
VOLTCRAFT®

User Manual

Voltsoft

1. Introduction

Dear Customer,

In purchasing this Voltcraft® product, you have made a very good decision for which we would like to thank you.

Voltcraft® - in the field of measuring, charging and network technology, this name represents high quality products which perform superbly and which are created by experts seeking continuous innovation. From the ambitious hobby electronics enthusiast to the professional user, products from the Voltcraft® brand family provide the optimum solution even for the most demanding tasks. Voltcraft® products also offer an almost unbeatable price-performance ratio. This is why we are absolutely certain: With our Voltcraft® product line, we have created the foundation for a long, prosperous and successful customer partnership.

We wish you a great deal of enjoyment from your new Voltcraft® product!

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2. Using this Manual

The Voltsoft System (Voltsoft) is integrated control software for controlling different Voltcraft® electronic products. By using Voltsoft, you can manage your Voltcraft® product using only a single piece of software.

This manual will explain the usage and workflow of different components of Voltsoft, and also discuss how Voltsoft can control different hardware models.

There are many terms and abbreviations in this manual that may be unfamiliar to you if you are new to web hosting. You can find information on these terms and abbreviations in the glossary of this manual or by searching for them using a search engine such as Google.

3. Glossary

4. Installation

4.1 System Requirements

To install Voltsoft, your computer should contain:

- Pentium 233-megahertz (MHz) processor or faster
- At least 1GB of RAM
- At least 2GB of available space on the hard disk
- USB 2.0 / 3.0 Port(s)

Voltsoft only supports the following operating systems:

- Microsoft Windows XP Service Pack 2 or above
- Microsoft Windows Vista Service Pack 2 or above
- Microsoft Windows 7

If your Windows does not contain the corresponding service pack version, please perform a Windows update first.

.NET framework library version:

- .NET framework 2.0 SP2

If your Windows does not contain the corresponding .NET framework, Voltsoft setup will help you to download it from the Internet. However, it is recommend to upgrade first before installation.

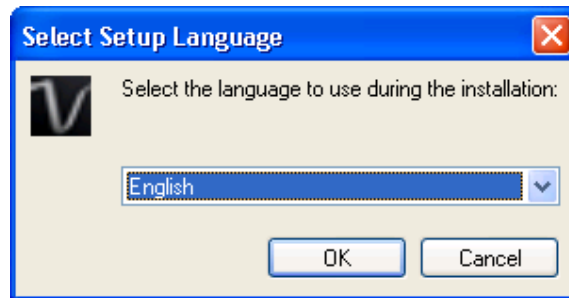
Some device may not work if connect via USB Hubs, included:

- DL101T / DL121TH / DL161S / DL180THP

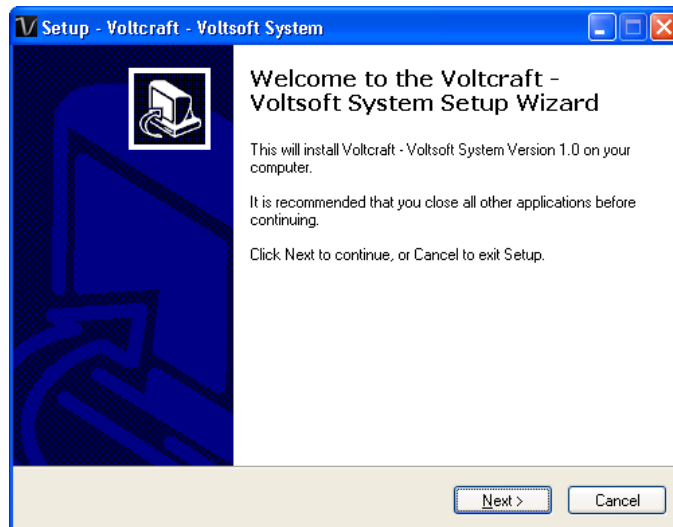
4.2 Install Voltsoft

1. Insert the installation CD-ROM into your computer.
2. The menu will be opened automatically (if installation doesn't start immediately, double-click autorun.exe in your CD-ROM directory).

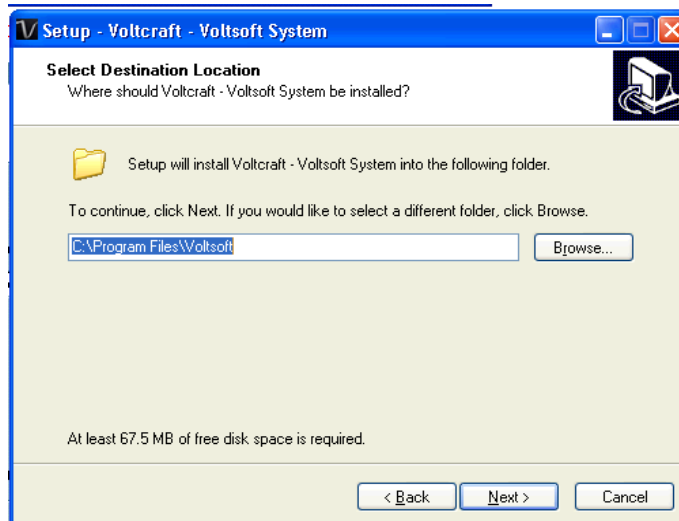
Step 1: Select the installation language



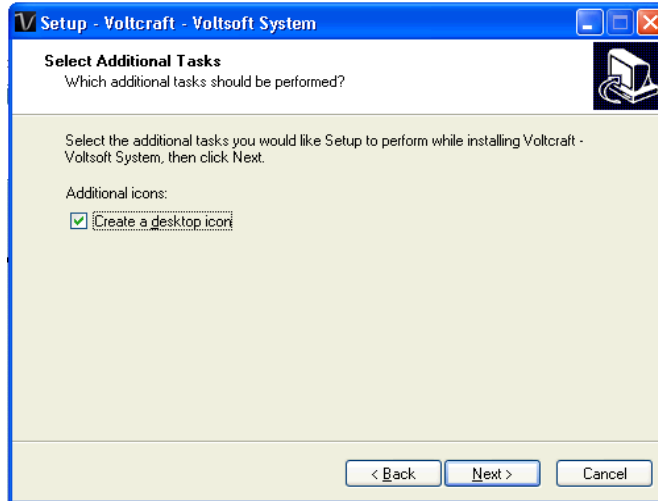
Step 2: Just click Next for all following steps



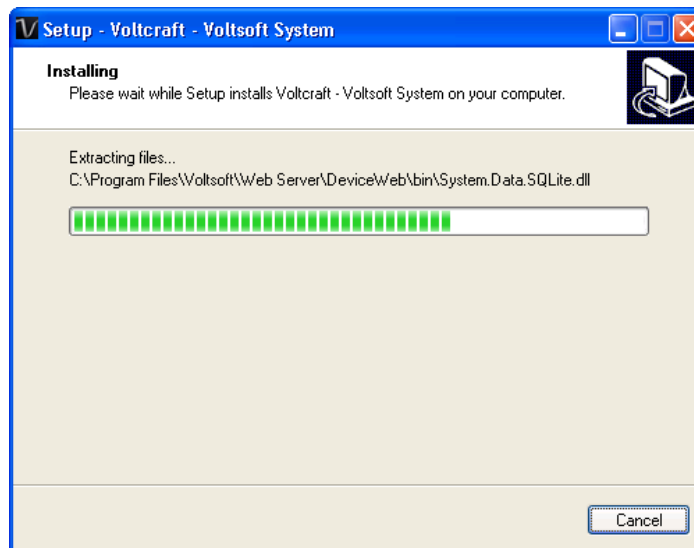
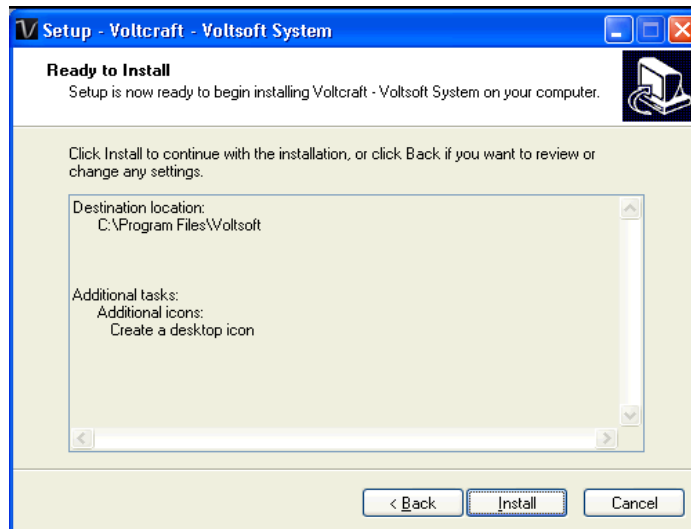
Step 3: Select Destination Location



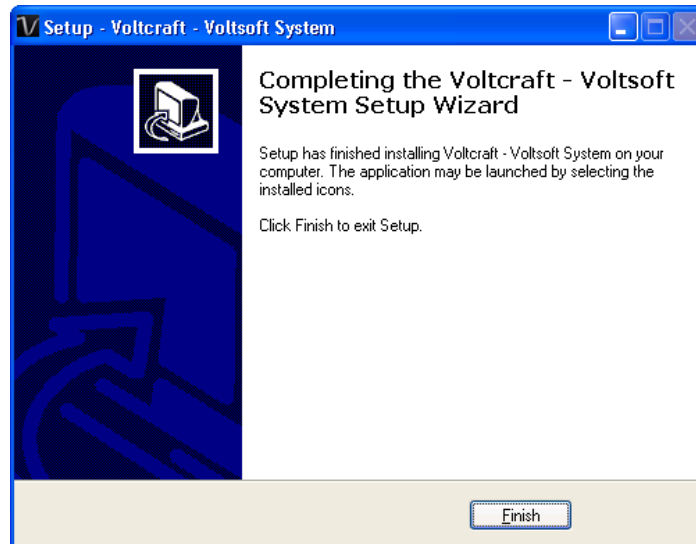
Step 4: Tick the box to create desktop icon for Voltsoft



Step 5: Installation begins



Step 6: Click Finish to complete the installation



4.3 Register Voltsoft

Voltsoft has two different versions: Standard and Professional. The professional version contains more features than the standard edition.

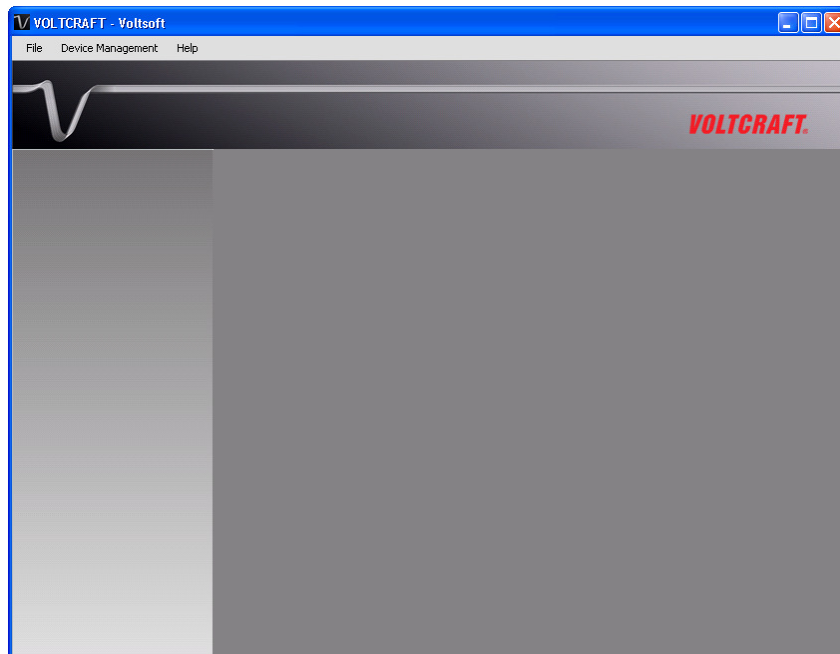
Standard v.s. Professional

	Standard	Professional
User Management		√
Email Management		√
General Settings	√	√
Language Preference	√	√
Email Template		√
Device Management (Add / Remove)	√	√
Custom Graph		√
Email Alert		√
Web Interface		√

Voltsoft will be installed by default as the standard version. In order to enable the professional features, the user has to buy a software package (VoltSoft Data Logger, BN: 101333) and input a valid license key (which is attached on CD) to register.

To register:

1. Launch the Voltsoft Windows client



2. Click Help->Online Activation

Online Activation

Please input Activation Key to unlock all system features

License Key: XXXX-XXXX-XXXX-XXXX

Registration

Company*: Company A

Department: Department A

Salutation* & Title: Mr.

First Name* & Last Name*: John Smith

Street, No.*: Street 1

Post code* & city*: 00000 City A

Country*: HOLY SEE (VATICAN CITY STATE)

Phone*: 01234567 (e.g. 01234567)

Fax no.: (e.g. 01234567)

Mobile Phone: (e.g. 01234567)

Email*: johnsmith@abc.com

*Required Field

Use Proxy Server

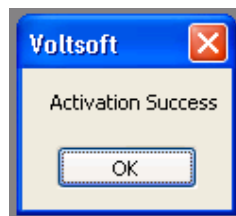
Address: Port: 80

I have read and accept to the privacy policy and license agreement

[Privacy policy and license agreement](#)

Activate Close

3. Fill in a valid license key and the registration information.
4. Fill in the proxy server settings if your computer accesses the Internet through a proxy server.
5. Please read and accept our privacy policy and license agreement.
6. Click the "Activate" button to perform online activation.
7. If activation is successful the following message will be displayed:

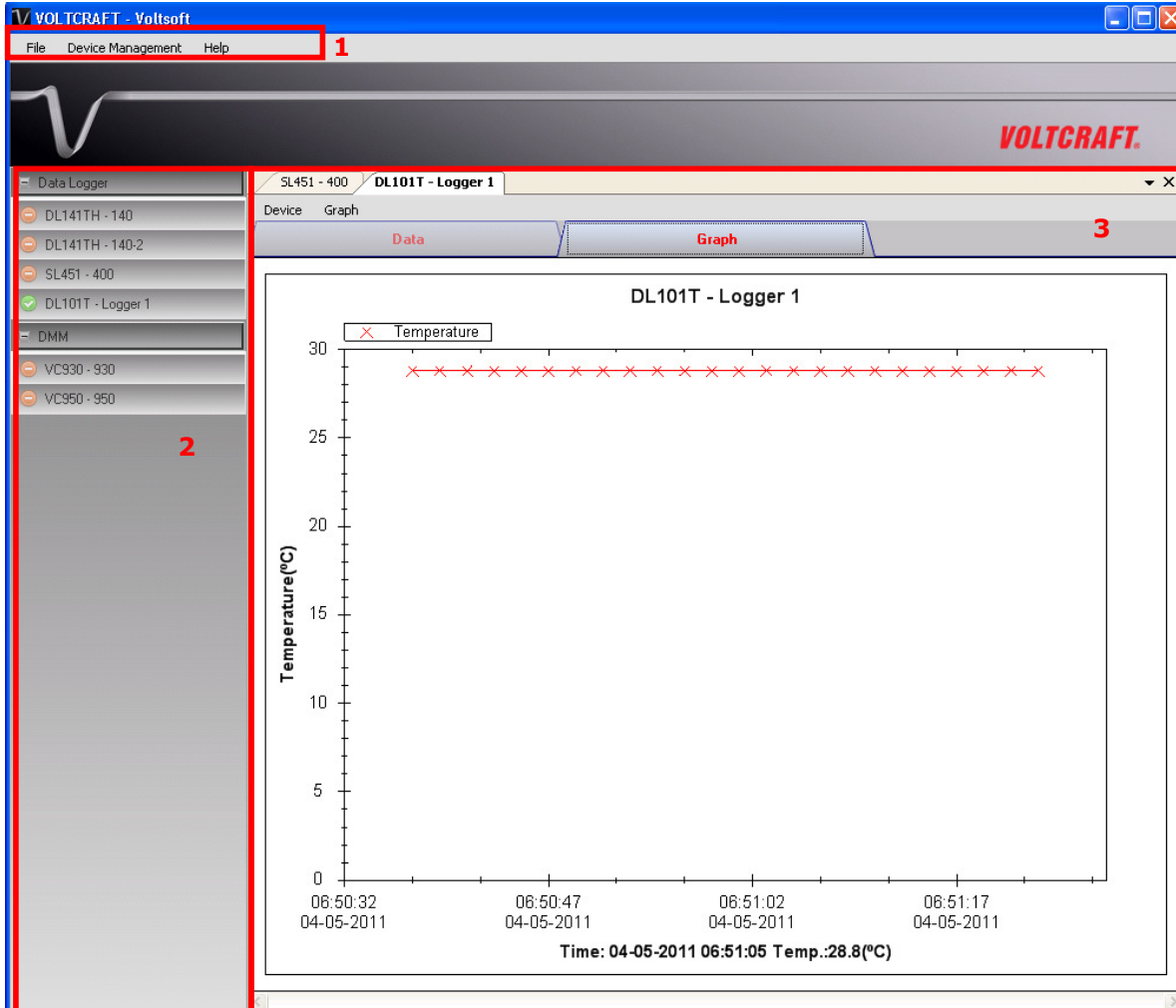


5. Standard Version

5.1 Launch the Voltsoft Windows Client

To start the application, please go to Start Menu->All Programs->Voltcraft->Voltsoft Client

