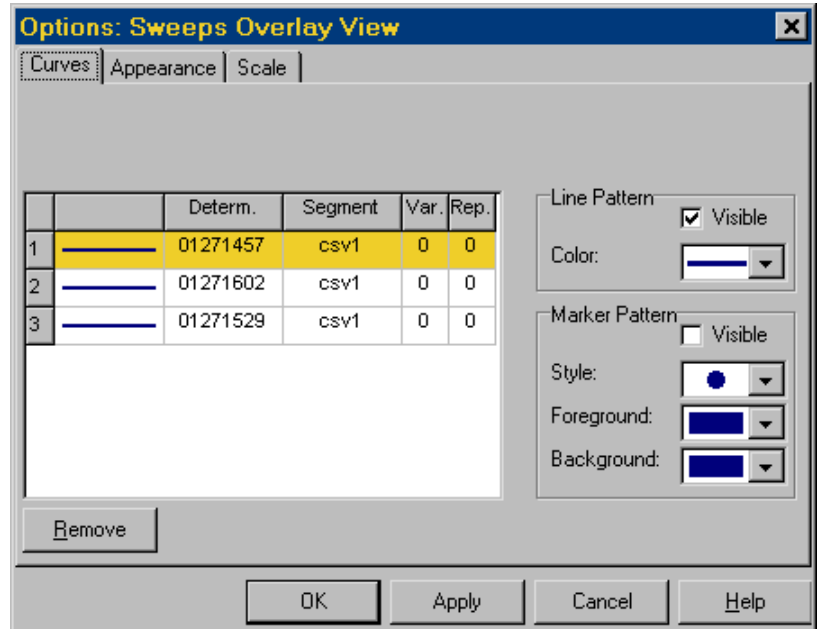
#### Marker Pattern

Make measurement points visible or not and change style and colors.

## Display of overlay curves

MAIN WINDOW / Edit / Options...

The display of substance or segment overlay curves can be changed in the appearing **OP-TIONS** window with the tab **Curves**:



### List of curves

The list shows all overlay curves. Single curves can be deleted with . New curves can be added by drag and drop of curve symbols from the **VA DATABASE EXPLORER**.

### Line Pattern

Make line visible or not and change color.

### Marker Pattern

Make measurement points visible or not and change style and colors.

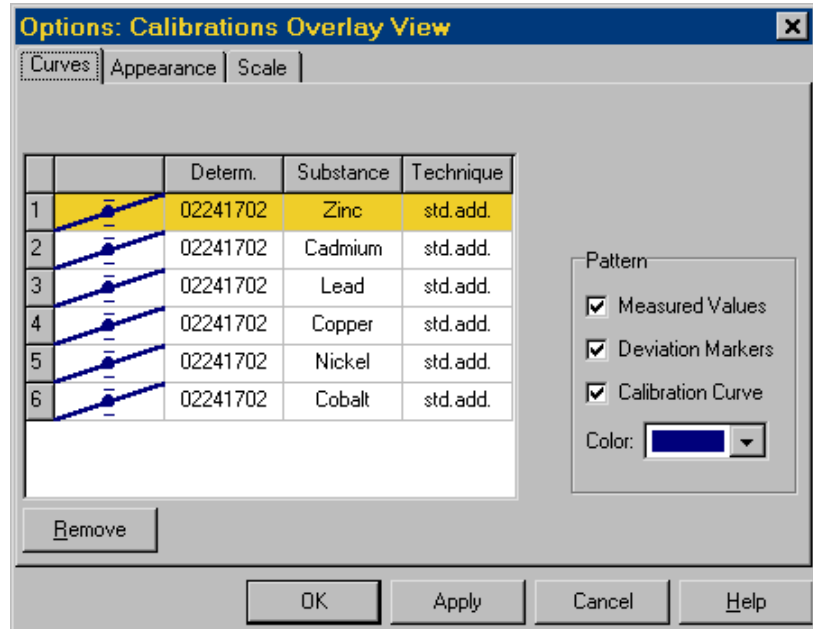


Remove selected curve.

## Display of calibration curves


MAIN WINDOW / Edit / Options...

The display of calibration curves (single or overlay curves) can be changed in the appearing **OPTIONS** window with the tab **Curves**:



**Note:** With determinations recorded by the 693 VA Processor (program version 5.693.0022 or older) no calibration curves can be displayed.

### List of curves

The list shows all overlay calibration curves. Single curves can be deleted with . New curves can be added by drag and drop of curve symbols from the **VA DATABASE EXPLORER**.

### Pattern

Switch display of measured values, deviation markers and calibration curve on/off, change line colors.

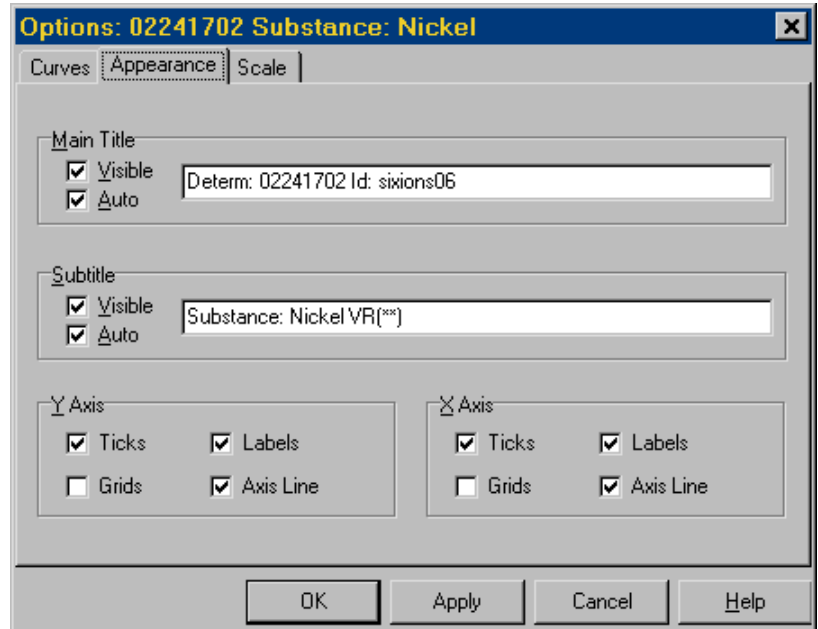


Remove selected calibration curve from overlay curves.

## Appearance of curves

MAIN WINDOW / Edit / Options...

The appearance of all types of curves can be changed in the appearing **OPTIONS** window with the tab **Appearance**:



### Main Title

The main title can be disabled, changed or set to the default value (**A**uto).

### Subtitle

The subtitle can be disabled, changed or set to the default value (**A**uto).

### Y Axis

Ticks, grids, labels, and axis lines can be enabled or disabled.

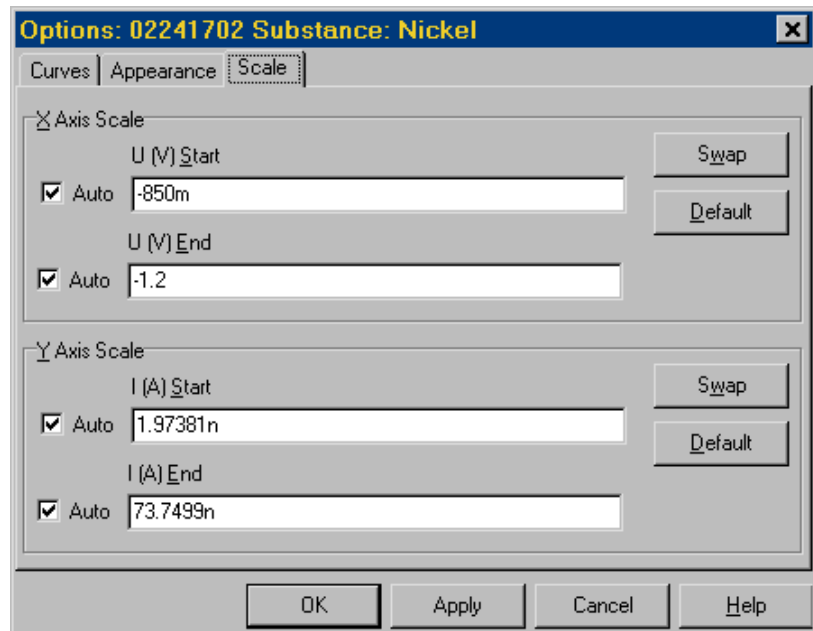
### X Axis

Ticks, grids, labels, and axis lines can be enabled or disabled.

## Scaling of curve axes

MAIN WINDOW / Edit / Options...

The scaling of curve axes can be changed in the appearing **OPTIONS** window with the tab **Scale**:



### X Axis Scale

The start and end value of the x axis can be changed manually. The default settings are made according to the method of the 746 VA Trace Analyzer. With **Auto** enabled the lower or upper border of the whole segment will be used for the display.

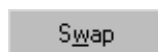
### Y Axis Scale

The start and end value of the y axis can be changed manually. The default settings are made according to the method of the 746 VA Trace Analyzer. With **Auto** enabled the y axis is scaled automatically so that all measurement points are visible. The potential range of the pre-defined substance scale may be exceeded.

---

**Note:** The stored numerical values are displayed with automatically calculated prefixes. Entries can also be done using prefixes (m, u, n, p).

---



Invert orientation of y or x axis.

Default

Set start and end values back to the original borders defined in the 746 VA Trace Analyzer. This function is also available with the **Set Default Scale** option of the context sensitive menu or by pressing the <F8> key.

### Zooming of curve windows

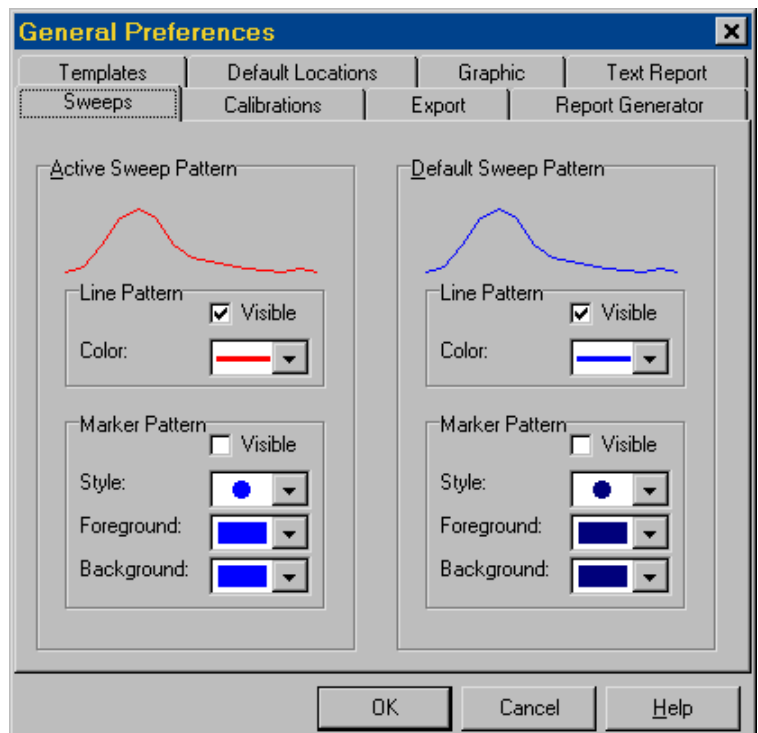
- Zoom** Curve regions can be enlarged by zooming the desired section while pressing the left mouse button.
- Reset zoom** The curve display is set back to the original borders defined in the 746 VA Trace Analyzer by pressing the <F8> key or selecting the **Set Default Scale** option of the context sensitive menu opened by clicking the right mouse button.

## 2.7 Settings

### Sweep settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window the default curve styles for substance and segment curves can be defined with the **Sweeps** tab:



**Active Sweep Pattern**

Parameters for line and marker patterns of the active (selected) substance or segment curve.

**Default Sweep Pattern**

Parameters for line and marker patterns of the non-active substance or segment curves.

**Line Pattern**

Make line visible or not and change color.

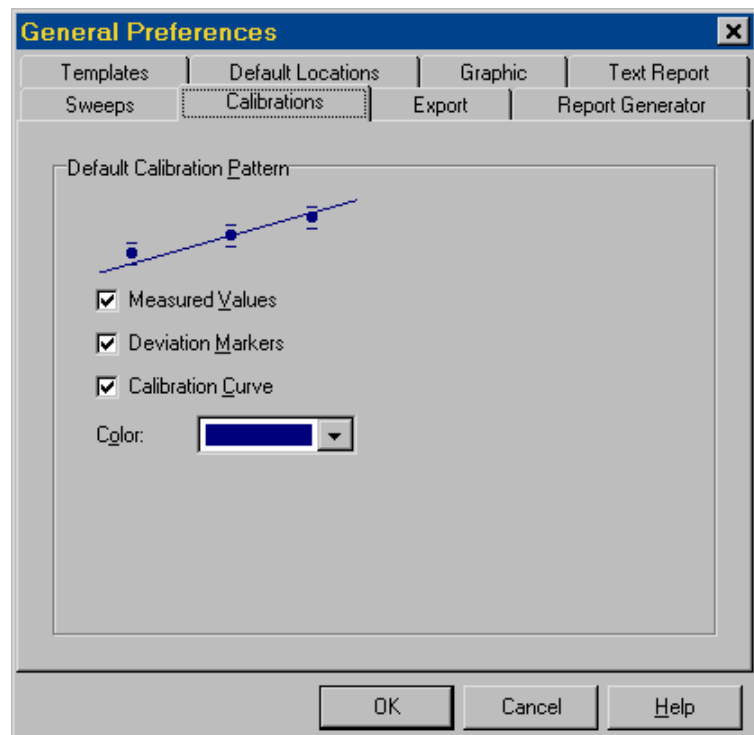
**Marker Pattern**

Make measurement points visible or not and change style and colors.

## Calibration settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window default curve styles for substance and segment curves can be defined with the **Calibrations** tab:

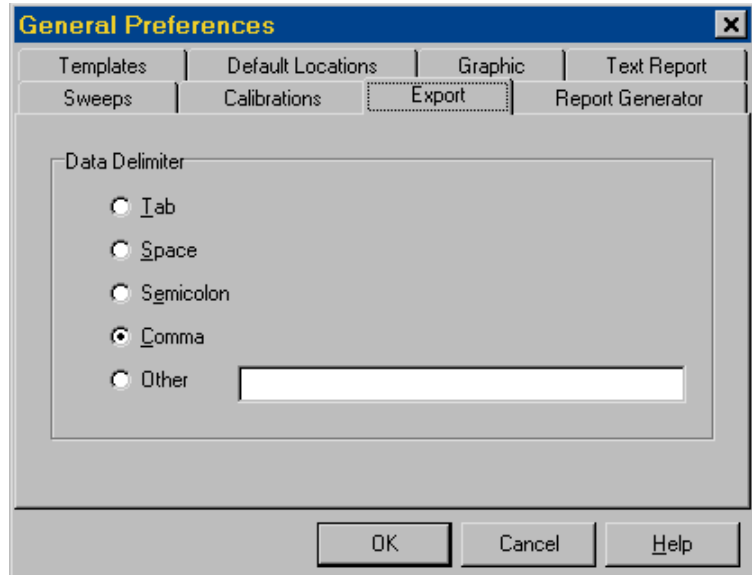
**Default Calibration Pattern**

Switch on/off display of measured values, deviation markers and calibration curve, change color.

## Export settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window the default settings for text export can be defined with the **Export** tab:



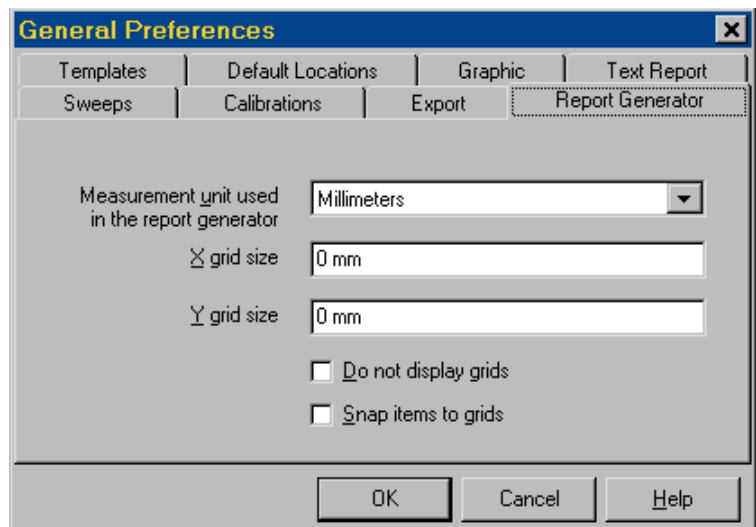
### Data Delimiter

Definition of data delimiter: tab, space, semicolon, comma or other character (user-defined).

