

# UGO BASILE

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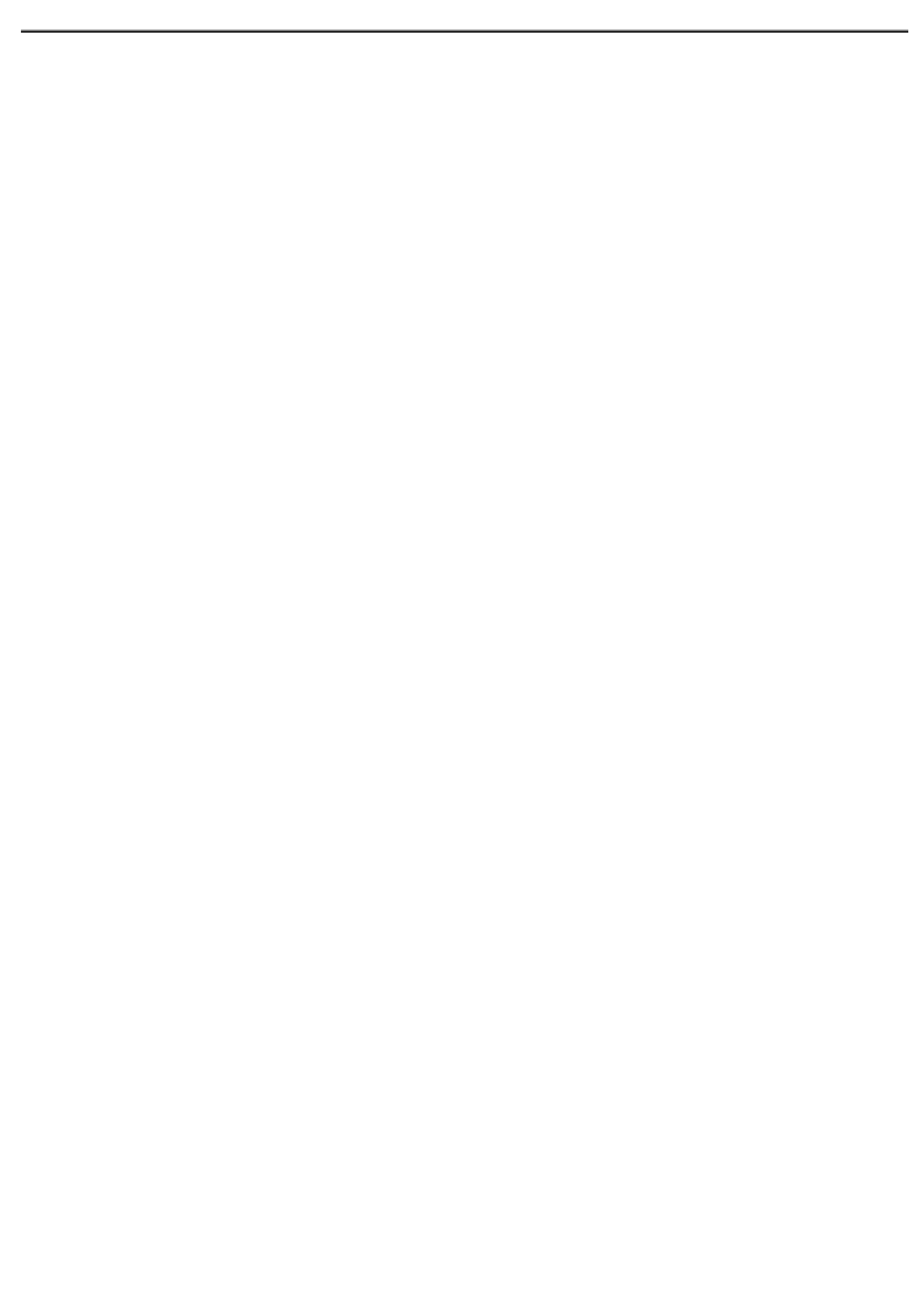
**CUB** DATA ACQUISITION SOFTWARE

for **7140**

Cat. No. **5 2 0 2 0 - 0 2**



## INSTRUCTION MANUAL



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**UGO BASILE**

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**INSTRUCTION MANUAL**

***CUB DATA ACQUISITION SOFTWARE***

for 7140

**Cat. No. 5 2 0 2 0 – 0 2**

Plethysmometer

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Instruction Manual dated June 2006  
Revision 3.0.15





## CONTENTS

<b>1</b>	<b>INSTALLATION .....</b>	<b>1</b>
1.1	Directory Change.....	1
1.2	Activation key .....	2
<b>2</b>	<b>INITIAL OPERATION.....</b>	<b>3</b>
2.1	Head Menu File – submenu Configuration .....	3
2.2	Head Menu File – submenu Serial Port Test, Re-open Ports.....	3
<b>3</b>	<b>COMMAND DESCRIPTION .....</b>	<b>4</b>
<b>4</b>	<b>NORMAL OPERATION.....</b>	<b>4</b>
<b>5</b>	<b>WORK WINDOW.....</b>	<b>5</b>
5.1	Label 1.....	5
5.2	Label 2.....	5
5.3	Calibration .....	6
5.4	Zero .....	6
5.5	Hold .....	6
5.6	Main Menu.....	6
5.7	Set Date & Time .....	6
5.8	Experiment Number and Group.....	6
5.9	INFO Window .....	6
5.10	ANIMAL Window.....	7
<b>6</b>	<b>FOOT MENU BAR .....</b>	<b>8</b>
6.1	Send Data .....	8
6.2	Memory .....	8
6.3	Panel Contrast.....	9
6.4	Set Serial Port .....	9
6.5	Data Acq.....	9
<b>7</b>	<b>HEAD MENU BAR .....</b>	<b>10</b>
7.1	Menu File.....	10
7.1.1.	01-PLET7140 .....	10
7.1.2.	Acquired Data.....	10
7.1.3.	Export File Directory.....	16
7.1.4.	Re-open Ports .....	16
7.1.5.	Serial Port Test.....	16
7.1.6.	Configuration .....	16
7.1.7.	Exit .....	16
7.2	MENU HELP.....	17
7.2.1.	Manual (English version) .....	17
7.2.2.	Manual (Italian version) .....	17
7.2.3.	About this software.....	17