Main screen of the Voltsoft client is as follows:

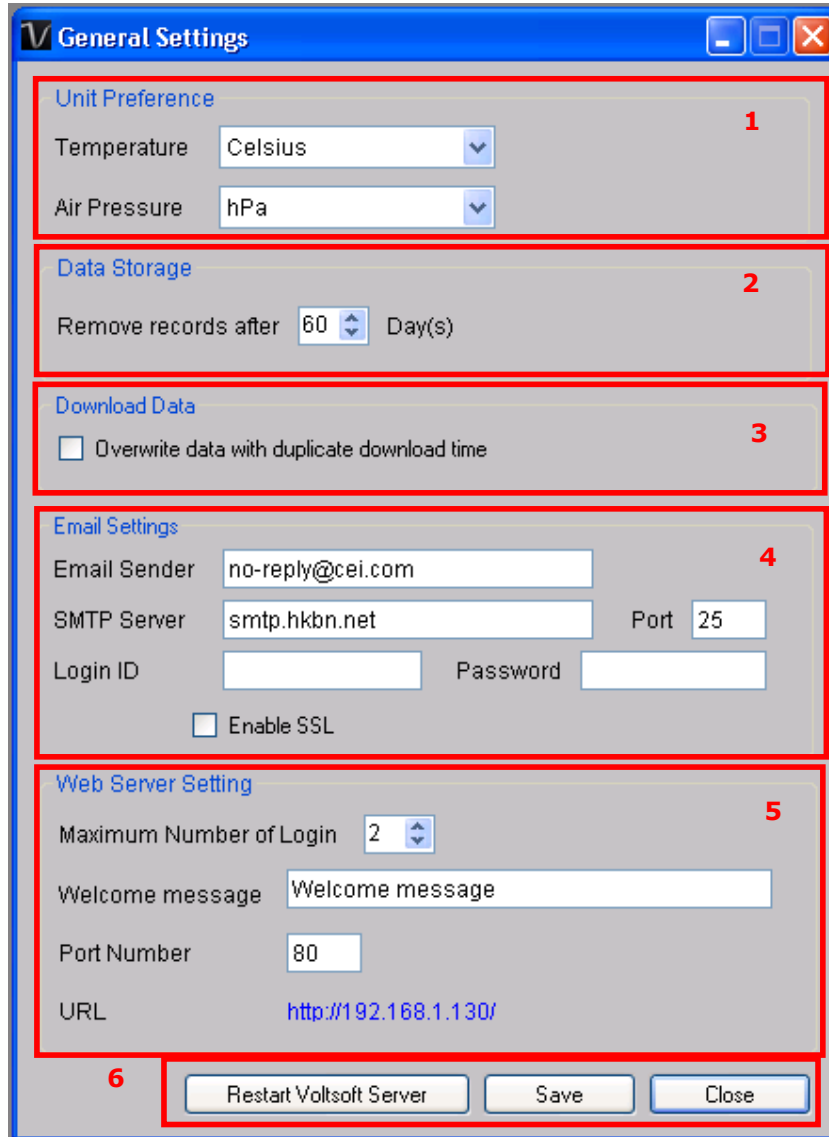


1	Main Menu Area	Users can access different functions through the main menu.
2	Device List Area	<p>Contains the list of devices which are already registered in the system.</p> <p>Green icon – Indicates that the device is currently connected to the computer</p> <p>Red icon - Indicates that the device is currently not available.</p> <p>Clicking on the icon can open that device in the device control panel area.</p>

3	Device Control Panel	The opened device will be displayed in this area.
---	----------------------	---

5.2 General Settings

To launch this module, please click File->Settings.

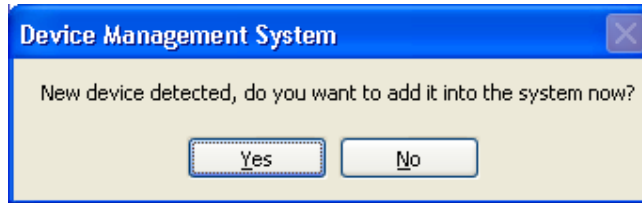


1	Unit Preference	Select the measurement unit used in Voltsoft.
2	Data Storage	In order to prevent data overload, the system will delete old data automatically. The user can specify the number of days to keep the device reading.
3	Download Data	If this option was checked and the system is downloading new data with measurement time, which already existed in the database, then existing data will be overwritten.
4	Email Settings	This area configures the outgoing email settings.

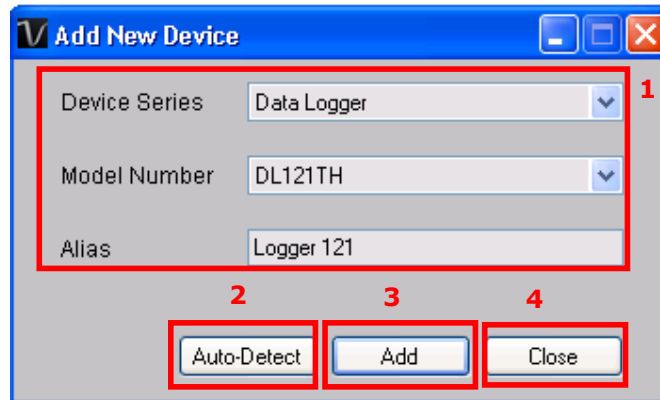
		<p>Email Sender – This will be the email sender of the alert email.</p> <p>SMTP Server and Port – The outgoing SMTP server name and port number.</p> <p>Login ID and Password – The SMTP server login and password (if required).</p> <p>Enable SSL – Check this checkbox if your SMTP server requires SSL encryption (i.e. Gmail)</p> <p>This setting is available in the professional version only.</p>
5	Web Server Setting	<p>Configure the web server port number for the web-based version of Voltsoft.</p> <p>The local IP address will also be displayed, however, if you have more than one network card, then only the first IP address detected will be shown here.</p> <p>The maximum number of logins controls the maximum number of concurrent logins.</p>
6	Restart Voltsoft Server	Restart the Voltsoft Server.
	Save	Save and quit this module.
	Close	Quit this module without saving.

5.3 Add New Device

This module should automatically pop up when the user plugs a new device into the computer.



However, to launch this module manually, click Device Management->Add New Device.

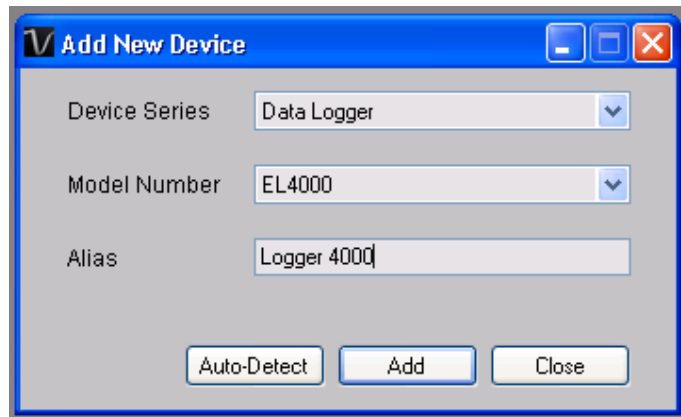


1	Select Device	To add a new device: 1. Select the device series (only Data Logger available in the current version). 2. Select model number. 3. Fill in a unique alias.
2	Auto-detect	Click this button to let the system detect if there is any device connected but not yet registered.
3	Add	Click the Add button to confirm the addition.
4	Close	Click the Close button to close this module.

5.3.1 Adding EL4000

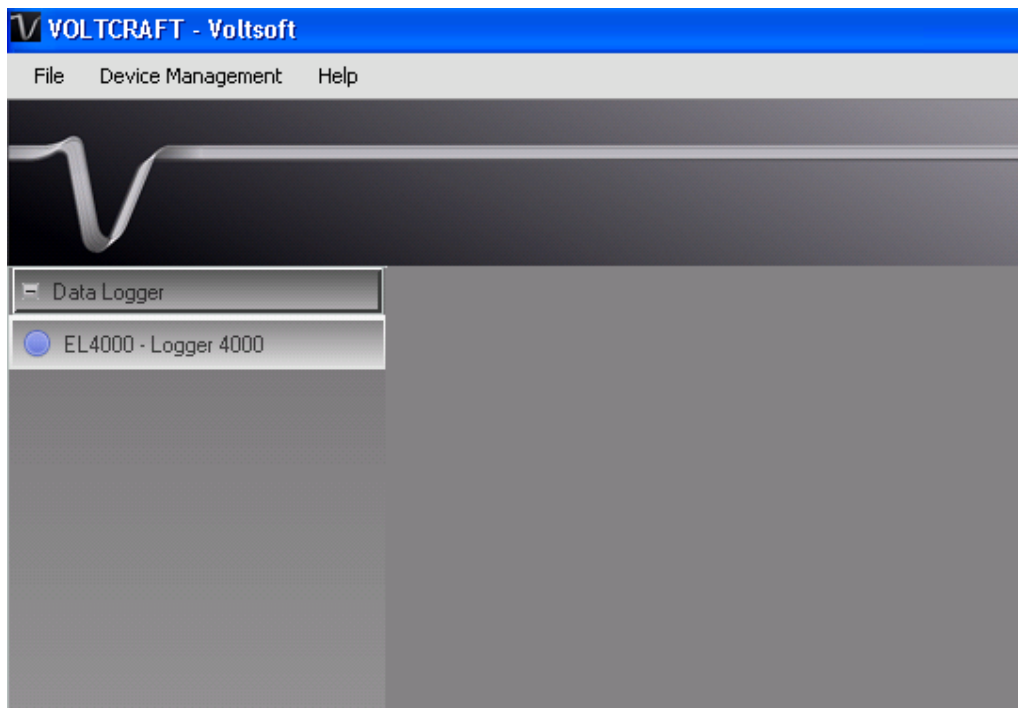
EL4000 won't connect to the computer physically, we will only download the data from the memory card; therefore, you have to add it manually.

To add an EL4000 into system, click Device Management->Add New Device.



Select "Data Logger" in Device Series and "EL4000" in Model Number, input an alias and click "Add" to continue.

If successful, a new device will be added in the device list:



As the EL4000 will not connect to the computer physically, it is therefore neither online / offline, so its icon colour will always be blue.

5.4 Remove Existing Device

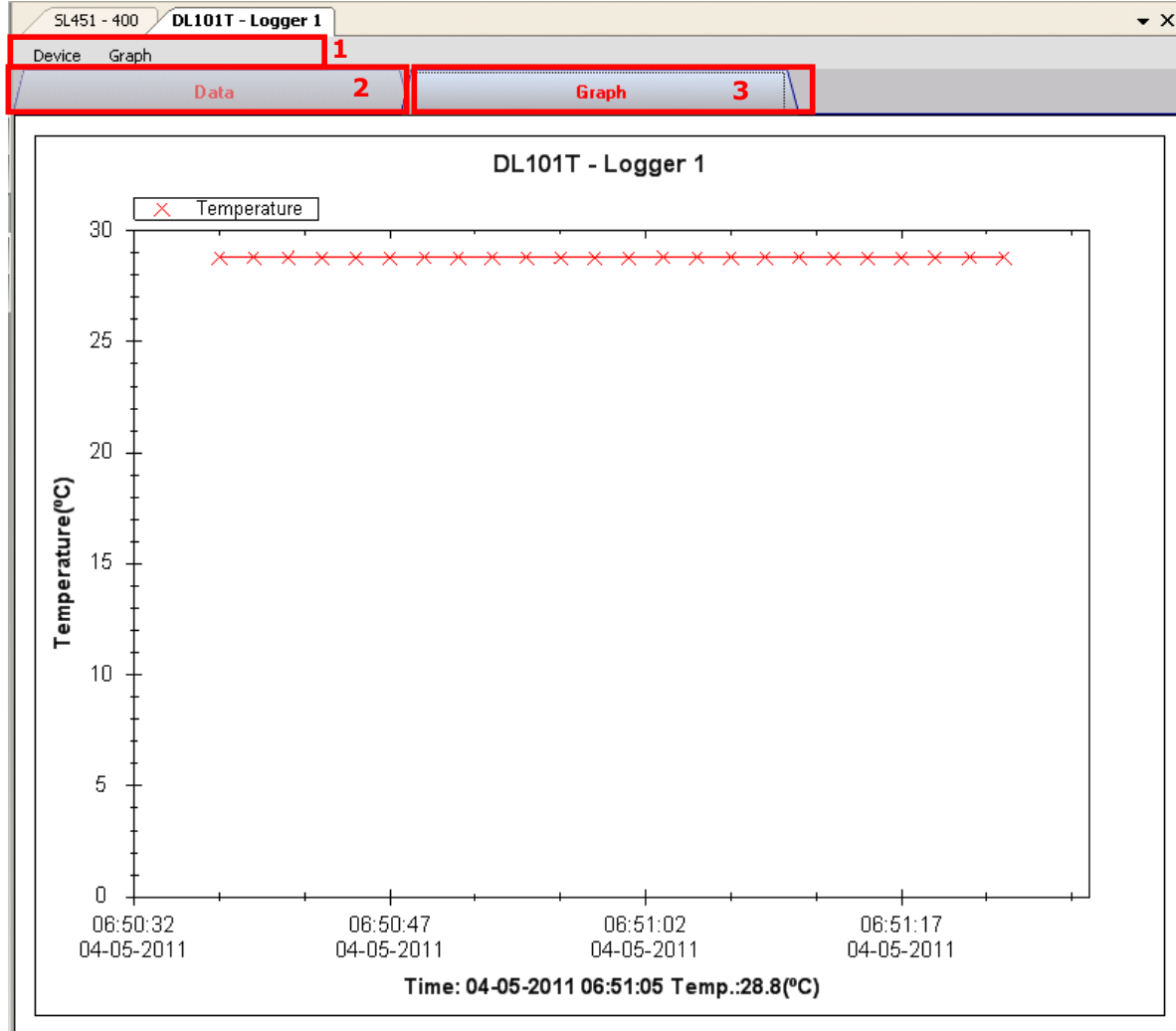
This module allows the user to remove devices which are no longer in use. To launch this module, click Device Management->Remove Existing Device.



To remove a device, click the device in the list and click on the Remove button. Click the Remove All button to remove all devices at the same time.

5.5 Device Control Panel

The opened device will be displayed in the device control panel area in tab format. Each tab will contain information for one single device.



Each device tab contains:

1	Device Menu Area	Each device will contain its own menu, which will be explained in an upcoming section.
2	Data Tab	Display the selected data in list form.
3	Graph Tab	Display the selected data in a graphical format.

5.5.1. Device Menu Area

Each device tab will contain its own menu, which includes:

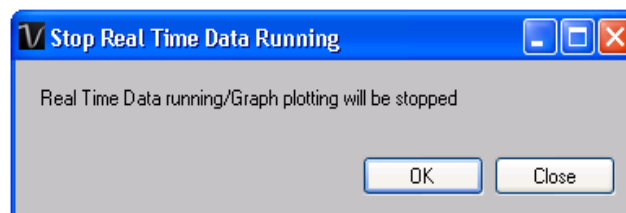
1	Device -> Settings	This will launch the setting page for that device. The layout will be different for different device types.
2	Device -> Stop	Stop the real-time data download. (Available for the real-time device only)
3	Device -> Download Data	Download reading from device.
4	Device -> Display / Plot Data	Select the time range that the device reading should retrieve.
5	Device -> Email Alert	This will launch the email alert module. (Available for the real-time device in Professional version only)
6	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
7	Graph -> Background Colour	Change the background colour of the graph to either black or white.
8	Graph -> Grid	Control whether to show / hide the grid on the graph area.
9	Graph -> Line	Control whether to show / hide the line on the graph area.
10	Graph -> Print	This prints the generated chart.
11	Graph -> Save Image As	Save the image in the chosen file format.
12	Graph -> Zoom Out	Zoom out one level.
13	Graph -> Zoom To Fit	Undo all zoom in and out.
14	Graph -> View All Data	Zoom out the graph to view all data. (Available for the real-time device only)

1. Device Settings

Different device models will have different parameters for their setup; therefore, their setting pages will be different. The setting pages for different devices will be discussed in the section below.

