# **VOLTCRAFT®**

**User Manual** 

Voltsoft

# 1 Introduction

Dear Customer,

Welcome to Voltcraft<sup>®</sup>. Thank you for purchasing this product and we are sure you have made a very good decision.

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

We wish you have 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® products 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 them using an Internet search engine such as Google.

# 3 Installation

### 3.1 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
- Microsoft Windows 8
- Microsoft Windows 10

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 recommended upgrading first before installation.

Some device may not work if connecting via USB Hubs, included: - DL101T / DL121TH / DL161S / DL180THP / DL111K

## 3.2 Install Voltsoft

- 1. Insert the installation CD-ROM in your drive.
- 2. The menu will be opened automatically (if installation doesn't start, double-click autorun.exe in your CD-ROM directory). Follow the on-screen instructions.

Step 1: Select the installation language

Select Setup Language				
Select the language to use during the installa				
	English V			

Step 2: Click "Next" for all the following steps



#### Step 3: Select Destination Location

🚺 Setup - Voltcraft - Voltsoft System				
Select Destination Location Where should Voltcraft - Voltsoft System be installed?				
Setup will install Voltcraft - Voltsoft System into the following folder.				
To continue, click Next. If you would like to select a different folder, click Browse.				
C:\Program Files\Voltsoft Browse				
At least 67.5 MB of free disk space is required.				
< <u>B</u> ack <u>N</u> ext > Cancel				

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

🚺 Setup - Voltcraft - Voltsoft System
Select Additional Tasks Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Voltcraft - Voltsoft System, then click Next. Additional icons: Create a desktop icon
< <u>B</u> ack <u>N</u> ext > Cancel

Step 5: Click "Install". Installation will begin.

🚺 Setup - Voltcraft - Voltsoft System
Ready to Install Setup is now ready to begin installing Voltcraft - Voltsoft System on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location: C:\Program Files\Voltsoft
Additional tasks: Additional icons: Create a desktop icon
< <u>B</u> ack Install Cancel
V Setup - Voltcraft - Voltsoft System
Installing Please wait while Setup installs Voltcraft - Voltsoft System on your computer.
Extracting files C:\Program Files\Voltsoft\Web Server\DeviceWeb\bin\System.Data.SQLite.dll

Step 6: Click "Finish" to complete the installation



## 3.3 Migrate existing data

If you have an old version of Voltsoft installed, following dialog will be prompt. Click "Yes" if you want to keep existing data or "No" if you want to have an empty database.

Voltsoft	×
Old database found, click 'Yes' if you want to migrate the data or 'No' if you want a blank database.	
<u>Y</u> es <u>N</u> o	

## 3.4 Register Voltsoft

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

#### Standard vs. Professional

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

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

To register:

1. Launch the Voltsoft Windows client

VOLTCRAFT - Voltsoft	
File Device Management Help	
7/	
V	VOLTCRAFT.

2. Click Help -> Online Activation

V Online Activation – 🗆 🗙					
Please input Activation Key to unlock all system features					
License Key* XX	License Key* XXXX-XXXX-XXXX				
Registration					
с	ompany*	Company A			
De	partment	DepartmentA			
Salutatio	n* & Title	Mrs. v			
First Name* & Las	st Name*	John	Smith		
St	reet, No.*	Street 1			
Post cod	de* & city*	000000	City A		
	Country*	HONDURAS	¥		
	Phone*	12345678	(e.g. 01234567)		
	Fax no.		(e.g. 01234567)		
Mobile Phone			(e.g. 01234567)		
	Email*	johnsmith@abc.com			
		*Required Field			
Use Proxy Serv	/er				
Address			Port 80		
I have read and accept to the privacy policy and license agreement					
Privacy policy License agree	License agreement				
	Offline Activation Activate Close				

- 3. Enter a valid license key and the registration information.
- 4. Enter 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:



If there is any problem during online activation, user can activate via offline activation.

- 1. Click the Offline Activation button and select the location for saving the activation file (Voltsoft.config)
- 2. Send the Voltsoft.config to our customer service, email kundenservice@conrad.de
- 3. Our customer service will return the license file (dms.config) to you.
- 4. Copy it to the install directory (e.g. C:\Program Files (x86)\Voltsoft)
- 5. Start Voltsoft again.

# 4 Standard Version

### 4.1 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:

VOLTCRAFT - Voltsoft		
File Device Management Help	1	
1		
V	VOLI	CRAFT.
- Data Logger	SL451 - 400 DL101T - Logger 1	<b>→</b> ×
DL141TH - 140	Device Graph	•
DL141TH - 140-2	Data Graph	3
🔵 SL451 - 400	DI 404T - Lagrand	
DL101T - Logger 1	DL101T - Logger 1	
E DMM	30 <u></u>	
⇒ VC930 - 930	× * * * * * * * * * * * * * * * * * * *	
⇒ VC950 - 950		
2	25 -	
2		
	Temperature (°C)	
	15 - 15 - 15 - 15 - 15 - 15 - 15 - 15 -	
	5 1	
	06:50:32 06:50:47 06:51:02 06:51:17 04-05-2011 04-05-2011 04-05-2011 04-05-2011	
	Time: 04-05-2011 06:51:05 Temp.:28.8(°C)	
	······································	

1	Main Menu Area	Users can access different functions through the main menu.
2	Device List Area	Contains the list of devices which are already registered in the system. Green icon – Indicates that the device is currently connected to the computer Red icon - Indicates that the device is currently not available. Clicking on the icon can open that device in the device control panel area.
3	Device Control Panel	The opened device will be displayed in this area.

# 4.2 General Settings

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

<mark>1 G</mark> eneral Settin	ngs				
Unit Preference					
Temperature	Celsius	1			
Air Pressure	hPa 💌				
Data Storage Remove record	safter 60 🗢 Day(s)	2			
Download Data	a with duplicate download time	3			
Email Settings		4			
Email Sender	no-reply@cei.com				
SMTP Server	smtp.hkbn.net Port	25			
Login ID	Password				
	Enable SSL				
- Web Server Set	ling	5			
Maximum Num	Maximum Number of Login 🛛 2 🤤				
Welcome mess	sage Welcome message				
Port Number	80				
URL	http://192.168.1.130/				
6	Restart Voltsoft Server Save	Close			

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. User can specify the number of days to keep the device readings.
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	<ul> <li>This area configures the outgoing email settings.</li> <li>Email Sender – This will be the email sender of the alert email.</li> <li>SMTP Server and Port – The outgoing SMTP server name and port number. (for Gmail, port number is 465)</li> <li>Login ID and Password – The SMTP server login and password (if required).</li> <li>Enable SSL – Check this checkbox if your SMTP server requires SSL encryption (i.e. Gmail)</li> </ul>

5	Web Server Setting	This setting is available in the professional version only. Configure the web server port number for the web-based version of Voltsoft. The local IP address will also be displayed, however, if you have more then one network card, then only the first IP address detected will be shown here.
		The maximum number of logins controls the maximum number of concurrent logins.
6	Restart Voltsoft Server	Restart the Voltsoft Server.
	Save	Save and quit this module.
	Close	Quit this module without saving.

## 4.3 Add New Device

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

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

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

ν	Add New Device		
	Device Series	Data Logger	<b>▼</b> 1
	Model Number	DL121TH	~
	Alias	Logger 121	
	2	3	4
	Auto-	Detect Add	Close

1	Select Device	<ul> <li>To add a new device:</li> <li>1. Select the device series (only Data Logger available in the current version).</li> <li>2. Select model number.</li> <li>3. Enter a unique alias.</li> </ul>
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.

## 4.4 Remove Existing Device

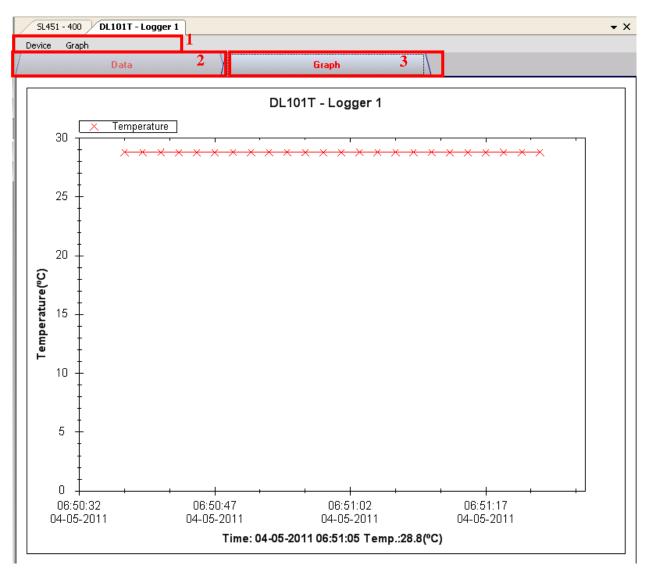
This module allows the user to remove devices which are no longer in use. To launch this module, click Device Management->Remove Existing Device.

V Remove Existing Device	
DATALOGGER - DL141TH - 140 DATALOGGER - DL141TH - 140-2 DATALOGGER - SL451 - 400 DATALOGGER - DL101T - Logger 1 DMM - VC930 - 930 DMM - VC950 - 950	
Remove All Remove	Close

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

## 4.5 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.

The function of the modules may be different for different devices, therefore, they will be discussed in individual device section.

# 5 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.

### 5.1 User Management

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

🔽 User Management 📃 🗖 🔀			
The following user(s) will be available fo	r web only.		
Login Name Full Name	Login Name	admin	2
admin Administrator	Password	*****	
1	Confirm Password	*****	
	Full Name	Administrator	
	Expiry Date	Clear	
	Active	⊙ Yes ○ No	
	User Manag	jement	3
	Device		
		ce if you want to hide it from that user.	4
	101 121 141 161 180 4000		
	5 Deleti	e Add Save Clos	æ

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:
		- 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.

N.B. Voltsoft only allowed max. three user exist in the system.

## 5.2 Email Management

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

🚺 Email Management	
Following email will receive reading reach certain alert	
Email Address	1
johnsmit@gmail.com	
johnsmit@gmail.com	
2 Add R	temove 3 Close 4

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.

# 5.3 Email Template

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

🚺 Email Temp	late
Language	English V
Subject	Voltsoft Data Alert 2
Maximum Alert	Dear Sir/Madam, The device {DEVICE} has reached the max. alert level on column {COLUMN} at {TIME}, current reading value {READING} Please perform any necessary action. Regards, Voltsoft
Minimum Alert	Dear Sir/Madam, The device {DEVICE} has reached the min. alert level on column {COLUMN} at {TIME}, current reading value {READING} Please perform any necessary action. Regards, Voltsoft
Reset	Dear Sir/Madam, The device {DEVICE} reached alert level but had been reset on column {COLUMN} at {TIME}, current reading value {READING} Please perform any necessary action. Regards, Voltsoft
	3 Save Close

	I	
1	Language	Select the language of the email template.
2	Message Content	<ul> <li>Fill in the title and content for the email template.</li> <li>Fill in the title and content for the email template which will be sent in the different cases:</li> <li>Case 1: Maximum Alert</li> <li>This email will be sent when a reading is higher than the maximum alarm level.</li> <li>Case 2: Minimum Alert</li> <li>This email will be sent when a reading is lower than the minimum alarm level.</li> <li>Case 3: Reset Level</li> <li>This email will be sent when a reading was previously at a</li> </ul>
		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 variables 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

## 5.4 Email Alert

V Email Alert	
Recipient(s) List	
Following receipient(s) will receive email aler	t
🖌 johnsmit@gmail.com	
OK	Close

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.

### 5.5 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.

V Custom G	aph		
Exist Graph	(New)		<b>~</b>
		OK	Close

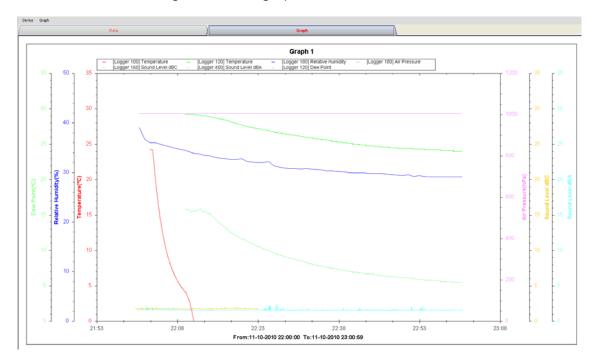
- 2. Select New to create a new graph or select the previous saved graph. Click OK to continue.
- 3. The Custom Graph detailed interface will be displayed:

🚺 Custom Graph	
Graph Name Graph 1	
Device and Measurement	
Data Period PC storage range Earliest data: 04-05-2011 06:5	0:37 Latest data: 04-05-2011 06:51:23
From: 13-06-2011 00:00 💌 To: 14-06-2011 23:59 💌 🗌 Rea	I Time Data
Device Measurement DL101T - Logger 1 Temperature	Selected Measurement 950 - Voltage (V DC)
DL141TH - 140 DL141TH - 140-2	
SL451 - 400 VC330 - 930	»
VC950 - 950	
Delete	Next Step > Save Finish Close

- 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.