## Report generator settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window the default settings for the report generator can be defined with the **Report Generator** tab:

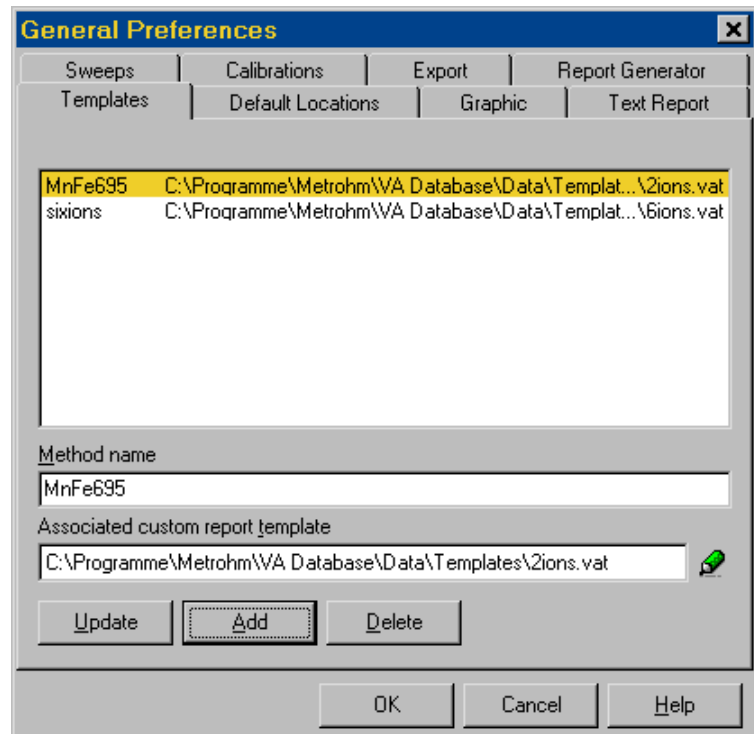


Selection of measurement unit, grid size, grid display and snapping of items to grids.



## Templates settings

MAIN WINDOW / **Settings** / **General Preferences...**

In the **GENERAL PREFERENCES** window method associated templates can be defined with the **Templates** tab:




### List of methods with associated template

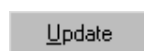
The list shows all methods with a defined associated report template. New methods are added with  and deleted with .

### Method name

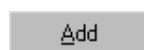
Name of the method used by the 746 VA Trace Analyzer. Enter this name for a new entry.

### Associated custom report template

Selection of a report template for the method. For adding a new entry or changing an existing entry, press the  button and select the desired template (\*.vat file) in the **SELECT CUSTOM REPORT TEMPLATE** window.



Update the list after changing the template.



Add a new entry to the list.

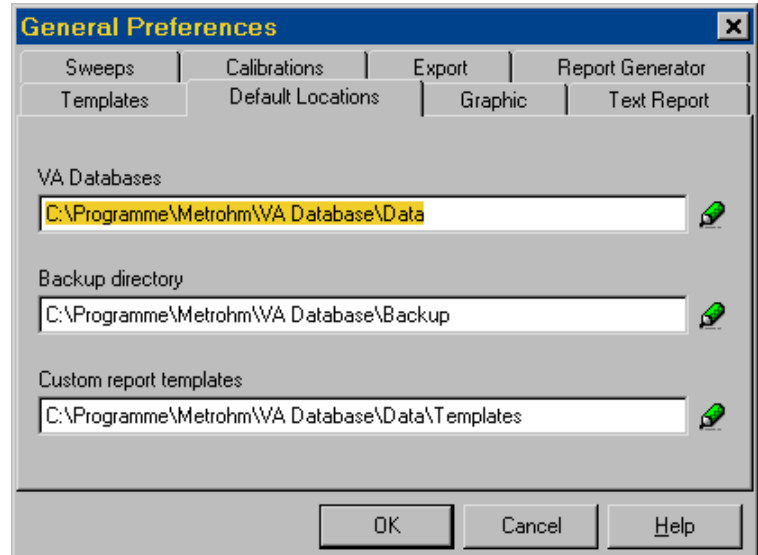


Delete an entry of the list.

## Default locations settings


MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window default directories for storage of files and templates can be defined with the **Default Locations** tab:




### VA Databases

Selection of the directory for storage of VA Database files (\*.vad, \*.db, \*.mb, \*.px), filter definition files (\*.vaf) and export files (\*.txt, \*.bmp, \*.wmf, \*.emf, \*.dat).

For adding a new entry or changing an existing entry, press the  button and select the desired directory in the **CHANGE DIRECTORY** window.


### Backup directory

Selection of the directory for storage of the \*.rpt, \*.dtm, \*.mth, \*.smp and \*.aut files sent by the 746 VA Trace Analyzer.

For adding a new entry or changing an existing entry, press the  button and select the desired directory in the **CHANGE DIRECTORY** window.

### Custom report templates

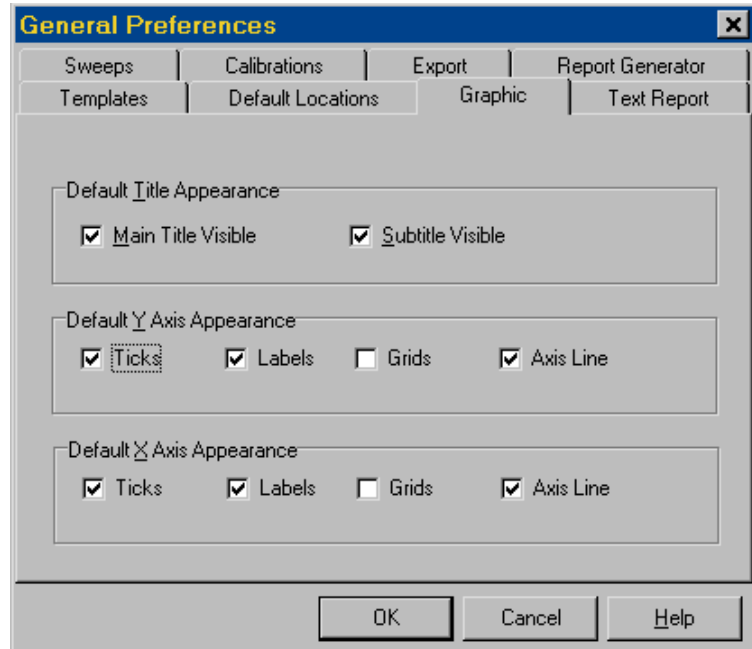
Selection of the directory for storage of custom report template files (\*.vat).

For adding a new entry or changing an existing entry, press the  button and select the desired directory in the **CHANGE DIRECTORY** window.

## Graphic settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window default settings for graphics can be defined with the **Graphic** tab:



### Default Title Appearance

The display of main title and subtitle can be enabled or disabled.

### Default Y Axis Appearance

Ticks, grids, labels, and axis lines can be enabled or disabled.

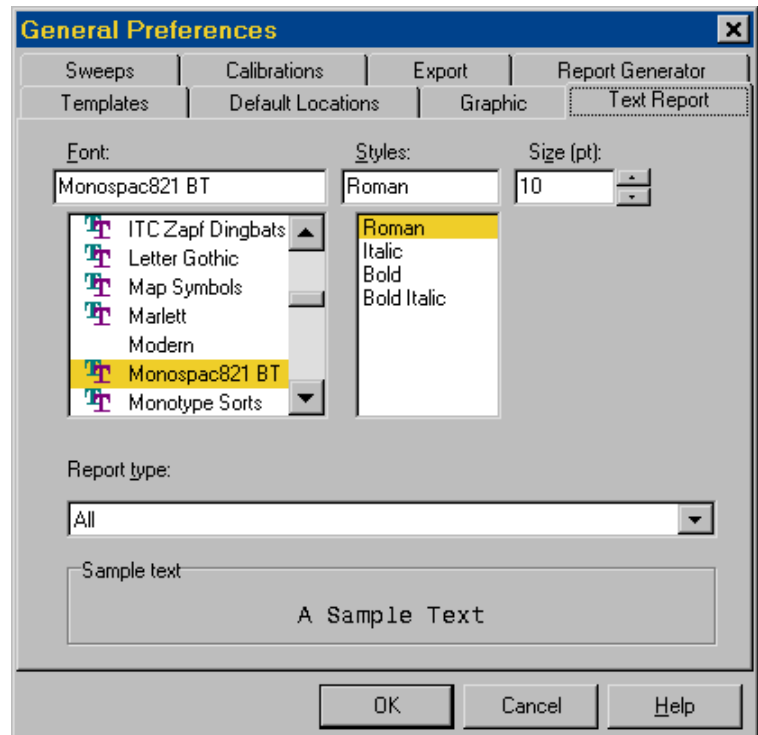
### Default X Axis Appearance

Ticks, grids, labels, and axis lines can be enabled or disabled.

## Text report settings

MAIN WINDOW / Settings / General Preferences...

In the **GENERAL PREFERENCES** window default settings for font, font style, font size, and report type for text report printing can be defined with the **Text report** tab:



## Save settings

### MAIN WINDOW / Settings / Save Now

This function saves the actual settings of the software: Open windows, window position and size, general preferences. Also the active items and the selection criteria in **VA DATABASE TABLE** are stored. These information is stored related to the database. This means that for different databases different software appearances can be set and stored. Open subwindows in **MAIN WINDOW** cannot be stored.

### MAIN WINDOW / Settings / Save On Exit

If this function is enabled, the software settings are stored when the database software is quit or when the database is closed.

## 2.8 Windows and subwindows

### Opening of VA windows



#### MAIN WINDOW / Window / Explorer (F9)

The **VA DATABASE EXPLORER** window will be opened or (if it is already open) put on top.



#### MAIN WINDOW / Window / Table (F10)

The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.


**MAIN WINDOW / Window / Report Generator (F11)**

The **VA DATABASE REPORT GENERATOR** window will be opened or (if it is already open) put on top.


**MAIN WINDOW / Window / Communication (F12)**

The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.

The opened windows are marked with a check-box sign. If the desired window is hidden or minimized it will be maximized again and put on top.

## Arrangement of VA windows

**MAIN WINDOW / Window / Arrange Windows**

The open VA windows are tiled on the screen so that they are all visible.

## Arrangement of subwindows

**MAIN WINDOW / Window / Tile**

All  
Text Reports  
Segments  
Substances  
Calibrations

The selected subwindows in the **MAIN WINDOW** are tiled. The rest of the subwindows will be minimized.

**MAIN WINDOW / Window / Cascade**

All  
Text Reports  
Segments  
Substances  
Calibrations

The selected subwindows in the **MAIN WINDOW** are cascaded. The rest of the subwindows will be minimized.

**MAIN WINDOW / Window / Arrange Icons**

The minimized window icons will be arranged at the bottom of the **MAIN WINDOW**.

**MAIN WINDOW / Window / Minimize All**

All subwindows will be minimized.

**MAIN WINDOW / Window / Restore All**

All minimized subwindows will be maximized again back to the previous size.

**MAIN WINDOW / Window / Close All**

All subwindows will be closed.

# 3 VA Database Table

## 3.1 VA Database Table overview

The **VA DATABASE TABLE** window shows a tabular view of data fields of the current database. The most important analysis results as well as sample and method information of the determinations in the database are displayed here. The display of fields and their order in the table are defined by the user. It is also possible to create filters with filtering criteria, so that only the interesting part of the data is displayed. More detailed information is then available by opening subwindows in the **MAIN WINDOW**.

**VA DATABASE EXPLORER** and **VA DATABASE TABLE** are linked. If a determination in the **VA DATABASE TABLE** is marked the same determination in the **VA DATABASE EXPLORER** is highlighted.

The displayed table view can be printed and exported to spreadsheet programs like Microsoft Excel.

## 3.2 Opening/closing of VA Database Table

### Opening the VA Database Table




**MAIN WINDOW / Window / Table (F10)**

The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.

### Closing the VA Database Table

**VA DATABASE TABLE / Table / Close**

The **VA DATABASE TABLE** window will be closed (the same function can be done by pressing the  button of the **VA DATABASE TABLE** window) and the current settings are stored.

---

**Note:** The settings of the **VA DATABASE TABLE** window can be stored at any time with **MAIN WINDOW / Settings / Save Now**.

---

## 3.3 Printing of tables

### Table printing



#### VA DATABASE TABLE / Table / Print... (Ctrl+P)







Print the selected (highlighted) lines of the VA Database table. The number of prints and the pages to be printed can be selected in the appearing **PRINT** window which depends on the selected printer.

### Table print preview



#### VA DATABASE TABLE / Table / Print Preview...

The **PRINT PREVIEW** window appears. The selected (highlighted) lines of the VA Database table are shown in the appearance formatted for the desired printer. The following functions are available by pressing the corresponding buttons or selecting the menu items in the **PRINT PREVIEW** window or in the context sensitive menu:

	<b>F</b> irst Page	Go to first page
	<b>P</b> revious Page	Go to previous page
	<b>N</b> ext Page	Go to next page
	<b>L</b> ast Page	Go to last page
	<b>P</b> rint...	see <i>Table printing</i>
	<b>P</b> age <b>S</b> etup...	see <i>Table page setup</i>
	<b>C</b> lose	Close preview window

### Table page setup

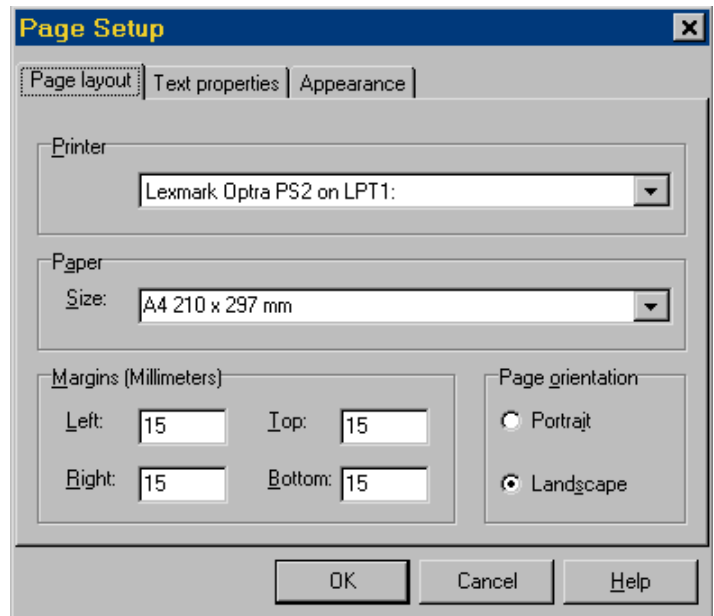


#### VA DATABASE TABLE / Table / Page Setup...

The format of the page to be printed can be changed in the appearing **PAGE SETUP** window which contains three tabs:

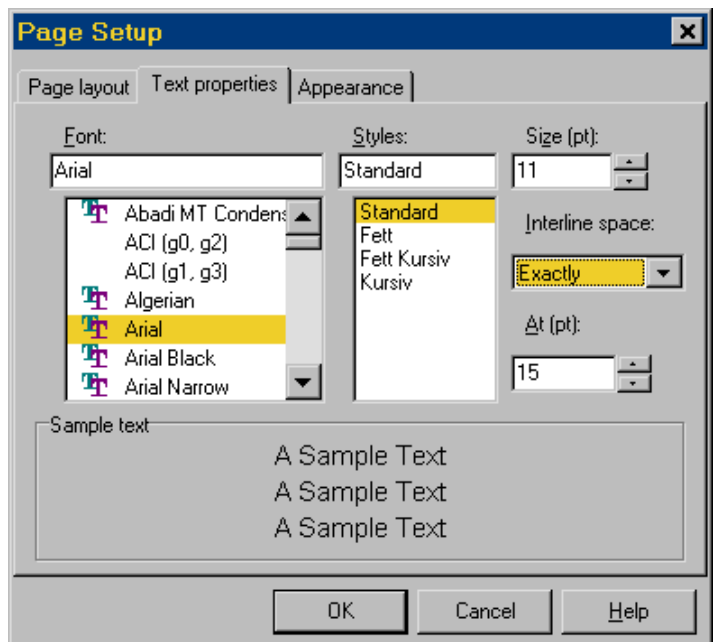
#### Page layout

The printer, the paper size, the page margins, and the page orientation are adjustable.



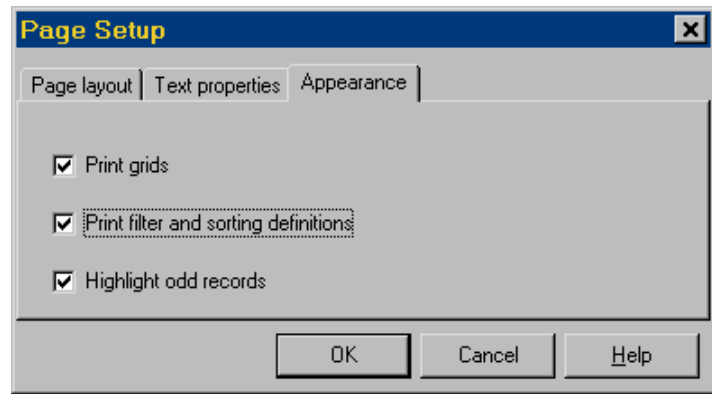
**Text properties**

Font, font style, font size and line spacing for text printing can be changed. With **Interline space** set to **Exactly**, the space can be adjusted exactly to the desired point value.




