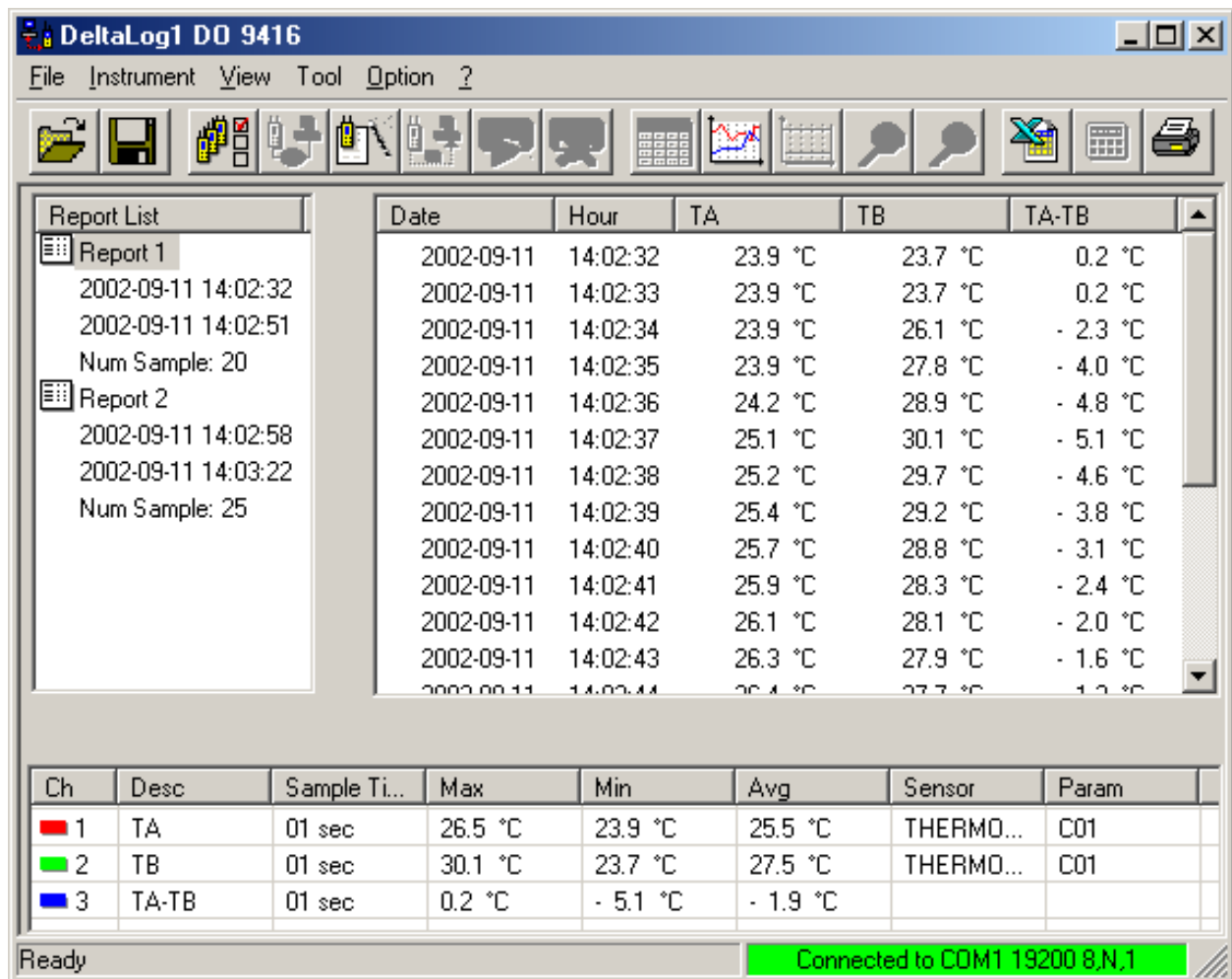# DeltaLog1 Software User's Manual

Introduction

What is DeltaLog1?

DeltaLog1 automatically manages the download of data stored on Delta Ohm dataloggers and on HD8706-R2 instrument which is provided with a serial output, but with no memory.

When starting the connection, the program automatically detects the serial port to which the instrument is connected and configures its parameters with no need for operator's assistance.

The program manages data dump from the instrument, as well as data display, saving and processing. Furthermore, it can display "real time" measurements and store them on a PC.

The following functions are also available:

- Graphic tools to display time progress of logged measurements.

- Setting of alarm limits and display of the samples exceeding these limits.

- Export of data in Excel® and in formatted text format.

- Average calculation on a part of measured samples.

DeltaLog1 is designed to run in Windows environment from version 95 onward and to be compatible with Office97 / 2000®.

Who Shall Use DeltaLog1?

DeltaLog1 application is addressed to people operating with Delta Ohm instruments to make data download, storage and processing operations easier and to manage these data with analysis, reports, printing, etc.

HD8706-R2: unlike dataloggers managed by DeltaLog1 program, the HD8706-R2 does not store data. For this reason, some of the functions described in this manual do not apply to this instrument. Operating differences listed in proper notes throughout the various paragraphs and in the chapter dedicated to this instrument at the end of the manual (see "**Specific Remarks On HD8706-R2**").

Using the Program

Switch on your computer and wait for Windows to start.

To start DeltaLog1 select from the MENU:

Start >> Programs >> Delta Ohm >> DeltaLog1.

Windows98

	Programs	▶		MS-DOS Prompt			UnInstall
	Disconnect			Delta Ohm	▶		DeltaLog1
	Close session						

Start | 🌐 📝 🖥 💾 📁 📁

Connect the serial output of the instrument to the first available serial port of your PC (either COM1 or the first available serial port) by means of the serial cable provided with the instrument. If it is provided with a 25-pole connector, make sure that the switch on the connector is on "Computer". Anyhow, check that you are using a *null-modem* cable.

9CPRS232

DB9

DB25

DO 9406
DO 9416
DO 9417
DO 9505
DO 9704
DO 9709
DO 9721
HD 8706 -R2
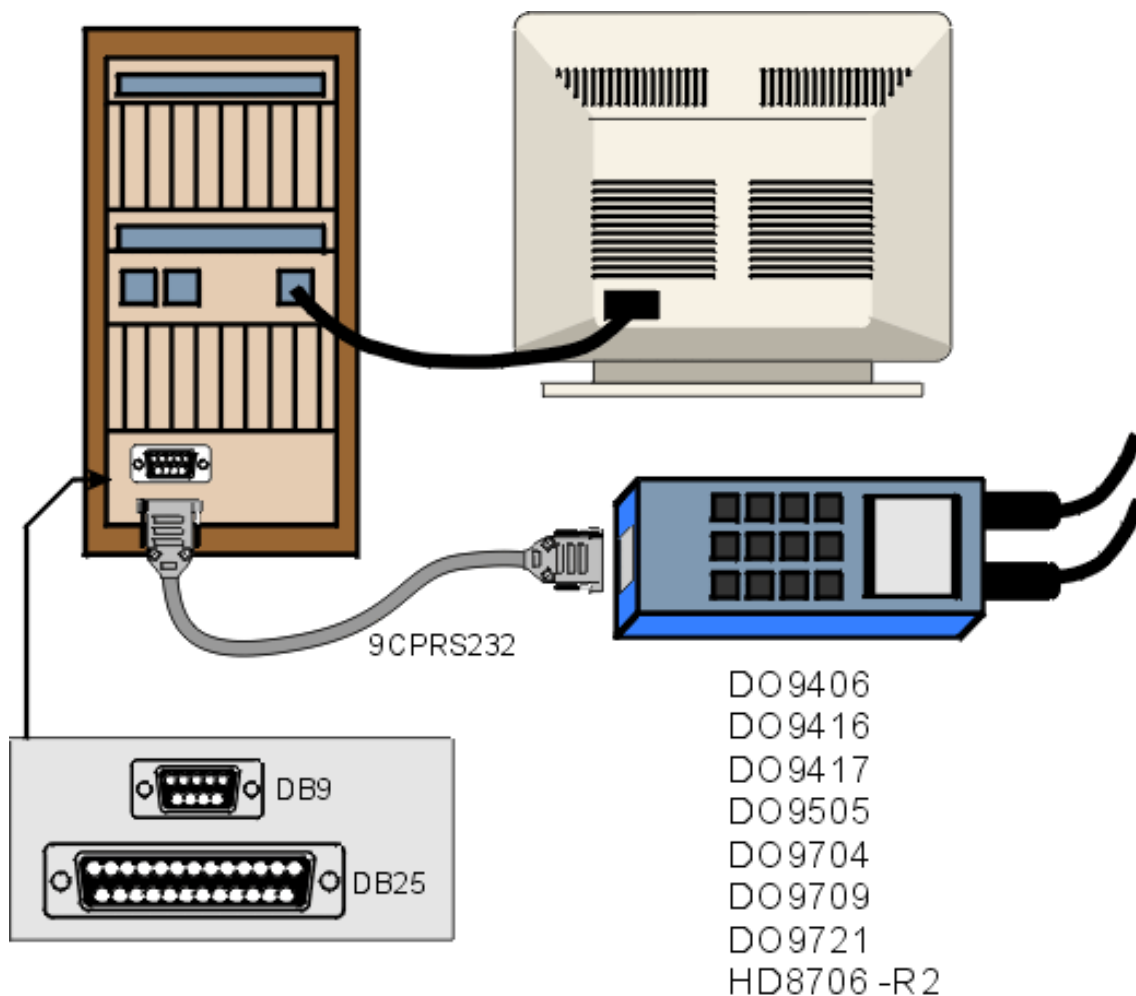
You can use a cable other than the one supplied with the datalogger, provided that it is a "null-model" one. Here are the connection diagrams of 9-pole/9-pole and 9-pole/25-pole serial cables:
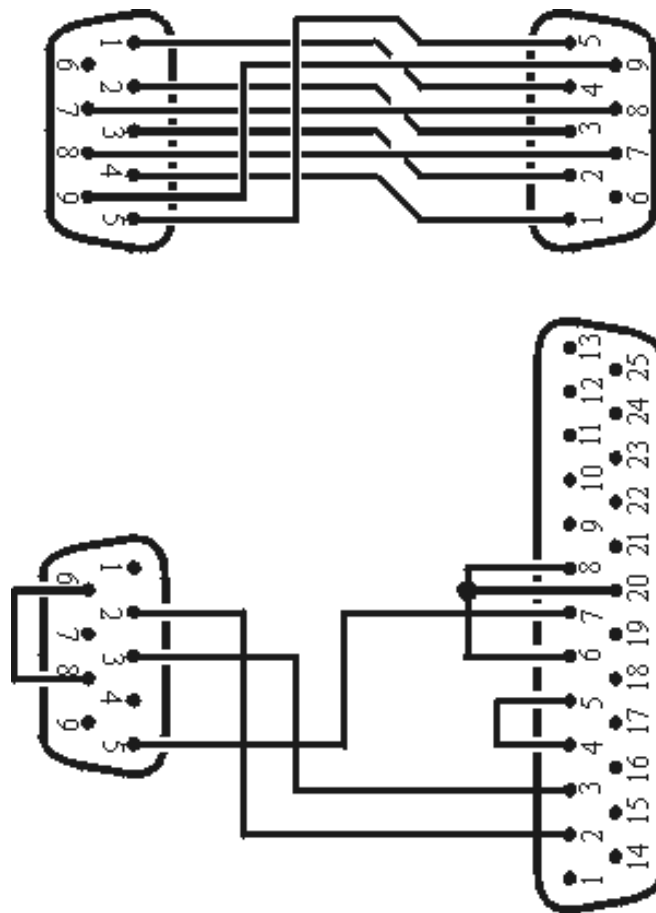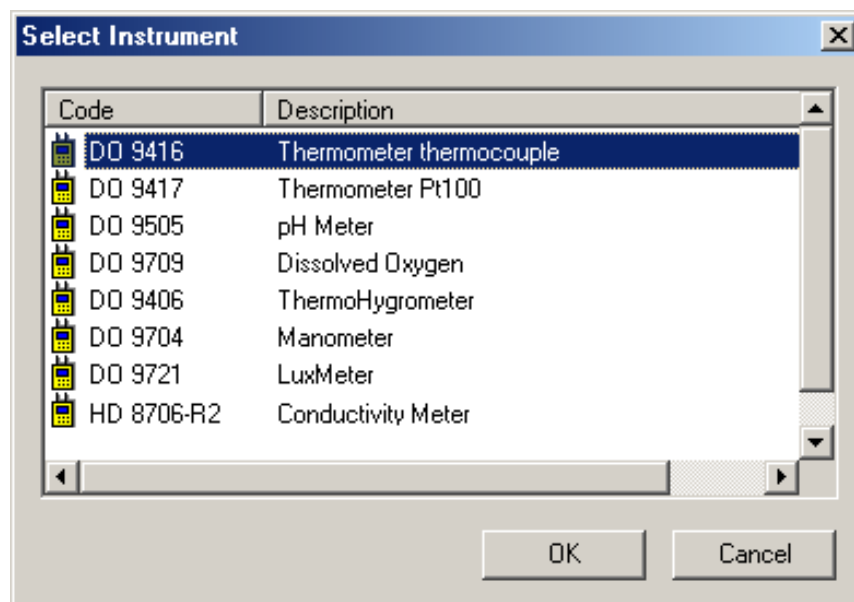
How to Dump Data from the Instrument