# CUB 2005 - Data Acquisition Software

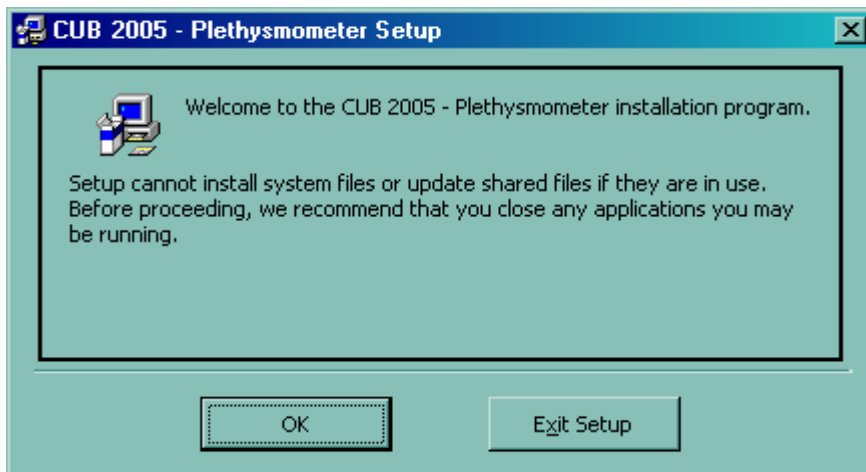
## Plethysmometer

Cat. 5 2 0 5 0 - 02

### 1 INSTALLATION

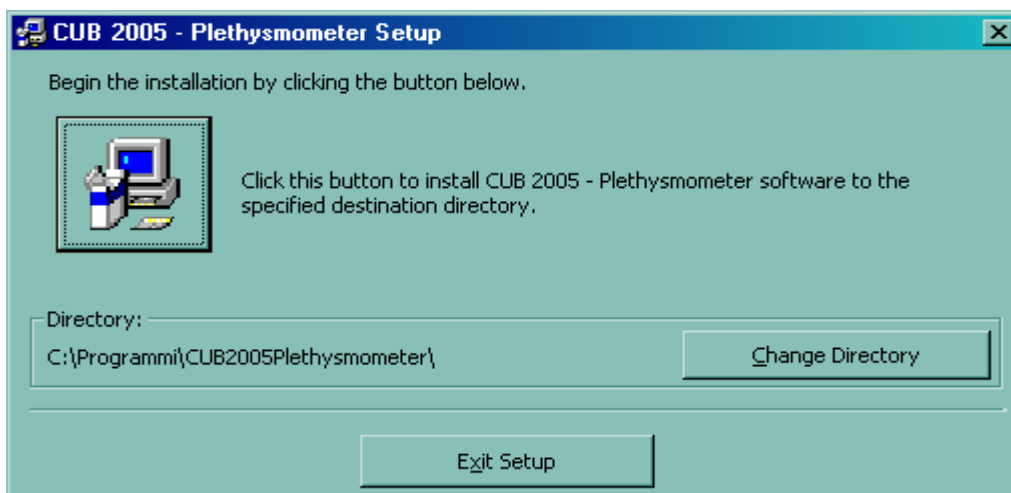
Insert the CUB CD into CD-ROM drive. If the installation doesn't begin automatically when you insert the CD, you can use Window Explorer to browse the CD and start the installation by doubleclicking on SETUP.EXE and proceed by installation's dialog boxes:

Click **OK** to get on.



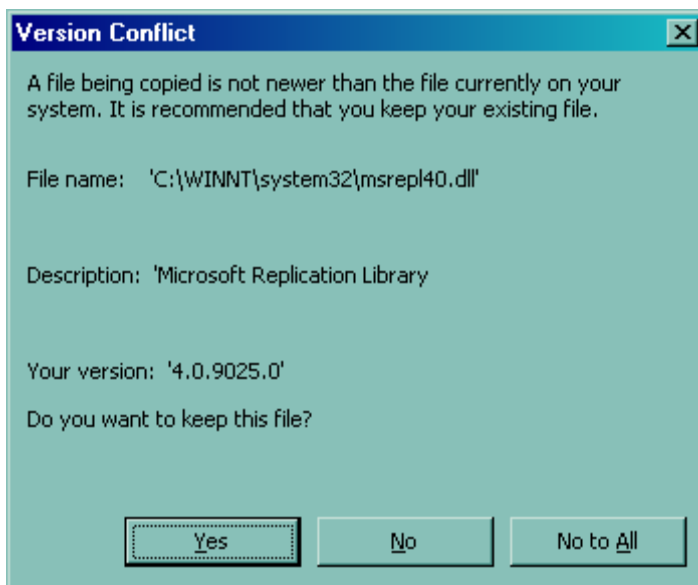
#### 1.1 Directory Change

You can select either to install the program in a new folder or to keep the indicated one.





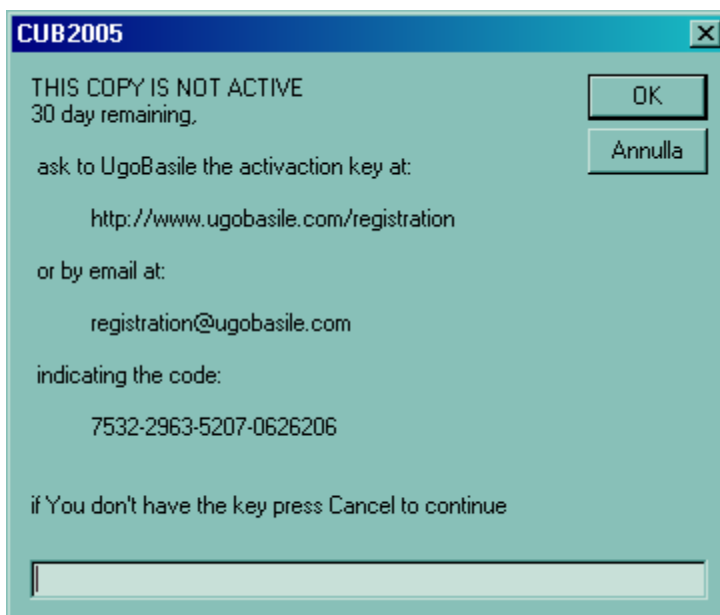
If this window appears, during the installation, depress the key **Yes**.