Custom Graph							
Graph Name	Graph 1						
Measurement Sel	ting						
Selected Mea							
Device	Measurement	Data Max.	Data Min.	Axis Axis Max.	Axis Min.	Align Zero	
950 140 140	Voltage (V DC) Temperature Dew Point	0 0 0	0 0 0	Y1 Y1 Y1		N N N	
Axis 💿 Y1	🔿 Y2 🛛 Axis Max.		Axis Min.		Colour		Align Zero
					Colour		
Delete				< Prev Ste	Save	Finish	Close

- IV. For each column, the system will show the data maximum and minimum values 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.

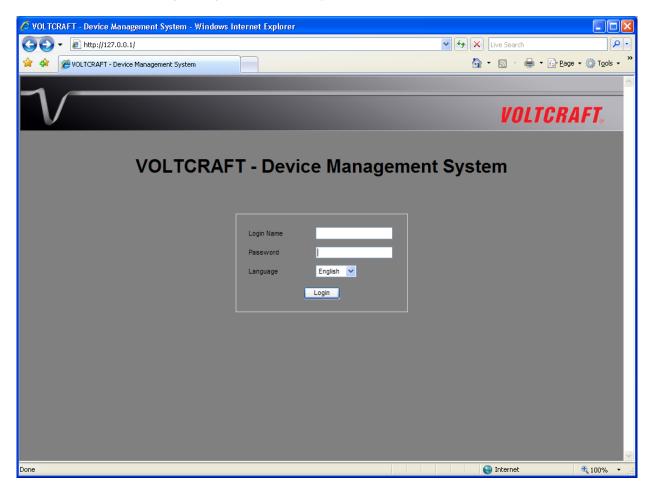
## 5.6 Web Interface

### 5.6.1 Using the Voltsoft 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 <u>http://127.0.0.1</u> or <u>http://localhost</u>. If you change the port number in General Settings to another port number, then you are required to enter the port number too, e.g. <u>http://127.0.0.1:8080</u>.

If it is successful the login page will be displayed.



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

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

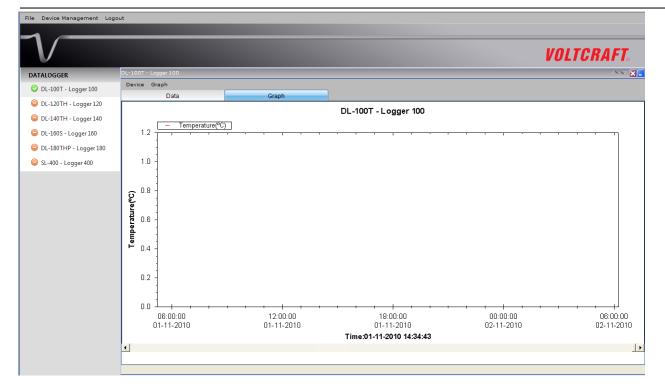
C VOLTCRAFT - Device Management System - Windows Internet Explorer		
	💌 🗲 🗙 Live Search	<b>P</b> -
😭 🚸 🖉 VOLTCRAFT - Device Management System	🟠 🔹 🗟 🕤 🖶 Ege 🕶 🌘	Tools • »
File Device Management Logout		
$\mathcal{V}$	VOLTCRAF	7.
Data Logger		
DL-100T - Logger 100		
⊖ DL-120TH - Logger 120		
😑 DL-140TH - Logger 140		
DL-160S - Logger 160		
C DL-180THP - Logger 180		
SL-400 - Logger 400		
Done	😜 Internet 🔍	100% •:

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 be displayed like this:

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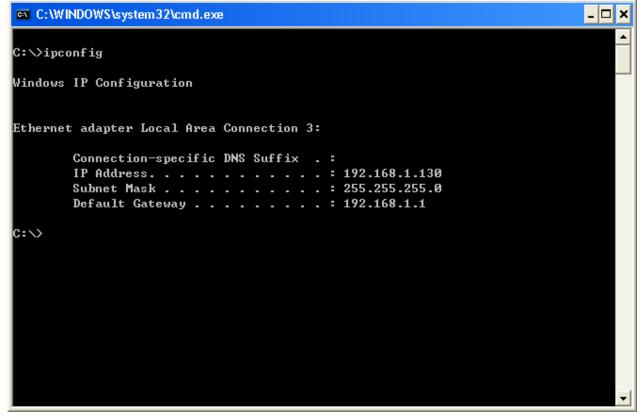


### 5.6.2 Accessing Voltsoft Web from a Remote Computer

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.

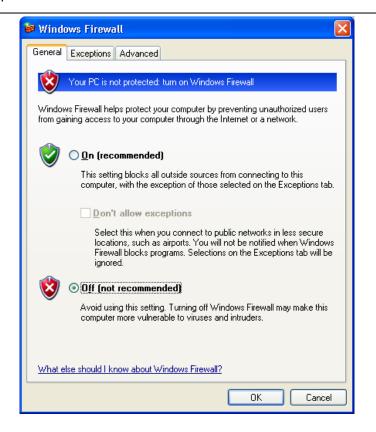
1. First, you need to check the IP address of your computer by opening the settings page in the Windows client or check by using command prompt.

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



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 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 <a href="http://192.168.1.130">http://192.168.1.130</a> 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.

# 5.6.3 Using the Voltsoft System (Web)

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

#### i. Login Screen

		VOLTCRAFT.
VOLTO	RAFT - Welcome to Vol	tSoft
	Login Name	
	Password English 💌	
	Login	

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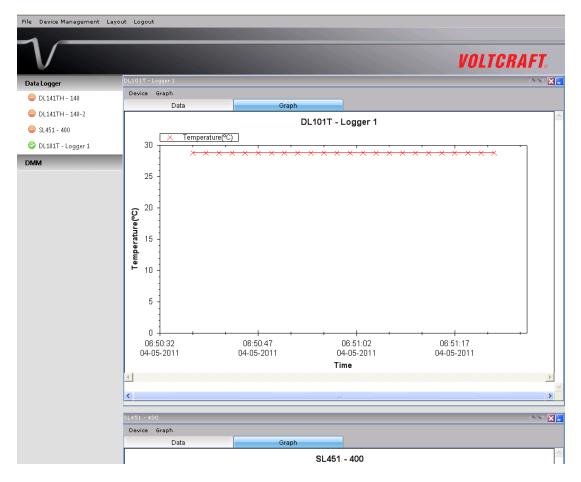
#### ii. Main Screen

V				VOL	TCRAFT.
ata Logger	DL101T - Logger 1 🗵				
DL141TH - 140	Device Graph				<u>^</u>
_	Data		Graph		
DL141TH - 140-2	PC storage range	Earliest data: 04-05-2011 06:5	0:37 Latest data: 04-0	5-2011 06:51:23	^
🔵 SL451 - 400		24/100/ 4444. 07-00-2011 00:01		-2011 00.01.20	
DL101T - Logger 1	Summary		1		
DCIOI - Coggeri	Measurement	Maximum Value	Minimum Value	Average Value	
MM	Temperature (°C)	28.8	28.8	28.8	
	All Data			Export CSV E	xport Excel
					<u></u>
	Record Time	Temperature (°C)			<u>^</u>
	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			-

#### Screen Layout

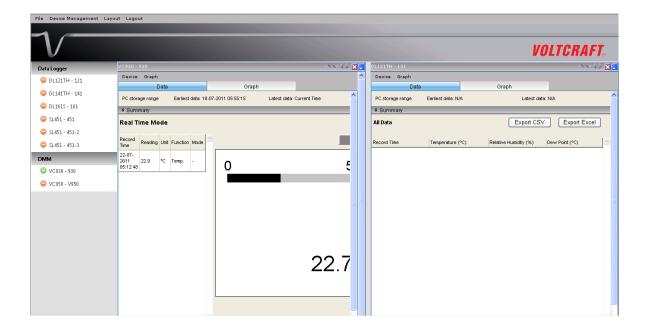
One of the most significant differences between the Windows version and the Web version is that you can arrange the Web version's device windows into three different layouts: 1) Single Column, 2) Two Columns, 3) Tab Layout

#### 1) Single Column



#### 2) Two Columns

V							VOLTC	RAFT
ta Logger	DL101T - Logger 1		^ √ 4 ▷ 🔀	-	SL451 - 400			
DL141TH - 140	Device Graph			^	Device Graph			
DL141TH - 140-2	Data	Graph			Data	Graj	ph	
SL451 - 400	PC storage range E	arliest data: 04-05-2011 06:50:37	Latest data: 04-05-2011 06:51:23		1.2 Soud Level	SL 451 - 400 × Soud Level dBC		
DL101T - Logger 1	Summary							
VI	All Data	Export CS	V Export Excel		1.0 -			
	Record Time	Temperature (°C)	^					
	04-05-2011 06:50:37	28.8						
	04-05-2011 06:50:39	28.8			0.8 -			
	04-05-2011 06:50:41	28.8						
	04-05-2011 06:50:43	28.8						
	04-05-2011 06:50:45	28.8		Ξ	1 2 06			
	04-05-2011 06:50:47	28.8						
	04-05-2011 06:50:49	28.8	=		00 I			
	04-05-2011 06:50:51	28.8			0.4			
	04-05-2011 06:50:53	28.8			0.41			
	04-05-2011 06:50:55	28.8						
	04-05-2011 06:50:57	28.8						
	04-05-2011 06:50:59	28.8			0.2			
	04-05-2011 06:51:01	28.8						
	04-05-2011 06:51:03	28.8						
	04-05-2011 06:51:05	28.8			0.0	21:00:00 03:00:00	09:00:00	
	04-05-2011 06:51:07	28.8			16:00:00	16-06-2011 17-06-2011	17-06-2011	15:00:0 17-06-20
	04-05-2011 06:51:09	28.8			1	Time		
	04-05-2011 06:51:11	28.8						
	04-05-2011 06:51:13	28.8	~		1			



#### 2) Tab Layout

$\mathcal{V}^{-}$				V	OLTCRAFT.
Jata Logger	DL101T - Logger 1 🗵 SL451 - 400	X			
😑 DL141TH - 140	Device Graph				
😑 DL141TH - 140-2	Data	Graph	DI 404T		
🔵 SL451 - 400	× Temperature(°C)	1	DL101T - Logger 1		
🕏 DL101T - Logger 1			· · · · · · · ·		
мм					
	1.0 -				
	<b>្</b> <sup>0.8</sup>				
	nre(				
	- 8.0 - 8.0 - 8.0 - 8.0 - 8.0 - 9.0 - 9.0 - 9.0				
	. 0.4 -				
	0.2 -				
	0.2 -				
	0.0 +				
	15:00:00	21:00:00	03:00:00	09:00:00	15:00:00
	16-06-2011	16-06-2011	17-06-2011 Time	17-06-2011	17-06-201
	•				

### 5.6.4 Limitation in Web Version

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

1) The Web version is targeted 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 refreshed 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

# 6 Supported Devices

Voltsoft currently support following devise:

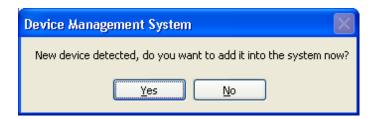
Туре	Device Name
Data Logger	DL101T
Data Logger	DL111K
Data Logger	DL121TH
Data Logger	DL131G
Data Logger	DL141TH
Data Logger	DL141TH2K
Data Logger	DL151AN
Data Logger	DL161S
Data Logger	DL181THP
Data Logger	DL191A
Data Logger	DL191V
Data Logger	DL200T
Data Logger	DL201THM
Data Logger	DL210TH
Data Logger	DL220THP
Data Logger	IR 1200-50D
Data Logger	PL-125-T2USB / PL-125-T4USB
Data Logger	SL451
DMM	VC930 / VC950
DMM	VC880 / VC650BT
DMM	VC890
EL4000	EL4000

## 6.1 DL101T

DL101T is a data logger for storing temperature reading.