2. Stop

When the device is running in real time mode, the user can stop the download by using this function.



3. Download Data

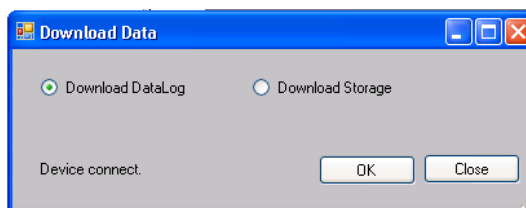
This module allows the user to download the data from the device.

General Interface for download data



Click "OK" button to start download.

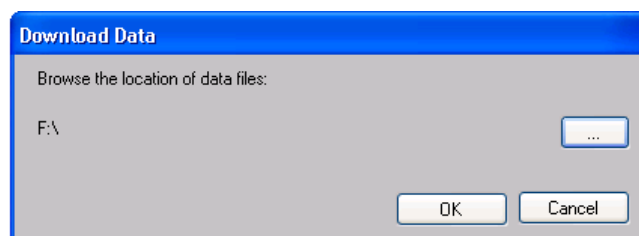
Interface for VC930 / VC950 device download data



As VC930 and VC950 have two types of data download, DataLog and Storage, select the one to download and click "OK" to continue. A remind message will display in order to remind user the quit the Store / Data Log mode before download data.



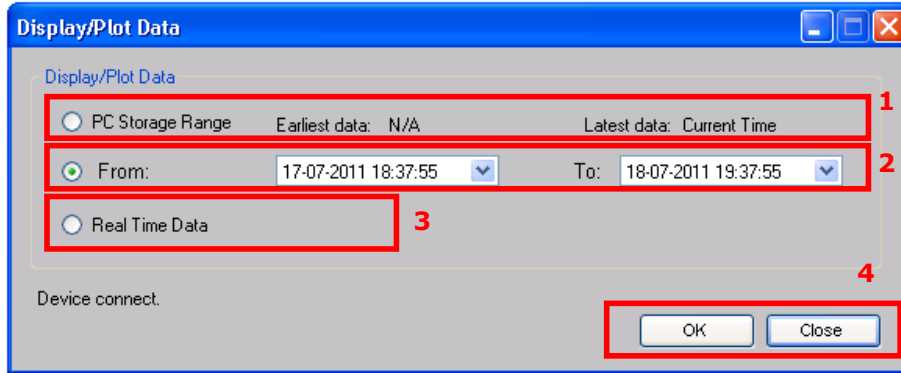
Interface for EL4000 download data



To download data, click "...", select the location of data files, then click the "Download" button to download.

4. Display / Plot Data (Data Logger Series)

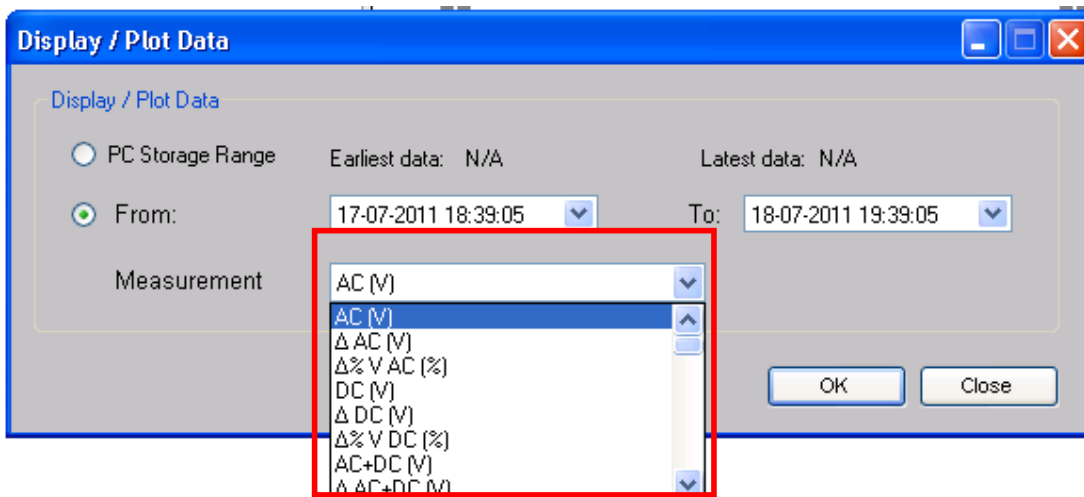
This module allows the user to select a range for the device readings from the device and display them in the data tab and graph tab.



1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Real Time Data	This option is only available on certain devices (refer to Appendix). If this option was checked, the system will download the real-time data from the device instead of stored data.
4	OK	Click on OK to accept the input and display the selected reading in the data and graph tabs.
	Cancel	Close this module.

The loading time will increase when more data is retrieved; therefore, the system will be limited to return the first 100,000 records which meet your selection criteria. (For the Web version, only the first 10,000 will be returned.)

5. Display / Plot Data (DMM Series – VC930 / VC950)



The interface is similar to the Data Logger Series except that no real-time option is available here and the user is required to select which column of data to display.

6. Display / Plot Data (DMM Series – VC880 / VC650BT)

Select Time Range

Display/Plot Data

PC storage range Earliest data: 27-11-2011 17:04:21 Latest data: 12-12-2011 04:09:23

From: 11-12-2011 03:24:26 To: 12-12-2011 04:24:26

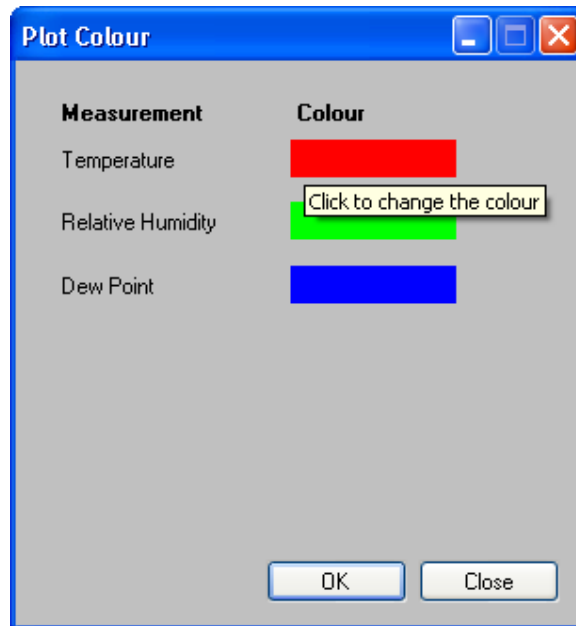
Measurement Function Unit Mode

DCV V N/A

OK Cancel

The interface is similar to the Data Logger Series except that no real-time option is available here and the user is required to select which column of data to display.

7. Plot Colour



This module allows the user to change the colour of the line on the graph. Clicking on the colour label launches the colour palette. Click on the colour, then OK to select it.

5.5.2. Data Tab (Data Logger Series)

The screenshot shows the 'Data' tab interface. At the top, there are tabs for 'Data' and 'Graph'. Below the tabs, the 'PC storage range' is displayed with 'Earliest data: 04-05-2011 06:59:37' and 'Latest data: 04-05-2011 07:00:25'. A red box labeled '1' highlights this area. Below this is a 'Summary' section with a table of measurement statistics. A red box labeled '2' highlights the summary table. Below the summary is an 'All Data' section with a table of individual readings. A red box labeled '3' highlights the data table. To the right of the 'All Data' section are two buttons: 'Export Excel' and 'Export CSV', with a red box labeled '4' highlighting them.

Measurement	Maximum Value	Minimum Value	Average Value
Temperature (°C)	32.2	32.1	32.19
Relative Humidity (%)	47.3	46.8	47.02
Dew Point (°C)	19.55	19.38	19.45

Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)
04-05-2011 06:59:37	32.2	47.3	19.55
04-05-2011 06:59:39	32.1	47.3	19.46
04-05-2011 06:59:41	32.2	47.3	19.55
04-05-2011 06:59:43	32.1	47.2	19.43
04-05-2011 06:59:45	32.2	47.2	19.52
04-05-2011 06:59:47	32.2	47.1	19.49
04-05-2011 06:59:49	32.1	47.1	19.4
04-05-2011 06:59:51	32.2	47.1	19.49
04-05-2011 06:59:53	32.2	47.1	19.49
04-05-2011 06:59:55	32.2	47	19.45
04-05-2011 06:59:57	32.2	47	19.45
04-05-2011 06:59:59	32.2	47	19.45
04-05-2011 07:00:01	32.2	47	19.45
04-05-2011 07:00:03	32.2	47	19.45
04-05-2011 07:00:05	32.2	46.9	19.42
04-05-2011 07:00:07	32.2	47	19.45
04-05-2011 07:00:09	32.2	46.9	19.42
04-05-2011 07:00:11	32.2	46.9	19.42
04-05-2011 07:00:13	32.2	46.9	19.42
04-05-2011 07:00:15	32.2	46.9	19.42
04-05-2011 07:00:17	32.2	46.9	19.42
04-05-2011 07:00:19	32.2	46.9	19.42
04-05-2011 07:00:21	32.2	46.9	19.42
04-05-2011 07:00:23	32.2	46.8	19.38
04-05-2011 07:00:25	32.2	46.9	19.42

1	PC Storage Range	The range of data stored in the database
2	Reading Summary	Click on the symbol next to the summary title to show / hide the summary area. The summary area will show the maximum / minimum / average value of the measurement.
3	Data Reading	The data will be displayed in list form.
4	Export CSV	Click on this button to export the data into CSV format.
	Export Excel	Click on this button to export the data into Excel format.

5.5.3. Data Tab (DMM Series – VC930 / VC950)

The screenshot shows the 'Data' tab interface for the DMM Series. It includes a table of recorded data and a large display area. The table has the following columns: Record Time, Reading, Unit, Function, and Mode. The display area shows a scale from 0 to 100, a current reading of 27.6 °C, and two buttons: 'Start Record' and 'Stop Display'. Red boxes and numbers 1 and 2 highlight these elements.

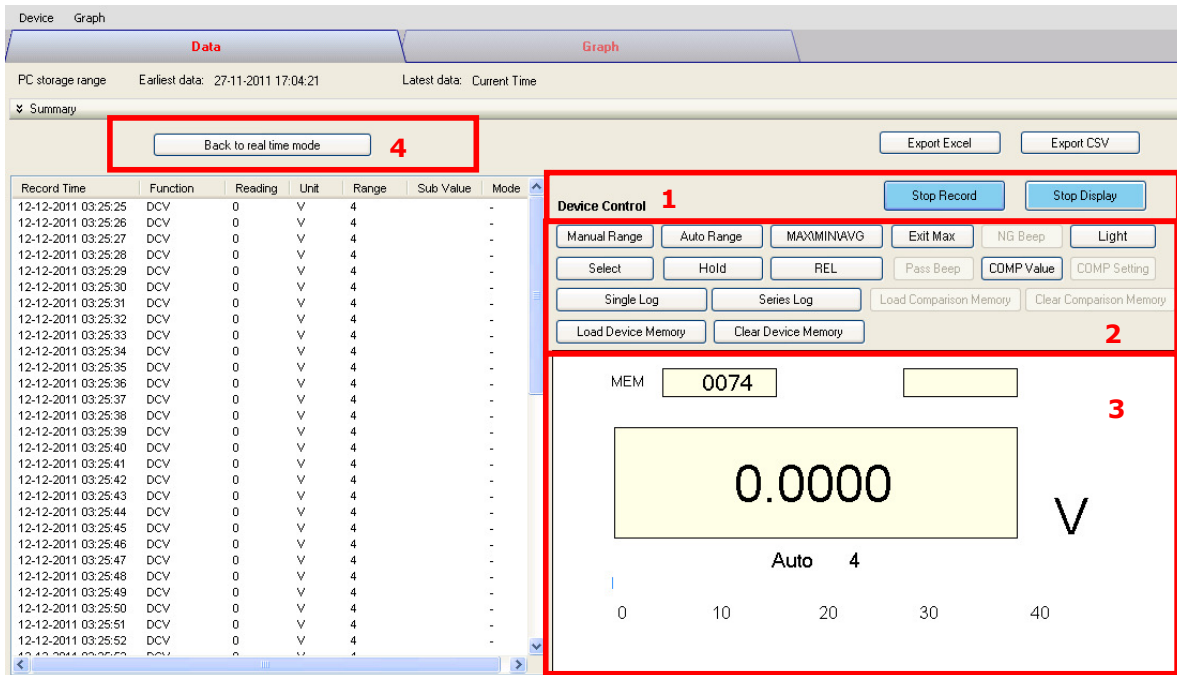
Record Time	Reading	Unit	Function	Mode
16-06-2011 12:39:59	27.3	°C	Temp.	-
16-06-2011 12:40:00	27.3	°C	Temp.	-
16-06-2011 12:40:01	27.3	°C	Temp.	-
16-06-2011 12:40:02	27.3	°C	Temp.	-
16-06-2011 12:40:03	27.3	°C	Temp.	-
16-06-2011 12:40:04	27.3	°C	Temp.	-
16-06-2011 12:40:05	27.2	°C	Temp.	-
16-06-2011 12:40:06	27.2	°C	Temp.	-
16-06-2011 12:40:07	27.8	°C	Temp.	-
16-06-2011 12:40:08	27.6	°C	Temp.	-
16-06-2011 12:40:09	27.5	°C	Temp.	-
16-06-2011 12:40:10	27.5	°C	Temp.	-
16-06-2011 12:40:11	27.4	°C	Temp.	-
16-06-2011 12:40:12	27.5	°C	Temp.	-
16-06-2011 12:40:13	27.5	°C	Temp.	-
16-06-2011 12:40:14	27.5	°C	Temp.	-
16-06-2011 12:40:15	27.5	°C	Temp.	-
16-06-2011 12:40:16	27.5	°C	Temp.	-
16-06-2011 12:40:17	27.5	°C	Temp.	-
16-06-2011 12:40:18	27.4	°C	Temp.	-
16-06-2011 12:40:19	27.4	°C	Temp.	-
16-06-2011 12:40:20	27.3	°C	Temp.	-
16-06-2011 12:40:21	27.2	°C	Temp.	-
16-06-2011 12:40:22	27.2	°C	Temp.	-
16-06-2011 12:40:23	27.6	°C	Temp.	-
16-06-2011 12:40:24	27.4	°C	Temp.	-

The interface for the DMM series product(s) is similar to the Data Logger series, except that more features are included:

1	Record / Display Button	Use these two buttons to toggle between display and record mode. In display mode, the reading measured by the device will be displayed in the display area. In record mode, the reading measured will not only display in the display area, but also be stored in the database for future use. N.B. i) If the device is in record mode this means it is also in display mode. ii) Stopping the display mode will also stop the record mode.
2	Display Area	Display the measured value.
3	Back to real time mode	This button will display when the device is in real time mode but the interface is not showing real-time data (e.g. downloading log data / historical data).