**Appearance**

The appearance of the table report can be specified by enabling/disabling the printing of grids, the printing of filter and sorting definitions and the highlighting of all odd lines.




## 3.4 Selection of determinations

### Selection of one determination

Select a determination by clicking on the desired line, which is then highlighted and marked by an arrow and a point (  ) on the left side. At the same time the related entry in the **VA EXPLORER** window (if it is open) will be selected too.

### Selection of several determinations

Select additional determinations by simultaneously pressing the <Ctrl> key and clicking on the desired lines, which are then highlighted. The last line (active determination) is marked by an arrow and a point (  ), the other selected lines are marked by a point on the left side.



#### VA DATABASE TABLE / Edit / Select All

Select all determinations of the database table.



#### VA DATABASE TABLE / Edit / Unselect All

Unselect all determinations of the database table.

## 3.5 Export from VA Table

### Export of table text from VA Table

#### VA DATABASE TABLE / Table / Save As Text...

Save the header line and the selected part of the table (highlighted lines) into an ASCII text file (extension \*.txt). This file can be imported into other programs like Microsoft Word or Excel. The table fields are separated by the default data delimiter set in the **General Preferences** (see *Export settings, page 21*).

## Copy table text to clipboard



### VA DATABASE TABLE / Edit / Copy (Ctrl+C)

Copy the selected part of the table (highlighted lines) to the clipboard. This function can be used for copying the table fields of the selected determinations to other programs like Microsoft Word or Excel. The table fields are always separated by a tab.

## Send determinations to VA Trace Analyzer from VA Table

### VA DATABASE TABLE / Determination / Send to COM#

Send the selected determinations (highlighted lines) to the chosen COM port. The data transfer is then carried out in the background. If you want to see the progress of the data transfer, open the **VA COMMUNICATION** window.

---

**Note:** Before sending determinations, the connection to the 746 VA Trace Analyzer has to be set active (see *Opening/closing COM ports, page 50*) and the 746 VA Trace Analyzer has to be set to receive mode by pressing the softkeys **<Copy from> <RS232 lfc.#>** on the dialog pages "DETERMINATIONS" or "DATA CARD".

---

## Export of determination files from VA Table

### VA DATABASE TABLE / Determination / Save As...

Save the determination files (binary files with extension \*.dtm) of the selected part of the table (highlighted lines) into the directory specified in the **SAVE DETERMINATION AS FILE** window.

## Export of measurement points from VA Table

### VA DATABASE TABLE / Determination / Export Measurement Points...

Save the measurement points of all sweeps of the selected determinations of the table (highlighted lines) into a data file (extension \*.dat). The file contains blocks of X and Y values preceded by a header line for each sweep. The data files can be imported into spreadsheet programs like Microsoft Excel. The table fields are separated by the default data delimiter set in the **General Preferences** (see *Export settings, page 21*).

## 3.6 View reports and curves from VA Table

### View text report from VA Table

VA DATABASE TABLE / Determination / View Text Report

Open a subwindow in the **MAIN WINDOW** which contains the **Full report** and the **Method Specifications** of the selected determination.

### View substance curve from VA Table

VA DATABASE TABLE / Determination / View Substance

Open a subwindow in the **MAIN WINDOW** which contains all substance curves of the chosen substance of the selected determination.

### View calibration curve from VA Table

VA DATABASE TABLE / Determination / View Calibration

Open a subwindow in the **MAIN WINDOW** which contains the calibration curve of the chosen substance of the selected determination.

### View segment curve from VA Table

VA DATABASE TABLE / Determination / View Segment

Open a subwindow in the **MAIN WINDOW** which contains all segment curves of the chosen segment of the selected determination.

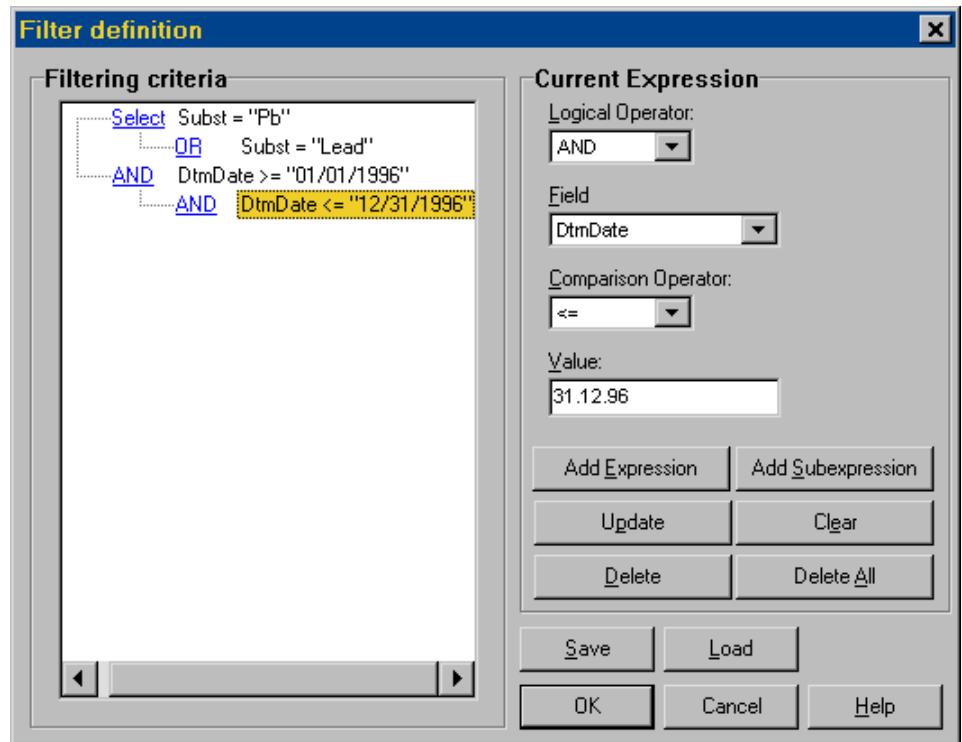
## 3.7 Options for VA Table display

### Filtering determinations for VA Table



VA DATABASE TABLE / Options / Define Filter...

Define a new logical filter for selection of some determinations out of the whole set of determinations stored in the database. The **FILTER DEFINITION** window appears where the filtering criteria can be entered:



**Filtering criteria**

Tree view of all defined filtering criteria with expressions and subexpressions. The current expression is highlighted.

**Current expression**

Definition of the current filtering expression with the following items:

**Logical Operator**

Selection of the logical operator **AND** or **OR**. The first expression has no operator.

**Field**

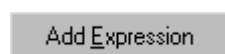
Selection of a database field for the logical expression (details see *Database fields overview, page 37*).

**Comparison Operator**








Selection of one of the following comparison operators: =, <>, <, <=, >, >=

**Value**

Entry of a numeric or alphanumeric value for comparison.



Add the current expression to the filtering criteria in the same hierarchy level as the selected expression.

	Add the current expression to the filtering criteria in the next lower hierarchy level as the selected expression (this corresponds to entering a bracket in the filtering criteria expression).
	Update the current expression after changing some of the entries.
	Clear all items of the current expression.
	Delete selected expression or subexpression.
	Delete all expressions or subexpressions.
	Save the filtering criteria to a file with extension *.vaf into the directory specified in the <b>SAVE FILTER DEFINITION TO A FILE</b> window.
	Load the filtering criteria from a previously stored file with extension *.vaf from the directory specified in the <b>LOAD FILTER DEFINITION FROM A FILE</b> window.

After closing the **FILTER DEFINITION** window the determinations are filtered. The filtering expression is shown in the **Select** pop-up field of the Menu bar in the **VA DATABASE TABLE** window, where the 10 previously defined filtering expressions can be easily selected.

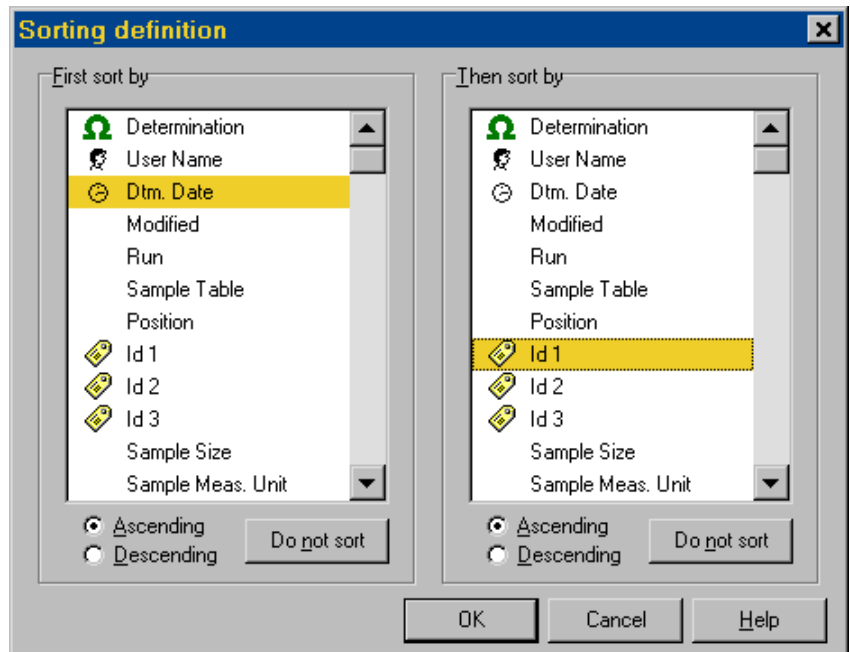
Select [Subst = "Pb" OR Subst = "Lead" ] AND (DtmDate >= "01/01/1996" AND DtmDate <= "12/31/1996" )

## Sorting determinations for VA Table



### VA DATABASE TABLE / Options / Define Sorting...

Define a new sorting order for display of the determinations in the database. The **SORTING DEFINITION** window appears where the sorting criteria can be selected:

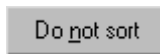


**First sort by**

Selection of a database field for main sorting of the determinations (details see *Database fields overview, page 37*). The selected field is highlighted. The sorting order can be set to **Ascending** or **Descending**.

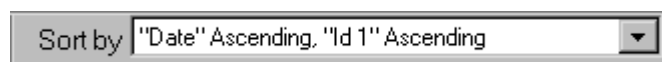
**Then sort by**

Selection of a database field for further sorting of the determinations. The selected field is highlighted. The sorting order can be set to **Ascending** or **Descending**.



Deactivate the sorting function.

After closing the **SORTING DEFINITION** window the determinations are sorted. The sorting expression is shown in the **Sort by** pop-up field of the Menu bar in the **VA DATABASE** window, where the 10 previously defined sorting expressions can be easily selected.

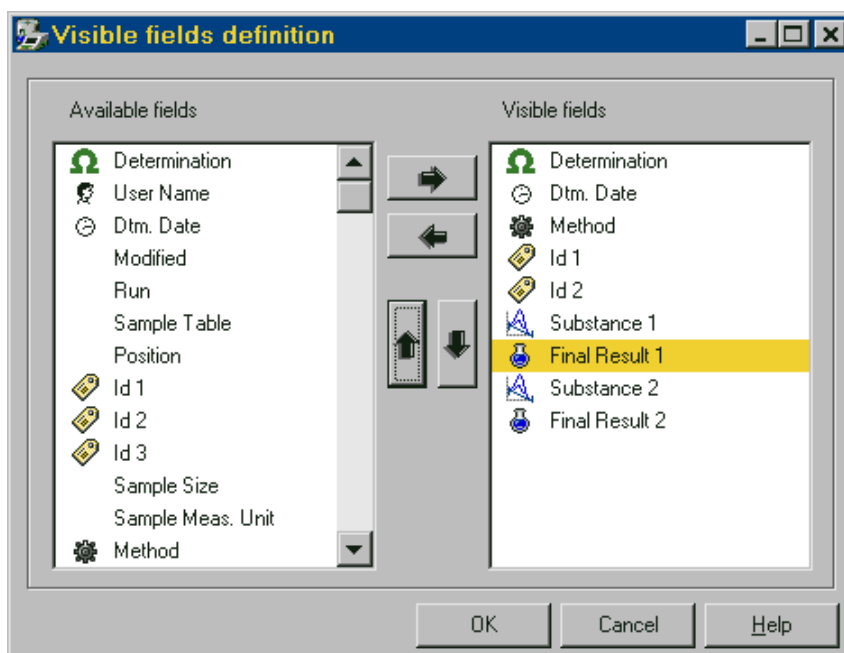


**Defining visible fields for VA Table**



**VA DATABASE TABLE / Options / Define Visible Fields...**

Define the visible fields of the determinations in the database. The **VISIBLE FIELDS DEFINITION** window appears where the items to be shown can be selected:



#### Available fields

List of all available database fields which can be displayed in the **VA DATABASE** window (details see *Database fields overview, page 37*).



Copy selected field(s) to the list of visible fields (additional fields can be selected by simultaneously pressing the <Shift> or <Ctrl> key).

#### Visible fields

List of the database field which are displayed in the **VA DATABASE** window.



Delete selected field(s) from the list of visible fields (additional fields can be selected by simultaneously pressing the <Shift> or <Ctrl> key).



Change the position of the selected field(s) in the list of visible fields (additional fields can be selected by simultaneously pressing the <Shift> or <Ctrl> key).

---

**Note:** The position of the fields in the database table can also be changed by clicking a field and moving it to the desired position with the left mouse-button pressed down. The column width of the field can be adjusted by tearing the border line to the desired width.

---

## 3.8 Database fields overview

All fields stored in the database are taken from the **Full Report** text of the 746 VA Trace Analyzer. These fields can be selected for filtering, sorting and display options.

---

**Note:** The items which can be selected for filtering are marked with the corresponding name in brackets which is used in the parameter **Field** of the **FILTER DEFINITION** window. For some numbered items, only a general expression is available for filtering (e.g. **Ident**, **Subst**).

---

### Fields from page "MONITORING"



#### **Determination (Determ)**

Determination name which is automatically created by the 746 VA Trace Analyzer. It is identical with the name on page "DETERMINATIONS" in the 746 VA Trace Analyzer.



#### **User Name (UserName)**

User name defined on page "MONITORING" of the 746 VA Trace Analyzer.



#### **Dtm. Date (DtmDate)**

Date on which the determination has been made. It is stored automatically by the 746 VA Trace Analyzer.

#### **Modified (Modified)**

Indicates whether the determination has been modified manually. If no modification has been made there is no content in this field. If the determination has been changed manually the modification date is shown.

#### **Run (Run)**

Run number of the 746 VA Trace Analyzer according to page "MONITORING".

#### **Sample Table (SampleTbl)**

Name of the sample table which has been used on the 746 VA Trace Analyzer when recording the determination. If no sample table has been used a dash is displayed.

#### **Position (Pos)**

Position of the sample according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer. Usually this is the position of the sample on the 695 Autosampler rack.

**Id1 (Ident)**

Sample Identification 1 (S1) of the sample according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer.

**Id2 (Ident)**

Sample Identification 2 (S2) of the sample according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer.

**Id3 (Ident)**

Sample Identification 3 (S3) of the sample according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer.

**Sample Size (SampleSize)**

Numeric value of the sample size (S0) according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer.

**Sample Meas. Unit (Meas. Unit)**

Measuring unit of the sample size (S0) according to the entry on page "MONITORING" or "SAMPLES" of the 746 VA Trace Analyzer.

**Method (Method)**

Name of the method which has been used for recording the determination.

**Title (Title)**

Title of the used method.

**Remark1 (Remark1)**

Remark 1 of the used method according to the entry on page "MONITORING" of the 746 VA Trace Analyzer.

**Remark2 (Remark2)**

Remark 2 of the used method according to the entry on page "MONITORING" of the 746 VA Trace Analyzer.

For more detailed information about the different fields we refer to the user manual of the 746 VA Trace Analyzer.

## Fields from page "RESULTS"

**Substance 1...8 (Subst)**

Substance name of the specific substance.

**Mass Concentration 1...8 (MassConc)**

Mass concentration  $\rho_s$  of the related substance in the sample. The unit is always g/L and displayed with automatic calculated prefixes.

**Abs. MC Deviation 1...8 (MassConcAbsDev)**

Absolute deviation of the mass concentration  $\rho_s$  in g/L with automatic calculated prefixes.

**Rel. MC Deviation 1...8 (MassConcRelDev)**

Relative deviation of the mass concentration  $\rho_s$  in %.


**Final Result 1...15 (FinalResult)**

Identification of the final result.

**Result Value 1...15 (ResValue)**

Numerical quantity of the related final result. The unit is specified in **Result Unit**. The final results are calculated according to the page "CALCULATION" of the 746 VA Trace Analyzer. If no formulae have been entered no final results are calculated.