To download data from the instrument, make as follows:
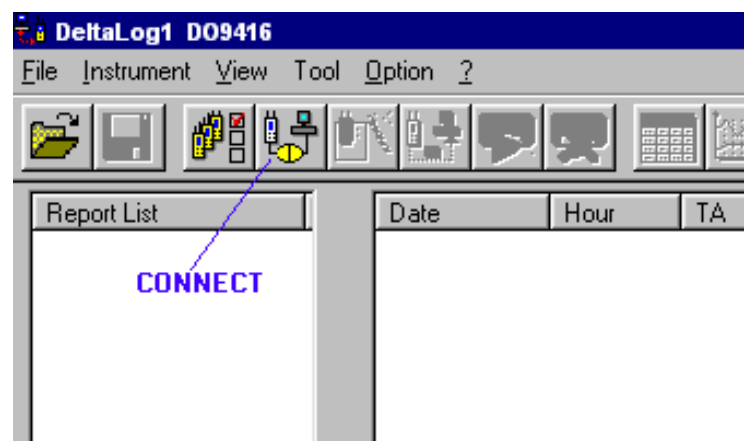**(this function is not available on the HD8706-R2)**.

1. Press the **Select instrument** key on the tollbar, or choose **Instrument >> Select Instrument** from the menu...
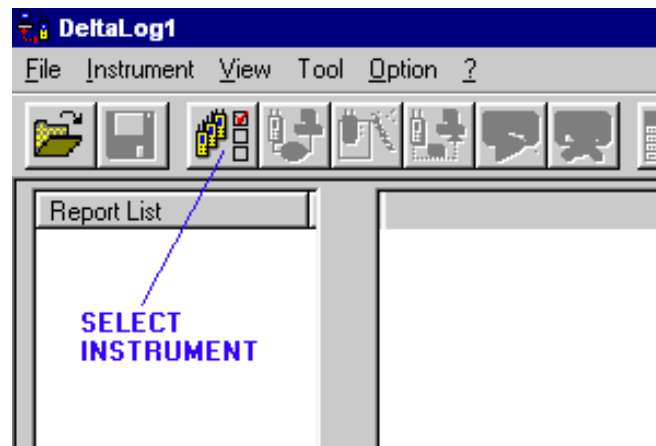
... and select an instrument model among those listed in the dialogue box.

2. Press **Connect** or select **File >> Connect** :

The program will automatically configure the parameters of the serial port

and will try to activate the connection with the instrument.

If the connection has succeeded, this green symbol will appear on screen

Connected to COM2 19200 8,N,1

in the lower right corner.

If the connection has failed, this red message will appear

Error : connection failure

Shouldn't the program succeed in connecting to the instrument, see the **Troubleshooting** section.
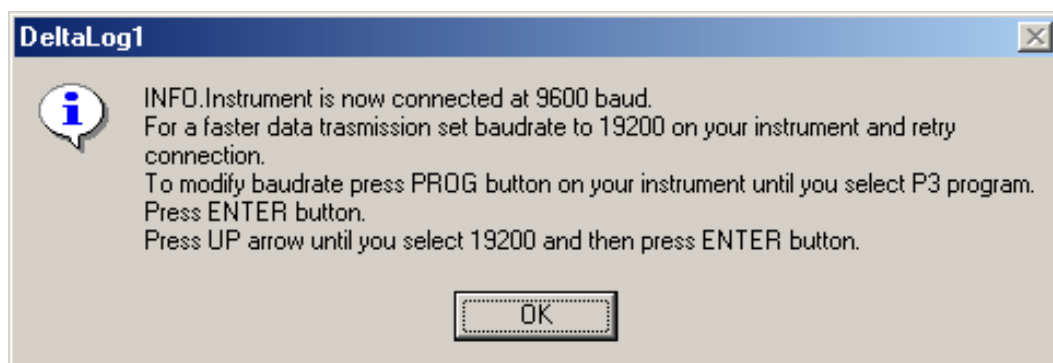
WARNING :

To transfer data at the highest speed, set the maximum Baudrate value (19.2KHz) available on the instrument.

To set the Baudrate value on the instrument, press PROGRAM until you reach step P3, then press ENTER.

The Baudrate currently set will be displayed. Use the UP and DOWN arrows to select 19.2. Press ENTER to confirm.

This operation has to be made **BEFORE STARTING THE CONNECTION** between DeltaLog1 program and the instrument.

Should the program detect an unsuitable Baudrate value, the following window will be viewed to inform the user.

DeltaLog1

INFO.Instrument is now connected at 9600 baud.
For a faster data trasmission set baudrate to 19200 on your instrument and retry connection.
To modify baudrate press PROG button on your instrument until you select P3 program. Press ENTER button.
Press UP arrow until you select 19200 and then press ENTER button.

OK

The user can now either continue with the operations or change the baudrate value on the instrument and **THEN RESTART THE CONNECTION PROCEDURE.**

3. Select **Download** from **Instrument >> Download** menu or from the toolbar.
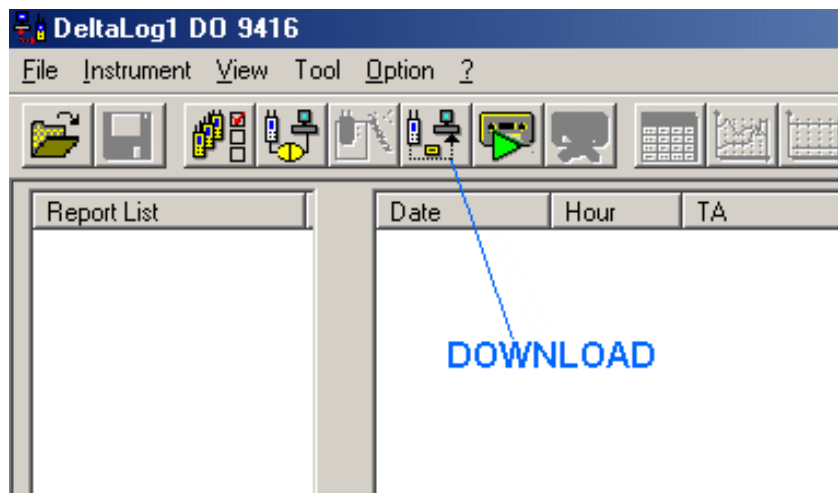

A window will appear indicating the procedure to be followed on the instrument to activate data dump: press PROG twice to select step P1, then press ENTER on the instrument.
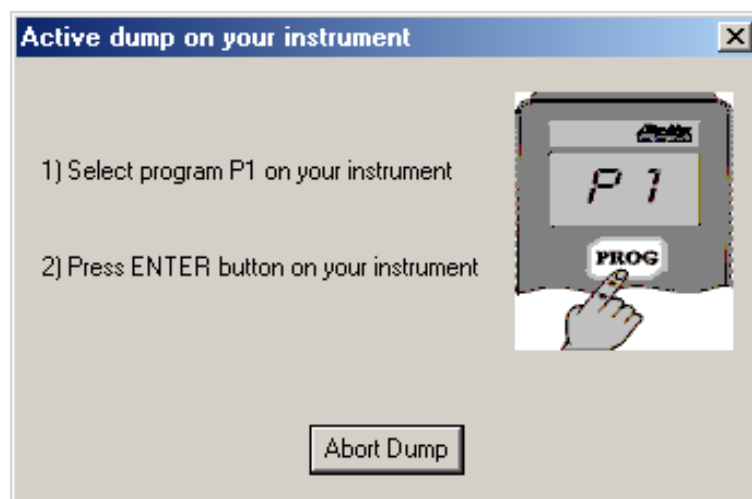
Press "Abort Dump" to cancel data dump.

4. As soon as the instrument will start to send data to your PC, and during the

whole download process, a window will appear indicating the download status (process progress and number of downloaded records).
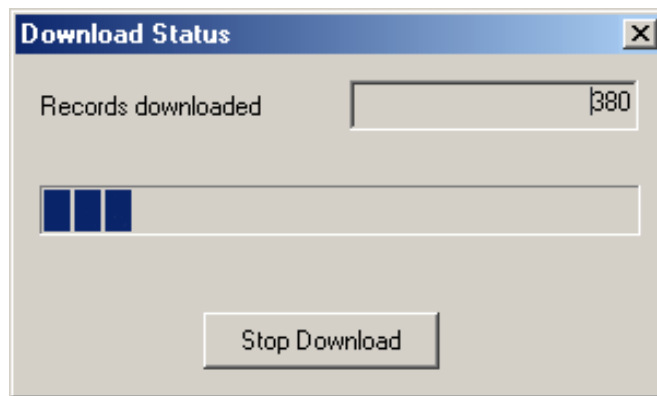

5. At the end of the download procedure, a window will indicate the end of the download process. If you press OK, downloaded reports, provided with starting date, time and number of samples will be viewed on the window on the left ("Repor List" Area).

    The main window will show data of report number 1.