		Clicking this button can return the interface to displaying real-time data.
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5.5.4. Data Tab (DMM Series – VC880 / VC650BT)



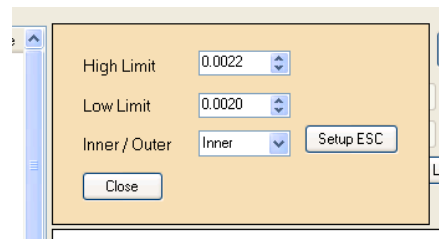
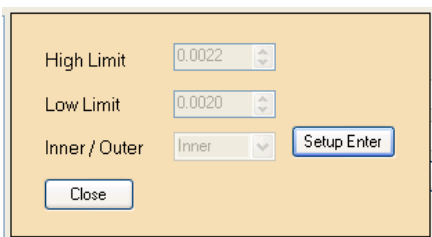
The interface for the DMM series product(s) is similar to the Data Logger series, except that more features are included:

1	Record / Display Button	<p>Use these two buttons to toggle between display and record mode.</p> <p>In display mode, the reading measured by the device will be displayed in the display area.</p> <p>In record mode, the reading measured will not only display in the display area, but also be stored in the database for future use.</p> <p>N.B.</p> <p>i) If the device is in record mode this means it is also in display mode.</p> <p>ii) Stopping the display mode will also stop the record mode.</p>
2	Command Button	Refer to below section.
3	Display Area	Display the measured value.
4	Back to real time mode	<p>This button will display when the device is in real time mode but the interface is not showing real-time data (e.g. downloading log data / historical data).</p> <p>Clicking this button can return the interface to displaying real-time data.</p>

Command Button

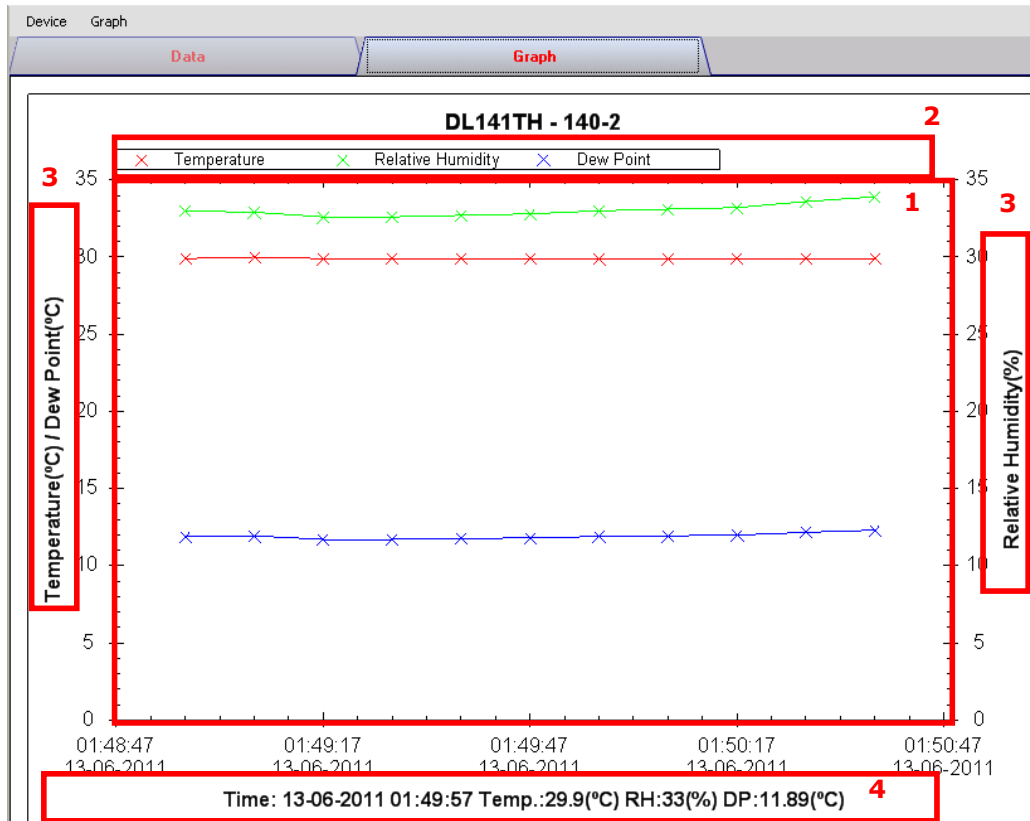
Manual Range	Click to send commands to make device enter the manual range.
Auto Range	Click to send commands to make device enter the auto range.
MAX / MIN / AVG	Click to send commands to enable maximum, minimum, average function.
Exit Max	Click to send commands to exit maximum, minimum, average function.
NG Beep	In the COMP VALUE mode, if failed, click button to turn the alarm on/off.
Light	Click to send commands to enable device backlight function, and then click the exit functions.
Select	Click to send commands to enable device function selection.
Hold	Click to send commands to enable device to maintain the function, and then click to exit maintain function.
REL	Click to send commands to enable the relative value function; then click to exit the function.
Pass Beep	In the COMP VALUE mode, if passed, click button to turn the alarm on/off.
COMP Value	Enter / Leave COMP value mode.
COMP Setting	Pop up Data Comparison dialog.
Single Log	Click to send commands to enable device to store a single data.
Series Log	Click to send commands to enable device to continuously store data, and then click to exit the function.
Load Comparison Memory	Click to send commands to send out the comparison data stored by device.
Clear Comparison Memory	Clear the comparison data in device.
Load Device Memory	Click to send commands to send out the no comparison data stored by device.
Clear Device Memory	Clear the no comparison data in device.

Data Comparison dialog



Setup Enter : When button is pressed, the upper/lower limit and the mode can be modified; when button is up, the settings will be sent and saved in the device.

5.5.5. Graph Tab

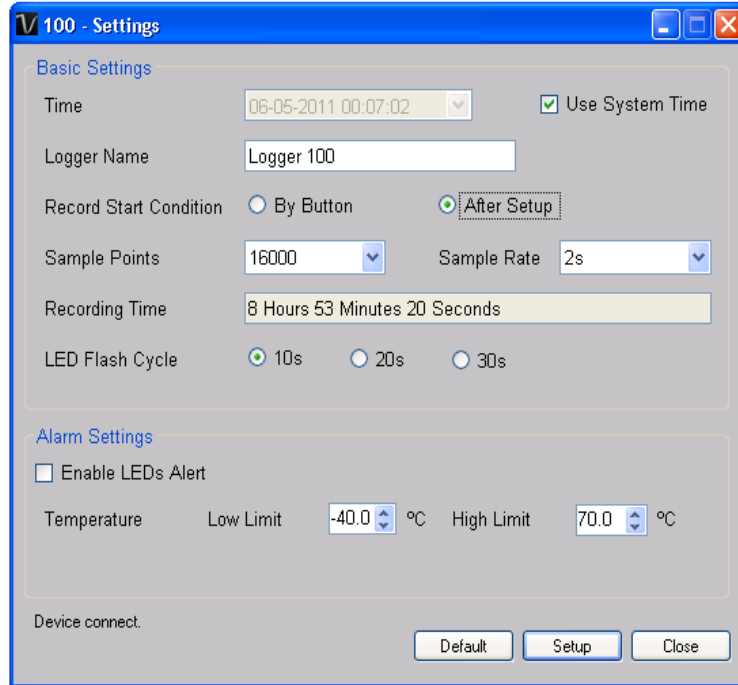


1	Line Graph	This area displays the device reading in line graph format. Users can: <ul style="list-style-type: none"> - Mouse left-click to select an area to zoom into. - Shift + mouse left-click to pan out of the graph. - Right-click to pop up the contents menu.
2	Graph Legend	Indicates the reading definition for a different line
3	Y-Axis	There are two different Y-axes for displaying different readings.
4	Individual Reading	Mouse over the line on the graph to see the reading value together with the recording time.

5.6 Device Settings

Different device models will have different parameters for setup; therefore their setting pages are different.

5.6.1 DL101T Setting



1	Time	Configure the device data time value. The user can specify a defined time or use the system date time.
2	Logger Name	Input the unique alias for that device.
3	Record Start Condition	By Button – The data logger will start recording only after the user presses the red button on the device. After Setup – The data logger will start recording immediately after setup.
4	Sample Points	Instruct the logger to take a finite number of readings.
5	Sample Rate	Instruct the logger to log readings at a specific rate.
6	Recording Time	Calculate the recording time based on the selected sample points and sample rate.
7	LED Flash Cycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
8	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.
9	Temperature Low / High Alarm	Configure the temperature low / high alarm level.
10	Default Button	Reload the factory default settings.
11	Setup Button	Save changes.
12	Close Button	Close this interface.

Note: Any stored data will be permanently erased when setup is finished.

5.6.2 DL121TH Setting

Logger 120 - Settings

Basic Settings

Time: 06-05-2011 00:15:42 Use System Time

Logger Name: Logger 120

Record Start Condition: By Button After Setup

Sample Points: 16000 Sample Rate: 2s

Recording Time: 8 Hours 53 Minutes 20 Seconds

LED Flash Cycle: 10s 20s 30s

Alarm Settings

Enable LEDs Alert

Temperature Low Limit: -40.0 °C High Limit: 70.0 °C

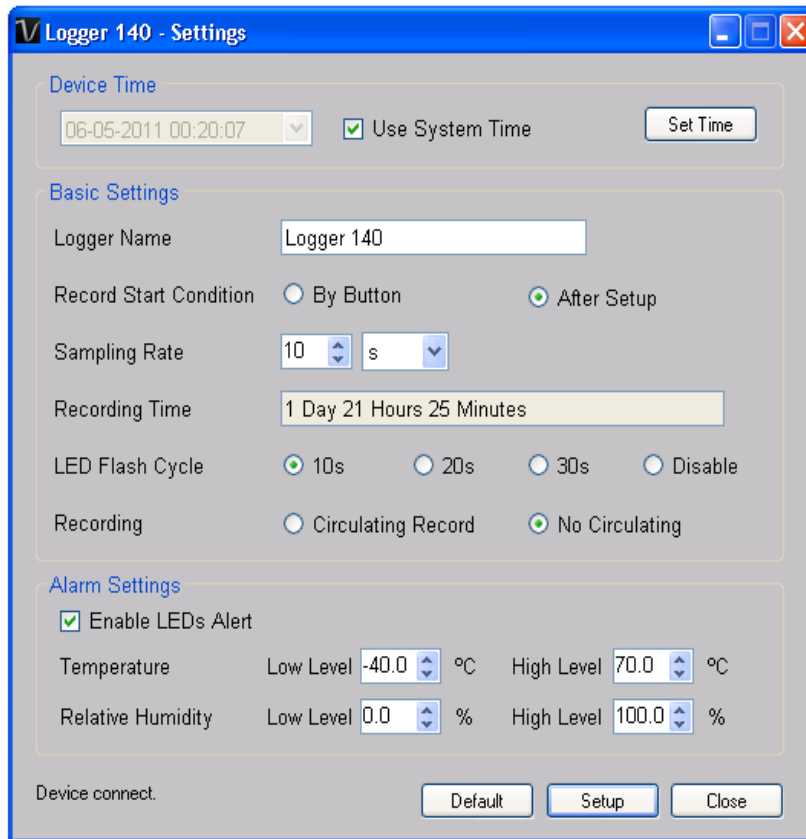
Relative Humidity Low Limit: 0.0 % High Limit: 100.0 %

Device connect.

Default Setup Close

The DL121TH setting page is similar to the DL101T setting page, except that it has a further option to set the humidity low / high alarm value.

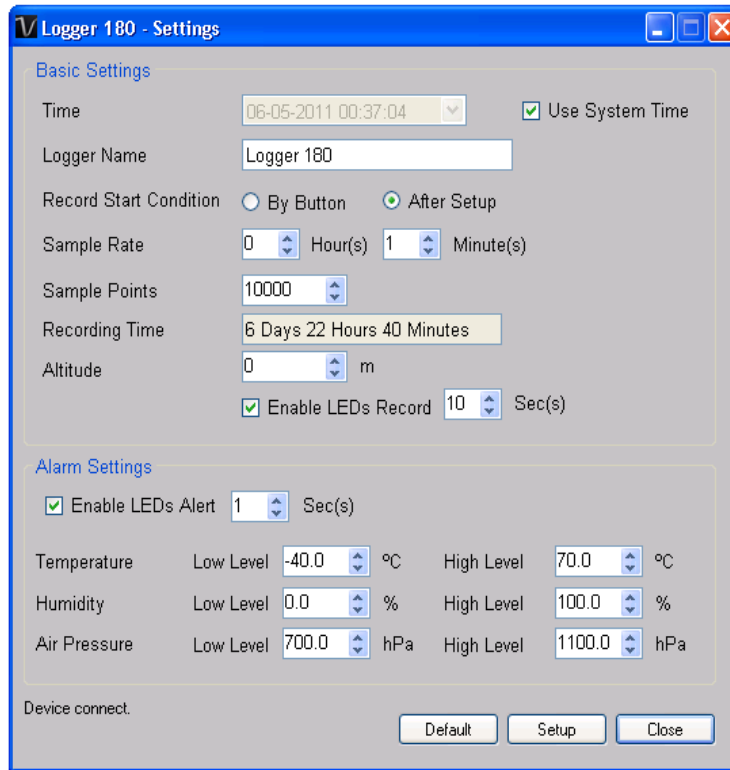
5.6.3 DL141TH Setting



1	Device Time	Configure the device data time value. The user can specify a defined time or use the system date time.
2	Logger Name	Input the unique alias for that device.
3	Record Start Condition	By Button – The data logger will start recording only after the user presses the red button on the device. After Setup – The data logger will start recording immediately after setup.
4	Sample Rate	Instruct the data logger to log readings at a specific rate. The user can input specific data in the edit box on the left and select the time unit using the combo box on the right.
5	Recording Time	Calculate the recording time based on the selected sample points and sample rate.
6	LED Flash Cycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
7	Recording	Instruct the data logger to continue logging data, recording over the earlier data (Circulating Record), or to stop logging (No Circulating) when the data logger memory is full.
8	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.
9	Temperature Low / High Alarm	Configure the temperature low / high alarm level.
10	Humidity Low / High Alarm	Configure the humidity low / high alarm level.

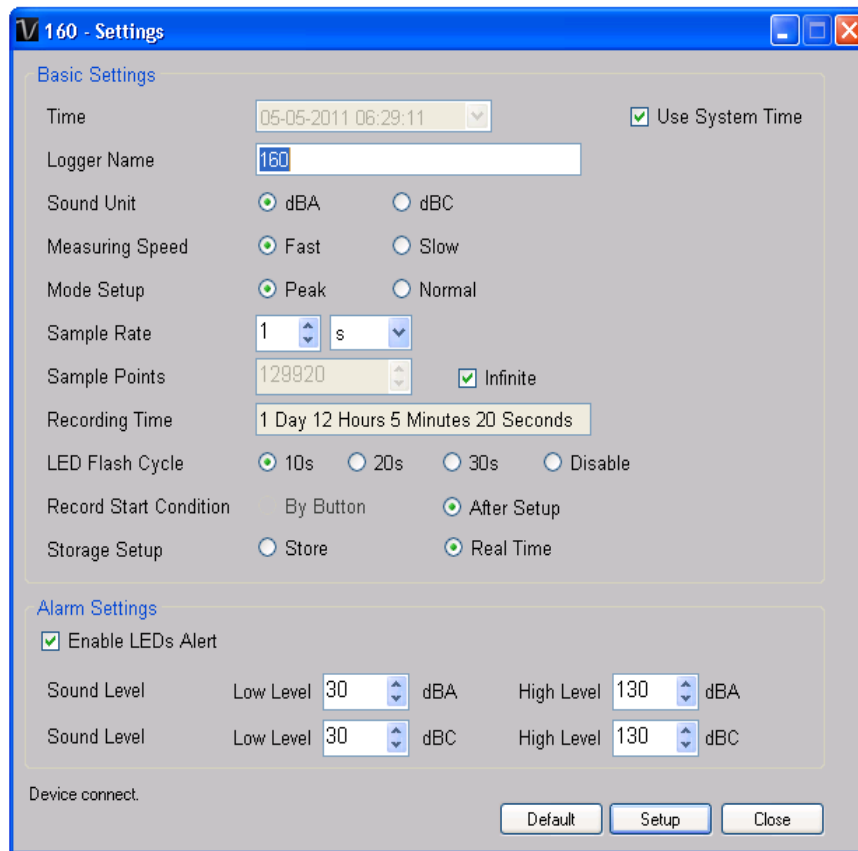
11	Default Button	Reload the factory default settings.
12	Setup Button	Save changes.
13	Close Button	Close this interface.

5.6.4 DL181THP Setting



1	Logger Name	Input the unique alias for that device.
2	Device Time	Configure the device data time value. The user can specify a defined time or use the system date time.
3	Record Start Condition	By Button – The data logger will start recording only after the user presses the red button on the device. After Setup – The data logger will start recording immediately after setup.
4	Sample Rate	Instruct the data logger to log readings at a specific rate.
5	Sample Points	Configure the data logger sample points.
6	Recording Time	Calculate the recording time based on the selected sample points and sample rate.
7	Altitude	Allows the user to set the current altitude.
8	Record LED Flash	Configure the LED flash cycle - the longer the time, the longer the battery life.
9	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.
10	Temperature Low / High Alarm	Configure the temperature low / high alarm level
11	Humidity Low / High Alarm	Configure the humidity low / high alarm level
12	Air Pressure Low / High Alarm	Configure the air pressure low / high alarm level
13	Default Button	Load the factory default settings.
14	Setup Button	Save changes.
15	Close Button	Close this interface.