**Result Unit 1...15 (Meas. Unit)**

Result unit of the related final result.


**Abs. Result Deviation 1...15 (ResAbsDev)**

Absolute deviation of the related final result. The unit is specified in "**Result Unit**".


**Rel Result Deviation 1...15 (ResRelDev)**

Relative deviation of the related final result in %.

**Comment 1...15 (Comment)**

Comment on any error or difficulty in the evaluation of the final result.

---

**Note:** Depending on the entered formula on page "CALCULATION" of the 746 VA Trace Analyzer the quantity in final results is treated in two different ways:

1. The defined **Res.unit** starts with "#" as first character. The transmitted result unit begins with an automatically calculated prefix. When storing the numerical value for the **Result Value** and the **Abs. Result Dev.** to the database this prefix is taken into account and the **Result Unit** is stored without prefix. So selections with different magnitudes in the concentration range are carried out correctly.
2. The defined result unit starts with any alphabetical character as first character. The **Result unit** is stored unchanged. The numerical values for the **Result Value** and the **Abs. Result Dev.** are also stored without further calculation.

We recommend to use only units with automatic prefix calculation which means that they must have a "#" as first character.

---

For more detailed information about the different fields we refer to the user manual of the 746 VA Trace Analyzer.



# 4 VA Database Explorer

## 4.1 VA Database Explorer overview

The **VA DATABASE EXPLORER** window displays the content of the database in a file manager way (tree view). Detailed information about the determinations is accessible by expanding the different branches of the tree. From the **VA DATABASE EXPLORER** window, text reports and single or overlay curves can be opened directly in the **MAIN WINDOW**.

**VA DATABASE EXPLORER** and **VA DATABASE TABLE** are linked. If an entry in the **VA DATABASE EXPLORER** is marked the pointer in the **VA DATABASE TABLE** jumps automatically to this determination.

## 4.2 Opening/closing of VA Database Explorer

### Opening the VA Database Explorer




**MAIN WINDOW / Window / Explorer (F9)**

The **VA DATABASE EXPLORER** window will be opened or (if it is already open) put on top.

### Closing the VA Database Explorer

**VA DATABASE EXPLORER / Explorer / Close**

The **VA DATABASE EXPLORER** window will be closed (the same function can be done by pressing the  button of the **VA DATABASE EXPLORER** window) and the current settings are stored.

---

**Note:** The settings of the **VA DATABASE EXPLORER** window can be stored at any time with **MAIN WINDOW / Settings / Save Now**.

---

## 4.3 Explorer views

### View selection



#### VA DATABASE EXPLORER / Explorer / 1st Level

Show the first level of the database explorer tree. For each determination its name and (in brackets) the 3 sample identifications are shown.



#### VA DATABASE EXPLORER / Explorer / 2nd Level

Show the first two levels of the database explorer tree. In addition to the determination name the main contents of the tree are shown: **Determination Info**, **Substances**, **Calibrations**, **Final Results**, **Method Specification**, **Segments**.



#### VA DATABASE EXPLORER / Explorer / 3rd Level

Show the first three levels of the database explorer tree.



#### VA DATABASE EXPLORER / Explorer / All Levels

Show all levels of the database explorer tree.



#### VA DATABASE EXPLORER / Explorer / All Segments

Show all segments in the database explorer tree with the segment name.



#### VA DATABASE EXPLORER / Explorer / All Substances

Show all substances in the database explorer tree with substance name and found mass concentration.



#### VA DATABASE EXPLORER / Explorer / All Calibrations

Show all calibration curves in the database explorer tree with the substance name.



#### VA DATABASE EXPLORER / Explorer / All Final Results

Show all final results in the database explorer tree with result name and found value.

### View items


















#### Open next level

Open this expandable level of the tree by clicking on the "+" sign.



#### Close this level

Close this expanded level of the tree by clicking on the "-" sign.










	<b>Determination</b> Folder with all determination data entitled with determination name and 3 sample identifications.
	<b>Determination Info</b> Folder with date and method.
	<b>Date</b> Recording date of the determination.
	<b>Method</b> Method used for recording the determination.
	<b>Substances</b> Folder with all substance curves.
	<b>Substance 1...8</b> Folder with all substance curves of one substance entitled with substance name and found mass concentration.
	<b>Substance curve</b> Single curve of the substance with VR number (variation and replication).
	<b>Calibrations</b> Folder with all calibration curves.
	<b>Calibration curve</b> Single calibration curve of the substance entitled with substance name.
	<b>Final Results</b> Folder with all final results.
	<b>Final Result 1...15</b> Single final result entitled with result name and value.
	<b>Method Specification</b> Specification of the method used for recording the determination.
	<b>Segments</b> Folder with all segment curves.
	<b>Segment 1...8</b> Folder with all curves of one segment entitled with segment name.
	<b>Segment curve</b> Single segment curve with VR number (variation and replication).

## 4.4 View reports and curves from VA Explorer

### View text reports from VA Explorer

VA DATABASE EXPLORER / Determination / View

Open a subwindow in the **MAIN WINDOW** which contains the **Full report** and the **Method Specifications** of the selected determination. This text report is opened by selecting this menu point and simultaneously one of the following view items:

-  **Determination**
-  **Determination Info**
-  **Date**
-  **Method**
-  **Substances**
-  **Calibrations**
-  **Final Results**
-  **Final Result 1...15**
-  **Method Specification**

The text report window can also be opened by drag and drop of the view item directly to an empty space of the **MAIN WINDOW**.

---



**Note:** The part of the text report which is shown in the text report window in the **MAIN WINDOW** depends on the view item selected. However, the text report window contains always the whole text with full report and method specification.

---

### View substance curves from VA Explorer

VA DATABASE EXPLORER / Determination / View

Open a subwindow in the **MAIN WINDOW** which contains the substance curves of the chosen item of the selected determination. The curve window is opened by selecting this menu point and simultaneously one of the following view items:

-  **Substance 1...8**  
Shows all substance curves of the selected substance.
-  **Substance curve**  
Shows a single substance curve.

The curve window can also be opened by drag and drop of the view items directly to an empty space of the **MAIN WINDOW**.

### Substance overlay curves

Overlay curves of several substances can be opened by drag and drop of the view item directly into an open substance curve window in the **MAIN WINDOW**.

---

**Note:** Overlay curves can only be created if the units of the x and y axes are identical (e.g. no overlay of VA and PSA curves).

---

## View calibration curves from VA Explorer

### VA DATABASE EXPLORER / Determination / View

Open a subwindow in the **MAIN WINDOW** which contains the calibration curve of the chosen substance of the selected determination. The curve window is opened by selecting this menu point and simultaneously the following view item:



#### Calibration curve

The calibration curve window can also be opened by drag and drop of the view element directly to an empty space of the **MAIN WINDOW**.

### Calibration overlay curves

Overlay calibration curves of several substances can be opened by drag and drop of the view item directly into an open calibration curve window in the **MAIN WINDOW**.

---

**Note:** Overlay curves can only be created if the units of the x and y axes are identical (e.g. no overlay of VA and PSA curves).

---

## View segment curves from VA Explorer

### VA DATABASE EXPLORER / Determination / View

Open a subwindow in the **MAIN WINDOW** which contains all segment curves of the chosen segment of the selected determination. The segment window is opened by selecting this menu point and simultaneously one of the following view items:



#### Segment 1...8



#### Segment curve

The segment curve window can also be opened by drag and drop of the view item directly to an empty space of the **MAIN WINDOW**.

#### Segment overlay curves

Overlay segment curves of several segments can be opened by drag and drop of the view item directly into an open segment curve window in the **MAIN WINDOW**.

---

**Note:** Overlay curves can only be created if the units of the x and y axes are identical (e.g. no overlay of VA and PSA curves).

---

## 4.5 Export from VA Explorer

### Send determinations to VA Trace Analyzer from VA Explorer

VA DATABASE EXPLORER / Determination / Send to COM#

Send the selected determination (highlighted line) to the chosen COM port. The data transfer is then carried out in the background. If you want to see the progress of the data transfer, open the **VA COMMUNICATION** window.

---

**Note:** Before sending determinations, the connection to the 746 VA Trace Analyzer has to be set active (see *Opening/closing COM ports, page 50*) and the 746 VA Trace Analyzer has to be set to receive mode by pressing the softkeys <Copy from> <RS232 Ifc.#> on the dialog pages "DETERMINATIONS" or "DATA CARD".

---

### Export of determination files from VA Explorer

VA DATABASE EXPLORER / Determination / Save As...

Save the determination file (binary file with extension \*.dtm) of the selected determination (highlighted line) into the directory specified in the **SAVE DETERMINATION AS FILE** window.

## Export of measurement points from VA Explorer

### VA DATABASE EXPLORER / Determination / Export Measurement Points...

Save the measurement points of all sweeps of the selected determination (highlighted line) into a data file (extension \*.dat). The file contains blocks of X and Y values preceded by a header line for each sweep. The data file can be imported into spreadsheet programs like Microsoft Excel. The table fields are separated by the default data delimiter set in the **General Preferences** (see *Export settings, page 21*).

## 4.6 Options for VA Explorer display

### Filtering determinations for VA Explorer

#### VA DATABASE EXPLORER / Options / Define Filter...

Define a new logical filter for selection of some determinations out of the whole set of determinations stored in the database. The **FILTER DEFINITION** window appears where the filtering criteria can be entered (details see *Filtering determinations for VA Table, page 32*).

### Sorting determinations for VA Explorer

#### VA DATABASE EXPLORER / Options / Define Sorting...

Define a new sorting order for display of the determinations in the **VA EXPLORER** window. The **SORTING DEFINITION** window appears where the sorting criteria can be selected (details see *Sorting determinations for VA Table, page 34*).



# 5 VA Communication

## 5.1 VA Communication overview

In the **VA COMMUNICATION** window the connections to the 746 VA Trace Analyzers and 693 VA Processors are installed. The COM port setup and the default destination for storing the incoming data is defined. It is possible to connect up to four VA instruments to a PC. To every connected instrument a specific destination database can be defined where the incoming data is stored.

When the **VA COMMUNICATION** window is opened the course of the data transfer on the different ports is shown.

Data which is not stored in the database itself (methods, determinations, sample tables, rack data) can be sent back to the 746 VA Trace Analyzer from this window.

## 5.2 Opening/closing of VA Communication

### Opening the VA Communication window




**MAIN WINDOW / Window / Communication (F12)**

The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.

### Closing the VA Communication window



**Closing the Window**

The **VA COMMUNICATION** window will be closed by pressing the  button of the **VA COMMUNICATION** window.

---

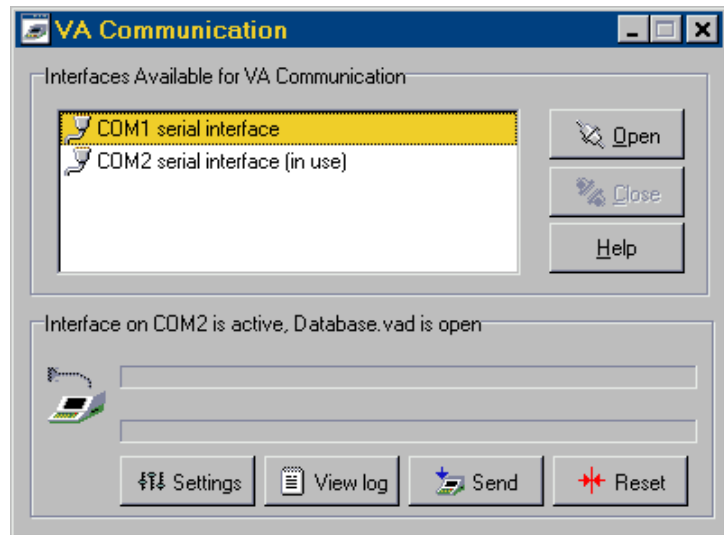
**Note:** The settings of the **VA COMMUNICATION** window can be stored at any time with **MAIN WINDOW / Settings / Save Now**.

---

## 5.3 COM port configuration

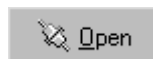
### Opening/closing COM ports

The **VA COMMUNICATION** window shows the available COM ports which can be opened or closed.



#### Interfaces Available for VA Communication

List of all available COM ports (serial interfaces) of the PC.



Open the selected COM port and activate connection to database. For each opened COM port a subwindow is shown which indicates its status:



Interface on COM port ready, related database open.



Interface on COM port not ready, no database open.

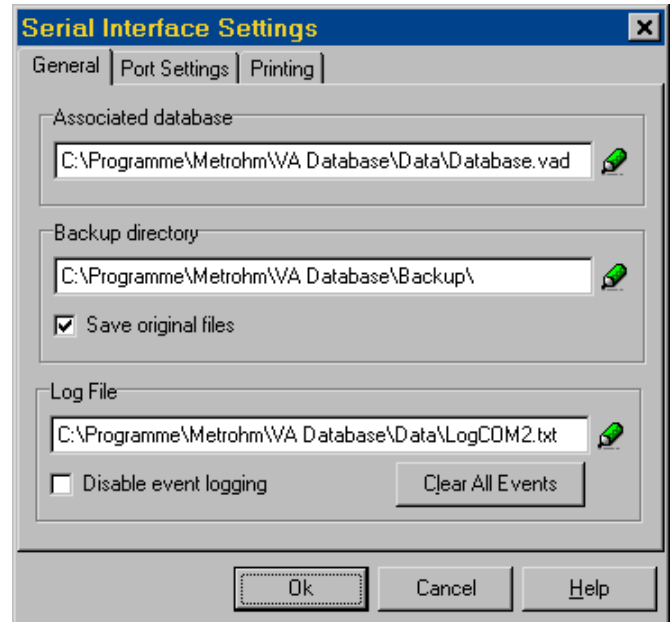


Close the selected COM port and deactivate connection to database.

## Default directories



Opens the **SERIAL INTERFACE SETTINGS** window for COM port settings. The default directories can be set with the **General** tab.



### Associated database

Directory and file name for database associated to the selected COM port. All incoming actual determinations are stored in this database. For adding a new entry or changing an existing entry, press the button. In the **OPEN** window select the desired database configuration file (\*.vad file) or enter a new name to create a new database.

### Backup directory


Default directory for storage of incoming binary files (\*.dtm, \*.mth, \*.rpt, \*.smp, \*.aut) from the 746 VA Trace Analyzer. For adding a new entry or changing an existing entry, press the button and select the desired directory in the **CHANGE BACKUP DIRECTORY** window.

### Save original files

If this option is enabled, the \*.rpt and \*.dtm files are stored automatically in the backup directory when an actual determination is sent to the database.

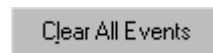
### Log File

Directory for the log file where all activities on the related COM port are recorded.

For adding a new entry or changing an existing entry, press the  button. In the **CHANGE LOG FILE NAME** window select the desired log file (\*.txt file) or enter a new name to create a new log file.

### Disable event logging

If this option is enabled, no activities are recorded in the log file.

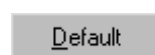
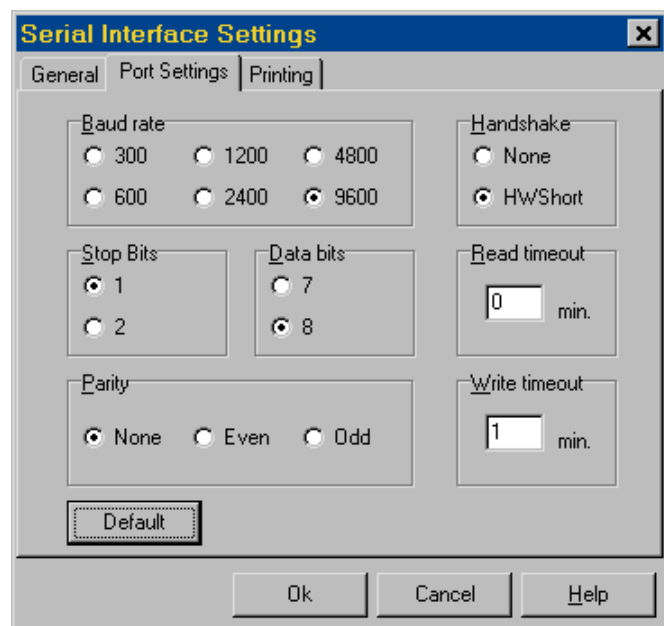


The content of the selected log file will be deleted.

## COM port settings



Opens the **SERIAL INTERFACE SETTINGS** window for COM port settings. The parameters for the serial interface can be set with the **Port Settings** tab.



Recommended default settings.

