



EasyLog Software for the TC-4300
Temperature Controller
Product Manual v01.3



tecca

The logo for Teca, featuring the word "teca" in a bold, lowercase, sans-serif font. A vertical line is positioned to the left of the text, and a decorative four-pointed starburst graphic is located at the bottom left corner of the logo area.

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Installation

- 1 - Insert CD and access through your favorite browser.
- 2 - Open the DotNet Framework directory.
- 3 - Drill down to the DOTNETFX.EXE file and double click, follow the instructions to install the software.
- 4 - Open the EasyLog directory
- 5 - Drill down to the Set-Up.EXE file and double click, follow the instructions to install the software.



Instrument Configuration

In this window it is possible to set up the timing of the acquired measurements and the format of some parameters.



Log in Management

In this window access to the program is controlled. This will require a user name and password to be set up.



Language Management

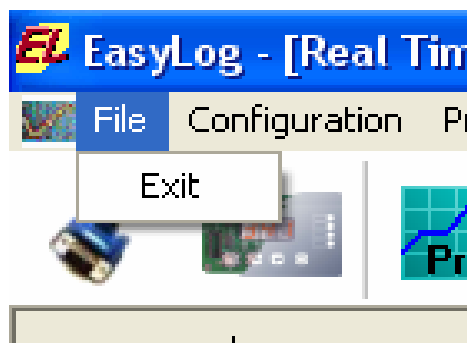
In this window it is possible to select the language of the program. Available languages are English and Italian. Changes will be applied only after restart of the application.

Operating Screen



- 1 - Menu Bar
- 2 – Tool Bar
- 3 – Status Bar

Menu Bar



File Menu:

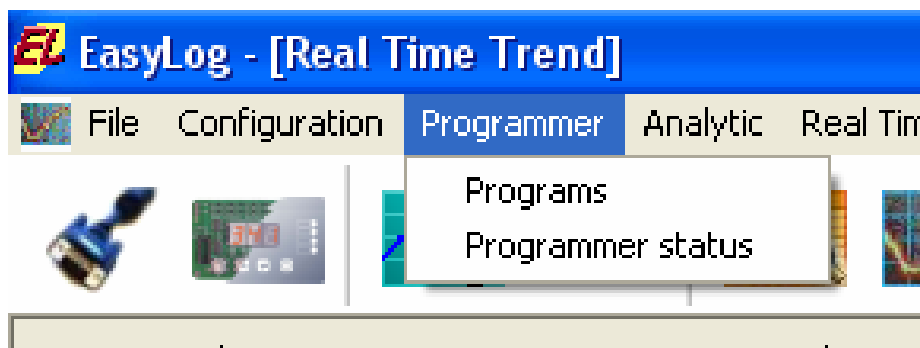
- Used to Exit the program

Menu Bar, Cont'd



Configuration Menu:

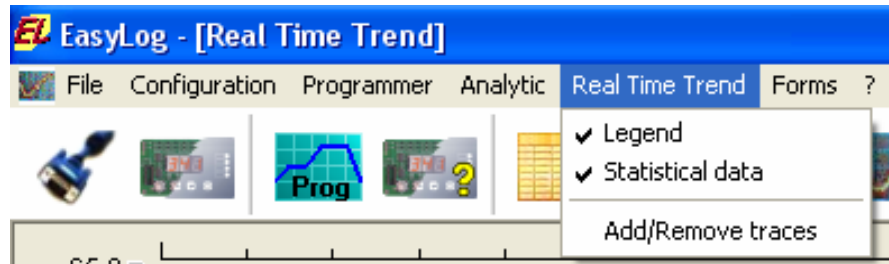
- “Serial Link Communication” refers to the configuration window of the serial port.
- “Instrument Communication” refers to the configuration window of the supervised instrument.
- “Log in Management” refers to the configuration window of the login for access to the program.
- “Language Selection” refers to the window for the selection of the used language



Programmer Menu:

- Create, save, upload and download ramp and soak profiles.
- Set temperature
- Initiate Smart tuning
- Begin Ramp/Soak program