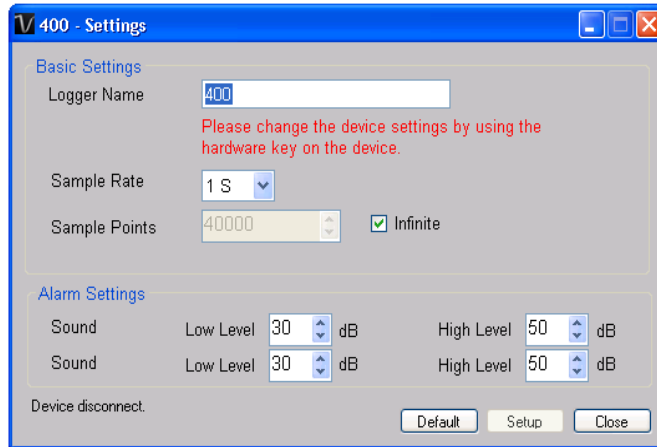
5.6.5 DL161S Setting



1	Logger Name	Input the unique alias for that device.
2	Current Time	Configure the device data time value. The user can specify a defined time or use the system date time.
4	Sound Unit	The sound unit can be dBA or dBC.
5	Measuring speed	The measuring speed can be Fast or Slow.
6	Record Start Condition	By Button – The data logger will start recording only after the user presses the red button on the device. After Setup – The data logger will start recording immediately after setup.
7	Sample Rate	Instruct the data logger to log readings at a specific rate.
8	Sample Points	Configure the data logger sample points.
9	Infinite	For real time mode only, the download will not stop until the user stops the download.
10	Recording Time	Calculate the recording time based on the selected sample points and sample rate.
11	LED Flash Cycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
12	Logger Mode	Manual – The data logger will start recording only after the user presses the red button on the device. Instant – The data logger will start recording

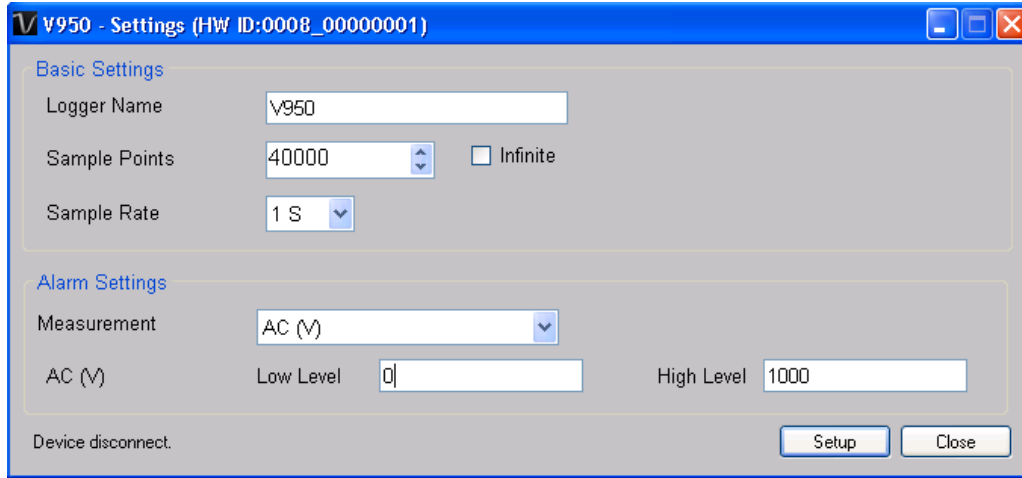
		immediately after setup.
13	Storage Setup	Storage can be Store or Real Time. Store – The data will be stored in offline mode. Real Time – The data will be stored in real time mode.
14	LED Flash for High / Low Alarm	Enable / disable LED flash when the alarm is triggered.
15	Low / High Alarm for dBA	Configure the sound level (at unit dBA) for the low / high alarm level.
16	Low / High Alarm for dBC	Configure the sound level (at unit dBC) for the low / high alarm level.
17	Default Button	Load the factory default settings.
18	Setup Button	Save changes.
19	Close Button	Close this interface.

5.6.6 SL451 Setting



1	Logger Name	Input the unique alias for that device.
2	Sample Rate	Instruct the data logger to log readings at a specific rate.
3	Sample Points	Configure the data logger sample points.
4	Infinite	For real time mode only, the download will not stop until the user stops the download.
5	Low / High Alarm for dBA	Configure the sound level (at unit dBA) for the low / high alarm level.
6	Low / High Alarm for dBC	Configure the sound level (at unit dBC) for the low / high alarm level.
7	Default Button	Load the factory default settings.
8	Setup Button	Save changes.
9	Close Button	Close this interface.

5.6.7 VC 930 / VC 950 Setting



1	Logger Name	Input the unique alias for that device.
2	Sample Points	Configure the data logger sample points.
3	Infinite	For real time mode only, the download will not stop until the user stops the download.
4	Sample Rate	Instruct the data logger to log readings at a specific rate.
5	Alarm Settings*	Select the measurement column and alarm level.
6	Setup Button	Save changes.
7	Close Button	Close this interface.

* Note: The alarm can be configured in the following measurement ranges:

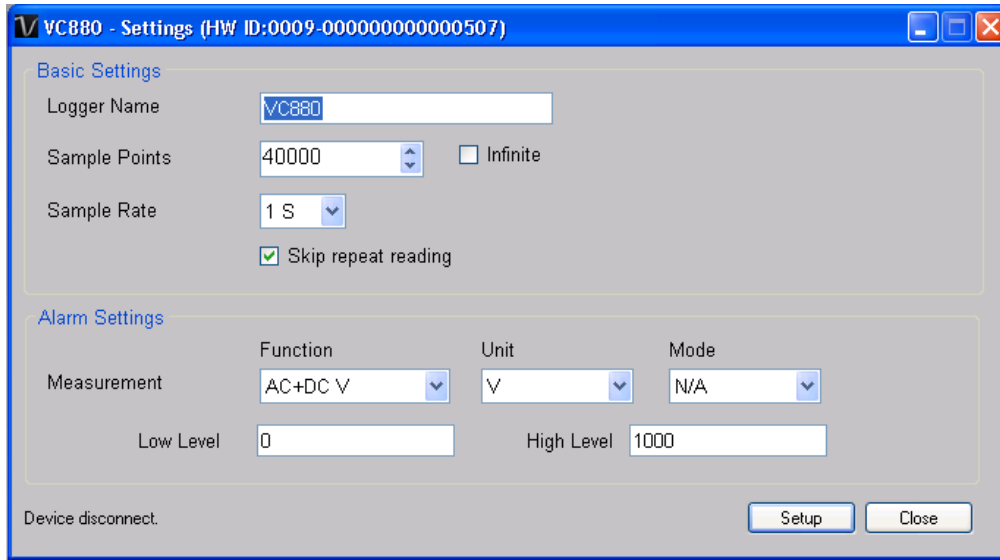
Unit	Function	Mode	Unit	Function	Mode
V	AC	-	%	mA AC	Δ%
V	DC	-	%	mA DC	Δ%
V	AC+DC	-	%	mA AC+DC	Δ%
V	AC	Δ	A	AC	-
V	DC	Δ	A	DC	-
V	AC+DC	Δ	A	AC+DC	-
%	V AC	Δ%	A	AC	Δ
%	V DC	Δ%	A	DC	Δ
%	V AC+DC	Δ%	A	AC+DC	Δ
mV	AC	-	%	A AC	Δ%
mV	DC	-	%	A DC	Δ%
mV	AC+DC	-	%	A AC+DC	Δ%
mV	AC	Δ	oC	Temp.	-
mV	DC	Δ	oC	Temp.	Δ
mV	AC+DC	Δ	oC	Temp.	Δ%
%	mV AC	Δ%	oF	Temp.	-
%	mV DC	Δ%	oF	Temp.	Δ
%	mV AC+DC	Δ%	oF	Temp.	Δ%
mA	AC	-			

mA	DC	-			
mA	AC+DC	-			
mA	AC	△			
mA	DC	△			
mA	AC+DC	△			

5.6.8 EL4000 Setting

1	Time	Configure the device data time value. The user can specify a defined time or use the system date time.
2	Date Format	Select either dd/mm/yyyy or mm/dd/yyyy
3	Time Format	Select either 24 / 12 hour format.
4	Logger Name	Input the unique alias for that device.
5	Logger ID	Select logger ID, from 0 – 9.
6	Currency	Select the currency, for calculation.
7	Tariff 1	Price for Period 1
8	Tariff 2	Price for Period 2
9	Default	Restore the default value
10	Save Button	Save setting changes
11	Setup Button	Save changes and export the configuration file.
12	Close Button	Close this interface.

5.6.9 VC 880 / VC 650BT Setting



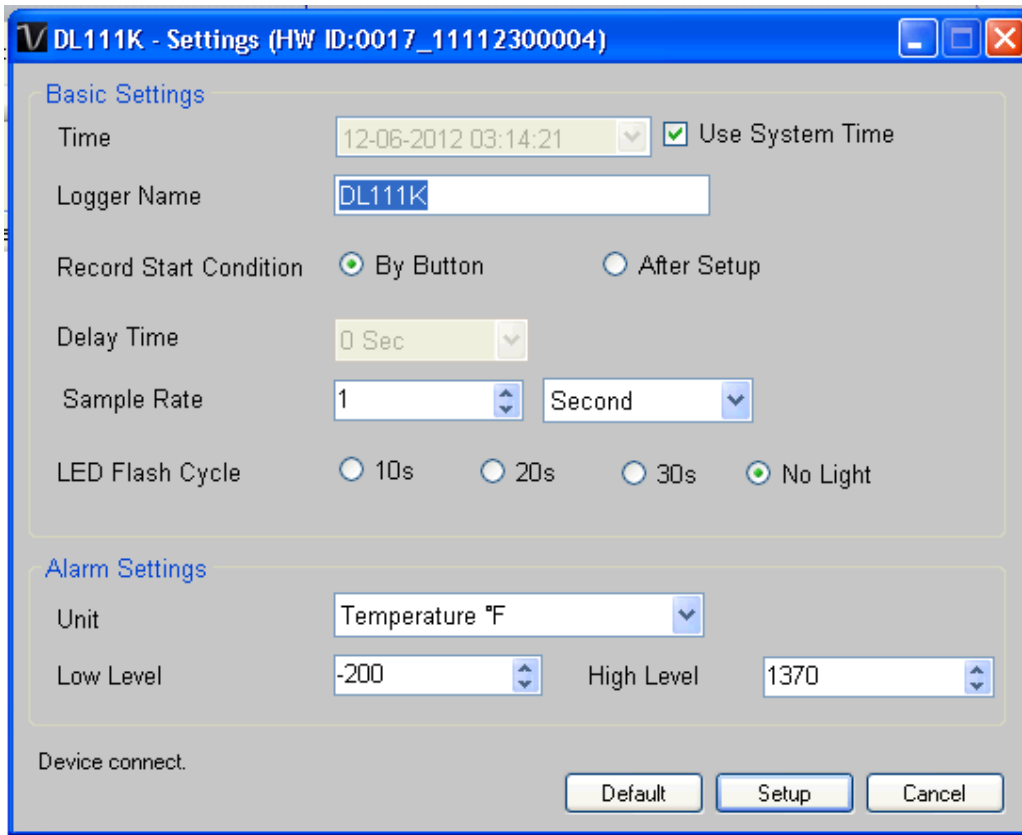
1	Logger Name	Input the unique alias for that device.
2	Sample Points	Configure the data logger sample points.
3	Infinite	For real time mode only, the download will not stop until the user stops the download.
4	Sample Rate	Instruct the data logger to log readings at a specific rate.
5	Skip repeat reading	System will not record a duplicate reading if this option was checked.
6	Alarm Settings*	Select the measurement column and alarm level.
7	Setup Button	Save changes.
8	Close Button	Close this interface.

* Note: The alarm can be configured in the following measurement ranges:

Function	Unit	Mode
AC+DC V	V	N/A
AC+DC V	V	Δ
ACV	V	N/A
ACV	V	Δ
DCV	V	N/A
DCV	V	Δ
DCV	mV	N/A
DCV	mV	Δ
ACA	μA	N/A
ACA	A	N/A
ACA	mA	N/A
ACA	μA	Δ

ACA	A	Δ
ACA	mA	Δ
Continuity	Ω	N/A
Diode	V	N/A
Duty Cycle	%	N/A
DCA	μ A	N/A
DCA	A	N/A
DCA	mA	N/A
DCA	μ A	Δ
DCA	A	Δ
DCA	mA	Δ
Capacity	μ F	N/A
Capacity	mF	N/A
Capacity	nF	N/A
Capacity	μ F	Δ
Capacity	mF	Δ
Capacity	nF	Δ
Freq	Hz	N/A
Freq	kHz	N/A
Freq	MHz	N/A
Impedance	Ω	N/A
Impedance	k Ω	N/A
Impedance	M Ω	N/A
Temperature	$^{\circ}$ C	N/A
Temperature	$^{\circ}$ F	N/A
ACV Low-pass	V	N/A

5.6.10 DL111K Setting



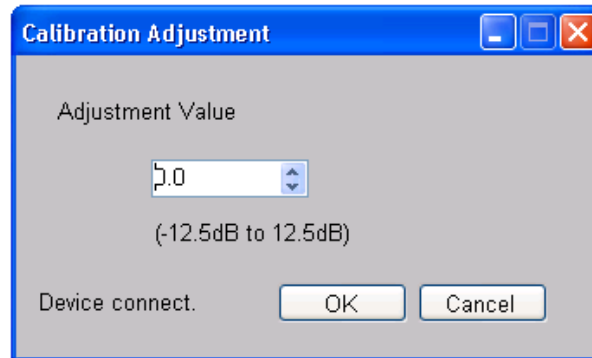
1	Time	Configure the device data time value. The user can specify a defined time or use the system date time.
2	Logger Name	Input the unique alias for that device.
3	Record Start Condition	By Button – The data logger will start recording only after the user presses the red button on the device. After Setup – The data logger will start recording immediately after setup.
4	Delay Time	Only available if “After Setup” selected. Specify the delay time for recording start after setup.
5	Sample Rate	Instruct the logger to log readings at a specific rate.
7	LED Flash Cycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
8	Unit	Select temperature unit (Celsius or Fahrenheit)
9	Temperature Low / High Alarm	Configure the temperature low / high alarm level.
10	Default Button	Reload the factory default settings.
11	Setup Button	Save changes.
12	Close Button	Close this interface.

Note: Any stored data will be permanently erased when setup is finished.

6. Device Calibration

6.1. DL161S

DL161S provides an interface to the user for sound level calibration. The calibration adjustment value is allowed between -12.5 dB and 12.5 dB.