6. Save download data using the **Save As...** key or select **File >> Save As ...**

    The following window will be displayed, where you can select the name and the folder of a file.
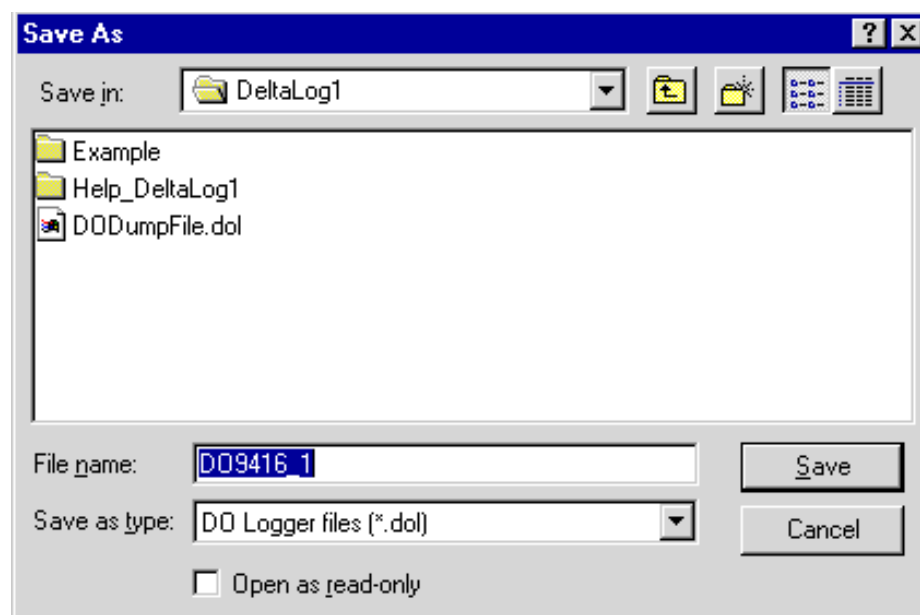
If you try to save a file with the same name and in the same folder as one already existing, the program will show a warning message asking whether you want to replace the existing file with the new one.
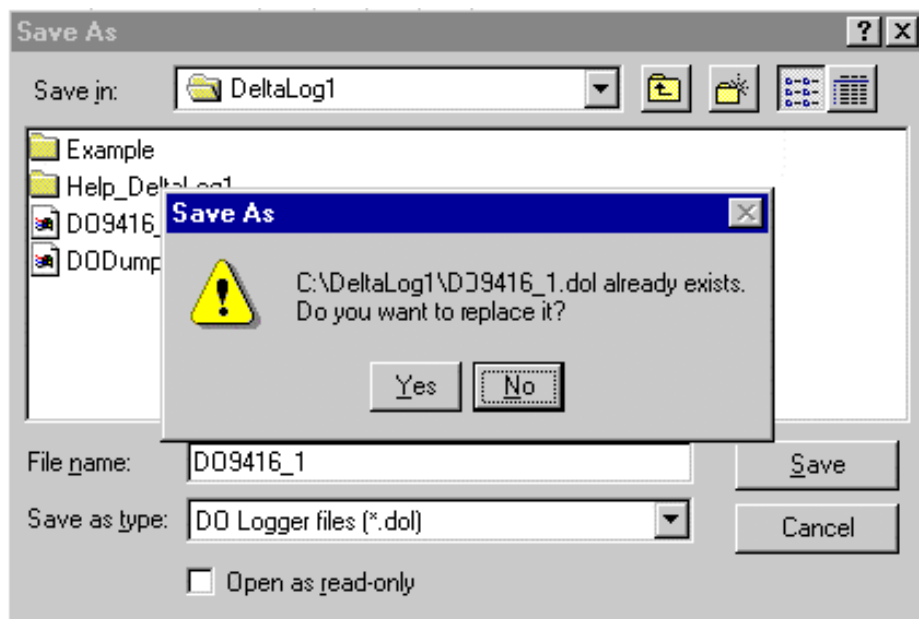

If you choose **Yes**, the **existing file will be deleted** and replaced by the current one. If you select **No**, the current file will not be saved. You will then have to repeat the saving procedure, giving a new name to the current file, or saving it in a different folder.

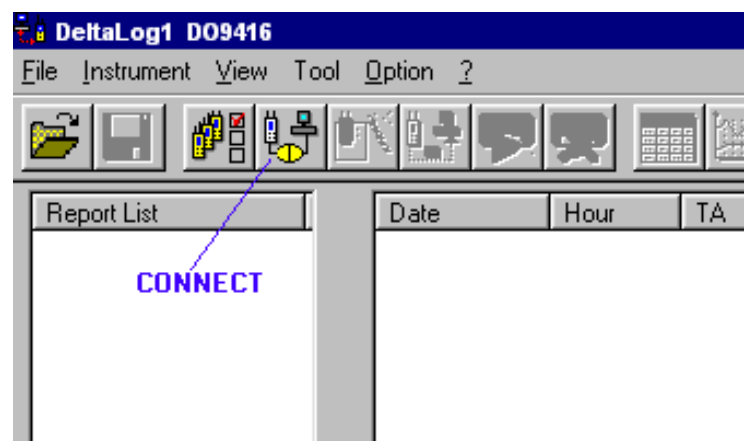# How to Store Instrument Measurements Directly on Your PC

1. To select the type of instrument, press the **Select Instrument** key on the toolbar or choose **Instrument >> Select Instrument** from the menu.
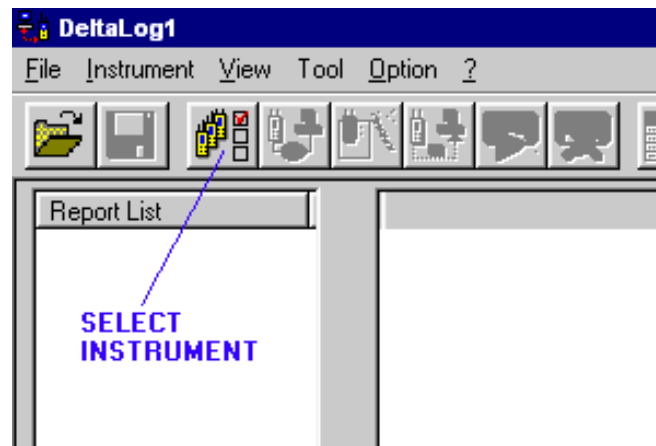
Select the instrument model in the dialogue box.
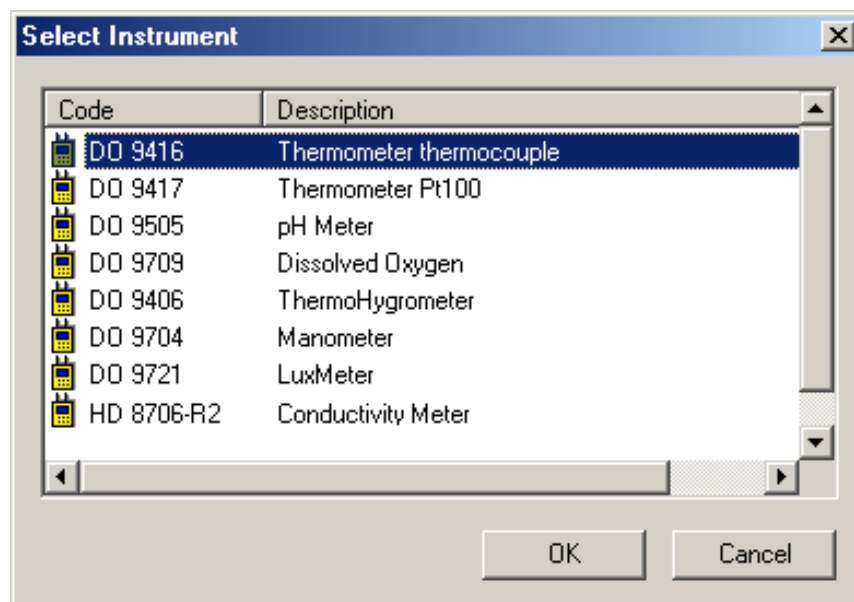
2. Press **Connect** or select **File >> Connect**:

The program will automatically set the parameters of the serial port and will try to activate the connection with the instrument.

Note: **a HD8706-R2 requires the connection parameters to be set manually. See relating instructions in the [paragraph dedicated](#) to this instrument.**

If the connection has succeeded, this green symbol will appear on screen

Connected to COM2 19200 8,N,1

in the lower right corner.

If the connection has failed, this red message will appear

Error : connection failure

Shouldn't the program succeed in connecting to the instrument, see the [Troubleshooting](#) section.

WARNING :

To transfer data at the highest speed, set the maximum Baudrate value available on the instrument (corresponding to 2.4KHz for the HD8706-R2 and to 19.2KHz for the other instruments supported by DeltaLog1).

To set the Baudrate value on the instrument, press PROGRAM until you reach step P3, then press ENTER.

The Baudrate currently set will be displayed. Use the UP and DOWN arrows to select 2.4 for the HD8706-R2 and 19.2 for all the other instruments. Press ENTER to confirm.

This operation has to be made **BEFORE STARTING THE CONNECTION** between DeltaLog1 and the instrument.

Should the program detect an unsuitable Baudrate value, the following window will be viewed to inform the user.
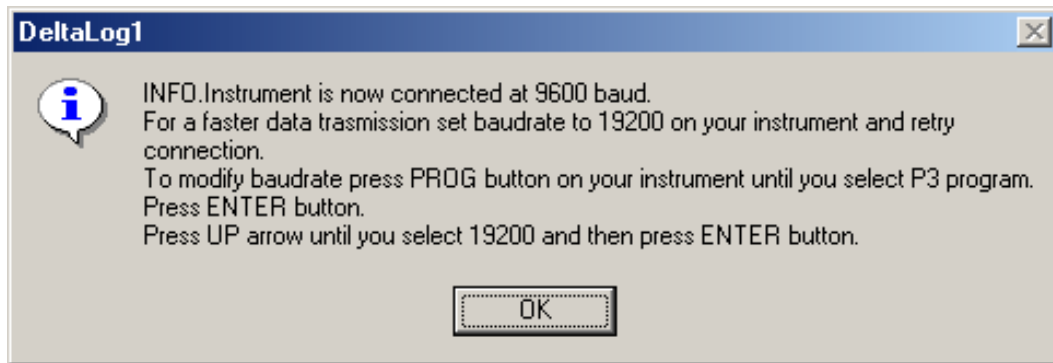
The user can now either continue with the operations or change the baudrate value on the instrument and **THEN RESTART THE CONNECTION PROCEDURE.**

Note: this notice will not appear when selecting the HD8706-R2.

3. Select the item **Instrument >> Record on PC >> Start** or press the **Start Rec on PC** key (Start Recording on PC)

A window will appear showing the procedure to be followed on the instrument to activate data download: press **Serial Output** (**PRINT** on the HD8706-R2).

Active recording on PC

Press SERIAL OUTPUT button on your instrument

[Abort Rec]
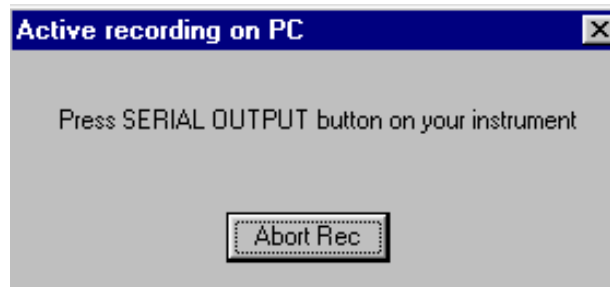
4. As soon as the instrument starts transferring data to your PC, and throughout the whole download process, measurements made by the instrument will be displayed in the "Data View" Area.

DeltaLog1 DO 9416

File   Instrument   View   Tool   Option   ?

