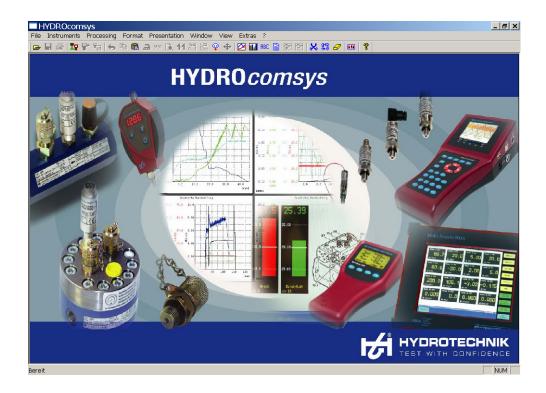


HYDROcom

Data acquisition and evaluation software package



User's Manual

Rev. 1.3 EN • 2008-03-11 Software Version 5.0 TKZ L8874-14-01.60E



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2 Introduction

2.1 Range of validity

The manual on hand is valid for software packages named "HYDROcom", manufactured by Hydrotechnik GmbH, Limburg, Germany. The manual is only valid for software with the same revision number like indicated on the cover page of this manual.

If you do not have the software manual for your software version, please do not hesitate to contact the Hydrotechnik website or your local Hydrotechnik dealer or representative.

2.2 Scope

This manual is intented to assist the user in the daily use of the software package. It contains information on the windows, dialogs, commands and buttons of the software and explains certain routines and operational actions. For information exceeding the contents of this manual, we will be very pleased to offer you customer-specific trainings, either at a Hydrotechnik site or in your rooms. Please contact our sales staff or your local Hydrotechnik dealer or representative for further information.

2.3 Copyright

The software package and this manual are protected on copyright. Manufacture without license will be prosecuted by law. All rights reserved on this manual, even the reproduction and/or duplication in any thinkable form, e.g. by photocopying, printing, on any data recording media or translated. Reproduction of this manual is only permitted with a written approval of Hydrotechnik GmbH.

The technical state by the time of delivery of software and manual is decisive, if no other information is given. Technical changes without special announcements are reserved. Earlier manuals are no longer valid. The general conditions of sale and delivery of Hydrotechnik GmbH are valid.

2.4 Limitation of liability

We guarantee the faultless functioning of our product in accordance with our advertising, the product information edited by Hydrotechnik GmbH and this manual. Further product features are not guaranteed. We take no liability for the economy and faultless function if the product is used for a different purpose than that, described in the chapter "Use as agreed".

Compensation claims are generally impossible, except if intention or culpable negligence by Hydrotechnik GmbH is proved, or if assured product features are not provided. If the product is used in environments, for which it is not suited or which do not represent the technical standard, we are not responsible for the consequences.

We are not responsible for damages at installations and systems in the surroundings of the product, which are caused by a fault of the product or an error in this manual. We are not responsible for the violation of patents and/or other rights of third persons outside the Federal Republic of Germany.

We are not liable for damages, which result from improper operation according to this manual. We are not liable for missed profit and for consecuting damages due to non regardance of safety advice and warning hints. The products of Hydrotechnik GmbH represent the standard of technique and science. Hydrotechnik GmbH is doing product and market research for the further development and permanent improvement of their products. In case of faults and/or technical trouble please contact the Hydrotechnik GmbH service staff. We assure that suitable measures will be taken immediately. Hydrotechnik GmbH guarantee regulations are valid, which we will send to you on demand.

2.5 Use as agreed

The software package "HYDROcom" may be used to download measuring data from Hydrotechnik measuring instruments. Downloaded data can be evaluated and presented in several ways, like tables, graphs and barcharts. The software can be installed under the operating systems WindowsTM 95, 98, NT, 2000, ME and XP. If you have any question or want to use the software for a different purpose, please do not hesitate to contact our service staff. We are pleased to help you.



3 Installation

3.1 System requirements

The installation and execution of the software "HYDROcom" is possible on nearly each computer system. All WindowsTM operating systems starting with WindowsTM95 and WindowsTMNT (no USB support) are supported.

3.2 Install the software



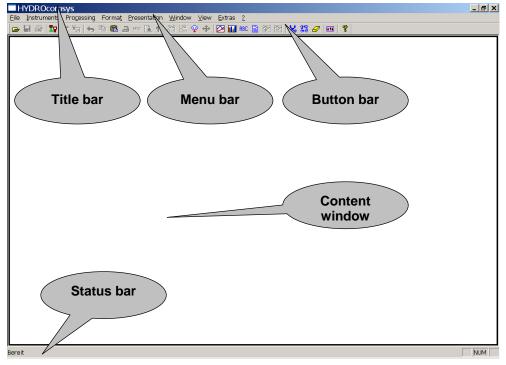
- 1. Insert the CD containing the software "HYDROcom" into your CD ROM drive.
- 3. Double-click the file "Setup.exe" to start the installation.
- 4. Wait until the installation has been completed.
- 5. You should now see a link icon "HYDROcom" on the desktop of your PC.

4 Software operation

4.1 Launch the software

- 1. Either double-click the "HYDROcom" icon on your desktop, or double-click the file "*:/Program Files/Hydrotechnik GmbH/HYDROcom/HYDROcom.exe". The "*" stands for the letter of your harddisk drive, usually C.
- 2. Wait until the main screen is displayed.

4.2 Main screen



Pic. 1 Main screen



After launching the software, the main window is empty, but showing the most important window elements:

Title bar showing the name of the application and of the active job, after a file has been opened

(see further below)

Menu bar showing the available operation menus

Button bar showing the available buttons with shortcuts to the most important functions Content window showing the graphs, tables and other information after a file has been opened

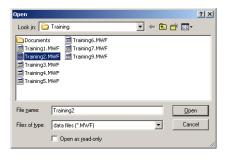
Status bar showing some information on the system

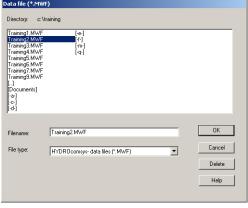
4.3 Menus and functions

In the following, all menus and the contained functions will be explained chronologically. Whenever a button is available for a function, it will be shown in the respective section. Later in this manual we will give you an overview on all buttons and their functions.

File open dialogs

In the configuration (see menu Extras – Configuration, section 4.3.8.3 on page 50) you can select the option "Use standard file menus?". Here you can decide, whether the HYDROcom-specific file open dialogs shall be used, or those provided by the operating system:





Pic. 2 File open dialogs – standard and HYDROcom-specific

The differences between HYDROcom-specific and standard file open menus are:

- it is easier to browse through drives and directories using the standard dialogs
- certain network ressources are visible in the standard dialogs, only
- the HYDROcom dialogs show only graphic and table description files that can be applied to the selected
 measurement data; the standard dialogs will display all description files and it might be difficult to find a
 file that can be used

In the following, we will always show the HYDROcom specific file open menus.

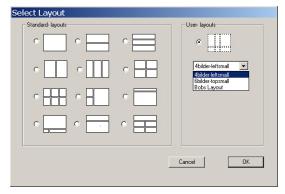
4.3.1 File menu



Pic. 3 File menu



4.3.1.1 File – New



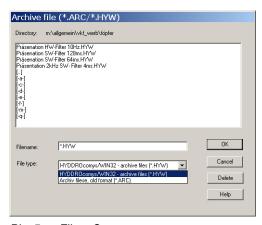
Pic. 4 File – New

In this window you can select the desired layout of the content window you want to use with the new data evaluation job. Select one of the twelve standard layouts, or select the user layout and choose an individual layout from the drop-down list.

The definition of user layouts is described in section "3.3.6 Window menu".

After selecting a layout, the content window is separated in the selected number of windows. You can now import data from a measuring instrument, or open a file containing presentation data.

4.3.1.2 File – Open ►



Pic. 5 File – Open

Use this dialog to open HYW- files (HYDROcom presentation files). Browse through your computer by double-clicking the drive letters and directories in the window, and select the desired file by clicking on it. Then you can use the functions:

OK opens the file and loads the contained data, graphs, tables, a.s.o.

Cancel aborts the opening and closes the window deletes the selected (highlighted) file

Help displays help information

After opening the drop-down list "File type", you can choose the desired file type to be displayed in the selection window.



Information

The picture shows the HYDROcom specific file open dialog. Please see section "<u>File open dialogs</u>" on page 6 for further information.



4.3.1.3 File – Save ■



Pic. 6 File - Save

If you want to save the current job in an archive file, select this function, enter the desired file name and click on "OK". The archive file will be written into the active directory.