## 1.2 Activation key

Every time the program is opened, in case the activation key has not been inserted, the following window appears, indicating:

- the remaining days for the activation of the program
- e-mail & web addresses
- the code number to be sent to Ugo Basile S.r.l. to obtain the activation key



Once the activation key is obtained, insert the code number and depress **OK**



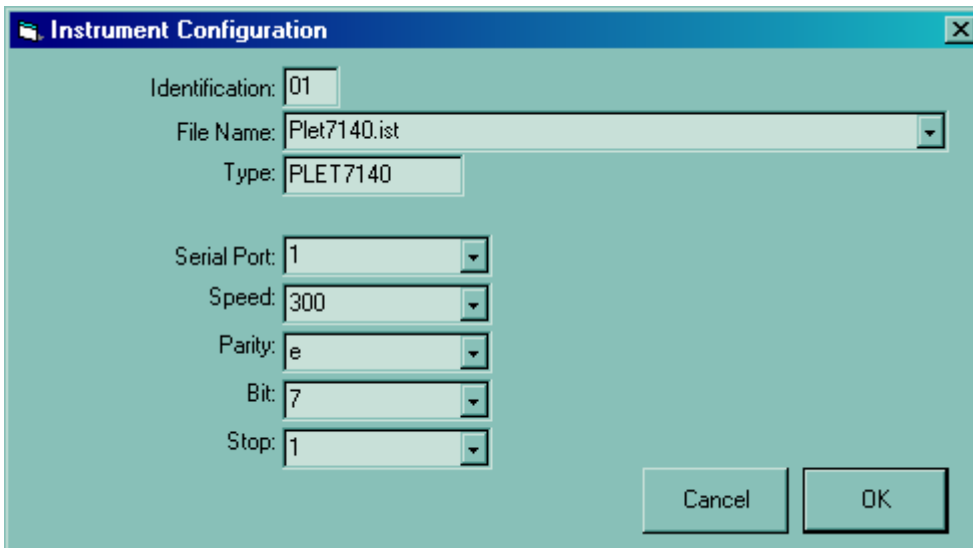


## 2 INITIAL OPERATION

You need first to configure the program.

The configuration file automatically opens when you first open the CUB Software. Afterwards, you can locate it in menu "FILE", submenu "CONFIGURATION".

### 2.1 Head Menu File – submenu Configuration



Make sure you follow the recommendations & instructions below:

**Serial Port:** select the number of the serial port that corresponds to the connector to which the instrument is branched.

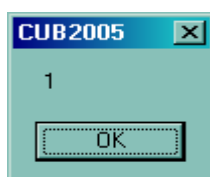
**Speed:** select 300 of baud-rate.

**Important !** Before opening the CUB software, the instrument should be connected to the PC and all the operations described in the sub-heading 6.1 of the 7140 Instruction Manual should be carried on. Check that even on the instrument the same baud-rate has been set.

The remaining parameters should be set as shown in the window above.

In case there are still communication problems, test the Serial Port.

### 2.2 Head Menu File – submenu Serial Port Test, Re-open Ports



In this way you can really verify the serial ports that are enabled to get linked to the instrument.



### 3 COMMAND DESCRIPTION

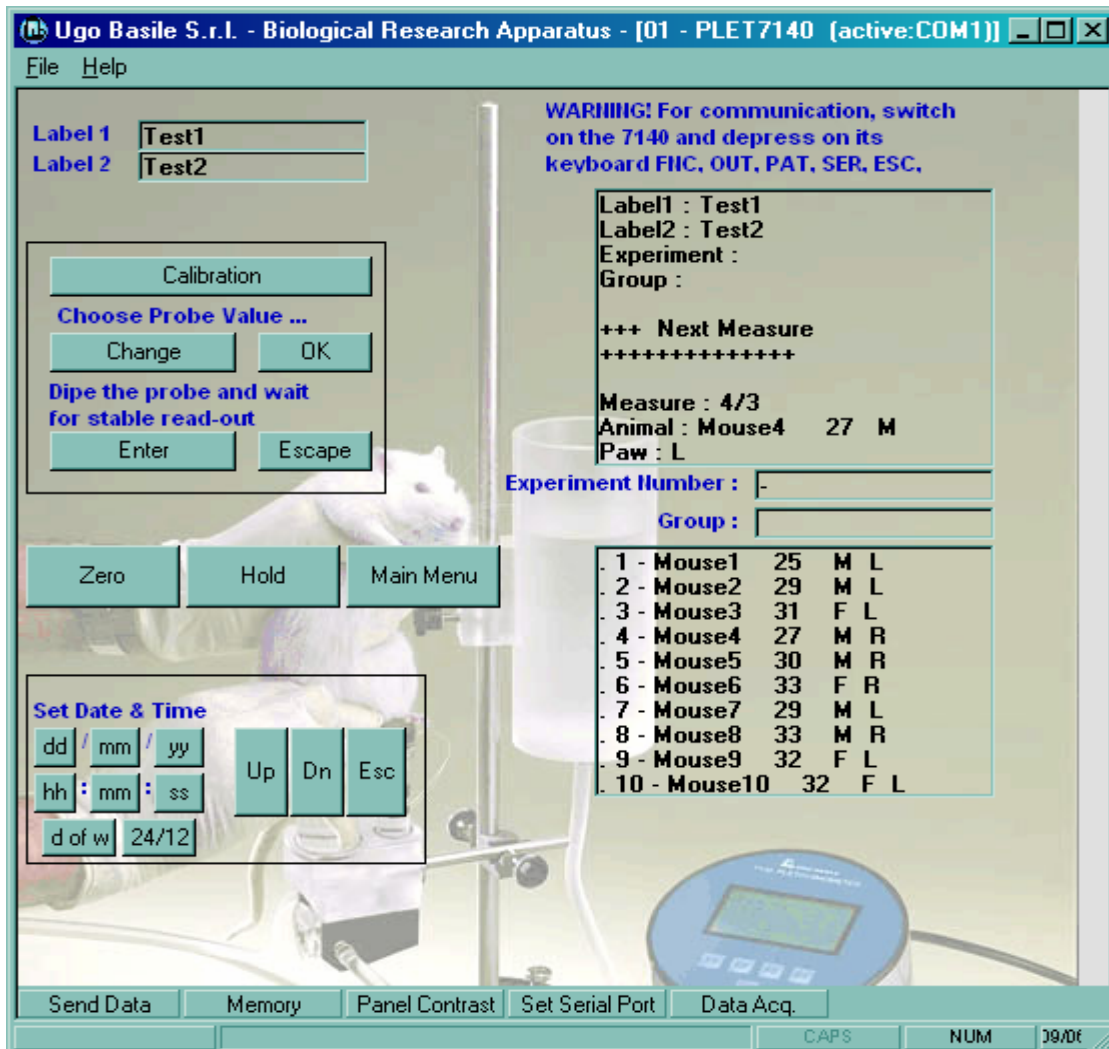
At the start, you see the workspace for the instrument.

**The first line** indicates: the logo, the manufacturer, the abbreviated name and catalogue number of the instrument, the serial port and its state (e.g. active:COM1, disabled:COM1).

**Head Menu Bar.** **File** and **Help** pop-menu. You find a list of sub-menu for visual/export data, Serial Port Test, Re-open Ports, Serial Configuration and Instruction Manual.