### 6.1.1 Add new DL101T

When Voltsoft detects a new DL101T attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

🚺 Add New Device				
Device Series	Data Logger 🗸 🗸 🗸			
Model Number	DL101T			
Alias	101T			
Auto-Detect Add Close				

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

### 6.1.2 Remove DL101T

To remove DL101T, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.1.3 DL101T – Device Control Panel

DL101T - 101				<b>-</b> ×
Device Graph				
Data		Graph		
PC storage range	Earliest data: 09-01-2013 22:	42:27 Latest	data: 10-01-2013 16:29:03	
Summary				
Measurement	Maximum Value	Minimum Value	Average Value	
Temperature (°C)				
All Data			Export Excel	Export CSV
Record Time	Temperature (°C)			

The DL101T Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL101T.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

## 6.1.4 DL101T - Settings

101T - Settings (HW ID:01_1210170003)				
Basic Settings				
Time	27-01-2013 16:15:49	🔽 🗹 Use System Time		
Logger Name	101T			
Record Start Condition	O By Button	<ul> <li>● After Setup</li> </ul>		
Sample Points	32000 🔽	Sample Rate 2s 💌		
Recording Time	17 Hours 46 Minutes 4	0 Seconds		
LED Flash Cycle	⊙ 10s 🔿 20s	🔿 30s		
Alarm Settings				
Temperature Lov	v Limit 🛛 -40.0 📚 °C	High Limit 70.0 🤤 °C		
Device connect.		Default Setup Close		

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 pressed 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.

## 6.1.5 DL101T - Download Data

This module allows user to download the data from DL101T.



Click "OK" button to stop the recording and start downloading.

### 6.1.6 DL101T – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
• From:	09-12-2012 16:22:34 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	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.)

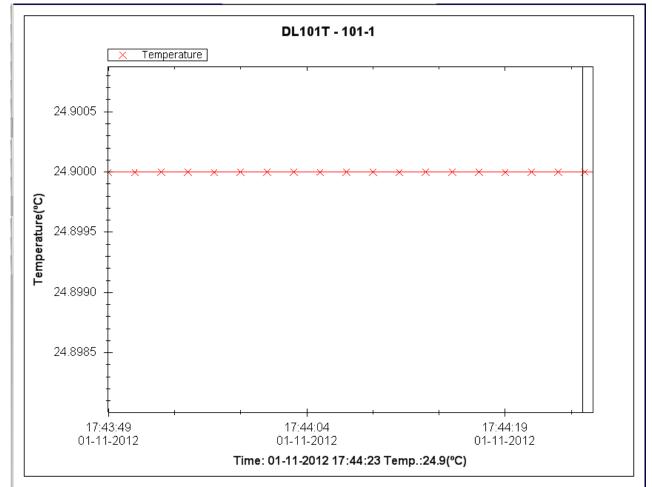
## 6.1.7 DL101T – Data View

DL101T contains one measurement (Temperature) only, its unit can be Celsius or Fahrenheit, depending on the setting in general setting.

	Data	Graph	
PC storage range	Earliest data: 01-11-2012 16:38:13	Latest data: 02-11-2012 01:31:29	
¥ Summary			
All Data		Export Excel	Export CSV
Record Time	Temperature (°C)		
01-11-2012 16:56:03	25.4		
01-11-2012 16:56:05	25.4		
01-11-2012 16:56:07	25.4		
01-11-2012 16:56:09	25.4		
01-11-2012 16:56:11	25.4		
01-11-2012 16:56:13	25.4		
01-11-2012 16:56:15	25.4		
01-11-2012 16:56:17	25.4		
01-11-2012 16:56:19	25.4		
01-11-2012 16:56:21	25.4		
01-11-2012 16:56:23	25.4		
01-11-2012 16:56:25	25.4		
01-11-2012 16:56:27	25.4		
01-11-2012 16:56:29	25.4		
01-11-2012 16:56:31	25.4		
01-11-2012 16:56:33	25.4		
01-11-2012 16:56:35	25.4		
01-11-2012 16:56:37	25.4		
01-11-2012 16:56:39	25.4		
01-11-2012 16:56:41	25.4		
01-11-2012 16:56:43	25.4		
01-11-2012 16:56:45	25.4		
01-11-2012 16:56:47	25.4		
01-11-2012 16:56:49	25.4		
01-11-2012 16:56:51	25.4		
01-11-2012 16:56:53	25.4		
01-11-2012 16:56:55	25.4		
01-11-2012 16:56:57	25.4		
01-11-2012 16:56:59	25.4		
01-11-2012 16:57:01	25.4		
01-11-2012 16:57:03	25.4		
01-11-2012 16:57:05	25.4		
01-11-2012 16:57:07	25.4		
01-11-2012 16:57:09	25.4		
01-11-2012 16:57:11	25.4		
01-11-2012 16:57:13	25.4		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

## 6.1.8 DL101T – Graph View



#### Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.1.9 DL101T – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL101T is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.2 DL121TH

DL121TH is a data logger for storing temperature and humidity reading.

#### 6.2.1 Add new DL121TH

When Voltsoft detected a new DL121TH attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

Click "Yes", the following dialog will be displayed:

🚺 Add New Device	
Device Series	Data Logger 💌
Model Number	DL121TH
Alias	121TH
Auto-	Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.2.2 Remove DL121TH

To remove DL121TH, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.2.3 DL121TH – Device Control Panel

DL121TH - 121				• ×
Device Graph				
Data	<u> </u>	Graph		
PC storage range	Earliest data: 09-01-2013 22	2:43:10 I	Latest data: 10-01-2013 07:36:28	
Summary				
Measurement	Maximum Value	Minimum Value	Average Value	
Temperature (°C) Relative Humidity (%) Dew Point (°C)				
All Data			Export Excel	Export CSV
Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)	

#### DL121TH contain follow items in menu:

1	Device -> Settings	This will launch the setting page of DL121TH.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

## 6.2.4 DL121TH - Settings

🚺 121TH - Settings (HW ID:02_1211070004)				
Basic Settings				
Time	27-01-201	13 16:25:50	V Vs	e System Time
Logger Name	121TH			
Record Start Condition	🔿 Ву Ви	itton	<ul> <li>After Setup</li> </ul>	
Sample Points	16000	~	Sample Rate	2s 💌
Recording Time	8 Hours 5	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 文 %
Device connect.			Default	Setup Close

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	Relative 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.

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

### 6.2.5 DL121TH - Download Data

This module allows user to download the data from DL121TH.



Click "OK" button to stop the recording and start downloading.

### 6.2.6 DL121TH - Display / Plot Data

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

D	isplay/Plot Data		
	Display/Plot Data		
	O PC storage range	Earliest data: N/A	Latest data: N/A
	• From:	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
	Device connect.		
			OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	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.)

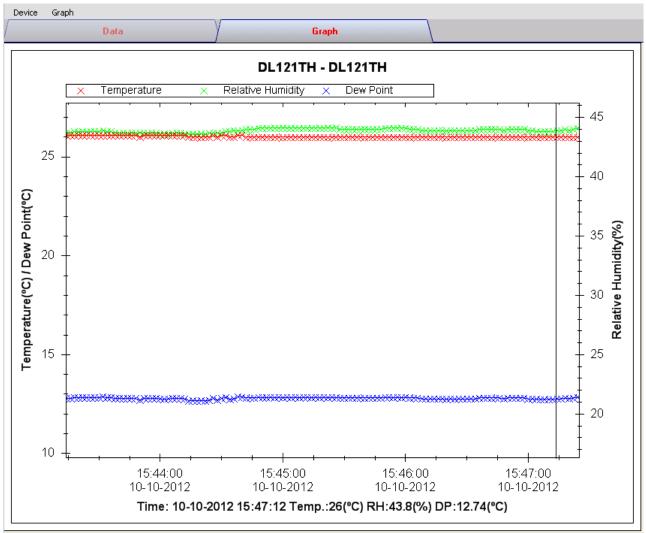
## 6.2.7 DL121TH - Data View

DL121TH contains three measurements (Temperature, relative humidity and dew point), template / dew point unit can be Celsius or Fahrenheit, depending on the setting in general setting.

	Data	Grap	h		
PC storage range	Earliest data: 10-10-20	12 15:40:38 Lat	est data: 11-10-2012 00:3	33:56	
≴ Summary					
All Data				Export Excel	Export CSV
Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)		
10-10-2012 15:40:38	26.1	44.2	12.97		
10-10-2012 15:40:40	26.1	44.2	12.97		
10-10-2012 15:40:42	26.1	44.2	12.97		
10-10-2012 15:40:44	26.1	44.2	12.97		
10-10-2012 15:40:46	26.1	44.2	12.97		
10-10-2012 15:40:48	26.1	44.2	12.97		
10-10-2012 15:40:50	26.1	44.2	12.97		
10-10-2012 15:40:52	26.1	44.2	12.97		
10-10-2012 15:40:54	26.1	44.1	12.93		
10-10-2012 15:40:56	26.1	44.1	12.93		
10-10-2012 15:40:58	26.1	44.1	12.93		
10-10-2012 15:41:00	26.1	44.1	12.93		
10-10-2012 15:41:02	26.1	44.0	12.90		
10-10-2012 15:41:04	26.1	44.0	12.90		
10-10-2012 15:41:06	26.1	44.0	12.90		
10-10-2012 15:41:08	26.1	43.9	12.86		
10-10-2012 15:41:10	26.1	43.9	12.86		
10-10-2012 15:41:12	26.1	43.9	12.86		
10-10-2012 15:41:14	26.1	43.9	12.86		
10-10-2012 15:41:16	26.1	43.9	12.86		
10-10-2012 15:41:18	26.1	43.9	12.86		
10-10-2012 15:41:20	26.1	43.9	12.86		
10-10-2012 15:41:22	26.1	43.9	12.86		
10-10-2012 15:41:22	26.1	43.9	12.86		
10-10-2012 15:41:26	26.1	43.9	12.86		
10-10-2012 15:41:28	26.1	43.9	12.86		
10-10-2012 15:41:30	26.1	43.9	12.86		
10-10-2012 15:41:32	26.1	43.9	12.86		
10-10-2012 15:41:32	26.1	43.9	12.86		
10-10-2012 15:41:36	26.1	43.9	12.86		
10-10-2012 15:41:38	26.1	43.9	12.86		
10-10-2012 15:41:30	26.1	43.9	12.86		
10-10-2012 15:41:40	26.1	43.9 43.9	12.86		
	26.1				
10-10-2012 15:41:44		43.9	12.86		
10-10-2012 15:41:46	26.1	43.8	12.83		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

#### 6.2.8 DL121TH – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.2.9 DL121TH – Web Interface

Please refer to section 5.6 on how to launch the web interface.

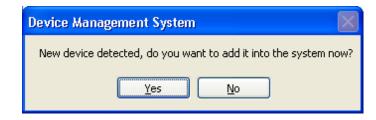
The web interface for DL121TH is the same as Windows version, except the downloaded data can only have 10,000 reading in a single download.

### 6.3 DL131G

DL131G is a data logger for storing vibration reading. DL131G supports real time and real time Fast Fourier Transform (FFT) measurement.

#### 6.3.1 Add new DL131G

When Voltsoft detected a new DL131G attached, the following dialog will be popped up:



Click "Yes", following dialog will be displayed:

V Add New Device		
Device Series	Data Logger	~
Model Number	DL131G	~
Alias		
Auto-Detect	Add	Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.3.2 Remove DL131G

To remove DL131G, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.3.3 DL131G – Device Control Panel

evice Graph						
	Data	<u> </u>	Graph			
C storage range	Earliest data: 11-10-2	013 13:14:05 l	Latest data: 13-10-2013 22:12:	27		
Summary						
Measurement	Maximum Value	Minimum Value	Average Value			
						E 1004
II Data FFT:	Time Domain O Freque	ency Domain			Export Excel	Export CSV
IData FFT: ecord Time	Time Domain      Freque     X Value	ency Domain	Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			∑ Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV
			Z Value	Vector Sum	Export Excel	Export CSV

The DL131G Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL131G.
2	Device -> Stop	Stop the real time data download.
3	Device -> Download Data	Download reading from device.
4	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
5	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
6	Graph -> Background Colour	Change the background colour of the graph to either black or white.
7	Graph -> Grid	Control whether to show / hide the grid on the graph area.
8	Graph -> Line	Control whether to show / hide the line on the graph area.
9	Graph -> Points Indicator	Control whether to show / hide the points indicator.
10	Graph -> Print	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.