Report List	Date	Hour	TA	TB	TA-TB
Report 1	2002-09-11	17:26:42	24.1 ℃	24.2 ℃	- 0.1 ℃
2002-09-11 17:26:42	2002-09-11	17:26:43	24.1 ℃	24.2 ℃	- 0.1 ℃
2002-09-11 17:26:54	2002-09-11	17:26:44	24.2 ℃	24.2 ℃	0.0 ℃
Num Sample: 13	2002-09-11	17:26:45	24.1 ℃	24.2 ℃	- 0.1 ℃
	2002-09-11	17:26:46	24.2 ℃	24.2 ℃	0.0 ℃
	2002-09-11	17:26:47	24.1 ℃	24.2 ℃	- 0.1 ℃
	2002-09-11	17:26:48	24.1 ℃	24.2 ℃	- 0.1 ℃
	2002-09-11	17:26:49	24.2 ℃	24.2 ℃	0.0 ℃
	2002-09-11	17:26:50	24.1 ℃	24.2 ℃	- 0.1 ℃
	2002-09-11	17:26:51	24.2 ℃	24.2 ℃	0.0 ℃
	2002-09-11	17:26:52	24.1 ℃	24.2 ℃	- 0.1 ℃
	2002-09-11	17:26:53	24.2 ℃	24.2 ℃	0.0 ℃
	2002-09-11	17:26:54	24.2 ℃	24.2 ℃	0.0 ℃

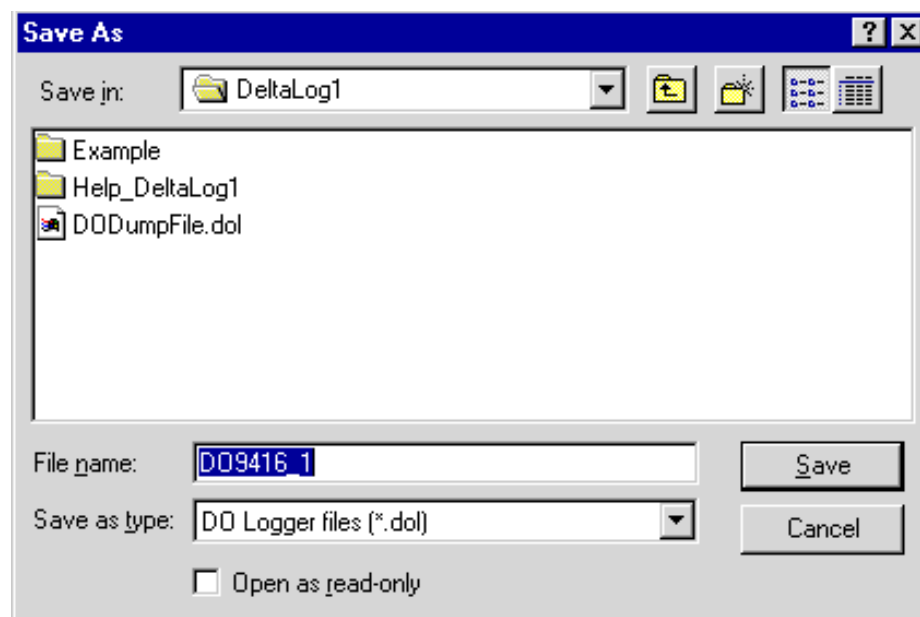| Ch	Desc	Sample Time	Max	Min	Avg	Sensor	Param
1	TA	01 sec	26.5 ℃	23.9 ℃	25.5 ℃	THERMO...	
2	TB	01 sec	30.1 ℃	23.7 ℃	27.5 ℃	THERMO...	
3	TA-TB	01 sec	0.2 ℃	- 5.1 ℃	- 1.9 ℃		

Ready   Connected to COM1 9600 8,N,1

5. To stop recording, select **Instrument >> Record on PC >> Stop** or press **Stop Rec on PC.**
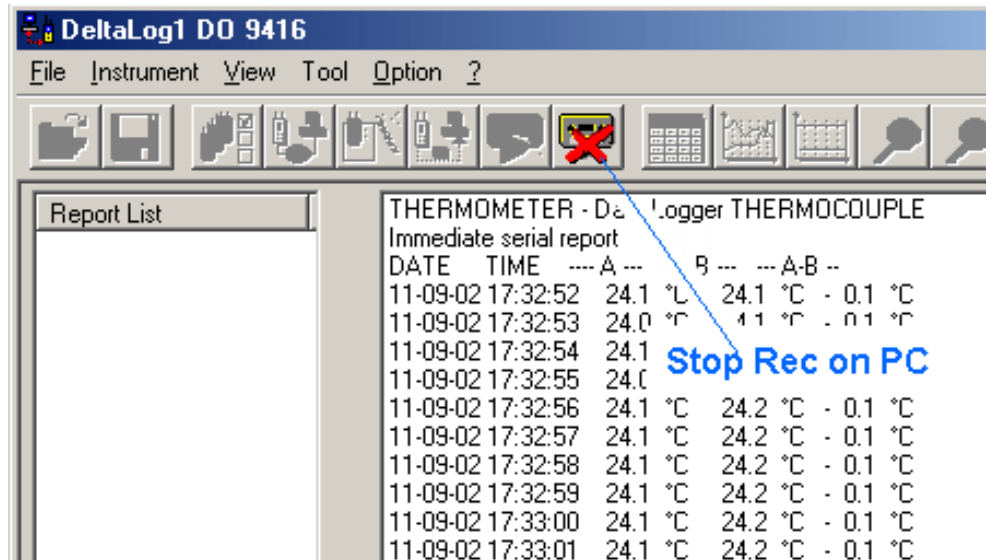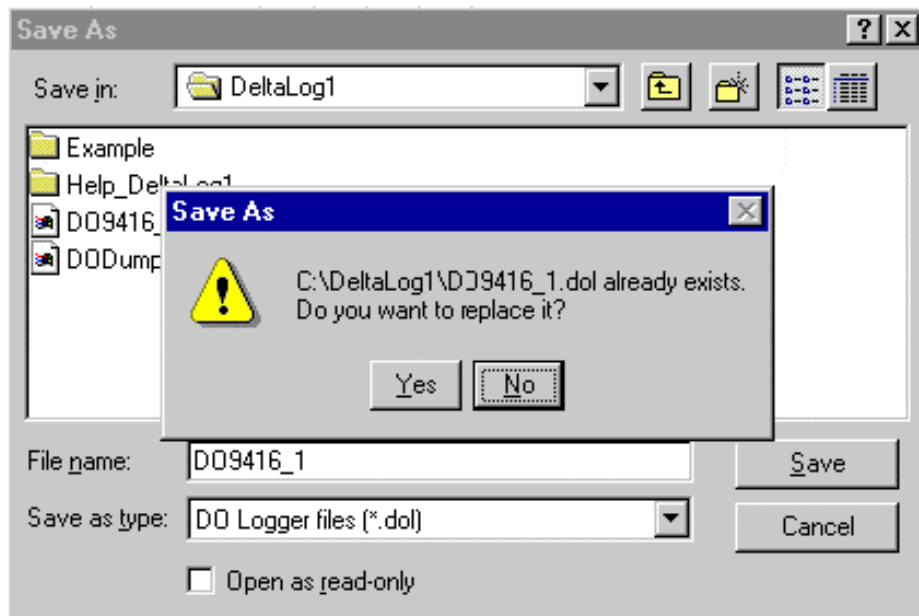
6. Save recorded data using the **File >> Save As...** command.

   The following window will be displayed, where you can select file name and folder.

   If you try to save a file with the same name and in the same folder as an already existing one, the program will show a warning message asking whether you want to replace the existing file with the new one.

If you choose **Yes**, the **existing file will be deleted** and replaced by the current one. If you select **No**, the current file will not be saved. You will then have to repeat the saving procedure, giving a new name to the current file, or saving it in a different folder.

How to Add a Comment to Saved Data

The program offers the chance to add a comment to saved data.

Select **Tool >> View >> Edit Comments**
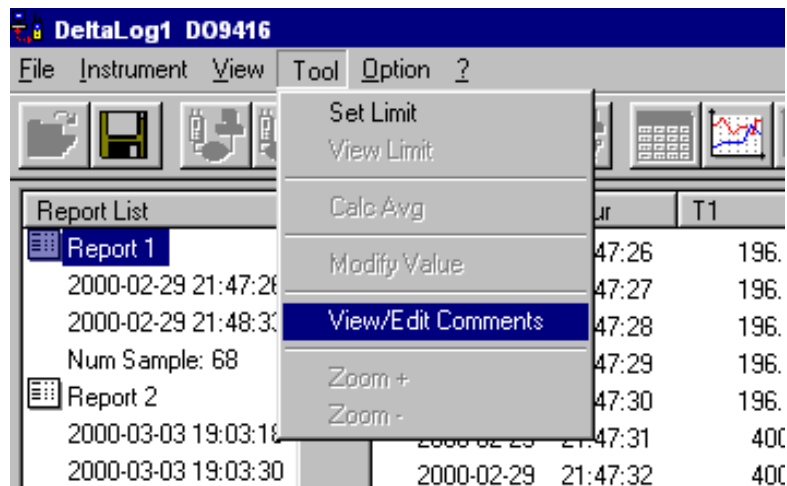
The program will open a window to display, add or edit any personal comment to the file containing downloaded data.

This option is useful to the user to get personal references relating to carried out measurements.

This comment will also be available when printing data and, more precisely, in the Report List Area.
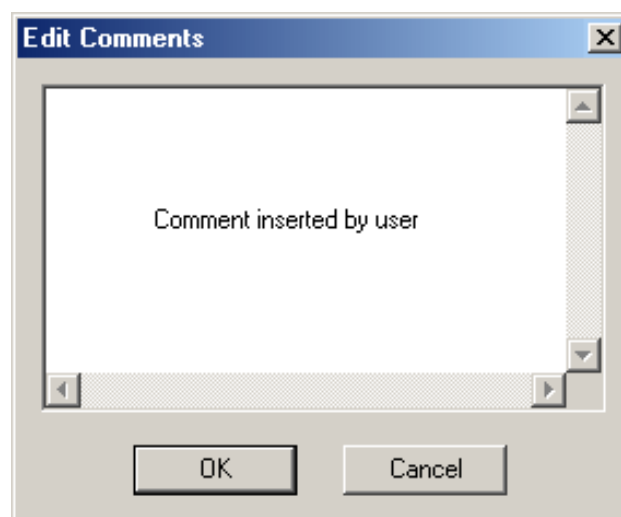
How to Print Data Related to a Measurement

DeltaLog1 program offers the chance to print the measurements downloaded

from the instrument to any printer connected to your computer.

To print:

1. Download the measurements recorded by the instrument or open the file containing the data previously stored.
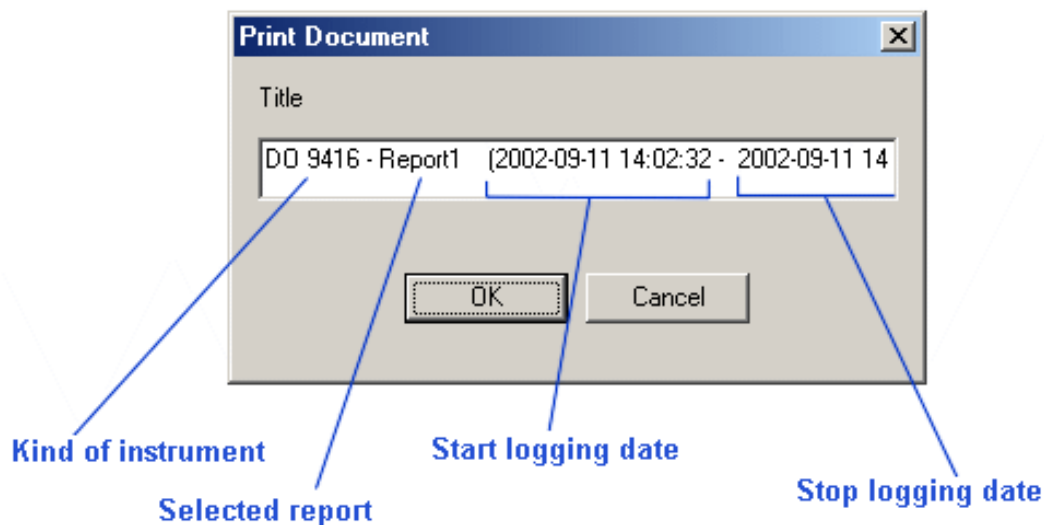2. Select the desired report from the "Report View Area".
3. Choose **File >> Print** or press **Print**.

The program will open the window of the heading that will be printed at the top of any sheet. You can change this heading at will.

If you press **OK,** the program will first print data...