---

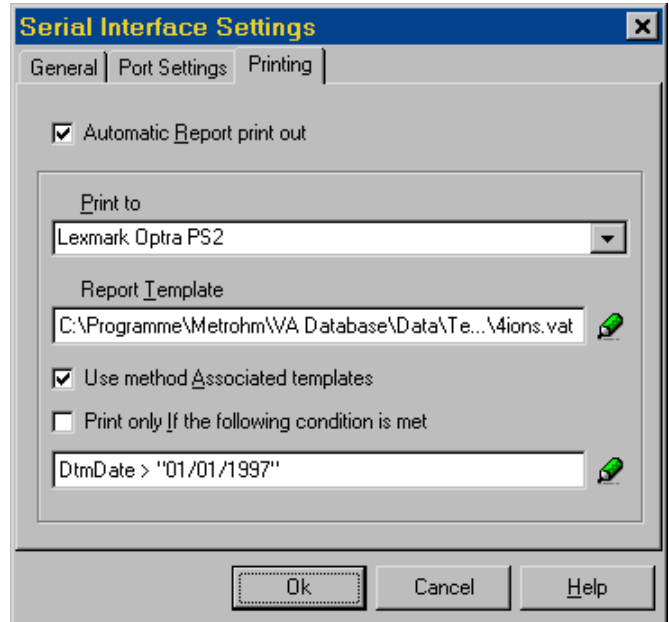
**Note:** Make sure that these settings are identical to the RS232 settings on the 746 VA Trace Analyzer.

---

## Automatic printing



Opens the **SERIAL INTERFACE SETTINGS** window for COM port settings. The automatic printing can be set with the **Printing** tab.



### Automatic Report print out

If this option is enabled, a report is automatically printed out when an actual determination is sent to the database.

### Print to

Selection of the printer for print out.

### Report Template

Default report template for automatic report print out (must be set if the automatic report print out is enabled). For adding a new entry or changing an existing entry, press the button and select the desired template in the **CHANGE REPORT TEMPLATE** window.

### Use method Associated templates

If this option is enabled, the template associated to the method is used to print out the report instead of the default report template.

### Print only If the following condition is met

If this option is enabled, the report is only printed out if the following condition is met. The printing condition can be entered or changed by pressing the button. The **FILTER DEFINITION** window appears where the filtering criteria for the printing condition can be entered (details see *Filtering determinations for VA Table, page 32*).

## 5.4 Data transfer

The progress of the data transfer between PC and 746 VA Trace Analyzer is visible in the open **VA COMMUNICATION** window. However, it is not necessary to keep this window open for the data transfer which can be carried out in the background.

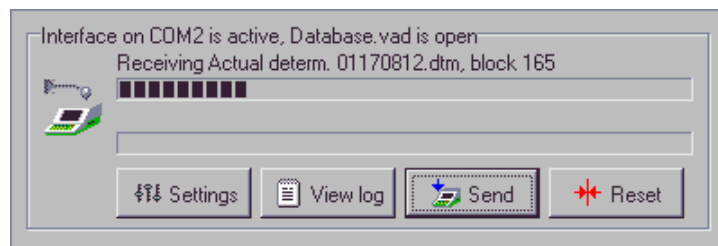
---

**Note:** The connection between 746 VA Trace Analyzer and PC is not checked automatically. So make sure that the two instruments are connected properly and that the 746 VA Trace Analyzer is ready to send or receive data.

---

### Receiving data

If data is sent from the 746 VA Trace Analyzer to an opened COM port, the progress of the data transfer is shown in the upper bar of the COM port subwindow in the **VA COMMUNICATION** window. The name of the file to be received is indicated above this bar.



Determinations sent by the 746 VA Trace Analyzer are only entered automatically into the predefined database if an **Report ActDetm** is sent to **RS1fc.1** or **RS1fc.2** on the dialog page "DOCUMENTATION".

Determinations (\*.dtm), methods (\*.mth), sample tables (\*.smp), and rack definition tables (\*.aut) which are sent to the PC with the softkey <Copy to> <RS232 lfc.#> are stored in the predefined backup directory (see also *Default directories*, page 51).

### Sending data




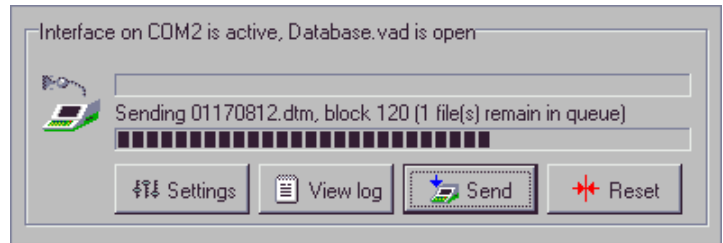
Send stored files to the 746 VA Trace Analyzer. The files to be sent (\*.dtm, \*.mth, \*.smp, \*.aut) can be selected in the opening **SEND VA FILES** window.

---

**Note:** Before sending data, make sure that the 746 VA Trace Analyzer has been set to the receive mode on the dialog pages "METHODS" (\*.mth files), "DETERMINATIONS" (\*.dtm files), "DATA CARD" (\*.dtm, \*.mth, \*.aut files) or "SAMPLES" (\*.smp files).

---

If data is sent from the VA Database program (via  or directly from the **VA DATABASE TABLE** or **VA DATABASE EXPLORER** window) to the 746 VA Trace Analyzer, the progress of the data transfer is shown in the lower bar of the COM port sub-window in the **VA COMMUNICATION** window. The name of the file being sent is indicated above this bar.



### Data transfer protocol



Open the log file where all activities on the related COM port are recorded with the Windows Editor. For details concerning the log file settings see *Default directories, page 51*.

### COM port reset



Abort all data transfer actions between PC and 746 VA Trace Analyzer and reset the selected COM port. Files in queue to be sent to the 746 VA Trace Analyzer must be sent again afterwards.

If the sending of data is aborted, the data receipt at the 746 VA Trace Analyzer is also canceled automatically.



If the receiving of data is aborted, the sending of data from the 746 VA Trace Analyzer is not canceled automatically and an error can occur at the COM port.

In this case, press  again.

---

**Note:** Use this button only if problems in the data transfer occur.

---



# 6 VA Report Generator

## 6.1 VA Report Generator overview

The **VA REPORT GENERATOR** is a powerful tool for creating custom reports using the content of the database. It can also be used for browsing the content of the open database.

For this purpose templates have to be created where the database fields and curves to be printed out are selected and arranged on a template page.

## 6.2 Opening/closing of VA Report Generator

### Opening the VA Report Generator



**MAIN WINDOW / Window / Report Generator (F11)**

The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.

### Closing the VA Report Generator

**VA REPORT GENERATOR / Report / Close**

The **VA REPORT GENERATOR** window will be closed (the same function can be done by pressing the **X** button of the **VA REPORT GENERATOR** window) and the current settings are stored.

---

**Note:** The settings of the **VA REPORT GENERATOR** window can be stored at any time with **MAIN WINDOW / Settings / Save Now**.

---

## 6.3 Templates

### Template functions

Templates for custom reports are created by the user and stored in a template file \*.vat. Based on the determination data stored in the database, the fields in the template are filled automatically with the corresponding data (text or graphics) as soon as a specific determination in the **VA DATABASE TABLE** or **VA DATABASE EXPLORER** window has been selected.

Templates can be used for creating user defined printouts but also for a fast browsing of the analysis results. With a suitable template all important results and curves are shown in a window. To get more detailed information text or curve subwindows have to be opened in the **MAIN WINDOW**.

### Handling of template files



#### VA REPORT GENERATOR / Report / New Template

Create a new report template. A new empty template will be opened.



#### VA REPORT GENERATOR / Report / Open Template...

Open an existing report template. The **OPEN VA DATABASE REPORT TEMPLATE** window appears where the name of the template file \*.vat and its directory have to be selected.



#### VA REPORT GENERATOR / Report / Save Template

Save the current report template. If the template has not yet been stored before, the **SAVE VA DATABASE REPORT TEMPLATE** window appears where the name of the template file \*.vat and its directory have to be entered.

#### VA REPORT GENERATOR / Report / Save Template As...

Save the current report template under a new name. The **SAVE VA DATABASE REPORT TEMPLATE** window appears where the name of the template file \*.vat and its directory have to be entered.

#### VA REPORT GENERATOR / Report / 1 ... #

The list of the previous opened templates. When an entry of the list is clicked on the corresponding template will be opened.

## Method associated templates



### Load method associated template

If this button is pressed down the method associated template defined in the **General settings** will be loaded automatically (see *Template settings, page 22*).

## 6.4 Design templates

### Switch design mode on/off



#### Set to design mode

The template is set to the design mode where text and curve items can be added and changed.



#### Set to read-only mode

The template is set to the read-only mode where the template cannot be changed.

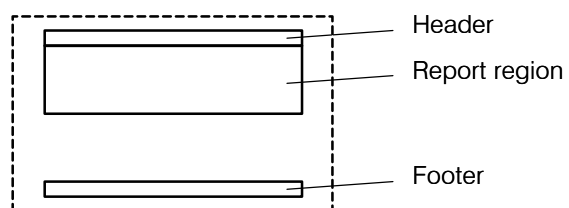
### Defining template regions

#### Template area

The maximum area of the template available for insertion of labels and fields is defined by the margins and page orientation set in the **VA CUSTOM REPORT OPTIONS** window (see *Report page setup, page 66*).

#### Template regions

Each template contains the three regions Header, Report region and Footer, which can be adjusted vertically by moving the border line to the desired height with the mouse.



## Text labels



### VA REPORT GENERATOR / Item / New / Text Label

Add a new text label to the template by opening a rectangle at the desired location. Text labels can be added to all regions of the template.

### VA REPORT GENERATOR / Item / Edit...

Change the content of the text label.

### VA REPORT GENERATOR / Item / Delete

Delete the text label.

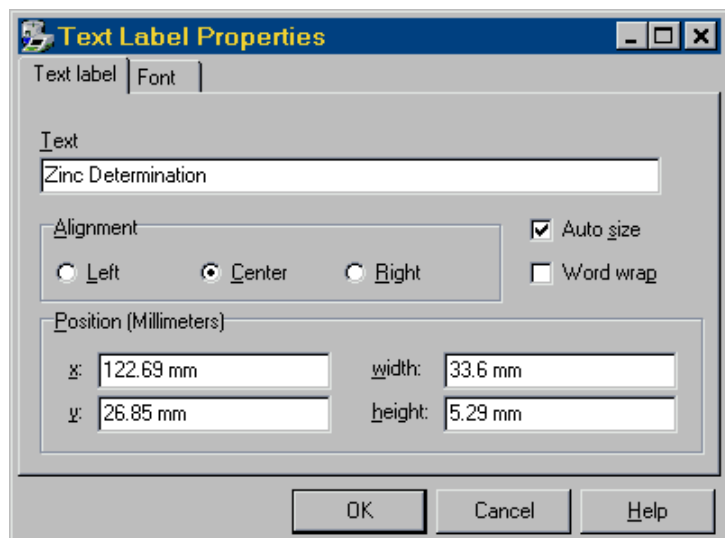


### VA REPORT GENERATOR / Item / Properties

The properties of the text label can be changed in the appearing **TEXT LABEL PROPERTIES** window which contains two tabs:

#### Text label

The content of the text label, its alignment, position and size can be adjusted. With **Auto size** enabled, the size of the field is automatically limited to the text size. For text fields with more than one line, **Word wrap** has to be enabled.



#### Alignment

The text alignment can also be changed with the following icons:



Align text left.



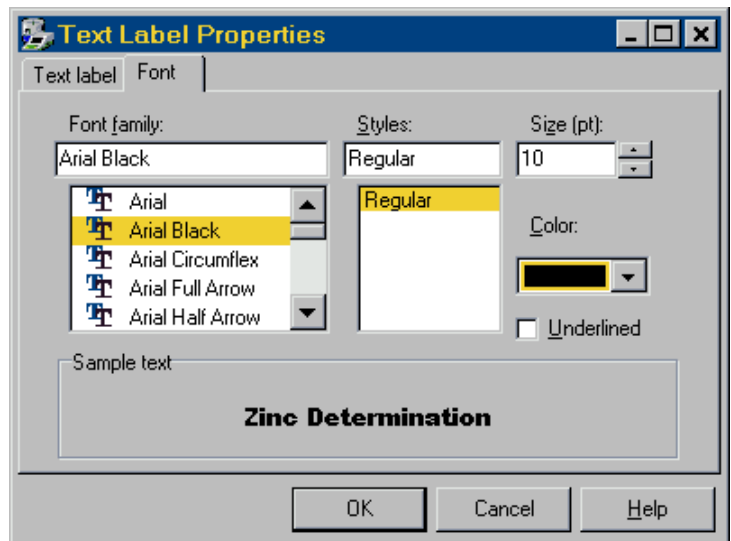
Center text.



Align text right.

**Font**

The font family, font style, font size and font color can be changed.



**Font properties**

The text font can also be changed with the following icons:



Increase font size.



Decrease font size.



Set text style to bold.



Set text style to italic.



Underline text.

**Text fields**



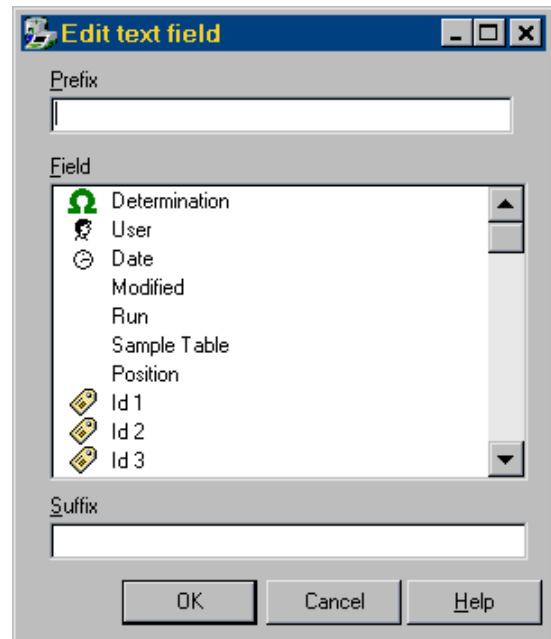
**VA REPORT GENERATOR / Item / New / Text Field**

Add a new text field out of the database to the report region of the template by opening a rectangle at the desired location. When the field has been placed, the **EDIT TEXT FIELD** window opens where the content of the field has to be selected.

**Prefix** Possibility to insert text before field text.

**Field** Selection of the text field from the current database (details see *Database fields overview, page 37*).

**Suffix** Possibility to insert text after field text.

**VA REPORT GENERATOR / Item / Edit...**

Change the content of the text field by selection of another field in the **EDIT TEXT FIELD** window.

**VA REPORT GENERATOR / Item / Delete**

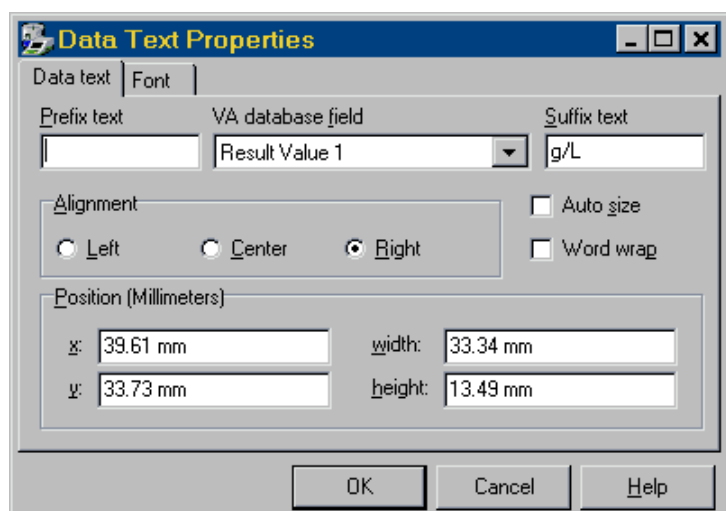
Delete the text field.

**VA REPORT GENERATOR / Item / Properties**

The properties of the text field can be changed in the appearing **DATA TEXT PROPERTIES** window which contains two tabs:

**Data text**

The content of the text field with prefix and suffix, its alignment, position and size can be adjusted. With **Auto size** enabled, the size of the field is automatically limited to the text size. For text fields with more than one line, **Word wrap** has to be enabled.



### Alignment

The text alignment can also be changed with the following icons:



Align text left.



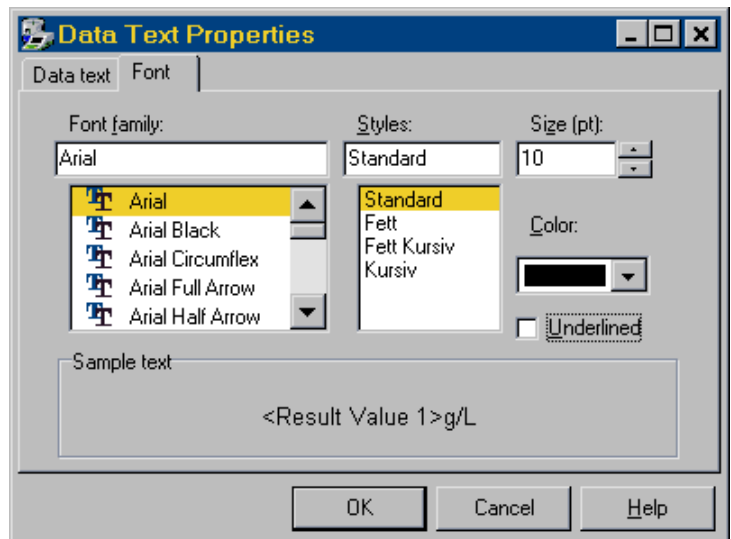
Center text.