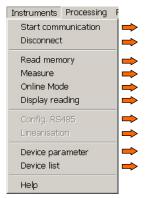
4.3.1.4 File – Print *♣*

Selecting this command opens the OS-specific print dialog window. Select your printer and all required options there and print the file.

4.3.1.5 File - Close

Selecting this command will shutdown the application. If there are unsaved data, you will be asked whether you want to shutdown without saving. At this stage, you can abort the shutdown and return to the application.

4.3.2 Instruments menu



Pic. 7 Instruments menu

The instruments menu contains several commands and functions for the communication with Hydrotechnik measuring instruments:

Start communic. when an instrument is connected to the PC, the communication starts automatically; if

this fails, you can select this command to start the communication between the PC and

the measuring instrument

Disconnect it is recommended to interrupt the USB connection between the PC and the measuring

device before you unplug the cable

Read memory see further below see further below Online mode Display reading see further below see further below see further below

Config RS485 provided for Compare Measuring Systems, only; with this function you can define

variable, unit and name for each device address; each channel definition has to be unique,

channels with identic names are not allowed

Linearisation provided for Compare Measuring Systems, only; this function supports the input,

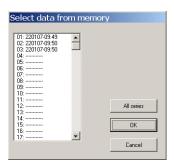
correction and deletion of sensor linearisation tables

Device parameter see further below see further below



4.3.2.1 Read memory **P**

Use this function to transfer series of measurement from the measuring device to the PC. Either select the command "Instruments − Read memory", or click on the button ::



Pic. 8 Read memory

The list window shows all series of measurement contained in the memory of the measuring instrument. Use one of the following procedures:

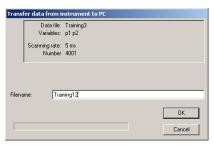
Download a single series of measurements

1. Click on the desired series to highlight it:



Pic. 9 Select series

2. Click on "OK" to start the download:



Pic. 10 Define file name

3. Information on the select series of measurement is displayed in the upper half of the window. Below that you should enter the desired file name.

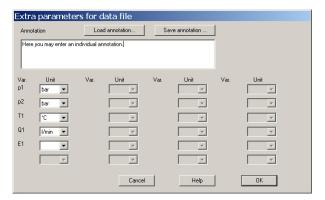


Information

The file will be saved in the active directory. Please see section 4.3.8 on page 43 for further information on how to change the active directory.

4. Click on "OK" to display the data file parameter dialog:

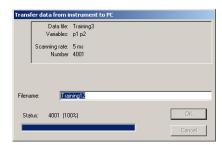




Pic. 11 Select data file parameters

- 5. Here you may enter an individual annotation that will be saved together with the series of measurements. The entered annotation can be saved by clicking the button "Save annotation". You can also load an existing file as annotation by clicking the button "Load annotation". Beneath that, the variables and their units are displayed.
- 6. Click on "OK" to start the download.

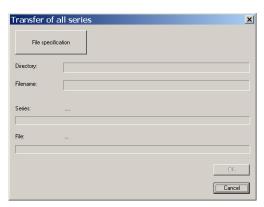
During the download, a status window will be displayed:



Pic. 12 Data transfer status

Download all series of measurement

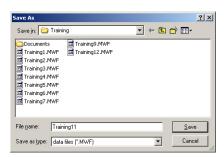
1. Click on "All Series" to start the download process:



Pic. 13 Download all series

2. Click on "File specification" to enter the desired file name:





Pic. 14 File name entry

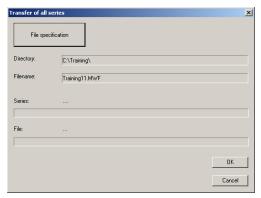
3. Enter the desired file name. The series of measurements will be named with the entered file name expanded with "-xxx". "xxx" is a three-digit number that is counted up from "001".



Information

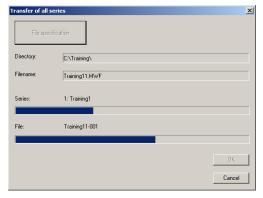
The file will be saved in the active directory. Please see section 4.3.8.5 on page 51 for further information on how to change the active directory.

4. Click on "Save" to accept the entered file name:



Pic. 15 Start transfer

5. The entered file name and the selected directory are displayed in the window, now. Click on "OK" to start the data transfer. During execution, the current status is displayed:



Pic. 16 Data transfer status



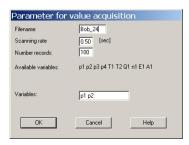
4.3.2.2 Measure



Information

This function can be used for measuring instruments of the MultiSystem 5000 series, only. With newer instruments we recommend the function "Online mode" (see section 4.3.2.3 on page 13).

With the measure function, you can start a new series of measurements. After selecting the command "Instrument – Measure", the following dialog will be displayed:



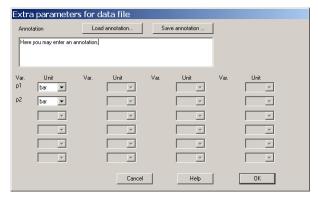
Pic. 17 Measure dialog

- 1. Enter the desired file name.
- 2. Enter the desired scanning rate (pause between two measures).
- 3. Enter the desired number of records (measured values).
- 4. Enter all variables you want to measure into the entry box "Variables". Above the box, the available variables are displayed. Write two variables without any separation.
- 5. Click on "OK" to start the measure. During the measuring, a status window will be displayed:



Pic. 18 Measure status

6. The number of actual records will be counted up, until the number of expected records has been reached. Then the following dialog will be displayed:



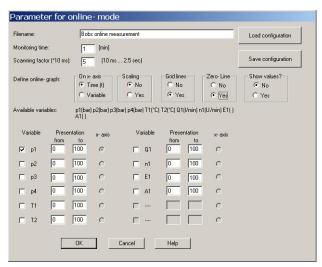
Pic. 19 Data file parameters

- 7. Here you may enter an individual annotation that will be saved together with the series of measurements. Beneath that, the variables and their units are displayed.
- 8. Click on "OK" to save the file and close the dialog.



4.3.2.3 Online mode 😼

Use this function to control the connected measuring instrument from your PC. Select the command "Instrument – Online mode" to display this dialog:



Pic. 20 Online mode

This dialog contains all required options to configure an online measuring and presentation with a measuring instrument connected via either the USB or serial interface, or via a network:

Filename the measured data will be saved in a file; enter the desired file name here

Monitoring time enter the time in minutes, how long the measuring shall be continued; you can end the

measuring at any time by pressing the [Esc] key; enter "0" to do an endless measuring

Scanning factor the measuring is executed permanently; here you can enter the time interval between the recording of two measuring values; the entered factor will be multiplied by 10 ms (e.g.

100 = 1 second); you may enter values between 1 (= 10 ms) and 250 (= 2.5 sec.)

Define online graph

The following options does not influence the measuring, but the online presentation:

On x-axis as a standard, the time will be used for the (horizontal) x-axis (function f(t)); here you can

select, whether one of the available variables shall be used for the x-axis (function f(x)); after selecting "variable", the radio buttons "x-axis" beside the variables in the lower part

of the dialog become active

Scaling if you choose "yes", the graph will be shown with scaling values on the y-axis; if you

choose "no", percentages will be shown on the y-axis

Grid lines if you choose "yes" grid lines will be displayed in the graph window Zero line if you choose "yes", the zero line will be displayed in the graph window

Show values if you choose "yes", additional windows with the current measuring values of all selected

variables will be displayed at the upper edge of the graph window

Variable settings

The lower part of the dialog is used for the settings regarding the presentable variables. When contacting the measuring instrument, the currently programmed variables are loaded from there. In Pic. 20 on page 13, the total of ten variables has been loaded from the instrument.