**WorkWindow.** Main window for setting the instrument parameters.

**Foot Menu Bar.** **Send Data, Memory, Panel Contrast, Set Serial Port** and **Data Acq.** are the menu with the common commands to Ugo Basile instruments.



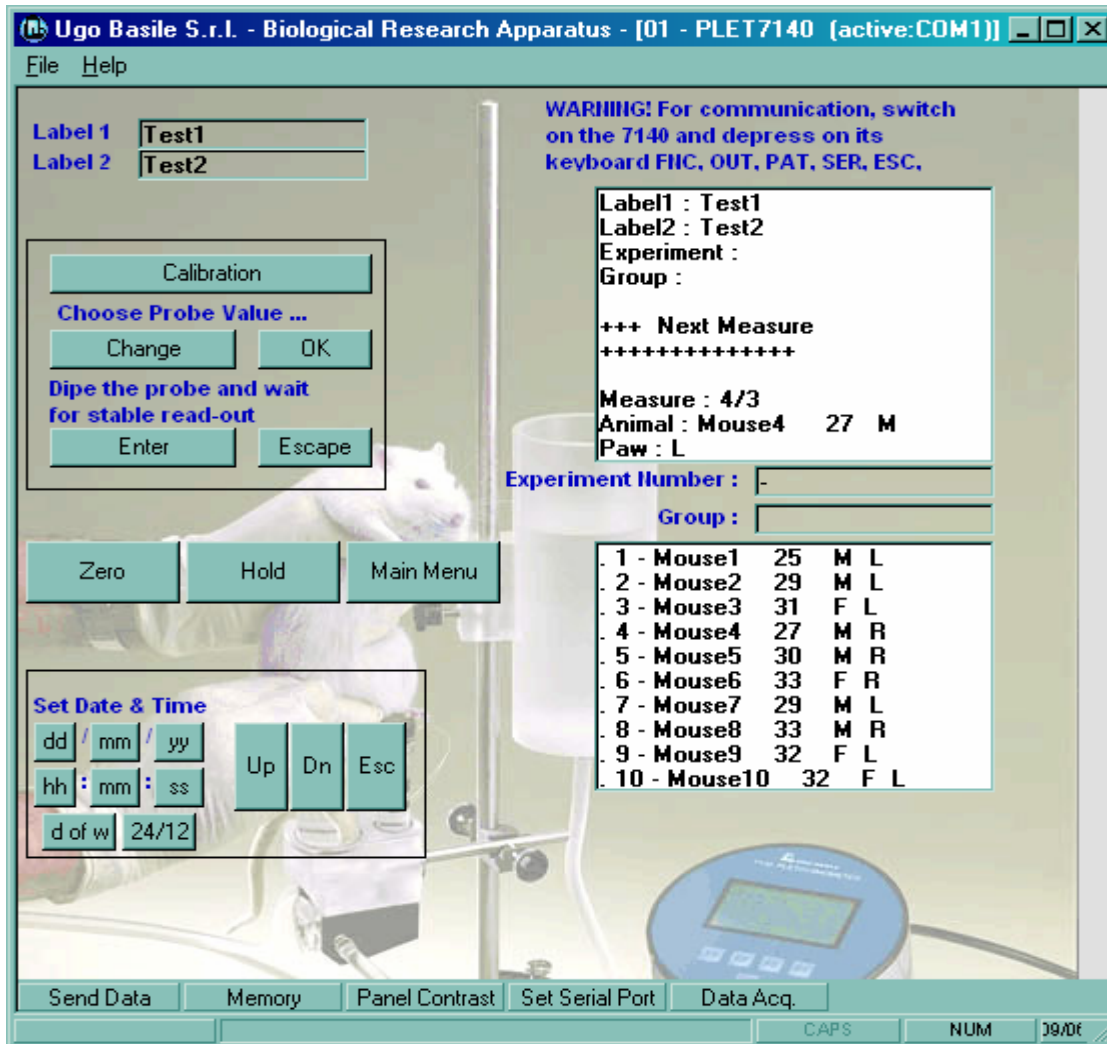
### 4 NORMAL OPERATION

At the start you see the workspace for the instrument. See paragraph 5-WORK WINDOW, 6-FOOT MENU BAR and 6FOOT MENU BAR



## 5 WORK WINDOW

You can set the instrument parameters.



On:

### 5.1 Label 1

The user can insert an alphanumeric information.

These information, names, abbreviations, etc., are added to any acquired measurement.

### 5.2 Label 2

The user can insert a second alphanumeric information.

These information, names, abbreviations, etc., are added to any acquired measurement.



### 5.3 Calibration

Set the desired volume of the calibration probe by **Change** key (from 0.5 to 8 ml), see the number on the instrument display. Confirm or cancel by **Ok** or **Escape** key.

Dip the selected calibration probe into cell, wait for a few seconds until the value indicated on the display is stable and press **Enter** key

See paragraph 4.6 of the 7140 Instruction Manual.

### 5.4 Zero

By pressing the **Zero** key the meter is automatically zeroed, provided the water is in the marked range (red lines on the cell tube) and the instrument warmed up.

See paragraph 4.5 of the 7140 Instruction Manual.

### 5.5 Hold

By pressing **Hold** key the measure is recorded.

See paragraph 4.7 of the 7140 Instruction Manual.

### 5.6 Main Menu

Set the instrument display on main menu.

### 5.7 Set Date & Time

Press the appropriated key to change the value via the **Up/Dn** keys, see the number on the instrument display.

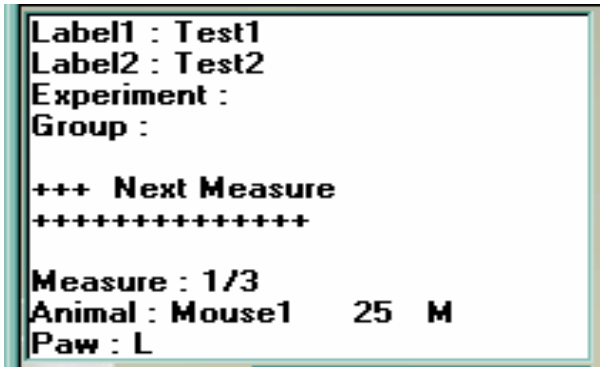
See paragraph 7.2 of the 7140 Instruction Manual.

### 5.8 Experiment Number and Group

The **Experiment Number** and **Group** windows are enabled only on **Win-Das 2005** software. This is a Data Acquisition software cat.52010, complete of Data-Base Animal and Supervisor-User system.