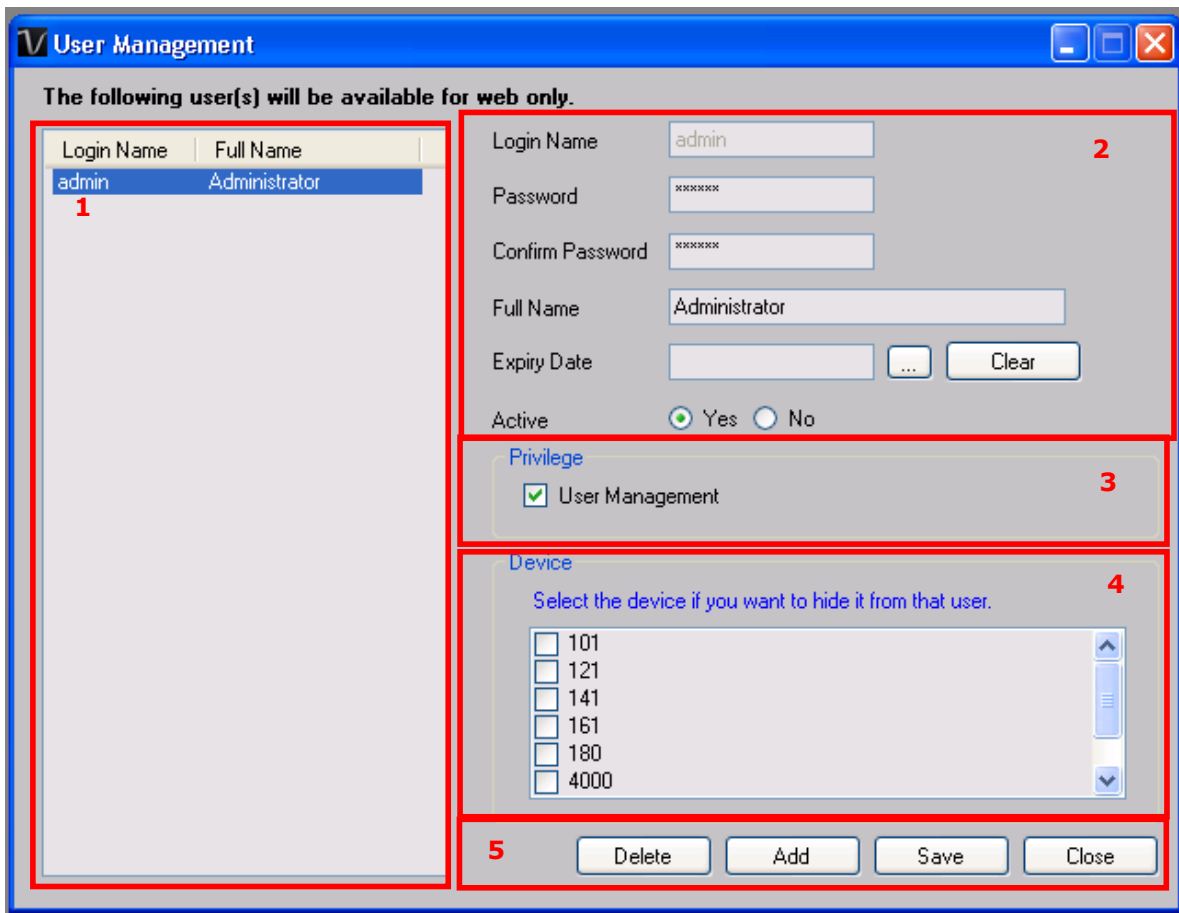
Input the value and click "OK" to set the value.

7. Professional Version

All features of the standard version and some advanced features are included in the professional version. The following features will be available after online activation of the professional version.

7.1. User Management

To launch the user management module, just click on File->User Management on the main menu. The user management of this module is only for the web-based version.

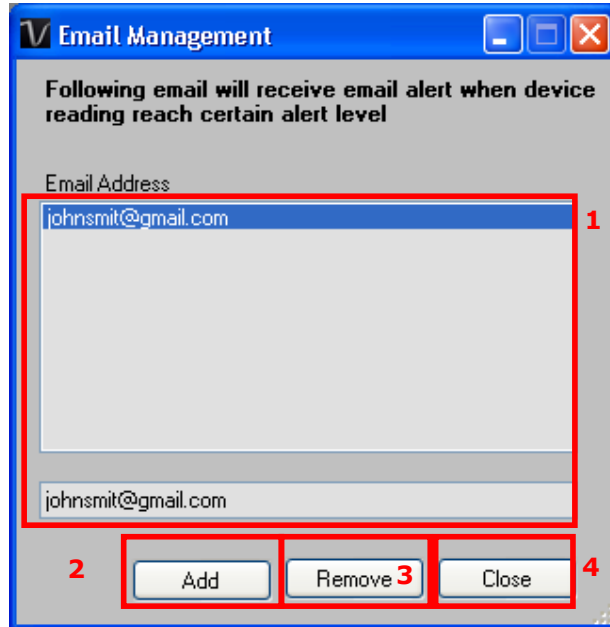


1	User List	Display the list of users in Voltsoft.
2	User Details	Clicking on the user name will display the user's details in this area. Users can: <ul style="list-style-type: none"> - Modify their password - Assign an expiry date for that user - Modify the active status for that user.

3	User Privileges	Control whether the user can access the user management module or not in the web-based version.
4	Device List	Control which devices are available for the selected user in the web-based version.
5	Delete	Click on a user in the user list and then the Delete button to delete an existing user.
	Add	Click on the Add button to create a new user.
	Save	Save the current user's information.
	Close	Close this module.

7.2. Email Management

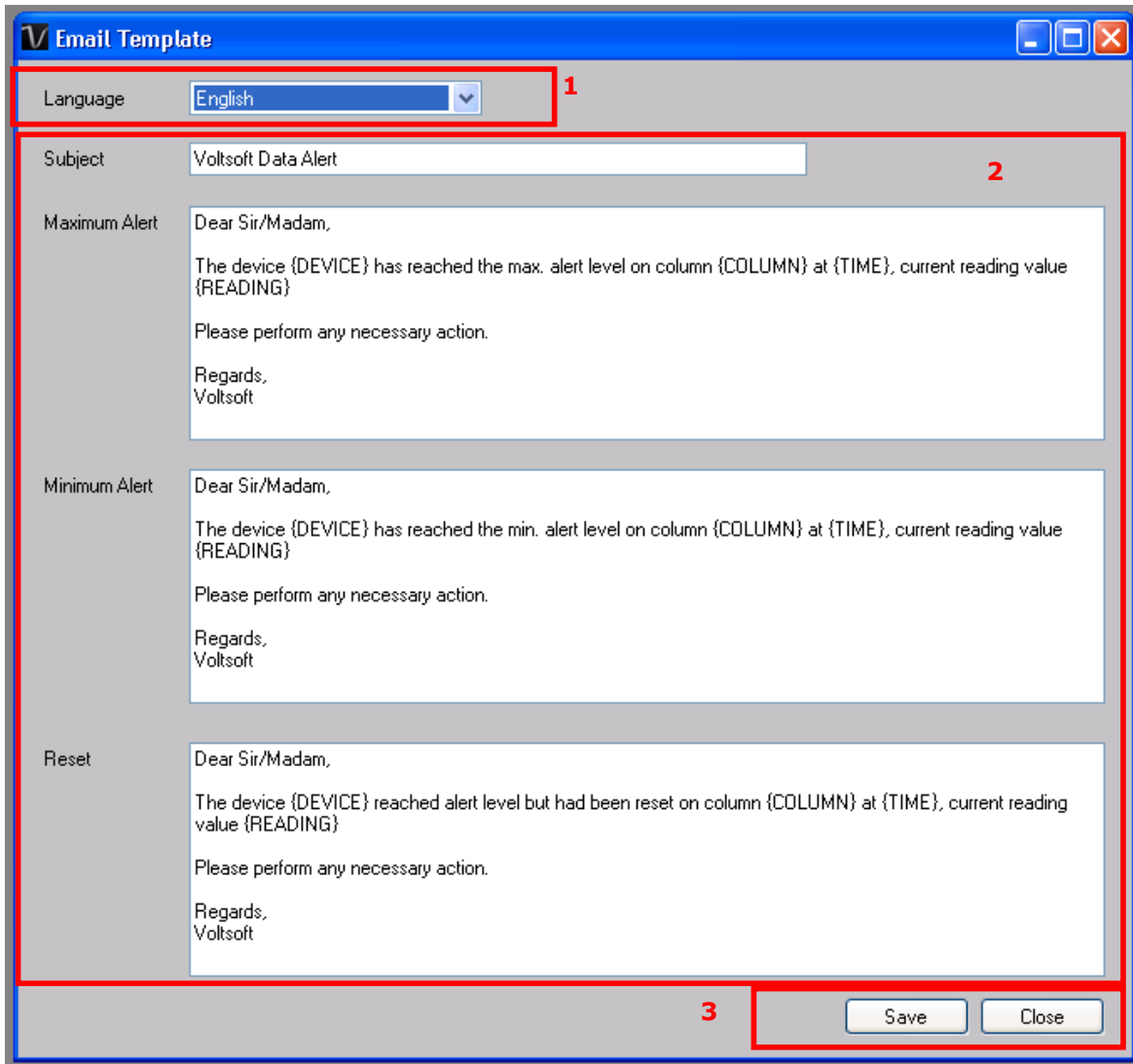
This module allows the user to manage the email addresses of those who will receive email alerts. To launch this module, just click File->Email Management in the main menu.



1	Email Address	The email address is configured within Voltsoft.
2	Add New Email	Input a new email address and click the Add button to add a new email into the system.
3	Remove Email	Click on an email in the email address list and click the Remove button to remove the email from the system.
4	Close	Close this module.

7.3. Email Template

To launch this module, click Preference->Email Template.



1	Language	Select the language of the email template.
2	Message Content	<p>Fill in the title and template for the email which will be sent in the different cases:</p> <p>Case 1: Maximum Alert This email will be sent when a reading is higher than the maximum alarm level.</p> <p>Case 2: Minimum Alert This email will be sent when a reading is lower than the minimum alarm level.</p>

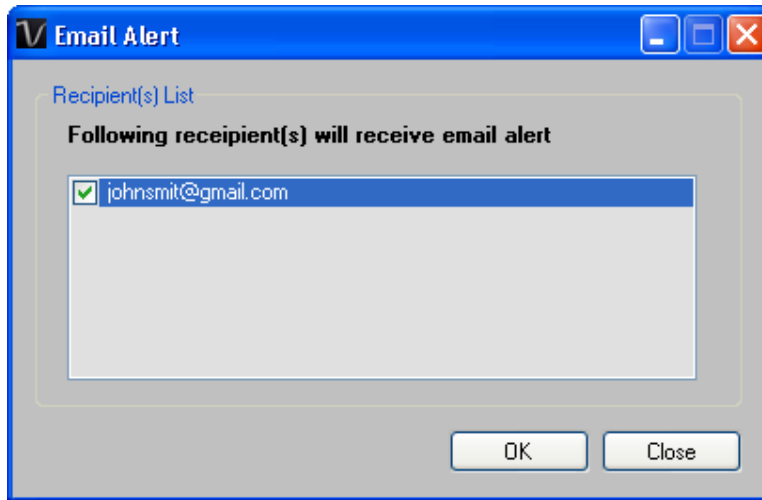
		Case 3: Reset Level This email will be sent when a reading was previously at a max/min alarm level but has returned to a normal level.
3	Save	Click the Save button to save the template.
4	Close	Click the Close button to close the module.

Variable

The following labels are defined as variable and will be replaced when sending out.

1	{DEVICE}	The device alias
2	{COLUMN}	The device reading name
3	{READING}	The device reading value
4	{TIME}	The time the event happened

7.4. Email Alert



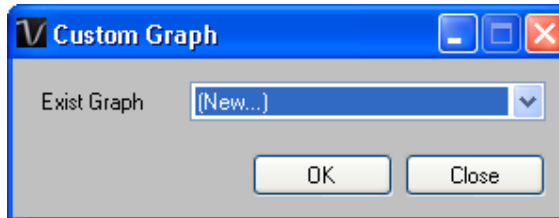
Voltsoft has an email alert feature, which will send out an email to the specified user when the device reading is above or below a certain level.

The user can use this module to select who will receive the email for the specific device.

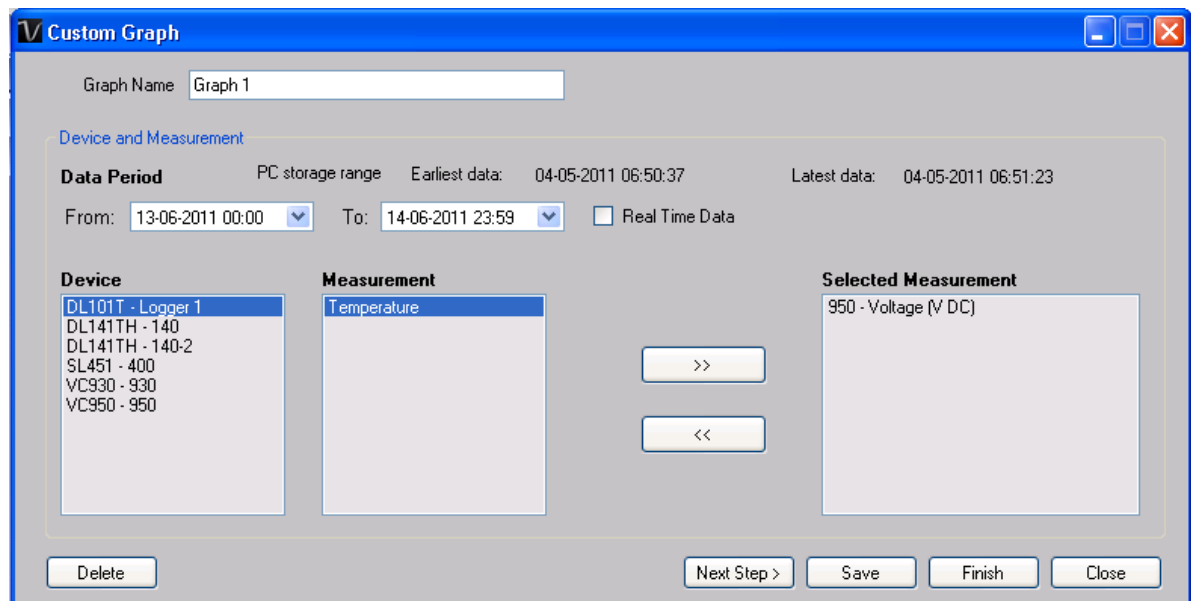
7.5. Custom Graph

Custom Graph allows the user to graph the measurement readings from more than one device. To create a custom graph:

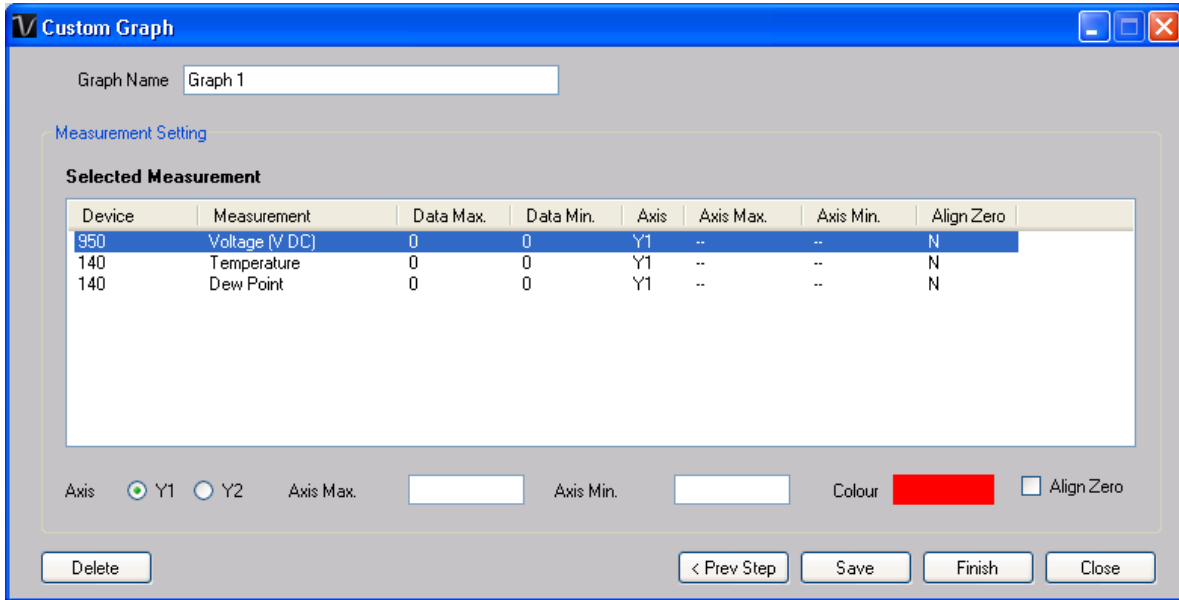
1. Select Device Management->Custom Graph in main menu.