In the online mode dialog, you may select one or several of the shown variables for measuring and presentation, define an individual scaling and choose a variable to be displayed on the x-axis:



Variable check all variables that shall be measured and displayed

Presentation from to enter the minimum and maximum value that shall be displayed in the graph; e.g. the

measuring range for a variable is 0 ... 400, but the values are expected to be between 100

and 200, you may enter these values

x-axis if the option "On x-axis" is set to "Variable", you may select the variable that shall be

displayed on the x-axis; in this case, at least two variables must be selected for

presentation

Buttons

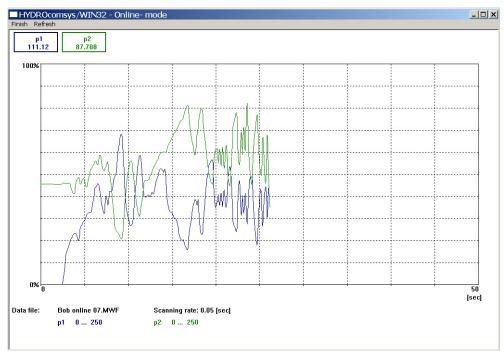
Load configuration you can load a file containing the settings for an online mode session

Save configuration you can save the current settings in a file OK starts the online measuring and presentation

Cancel aborts the online mode

Online mode

After starting the online mode, the selected variables are shown in a graph window:



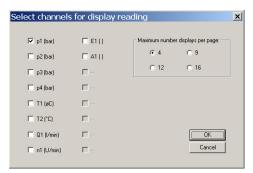
Pic. 21 Online mode

The example shows a graph with two variables. When the graph reaches the right edge of the window, an automatic scrolling is started. You can abort the online mode by pressing [Esc].



4.3.2.4 Display reading

Use this function to display the current measured values on your PC screen. After selecting the command "Instrument – Display reading", the following dialog will be displayed:



Pic. 22 Display reading setup

The major of the dialog is used to select the variables for display reading. When contacting the measuring instrument, the currently programmed variables are loaded from there. Here the total of ten variables has been loaded from the instrument.

In the select channel dialog, you may select one or several of the shown variables for display reading. Each activated variable will be displayed.

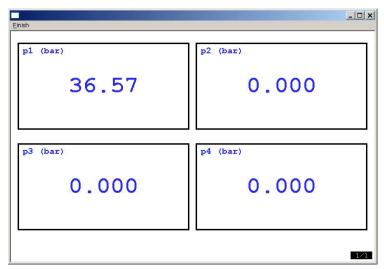
Display settings

To the right of the variable selection, you may choose the number of displays per window page. The smaller the selected number, the larger the measured values will be displayed.

If you choose a number of displays that is smaller than the number of variables, the display window will have more than one page.

Display window

After selecting the desired variables and choosing the number of displays, you may click "OK" to display the measured values:



Pic. 23 Display reading

The window shows the selected variables. If more variables had been selected, you can display the other pages by pressing the [PgUp]/[PgDn] keys. Click on "Finish" to close the window.



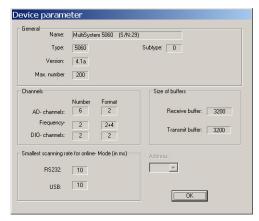


Information

The display will always show the current measured values. If you switch the measuring instrument to MinMax mode, or open menus, this will not affect the display reading.

4.3.2.5 Device parameter

Use this function to display the parameters of the connected measuring instrument. After choosing the command "Instruments – Device parameter", the following window will be displayed:

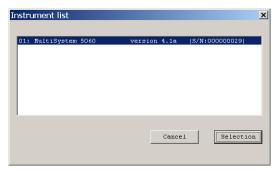


Pic. 24 Device parameter

This window contains information on the settings of the connected measuring instrument. Click on [OK] to close the window.

4.3.2.6 Device list

It is possible to connect several instruments at a time to a PC. But it is only possible to control a single measuring instrument. So you can use this function to choose the desired measuring instrument. Select the function "Instruments – Device list" to display this window:



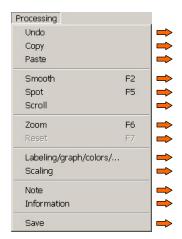
Pic. 25 Device list

All measuring instruments are listed here that had been detected by the software. The currently selected instrument is highlighted.

You may now click on a different instrument and then on "Selection". A click on "Cancel" aborts the selection.



4.3.3 Processing menu



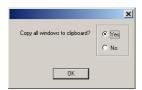
Pic. 26 Processing menu

The processing menu contains a number of useful commands for the working with the measuring data and some configuration functions:

functions:
undoes the last command see further below pastes the contents of the clipboard into the active job smoothes the selected graphical imagination by calculating a mean value of the measured values; the number of measured values used for the mean value can be defined in the graphic options (see section 3.3.4 Format menu); smoothing can be repeated until the curve is flattened sufficiently; smoothing can be undone using the "Undo" command
see further below after selecting this function, the mouse pointer changes into a cross of four arrows; when approaching an edge of a content window, the mouse pointer changes into a single arrow; then you can click to scroll the displayed part of the curve into the shown direction; press the [Esc] to exit the scroll function
see further below
resets the applied zooming and displays the complete graph
see further below

4.3.3.1 Copy function

You can use the copy function to integrate HYDROcom presentations completely or partly into several applications. After selecting the command "Processing – Copy" or clicking the button , the following dialog will be displayed:



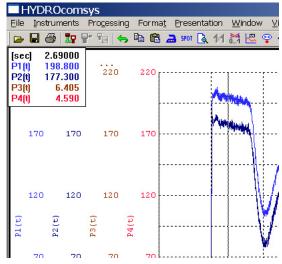
Pic. 27 Copy function

If you select "Yes", the contents all layout sections will be copied into the clipboard. If you select "No", the contents of the active layout section, only, will be copied. Click on "OK" to execute the copying. The change to the desired application and use the "Paste" command to insert the presentation into the document.



4.3.3.2 Spot function

After selecting the function from the Processing menu or clicking on the button son an additional window will be displayed in the graph window and the mouse pointer changes into a vertical grey line:

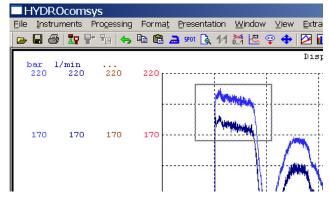


Pic. 28 Spot function

You can move the vertical line using the mouse. Press the [Tab] key to move the vertical line to the next grid line. The values of the curves, where the vertical line crosses them, will be displayed in the additional window. You can leave the function by pressing the [Esc] key.

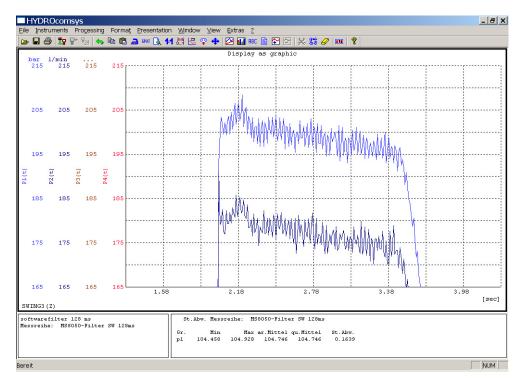
4.3.3.3 Zoom function

After selecting the function from the Processing menu or clicking on the button , the mouse pointer changes into a cross. Position the cross at the upper left corner of an interesting curve section, press and hold the left mouse button and draw a rectangle by moving the mouse:



Pic. 29 Apply zoom

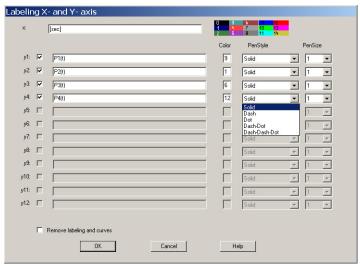
After releasing the mouse button, the curve section inside the rectangle will be enlarged:



Pic. 30 Applied zoom

You can now apply the zoom function again, use the <u>scroll function</u> to navigate in the curve, or use the <u>reset command</u> to display the complete curve, again.

4.3.3.4 Labelling/graph/colors dialog



Pic. 31 Labelling/graph/colors

In this dialog you can setup several options regarding the graphical presentation. In the upper section you can enter a text that shall be displayed at the x-axis.

Below that, the maximum of 12 curves can be enabled for the measuring channels contained in the current measuring data file. For each of the 12 lines, you have the same options (from left to right):

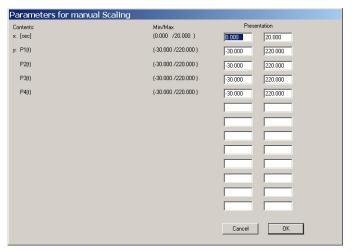
- enable the checkbox at the left side if the channel shall be displayed as a curve in the graph
- enter a text that shall be displayed for the channel
- enter the code number of a color into the next box; the available colors with their code number are shown at the upper edge of the window



- open the drop-down list and select the desired pen style
- open the drop-down list and select the desired pen size; the higher the value the thicker the lines are printed

At the lower edge of the window you can check the function "Remove labeling and curves" if you want to remove not only the scaling and labelling, but the complete curves of the desired variables. Click on "Ok" to apply the settings or on "Cancel" to abort. Both clicks will close the window.