Menu Bar, Cont'd



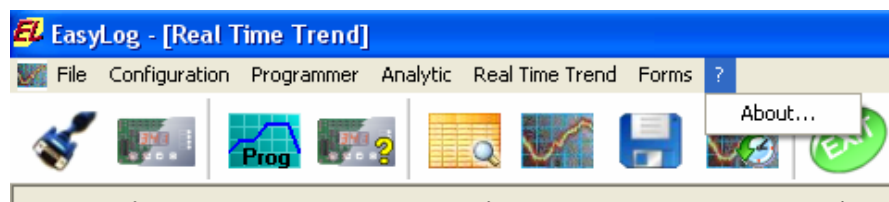
Real Time Trend Menu:

- “Legend” will show or hide the Real Time Graph Legend
- “Statistical Data” will show or hide the statistical data of the Real Time Graph.
- “Add/Remove tracks” opens the window which allows the addition or removal of the graph parameters.



Forms Menu:

- “Analytic” puts the Analytic window in the foreground
- “Real Time Trend” puts the Real Time Trend window in the foreground



About Menu:

- WWW.thermoelectric.com - TECA Web Address
- About – Program Information

Toolbar Keys



The Comms Cable button relates to the window for the configuration of serial link communication



The front panel button relates to the window for the configuration of the instrument.



The magnifying glass button relates to the window of visualisation of the analytic.



The graph button relates to the window of the Real Time graph



The floppy disc button relates to the window for saving data.



The floppy disc button with red stop is used to stop the recording manually.



This button relates to the window of visualisation of historical data.



This button is used to exit the program.

Status Bar Keys



Indicates that the access to the program is free



Indicates that the access to the program is protected by a password



indicates that the serial communication is activated



Indicates that the last communication toward the instrument has worked correctly



Indicates that there are some problems with the communication



Indicates that the linked instrument has not replied to the interrogation of the parameters



Indicates that the data recording is activated




Reports the precise moment of the data saving on the disk

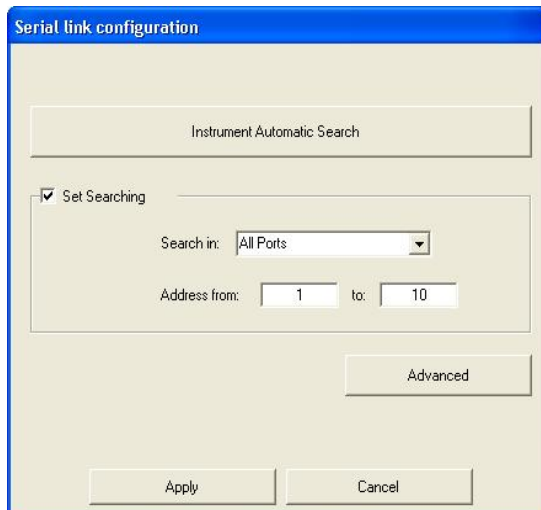


Indicates that one or more alarms are activated on the connected instrument with brief description

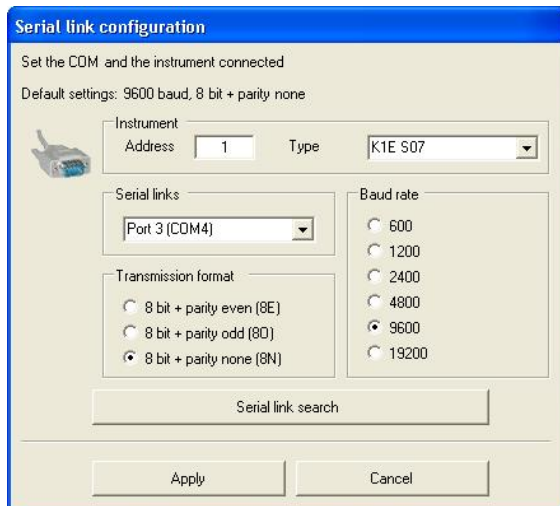
Connecting to the TLC-900

Initiating Communication:

- Click on the Comms Cable button 
- Allow the computer to find the instrument or
- Manually configure the system for communication



When the program notices at least one serial port the window on the left opens in the “instrument automatic search” procedure. This can take quite some time if all 256 possible ports and addresses are analyzed. Reduce this time, adjust to 10 as shown in the window to the left.