DO 9416 - Report1   (2002-09-11 14:02:32 - 2002-09-11 14:02:51)

Date	Hour	TA	TB	TA-TB
2002-09-11	14:02:32	23.9 °C	23.7 °C	0.2 °C
2002-09-11	14:02:33	23.9 °C	23.7 °C	0.2 °C
2002-09-11	14:02:34	23.9 °C	26.1 °C	- 2.3 °C
2002-09-11	14:02:35	23.9 °C	27.8 °C	- 4.0 °C
2002-09-11	14:02:36	24.2 °C	28.9 °C	- 4.8 °C
2002-09-11	14:02:37	25.1 °C	30.1 °C	- 5.1 °C
2002-09-11	14:02:38	25.2 °C	29.7 °C	- 4.6 °C
2002-09-11	14:02:39	25.4 °C	29.2 °C	- 3.8 °C
2002-09-11	14:02:40	25.7 °C	28.8 °C	- 3.1 °C
2002-09-11	14:02:41	25.9 °C	28.3 °C	- 2.4 °C
2002-09-11	14:02:42	26.1 °C	28.1 °C	- 2.0 °C
2002-09-11	14:02:43	26.3 °C	27.9 °C	- 1.6 °C
2002-09-11	14:02:44	26.4 °C	27.7 °C	- 1.3 °C
2002-09-11	14:02:45	26.4 °C	27.4 °C	- 1.0 °C
2002-09-11	14:02:46	26.5 °C	27.3 °C	- 0.8 °C
2002-09-11	14:02:47	26.5 °C	27.2 °C	- 0.7 °C
2002-09-11	14:02:48	26.5 °C	27.0 °C	- 0.6 °C
2002-09-11	14:02:49	26.3 °C	26.9 °C	- 0.6 °C
2002-09-11	14:02:50	26.2 °C	26.8 °C	- 0.6 °C
2002-09-11	14:02:51	26.2 °C	26.7 °C	- 0.5 °C

...and then, on the next page, the summary information and the comments entered by the user, if any.

DO 9416 - Report1 (2002-09-11 14:02:32 - 2002-09-11 14:02:51)

REPORT SUMMARY

CHANNEL: TA
Max : 26.5 °C   Min : 23.9 °C   Avg : 25.5 °C
Sensor : THERMOCOUPLE K

Start logging date   **Stop logging date**

CHANNEL: TB
Max : 30.1 °C   Min : 23.7 °C   Avg : 27.5 °C
Sensor : THERMOCOUPLE K

Summary of TA channel

CHANNEL: TA-TB
Max : 0.2 °C   Min :- 5.1 °C   Avg :- 1.9 °C
Sensor :

Instrument parameters

INSTRUMENT PARAMETER :
C01

Comments inserted by user

COMMENTS :
Comment inserted by user

Troubleshooting

If, when performing the connecting procedure, the program cannot connect to the instrument, check the following:

1. That the instrument is on.
2. That battery level is not low.
3. That the instrument is not already permorming a data download and thus using the serial port.
4. That you are using the cable supplied with the instruments.
5. That cables are properly connected to sockets and that they are PC null-modem ones.
6. That, if you are using a 25-pole cable, the switch is positioned on

"Computer".

7. That other programs using serial ports are not active on your computer (es. HyperTerminal). If so, close them.
8. **If you are using an HD8706-R2, the serial port connection configuration has to be made manually.**
(see procedure details in the [dedicated paragraph](#))

Print Problems

If there are any problems during the print procedure, try to upgrade the printer driver by downloading it from the manufacturer's Web site.
Modify the dimensions of printed image selecting Option >> [Print Graph Setting](#).
Use the [Copy to clipboard](#) function to copy the active window and paste it in another application: for example, to print a graph, copy and paste it in Windows Paint and try to print it from there.
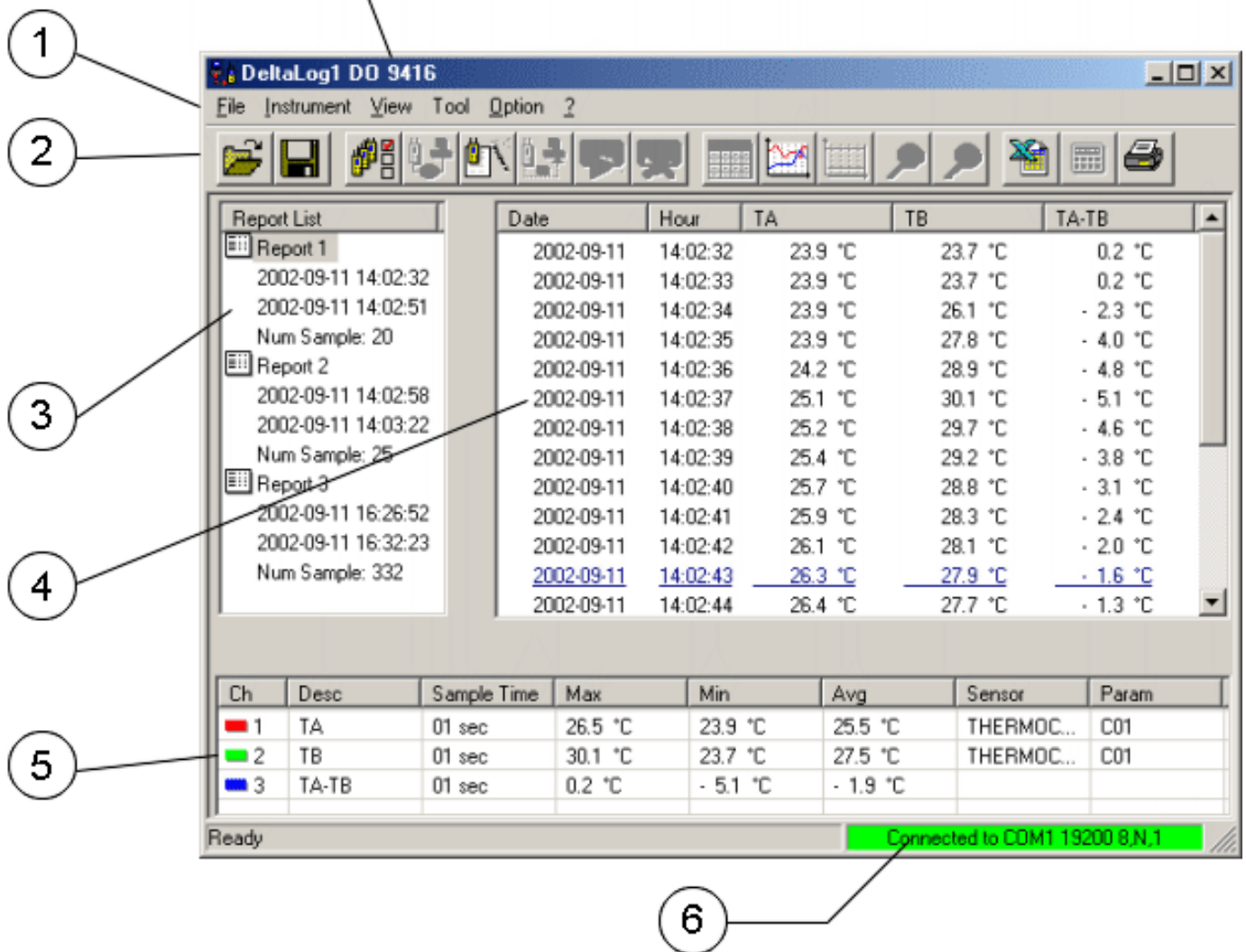

Definition of Functional Areas

Main Window

When starting the application, the following window will appear:

Instrument type

DO 9406   DO 9704
DO 9416   DO 9709
DO 9417   DO 9721
DO 9505   HD 8706 - R2

The following areas are to be found:

1. Main menu
2. Toolbar
3. Report List Area
4. "Data View Area"
5. "Current File Properties" Area
6. Connection Status with Serial Port

1. Main Menu

At the top of the window there is the main menu that allows to access to any of the functions of DeltaLog1 program.

To activate a function, open the pop-up menu where the function appears and select it with the mouse.

---

2. Toolbar

To speed up the use of the system, some commands, accessible from menu, are also available from a bar placed immediadely under the main menu.

Corresponds to **File >> Open** menu item

Corresponds to **File >> Save As**

Corresponds to **Instrument >> Select instrument**

Corresponds to **Instrument >> Connect**

Corresponds to **Instrument >> New session**

Corresponds to **Instrument >> Download**

Corresponds to **Instrument >> Record on PC >> Start**

Corresponds to **Instrument >> Record on PC >> Stop**

Corresponds to **View >> Table**

Corresponds to **View >> Graph**

Corresponds to **Tool >> View Limit**

Corresponds to **Tool >> Zoom +**

Corresponds to **Tool >> Zoom -**

Corresponds to **File >> Export to Excel**

Corresponds to **Tool >> Copy to clipboard**
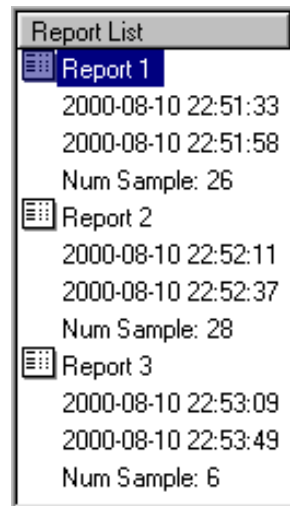
Corresponds to **Tool >> Calc Avg**

Corresponds to **File >> Print**

---

3. Report List Area.

This is the area where the different reports logged and downloaded from the instrument are viewed.

Each report shows date and time of logging start and stop, as well as the number of logged samples.

```
Report List
 Report 1
     2000-08-10 22:51:33
     2000-08-10 22:51:58
     Num Sample: 26
 Report 2
     2000-08-10 22:52:11
     2000-08-10 22:52:37
     Num Sample: 28
 Report 3
     2000-08-10 22:53:09
     2000-08-10 22:53:49
     Num Sample: 6
```

4. Data View Area

This is the area where the values of stored samples for the currently selected report are displayed.

The following data are listed for each sample: date (year/month/day) and time (hour/minutes/seconds) of logging and the values of the different channels with the related unit of measurement.

Date	Hour	T1	T2	T1-T2
2000-09-14	23:11:35	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:36	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:37	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:38	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:39	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:40	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:41	- 100.0 ℃	24.1 ℃	- 124.1 ℃
2000-09-14	23:11:42	- 100.0 ℃	24.3 ℃	- 124.3 ℃
2000-09-14	23:11:43	- 100.0 ℃	25.0 ℃	- 125.0 ℃
2000-09-14	23:11:44	- 100.0 ℃	25.4 ℃	- 125.4 ℃
2000-09-14	23:11:45	- 100.0 ℃	26.0 ℃	- 126.0 ℃
2000-09-14	23:11:46	- 100.0 ℃	26.4 ℃	- 126.4 ℃
2000-09-14	23:11:47	- 100.0 ℃	26.7 ℃	- 126.7 ℃
2000-09-14	23:11:48	- 100.0 ℃	27.0 ℃	- 127.0 ℃
2000-09-14	23:11:49	- 100.0 ℃	27.2 ℃	- 127.2 ℃
2000-09-14	23:11:50	- 100.0 ℃	27.4 ℃	- 127.4 ℃
2000-09-14	23:11:51	- 100.0 ℃	27.4 ℃	- 127.4 ℃
2000-09-14	23:11:52	- 100.0 ℃	27.6 ℃	- 127.6 ℃
2000-09-14	23:11:53	100.0 ℃	27.7 ℃	127.7 ℃

5. "Current File Properties" Area

This is the area where summary information of each channel of a currently selected report are viewed.