4.3.3.5 Scaling dialog



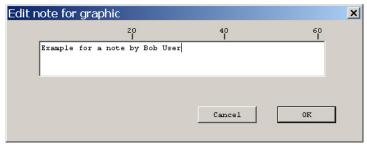
Pic. 32 Scaling

Here you can change the scaling of both axis of the graph. The two boxes to the right of an axis or a channel contain the minimum and maximum value of the graph. You can overwrite them to modify the imagination of the curves in the graph.

Double-click in a box and enter the desired value. Use the [Tab] key to jump into the next box. Click on "Ok" to apply the settings or on "Cancel" to abort. Both clicks will close the window.

4.3.3.6 Note function

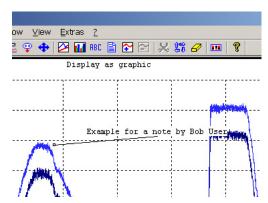
You can write notes into the curve graph and connect them with a line to a point of interest. Select the function "Processing – Note" or click on the button . The mouse cursor changes into a text entry icon. Position the icon at the desired position in the graph and press the left mouse button:



Pic. 33 Enter a note

Write your note into the box. Click on "Ok" to add the note to the graph or on "Cancel" to abort. Both clicks will close the window. The new note will be written into the graph:



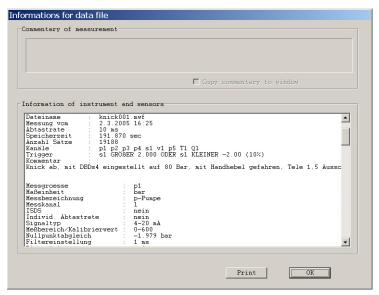


Pic. 34 Note in the graph

You can now move the note and display a line to assign the note to a certain point of interest:

- 1. Click on the note, the mouse cursor changes to an arrow with a small text box.
- 2. Click on a different point in the graph; the note will be moved to this position and the line will be displayed.
- 3. Click on the small rectangle at the end of the line; the mouse cursor changes to an arrow.
- 4. Click on the desired point of interest and the small rectangle will be displayed there; the line to the note will be drawn automatically.
- 5. Do a right mouse click on the note to edit it.

4.3.3.7 Information function



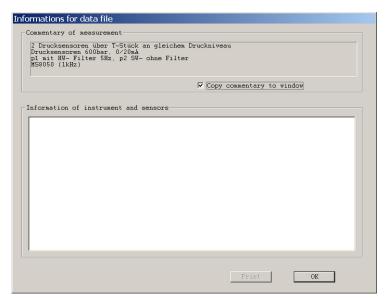
Pic. 35 Information display

You can view the information saved together with the measurement data. Read the information and possibly print it. Close the window by clicking [Ok].



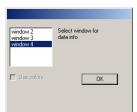
Add information to presentation

If the presentation has more than one layout section, you may add the displayed information to your presentation:



Pic. 36 Add information to presentation

You may now check the option "Copy commentary to window" and click on "OK". The following dialog will be displayed:

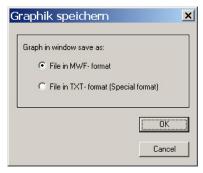


Pic. 37 Select layout section

Select the layout section where you want to add the information. Click on the desired line and then on "OK".

4.3.3.8 Save

You can save the current graph in a file. After selecting the function "Processing – Save", you are requested to select the file format:



Pic. 38 Select file format



Normally the standard MWF format is good for all purposes. The major advantages of this format are:

- file size reduction by splitting large files into several small files what increases the processing speed
- possibility to delete "uninteresting" parts of the data, e.g. the initiating or start-up sequence

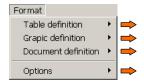
In certain cases, the selection of the txt format might be necessary. Check the respective option and click on [Ok] to display the dialog to enter a file name:



Pic. 39 Enter file name

Enter the desired file name and click on [Ok].

4.3.4 Format menu



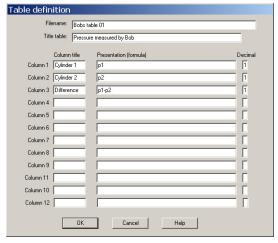
Pic. 40 Format menu

In this menu, you may define user-specific tables, graphs and documents for the presentation of the measuring data. These can be used instead of the automatically generated graphs and tables after loading series of measurement.

Additionally you can set some options for the graphs and tables.

4.3.4.1 Table definition

Choose the command "Format – Table definition – New" to open the following dialog:



Pic. 41 Table definition

File name

Title table

Column title

Presentation

Decimal

enter the name for the file
enter the text that shall be displayed above the table
enter the text that shall be displayed as the title of the respective column
enter the variable or a formula that shall be contained in the respective column
enter the number of digits behind the decimal point that shall be displayed in the
respective column; you may enter a value from 0 to 6



Define a variable

Variables are always represented by a letter and a number. Differential variables have a "d" and sum variables the character " Σ " in front of the letter. The following variables can be defined:

T	temperature	Q	volume flow rate
p	pressure	n	revolution speed
U	voltage	I	strength of current
M	torque	F	force
S	displacement	V	speed

Examples

variable 1st temperature channel

p5 variable 5th pressure channel dp1 variable 1st differential pressure channel

Define time

The time can be included into the presentation. The time is always indicated by the letter "t" (small letter, only!) and means "time in seconds". If you want to use "time in minutes" you have to define the variable t/60.

Define a calculated variable (formula)

The presentation of a calculated variable is always a linkage between one variable and at least one other variable or constant. This linkage can be carried out using the following operations:

addition

subtraction

multiplication

division

sqrt(p1) square root of variable p1

lg(T2)logarithm to the base 10 of variable T2

natural logarithm of variable p4 ln(p4)

The formula may contain the linkage of one or several variables with each other or with constants. The calculation is made with consideration of the arithmetical priority rules.

Examples

T1-18.5 temperature deviation to the base temperature 18.5 °C

p1*Q1/600 hydraulic capacity t/60 time in minutes

The use of brackets is possible but limited to one bracket level, only:

x*(y+z)allowed x*(y+z)+u*(w-z)allowed

x*(y*(u-v)+z)not allowed, two bracket levels are used

Available buttons

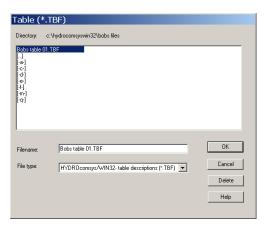
saves the table with the entered file name OK

aborts the table definition Cancel



4.3.4.2 Modify table

With this command you can open an existing table file for modification. Choose the command "Format – Table definition – Modify" to display this dialog:

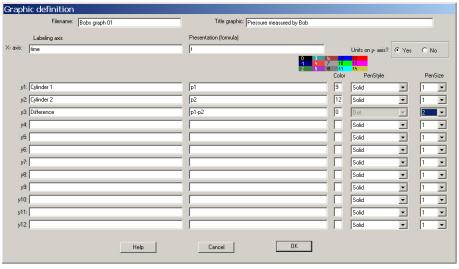


Pic. 42 Open table file

Click on the desired file to highlight it. Then click on "OK" to open the file. The opened file can be modified like described in section 4.3.4.1 on page 23.

4.3.4.3 Graph definition

Choose the command "Format – Graphic definition – New" to open the following dialog:



Pic. 43 Graph definition

E:1.....

Filename	enter the name for the graph file
Title graphic	enter the text that shall be displayed above the graph
Labeling axis	enter the text that shall be displayed at the respective axis/variable
Presentation	enter the variable or <u>formula</u> that shall be displayed at the respective axis
Units on y-axis	if "yes" is enabled, the units of the variables will be displayed at the y-axis
Color	enter the code number of the color for the curve of the respective variable; above the
	column, the available colors are displayed with their code number
Pen style	select the style you want to apply to the curve of the respective variable
Pen size	select the thickness of the line drawing the curve of the respective variable



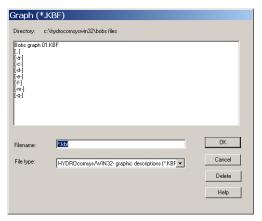
Available buttons

OK saves the graph file with the entered name

Cancel aborts the graph definition

4.3.4.4 Modify graph

With this command you can open an existing graph file for modification. Choose the command "Format – Graphic definition – Modify" to display this dialog:

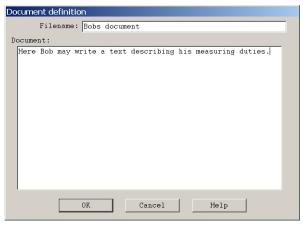


Pic. 44 Open graph file

Click on the desired file to highlight it. Then click on "OK" to open the file. The opened file can be modified like described in section 4.3.4.3 on page 25.