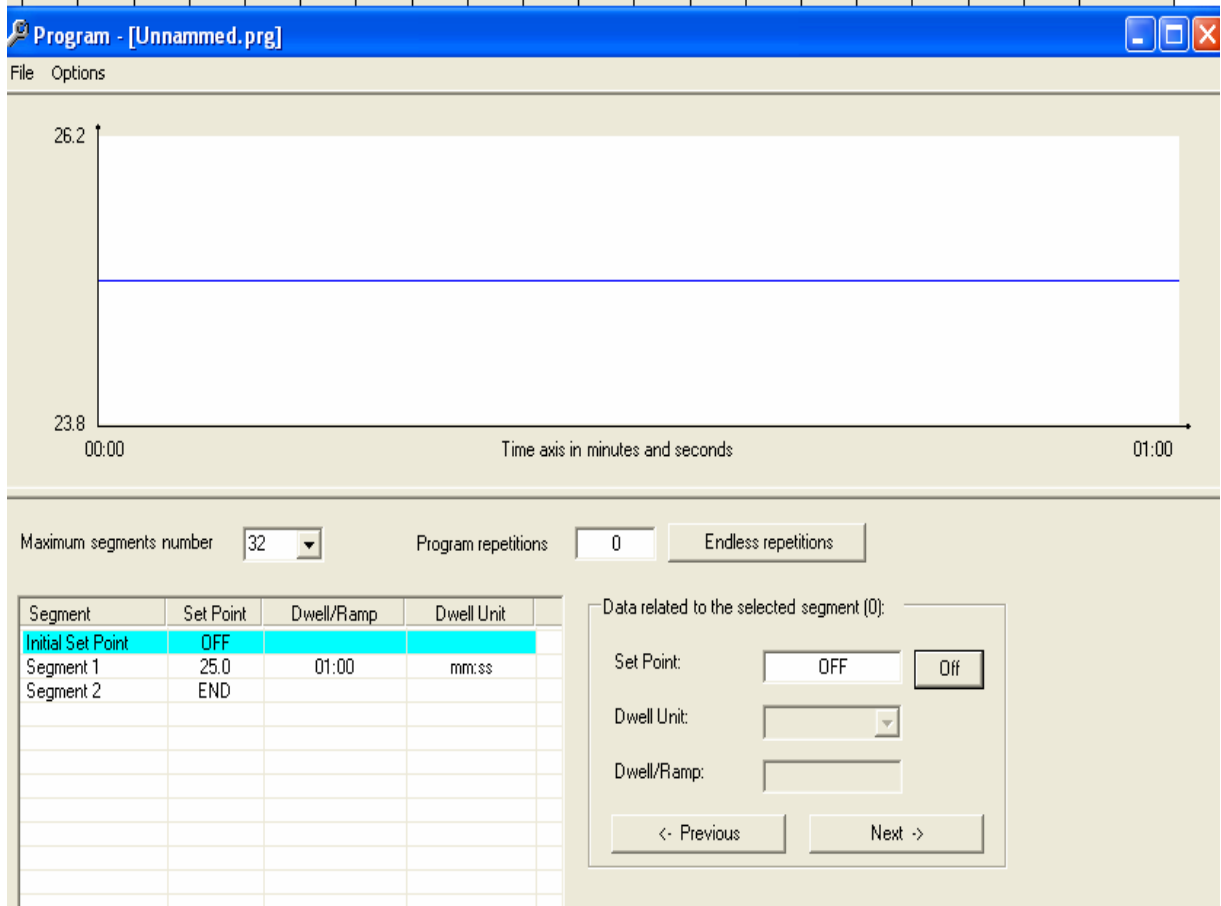


The advanced settings (shown on the left) appear when no serial port is found or it can be opened from the auto search window. In this window the serial port to be used, the type of connected instrument (K2P) and its address. Use this button when new serials are installed or activated.