# 6.3.4 DL131G – Settings

178 - Settings (HW ID:78a_121	123000002)	
Basic Settings Time	30-10-2013 11:28:59	Use System Time
Logger Name	178	
Sample Rate	50 🛟 ms	▼
LED Flash Rate	💿 10s 🛛 🔿 20s	🔿 30s 🔷 Disable
Condition for recording start	O By Button	<ul> <li>● After Setup</li> </ul>
Motion Detection Threshold Setup		Recording Mode
X Threshold 2g	*	<ul> <li>Normal</li> </ul>
Y Threshold 2g	~	
Z Threshold 2g	<b>~</b>	<ul> <li>Motion Detection</li> </ul>
Device connect.		Default Setup Close

1	Time	Configure the device data time value. User can specify a defined time or use the system date time.
2	Logger Name	Input the unique alias for that device.
3	Sample Rate	Instruct the data logger to log readings at a specific rate.
4	LED Flash RateCycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
5	Record Start Condition	By Button – The data logger will start recording only after the user pressed the red button on the device. After Setup – The data logger will start recording immediately after setup.
6	Motion Detection Threshold Setup	The Motion Detection Threshold Setup filed allows the user to set the acceleration detection threshold.Once the acceleration value is over the threshold,the DATALOGGER will work.
7	Recording Mode	The DATA LOGGER Record Mode can be set as Normal and Motion Detection.
8	Default Button	Load the factory default settings.
9	Setup Button	Save changes.
10	Close Button	Close this interface.

#### 6.3.5 DL131G - Download Data

This module allows user to download the data from DL131G.



Click "OK" button to stop the recording and start downloading.

## 6.3.6 DL131G - Display / Plot Data

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

Display/Plot Data				
Display/Plot Data				
O PC storage range	Earliest data:	11-10-2013 13:14:05	Latest data: 13-10-2013 2	22:12:27
• From:	29-10-2013 11:25:59	×	To: 30-10-2013 12:25:59	<b>~</b>
🔿 Real Time Data				
O Real Time FFT				
Device connect.			ок	Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Real Time Data	Download real time data, will only enable if the device in real time mode.
4	Real Time FFT	Read real-time spectral data for FFT analysis.
5	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
6	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 records will be returned.)

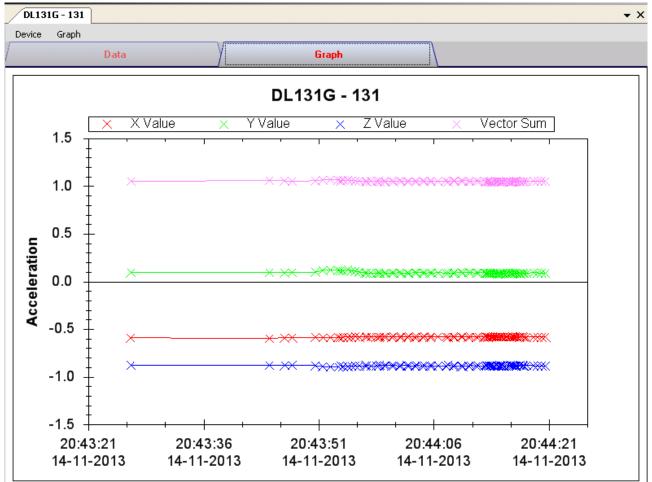
## 6.3.7 DL131G - Data View

DL131G contains four measurements (X Value, Y Value, Z Value and Vector Sum).

evice Graph						<b>.</b>
	Data	Y	Graph			
C storage range	Earliest data: 11-10-20	13 13:14:05 L	.atest data: 13-10-2013 22:12:2	27		
Summary						
leasurement	Maximum Value	Minimum Value	Average Value			
I Data FFT	: 💿 Time Domain 🔿 Frequer	ncy Domain			Export Excel	Export CSV
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
cord Time	X Value	Y Value	Z Value	Vector Sum		
ecord Time	X Value	Y Value	Z Value	Vector Sum		
ecord Time	X Value	Y Value	Z Value	Vector Sum		
ecord Time	X Value	Y Value	Z Value	Vector Sum		
ecord Time	X Value	Y Value	Z Value	Vector Sum		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

### 6.3.8 DL131G – Graph View



Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

## 6.3.9 DL131G – Real Time FFT

The logger will enter real time FFT mode when select "Real Time FFT" in "Display / Plot Data".

In FFT mode, there is two options for displaying data: Time Domain and Frequency Domain.

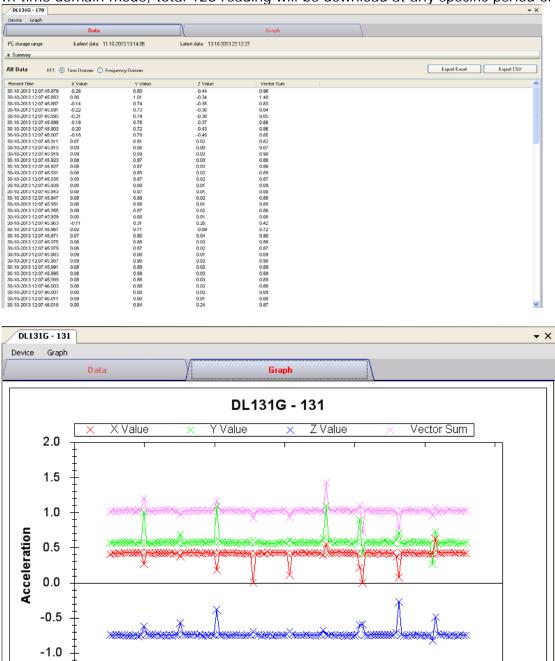
#### Time Domain:

-1.5

23:07:06

14-11-2013

In time domain mode, total 128 reading will be download at any specific period of time.



23:07:07

14-11-2013

23:07:07

14-11-2013

23:07:07

14-11-2013

#### Frequency Domain:

In frequency domain mode, the 128 reading downloaded will be calculate and transform to 256 readings to display.

rice Graph	Data					
storage range	Earliest data: 11-10-2013 13:14:05	Latest data: 13-10-2013	Graph 322:12:27			
ummary						
Data FFT:	: 🔿 Time Domain 💿 Frequency Domain				Export Excel	Export CSV
quency	X Value Y Valu 12.12 145.45	9.98				
	4.90 62.90 2.91 28.61	3.94 2.75				
	0.50 2.88 1.90 15.80	0.73				
	0.77 11.30 0.89 3.27 0.45 8.99	0.80 0.34				
	0.45 0.39 0.80 6.14 0.27 2.25	1.13 0.16 0.19				
	0.47 6.90 1.34 4.02	0.67				
	1.10 2.68 1.40 5.46	0.78 0.47				
	0.26 2.06 0.43 1.51	0.21 0.25				
	1.19 4.38 0.53 2.95	0.63 1.54				
	1.43 2.74 2.22 4.40	0.93 2.10				
	1.73 1.30 0.60 2.56 0.41 4.10	1.55 0.56 0.11				
	0.41 4.10 0.37 0.86 0.16 2.18	1.55 0.78				
	0.30 2.57 0.80 0.31	0.79				
	0.51 2.08 0.62 2.39	0.34 0.52				
	0.64 0.59 1.34 2.06	0.36 0.92				
	1.00 2.74 0.94 1.31	0.71 0.57				
	0.22 1.90 0.14 1.73	0.19 0.14				
DL131G - Device Gra	131 aph Data	)	Graph			
	aph	)				•
	aph Data		DL131G - 131			
	aph Data	) 				·
Device Gru	Data Data 0 X Value		DL131G - 131			· · · · · · · · · · · · · · · · · · ·
<u>evice Gr</u> 14 12	Data Data 0 X Value 0		DL131G - 131	· · · · · · ·		
<u>evice Gr</u> 14 12	Data Data 0 X Value 0		DL131G - 131			
<u>evice Gr</u> 14 12	Data Data 0 X Value 0		DL131G - 131	· · · · · ·		· · · · · · · · · · · · · · · · · · ·
<u>evice Gr</u> 14 12	aph Data 0 X Value 0 C		DL131G - 131	· · · · · ·		
<u>evice Gr</u> 14 12	aph Data 0 X Value 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4		DL131G - 131			
<b>dl178a_magnitude</b> 14 12 10 80 60	aph Data 0 X X Value 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4		DL131G - 131			
<b>trm_dl178a_magnitude</b> 14 12 10 80 80 40 40	aph Data 0 X X Value 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4		DL131G - 131			
trm_dl178a_magnitude 14 15 10 10 10 10 10 10 10 10 10 10 10 10 10	aph Data 0 X X Value 0 4 0 4 0 4 0 4 0 4 0 4 0 4 0 4	X Y Value	DL131G - 131 <u>× Z Value</u>		250	

## 6.4 DL141TH

DL141TH is a data logger for storing temperature and humidity readings.

#### 6.4.1 Add new DL141TH

When Voltsoft detected a new DL141TH attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes No

Click "Yes", the following dialog will be displayed:

🚺 Add New Device	
Device Series	Data Logger 💌
Model Number	DL141TH
Alias	141TH
Auto	Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.4.2 Remove DL141TH

To remove DL141TH, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.4.3 DL141TH – Device Control Panel

DL141TH - 141TH					<b>→</b> ×
Device Graph					
/	Data	У	Graph		
PC storage range	Earliest data: 19-12-2012 16:29:	44 Latest da	ta: 19-12-2012 16:29:52		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Temperature (°C) Relative Humidity (%) Dew Point (°C)					
All Data				Export Excel	Export CSV
Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)		

The DL141TH Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL141TH.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.4.4 DL141TH – Settings

🖊 Logger 140 - Settings	
Device Time 06-05-2011 00:20:07	✓ Use System Time Set Time
Basic Settings	
Logger Name	Logger 140
Record Start Condition	O By Button O After Setup
Sampling Rate	10 📚 💌
Recording Time	1 Day 21 Hours 25 Minutes
LED Flash Cycle	⊙ 10s O 20s O 30s O Disable
Recording	○ Circulating Record
Alarm Settings ☑ Enable LEDs Alert	
Temperature	Low Level -40.0 🗘 °C High Level 70.0 💲 °C
Relative Humidity	Low Level 0.0 🗢 % High Level 100.0 🗢 %
Device connect.	Default Setup Close

1	Device Time	Configure the device data time value.
		User can specify a defined time or use the system date time.
2	Logger Name	Enter 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.
	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.

#### 6.4.5 DL141TH - Download Data

This module allows user to download the data from DL141TH.

Download Data	
The data will be downloaded from the Hint: After downloading, the device	
Device connect.	OK Cancel

Click "OK" button to stop the recording and start downloading.

### 6.4.6 DL141TH – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
• From:	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	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.)

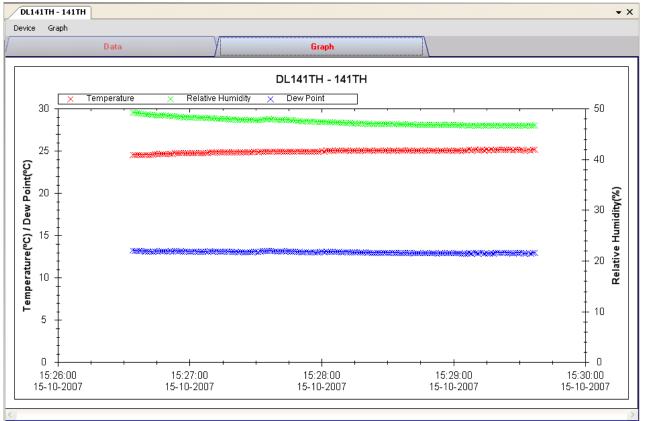
## 6.4.7 DL141TH - Data View

DL141TH contains three measurements (Temperature, relative humidity and dew point), template / dew point unit can be Celsius or Fahrenheit, depending on the setting in general setting.