4.3.4.5 Document definition

Choose the command "Format – Document definition – New" to open the following dialog:



Pic. 45 Document definition

File name enter a name for the document file Document enter the text of your document

Available buttons

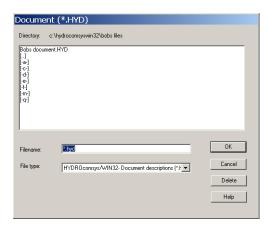
OK saves the document file with the entered name

Cancel aborts the document definition



4.3.4.6 Modify document

With this command you can open an existing document file for modification. Choose the command "Format – Graphic definition – Modify" to display this dialog:

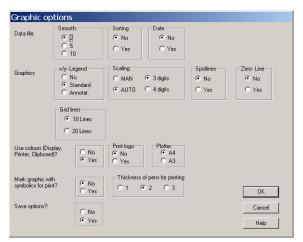


Pic. 46 Open document file

Click on the desired file to highlight it. Then click on "OK" to open the file. The opened file can be modified like described in section 4.3.4.5 on page 26.

4.3.4.7 Graphic options

Choose the command "Format – Options – Graphic" to open the following dialog:



Pic. 47 Graphic options

Here you can set options regarding the graphical presentation of measured values:

Smooth select the number of measured values from that the mean value shall be calculated when

applying the smoothing function; the higher the number, the more effective will be the

smoothing

Sorting if a variable is shown on the x-axis instead of the time, you can decide whether the values

shall be sorted before display

Date decide whether the date of the measurement shall be displayed

x/y-Legend select where the scaling information of the variables shall be displayed; "No" hides the

information, "Standard" displays them to the left of the graph, "Annotat." displays them

beneath the graph

Scaling select between "AUTO" (= automatic) and "MAN" (= manual) and select the number of

digits used to display the scaling values; when manual scaling is activated, you will be

asked to define scaling values when creating a new graphic presentation



Spot lines decide whether spot lines shall be displayed when using the spot function

Zero line decide whether the zero line shall be displayed in the graph decide whether 10 or 20 grid lines shall be displayed in the graph Use colors decide whether colors shall be used in the graph when it is printed

Print logo it is possible to print your company's name on each printout; the text is stored in file

"hydrowin.ini" under the key "company="

Plotter select the preferred format for plotter output

Mark graphics select whether the curves of the graph shall be labelled with symbols on the shown

variable; this option should be enabled if you do not use color

Thickness of pens Save options select the preferred pen thickness for the drawing of the graph lines when it is printed check "No" to do only temporary modifications; when HYDROcom is started again, the

original settings will be restored; check "Yes" to keep the modifications after the

software has been terminated

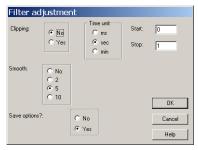
Available buttons

OK closes the dialog and saves the graphic options

Cancel closes the dialog

4.3.4.8 Table options

Choose the command "Format – Options – Tabular" to open the following dialog:



Pic. 48 Table options

Here you can set options regarding the table presentation of measured values:

Clipping select whether only a part ("yes") or the complete series of measurements ("no") shall be

used for the table presentation; if you select yes, you will have to define the next two

options

Time unit select the time unit for the table presentation

Start/Stop enter the start and stop position for the table presentation

Smooth decide, how many measured values shall be used to calculate their mean value to smooth

the table presentation; if you check "No", smoothing will be disabled

Save options check "No" to do only temporary modifications; when HYDROcom is started again, the

original settings will be restored; check "Yes" to keep the modifications after the

software has been terminated

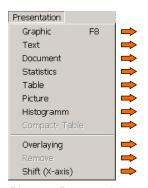
Available buttons

OK closes the dialog and saves the table options

Cancel closes the dialog



4.3.5 Presentation menu



Pic. 49 Presentation menu

Here you can select several possibilities for the presentation of the measuring data and the completion of your presentations.

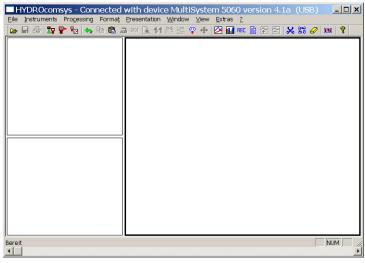
4.3.5.1 Presentation – Graphic

The generation of a graph is done with the following steps:

- select a layout section
- load a measurement data file
- load or create a graph description file
- enter scaling information (with manual scaling, only)

Select a layout section

Most layouts contain several sections of different size. Consider the expected size of the graph and then click on one layout section to select it. A selected layout section is surrounded by a thick line:



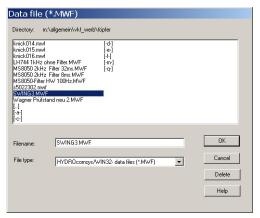
Pic. 50 Select layout section

Here the large section in the right-hand part of the screen has been selected.



Load a measurement data file

Select the command "Presentation – Graph", or click on the button to start the creation of a graphical presentation. This dialog will be displayed:

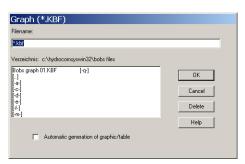


Pic. 51 Select series of measurements

Click on the measurement data file that you want to display with the graphical presentation. Possibly you will have to browse to another directory. Then click on "OK" to load the file.

Load or create a graph description file

After selecting the file with the series of measurements, the following dialog will be displayed:



Pic. 52 Load graph description file

A graph description file has the file extension *.kbf and contains all setup and layout information for the graphical presentation of the selected series of measurements. The system displays all kbf files that can be applied to the selected series of measurements. You can now use one of the displayed files, or check the option "Automatic generation of graphic". Then click on "OK".

If you use the standard "File – Dialogs" (see section 4.3.8.3 on page 50), all *.kbf files will be displayed, even if they cannot be applied to the current measurement data file. If you want to create a new *.kbf file automatically, you should click on the button "Abort". Otherwise select one of the files and click on "OK".

Enter scaling information

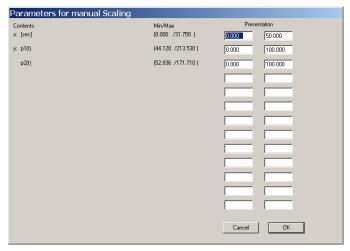


Information

You will only be asked to define scaling information if the option "Scaling" in the graphic options dialog is set to "MAN".

After selecting a graph description file or choosing the automatic generation, you will be requested to define the scaling parameters:

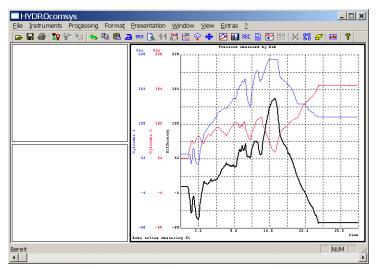




Pic. 53 Define scaling parameters

The window shows all variables on the two axis of the graph. Beneath the stroke "Presentation" you may enter the minimum and maximum value for the respective variable on the respective axis. To the left you can see the minimum and maximum values of each variable.

Enter the desired scaling parameters and then click on "OK" to display the graph in the selected layout section:



Pic. 54 Display of graphical presentation

4.3.5.2 Presentation – Text

The presentation of text is done with the following steps:

- · select a layout section
- enter the text

Select a layout section

Please see the description in section 4.3.5.1 on page 29.



Enter the text

Select the command "Presentation – Text" or click on the button [RBC]. This dialog will be displayed:



Pic. 55 Enter text for presentation

Write the text you want to display on your presentation into the text box. When finished, click on "OK" to enter the text into the selected layout section.

4.3.5.3 Presentation – Document

The presentation of a document is done with the following steps:

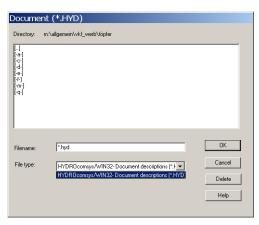
- select a layout section
- select the document

Select a layout section

Please see the description in section 4.3.5.1 on page 29.

Select the document

Select the command "Presentation – Document" or click on the button 🖹 . This dialog will be displayed:



Pic. 56 Select document for presentation

Click on the desired document to highlight it. Possibly you will have to browse to another directory. After highlighting the desired document, click on "OK" to display it in the selected layout section.