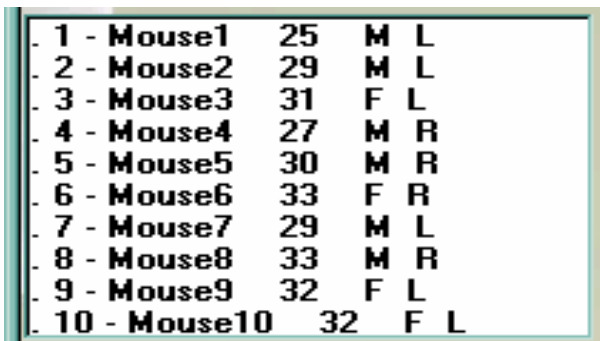
### 5.9 INFO Window

This window indicates the information associated to the next measure.



### 5.10 ANIMAL Window

This window indicates the sequence number, the name, the weight, the sex and paw of the animal.



To carry out the setting, open the window “Set Animal” by clicking two times on the white window ANIMAL, below the line “Group”, and fill the table with the name and/or number in the column “animal”, “sex”, “weight”.



To associate one or more measure to the same animal paw, see the window **Data Acq.** on the foot menu bar.



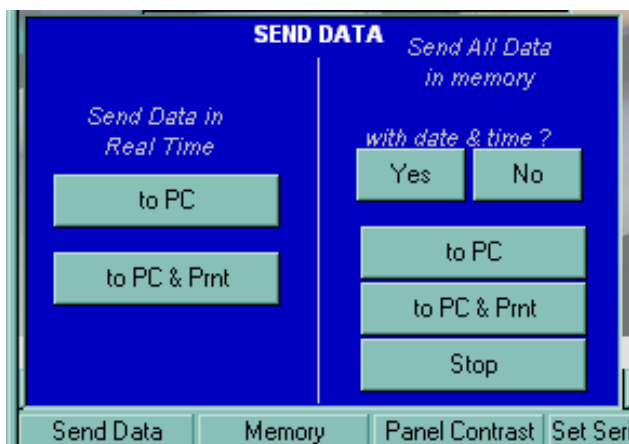
## 6 FOOT MENU BAR

This menu bar contains the common commands to Ugo Basile Instruments.

### 6.1 Send Data

- **Send Data in Real Time.** To send data from the instrument in real time only to PC or to PC and an optional **Miniprinter 7145**, press **to PC** or **to PC & Prnt.** keys.
- **Send All Data in memory.** All recorded data in the instrument memory are sent with or without data & time press **Yes** or **No** keys.
- **Send data from the instrument to PC or to PC** and an optional **Miniprinter 7145** press **to PC** or **to PC & Prnt.** key.
- **To abort** the data transfer, press the **Stop** key.

See paragraphs 6.1 and 7 of the 7140 Instruction Manual.



### 6.2 Memory

The **Memory Reset** and **Yes** keys reset the instrument memory.

This command can be useful, for instance, when the operator prefers to dump the data from previous experiments, before starting a fresh experimental session.

See paragraph 7.1 of the 7140 Instruction Manual.





### 6.3 Panel Contrast

To modify the display contrast of the instrument, click on the Display Contrast key and then press **High/Low** keys.

See paragraph 7.3 of the 7140 Instruction Manual.



### 6.4 Set Serial Port

The user can set the address of the instrument. Normally it is 01.

See paragraph 6.1 of the 7140 Instruction Manual.



### 6.5 Data Acq.

The **Delete Last Measure** key deletes the last acquired datum considered null. In this case the datum is not saved in the database "Acquired Data".

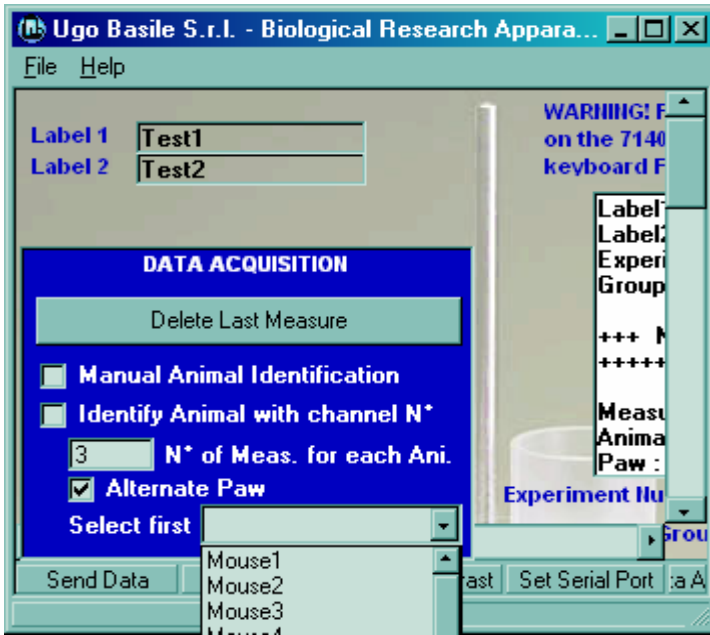
The **Manual Animal Identification** opens a yellow window with the animal list, you can select in real time the animal for the next measure (e.g. select **Animal4** and see on the **INFO Window** the new value).

The **Identify Number with channel N°** is not used for this instrument.

The **N° of Meas. for each Ani.** is the number of measure with the same selected animal.

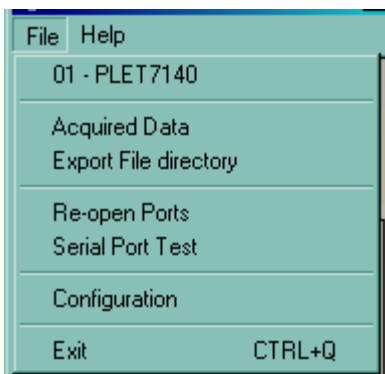
The **Alternate Paw** associates the right or left paw each N° of Measures previously inserted.

The **Select first** select from the list the first animal.



## 7 HEAD MENU BAR

### 7.1 Menu File



#### 7.1.1. 01-PLET7140

The Work Window

#### 7.1.2. Acquired Data

It is the data-base, where all the data received by the instrument are recovered. It consists of several columns, which individually mean:

- **DATE** Shows hour and date when the PC has acquired the datum.
- **EXPERIMENT** Not used. For WinDAS 2005 Software only.
- **TYPE** Name of the instrument and its catalogue number.
- **IDENT** Shows address number of the instrument.
- **ACQUIRED DATA** Shows the complete datum received from the instrument.