The following details are listed for each channel:

- Description
- Sampling time
- Maximum value
- Minimum value
- Average value
- Type of sensor
- Calibration parameters (whether available)

Ch	Desc	Sample Time	Max	Min	Avg	Sensor	Param
1	TA	01 sec	999 °C	0.0 °C	160.9 °C	THERMOCO...	C01
2	TB	01 sec	999 °C	0.0 °C	14.7 °C	THERMOCO...	C01
3	TA-TB	01 sec	999 °C	0.0 °C	16.5 °C		

6. Serial Port Connection Status

This is the symbol that indicates status and connection parameters of DeltaLog1 with respect to the serial port.

You can have:

- DeltaLog1 not connected to the serial port
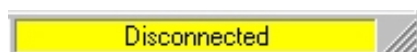
Disconnected

- DeltaLog1 not connected to the serial line because an error occurred while connecting

Error : connection failure

- DeltaLog1 properly connected according to related parameters

Connected to COM2 19200 8,N,1

Main Menu Commands

File Menu

Open

Opens a file of data previously saved.

Save

Saves a file in the folder where it is already saved.

Save As…

Saves a file with a name and in a folder as selected by the user.

Export to Excel

Opens Microsoft Excel and exports currently active data to an Excel folder.

To be active, this function requests data to be viewed in table format (press **View Table**) and Microsoft Excel® to be installed on your PC.

	A	B	C	D	E	F	G	H
6	2000-02-29	21:47:31	400	0	0			
7	2000-02-29	21:47:32	400	0	0			
8	2000-02-29	21:47:33	400	0	0			
9	2000-02-29	21:47:34	-123,5	-123,4	-123,4			
10	2000-02-29	21:47:35	400	0	0			
11	2000-02-29	21:47:36	800	0	0			
12	2000-02-29	21:47:37	800	0	0			
13	2000-02-29	21:47:38	44	44	44			
14	2000-02-29	21:47:39	800	0	0			
15	2000-02-29	21:47:40	800	0	0			
16	2000-02-29	21:47:41	400	0	0			
17	2000-02-29	21:47:42	400	0	0			
18	2000-02-29	21:47:43	400	0	0			
19	2000-02-29	21:47:44	196,8	0	0			
20	2000-02-29	21:47:45	196,8	0	0			

Remark: only homogeneous data can be exported. For example, using an HD8706-R2, you cannot export µS and/or mS and ppt and/or ppm data at the same time.

Export As formatted text

Exports data of a current record in a text file with ";" separation mark.
This file can be easily imported from other applications.

Close

Closes a File previously opened.

Print…

Prints the current report. Data displayed either in the "Data View Area" or in the "Current File Properties Area" will be printed. In addition, any comment entered by an operator by selecting Tool >> View >> Edit Comments will also be
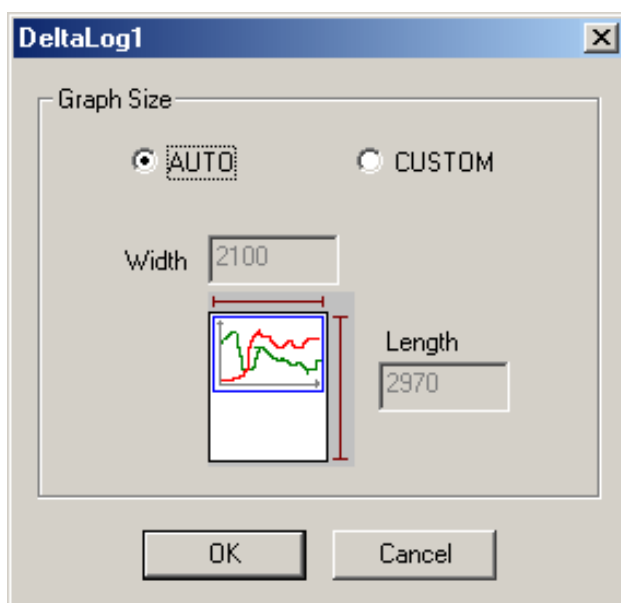
printed.

Printer Setup...

Opens the panel to set print options.

Print Graph Setting

If the printed graph dimensions are not the same as the displayed ones, it's possible to manually set the width and length of graph. The two squares length and width can be modified by the user selecting the the CUSTOM name.
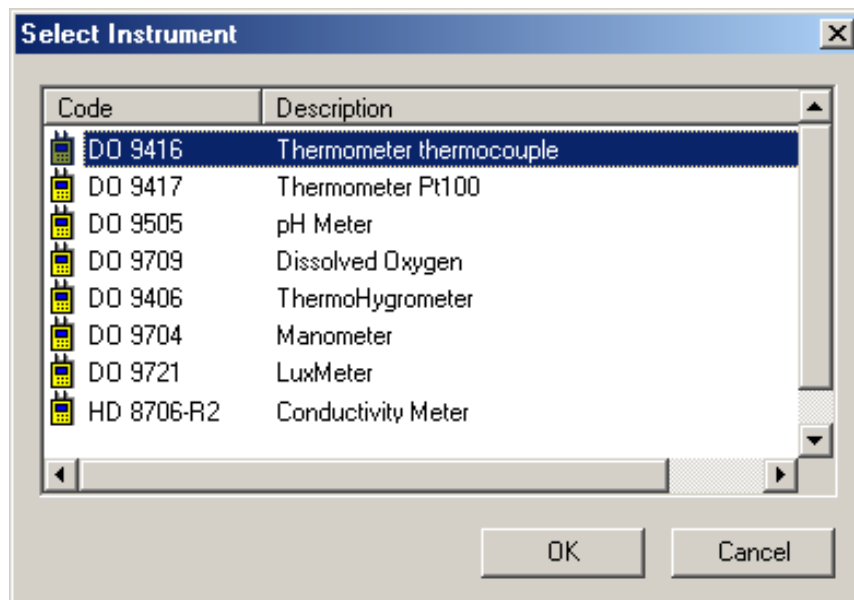

Exit

Quits the program.

Instrument Menu

Select instrument

Opens the dialogue box to select the type of instrument to be connected.

In order to store data correctly, **pay attention that the instrument you selected corresponds to the instrument you owe**.


Connect

Connects DeltaLog1 program to the instrument and sets serial port parameters automatically.

If you are using a HD8706-R2, the configuration of serial port connection has to be made manually (see procedure details in the [paragraph dedicated](#) to the instrument)

Record on PC >> Start

Starts logging data that the instrument, by means of the **SerialOutput** key (**PRINT** on the HD8706-R2), sends to your Computer.

Throughout this phase, the values that the instrument is sending to the Computer will be displayed on the "Data View Area".
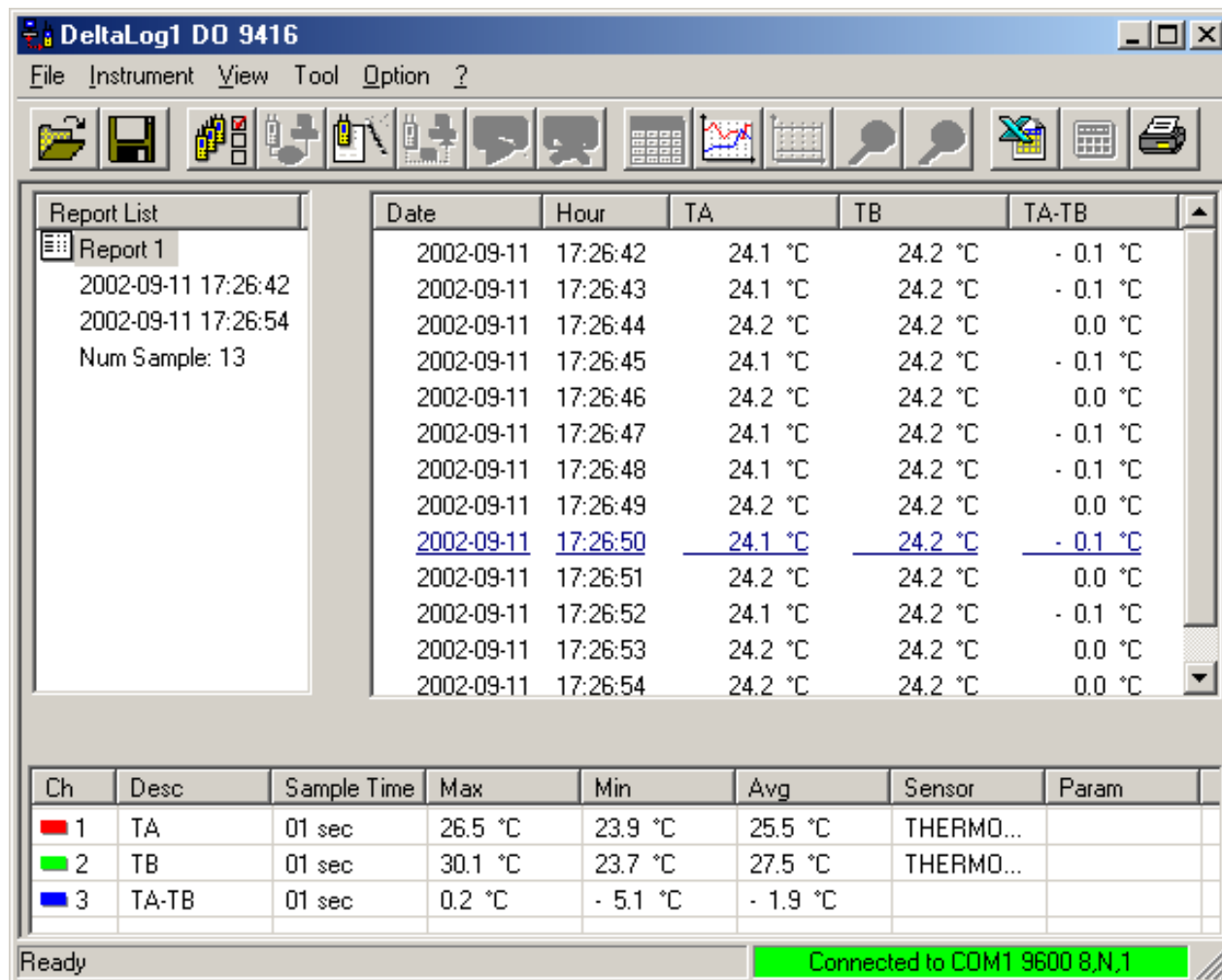
Record on PC >> Stop

Stops the data logging that the instrument, through the **SerialOutput** key (**PRINT** on the HD8706-R2), is sending to your Computer.

Download

Transfers data that the instrument had stored while working **(this function is not available on the HD8706-R2)**.

In this phase, a window will appear, indicating the download progress and the number of downloaded records.

The "Stop Download" key available in this window allows to stop the download procedure.
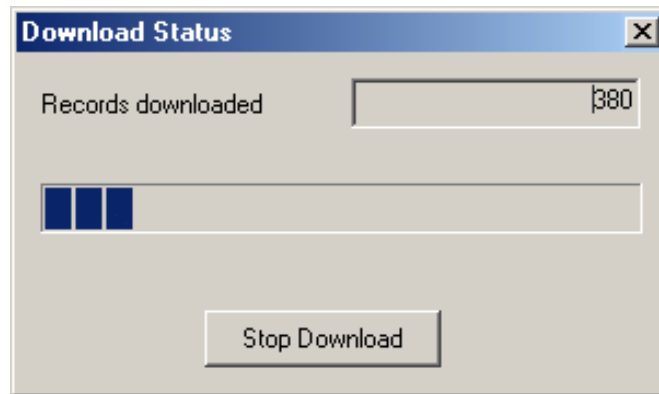
If, while downloading, the program founds uncorrect data, typically overflow values or unmeasured ones because of a failing connection between a probe and the relating input, the program will open a warning window:

indicating that such values will be replaced with dashes "--".

New Session

Starts a new measurement session and asks whether you want to save measurements made in the current session before starting a new one.