Programmer

Programs Menu: Programmer Pull down

- Step by step construction of ramp/soak profiles
- Open, Save, and Save As functions
- Upload, Download and Exit Functions

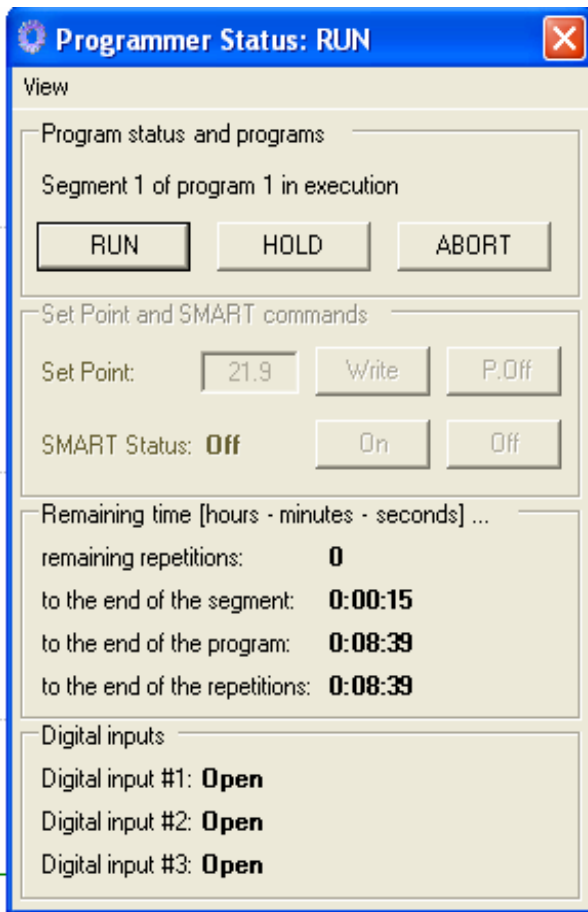


When first opened, the screen shown above will appear. From this screen each step of the ramp/soak program can be entered and visualized.

Programmer

Program Status Menu:
Programmer Pull down

- Run, Hold or Abort a ramp/soak program
- Select a set point
- Initiate Smart Tuning

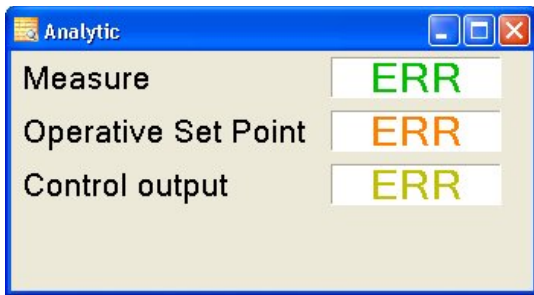


To run a ramp/soak program from within EZlog open the Programmer Status window. Clicking **Run** will prompt you with a program already in the TC-4300 to run. Pressing **Hold** will pause the program while **Abort** will stop the program. Press **Abort** after the program is completed to return to normal operation. "Where" you are on the profile can be seen in the bottom half of the window.

Adjust the **Set Point** by entering the desired value and clicking **Write**. **P.Off** will turn active functions off.

To initiate the **Set Point**, which will adjust the PID parameters for the best control, press **Write**. The screen will flash St.P and the temperature will move up and down as the controller learns the system. Press **Off** to stop the tuning process.