Align text right.

### Font

The font family, font style, font size and font color can be changed.



### Font properties

The text font can also be changed with the following icons:



Increase font size.



Decrease font size.



Set text style to bold.



Set text style to italic.



Underline text.

## Curve fields



### VA REPORT GENERATOR / Item / New / Segment Field

Add a new segment field out of the database to the report region of the template by opening a rectangle at the desired location.



### VA REPORT GENERATOR / Item / New / Substance Field

Add a new substance field out of the database to the report region of the template by opening a rectangle at the desired location.



### VA REPORT GENERATOR / Item / New / Calibration Field

Add a new calibration field out of the database to the report region of the template by opening a rectangle at the desired location.

### VA REPORT GENERATOR / Item / Delete

Delete the curve field.

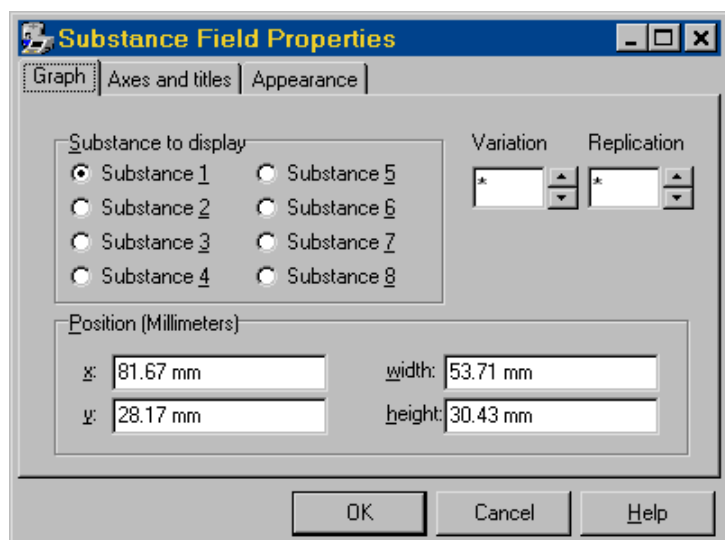


### VA REPORT GENERATOR / Item / Properties

The properties of the curve field can be changed in the appearing **SEGMENT**, **SUBSTANCE** or **CALIBRATION FIELD PROPERTIES** window which contain three tabs:

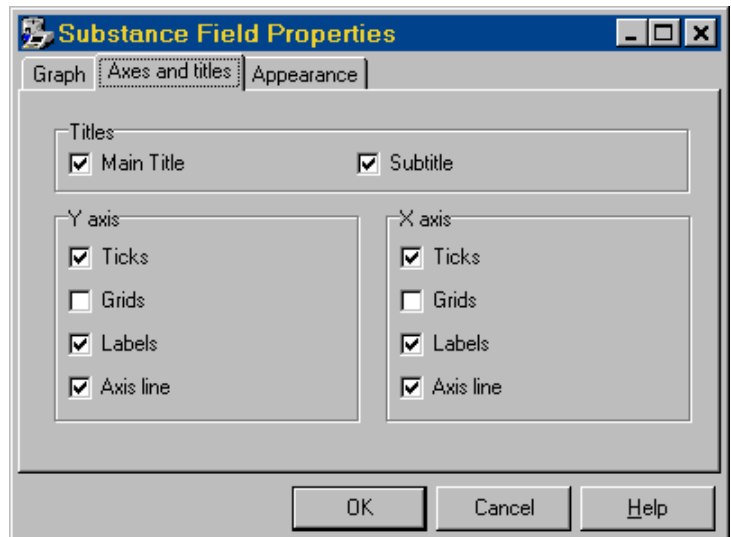
#### Graph

The content of the curve field (segment, substance or calibration curve), variation and replication (for segment and substance curves), and the field position and size can be adjusted.



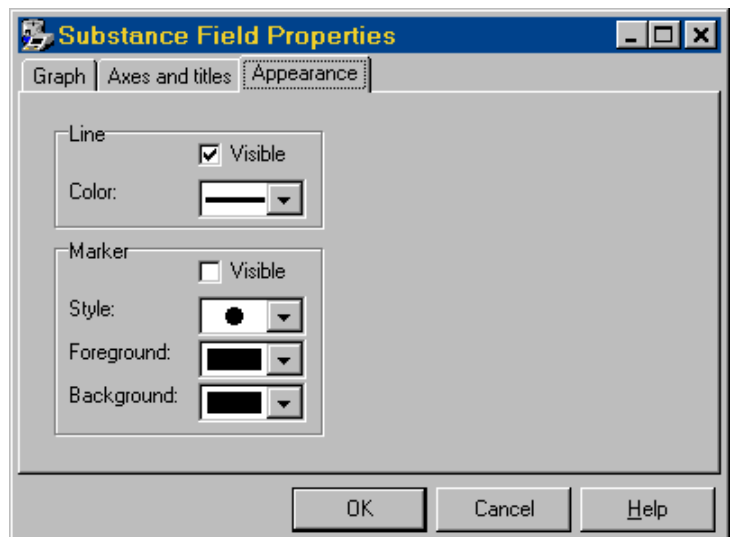
#### Axes and titles

Main title, subtitle, ticks, grids, labels and axis line of the X and Y axis can be enabled or disabled.



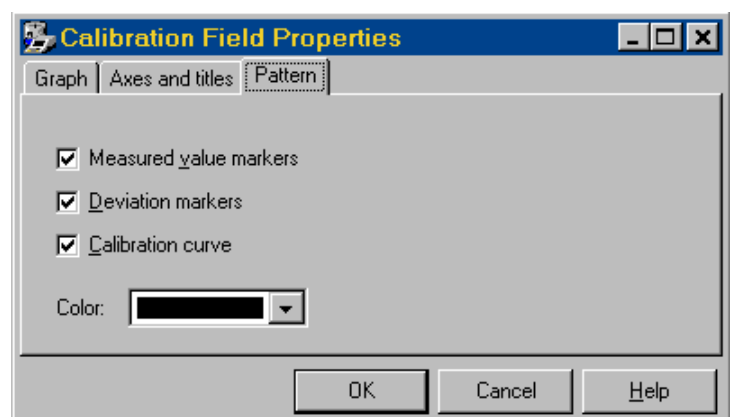
**Appearance**

For segment and substance curves, the line and marker pattern can be changed.



**Pattern**

For calibration curves, the display of measured values, deviation markers and calibration curve can be enabled or disabled and the line color can be changed.



## 6.5 Printing of custom reports

### Report printing



#### VA REPORT GENERATOR / Report / Print... (Ctrl+P)








Print the custom report for the selected determinations. The number of prints and the pages to be printed can be selected in the appearing **PRINT** window which depends on the selected printer. To print only the determinations selected manually, select **Selection** in this window.

### Report print preview



#### VA REPORT GENERATOR / Report / Print Preview...

The preview window appears. The custom report is shown in the appearance formatted for the desired printer. The following functions are available by pressing the corresponding buttons or selecting the menu items in the **PRINT PREVIEW** window or in the context sensitive menu:

	<b>F</b> irst Page	Go to first page
	<b>P</b> revious Page	Go to previous page
	<b>N</b> ext Page	Go to next page
	<b>L</b> ast Page	Go to last page
	<b>P</b> rint...	see <i>Report printing</i>
	<b>P</b> age <b>S</b> etup...	see <i>Report page setup</i>
	<b>C</b> lose	Close preview window

### Report page setup

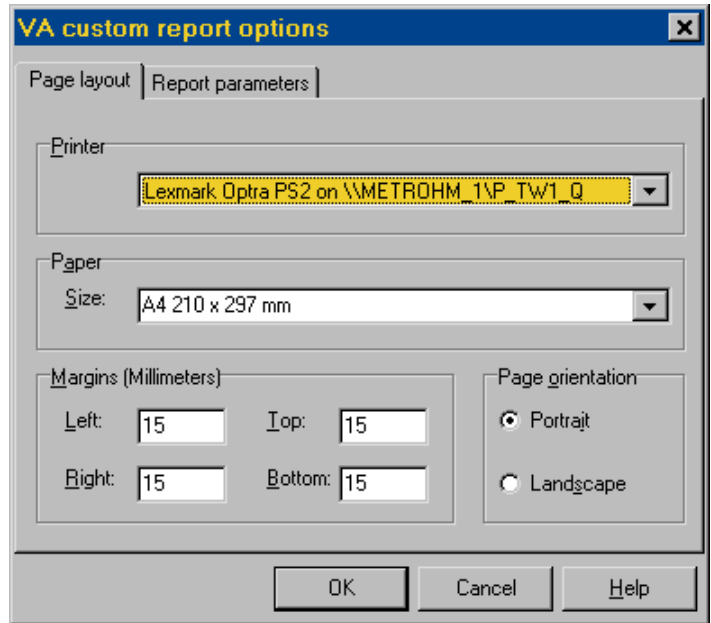


#### VA REPORT GENERATOR / Report / Page Setup...

The format of the page to be printed can be changed in the appearing **VA CUSTOM REPORT OPTIONS** window which contains two tabs:

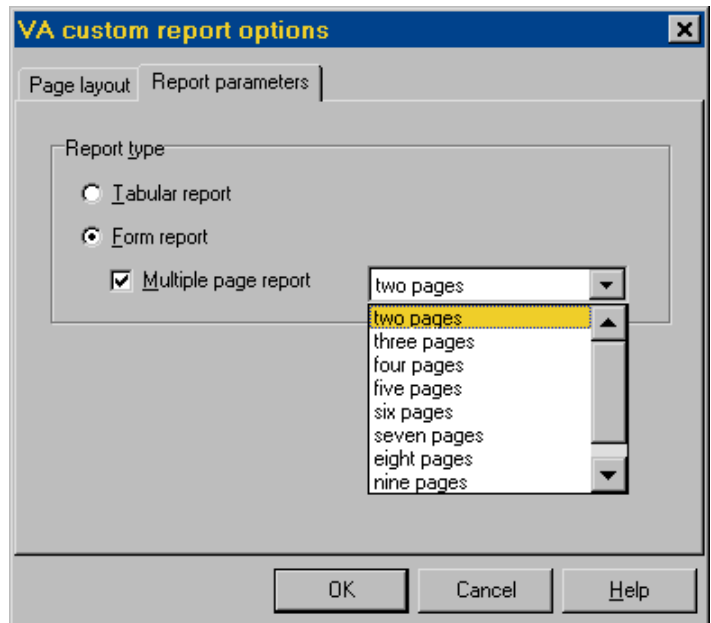
#### Page layout

The printer, the paper size, the page margins, and the page orientation are adjustable.



**Report parameters**

The report type can be changed.



**Tabular report**

A continuous report for all selected determinations will be created. The space available for text and graphic items of a single determination can be adjusted. In the **VA REPORT GENERATOR** window only the current determination is shown. In the printout, all selected determinations are lined up to one tabular report.

**Form report**

Each determination will get one or more pages when printing the report. With **Multi page report** enabled, the number of pages for a single form report can be adjusted to the desired value.

## 6.6 Export of custom reports

### Copy custom report to clipboard



VA REPORT GENERATOR / Edit / Copy (Ctrl+C)

Copy custom report (in a graphic format) to the clipboard.

---







**Note:** With VA Database under Windows 95, custom reports are copied to the clipboard in square size. If you import the graphics into other programs from the clipboard, always resize the graphic window to its initial aspect ratio, otherwise axes, labels, and texts are not displayed correctly.

---

# 7 How to ...?


## 7.1 Installation and configuration

### Connect the 746 VA Trace Analyzer

1. Connect the RS232 interface 1 or the RS232 interface 2 on the rear side of the 746 VA Trace Analyzer or the 693 VA Processor to one of the serial COM ports of your PC with the 6.2125.060 RS interface cable (25 pin to 25 pin). If the COM port has only a 9 pin connector, the 6.2125.010 Adapter cable (25 pin to 9 pin) has to be used in addition.
2. Click on  or **MAIN WINDOW / Window / Communication**. The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.
3. In the frame **Interfaces Available for VA Communication**, select the COM port connected to the 746 VA Trace Analyzer and click on .
4. Click on . The **SERIAL INTERFACE SETTINGS** window appears.
5. Select tab **General** and click on  in the frame **Associated database**. Select an existing database from the list or enter a new one. Click on **<Open>**.
6. Click on  in the frame **Backup directory**. Select a directory for storage of backup files. Click on **<Open>**.
7. Select tab **Port Settings**. Click on . Confirm the appearing settings (see *COM port settings, page 52*) by clicking **<OK>**.
8. Make sure that the settings of the RS232 interface on the 746 VA Trace Analyzer are identical with those in the VA Database software.
9. Click **<OK>** in the **SERIAL INTERFACE SETTINGS** window. The destination database for automatic data storage is now defined and opened. All incoming data is stored in this database.

## 7.2 Data transfer 746 ---> VA Database

### Send determinations to the database

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. Load the determination to be sent into the working storage of the 746 VA Trace Analyzer.
3. On dialog page "DOCUMENTATION" in the 746 VA Trace Analyzer enter on a new line **Report ActDetm** in the **COPY Reports, Curves** column and **RSIfc.1** or **RSIfc.2** in the **TO destination** column.
4. Activate the data transfer by moving the cursor to the described line and pressing the softkey **<Exec. line>**.

Using this procedure both the binary determination file (\*.dtm) and the ASCII determination report file (\*.rpt) are transferred and stored in the database.


---

**Note:** If a method contains the line **COPY Report ActDetm TO RSIfc.#** on the dialog page "DOCUMENTATION", the determination is sent automatically to the database after termination of the analysis.

Each time a determination is sent to the database, determination files (\*.dtm) and ASCII determination report files (\*.rpt) will be stored automatically to the backup directory if the option **Save original files** is enabled in the **SERIAL INTERFACE SETTINGS** window (see *Default directories, page 51*).

---

### Send determinations to the backup directory

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. Select the determination(s) to be sent on the dialog page "DETERMINATIONS" or "DATA CARD" in the 746 VA Trace Analyzer.
3. Press the softkeys **<Copy to>** and **<RS232 Ifc.1>/<RS232 Ifc.2>**.


The binary determination files (\*.dtm) will be transferred to the predefined backup directory (see *Default directories, page 51*).

---

**Note:** Each time a determination is sent to the database, a determination file (\*.dtm) and an ASCII determination report file (\*.rpt) will be stored automatically to the backup directory if the option **Save original files** is enabled in the **SERIAL INTERFACE SETTINGS** window (see *Default directories, page 51*).

---

## Send methods to the backup directory (binary and ASCII files)

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. Load the method to be sent into the working storage of the 746 VA Trace Analyzer.
3. On dialog page "DOCUMENTATION" in the 746 VA Trace Analyzer enter on a new line **Report ActMeth** in the **COPY Reports, Curves** column and **RSlfc.1** or **RSlfc.2** in the **TO destination** column.
4. Activate the data transfer by moving the cursor to the described line and pressing the softkey **<Exec. line>**.


Using this procedure both the binary method file (\*.mth) and the ASCII method report file (\*.rpt) are transferred and stored in the backup directory.

---

**Note:** If a method contains the line **COPY Report ActMeth TO RSlfc.#** on the dialog page "DOCUMENTATION", the method files are sent automatically to the backup directory after termination of the analysis.


---

## Send methods to the backup directory (only binary files)

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. Select the method(s) to be sent on the dialog page "METHODS" or "DATA CARD" in the 746 VA Trace Analyzer.
3. Press the softkeys **<Copy to>** and **<RS232 lfc.1>/<RS232 lfc.2>**.

The binary method files (\*.mth) will be transferred to the predefined backup directory (see *Default directories, page 51*).

## Send sample tables to the backup directory

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. On the dialog page "SAMPLES" in the 746 VA Trace Analyzer press the softkeys < >> > and <Copy to RS Ifc.1>.

The current sample table will be transferred as ASCII sample table file (\*.smp) to the predefined backup directory (see *Default directories, page 51*).


---

**Note:** The transfer of sample table files can only be done via RS Interface 1 at the 746 VA Trace Analyzer.

---

## Send rack definition files to the backup directory



If a 695 Autosampler is connected to the 746 VA Trace Analyzer, the rack data configuration files stored in the 695 Autosampler can be saved first on a data card and then on the PC. Proceed as follows:

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window (the data transfer works also in the background).
2. Press the softkeys <Settings>, <695 Autosampler>, and <Rack def> on the dialog page "STAND" in the 746 VA Trace Analyzer.
3. Load the desired rack data by entering the **Rack name** and pressing the softkey <Load from 695>.
4. Store the rack definition file to the data card inserted in the 746 VA Trace Analyzer by pressing the softkey <Copy to Data Cd.>.
5. Select the desired rack definition file (\*.aut) on the dialog page "DATA CARD" and press the softkeys <Copy to> and <RS232 Ifc.1>/<RS232 Ifc.2>.