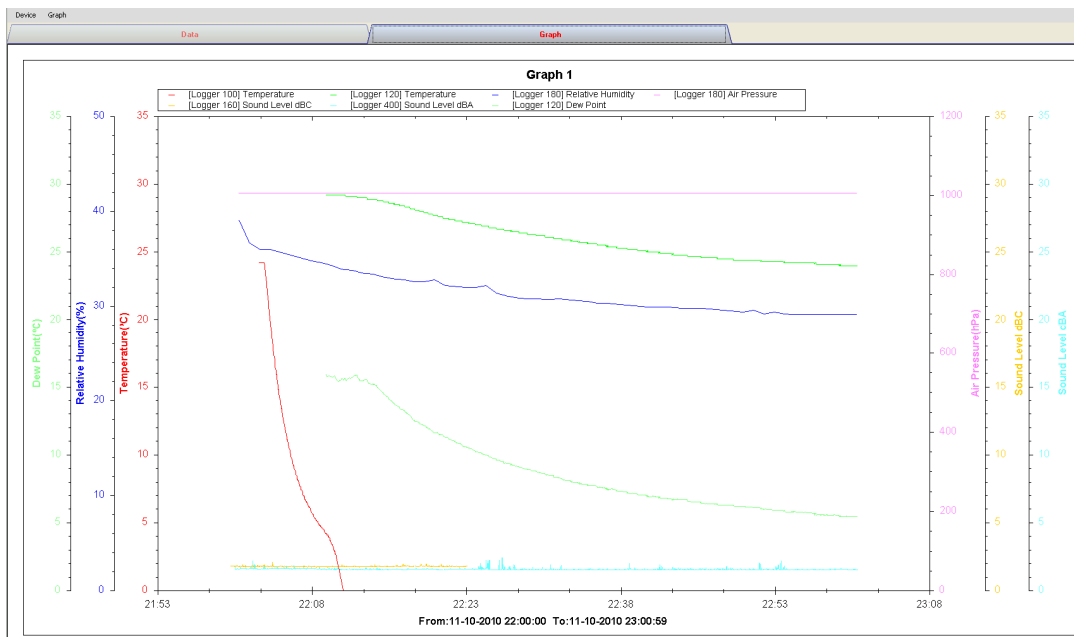
2. Select New to create a new graph or select the previous saved graph. Click OK to continue.
3. The Custom Graph detail interface will be displayed:



4. Then the user needs to:
 - I. Select the data period or real-time data (only specific devices support real-time reading).
 - II. Select the device and measurement column.
 - III. Click Next Step> to continue.



- IV. For each column, the system will show the data maximum and minimum value for the selected period.
- V. For each column, the user can specify whether it is drawn in Y1 or Y2, specify the Y-axis maximum and minimum values, the corresponding colour of the line or align the Zero level to the same level or not.
- VI. Click Finish to generate the graph.



7.6. Web Interface

7.6.1 Using the Device Management System (Web)

Voltsoft also provides a web-based interface for the user to control the device through Internet Explorer (version 7 or 8).

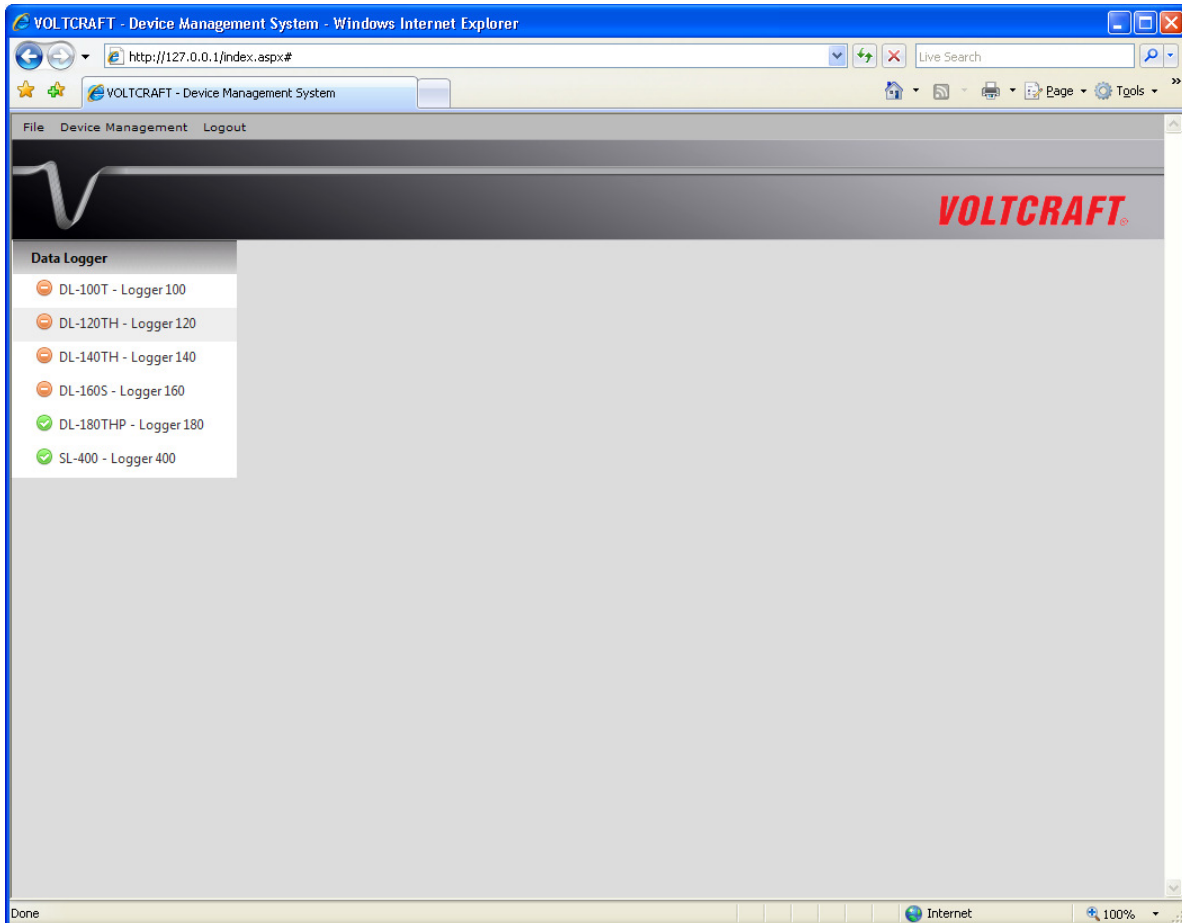
To access the Voltsoft Web interface, please open Internet Explorer (I.E.) on your local computer and input <http://127.0.0.1> or <http://localhost>. If you change the port number in General Settings to another port number, then you are required to input the port number too, e.g. <http://127.0.0.1:8080>.

If this is successful the login page will be displayed.



Input the valid user login created in the user management module.

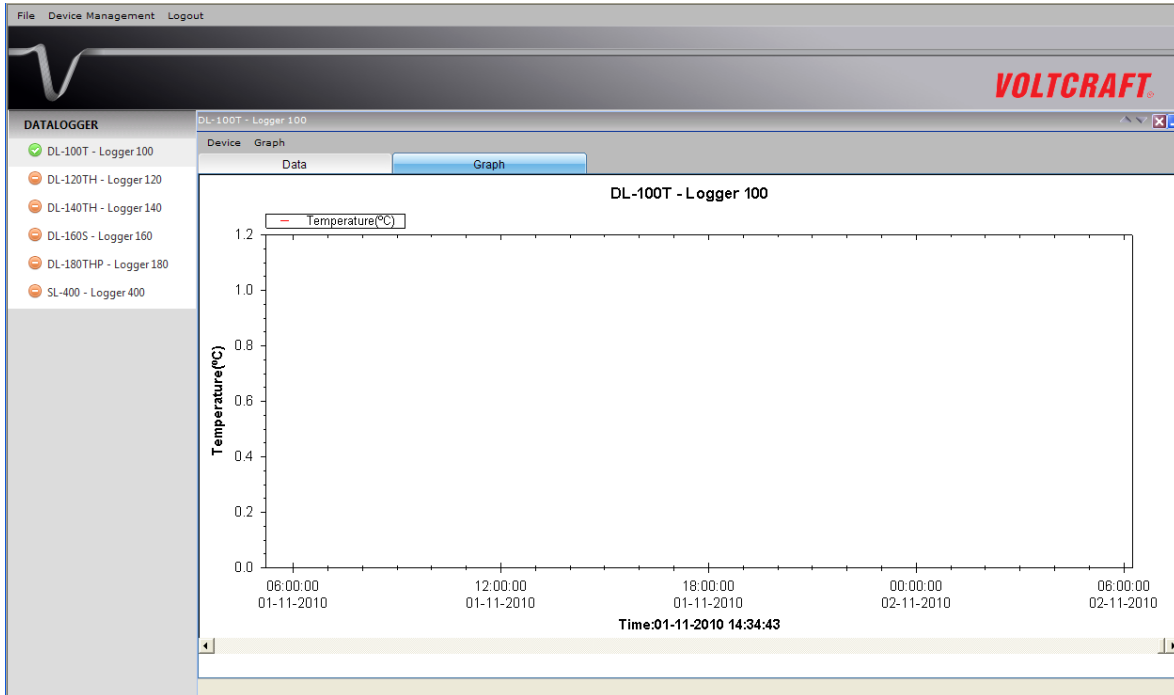
After login, you will see a main screen similar to the Windows client.



Click on the device entry and you will be prompted to install an ActiveX control issued by CEI Conrad Electronic International (HK) Ltd. Please click Install to install it.



After the installation, the chart control should display like this:

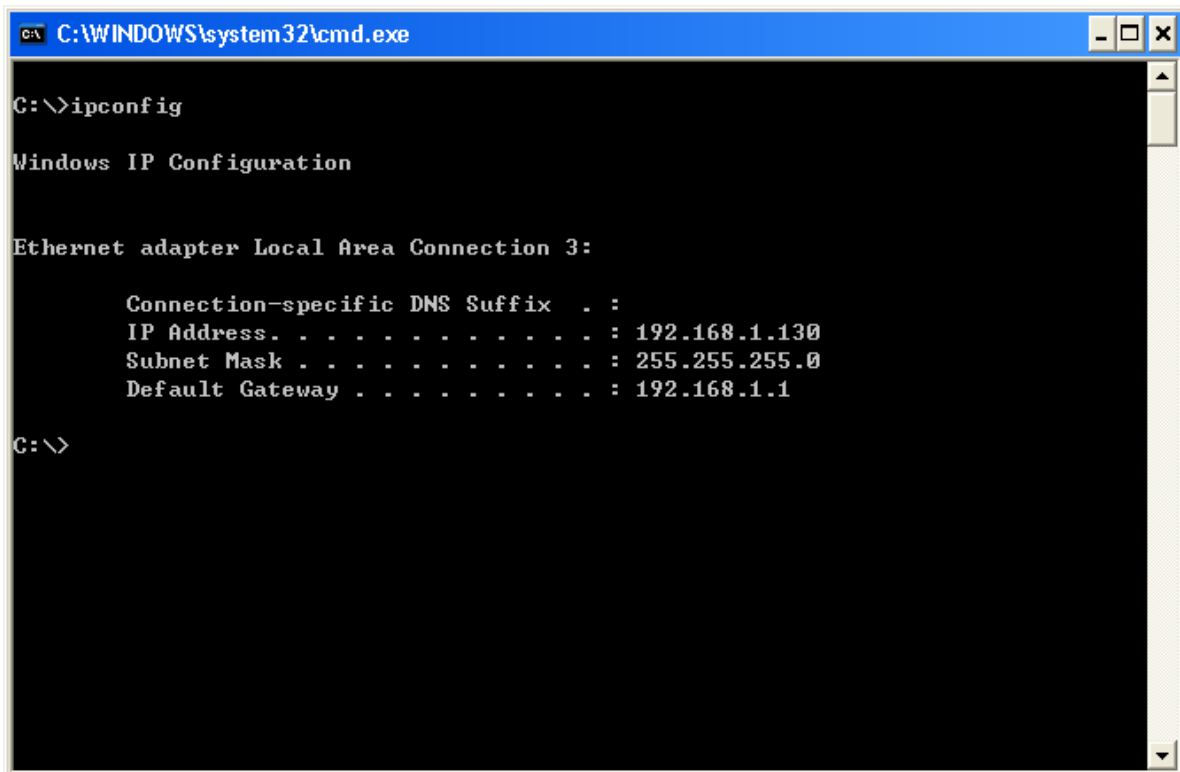


7.6.2 Accessing Voltsoft Web from a Remote Computer

Voltsoft Web allows users to control the device information from a remote computer through I.E., just like the remote feature of the IP camera. However, the computer may need some configuration changes in order to allow access to incoming traffic.

1. First, you need to check the IP address of your computer by opening the settings page in the Windows client or check by using command prompt.

To check by using command prompt, open a command prompt and input 'ipconfig'.

A screenshot of a Windows Command Prompt window. The title bar shows the path 'C:\WINDOWS\system32\cmd.exe'. The command prompt shows the command 'C:\>ipconfig' and its output. The output is as follows:

```
Windows IP Configuration

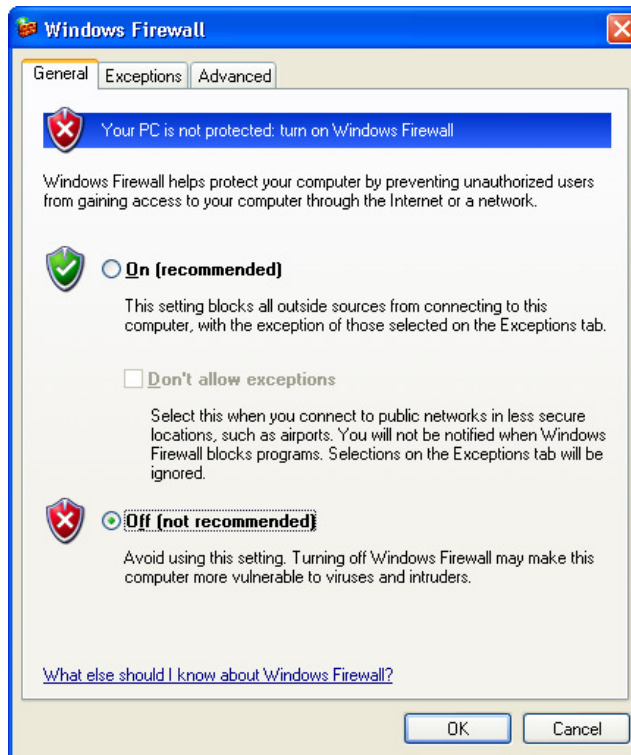
Ethernet adapter Local Area Connection 3:

    Connection-specific DNS Suffix  . : 
    IP Address. . . . .               : 192.168.1.130
    Subnet Mask . . . . .             : 255.255.255.0
    Default Gateway . . . . .         : 192.168.1.1

C:\>
```

For example, your IP address is 192.168.1.130 in the above example.

2. Secondly, check your firewall settings. Go to Control Panel, and click on Windows Firewall.



3. For testing, you can just turn off your firewall. Or you can also configure the firewall by allowing an exception. For details, please contact your network administrator.

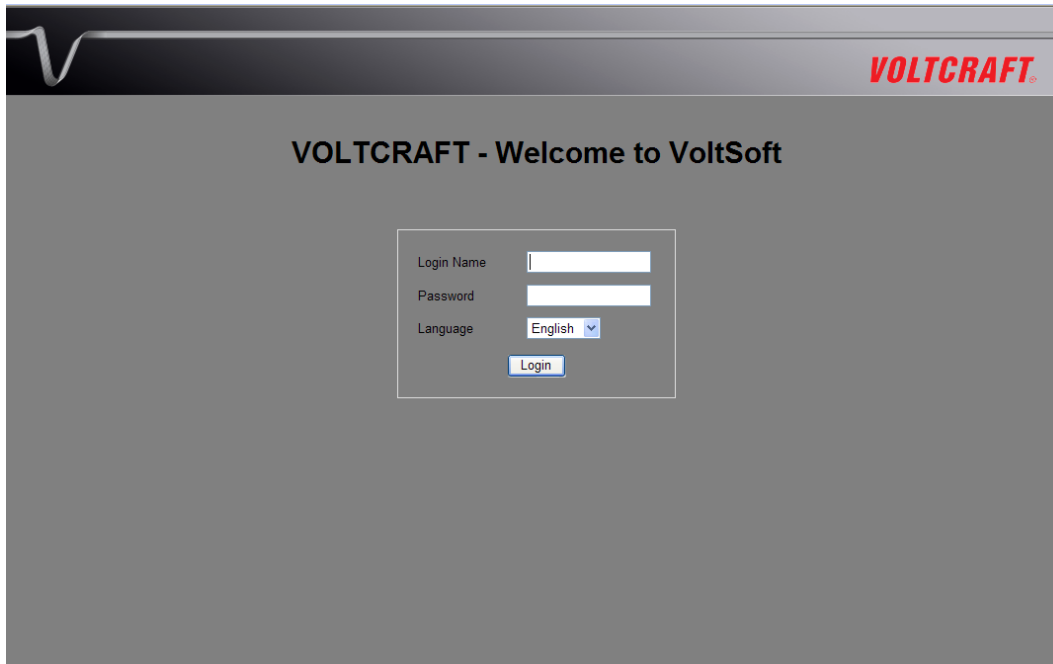
4. Then you can try to access the Voltsoft Web through another computer on the same network. E.g. in the above case, you should input <http://192.168.1.130> in I.E. If you have any problems, please contact your network administrator to check the network connectivity between the two computers.