DL141TH - 141TH					•
Device Graph					
	Data	Y	Graph		
PC storage range	Earliest data: 15-10-2007	15:26:34 Latest	data: 15-10-2007 15:29:37		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Temperature (°C)	25.2	24.6	25.00		
Relative Humidity (%)	49.3	46.8	47.56		
Dew Point (°C)	13.27	12.93	13.09		
All Data				Export Excel	Export CSV
Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)		
15-10-2007 15:26:34	24.6	49.3	13.27		
15-10-2007 15:26:35	24.6	49.3	13.27		
15-10-2007 15:26:36	24.6	49.2	13.24		
15-10-2007 15:26:37	24.6	49.2	13.24		
		49.1	10.01		
15-10-2007 15:26:38	24.6	49.1	13.21		
15-10-2007 15:26:39	24.6	49.1 49.1	13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40	24.6 24.6	49.1 49.0	13.21 13.18		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41	24.6 24.6 24.6	49.1 49.0 49.0	13.21 13.18 13.18		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42	24.6 24.6 24.6 24.6	49.1 49.0 49.0 48.9	13.21 13.18 13.18 13.18 13.15		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42 15-10-2007 15:26:43	24.6 24.6 24.6 24.6 24.6 24.6	49.1 49.0 49.0 48.9 48.9	13.21 13.18 13.18 13.15 13.15 13.15		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42 15-10-2007 15:26:43 15-10-2007 15:26:44	24.6 24.6 24.6 24.6 24.6 24.7	49.1 49.0 49.0 48.9 48.9 48.9	13.21 13.18 13.18 13.15 13.15 13.15 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42 15-10-2007 15:26:43 15-10-2007 15:26:44 15-10-2007 15:26:45	24.6 24.6 24.6 24.6 24.6 24.7 24.7 24.7	49.1 49.0 49.0 48.9 48.9 48.8 48.8	13.21 13.18 13.18 13.15 13.15 13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42 15-10-2007 15:26:43 15-10-2007 15:26:44 15-10-2007 15:26:45 15-10-2007 15:26:46	24.6 24.6 24.6 24.6 24.6 24.7 24.7 24.7 24.7	49.1 49.0 48.9 48.9 48.8 48.8 48.8 48.8	13.21 13.18 13.18 13.15 13.15 13.21 13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:43 15-10-2007 15:26:43 15-10-2007 15:26:45 15-10-2007 15:26:45 15-10-2007 15:26:47	24.6 24.6 24.6 24.6 24.7 24.7 24.7 24.7 24.7	49.1 49.0 48.9 48.9 48.8 48.8 48.8 48.8 48.8	13.21 13.18 13.18 13.15 13.15 13.21 13.21 13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:43 15-10-2007 15:26:43 15-10-2007 15:26:44 15-10-2007 15:26:45 15-10-2007 15:26:46 15-10-2007 15:26:48	24.6 24.6 24.6 24.6 24.7 24.7 24.7 24.7 24.7 24.7 24.7	49.1 49.0 48.9 48.9 48.8 48.8 48.8 48.8 48.8 48.8	13.21 13.18 13.15 13.15 13.21 13.21 13.21 13.21 13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:42 15-10-2007 15:26:43 15-10-2007 15:26:44 15-10-2007 15:26:45 15-10-2007 15:26:47 15-10-2007 15:26:49	24.6 24.6 24.6 24.6 24.7 24.7 24.7 24.7 24.7 24.7 24.7 24.7	49.1 49.0 48.9 48.9 48.8 48.8 48.8 48.8 48.8 48.8	13.21 13.18 13.18 13.15 13.15 13.21 13.21 13.21 13.21 13.21 13.21		
15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:43 15-10-2007 15:26:43 15-10-2007 15:26:44 15-10-2007 15:26:45 15-10-2007 15:26:46 15-10-2007 15:26:48	24.6 24.6 24.6 24.6 24.7 24.7 24.7 24.7 24.7 24.7 24.7	49.1 49.0 48.9 48.9 48.8 48.8 48.8 48.8 48.8 48.8	13.21 13.18 13.15 13.15 13.21 13.21 13.21 13.21 13.21 13.21		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

## 6.4.8 DL141TH – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.4.9 DL141TH – Web Interface

Please refer to section 5.6 on how to launch the web interface.

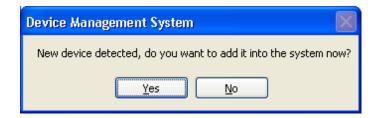
The web interface for DL141TH is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.5 DL161S

DL161S is a data logger for storing sound level reading. DL161S supports real time measurement.

#### 6.5.1 Add new DL161S

When Voltsoft detected a new DL161S attached, the following dialog will be popped up:



Click "Yes", following dialog will be displayed:

V Add New Device	_ 🗆 🛛
Device Series	Data Logger 🗸 🗸 🗸
Model Number	DL161S
Alias	161S
Auto	Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.5.2 Remove DL161S

To remove DL161S, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.5.3 DL161S – Device Control Panel

DL1615 - 1615					<b>→</b> ×
Device Graph					
/	Data	Y	Graph		
PC storage range	Earliest data: N/A		Latest data: N/A		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Sound Level dBA Sound Level dBC					
All Data				Export Excel	Export CSV
Record Time	Sound Level dBA	Sound Level dBC			

The DL161S Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL161S.
2	Device -> Stop	Stop the real time data download.
3	Device -> Download Data	Download reading from device.
4	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
5	Device -> Email Alert	This will launch the email alert module. (Available in Professional version only)
6	Device -> Calibration	Launch the calibration module.
7	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
8	Graph -> Background Colour	Change the background colour of the graph to either black or white.
9	Graph -> Grid	Control whether to show / hide the grid on the graph area.
10	Graph -> Line	Control whether to show / hide the line on the graph area.
11	Graph -> Points Indicator	Control whether to show / hide the points indicator.
12	Graph -> Print	Prints the generated chart.
13	Graph -> Save Image As	Save the image in the chosen file format.
14	Graph -> Zoom Out	Zoom out one level.
15	Graph -> Zoom To Fit	Undo all zoom in and out.
16	Graph -> View All Data	Zoom out the graph to view all data.

# 6.5.4 DL161S – Settings

🚺 160 - Settings			
Basic Settings			
Time	05-05-2011 06:	29:11 💌	Use System Time
Logger Name	160		
Sound Unit	💿 dBA	O dBC	
Measuring Speed	<ul> <li>Fast</li> </ul>	O Slow	
Mode Setup	Peak	O Normal	
Sample Rate	1 🛟 s	<b>~</b>	
Sample Points	129920	🗘 🔽 Infinite	
Recording Time	1 Day 12 Hours	s 5 Minutes 20 Seconds	
LED Flash Cycle	⊙ 10s O 2	10s 🔿 30s 🔿 D	isable
Record Start Condition	By Button	<ul> <li>After Setup</li> </ul>	
Storage Setup	O Store	<ul> <li>Real Time</li> </ul>	
Alarm Settings			
Enable LEDs Alert			
Sound Level Lo	ow Level 30	🗘 dBA 🛛 High Lev	vel 130 🛟 dBA
Sound Level Lo	ow Level 30	🗧 dBC 🛛 High Lev	vel 130 🛟 dBC
Device connect.		Default	Setup Close

1	Time	Configure the device data time value. User can specify a defined time or use the system date
		time.
2	Logger Name	Input the unique alias for that device.
3	Sound Unit	The sound unit can be dBA or dBC.
4	Measuring speed	The measuring speed can be Fast or Slow.
5	Record Start Condition	By Button – The data logger will start recording only after the user pressed the red button on the device.
		After Setup – The data logger will start recording immediately after setup.
6	Sample Rate	Instruct the data logger to log readings at a specific rate.
7	Sample Points	Configure the data logger sample points.
8	Infinite	For real time mode only, the download will not stop until the user stopped the download.
9	Recording Time	Calculate the recording time based on the selected sample points and sample rate.
10	LED Flash Cycle	Configure the LED flash cycle - the longer the time, the longer the battery life.
11	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.
12	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.
13	LED Flash for High / Low Alarm	Enable / disable LED flash when the alarm is triggered.
14	Low / High Alarm for dBA	Configure the sound level (at unit dBA) for the low / high alarm level.
15	Low / High Alarm for dBC	Configure the sound level (at unit dBC) for the low / high alarm level.
16	Default Button	Load the factory default settings.
17	Setup Button	Save changes.
18	Close Button	Close this interface.

#### 6.5.5 DL161S - Download Data

This module allows user to download the data from DL161S.

Download Data	
The data will be downloaded from Hint: After downloading, the dev	
Device connect.	OK Cancel

Click "OK" button to stop the recording and start downloading.

#### 6.5.6 DL161S – Display / Plot Data

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

Display/Plot Data			
Display/Plot Data			
O PC Storage Range	Earliest data: N/A	Latest data: Current Time	
<ul> <li>From:</li> </ul>	26-01-2013 17:38:17	To: 27-01-2013 18:38:17	~
🔿 Real Time Data			
Device connect.		ОК	Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Real Time Data	Download real time data, will only enable if the device in real time mode.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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 records will be returned.)

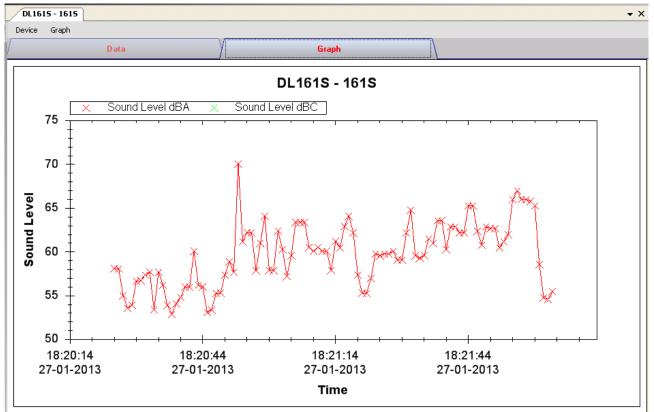
## 6.5.7 DL161S – Data View

DL161S contains two measurements (sound level in dBA and sound level in dBC), the device can record only one measurement at any specific unit of time (Control in Setting).

DL1615 - 1615					•
Device Graph	Data	V	Graph		
PC storage range	Earliest data: 27-01-:	2013 18:20:24	Latest data: Current Time		
Measurement	Maximum Value	Minimum Value	Average Value		
Sound Level dBA Sound Level dBC	70.1	52.9	59.73		
All Data				Expor	t Excel Export CSV
Record Time	Sound Level dBA	Sound Level dBC			
27-01-2013 18:20:24	58.1	Sound Level dBC			
27-01-2013 18:20:24	58.1				
27-01-2013 18:20:25	55.0				
27-01-2013 18:20:20	53.6				
27-01-2013 18:20:28	53.9				
27-01-2013 18:20:28	55.9 56.7				
27-01-2013 18:20:29	56.7				
27-01-2013 18:20:30	57.4				
27-01-2013 18:20:31	57.7				
	53.4				
27-01-2013 18:20:33					
27-01-2013 18:20:33 27-01-2013 18:20:34	57.7				
27-01-2013 18:20:33 27-01-2013 18:20:34 27-01-2013 18:20:35	57.7 56.2				
27-01-2013 18:20:33 27-01-2013 18:20:34 27-01-2013 18:20:35 27-01-2013 18:20:36	57.7 56.2 53.9				
27-01-2013 18:20:33 27-01-2013 18:20:34 27-01-2013 18:20:35 27-01-2013 18:20:35 27-01-2013 18:20:36 27-01-2013 18:20:37	57.7 56.2 53.9 52.9				
27-01-2013 18:20:33 27-01-2013 18:20:34 27-01-2013 18:20:35 27-01-2013 18:20:36 27-01-2013 18:20:37 27-01-2013 18:20:38	57.7 56.2 53.9 52.9 54.1				
27-01-2013 18:20:33 27-01-2013 18:20:34 27-01-2013 18:20:35 27-01-2013 18:20:35 27-01-2013 18:20:36 27-01-2013 18:20:37	57.7 56.2 53.9 52.9				

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

## 6.5.8 DL161S – Graph View



Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

## 6.5.9 DL161S - Email Alert

🚺 Email Alert	
Recipient(s) List	
Following receipient(s) will receive email alert	
✓ johnsmit@gmail.com	
ОК	Close

As DL161S supports real time measurement, therefore, it 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 alert level can be configured in Setting.

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

#### 6.5.10 DL161S – Calibration

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.

Calibration Adjustmer	it 📃 🗖 🔀
Adjustment Value	
þ.o	\$
(-12.5dB t)	o 12.5dB)
Device connect.	OK Cancel

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

### 6.5.11 DL161S – Web Interface

Please refer to section 5.6 on how to launch the web interface.

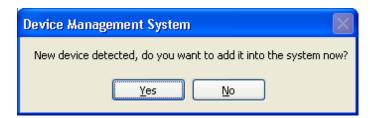
The web interface for DL161S is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.6 DL141TH2K

DL141TH2K is a data logger for storing light level.

#### 6.6.1 Add new DL141TH2K

When Voltsoft detects a new DL141TH2K attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

$\mathcal{V}$	A	• <del>-</del> -	×	
	Device Series	Data Logger		*
	Model Number	DL141TH2K		*
	Alias			
	Auto-Detect	Add	Close	

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.6.2 Remove DL141TH2K

To remove DL141TH2K, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

## 6.6.3 DL141TH2K– Device Control Panel

DL141TH2K - 141T	12K				-
Device Graph					
	Data	Y I	Graph		
PC storage range	Earliest data: N/A	Lat	est data: N/A		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
All Data				Export Excel	Export CSV
Record Time					

The DL141TH2K Device Control Panel contains follow items in menu:

THEL		
1	Device -> Settings	This will launch the setting page of DL141TH2K.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.6.4 DT141TH2K - Settings

141ТН2К -	Settings (HW ID:172TK_1412150001) -
Basic Settings	
Time	12-08-2015 11:50:35
Logger Name	141TH2K
Record Start Condition	O By Button       After Setup
Sample Rate	1 🗧 Second 🗸
Recording Time	36 Days
LED Flash Cycle	O 10s O 20s O 30s ● Disable
Alarm Settings	
Enable LEDs Alert	
TK1 Temperature (°C) Lo	ow Level 0.0 🖨 High Level 1.0 🖨
TK2 Temperature (°C) Lo	ow Level 0.0 🖨 High Level 1.0 🗣
Device disconnect.	Default Setup Close

	<b>- -r</b>	
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 pressed 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	Low / High Alarm	Configure the 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.