The current rack definition data will be transferred as binary rack definition file (\*.aut) to the predefined backup directory (see *Default directories, page 51*).

## 7.3 Data transfer VA Database ---> 746

### Send determinations from the database to the 746 VA Trace Analyzer

1. If you want to observe the process of data transfer, click on  or **MAIN WINDOW / Window / Communication** to open the **VA COMMUNICATION** window.
2. Open the dialog pages "DETERMINATIONS" or "DATA CARD" in the 746 VA Trace Analyzer.
3. Press the softkeys **<Copy from>** and **<RS232 Ifc.1>/<RS232 Ifc.2>**. The **SYSTEM** window will appear indicating that data can be received via the RS232 interface.
4. Click on  or **MAIN WINDOW / Window / Table** to open the **VA DATABASE TABLE** window. In the appearing table view select on or more entries and click on **Determination / Send to** and the desired destination **COM1**, **COM2**, **COM3**, or **COM4** (this function is also available in the context sensitive menu opened by pressing the right mouse button).
5. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with **<OK>**. All \*.dtm files of the selected determinations will be transferred to the 746 VA Trace Analyzer.
6. After termination of the data transfer close the **SYSTEM** window in the 746 VA Trace Analyzer by pressing the **<Esc>** key. The transferred determinations can be loaded to the working storage then.



---

**Note:** Single determinations can also be sent from the **VA DATABASE EXPLORER** window. Click on the desired determination in the tree and press the right mouse button. Click on **Send to** and the desired destination **COM1**, **COM2**, **COM3**, or **COM4**. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with **<OK>**.



---

### Send determination files from the backup directory to the 746 VA Trace Analyzer

1. Open the dialog pages "DETERMINATIONS" or "DATA CARD" in the 746 VA Trace Analyzer.
2. Press the softkeys **<Copy from>** and **<RS232 Ifc.1>/<RS232 Ifc.2>**. The **SYSTEM** window will appear indicating that data can be received via the RS232 interface.



3. Click on  or **MAIN WINDOW / Window / Communication**. The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.
4. Click on . Select the determination files (\*.dtm) to be sent in **SEND VA FILES** window and click on <Open>.
5. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with <OK>. All selected \*.dtm files will be transferred to the 746 VA Trace Analyzer.
6. After termination of the data transfer close the **SYSTEM** window in the 746 VA Trace Analyzer by pressing the <Esc> key. The transferred determinations can be loaded to the working storage then.

### **Send method files from the backup directory to the 746 VA Trace Analyzer**

1. Open the dialog pages "METHODS" or "DATA CARD" in the 746 VA Trace Analyzer.
2. Press the softkeys <Copy from> and <RS232 Ifc.1>/<RS232 Ifc.2>. The **SYSTEM** window will appear indicating that data can be received via the RS232 interface.
3. Click on  or **MAIN WINDOW / Window / Communication**. The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.
4. Click on . Select the method files (\*.mth) to be sent in **SEND VA FILES** window and click on <Open>.
5. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with <OK>. All selected \*.mth files will be transferred to the 746 VA Trace Analyzer.
6. After termination of the data transfer close the **SYSTEM** window in the 746 VA Trace Analyzer by pressing the <Esc> key. The transferred methods can be loaded to the working storage then.

### **Send sample table files from the backup directory to the 746 VA Trace Analyzer**

1. Open the dialog pages "SAMPLES" in the 746 VA Trace Analyzer.



2. Press the softkeys < >> > and <Copy fr. RS lfc.1>. The **SYSTEM** window will appear indicating that data can be received via the RS232 interface.
3. Click on  or **MAIN WINDOW / Window / Communication**. The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.
4. Click on . Select the sample table file (\*.smp) to be sent in **SEND VA FILES** window and click on <Open>.
5. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with <OK>. The selected \*.smp file will be transferred to the working storage of the 746 VA Trace Analyzer.
6. After termination of the data transfer close the **SYSTEM** window in the 746 VA Trace Analyzer by pressing the <Esc> key.

---

**Note:** The transfer of sample table files can only be done via RS Interface 1.




---

### **Send rack definition files from the backup directory to the 746 VA Trace Analyzer**




1. Open the dialog pages "DATA CARD" in the 746 VA Trace Analyzer.
2. Press the softkeys <Copy from> and <RS232 lfc.1>/<RS232 lfc.2>. The **SYSTEM** window will appear indicating that data can be received via the RS232 interface.
3. Click on  or **MAIN WINDOW / Window / Communication**. The **VA COMMUNICATION** window will be opened or (if it is already open) put on top.
4. Click on . Select the rack definition files (\*.aut) to be sent in **SEND VA FILES** window and click on <Open>.
5. Confirm the message **Make sure that VA Trace Analyzer is ready to receive files** with <OK>. All selected \*.aut files will be transferred to the 746 VA Trace Analyzer.
6. After termination of the data transfer close the **SYSTEM** window in the 746 VA Trace Analyzer by pressing the <Esc> key. The transferred rack definition files can be loaded from the data card to the 695 Autosampler then (procedure see 746 Instruction manual).

## 7.4 Database Table



### Add fields to the database table



1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATA-BASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Visible Fields...** The **VISIBLE FIELDS DEFINITION** window appears. In the left column all available fields are displayed. The right column displays the active fields.
3. Select the desired field(s) in the left column. Click on the field above the position where the new field(s) should be positioned. Click on . The selected fields are copied from the left to the right column under the selected field. If no field has been selected the new fields are added at the end of the column.
4. Click on <OK> to close the **VISIBLE FIELDS DEFINITION** window.

### Remove fields from the database table

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATA-BASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Visible Fields...** The **VISIBLE FIELDS DEFINITION** window appears. In the left column all available fields are displayed. The right column displays the active fields.
3. Select the desired field(s) in the right column. Click on . The selected fields are deleted from the right column.
4. Click on <OK> to close the **VISIBLE FIELDS DEFINITION** window.

### Change the position of the fields in the database table

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATA-BASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Visible Fields...** The **VISIBLE FIELDS DEFINITION** window appears.



3. To change the order of the fields in the database table select the field(s) to be rearranged in the right column. Click on  or  to shift the selected field(s) one position upwards or downwards.
4. Click on <OK> to close the **VISIBLE FIELDS DEFINITION** window.

---




**Note:** The position of the fields in the database table can also be changed by clicking a column header in the **VA DATABASE TABLE** window and moving it to the desired position with the left mouse-button pressed down.

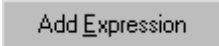


---

## Change the width of the columns in the database table

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Move the cursor to the border in the table header between the two fields which should be moved until the cursor changes to .
3. Press the left mouse button and move the border to the desired position.

## Filter the database content

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Filter...**. The **FILTER DEFINITION** window appears.
3. Define the filtering criterion by entering the desired values in the fields **Field**, **Name** (if shown), **Comparison Operator**, **Value**, and **Meas. unit** (if shown).
4. Press  to add the current expression to the filtering criteria list.
5. Select **AND** or **OR** in the **Logical Operator** field for the next expression to be added.
6. Define the filtering criterion by entering the desired values in the fields **Field**, **Name** (if shown), **Comparison Operator**, **Value**, and **Meas. unit** (if shown).

7. Press  to add the current expression to the filtering criteria list in the same hierarchy level as the selected expression or press  to add the current expression to the filtering criteria list in the next lower hierarchy level as the selected expression.
8. Repeat steps 4...6 for each expression or subexpression you want to add.
9. If you wish to store the filtering criteria permanently, press  to save them in an external \*.vaf file.
10. Click on <OK>. The determinations in the database table will be filtered. Only determinations which fulfill the defined filtering criteria will be displayed. The filtering expression is shown in the **Select** pop-up field of the Menu bar in the **VA DATABASE TABLE** window.



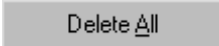
---

**Note:** If no entry is made in the fields **Name** or **Meas. unit**, all possible substances, final results or units are taken into consideration.



For entries in the field **Value**, prefixes (m, u, n, etc.) can be used. With **Field = ResValue**, the possible entries in the field **Meas. unit** depend on the calculation formula used in the method (for details, see Note in *Fields from page "RESULTS", page 38*).

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


## Disable filtering of the database content

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Filter...**. The **FILTER DEFINITION** window appears.
3. Press  to delete all expressions in the filtering criteria list.
4. Click on <OK>. All determinations in the database table will be displayed. The filtering expression **All** is shown in the **Select** pop-up field of the Menu bar in the **VA DATABASE TABLE** window.




## Sort the database content

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Sorting...** The **SORTING DEFINITION** window appears.
3. Select the desired database field for main sorting in the left column and set the sorting order to **Ascending** or **Descending**.
4. Select the desired database field for further sorting in the right column and set the sorting order to **Ascending** or **Descending**.
5. Click on **<OK>**. The determinations in the database table will be sorted. The sorting expression is shown in the **Sort by** pop-up field of the Menu bar in the **VA DATABASE TABLE** window.



## Disable sorting of the database content

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Click on  or **VA DATABASE TABLE / Options / Define Sorting...** The **FILTER DEFINITION** window appears.
3. Press  to deactivate the sorting in the left column.
4. Press  to deactivate the sorting in the right column.
5. Click on **<OK>**. The determinations in the database table will be displayed in an unsorted order. The sorting expression shown in the **Select** pop-up field of the Menu bar in the **VA DATABASE TABLE** window will be empty.




## Print the database table

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determinations to be printed (additional determinations are selected by clicking on them while pressing the **<Ctrl>** key). If you want to print all determinations, click on  or **VA DATABASE TABLE / Edit / Select All**.
3. If you want to change the page setup, click on  or **VA DATABASE TABLE / Table / Page Setup...** Set all the parameters in



three tabs **Page layout**, **Text properties**, and **Appearance** to the desired values and close the **PAGE SETUP** window by clicking **<OK>**.

4. If you want to see the print preview, click on  or **VA DATABASE TABLE / Table / Print Preview....** .
5. To print the selected determinations, click on  or **VA DATABASE TABLE / Table / Print....** . Select the number of prints and the pages to be printed in the **PRINT** window and click **<OK>**.



## Copy the database table text to clipboard

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determinations whose table text should be copied (additional determinations are selected by clicking on them while pressing the **<Ctrl>** key). If you want to copy the whole database text, click on  or **VA DATABASE TABLE / Edit / Select All**.
3. Click on  or **VA DATABASE TABLE / Edit / Copy**. The header line and the selected part of the table (highlighted lines) are copied into the clipboard from where it can be imported into other programs like Microsoft Word or Excel. The table fields are always separated by a tab.

## Export the database table text


1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determinations whose table text should be exported (additional determinations are selected by clicking on them while pressing the **<Ctrl>** key). If you want to export the whole database text, click on  or **VA DATABASE TABLE / Edit / Select All**.
3. Click on **VA DATABASE TABLE / Table / Save As Text....** . The header line and the selected part of the table (highlighted lines) are saved into an ASCII text file (extension **\*.txt**). This file can be imported into other programs like Microsoft Word or Excel. The table fields are separated by the default data delimiter set in the **General Preferences** (see *Export settings, page 21*).

## Export measurement points


1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determinations whose measurement points should be exported (additional determinations are selected by clicking on them while pressing the <Ctrl> key). If you want to export measurement points of all determinations, click on  or **VA DATABASE TABLE / Edit / Select All**.
3. Click on **VA DATABASE TABLE / Determination / Export Measurement Points....** . The measurement points of all sweeps of the selected determinations are saved into data files (extension \*.dat). This files can be imported into other programs like Microsoft Word or Excel. The table fields are separated by the default data delimiter set in the **General Preferences** (see *Export settings, page 21*).

## 7.5 Text reports

### Display text reports from VA Table

1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determination whose text report should be displayed.
3. Click on **VA DATABASE TABLE / Determination / View Text Report** or select **View Text Report** in the context sensitive menu. The **TEXT REPORT** subwindow is opened in the **MAIN WINDOW**.

### Display text reports from VA Explorer




1. Click on  or **MAIN WINDOW / Window / Explorer**. The **VA DATABASE EXPLORER** window will be opened or (if it is already open) put on top.
2. Select the determination whose text report should be displayed.
3. Click on **VA DATABASE EXPLORER / Determination / View** or select **View** in the context sensitive menu or drag and drop the view item directly to an empty space of the **MAIN WINDOW**. The **TEXT REPORT** subwindow is opened in the **MAIN WINDOW**.

---


**Note:** The part of the text report displayed (which contains always the whole full report and method specification) depends on the view item selected in the **VA DATABASE EXPLORER** window (details see *View text reports from VA Explorer, page 44*).

---

## Print the text report


1. Select the subwindow of the text report to be printed in the **MAIN WINDOW**.
2. If you want to change the page setup, click on  or **MAIN WINDOW / File / Page Setup....** Set all the parameters in three tabs **Page layout**, **Text properties**, and **Documentation** to the desired values and close the **PAGE SETUP** window by clicking **<OK>**.
3. If you want to see the print preview, click on  or **MAIN WINDOW / File / Print Preview....**
4. To print the text report, click on  or **MAIN WINDOW / File / Print....** . Select the number of prints and the pages to be printed in the **PRINT** window and click **<OK>**.

## Copy the text report to clipboard

1. Select the text to be copied in the subwindow of the text report in the **MAIN WINDOW**. If no text is selected, the whole window content will be copied.
2. Click on  or **MAIN WINDOW / File / Copy**. The selected part of the text report is copied to clipboard from where it can be imported into other programs like Microsoft Word or Excel.


## 7.6 Curves

### Display curves from VA Table


1. Click on  or **MAIN WINDOW / Window / Table**. The **VA DATABASE TABLE** window will be opened or (if it is already open) put on top.
2. Select the determination whose curve should be displayed.
3. Click on **VA DATABASE TABLE / Determination** and select **View Substance** and the substance name for substance curves, **View Calibration** and the substance name for calibration curves, or **View Segment** and the segment name for segment

curves (or select the corresponding item in the context sensitive menu). The curve subwindow containing all substance, calibration, or segment curves is opened in the **MAIN WINDOW**.


## Display curves from VA Explorer

1. Click on  or **MAIN WINDOW / Window / Explorer**. The **VA DATABASE EXPLORER** window will be opened or (if it is already open) put on top.
2. Expand the database explorer tree until you see the curve items.
3. Select the curve item whose curve should be displayed.
4. Click on **VA DATABASE EXPLORER / Determination / View** or select **View** in the context sensitive menu or drag and drop the view item directly to an empty space of the **MAIN WINDOW**. The curve subwindow is opened in the **MAIN WINDOW**. Whether it contains a single curve or all curves depends on the view item selected (details see *View reports and curves from VA Explorer, page 44*).

## Display overlay curves

1. Click on  or **MAIN WINDOW / Window / Explorer**. The **VA DATABASE EXPLORER** window will be opened or (if it is already open) put on top.
2. Expand the database explorer tree until you see the desired curve items.
3. Select the curve item whose curve should be displayed.
4. Click on **VA DATABASE EXPLORER / Determination / View** or select **View** in the context sensitive menu or drag and drop the view item directly to an empty space of the **MAIN WINDOW**. The curve subwindow is opened in the **MAIN WINDOW**. Whether it contains a single curve or all curves depends on the view item selected (details see *View reports and curves from VA Explorer, page 44*).
5. Select another curve item of the same type (substance, calibration, or segment) as the curve displayed.
6. Drag and drop the view item directly to the open curve subwindow in the **MAIN WINDOW**. The related curves will be added to the existing curve set. The axes are automatically expanded to show all the curves completely.
7. Repeat steps 5..6 until all desired curves are displayed in the curve subwindow.

## Remove curves from the overlay view

1. Select the desired overlay curve subwindow in the **MAIN WINDOW**.
2. Click on **MAIN WINDOW / Edit / Options...** or select **Options...** in the context sensitive menu.
3. In the **OPTIONS** window displayed, select the tab **Curves**.
4. Select the curves to be deleted in the curves list, press  and close the window by clicking **<OK>**.

## Change the curve selection

1. Select the desired substance or segment curve subwindow in the **MAIN WINDOW**.
2. Click on **MAIN WINDOW / Edit / Options...** or select **Options...** in the context sensitive menu.
3. In the **OPTIONS** window displayed, select the tab **Curves**, change the **Var** and **Rep** parameters to the desired values and close the window by clicking **<OK>**.




## Change the appearance of curves

1. Select the desired curve subwindow in the **MAIN WINDOW**.
2. Click on **MAIN WINDOW / Edit / Options...** or select **Options...** in the context sensitive menu.
3. In the **OPTIONS** window displayed, select the tab **Curves**. Change the parameters for line and marker patterns to the desired values.
4. Select the tab **Appearance** and change the parameters for headers and axes to the desired values.
5. Select the tab **Scale**, change the scaling parameters to the desired values and close the **OPTIONS** window by clicking **<OK>**.