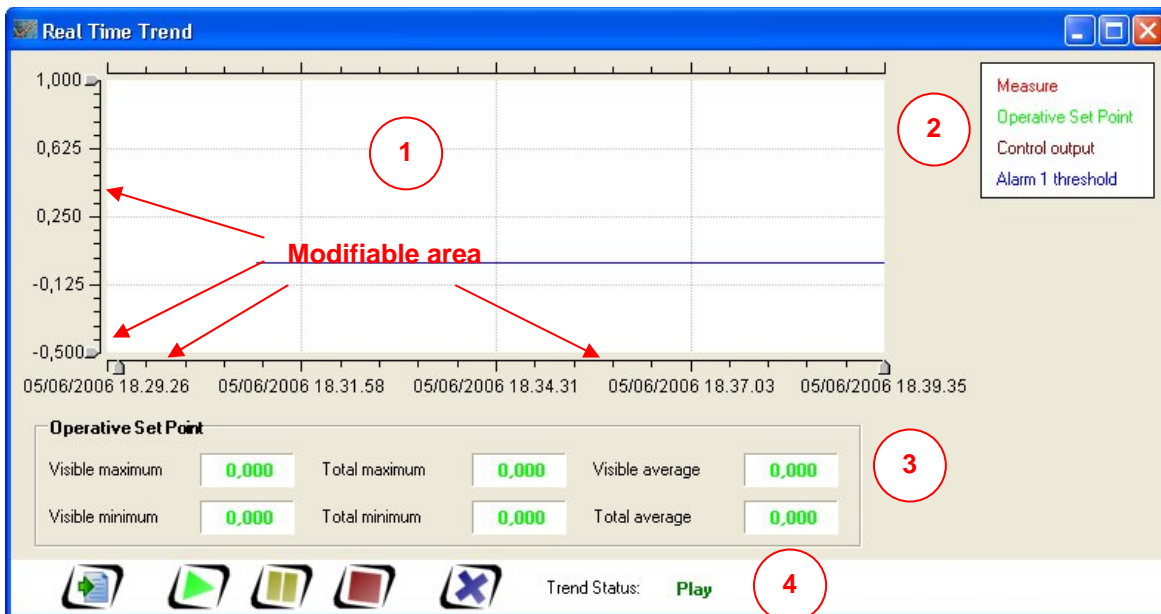
Analytic Window



Analytic Area Displays Current:

- Measured Temperature (Process Value)
- Operative Setpoint
- Control Output

Real Time Trend Window



- 1 – Graph Area
- 2 – Legend
- 3 – Statistics
- 4 – Tool Bar

Real Time Trend Window, Cont'd

1 - Graph Area:

- This area presents an outline of the data analyzed during a time period
- Left clicking a data point displays the individual parameters
- The X and Y axis can be scaled in a dynamic fashion using the moving index
- By pressing the left button it is possible to move the graph on the right and left in a dynamic way
- The Axis can be modified directly by double clicking on the top and bottom of the axis

2 - Legend Area:

- Visible only when activated though the appropriate menu

3 - Statistics Area:

- Visible only when activated through the appropriate menu.
- Periodically view the statistical data of the parameters.

4 – Tool Bar:



Used to print a graph



Used to start data recording



Used to pause recording (graph continues acquisition)

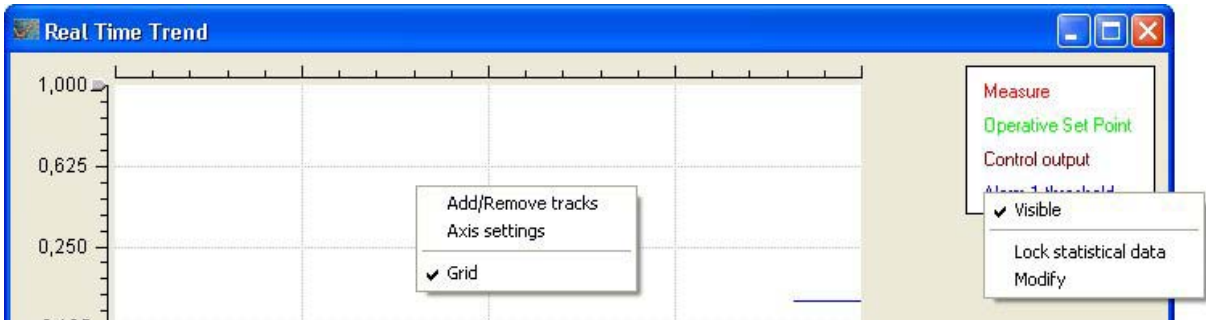


Used to stop recording (graph stops acquisition)



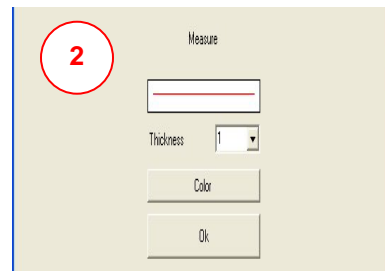
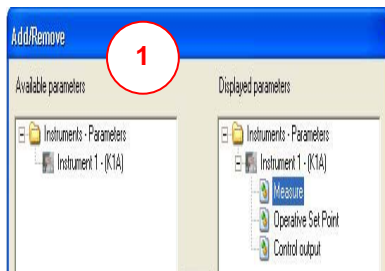
Delete memory dedicated to the graph

Real Time Trend Window, Cont'd



Menu Pop Ups:

- “Add/Remove tracks” adds or removes tracks on the graph.
- “Axis settings” configures the axes
- “Grid” will show or hide the grid
- “Visible” is used to show or hide the track keeping the data in memory.
- “Lock Statistical Data” is used to visualize the statistical data related to the selected parameter. To restart the cyclic visualization select the parameter again and unblock the visualization.
- “Modify” opens the window to modify the thickness and color related to the selected parameter.