## 6.6.5 DL141TH2K - Download Data

This module allows user to download the data from DL141TH2K.



Click "OK" button to stop the recording and start downloading.

#### 6.6.6 DL141TH2K– Display / Plot Data

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

		- • ×
Display/Plot Data		
O PC storage range	Earliest data: 15-02-2015 23:19:54	Latest data: 15-02-2015 23:20:48
From:	09-03-2015 15:18:22	To: 10-03-2015 16:18:22
Measurement	Temperature °C 🗸 🗸	
		OK Cancel

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select Celsius or Fahrenheit record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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.)

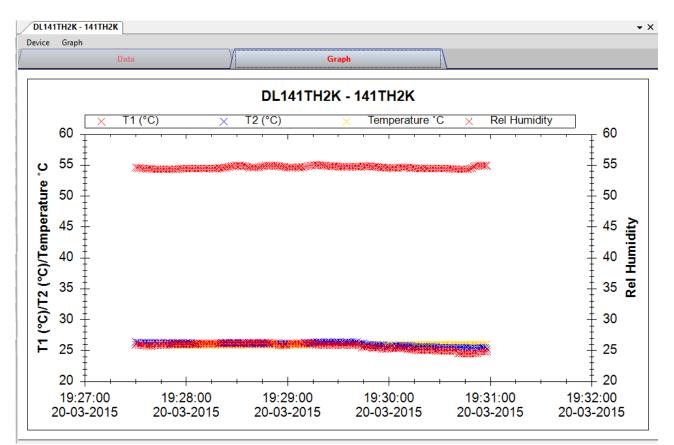
# 6.6.7 DL141TH2K - Data View

DL141TH2K contains total four measurements: T1, T2, Temperature and Relative humidity.

DL141TH2K - 141TH Device Graph						•
bevice orapii	Data	V	Graph			
PC storage range	Earliest data: 20-03-2	2015 19:27:30 Lat	est data: 20-03-2015 19:30:58	3		
Summary						
Measurement	Maximum Value	Minimum Value	Average Value			
T1 (°C)	26.3	24.6	25.75			
T2 (°C)	26.4	25.3	26.06			
Temperature °C	26	26	26.00			
Rel Humidity	55.1	54.4				
All Data					Export Excel	Export CSV
Record Time	T1 (°C)	T2 (°C)	Temperature °C	Rel Humidity		
20-03-2015 19:27:30	26.0	26.4	26	54.7		
20-03-2015 19:27:31	26.0	26.4	26	54.6		
20-03-2015 19:27:32	26.0	26.3	26	54.6		
20-03-2015 19:27:33	26.0	26.3	26	54.6		
20-03-2015 19:27:34	26.0	26.3	26	54.5		
20-03-2015 19:27:35	26.0	26.3	26	54.5		
20-03-2015 19:27:36	26.0	26.3	26	54.5		
20-03-2015 19:27:37	25.8	26.3	26	54.5		
20-03-2015 19:27:38	25.8	26.3	26	54.5		
20-03-2015 19:27:39	25.8	26.3	26	54.5		
20-03-2015 19:27:40	25.8	26.3	26	54.4		
20-03-2015 19:27:41	26.0	26.3	26	54.4		
	26.0	26.3	26	54.4		
20-03-2015 19:27:42		26.3	26	54.4		
	26.0					
20-03-2015 19:27:43	26.0 26.0	26.3	26	54.4		
20-03-2015 19:27:42 20-03-2015 19:27:43 20-03-2015 19:27:44 20-03-2015 19:27:45		26.3 26.3	26 26	54.4 54.4		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

### 6.6.8 DL141TH2K– Graph View



Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.6.9 DL141TH2K– Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL141TH2K is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.7 DL181THP

DL181THP is a data logger for storing temperature, humidity and air pressure reading.

#### 6.7.1 Add new DL181THP

When Voltsoft detected a new DL181THP attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes No

Click "Yes", the following dialog will be displayed:

V Add New Device		
Device Series	Data Logger 💌	
Model Number	DL181THP	
Alias	181THP	
Auto-Detect Add Close		

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.7.2 Remove DL181THP

To remove DL181THP, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.7.3 DL181THP – Device Control Panel

Device         Graph           Data         PC storage range         Earliest data: 27-0           ¥ Summary         Summary           All Data         Temperature (%           27-01-2013 22:11:45         23.6           27-01-2013 22:11:45         23.9           27-01-2013 22:11:45         24.1           27-01-2013 22:11:45         24.2           27-01-2013 22:11:45         24.2           27-01-2013 22:12:45         24.2           27-01-2013 22:14:45         24.2           27-01-2013 22:17:45         24.2           27-01-2013 22:17:45         24.2           27-01-2013 22:18:45         24.2           27-01-2013 22:19:45         24.2           27-01-2013 22:19:45         24.3		eitest data: 27-01-2013 22:20:45 Export Excel 6) Air Pressure (hPa) 896.05 895.65 895.25 895.15 895.15 895.05	Export CSV
PC storage range       Earliest data:       27-0		Export Excel S) Air Pressure (hPa) 896.05 895.65 895.25 895.15 895.15	Export CSV
Summary All Data Record Time Temperature (% 27-01-2013 22:11:45 23.6 27-01-2013 22:12:45 23.9 27-01-2013 22:12:45 24.1 27-01-2013 22:13:45 24.2 27-01-2013 22:15:45 24.2 27-01-2013 22:15:45 24.2 27-01-2013 22:15:45 24.2 27-01-2013 22:17:45 24.2 27-01-2013 22:18:45 24.2 27-01-2013 22:18:45 24.2 27-01-2013 22:18:45 24.2 27-01-2013 22:18:45 24.2 27-01-2013 22:19:45 24.2 27-01-2014 20:100000000000000000000000000000000000	C) Relative Humidity (% 56.5 53.3 52.1 53.9 51.7	Export Excel S) Air Pressure (hPa) 896.05 895.65 895.25 895.15 895.15	Export CSV
All Data         Temperature (%           27-01-2013 22:11:45         23.6           27-01-2013 22:12:45         23.9           27-01-2013 22:13:45         24.1           27-01-2013 22:14:45         24.2           27-01-2013 22:15:45         24.2           27-01-2013 22:15:45         24.2           27-01-2013 22:16:45         24.2           27-01-2013 22:16:45         24.2           27-01-2013 22:16:45         24.2           27-01-2013 22:17:45         24.2           27-01-2013 22:18:45         24.2           27-01-2013 22:19:45         24.2	56.5 53.3 52.1 53.9 51.7	<ul> <li>Air Pressure (hPa)</li> <li>896.05</li> <li>895.65</li> <li>895.25</li> <li>895.15</li> <li>895.15</li> </ul>	Export CSV
Record Time         Temperature (%           27-01-2013 22:11:45         23.6           27-01-2013 22:12:45         23.9           27-01-2013 22:13:45         24.1           27-01-2013 22:14:45         24.2           27-01-2013 22:15:45         24.2           27-01-2013 22:15:45         24.2           27-01-2013 22:16:45         24.2           27-01-2013 22:17:45         24.2           27-01-2013 22:17:45         24.2           27-01-2013 22:18:45         24.2           27-01-2013 22:18:45         24.2           27-01-2013 22:19:45         24.2	56.5 53.3 52.1 53.9 51.7	<ul> <li>Air Pressure (hPa)</li> <li>896.05</li> <li>895.65</li> <li>895.25</li> <li>895.15</li> <li>895.15</li> </ul>	Export CSV
27-01-2013 22:11:45       23.6         27-01-2013 22:12:45       23.9         27-01-2013 22:13:45       24.1         27-01-2013 22:13:45       24.2         27-01-2013 22:14:45       24.2         27-01-2013 22:15:45       24.2         27-01-2013 22:15:45       24.2         27-01-2013 22:16:45       24.2         27-01-2013 22:17:45       24.2         27-01-2013 22:17:45       24.2         27-01-2013 22:18:45       24.2         27-01-2013 22:19:45       24.2	56.5 53.3 52.1 53.9 51.7	896.05 895.65 895.25 895.15 895.15	
27-01-2013       22:12:45       23.9         27-01-2013       22:13:45       24.1         27-01-2013       22:14:45       24.2         27-01-2013       22:15:45       24.2         27-01-2013       22:15:45       24.2         27-01-2013       22:16:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:18:45       24.2         27-01-2013       22:19:45       24.2	53.3 52.1 53.9 51.7	895.65 895.25 895.15 895.15	
27-01-2013       22:13:45       24.1         27-01-2013       22:14:45       24.2         27-01-2013       22:15:45       24.2         27-01-2013       22:16:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:18:45       24.2         27-01-2013       22:19:45       24.2	52.1 53.9 51.7	895.25 895.15 895.15	
27-01-2013     22:14:45     24.2       27-01-2013     22:15:45     24.2       27-01-2013     22:16:45     24.2       27-01-2013     22:17:45     24.2       27-01-2013     22:17:45     24.2       27-01-2013     22:18:45     24.2       27-01-2013     22:18:45     24.2	53.9 51.7	895.15 895.15	
27-01-2013       22:15:45       24.2         27-01-2013       22:16:45       24.2         27-01-2013       22:17:45       24.2         27-01-2013       22:18:45       24.2         27-01-2013       22:18:45       24.2         27-01-2013       22:19:45       24.2	51.7	895.15	
27-01-2013     22:16:45     24.2       27-01-2013     22:17:45     24.2       27-01-2013     22:18:45     24.2       27-01-2013     22:19:45     24.2			
27-01-2013         22:17:45         24.2           27-01-2013         22:18:45         24.2           27-01-2013         22:19:45         24.2	51.4	895.05	
27-01-2013 22:18:45 24.2 27-01-2013 22:19:45 24.2			
27-01-2013 22:19:45 24.2	51.2	894.65	
	51.2	894.85	
27-01-2013 22:20:45 24.3	51.4	894.95	
	53.4	894.85	

The DL181THP Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL181THP.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.7.4 DL181THP – Settings

V 181THP - Settings (HW ID:0004_12101700002)				
Basic Settings				
Time	27-01-2013 21:58:53 🔽 Use System Time			
Logger Name	181THP			
Record Start Condition	∩ O By Button ⊙ After Setup			
Sample Rate	0 🛟 Hour(s) 1 🛟 Minute(s)			
Sample Points	10000 🗢			
Recording Time	6 Days 22 Hours 40 Minutes			
	Enable LEDs Record     10   Sec(s)			
Alarm Settings				
Enable LEDs Alert	1 📚 Sec(s)			
Temperature Lov	w Level -40.0 🗢 °C High Level 70.0 🗢 °C			
Humidity Lov	w Level 0.0 💲 % High Level 100.0 💠 %			
Air Pressure Lov	w Level 700.0 🗘 hPa High Level 1100.0 🛟 hPa			
Device connect.	Default Setup Close			

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 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 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.

#### 6.7.5 DL181THP - Download Data

This module allows user to download the data from DL181THP.

Download Data	
The data will be downloaded from Hint: After downloading, the device	
Device connect.	OK Cancel

Click "OK" button to stop the recording and start downloading.

### 6.7.6 DL181THP – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
• From:	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	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 records will be returned.)

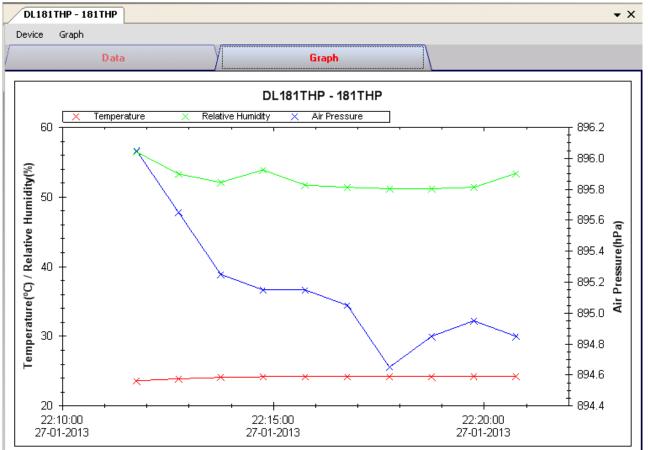
#### 6.7.7 DL181THP – Data View

DL181THP contains three measurements (Temperature, relative humidity and pressure), template unit can be Celsius or Fahrenheit and pressure unit can be hPa / kPa / Bar / SPI, depending on the setting in general setting.