## Zoom curves by mouse

1. Select the desired curve subwindow in the **MAIN WINDOW**.
2. Select the curve section to be zoomed by opening a frame while pressing the left mouse button down.
3. If you want to reset the zooming, press the **<F8>** key or select **Set Default Scale** in the context sensitive menu.

## Print curves

1. Select the curve subwindow to be printed in the **MAIN WINDOW**.
2. If you want to change the page setup, click on  or **MAIN WINDOW / File / Page Setup...** Set the parameters in tab **Page layout** to the desired values and close the **PAGE SETUP** window by clicking **<OK>**.
3. If you want to see the print preview, click on  or **MAIN WINDOW / File / Print Preview...**
4. To print the curve, click on  or **MAIN WINDOW / File / Print...** Select the number of prints and the pages to be printed in the **PRINT** window and click **<OK>**.

## Copy curves to clipboard

1. Select the curve subwindow to be copied in the **MAIN WINDOW** and adjust the window to the desired size.
2. Click on  or **MAIN WINDOW / File / Copy**. The current content of the curve subwindow is copied to clipboard from where it can be imported into other programs like Microsoft Word or Excel.

---

**Note:** With VA Database under Windows 95, curves are copied to the clipboard in square size. If you import the curves into other programs from the clipboard, always resize the graphic window to its initial aspect ratio, otherwise axes, labels, and texts are not displayed correctly. Alternatively, export and import the curve in the **\*.emf**, **\*.wmf** or **\*.bmp** format where the aspect ratio is retained.

---

## Export curves

1. Select the curve subwindow to be exported in the **MAIN WINDOW** and adjust the window to the desired size.
2. Click on **MAIN WINDOW / Edit / Export as...** and select the desired export format **Metafile...** (**\*.wmf**), **Enhanced Metafile...** (**\*.emf**), or **Bitmap...** (**\*.bmp**) or select the corresponding menu item in the context sensitive menu.
3. Enter the destination directory and the file name in the appearing **EXPORT** window and click **<OK>**. The content of the current curve subwindow will be saved as a graphics file on the hard disk from where it can be imported into other programs like Microsoft Word or Excel.

---




**Note:** With some programs (e.g. Microsoft Word 6 and 7) no \*.emf format import is possible. In this case, export and import the curve in the \*.wmf or \*.bmp format.

For exporting curves to graphic files it is recommended to use the \*.wmf or \*.emf format for better resolution and the possibility to rescale the graphic.



---

## 7.7 Custom reports


### Create a new template


1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Click on  or **VA REPORT GENERATOR / Report / New Template**. A new empty template will be opened.
3. Click on  or **VA REPORT GENERATOR / Report / Page Setup...**. Define printer, paper size, page margins, and page orientation in the tab **Page layout**.
4. Define the report type (tabular or form report) in the tab **Report parameters** and close the **PAGE SETUP** window by clicking <OK>.

### Open an existing template










1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Click on  or **VA REPORT GENERATOR / Report / Open Template...**
3. Select the desired template in the **OPEN VA DATABASE REPORT TEMPLATE** window and click <OK>.

### Save a template

1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template. Design the template as you like.





3. Click on  or **VA REPORT GENERATOR / Report / Save Template** to save a template which has been changed under the same name.
4. Click on **VA REPORT GENERATOR / Report / Save Template As...** to save a new template or a template which has been changed under a new name. Enter the new name and directory in the **SAVE VA DATABASE REPORT TEMPLATE** window and click <OK>.

## Design a template



1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template.
3. If the template is in read-only mode, click on  to change to the design mode.
4. Click on  or **VA REPORT GENERATOR / Report / Page Setup...** Define printer, paper size, page margins, and page orientation in the tab **Page layout**.
5. Define the report type (tabular or form report) in the tab **Report parameters** and close the **PAGE SETUP** window by clicking <OK>.
6. Define the report regions for header, report and footer (details see *Defining template regions, page 59*).
7. Select the item type which should be added by pressing  (text label),  (text field),  (segment field),  (substance field), or  (calibration field) or select the appropriate menu item under **VA REPORT GENERATOR / Item / New** (details see *Design templates, page 59*).
8. Add the selected item to the template by opening a frame at the desired location while pressing the left mouse button down.
9. Click on  or **VA REPORT GENERATOR / Item / Properties** or select **Properties ...** in the context sensitive menu. Change the item properties in the **PROPERTIES** window and close the window with <OK>.
10. Move the item to the desired location by dragging while pressing the left mouse button and resize it by dragging the border lines or edges.

11. Repeat steps 7...10 until all desired report items are added to the template.
12. If you want to save the template, click on **VA REPORT GENERATOR / Report / Save Template As...** to save a new template or a template which has been changed under a new name. Enter the new name and directory in the **SAVE VA DATABASE REPORT TEMPLATE** window and click <OK>.

## Change the report item properties




1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template.
3. If the template is in read-only mode, click on  to change to the design mode.
4. Select the report item which should be changed and click on  or **VA REPORT GENERATOR / Item / Properties** or select **Properties ...** in the context sensitive menu. Change the item properties in the **PROPERTIES** window and close the window with <OK> (details see *Design templates, page 59*).
5. Move the item to the desired location by dragging while pressing the left mouse button and resize it by dragging the border lines or edges.
6. Repeat steps 4...5 until all desired report items are changed.
7. If you want to save the template, click on  or **VA REPORT GENERATOR / Report / Save Template** to save the template under the same name.

## Define method associated templates



1. Click on **MAIN WINDOW / Settings / General Preferences...**
2. Select tab **Templates** in the **GENERAL PREFERENCES** window.
3. Enter the name of the method for which a template should be associated in the field **Method name**.
4. Press the  button of the **Associated custom report template** field and select the desired template (\*.vat file) in the **SELECT CUSTOM REPORT TEMPLATE** window.
5. Press  to add the new entry to the list of methods with associated template.
6. Repeat steps 3...5 until all desired method associated templates are defined.

7. Click <OK> to close the **GENERAL PREFERENCES** window.



## Use method associated templates

1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template.
3. If the template is in design mode, click on  to change to the read-only mode.
4. Click on  to enable the automatic loading of the defined method associated templates for each determination recorded with such a method.



## Browse the database with VA Report Generator

1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template for browsing the determination.
3. If you want to use method associated templates, click on  to enable the automatic loading of the defined method associated templates for each determination recorded with such a method.
4. Adjust the size of the **VA REPORT GENERATOR** window so that it will be visible beside the open **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window.
5. Select the determination in the **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window. The **VA REPORT GENERATOR** window shows the template filled with the contents of the selected determination.




## Print a custom report

1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template for browsing the determination.
3. If you want to use method associated templates, click on  to enable the automatic loading of the defined method asso-

ciated templates for each determination recorded with such a method.

4. Adjust the size of the **VA REPORT GENERATOR** window so that it will be visible beside the open **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window.
5. Select the determination in the **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window whose report should be printed.
6. If you want to see the print preview, click on  or **VA REPORT GENERATOR / Report / Print Preview...** in the **VA REPORT GENERATOR** window.
7. To print the curve, click on  or **VA REPORT GENERATOR / Report / Print...** Select the number of prints and the pages to be printed in the **PRINT** window and click <OK>.

## Copy custom reports to clipboard

1. Click on  or **MAIN WINDOW / Window / Report Generator**. The **VA REPORT GENERATOR** window will be opened or (if it is already open) put on top.
2. Open an existing template or create a new template for browsing the determination.
3. If you want to use method associated templates, click on  to enable the automatic loading of the defined method associated templates for each determination recorded with such a method.
4. Adjust the size of the **VA REPORT GENERATOR** window so that it will be visible beside the open **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window.
5. Select the determination in the **VA DATABASE TABLE** window or **VA DATABASE EXPLORER** window whose report should be copied.
6. Click on  or **VA REPORT GENERATOR / Edit / Copy**. The current content of the **VA REPORT GENERATOR** window is copied to clipboard from where it can be imported into other programs like Microsoft Word or Excel.

---


**Note:** With VA Database under Windows 95, custom reports are copied to the clipboard in square size. If you import the graphics into other programs from the clipboard, always resize the graphic window to its initial aspect ratio, otherwise axes, labels, and texts are not displayed correctly.

---

# 8 Troubleshooting

## 8.1 Data transfer: What to do if ...


### No data is received on the PC

1. Check cables and connections.
2. Make sure that the interface settings on the PC and the 746 VA Trace Analyzer are identical.
3. Check advanced interface settings on the PC (see *Configure Windows 95, page 3*).
4. Press  on the **VA COMMUNICATION** window.
5. If the problem continues, reduce the baud rate to 4800 or 2400 bits/s on the PC and the 746 VA Trace Analyzer.

### The received data is not in the database

1. Check the destination database **Associated database** for the COM port in the **SERIAL INTERFACE SETTINGS** window (see *Default directories, page 51*).
2. Open this database and check the filtering criteria.
3. Make sure the an actual determination report **Report ActDetm** has been sent form the 746 VA Trace Analyzer.

### No data is received on the 746 VA Trace Analyzer

1. Check cables and connections.
2. Make sure that the interface settings on the PC and the 746 VA Trace Analyzer are identical.
3. Check advanced interface settings on the PC (see *Configure Windows 95, page 3*).
4. Press  on the **VA COMMUNICATION** window.
5. Set VA Trace Analyzer to receive mode by pressing **<Copy from> <RS232 lfc.#>**.

6. If the problem continues, reduce the baud rate to 4800 or 2400 bits/s on the PC and the 746 VA Trace Analyzer.

### **Character buffer overrun or Invalid control check sum message appears (error in log file)**

1. Check cables and connections.
2. Check advanced interface settings on the PC (see *Configure Windows 95, page 3*).
3. If the problem continues, reduce the baud rate to 4800 or 2400 bits/s on the PC and the 746 VA Trace Analyzer.
4. If the problem continues, store the database on a local drive and not on a network drive (problems may be due to heavy network traffic interfering with serial interface transfer).

### **Data is transferred to PC but not imported in VA Database (error in log file)**

1. Check your program version on the 694 VA Processor. The 5.693.0010 program version is not compatible with VA Database 2.0. Ask your representative for a program update.
2. If this error occurs with other program versions, try to send another determination to the VA Database (e.g. dummy cell test determination **Test747.dtm** stored in the **Backup** directory).

### **Data cannot be stored or the access is denied on the specified device (error in log file)**

1. Check if the specified device (hard drive, network drive, floppy disk, etc.) is full. Delete obsolete directories or files to make more space available.
2. Check if you have access rights to write on the specified device (e.g. network drive).

## **8.2 Printing: What to do if ...**

### **Text reports are not printed completely**

1. Check the general settings for text report printing in the **GENERAL PREFERENCES** window (see *Text report settings, page 24*). Select the tab **Text Report** and set the **Report type** to **All** if you want to print the whole text report as a default.

2. Check the settings for text report printing in the **PAGE SETUP** window (see *Document page setup, page 11*). Select the tab **Documentation** and set the **Report type** to **All** if you want to print the whole text report.

### Curves are missing in curve printing

1. Check the color settings for curve lines (some colors may vanish on a black and white printer). Select black or dark colors as default in the **GENERAL PREFERENCES** window (see *Settings, page 19*) or **OPTIONS** window (see *Display of curves, page 14*).
2. Check the curve subwindow in the **MAIN WINDOW**. If no curve is visible, the scaling may be wrong. Adjust the scaling in the **OPTIONS** window (see *Scaling of curve axes, page 18*) or reset the curve window to the default scale by pressing the <F8> key or select the **Set Default Scale** option of the context sensitive menu.
3. If the curve is not visible with default scale settings, change the x and y axes scales to **Auto** in the **OPTIONS** window (see *Display of curves, page 14*).
4. Since the changed scaling settings are not stored in the database, you should correct the wrong scaling settings in the 746 VA Trace Analyzer. For this, send the selected determination to the 746 VA Trace Analyzer and check the **Display/Plot** parameters for segments or substances. Correct the scaling to the desired values and send the determination back to the VA Database.


### Curves in custom reports are missing in printing

1. Check the color settings for curve lines (some colors may vanish on a black and white printer). Select black or dark colors as default in **OPTIONS** window (see *Curve fields, page 64*).
2. If the curve is still not visible, send the selected determination to the 746 VA Trace Analyzer and check the **Display/Plot** parameters for segments or substances. Correct the scaling to the desired values and send the determination back to the VA Database.

### Curve and axes lines are very thin

This problem may occur with printers with a high graphics resolution. Reduce the graphics resolution on your printer (e.g. to 600 dpi or 300 dpi).

## The automatic template load cannot be activated

1. Press  to change to the read-only mode in the **VA REPORT GENERATOR** window.
2. Save the current template which has been modified.

## The custom reports are not printed with the currently loaded template

Deactivate the automatic loading of method associated templates.

## The automatic custom report printing is not working

1. Check if automatic printing is enabled in the **SERIAL INTERFACE SETTINGS** window (see *Automatic printing, page 53*).
2. Check printing condition in the **SERIAL INTERFACE SETTINGS** window (see *Automatic printing, page 53*).

## Not all custom reports are printed with manual selection and automatic template load enabled

1. Check if for all methods used in the determinations to be printed a method associated template is defined in the **GENERAL PREFERENCES** window (see *Templates settings, page 22*).
2. Define a method associated template for each method used or disable the automatic loading of templates.

## 8.3 Display: What to do if ...

### No overlay curves are created

Check if the selected items are compatible. Overlay curves can only be created if they are of the same type and have the same units for x and y axes.

**Examples** for impossible overlays are:  
substance and segment curves,  
standard addition and calibration curves,  
calibration curves with height and area evaluation,  
VA and PSA curves.

### Curves in subwindows are not displayed

1. If no curve is visible, the scaling may be wrong. Adjust the scaling in the **OPTIONS** window (see *Scaling of curve axes, page 18*) or reset the curve window to the default scale by pressing the <F8> key or select the **Set Default Scale** option of the context sensitive menu.
2. If the curve is not visible with default scale settings, send the selected determination to the 746 VA Trace Analyzer and check the **Display/Plot** parameters for segments or substances. Correct the scaling to the desired values and send the determination back to the VA Database.

### Curves in custom reports are not displayed

Send the selected determination to the 746 VA Trace Analyzer and check the **Display/Plot** parameters for segments or substances. Correct the scaling to the desired values and send the determination back to the VA Database.

## 8.4 Database: What to do if ...

### Background curves are missing

Background curves are not stored in the database because only smoothed curves are transferred from the 746 VA Trace Analyzer.

### Some replications of substances are missing

1. With the program versions 5.693.0020, 5.693.0021 and 5.693.0022 of the 693 VA Processor, only the first replication (**VR = \*0**) of substance curves is transferred to the database.
2. If you want to have all replications, the 5.746.0100 program has to be installed. Ask your representative for a program update.

### No calibration curves are available

1. With the program versions 5.693.0020, 5.693.0021 and 5.693.0022 of the 693 VA Processor, no calibration curves are transferred to the database.

2. If you want to have the calibration curves, the 5.746.0100 program has to be installed. Ask your representative for a program update.

### **Several determinations appear more than once in the database**

1. In VA Database, the identical determinations can be stored several times in the database.
2. Delete the obsolete determinations manually by selecting **VA DATABASE TABLE / Determination / Ddelete**.

### **Filtering is not carried out correctly, e.g. for concentrations**

1. Send the selected determination to the 746 VA Trace Analyzer.
2. Check the formulae on the page "CALCULATION" (details see Note in *Fields from page "RESULTS", page 38*). We recommend to use only **Result units** with automatic prefix calculation (with "#" as first character).

### **VA Database has become very slow in performance**

1. The current database is too big. Make a backup copy of the database with **Save Database As**.
2. Delete some determinations out of the current database or create a new database.

## **8.5 Export: What to do if ...**

### **Curves are not copied to clipboard correctly**

If the curve seems to be distorted and the text is not readable, this is because with VA Database under Windows 95, all custom reports are copied to the clipboard in square size. Therefore, you have to resize the graphic window copied to another program from the clipboard to its initial aspect ratio in order to see the correct curve.

# 9 Appendix

## 9.1 Software license

The "VA Database 2.0" program is installed as a full program package together with the **6.2145.030 Dongle**. Installations without dongle are demo versions which are unable to send or receive data via serial interface. If a demo version is equipped with a dongle, it runs as a full version.

Please send us your **8.746.8017 Registration card** as soon as possible so we can register you as an official user. Only registered users will get updated program versions at a special price.

## 9.2 Ordering designations

<b>VA Database 2.0 (Full version)</b> .....	<b>6.6016.103</b>
including Software and 6.2145.030 Dongle	
<b>VA Database 2.0 (Update version)</b> .....	<b>6.6016.901</b>
including Software and 6.2145.030 Dongle; available only for registered users of the VA Database 1.0 version	
<b>VA Database 2.0 (Demo version)</b> .....	<b>6.6016.108</b>
including Software without 6.2145.030 Dongle	
<b>Dongle</b> .....	<b>6.2145.030</b>

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