- **GROUP** Not used. For WinDAS 2005 Software only.
- **SEQUENCE** Not used. For WinDAS 2005 Software only.
- **ANIMAL** The name connected to a specific lane. See 'Set Animal' table, paragraph 5.100
- **SEX** See 'Set Animal' table, paragraph 5.100
- **PAW** See 'Set Animal' table, paragraph 5.100
- **WEIGHT** See 'Set Animal' table, paragraph 5.100
- **LABEL1** Information string inserted by the user.
- **LABEL2** Second information string inserted by the user.

Ugo Basile S.r.l. - Biological Research Apparatus - [Acquired Data]

File Help

ASC DESC order Export  refresh each measure STOP

DATE	EXPERIMENT	TYPE	IDENT	ACQUIRED DATA	GROUP	SEQUENCE	ANIMAL	SEX	PAW	WEIGHT	LABEL1	LABEL2
09/06/06 10.20.37		PLET7140	01	+00.91 1MR01		0	Mouse1	M	L	25	Test1	Test2
09/06/06 10.20.50		PLET7140	01	+01.12 1ML01		0	Mouse1	M	L	25	Test1	Test2
09/06/06 10.20.56		PLET7140	01	+01.05 1MR01		0	Mouse1	M	L	25	Test1	Test2
09/06/06 10.21.06		PLET7140	01	+01.33 1ML01		0	Mouse1	M	R	25	Test1	Test2
09/06/06 10.21.10		PLET7140	01	+01.33 1MR01		0	Mouse1	M	R	25	Test1	Test2
09/06/06 10.21.14		PLET7140	01	+01.35 1ML01		0	Mouse1	M	R	25	Test1	Test2
09/06/06 10.21.37		PLET7140	01	+01.39 1MR02		0	Mouse2	M	L	29	Test1	Test2
09/06/06 10.21.40		PLET7140	01	+01.39 1ML02		0	Mouse2	M	L	29	Test1	Test2
09/06/06 10.21.49		PLET7140	01	+01.39 1MR02		0	Mouse2	M	L	29	Test1	Test2
09/06/06 10.21.55		PLET7140	01	+01.38 1ML02		0	Mouse2	M	R	29	Test1	Test2
09/06/06 10.22.11		PLET7140	01	+01.25 1MR02		0	Mouse2	M	R	29	Test1	Test2
09/06/06 10.22.14		PLET7140	01	+01.24 1ML02		0	Mouse2	M	R	29	Test1	Test2
09/06/06 10.22.17		PLET7140	01	+01.25 1MR03		0	Mouse3	F	L	31	Test1	Test2
09/06/06 10.22.20		PLET7140	01	+01.26 1ML03		0	Mouse3	F	L	31	Test1	Test2
09/06/06 10.22.23		PLET7140	01	+01.25 1MR03		0	Mouse3	F	L	31	Test1	Test2
09/06/06 10.22.25		PLET7140	01	+01.26 1ML03		0	Mouse3	F	R	31	Test1	Test2
09/06/06 10.22.27		PLET7140	01	+01.26 1MR03		0	Mouse3	F	R	31	Test1	Test2
09/06/06 10.22.30		PLET7140	01	+01.24 1ML03		0	Mouse3	F	R	31	Test1	Test2

CAPS NUM 09/06/06 10.40

### 7.1.2.1. Data Alteration



**Insert a new datum in the list**



The 'Insert new data' dialog box contains the following fields and controls:

- Experiment: [ ]
- Type: [ ]
- Acquired Data: [ ]
- Group: [ ]
- Sex: [ ]
- Paw: [ ]
- Weight: [ ]
- Label1: [ ]
- Label2: [ ]

Buttons: load current record (if any), Cancel, OK



### Modify existing datum

The 'Modify data' dialog box contains the following fields and controls:

- Experiment: 0
- Type: PLET7140
- Acquired Data: 01 +00.91 1MR01
- Group: [ ]
- Sex: Male
- Paw: Left
- Weight: 25
- Label1: Test1
- Label2: Test2

Buttons: load current record (if any), Cancel, OK



### Delete selected datum after confirm

The 'Confirm' dialog box contains the following text and controls:

Confirm Delete ?

Buttons: Si, No



### Delete all data after double confirm

The 'Confirm' dialog box contains the following text and controls:

Confirm Delete ALL ?

Buttons: Si, No

The 'Confirm' dialog box contains the following text and controls:

Are you sure ?

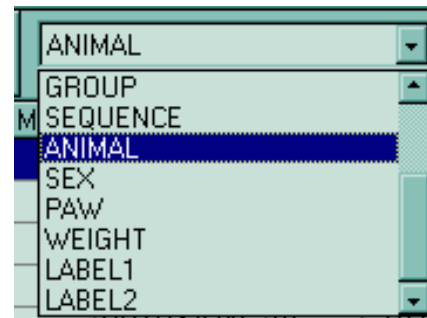
Buttons: Si, No



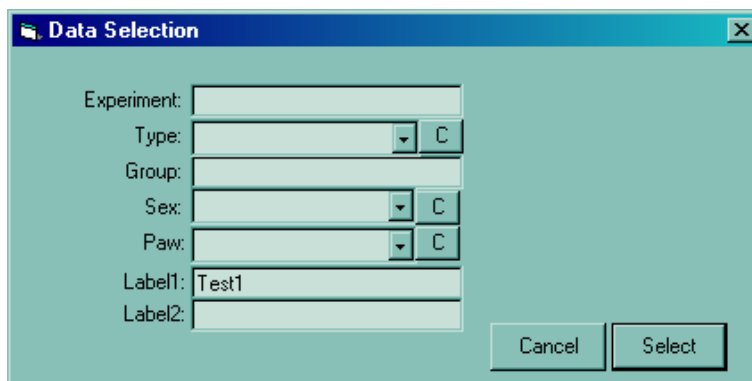
### 7.1.2.2. Data Export



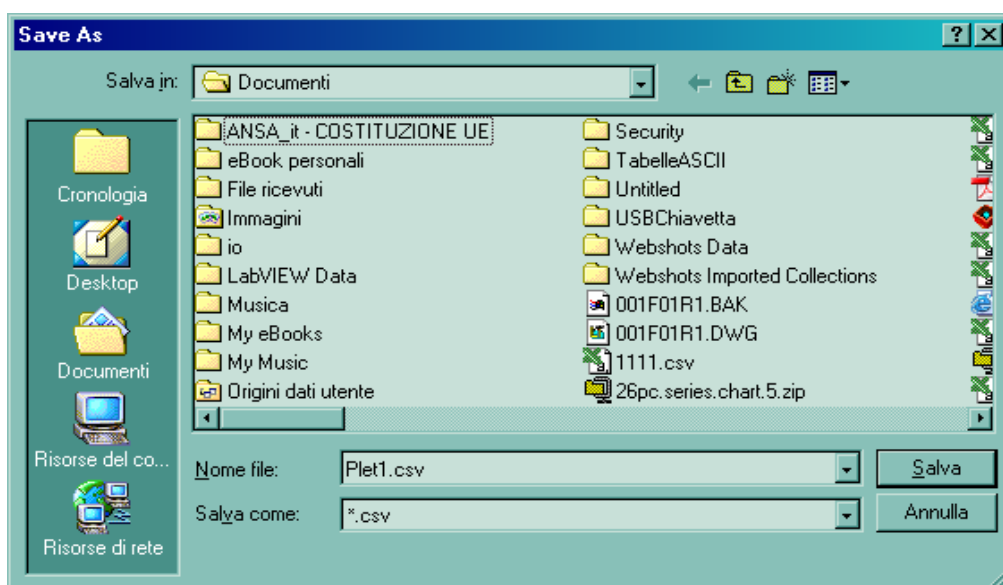
Arrange in alphanumeric order by selected columns