DL181THP - 181THP				-	
Device Graph					
Data Graph					
PC storage range	Earliest data: 27-01-20132	22:11:45 Latest d	ata: 27-01-2013 22:20:45		
Summary					
All Data			Export Excel	Export CSV	
Record Time	Temperature (°C)	Relative Humidity (%)	Air Pressure (hPa)		
7-01-2013 22:11:45	23.6	56.5	896.05		
7-01-2013 22:12:45	23.9	53.3	895.65		
7-01-2013 22:13:45	24.1	52.1	895.25		
7-01-2013 22:14:45	24.2	53.9	895.15		
7-01-2013 22:15:45	24.2	51.7	895.15		
7-01-2013 22:16:45	24.2	51.4	895.05		
7-01-2013 22:17:45	24.2	51.2	894.65		
7-01-2013 22:18:45	24.2	51.2	894.85		
7-01-2013 22:19:45	24.2	51.4	894.95		
7-01-2013 22:20:45	24.3	53.4	894.85		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

# 6.7.8 DL181THP – Graph View



Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.7.9 DL181THP – Web Interface

Please refer to section 5.6 on how to launch the web interface.

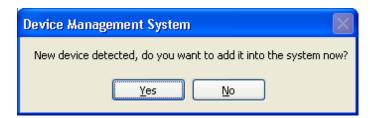
The web interface for DL181THP is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.8 DL131LUX

DL131LUX is a data logger for storing light level.

#### 6.8.1 Add new DL131LUX

When Voltsoft detects a new DL131LUX attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

$\mathcal{V}$		Add New Device		x
	Device Series	Data Logger		~
	Model Number	DL131LUX		~
	Alias			
	Auto-Detect	Add	Close	

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.8.2 Remove DL131LUX

To remove DL131LUX, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.8.3 DL131LUX – Device Control Panel

			DL131LUX - 131LU	x		×
Device Graph						
	Data		Graph			
PC storage range	Earliest data:	14-06-2015 14:28:07	Latest data: 14-06-2015 14:39:07			
Summary						
Measurement	Maximum Value	Minimum Value	Average Value			
Solar						
All Data					Export Excel	Export CSV
Record Time	Solar					

The DL131LUX Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL131LUX.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.8.4 DL131LUX - Settings

V	131LUX - Settings (HW ID:0024_15053000003) - 🗆 🗙
Basic Settings Time	12-08-2015 11:59:33
Logger Name Record Start Condition	O By Button     O After Setup
Sample Rate Recording Time	1 Minute v 36 Days
LED Flash Cycle Alarm Settings	○ 10s   ○ 20s   ○ 30s   ● Disable
Enable LEDs Alert	Low Level 0 🔹 High Level 1 🔹 w/m2
Device disconnect.	Default Setup Close

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 pressed 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	Low / High Alarm	Configure the 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.

# 6.8.5 DL131LUX - Download Data

This module allows user to download the data from DL131LUX.



Click "OK" button to stop the recording and start downloading.

### 6.8.6 DL131LUX – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
<ul> <li>From:</li> </ul>	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	Cancel	Close this module.

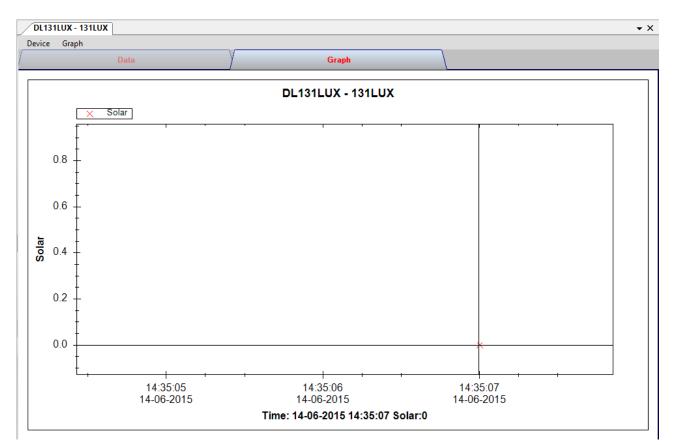
The loading time will increase when more data is retrieved; therefore, the system will be limited to return the first 100,000 records which meet your selection criteria. (For the Web version, only the first 10,000 will be returned.)

# 6.8.7 DL131LUX – Data View

DL131LUX contains one measurement only, the light level.

	Data	V	Graph		
PC storage range	Earliest data: 14-	06-2015 14:29:07	est data: 14-06-2015 14:39:07		
Summary	Lanca data. 144	00-2013 14.20.07	usi data. 14-00-2013 14.33.07		
Measurement	Maximum Value	Minimum Value	Average Value		
Solar	0	0	0.00		
All Data				Export Excel	Export CSV
Record Time	Solar				
14-06-2015 14:28:07	0				
14-06-2015 14:29:07	0				
	0				
14-06-2015 14:30:07	0				
14-06-2015 14:30:07 14-06-2015 14:31:07					
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07	0				
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07 14-06-2015 14:33:07	0				
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07 14-06-2015 14:33:07 14-06-2015 14:34:07	0 0 0				
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07 14-06-2015 14:33:07 14-06-2015 14:34:07 14-06-2015 14:35:07	0 0 0 0				
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07 14-06-2015 14:33:07 14-06-2015 14:33:07 14-06-2015 14:35:07 14-06-2015 14:36:07 14-06-2015 14:37:07	0 0 0 0 0				
14-06-2015 14:30:07 14-06-2015 14:31:07 14-06-2015 14:32:07 14-06-2015 14:33:07 14-06-2015 14:34:07 14-06-2015 14:35:07 14-06-2015 14:36:07	0 0 0 0 0				

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.



# 6.8.8 DL131LUX – Graph View

Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.8.9 DL131LUX – Web Interface

Please refer to section 5.6 on how to launch the web interface.

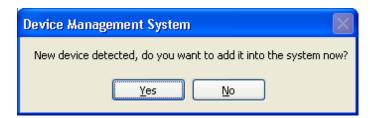
The web interface for DL131LUX is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.9 DL161SAN

DL161SAN is a data logger for storing wind speed.

#### 6.9.1 Add new DL161SAN

When Voltsoft detects a new DL161SAN attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

V	Add New Device 🗧 🗖				
	Device Series	Data Logger		~	
	Model Number	DL161SAN		~	
	Alias				
	Auto-Detect	Add	Close		
	Auto-Delect	nuu	CIUSE		

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.9.2 Remove DL161SAN

To remove DL161SAN, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.9.3 DL161SAN – Device Control Panel

DL161SAN - 1615	AN					• X
Device Graph						
/	Data	y y	Graph			
PC storage range	Earliest data: N/A	Li	atest data: N/A			
Summary						
Measurement	Maximum Value	Minimum Value	Average Value			
Maximum Value Average Value Minimum Value RT Value						
All Data					Export Excel	Export CSV
Record Time	Maximum Value	Average Value	Minimum Value	RT Value		

The DL161SAN Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL161SAN.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.9.4 DL161SAN - Settings

161S	AN - Settings (HW ID:0012_14031000	001) – 🗆 🗙
Basic Settings Time Logger Name		✔ Use System Time
Record Start Condition Sample Points	161SAN O By Button	● After Setup Sample Rate 10m ✓
Recording Time		
Alarm Settings	0 105 0 205 0 305	
	Low Level 0.0 🜩 High Level	0.0
Device disconnect.	Defau	ult Setup Close

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 on after the user pressed 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	Low / High Alarm	Configure the 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.

### 6.9.5 DL161SAN - Download Data

This module allows user to download the data from DL161SAN.



Click "OK" button to stop the recording and start downloading.

\*You must place the datalogger on the key lock before download data.

#### 6.9.6 DL161SAN – Display / Plot Data

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

Display/Plot Data						
Display/Plot Data						
O PC storage range	Earliest data: N/A	Latest data: N/A				
<ul> <li>From:</li> </ul>	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌				
Device connect.		OK Close				

1	PC Storage Range	Download all data stored in the database.	
2	Time Range	Select the data reading range.	
3	ОК	Click OK to accept the input and display the selected	
		reading in the data and graph tabs.	
4	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.)

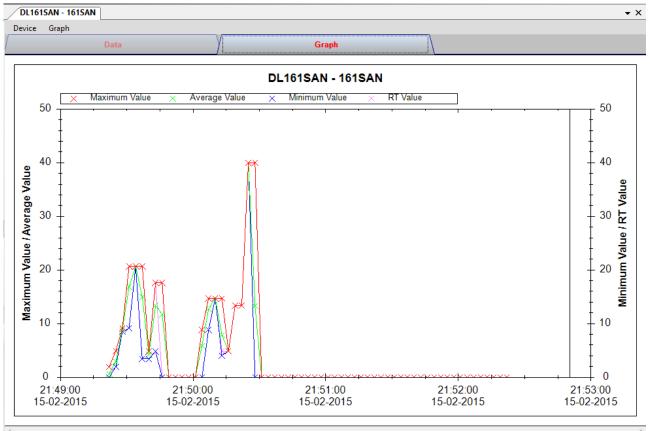
# 6.9.7 DL161SAN - Data View

DL161SAN contains four measurement: Maximum Value, Average Value, Minimum Value and RT Value.

DL161SAN - 161SAN	۷						•
Device Graph	Data	V	Graph				
PC storage range	Earliest data: 15-		test data: 15-02-2015 21:52:22	2			
\$ Summary							
All Data					Export Excel	Export CSV	
Record Time	Maximum Value	Average Value	Minimum Value	RT Value			
15-02-2015 21:49:22	1.94	0.64	0	1.94			
5-02-2015 21:49:25	4.92	2.93	1.94	4.92			
5-02-2015 21:49:28	9.14	8.92	8.5	9.14			
5-02-2015 21:49:31	20.69	16.83	9.14	20.69			
5-02-2015 21:49:34	20.69	20.69	20.69	20.69			
5-02-2015 21:49:37	20.69	14.93	3.43	3.43			
5-02-2015 21:49:40	4.82	4.22	3.43	4.82			
5-02-2015 21:49:43	17.63	13.35	4.82	17.63			
5-02-2015 21:49:46	17.63	11.75	0	0			
5-02-2015 21:49:49	0	0	0	0			
5-02-2015 21:49:52	0	0	0	0			
5-02-2015 21:49:55	0	0	0	0			
5-02-2015 21:49:58	0	0	0	0			
5-02-2015 21:50:01	0	0	0	0			
5-02-2015 21:50:04	8.85	5.89	0	8.85			
5-02-2015 21:50:07	14.72	12.76	8.85	14.72			
5-02-2015 21:50:10	14.72	14.72	14.72	14.72			
5-02-2015 21:50:13	14.72	7.89	4.08	4.87			
5-02-2015 21:50:16	4.87	4.87	4.87	4.87			
5-02-2015 21:50:19	13.42	13.42	13.42	13.42			
5-02-2015 21:50:22	13.42	13.42	13.42	13.42			
5-02-2015 21:50:25	40	40	40	40			
5-02-2015 21:50:28	40	13.33	0	0			
15-02-2015 21:50:31	0	0	0	0			
15-02-2015 21:50:34	0	0	0	0			

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

#### 6.9.8 DL161SAN – Graph View



Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.9.9 DL161SAN – Web Interface

Please refer to section 5.6 on how to launch the web interface.

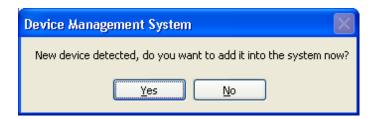
The web interface for DL161SAN is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.10 DL201THM

DL201THM is a data logger for storing moisture.

#### 6.10.1 Add new DL201THM

When Voltsoft detects a new DL201THM attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

V	/		x	
	Device Series	Data Logger		~
	Model Number	DL201THM		¥
	Alias			
	Auto-Detect	Add	Close	

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.10.2 Remove DL201THM

To remove DL201THM, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

#### **DL201THM – Device Control Panel** 6.10.3

DL201THM - 201THM	)

DL201THM - 201T Device Graph							
	Data			Graph			
PC storage range	Earliest data:	N/A	Late	st data: N/A	,		
Summary							
Measurement	Maximum Value	Mini	mum Value	Average Value			
All Data						Export Excel	Export CSV
Record Time							

The DL201THM Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL201THM.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.10.4 DL201THM - Settings

20	1THM - Settings (HW ID:0016_14060500002) - 🗆 🗙
Basic Settings	
Time	13-08-2015 14:57:25
Logger Name	201THM
Record Start Condition	O By Button       After Setup
Sample Rate	1 🗘 Minute 🗸
Recording Time	36 Days
LED Flash Cycle	◯ 10s
Alarm Settings	
Enable LEDs Alert	
Wood Humidity V	Low Level 0.0 🜩 High Level 0.0 🜩 %RH
Device connect.	
	Default Setup Close

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 pressed 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	Low / High Alarm	Configure the low / high alarm level for different measurement.
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.