Menu View

View Table

Views data of a report currently selected in table format.

Date	Hour	T1	T2	T1-T2
2000-09-14	23:11:35	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:36	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:37	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:38	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:39	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:40	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:41	-100.0 ℃	24.1 ℃	-124.1 ℃
2000-09-14	23:11:42	-100.0 ℃	24.3 ℃	-124.3 ℃
2000-09-14	23:11:43	-100.0 ℃	25.0 ℃	-125.0 ℃
2000-09-14	23:11:44	-100.0 ℃	25.4 ℃	-125.4 ℃
2000-09-14	23:11:45	-100.0 ℃	26.0 ℃	-126.0 ℃
2000-09-14	23:11:46	-100.0 ℃	26.4 ℃	-126.4 ℃
2000-09-14	23:11:47	-100.0 ℃	26.7 ℃	-126.7 ℃
2000-09-14	23:11:48	-100.0 ℃	27.0 ℃	-127.0 ℃
2000-09-14	23:11:49	-100.0 ℃	27.2 ℃	-127.2 ℃
2000-09-14	23:11:50	-100.0 ℃	27.4 ℃	-127.4 ℃
2000-09-14	23:11:51	-100.0 ℃	27.4 ℃	-127.4 ℃
2000-09-14	23:11:52	-100.0 ℃	27.6 ℃	-127.6 ℃
2000-09-14	23:11:53	-100.0 ℃	27.7 ℃	-127.7 ℃

View Graph

Views data of a report currently selected in graph format.

Logging starting and ending date and time are viewed, as well as sampling time.

In addition, by tracing with the mouse over a graph point, a label will be viewed showing date, time and value of the traced sample.
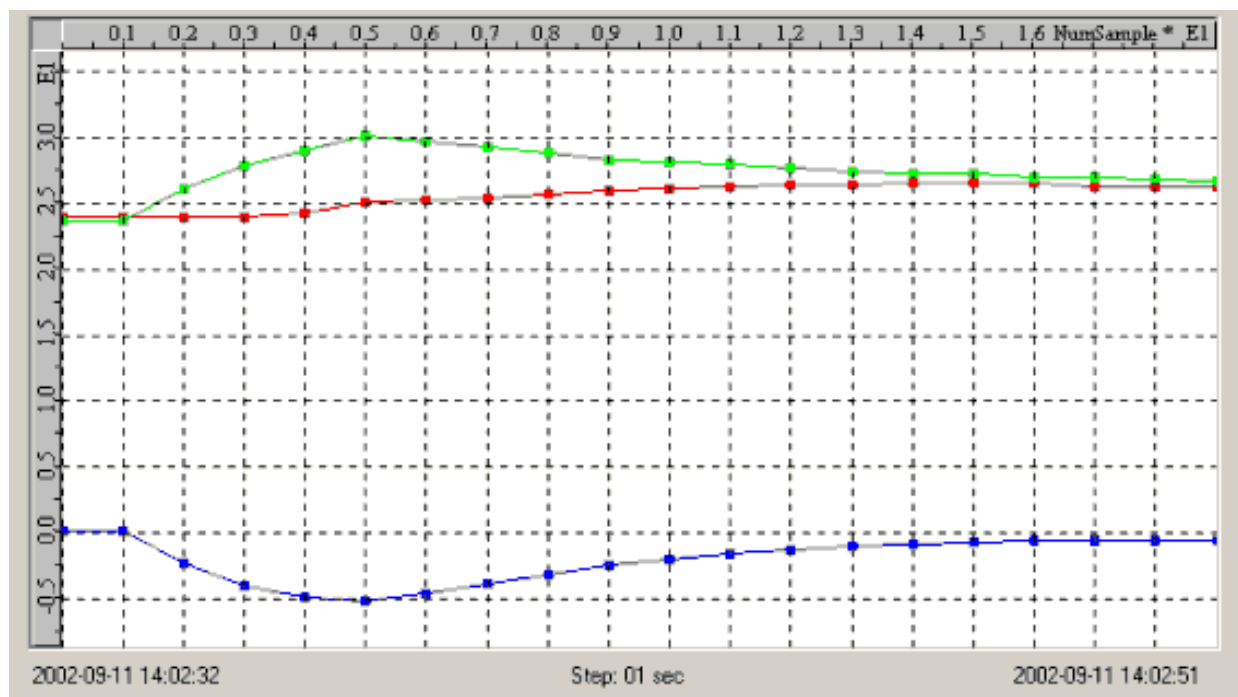
The right button of your mouse will activate a menu offering some useful commands:

- the display of sample points (Point Marks)

- the display of axes (Axis)

- Graph Time Format set the variable to display in the graph abscissa which can be: date and time, only date or only time.

- zoom functions,

- fit functions, allowing to fit the graph to height, width or page dimensions.

WARNING:

If you press and hold down the Shift key on your keyboard and draw the mouse keeping its left button pressed, you can move the graph inside the window to get a rapid data evaluation.

Besides the view of the graph of all channels, the program allows to display the graph of each single channel separately. To select a channel, click the desired channel in the "Current File Properties Area".

To go back to the view of all channels, press **ESC** on your keyboard or the **View Graph** key.
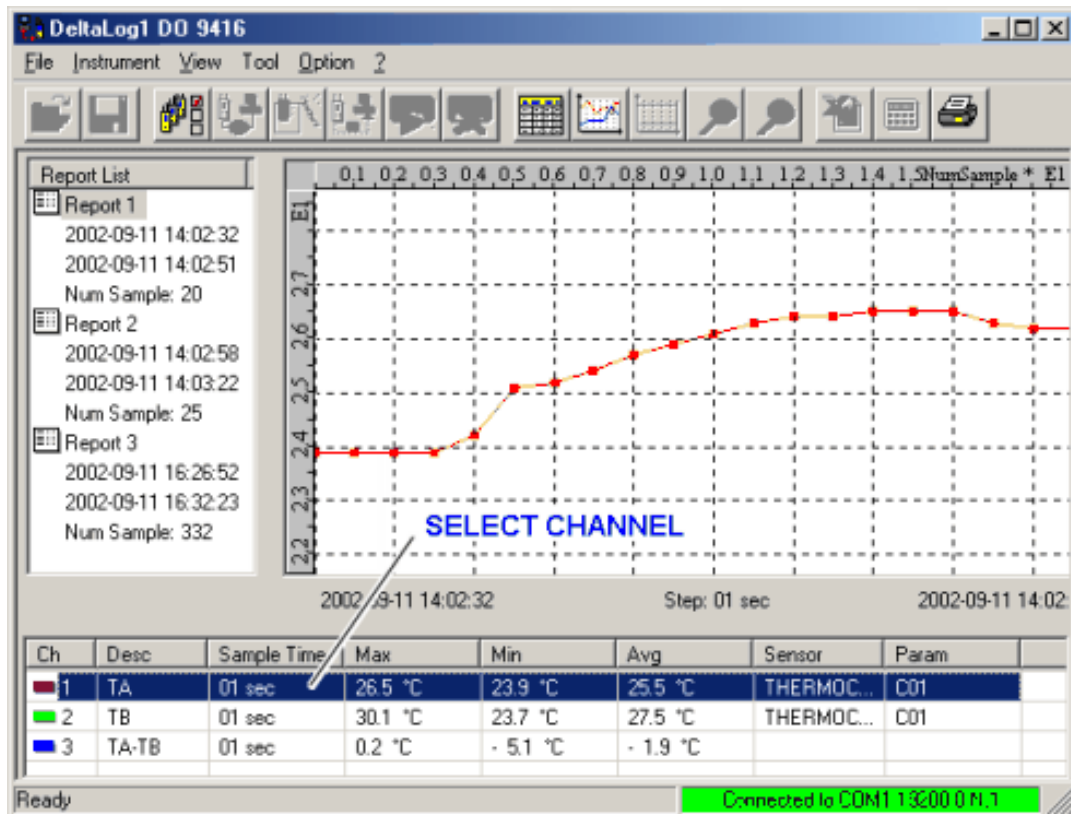
View Instrument bar

Views or hides the Toolbar.

View status bar

Views or hides he Status Bar.

Menu Tool

Copy to Clipboard

This command copies the current window into Windows clipboard, both as graph and as table and allows to paste it in another program as an image.
After selecting Copy to Clipboard, open the allocation program (editor, spreadsheet, graphics program, ...) and use the Paste command (or Paste Special, if available) to paste the clipboard content.

Set Limit

Opens a windows that allows to set an upper alarm limit and a lower one for each channel of the instrument. This option is particularly useful for a quick analysis of data when looking for any possible limit overshooting.
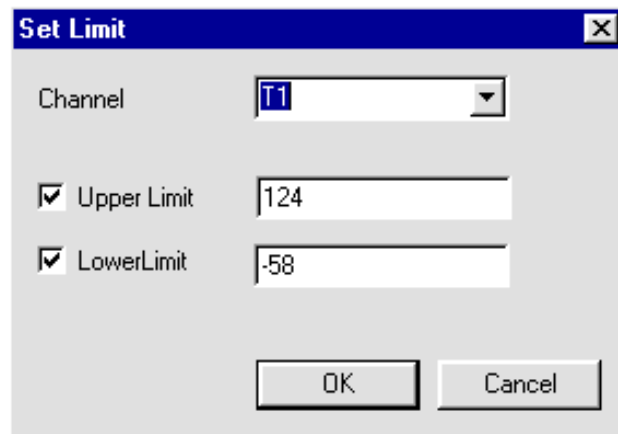

View Limit

Activates alarm limit view.

If data are displayed in table format, the samples exceeding a limit will be marked with the ⚠ symbol and the limit value will be indicated between brackets.

Date	Hour	T1	T2	T1-T2
⚠ 2000-08-10	22:51:43	-100.0 °C (-58)	22.5 °C	-122.4°C
⚠ 2000-08-10	22:51:44	-100.0 °C (-58)	22.5 °C	-122.4°C
⚠ 2000-08-10	22:51:45	-198.6 °C (-58)	22.5 °C	-221 °C
⚠ 2000-08-10	22:51:46	-198.6 °C (-58)	22.5 °C	-221 °C
⚠ 2000-08-10	22:51:47	-198.6 °C (-58)	22.5 °C	-221 °C
⚠ 2000-08-10	22:51:48	-99.9 °C (-58)	22.5 °C	-122.4°C
⚠ 2000-08-10	22:51:49	-100.1 °C (-58)	22.5 °C	-122.5°C
2000-08-10	22:51:50	-49.7 °C	22.5 °C	-72.2 °C
2000-08-10	22:51:51	-49.8 °C	22.5 °C	-72.3 °C
2000-08-10	22:51:52	17.6 °C	22.5 °C	-4.9 °C
2000-08-10	22:51:53	0.0 °C	22.5 °C	-22.5 °C
2000-08-10	22:51:54	0.0 °C	22.5 °C	-22.5 °C
2000-08-10	22:51:55	49.9 °C	22.5 °C	27.5 °C
2000-08-10	22:51:56	49.9 °C	22.5 °C	27.5 °C
2000-08-10	22:51:57	50.0 °C	22.5 °C	27.5 °C
⚠ 2000-08-10	22:51:58	100.1 °C (98)	22.5 °C	77.7 °C