4.3.5.4 Presentation – Statistics

The presentation of statistics is done with the following steps:

- select a layout section
- load a measurement data file
- select statistical values

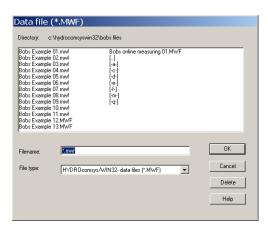
Select a layout section

Please see the description in section 4.3.5.1 on page 29.



Load a measurement data file

Select the command "Presentation – Statistics". This dialog will be displayed:



Pic. 57 Load measurement data file

Click on the measurement data file that you want to display with the statistical presentation. Possibly you will have to browse to another directory. Then click on "OK" to load the file.

Select statistical values

After selecting the desired series of measurements, the following dialog will be displayed:

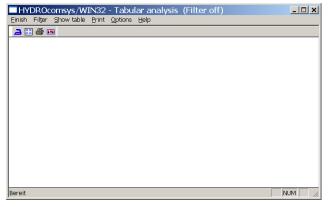


Pic. 58 Statistical value selection

The total of five statistical values can be calculated from the selected measuring data and displayed in the selected layout section. Check all required options and then click on "OK".

4.3.5.5 Presentation – Table

The presentation of a table is not done within the layout sections of HYDROcom, but in a separate window. Select the command "Presentation – Table" to open the window:



Pic. 59 Table presentation

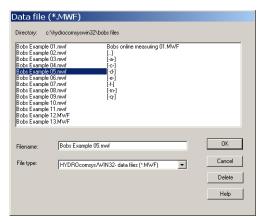


The following steps are required to use the table presentation:

- load a measurement data file
- load or create a table description file
- define filters
- · apply filters
- print table

Load a measurement data file

Select the command "Show table" to open the file selection dialog:

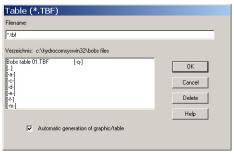


Pic. 60 Load measurement data

Click on the desired measurement data file to highlight it. Possibly you will have to browse to another directory. After highlighting a file, click on "OK" to load the measurement data.

Load or create a table description file

After loading the measurement data file, the following dialog will be displayed:

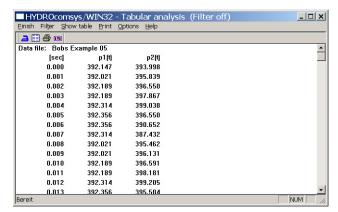


Pic. 61 Table description file

Table description files have the extension *.tbf. Only those table description files will be shown in the dialog that can be assigned to the loaded measurement data. If you want to use an existing table description file, click on it to highlight it. Otherwise check the option "Automatic generation of table". Then click on "OK" to create the table.

If you use the standard "File – Dialogs" (see section 4.3.8.3 on page 50), all *.kbf files will be displayed, even if they cannot be applied to the current measurement data file. If you want to create a new *.kbf file automatically, you should click on the button "Abort". Otherwise select one of the files and click on "OK".



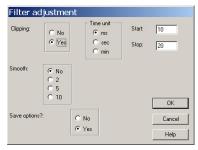


Pic. 62 Measurement data table

You can now view the values and print the table. But you can also define filters to evaluate the displayed data.

Define filters

Select the command "Options" to open the filter dialog:



Pic. 63 Table filter dialog

You may use two filters:

- clipping to display a part of the table, only
- smoothing to reduce the number of table values by calculating mean values

Clipping select the option "Yes" to enable clipping; then select the time unit and enter the desired

start and stop (end) values; you may enter whole numbers only into the start/stop boxes; in the shown example, table values between 0.010 and 0.020 seconds (= 10 and 20 ms)

shall be displayed, only

Smoothing check the number of measured values that shall be used for the mean value calculation;

the higher the selected value, the more the values will be flattened

Save options check "No" to do only temporary modifications; when HYDROcom is started again, the

original settings will be restored; check "Yes" to keep the modifications after the

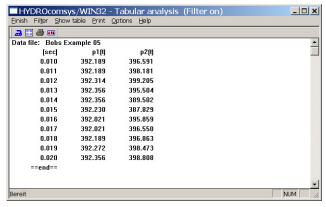
software has been terminated

After defining one or both filters, click on "OK" to save the filter definition.



Apply filters

After defining one or both filters, you have to select the command "Filter" to apply the filters to the table:



Pic. 64 Filtered table

The table now contains the measured values between 0.010 and 0.020 seconds, only. This is indicated in the title bar of the window with the stroke (Filter on). By selecting the command "Filter", you can toggle between (Filter on) and (Filter off).

4.3.5.6 Presentation – Picture

The presentation of a picture is done with the following steps:

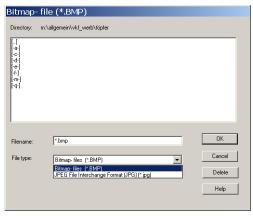
- select a layout section
- select the picture

Select a layout section

Please see the description in section 4.3.5.1 on page 29.

Select the document

Select the command "Presentation – Picture" to display this dialog:



Pic. 65 Picture selection

You may select pictures of the formats *.bmp (Bitmap) or *.jpg (Foto). Click on the desired file to highlight it. Possibly you will have to browse to another directory. Click on "OK" to load the highlighted picture into the selected layout section.



4.3.5.7 Presentation – Histogram

With a histogram you can display a bar chart with information on the number of measured values for a certain value range. The presentation of a histogram is done with the following steps:

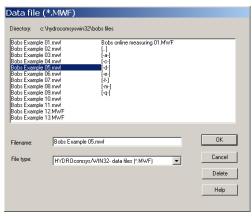
- select a layout section
- load a measurement data file
- define histogram parameters

Select a layout section

Please see the description in section 4.3.5.1 on page 29.

Load a measurement data file

Select the command "Presentation – Histogram". This dialog will be displayed:

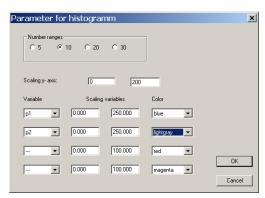


Pic. 66 Load measurement data

Click on the desired measurement data file to highlight it. Possibly you will have to browse to another directory. After highlighting a file, click on "OK" to load the measurement data.

Define histogram parameters

After loading a measurement data file, the histogram parameters dialog will be displayed:



Pic. 67 Histogram parameters

Number of ranges select in how many ranges the measured values shall be separated

Scaling y-axis enter the minimum and maximum value that shall be displayed at the y-axis; the number

of measured values in the respective range is indicated on the y-axis

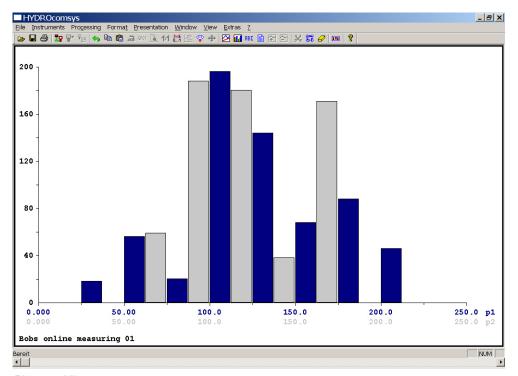
Variable open the drop-down list and select the variable that shall be presented in the histogram

Scaling variables enter the scaling information for the selected variables

Color select the color for the variables



Click on "OK" after defining all histogram parameters and the histogram will be displayed in the selected layout section:



Pic. 68 Histogram

In the shown example you can see that in the loaded measurement data file, the variable p1 has nearly 200 values in the range between 100.0 and 125.0 [bar].

If a triangle is drawn at the top of a bar, the number of values exceeds the maximum value of the scaling. You should modify the option "Scaling y-axis" in the histogram parameters to display all values.

4.3.5.8 Presentation – Compact table

A compact table may be integrated into a layout section. It contains a part of the measured data, only and cannot be filtered. The presentation of a compact table is done with three steps:

- select a layout section
- load a measurement data file
- select compact table options

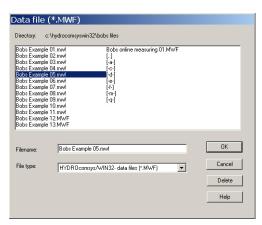
Select a layout section

Please see the description in section 4.3.5.1 on page 29.