Select parameters for query



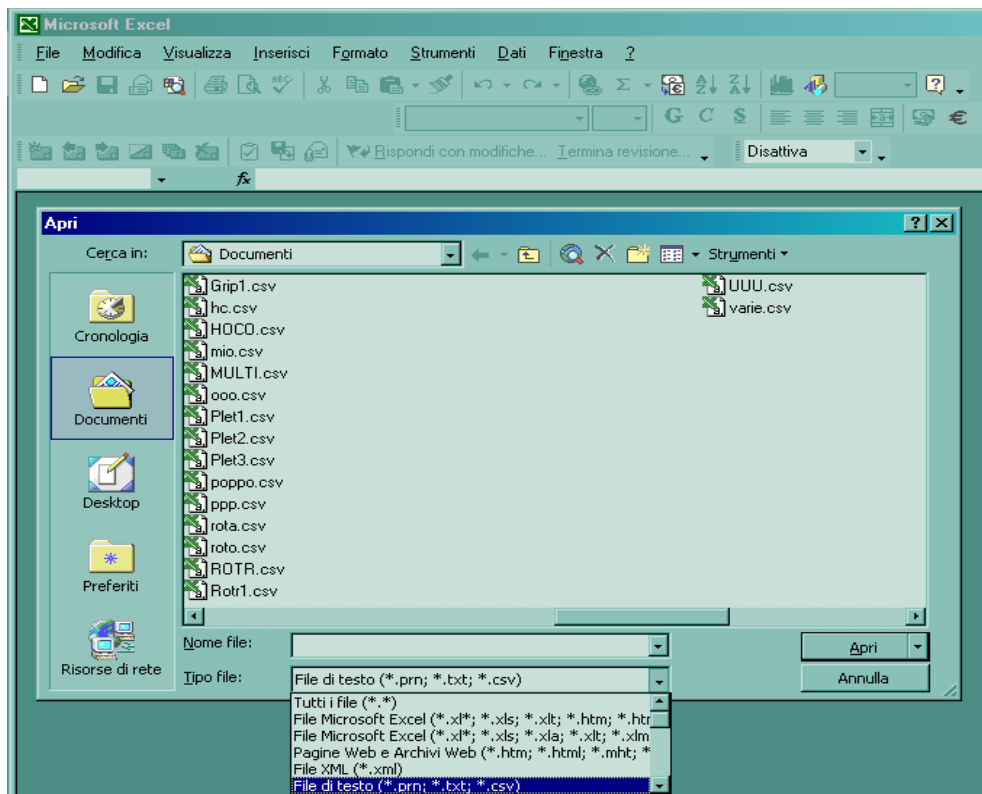
Export data to file MS-Excel csv compatible. Save the data-file with a name





To open in EXCEL a file generated by the CUB program, proceed as follows:

- Open the program EXCEL.
- From the menu 'File' depress 'Open'.
- Look for the directory containing the file to be opened.  
(Normally you will find it in the folder 'Documents'. Then you can select the directory where you want to save the data by setting them in the program CUB, from the menu 'File' and then 'Export File Directory').
- Select the 'Type of File' (in our case, it is a Text File type '\*.csv').
- Select the name of the file you want to open.

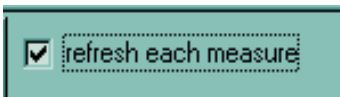




The file is imported and the data are automatically divided into columns.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
ID	IDENT	PORT	MEASURE	MEASURE1	MEASURE2	Measure (ml)	m	m	m	m	m	m	Feature	DateMeasure	DTYPE	Label1	Label2	Code	
1	1	COM1:300,e,7,1	01 +00.91 1MR01	+00.91 1MR01	+00.91	0,91							1MR01	09/06/06 10.20	PLET7140	Test1	Test2	Mouse1	
2	1	COM1:300,e,7,1	01 +01.12 1ML01	+01.12 1ML01	+01.12	1,12							1ML01	09/06/06 10.20	PLET7140	Test1	Test2	Mouse1	
3	1	COM1:300,e,7,1	01 +01.05 1MR01	+01.05 1MR01	+01.05	1,05							1MR01	09/06/06 10.20	PLET7140	Test1	Test2	Mouse1	
4	3	1	COM1:300,e,7,1	01 +01.33 1ML01	+01.33 1ML01	+01.33	1,33						1ML01	09/06/06 10.21	PLET7140	Test1	Test2	Mouse1	
5	4	1	COM1:300,e,7,1	01 +01.33 1MR01	+01.33 1MR01	+01.33	1,33						1MR01	09/06/06 10.21	PLET7140	Test1	Test2	Mouse1	
6	5	1	COM1:300,e,7,1	01 +01.35 1ML01	+01.35 1ML01	+01.35	1,35						1ML01	09/06/06 10.21	PLET7140	Test1	Test2	Mouse1	
7	6	1	COM1:300,e,7,1	01 +01.35 1MR01	+01.35 1MR01	+01.35	1,35						1MR01	09/06/06 10.21	PLET7140	Test1	Test2	Mouse1	
8	7	1	COM1:300,e,7,1	01 +01.39 1MR02	+01.39 1MR02	+01.39	1,39						1MR02	09/06/06 10.21	PLET7140	Test1	Test2	Mouse2	
9	8	1	COM1:300,e,7,1	01 +01.39 1ML02	+01.39 1ML02	+01.39	1,39						1ML02	09/06/06 10.21	PLET7140	Test1	Test2	Mouse2	
10	9	1	COM1:300,e,7,1	01 +01.39 1MR02	+01.39 1MR02	+01.39	1,39						1MR02	09/06/06 10.21	PLET7140	Test1	Test2	Mouse2	
11	10	1	COM1:300,e,7,1	01 +01.38 1ML02	+01.38 1ML02	+01.38	1,38						1ML02	09/06/06 10.21	PLET7140	Test1	Test2	Mouse2	
12	11	1	COM1:300,e,7,1	01 +01.25 1MR02	+01.25 1MR02	+01.25	1,25						1MR02	09/06/06 10.22	PLET7140	Test1	Test2	Mouse2	
13	12	1	COM1:300,e,7,1	01 +01.24 1ML02	+01.24 1ML02	+01.24	1,24						1ML02	09/06/06 10.22	PLET7140	Test1	Test2	Mouse2	
14	13	1	COM1:300,e,7,1	01 +01.25 1MR03	+01.25 1MR03	+01.25	1,25						1MR03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
15	14	1	COM1:300,e,7,1	01 +01.26 1ML03	+01.26 1ML03	+01.26	1,26						1ML03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
16	15	1	COM1:300,e,7,1	01 +01.25 1MR03	+01.25 1MR03	+01.25	1,25						1MR03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
17	16	1	COM1:300,e,7,1	01 +01.26 1ML03	+01.26 1ML03	+01.26	1,26						1ML03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
18	17	1	COM1:300,e,7,1	01 +01.26 1MR03	+01.26 1MR03	+01.26	1,26						1MR03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
19	18	1	COM1:300,e,7,1	01 +01.24 1ML03	+01.24 1ML03	+01.24	1,24						1ML03	09/06/06 10.22	PLET7140	Test1	Test2	Mouse3	
20	19	1	COM1:300,e,7,1	01 +01.25 1MR04	+01.25 1MR04	+01.25	1,25						1MR04	09/06/06 10.22	PLET7140	Test1	Test2	Mouse4	
21	20	1	COM1:300,e,7,1	01 +01.24 1ML04	+01.24 1ML04	+01.24	1,24						1ML04	09/06/06 10.22	PLET7140	Test1	Test2	Mouse4	
22	21	1	COM1:300,e,7,1	01 +01.24 1MR04	+01.24 1MR04	+01.24	1,24						1MR04	09/06/06 10.22	PLET7140	Test1	Test2	Mouse4	
23	22	1	COM1:300,e,7,1	01 +00.81 1ML04	+00.81 1ML04	+00.81	0,81						1ML04	09/06/06 10.22	PLET7140	Test1	Test2	Mouse4	