Add/Remove parameters:(when changes are made the graph and data stored are lost.)

- 1 - “Add/Remove tracks”, parameters, to the graph by double clicking the parameter or using the arrow buttons.
- 2 - “Modify” the thickness and color of the track.

Real Time Trend Window, Cont'd

The dialog box is titled "Axis settings" and has two tabs: "Vertical Axis (values)" and "Horizontal Axis (time)". The "Vertical Axis (values)" tab is selected. It contains three input fields: "Maximum value" with the value "1.000", "Minimum value" with the value "-0.500", and "Format" with a dropdown menu showing "0.000". A red circle with the number "1" is drawn around the "Minimum value" field. At the bottom are "Ok" and "Cancel" buttons.

The dialog box is titled "Axis settings" and has two tabs: "Vertical Axis (values)" and "Horizontal Axis (time)". The "Horizontal Axis (time)" tab is selected. It contains an "Interval" field with the value "10" and a dropdown menu showing "Minutes". A red circle with the number "2" is drawn around the "Interval" field. At the bottom are "Ok" and "Cancel" buttons.

Axis Setting:

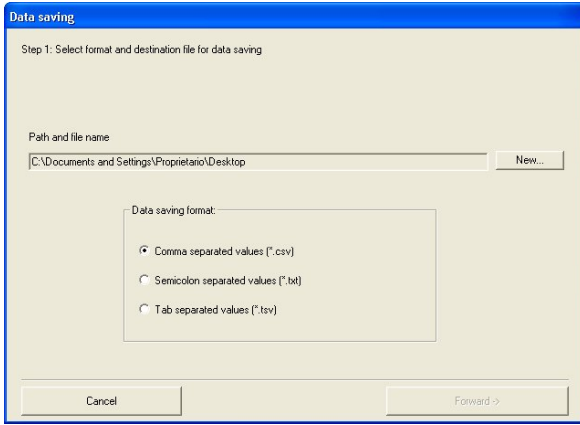
- In this window you can modify the axis setting
- 1- Requires the minimum value, maximum value and format of the vertical axis.
- 2 – Requires the gap time visualized on the horizontal axis.

The dialog box is titled "Alarm 1 threshold". It features a horizontal line representing a threshold. Below it is a "Thickness" field with a dropdown menu showing "1". Below that is a "Color" field with a color selection area. At the bottom are "Cancel" and "Ok" buttons.

Modify Tracks:

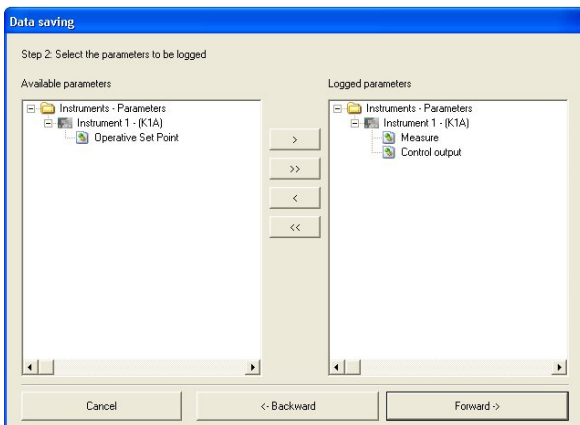
- In this window you can modify the color and thickness of the selected track.

Data Saving



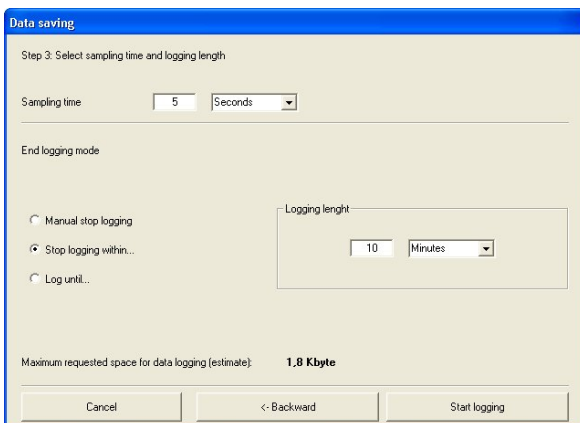
Data Saving – Step 1:

- Select the name and type of file



Data Saving – Step 2:

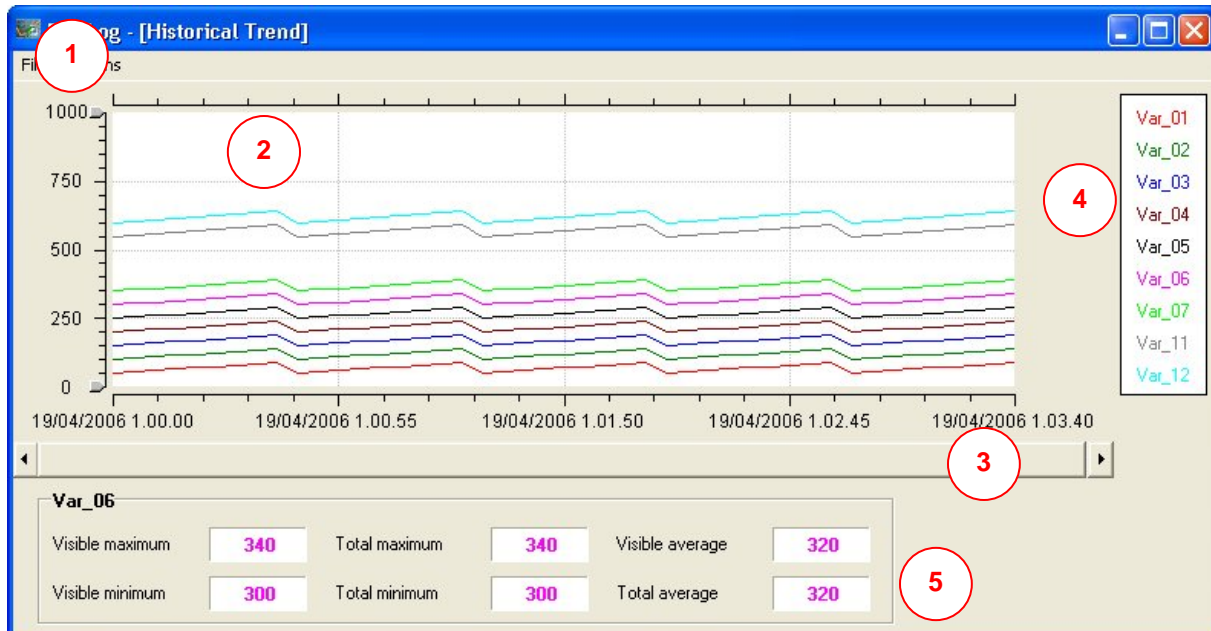
- Select the parameters to be logged from the list on the left.
- On the right are the parameters to be logged
- Move the parameters by double clicking or using the arrow keys.



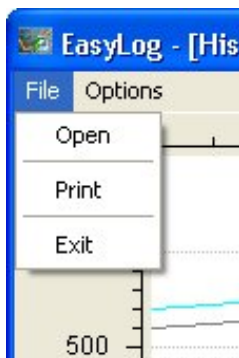
Data Saving – Step 3:

- Select the sampling time
- Select the logging length
- The additional information will change with logging length
- Note: It is always possible to stop the logging manually.

Historical Trend

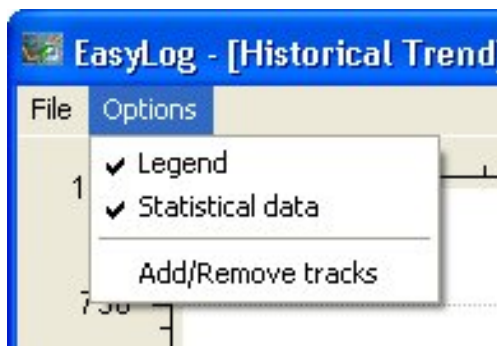


- 1 – Menu Bar
- 2 – Graph Area
- 3 – Horizontal Bar
- 4 – Legend
- 5 - Print



File Menu:

- “Open” opens a historical file
- “Print” will print the visualized graph
- “Exit” will exit the historical trend



Options Menu:

- “Legend” will show or hide the legend
- “Statistical data” will show or hide the data
- “Add/Remove tracks” will add or remove parameters from the graph