Load a measurement data file

Select the command "Presentation – Compact table". This dialog will be displayed:

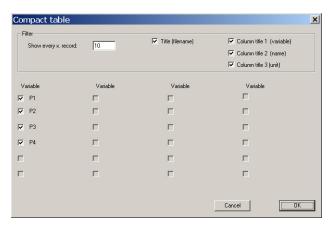


Pic. 69 Load measurement data

Click on the desired measurement data file to highlight it. Possibly you will have to browse to another directory. After highlighting a file, click on "OK" to load the measurement data.

Select compact table options

After loading a measurement data file, the compact table options dialog will be displayed:



Compact table options Pic. 70

Show every	decide, how many values shall be displayed in the compact table; e.g. enter "10" to display every 10 th value, only; consider that the available space is very limited and there
	is no scrolling in the layout section
Title (file name)	check this option to display the measurement data file name
Column title 1	check this option to display the variable (e.g. p1)
Column title 2	check this option to display the name that is assigned to the variable (must be assigned in
	the measuring instrument)
Column title 3	check this option to display the unit of the variable
Variable	all variables contained in the loaded measurement data file are displayed; check each

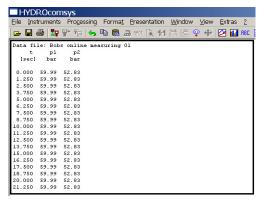
Available buttons

OK click this button to display the compact table in the selected layout section Cancel click this button to abort the table definition

variable that shall be displayed in the compact table



After clicking on "OK", the compact table will be displayed in the selected layout section:



Pic. 71 Compact table

4.3.5.9 Presentation – Overlaying ►

You can use the overlaying function to compare the graphs of two measurement data files. This can be done with the following preconditions:

- the scan rate of both series of measurement must be identic
- there should not be too many variables in the graph, otherwise it becomes difficult to maintain the
 overlook
- if there are too many variables, reduce their number using the function "Processing Labelling/graph/colors"; when you load the overlaying data, only the active variables will be loaded

The presentation of an overlaying is done with two steps:

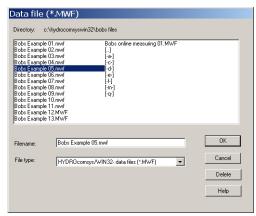
- display the first graph
- load the second measurement data file

Display the first graph

Please see the description in section 4.3.5.1 on page 29.

Load a measurement data file

Select the command "Presentation – Overlaying". This dialog will be displayed:

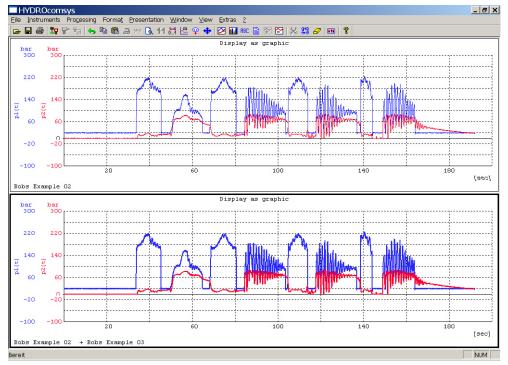


Pic. 72 Load measurement data

Click on the desired measurement data file to highlight it. Possibly you will have to browse to another directory. After highlighting a file, click on "OK" to load the measurement data.



The overlaying graph will be displayed with the same colors like the first graph, but with a thicker pen style:



Pic. 73 Example of overlaying graphs

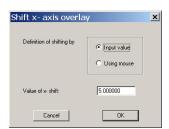
In this example, the upper layout section shows the original graph (file "Bobs Example 02"), only. In the lower section, the original graph is overlayed by another one (files "Bobs Example 02" and "Bobs Example 03").

Remove overlaying

If you want to remove the overlaying, you can either select the command "Presentation − Remove", or click the button .

Shift overlaying

You can shift the overlaying graph on the x-axis. Select the function "Presentation – Shift":



Pic. 74 Shift overlaying graph

Input value check this option if you want to shift the overlaying graph for a certain value; enter the

desired value into the box "Value of x-shift"

Using mouse check this option if you want to shift the overlaying graph manually

After selecting the desired shift option, click on "OK" to start the shifting.

• When "Input value" has been selected, the overlaying graph will be shifted by the entered value.

• If "Using mouse" has been selected, you may click into the displayed graph, shift the mouse to either side and do another click; the point of the first click will be shifted to the point of the second click.



Undo shifting

- 1. Select the function "Presentation Shift".
- 2. Check the option "Input value".
- 3. Enter "0" into the box "Value of x-shift".
- 4. Click on "OK".

4.3.6 Window menu



Pic. 75 Window menu

Here you can use several functions for the setup of the layout sections.

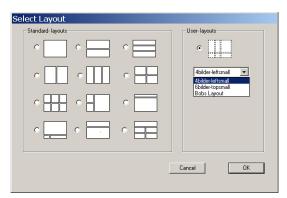
4.3.6.1 Window – Layout



Information

The layout can only be changed, if all layout section are empty. Use the function "Window – Delete" to clear layout sections.

Use this function to select a different layout for the working area:



Pic. 76 Window - Layout

Select one of the twelve standard layouts, or select the user layout, open the drop-down list and choose one of the available user layouts. Then click on "OK" to apply the new layout.

4.3.6.2 Window – Change size

Use this function to modify the current layout.

Select the command and the mouse pointer changes into a cross made of arrows. Move the cursor on a vertical or horizontal separating line, click and hold the left mouse button and pull the separating line to the desired position. The size of the layout sections can be increased or enlarged by max. 50%.

After modifying the layout, you can use the function "Window – Layout save" to save the new layout as a user layout.

4.3.6.3 Window – Layout reset

Select this command to undo all modifications with the function "Window – Change size". The original layout will be restored.



4.3.6.4 Window – Layout save

Use this function to save a modified layout:



Pic. 77 Save user layout

Enter the desired name for the user layout and click on "OK". If you select a new layout, this user layout will be contained in the drop-down list in the dialog section "User layouts".

4.3.6.5 Window – Change 🔀

Select this command to switch to the next layout section. You can also click on the button 3 or click the left mouse button in the desired layout section.

4.3.6.6 Window – Delete

Use this function to clear the contents of the selected layout section:



Pic. 78 Delete contents

Check the option "Yes" and click on "OK" to delete the contents of the selected layout section. The layout section itself will not be deleted and can be used for other content.

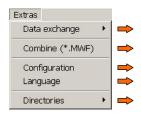
4.3.7 View menu



Pic. 79 View menu

Here you can select whether the symbol bar (button bar) and the status bar shall be displayed.

4.3.8 Extras menu

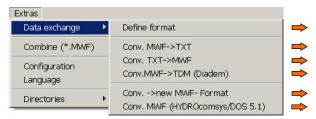


Pic. 80 Extras menu

This menu contains several additional functions.



4.3.8.1 Extras – Data exchange



Pic. 81 Data exchange selection

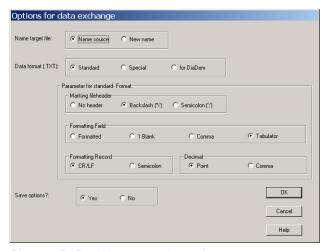
Define format



Information

The conversion format definition should be done by qualified staff, only. Otherwise you could get compatibility problems when importing the conversed data into other applications.

Use this function to apply user-specific modifications to the data to text conversion functions.



Pic. 82 Define data conversion options

Name target file select whether the conversed file shall get the same name like the source file, or you shall

be requested to enter a new name

Data format select whether the options shall be valid for the conversion MWF – TXT ("standard" or

"special"), or MWF – TDM ("for DiaDem")

Save options check "No" to do only temporary modifications; when HYDROcom is started again, the

original settings will be restored; check "Yes" to keep the modifications after the

software has been terminated

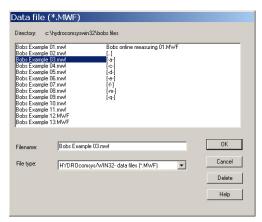
If you have selected "Data format – Standard", several further options may be defined. Select the desired options for the items "Marking file header", "Formatting field", "Formatting Record" and "Decimal". Click on "OK" to apply the settings.



Convert MWF - TXT

Use this function to convert a HYDROcom data file into the txt-format. The txt-format file can then be imported into several applications, e.g. MicrosoftTM ExcelTM.

After selecting this function you have to select the mwf-file for conversion:



Pic. 83 MWF file selection

Highlight the file you want to convert into the txt format. Possibly you will have to browse to another directory. After highlighting a file click on "OK" to start the conversion.