### 7.1.2.3. Data Refresh



Refresh each measure. Every second the data-base is refreshed and you can see the incoming datum incoming from the instrument in real time.

### 7.1.2.4. End (of Acquired Data Window)

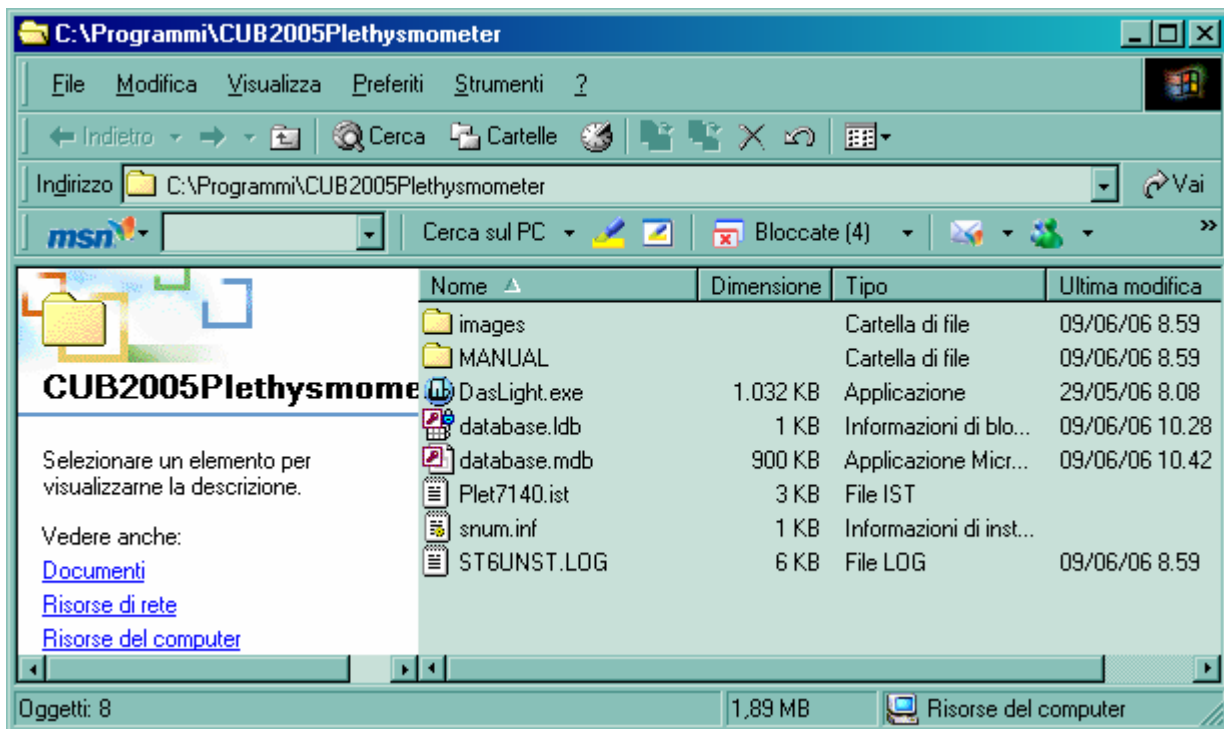


End. Close the window.



### 7.1.3. Export File Directory

Go to the directory where to save the data (file '\*.csv').



### 7.1.4. Re-open Ports

Close and re-open Serial Ports. See INITIAL OPERATION.

### 7.1.5. Serial Port Test

See INITIAL OPERATION.

### 7.1.6. Configuration

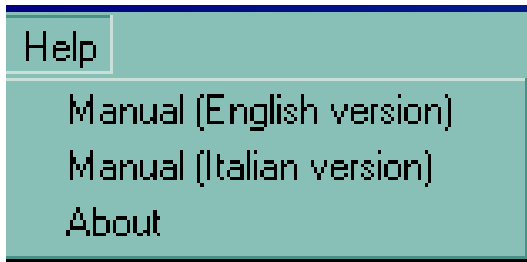
See INITIAL OPERATION.

### 7.1.7. Exit

Quit, end of program.



## 7.2 MENU HELP



### 7.2.1. *Manual (English version)*

Open this manual in English.

### 7.2.2. *Manual (Italian version)*

Open this manual in Italian.

### 7.2.3. *About this software.*