LIMIT VALUE

If data are displayed in graph format, you have to press the **View Limits** command to activate the limit view and then select a channel. **Actually, limits can be displayed only when a single channel is viewed.** To get it, just click with your mouse one of the lines of the "Current File Properties Area" as shown in the graph below.
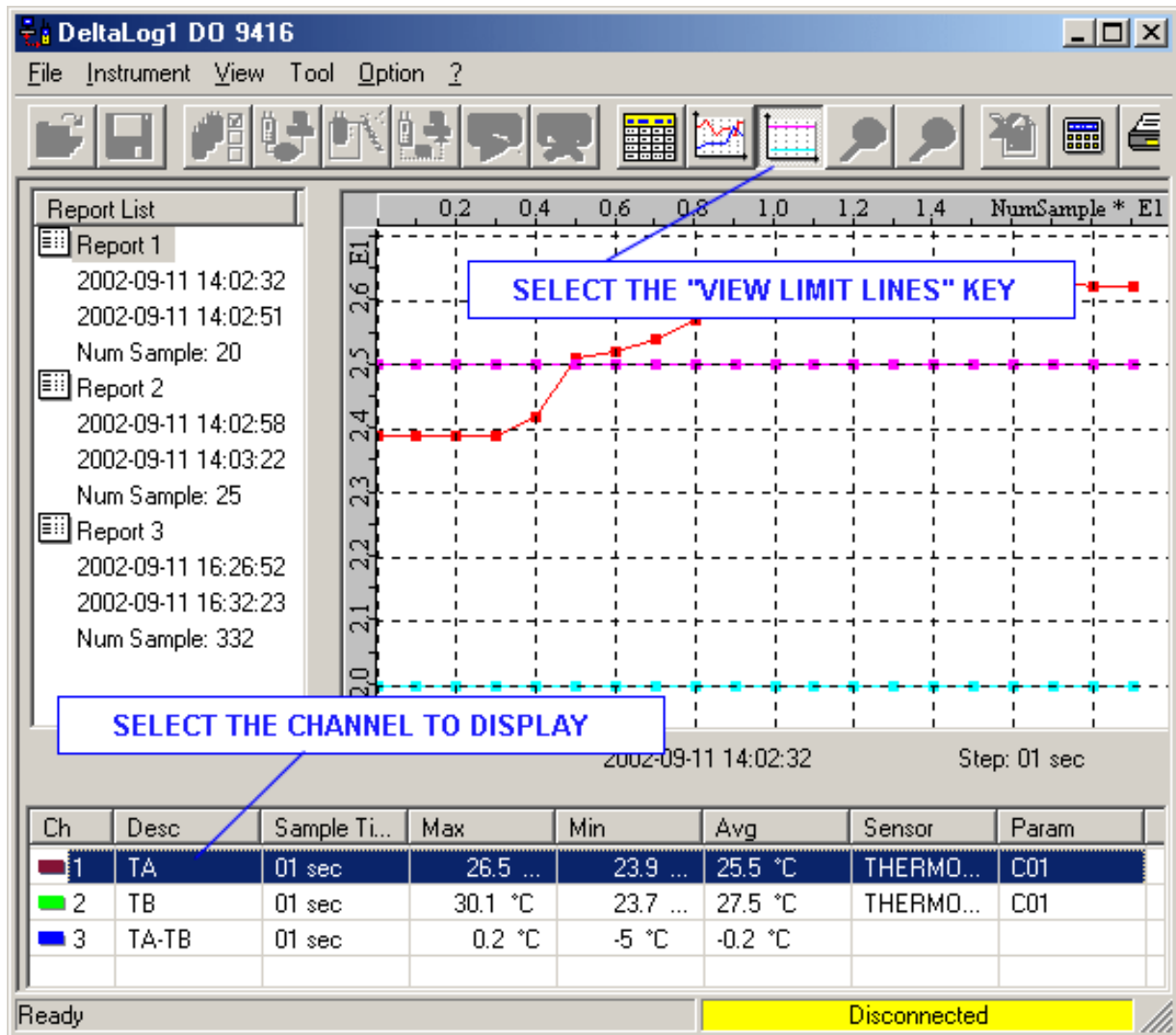
Note: the selection of channel has to be made also when using a HD8706-R2, even if this instrument has got one only measurement channel.

Calc Avg

Calculates the average of the samples selected in the View Area.

To select a block of consecutive measurements, click the first value and, holding the SHIFT key down, click the last one. To select a block of non-consecutive data, click each line holding the CTRL key down.

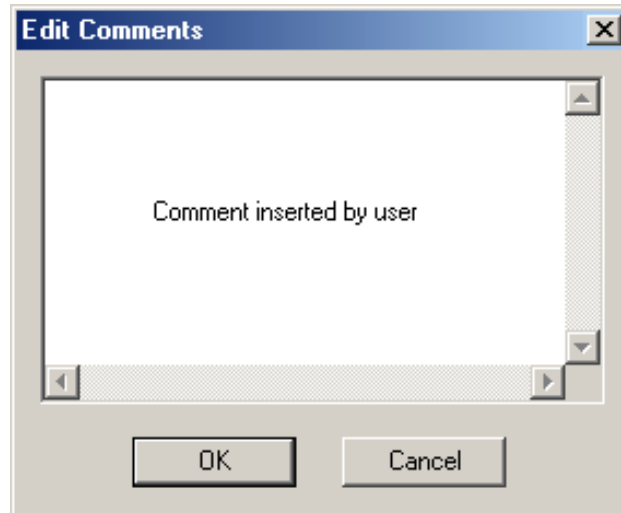the result will come out as in the window below.

Edit Comments

Opens a window to view, add or edit personal comments to the file containing dumped data.

This option is useful to enter personal references related to

carried out measurements.

Such a comment will also be available when printing data, in the report list.

Zoom +

Enlarges the area previously selected with the mouse.

Hold down the mouse left button and drag the pointer onto the graph to select the area to be enlarged.

Once the area has been selected, use the **Apply zoom** key to enlarge. If you press the mouse left button while on any graph area, the zoom area will be closed.
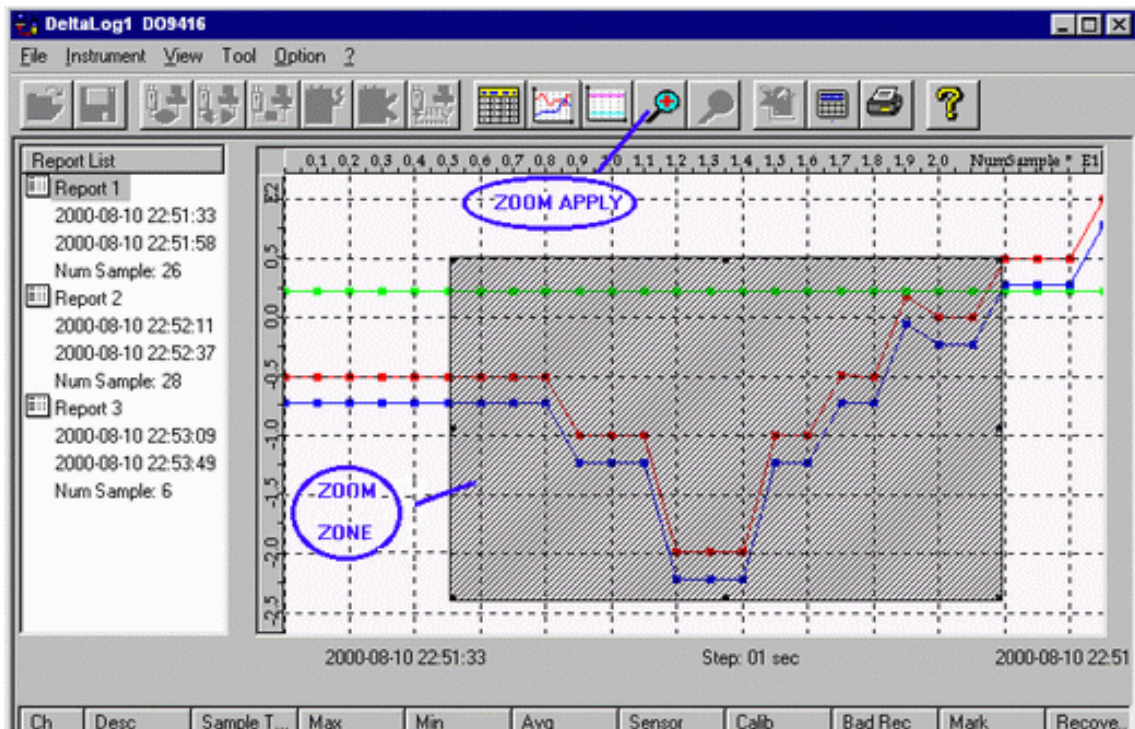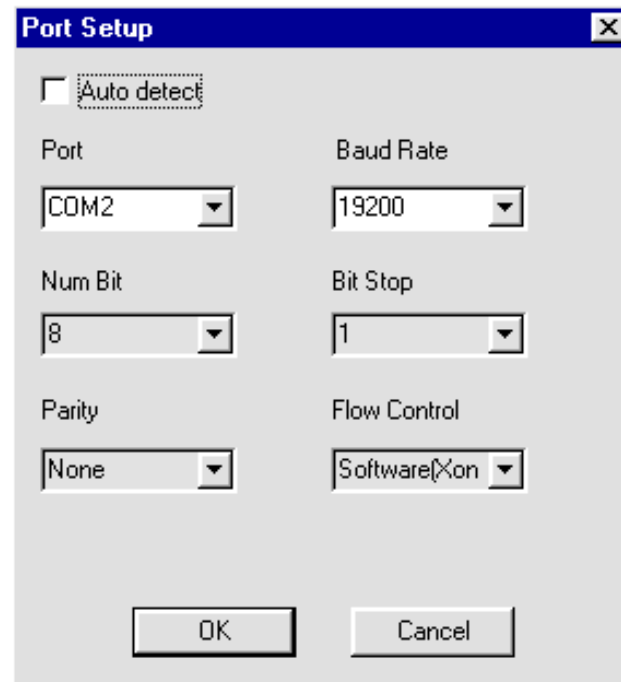
Zoom –

Restores default view

Menu Options

Port Settings

Opens the window to set and view the parameters of the serial communication port.

If **Autodetect** is selected, the program will automatically set connection parameters. If this item is not selected, the serial port can be selected manually, as well as the communication baudrate value.

Change channel description

Opens the window to modify channel description.

These descriptions identify the different columns of the "Data View" Area and of the "Current File Properties" Area.

? Menu

DeltaLog1 Info

Shows the window containing details about the software version.

DeltaLog1 Licence

Opens a window containing DeltaLog1 licence agreement.

DeltaLog1 Software Handbook

Opens a window that allows to view and browse through this user's manual.

Help Files

DeltaLog1 applicative program is supplied on a CD-ROM.

On the CD-ROM there are: Deltalog1 setup program, DeltaLog1 user's manual and some examples concerning trial files downloaded from different instruments.

Specific Remarks On HD8706-R2 Instruments

Here is a list of setting and operating differences between a HD8706-R2 and the datalogger family managed by DeltaLog1 program.

1) Download: the "Download" key is not selectable as the instrument does not store data.
The command to transfer data to a PC in real time is active (REC on PC).

2) The values displayed on the instrument during data download are transferred one by one. Select the variable to be sent (conductivity, TDS, °C or °F temperature) **before pressing PRINT** and do not change it during data download to the PC to avoid having incongruous variables.

3) Working with a HD8706-R2, you have to set the serial port connection parameters **manually**. Follow these indications:

    a) Set the Baudrate value on the instrument by means of step 04 of the programs (we suggest to set the highest available value, that is 2.4).
    b) Start DeltaLog1 and select HD8706-R2
    c) Choose Option >> Port settings and deselect the "Auto detect" item. Choose the serial port to which the conductivity meter is connected and select the baudrate previously set on the instrument (2400 bauds).
    d) Press DeltaLog1 "Connect" key.

Warning: make sure that the Baudrate value set on the instrument is the same as the one selected through DeltaLog1 Baudrate item. If not, the connection cannot be performed.

4) Export to Excel: this function exports data and the corrisponding units of measurement separately, into two different columns.

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