If the option "Name target file" in the dialog "Options for data exchange" is set to "New name", you will be requested to enter a name for the converted txt file:



Pic. 84 Enter file name

Enter the desired file name and click on "OK" to complete the conversion. If a file with the entered name already exists, the following window will be displayed:



Pic. 85 Overwrite warning

You can now decide, whether the existing file shall be overwritten by the new file. If you want to keep the existing file, you should select "No", click on "OK" and enter a different name.

The converted txt file will be saved in the same directory like the source mwf file.



Convert TXT - MWF

Use this function to convert a txt format file into a HYDROcom data file (mwf format). You can only convert txt files, if they have a header with the following structure:

Name of source file: name

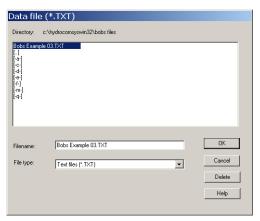
\Acquisition dated 05.01.2007 08:33

\Channels: 3

\Scanning time: 50 ms = 0.050 sec

\Variable 1: P1 \Variable 2: T1 \Variable 3: Q1 \Variable n: xx

After selecting this function you have to select the txt-file for conversion:



Pic. 86 TXT file selection

Highlight the file you want to convert into the mwf format. Possibly you will have to browse to another directory. After highlighting a file click on "OK" to start the conversion.

If the option "Name target file" in the dialog "Options for data exchange" is set to "New name", you will be requested to enter a name for the converted mwf file:



Pic. 87 Enter file name

Enter the desired file name and click on "OK" to complete the conversion. If a file with the entered name already exists, the following window will be displayed:



Pic. 88 Overwrite warning

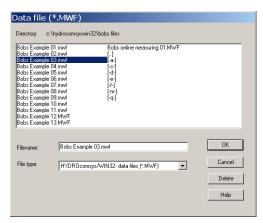
You can now decide, whether the existing file shall be overwritten by the new file. If you want to keep the existing file, you should select "No", click on "OK" and enter a different name.

The converted mwf file will be saved in the same directory like the source txt file. When it is used for a presentation, the file name will be displayed with a (*) to indicate the conversion.



Convert MWF - TDM

Use this function to convert a HYDROcom data file into the DiaDem[™] tdm data format. After selecting this function you have to select the mwf-file for conversion:



Pic. 89 MWF file selection

Highlight the file you want to convert into the tdm format. Possibly you will have to browse to another directory. After highlighting a file click on "OK" to start the conversion.

If the option "Name target file" in the dialog "Options for data exchange" is set to "New name", you will be requested to enter a name for the converted tdm file:



Pic. 90 Enter file name

Enter the desired file name and click on "OK" to complete the conversion. If a file with the entered name already exists, the following window will be displayed:



Pic. 91 Overwrite warning

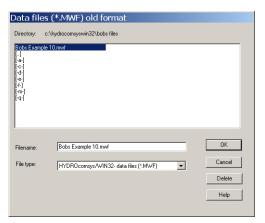
You can now decide, whether the existing file shall be overwritten by the new file. If you want to keep the existing file, you should select "No", click on "OK" and enter a different name.

The converted tdm file will be saved in the same directory like the source mwf file.



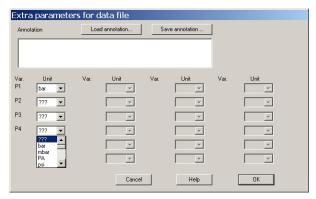
Convert into new mwf format

Use this function to convert an old HYDROcom mwf file into the new mwf format. After selecting the function you are requested to select the old format file:



Pic. 92 Select old format file

Highlight the file you want to convert into the new mwf format. Possibly you will have to browse to another directory. After highlighting a file click on "OK" to start the conversion. A window with the new format options will be displayed:



Pic. 93 Enter additional file information

Here you may load or enter an annotation into the file. More important is the selection of the units of the variables contained in the mwf file. Open the drop-down list beside each variable and click on the desired unit. Click on "OK" to finish the conversion.

Convert HYDROcom DOS 5.1 files

This is done in the same way like desribed for the old format mwf files.



4.3.8.2 Extras – Combine

You can use the combine function to put two series of measurement into one *.mwf file. The original *.mwf files must comply with the following requirements. Both series of measurement must have

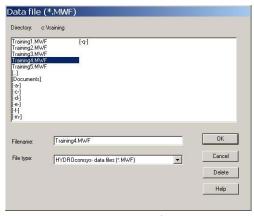
- the same monitoring time
- the same scanning rate
- an identic number of measured values
- identic trigger settings and a pretrigger of at least 10%

Select the command "Extras – Combine" to display the file-open dialog:



Pic. 94 Combine - open 1st file

Select the 1st file for the combination and then click on "Open". A dialog will be opened where you can select the 2nd file:



Pic. 95 Combine - open 2nd file

Select the 2nd file for the combination and then click on "OK". A dialog will be opened where you can enter the name for the new file:



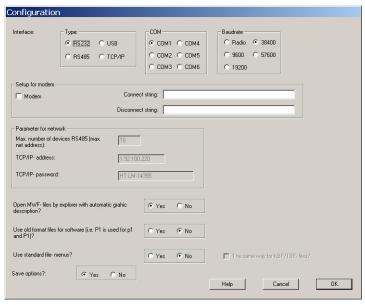
Pic. 96 Combine - enter file name

Enter the name for the mwf file that will be created by the combination. Click on "Save" to execute the combination. The new file can be used as a normal *.mwf file for the creation of presentations.



4.3.8.3 Extras – Configuration

Use this function to define some basic options for the application.



Pic. 97 Configuration

T , C ,	1 . 1
Interface type	select the interface where you want to connect measuring instruments
michaec type	scient the interface where you want to connect measuring instruments

Interface COM when using the RS232 or RS485 interface, you have to select the COM port where you

connect the measuring instrument to

Baud rate when using the RS 232 interface, you have to select the data transmission rate for the

selected COM port

Setup for modem when connecting a modem at the RS 232 interface, you should check this item and enter

the connect and disconnect strings; please see the manual of your modem for the required

information

Max. number ... when using a network at interface RS 485 you should enter the maximum number of

devices here

Adress/Password when using a TCP/IP network you should enter the network adress and the password

Open mwf-files ... check the "Yes" option if the automatic generation of a graph shall be offered when

opening mwf files

Use old format ... check the "Yes" option if the application shall open old format mwf files

Use standard file ... check the "Yes" option if the file open dialogs from the operating system shall be

displayed; with "No", the HYDROcom specific file open dialogs will be displayed

displayed, with two, the fit Dixocolii specific the open dialogs will be displayed

when using the standard file open dialogs, you can check this option to use them for the

opening of kbf and tbf files, too

Save options check "No" to do only temporary modifications; when HYDROcom is started again, the

original settings will be restored; check "Yes" to keep the modifications after the

software has been terminated

Available buttons

The same way ...

OK closes the dialog and saves all modifications

Cancel closes the dialog without saving possible modifications

Help displays help information



4.3.8.4 Extras – Language

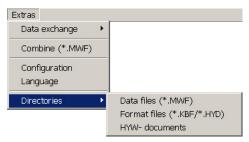
Use this function to change the operating language of the application:



Pic. 98 Select language

Check the desired language and click on "OK".

4.3.8.5 Extras – Directories



Pic. 99 Extras - directories

Here you can choose the directories that will be displayed when trying to open or save the respective files. The procedure is identic for data files, format files and hyw documents:



Pic. 100 Select directory

Browse to the desired directory and click on "OK".

This function is useful when you use HYDROcom specific file open dialogs. If you browse to a different directory within a file open dialog, the new directory will be used as the standard directory.



4.4 Buttons

This section contains only short references on the available buttons. The complete explanations on the respective commands and functions are contained in the section 4.3 "Menus and functions" on page 6. Follow the quick links indicated by clicking on the respective button

- opens a file
- saves the active file
- prints the active file
- starts the communication with an instrument
- reads the memory of the instrument
- starts the online mode
- undoes the last command
- copies the selected item into the clipboard
- pastes the content of the clipboard
- a smoothes the graph
- opens the spot function
- starts the zoom function
- 111 resets the zoom
- starts the scaling dialog

- adds a note to a graph
- g displays information on measurement data
- scrolls the graph
- starts the creation of a graph
- starts the creation of a histogram (barchart)
- starts the entering of a text
- starts the dialog to import a document
- starts the overlapping dialog
- removes the overlapping
- displays the layout dialog
- switches to the next layout section
- clears content from the active layout section
- displays the graphic options dialog
- displays information on the software