5. You may access Voltsoft Web through the Internet from a remote site office, however you will be required to provide the network settings of your computer to your network administrator in order for him/her to configure your company router and firewall.

7.6.3 Using the Voltsoft System (Web)

The interface of the Web client will be very similar to the Windows-based client.

i. Login



The screenshot shows the Voltcraft VoltSoft web interface. At the top, there is a dark header with a white waveform logo on the left and the "VOLTcraft" logo in red on the right. Below the header, the main content area has a dark gray background. The text "VOLTcraft - Welcome to VoltSoft" is centered. In the center of the page, there is a white-bordered login form containing the following fields:

- Login Name:
- Password:
- Language: (dropdown menu)
- Login:

ii. Main Screen

Data Logger

The screenshot displays the Voltcraft Data Logger web application. The interface includes a top navigation bar with 'File', 'Device Management', 'Layout', and 'Logout'. A sidebar on the left lists several data logger devices: DL141TH - 140, DL141TH - 140-2, SL451 - 400, and DL101T - Logger 1 (which is selected). The main content area is titled 'DL101T - Logger 1' and has tabs for 'Data' and 'Graph'. Below the tabs, it shows the 'PC storage range' with 'Earliest data: 04-05-2011 06:50:37' and 'Latest data: 04-05-2011 06:51:23'. A 'Summary' table provides a quick overview of the data.

Measurement	Maximum Value	Minimum Value	Average Value
Temperature (°C)	28.8	28.8	28.8

Below the summary, there are 'Export CSV' and 'Export Excel' buttons. The 'All Data' section contains a table with the following records:

Record Time	Temperature (°C)
04-05-2011 06:50:37	28.8
04-05-2011 06:50:39	28.8
04-05-2011 06:50:41	28.8
04-05-2011 06:50:43	28.8
04-05-2011 06:50:45	28.8
04-05-2011 06:50:47	28.8
04-05-2011 06:50:49	28.8
04-05-2011 06:50:51	28.8
04-05-2011 06:50:53	28.8
04-05-2011 06:50:55	28.8
04-05-2011 06:50:57	28.8
04-05-2011 06:50:59	28.8
04-05-2011 06:51:01	28.8
04-05-2011 06:51:03	28.8
04-05-2011 06:51:05	28.8

DMM

The screenshot shows the DMM web interface. On the left is a 'Data Logger' sidebar with a list of devices including DL121TH, DL141TH, DL161S, SL451, and VC930. The main area is titled 'VC930 - 930' and contains a 'Data' table and a 'Real Time Mode' display. The 'Data' table lists records with columns for Record Time, Reading, Unit, Function, and Mode. The 'Real Time Mode' display features a progress bar from 0 to 100, a '0 Temp.' label, and a large '24.2 °C' reading. Control buttons for 'Refresh', 'Stop Record', and 'Stop Display' are visible.

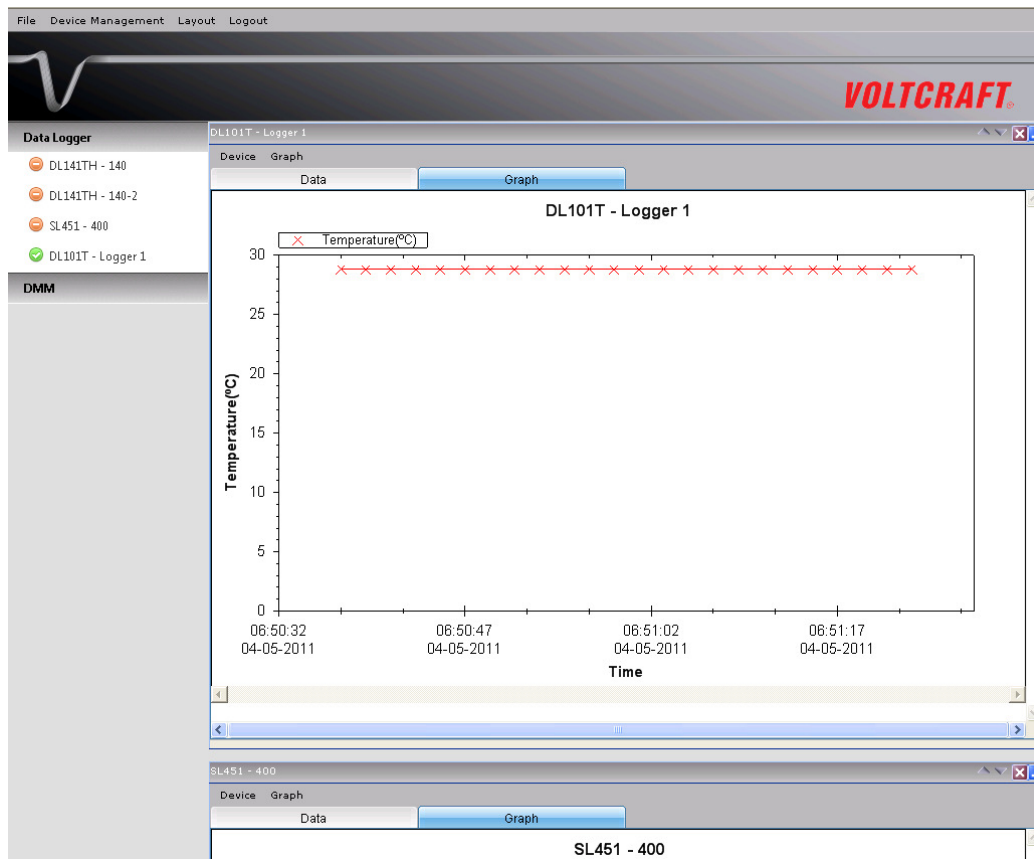
Record Time	Reading	Unit	Function	Mode
22-07-2011 04:11:13	24.2	*C	Temp.	-
22-07-2011 04:11:14	24.2	*C	Temp.	-
22-07-2011 04:11:15	24.2	*C	Temp.	-
22-07-2011 04:11:16	24.1	*C	Temp.	-
22-07-2011 04:11:17	24.1	*C	Temp.	-
22-07-2011 04:11:18	24.1	*C	Temp.	-
22-07-2011 04:11:19	24.1	*C	Temp.	-
22-07-2011 04:11:20	24.1	*C	Temp.	-
22-07-2011 04:11:21	24.2	*C	Temp.	-
22-07-2011 04:11:22	24.2	*C	Temp.	-
22-07-2011 04:11:24	24.2	*C	Temp.	-
22-07-2011 04:11:25	24.2	*C	Temp.	-
22-07-2011 04:11:26	24.2	*C	Temp.	-
22-07-2011 04:11:27	24.2	*C	Temp.	-
22-07-2011 04:11:28	24.2	*C	Temp.	-
22-07-2011 04:11:29	24.2	*C	Temp.	-

The layout for the DMM device in the Web version may be slightly different from the Windows version. For example, the status of the "Record" and "Display" button will not refresh automatically. A "Refresh" button was therefore added, so click on the button to refresh the button status.

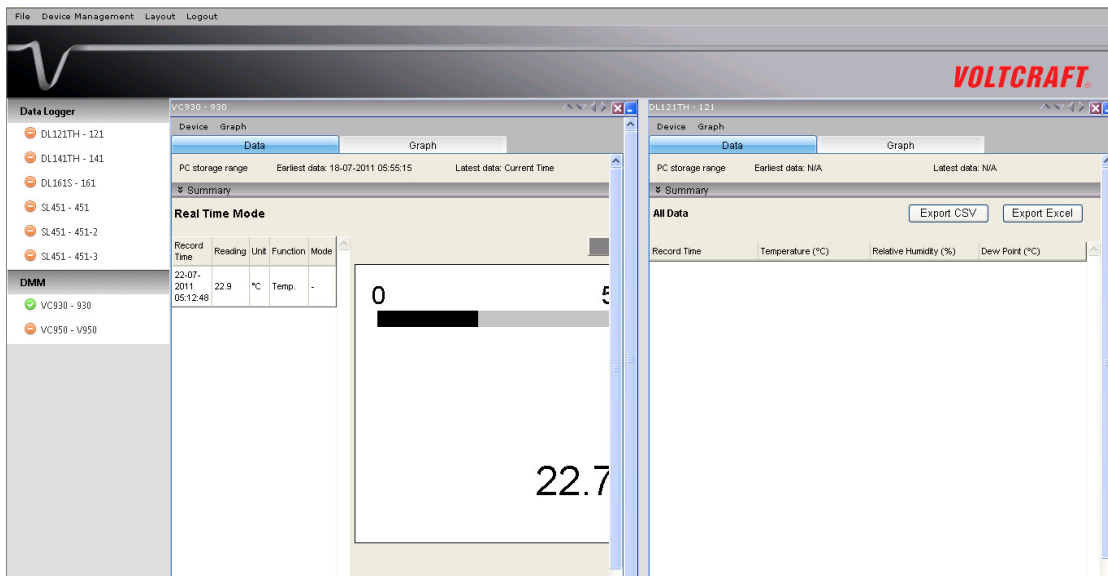
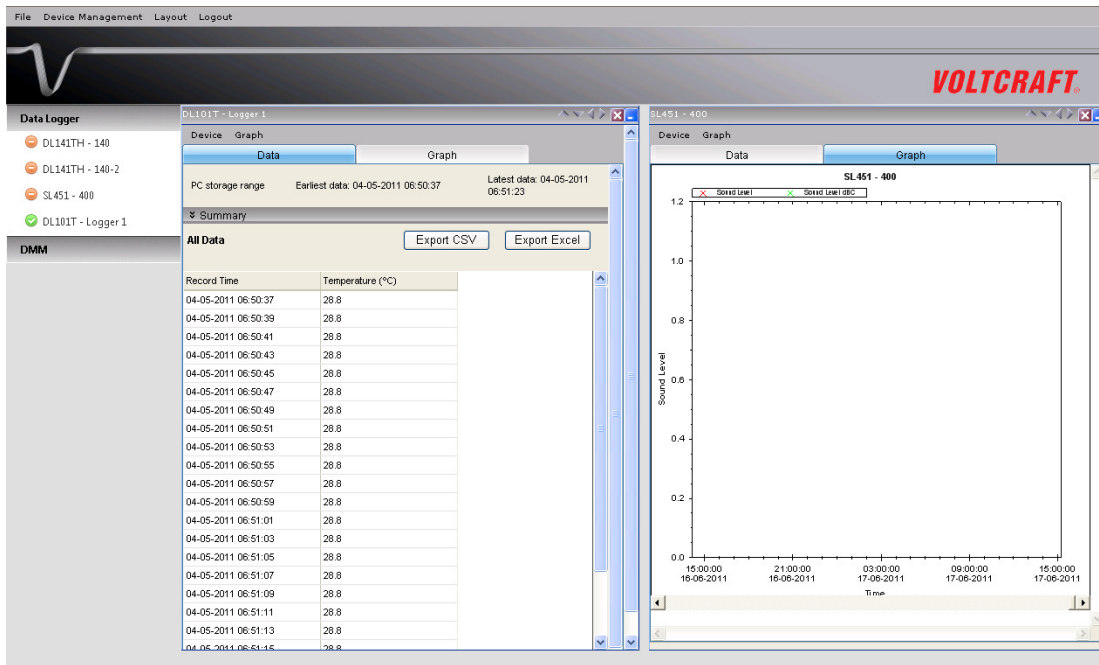
Screen Layout

One of the most significant differences between the Windows version and the Web version is that you can arrange the Web version's device windows into three different layouts: 1) Single Column, 2) Two Columns, 3) Tab Layout

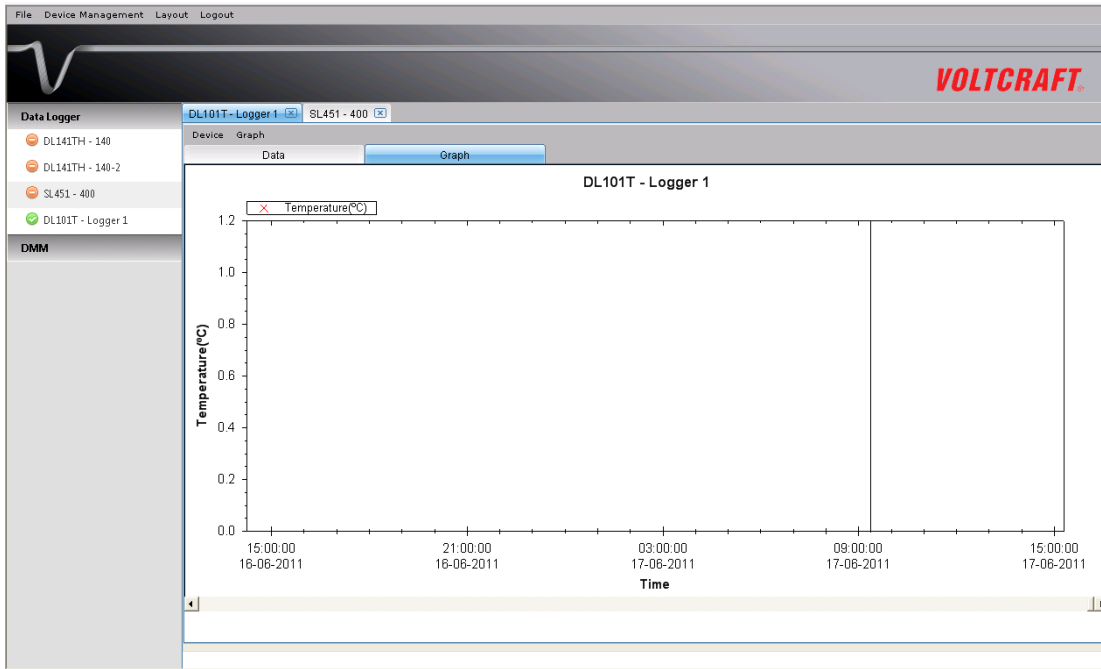
1) Single Column



2) Two Columns



3) Tab Layout



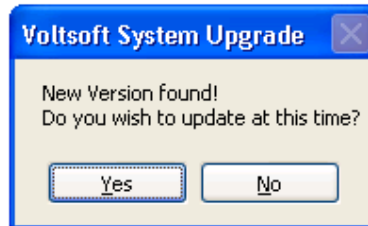
7.6.4 Limitation in Web Version

Although the interface and function of the Web version will be very similar to the Windows version, they will have some differences as following:

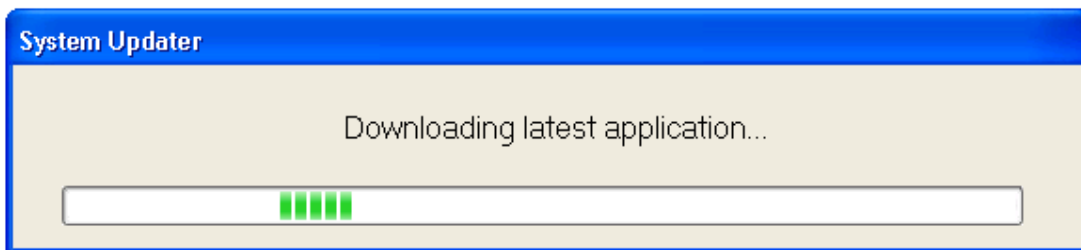
- 1) The Web version is target to those users who are not in front of the computer which is connected to the device; therefore, the "Add and Remove Device" function will not be available in the Web version.
- 2) The Web version will not auto refresh in some areas (when compared with the Windows version), so users are required to press "F5" or the "Refresh" button in the browser tool bar on the interface. These areas are:
 - i. Device list
 - ii. Real-time / Display status for VC930 or VC950
 - iii. Real-time / Display status for VC850 or VC650BT

8.Auto Upgrade

Voltsoft will perform version checking every time it starts up, and if there is a new version available, the following dialog box will display:



Users can click "Yes" to perform an upgrade or "No" to skip the upgrade. In order to enjoy the new feature of Voltsoft, it is highly recommended to perform the upgrade.



The system will continue to launch once the upgrade is completed.

9. Appendix

9.1. Real-time Device List

Only the following devices will have real-time features:

Family	Model Number
Data Logger	DL161S
	SL400
DMM	VC 930 / VC950
DMM	VC 880 / VC650BT

Remarks: The speed of data logging (i.e. sample rate) much depends on the capacity of your computer and its performance will be affected when 2 or more sets of real-time devices are running at the same time.