### 6.10.5 DL201THM - Download Data

This module allows user to download the data from DL201THM.



Click "OK" button to stop the recording and start downloading.

### 6.10.6 DL201THM – Display / Plot Data

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

		- 🗆 🗙
Display/Plot Data		
O PC storage range	Earliest data: 26-06-2014 14:37:43	Latest data: 26-06-2014 14:41:43
From:	09-03-2015 15:00:43 🔲 🔻	To: 10-03-2015 16:00:43 🗐 🔻
Measurement	Temperature 'C 🗸 🗸	
		OK Cancel

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select Celsius or Fahrenheit record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	Cancel	Close this module.

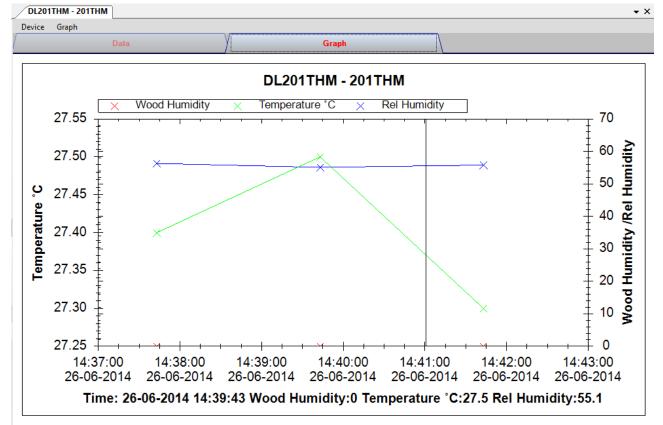
The loading time will increase when more data is retrieved; therefore, the system will be limited to return the first 100,000 records which meet your selection criteria. (For the Web version, only the first 10,000 will be returned.)

# 6.10.7 DL201THM – Data View

DL201THM contains three measurements: Wood humidity, Temperature, Relative humidity.

Device Graph					
	Data	Y	Graph		
PC storage range	Earliest data: 26-06-2	014 14:37:43 Latest	data: 26-06-2014 14:41:43		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Wood Humidity	0	0	0.00		
Temperature °C (°C)	27.3	27.3	27.40		
Rel Humidity	55.1	55.1	55.73		
All Data				Export Excel	Export CSV
Record Time	Wood Humidity	Temperature °C (°C)	Rel Humidity		
26-06-2014 14:37:43	0	27.4	56.3		
26-06-2014 14:39:43	0	27.5	55.1		
26-06-2014 14:41:43	0	27.3	55.8		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.



#### 6.10.8 DL201THM – Graph View

Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.10.9 DL201THM – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL201THM is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.11 DL111K

DL111K is a data logger for storing temperature reading.

#### 6.11.1 Add new DL111K

When Voltsoft detected a new DL111K attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes No

Click "Yes", the following dialog will be displayed:

🚺 Add New Device	
Device Series	Data Logger 💌
Model Number	DL111K
Alias	111K
Auto-	Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.11.2 Remove DL111K

To remove DL111K, go to Device Management -> Remove Existing Device and its PC data Storage, select the device want to remove and click the "Remove" button.

# 6.11.3 DL111K – Device Control Panel

DL111K - 111K				<b>→</b> X
Device Graph				
/	Data	Graph		
PC storage range	Earliest data: N/A	La	atest data: N/A	
Summary				
Measurement	Maximum Value	Minimum Value	Average Value	
[				
All Data			Export Excel	Export CSV
Record Time	Temperature *C			

The DL111K Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL111K.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.11.4 DL111K – Settings

🚺 111K - Settings (HW ID:0017_07030100001)		
CBasic Settings		
Time	02-02-2013 22:54:22	
Logger Name	111K	
Record Start Condition	O By Button ● After Setup	
Delay Time	0 Sec 👻	
Sample Rate	1 Second 💌	
LED Flash Cycle	◯ 10s 🔾 20s 🔾 30s ⊙ No Light	
Alarm Settings		
Unit	Temperature °C	
Low Level	-200 🗘 High Level 1370 🗘	
Device connect.	Default Setup Cancel	

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 pressed 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.

# 6.11.5 DL111K - Download Data

This module allows user to download the data from DL111K.

Download Data	
The data will be downloaded from t Hint: After downloading, the device	
Device connect.	OK Cancel

Click "OK" button to stop the recording and start downloading.

#### 6.11.6 DL111K – Display / Plot Data

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

Display / Plot Data		
Display / Plot Data		
O PC Storage Range	Earliest data: 05-02-2013 18:24:04	Latest data: 05-02-2013 18:35:29
<ul> <li>From:</li> </ul>	04-02-2013 18:56:09 💌	To: 05-02-2013 19:56:09 💌
Measurement	Temperature °C	▼
		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select Celsius or Fahrenheit record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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 records will be returned.)

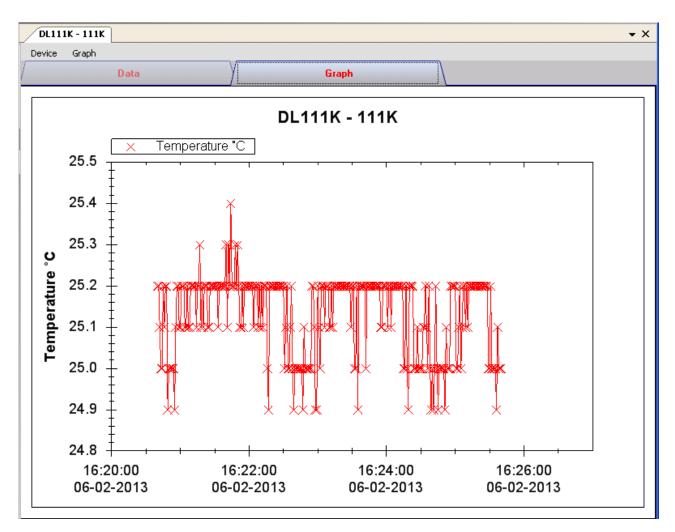
# 6.11.7 DL111K – Data View

DL111K contains one measurement (Temperature) only, its unit can be Celsius or Fahrenheit, and can be selected in Display / Plot Data dialog.

DL111K - 111K				-
Device Graph	······································			
Da	ita (	Graph		
PC storage range	Earliest data: 06-02-2013 16:20:2	4 Latest data:	07-02-2013 01:10:31	
¥ Summary				
All Data			Export Excel	Export CSV
Record Time	Temperature ℃			
06-02-2013 16:20:40	25.2			
06-02-2013 16:20:41	25.2			
06-02-2013 16:20:42	25.1			
06-02-2013 16:20:43	25.0			
06-02-2013 16:20:44	25.0			
06-02-2013 16:20:45	25.2			
06-02-2013 16:20:46	25.1			
06-02-2013 16:20:47	25.2			
06-02-2013 16:20:48	25.2			
06-02-2013 16:20:49	24.9			
06-02-2013 16:20:50	25.0			
06-02-2013 16:20:51	25.0			
06-02-2013 16:20:52	25.0			
06-02-2013 16:20:53	25.0			
06-02-2013 16:20:54	25.0			
06-02-2013 16:20:55	24.9			
06-02-2013 16:20:56	25.1			
06-02-2013 16:20:57	25.2			
06-02-2013 16:20:58	25.2			
06-02-2013 16:20:59	25.1			
06-02-2013 16:21:00	25.1			
06-02-2013 16:21:01	25.2			
06-02-2013 16:21:02	25.2			
06-02-2013 16:21:03	25.2			
06-02-2013 16:21:04	25.1			
06-02-2013 16:21:05	25.1			
06-02-2013 16:21:06	25.2			
06-02-2013 16:21:07	25.1			
06-02-2013 16:21:07	25.1			

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

### 6.11.8 DL111K – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.11.9 DL111K – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL111K is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.12 DL191A

DL191A is a data logger for measuring current.

#### 6.12.1 Add new DL191A

When Voltsoft detected a new DL191A attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

Click "Yes", the following dialog will be displayed:

V Add New Device	
Device Series	Data Logger 💌
Model Number	DL191A
Alias	191A
Auto	-Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.12.2 Remove DL191A

To remove DL191A, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.12.3 DL191A – Device Control Panel

	Data	( C	iraph		
PC storage range	Earliest data: 29-03-20	013 17:32:30	Latest data: 29-03-2013 17	7:32:52	
<b>☆</b> Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Current (mA)	0.02	0.02	0.02		
All Data				Export Excel	Export CSV
Record Time	Current (mA)				
29-03-2013 17:32:30	0.02				
29-03-2013 17:32:32	0.02				
29-03-2013 17:32:34	0.02				
29-03-2013 17:32:36	0.02				
29-03-2013 17:32:38	0.02				
29-03-2013 17:32:40	0.02				
29-03-2013 17:32:42	0.02				
29-03-2013 17:32:44	0.02 0.02				
29-03-2013 17:32:46 29-03-2013 17:32:48	0.02				
29-03-2013 17:32:48	0.02				
29-03-2013 17:32:52	0.02				

The DL191A Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL191A.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.12.4 DL191A – Settings

191A - Settings (HW ID:0014_12090600001)				
Basic Settings				
Time	29-03-2013 19:35:57 💽 ☑ Use System Time			
Logger Name	191A			
Record Start Condition	O By Button			
Sample Points	32000			
Sample Rate	2s 💌			
Record LED Flash	⊙ 10s O 20s O 30s			
Alarm Settings				
Enable LED Alert				
Low Level	0 🗘 High Level 20 😂			
Device connect.	Default Setup Close			

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 pressed the red button on the device. After Setup – The data logger will start recording immediately after setup.
4	Sample Points	Configure the data logger sample points.
5	Sample Rate	Instruct the data logger to log readings at a specific rate.
6	Record LED Flash	Configure the LED flash cycle - the longer the time, the longer the battery life.
7	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.
8	Low / High Alarm	Configure the low / high alarm level for current.
9	Default Button	Load the factory default settings.
10	Setup Button	Save changes.
11	Close Button	Close this interface.

# 6.12.5 DL191A - Download Data

This module allows user to download the data from DL191A.



Click "OK" button to stop the recording and start downloading.

#### 6.12.6 DL191A – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
• From:	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.	
2	Time Range	Select the data reading range.	
3	ОК	Click on OK to accept the input and display the selected reading in the data and graph tabs.	
4	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 records will be returned.)

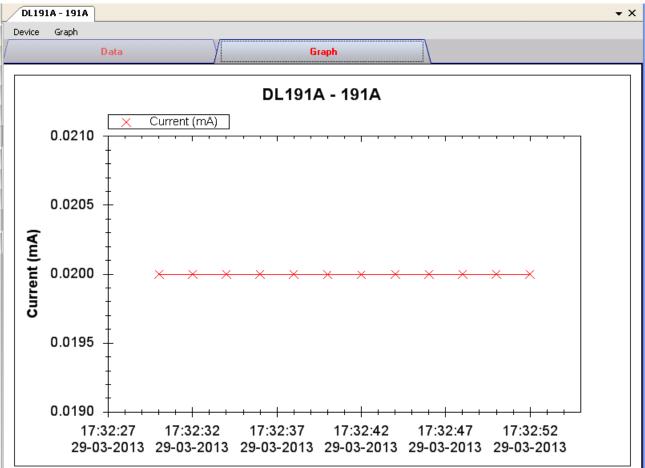
# 6.12.7 DL191A – Data View

DL191A contains one measurement (current) only.

Date         Graph           PC storage range         Earliest date:         29-03-2013 17:32-52           # Summary         Export Excel         Export CSV           All Data         Export Excel         Export CSV           Record Time         Current (mA)         Export 23:23         0.02           29-03-2013 17:32:30         0.02         29-03:2013 17:32:34         0.02           29-03-2013 17:32:38         0.02         29-03:2013 17:32:48         0.02           29-03:2013 17:32:44         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:48         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:48         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:48         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:48         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:49         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:49         0.02         29:03:2013 17:32:48         0.02           29:03:2013 17:32:49         0.02         29:03:2013 17:32:49         0.02           29:03:2013 17:32:49         0.02         29:03:013 17:32:49         0.02	Device Graph					
Summary       Export Excel       Export CSV         Record Time       Current (mA)       Export Excel       Export CSV         9-03-2013 17:32:30       0.02       0.02       0.02       0.02         9-03-2013 17:32:32       0.02       0.02       0.02       0.02       0.02       0.02         9-03-2013 17:32:36       0.02	Da	ita		Graph		
Current (mA)         Export Excel         Export CSV           29-03-2013 17:32:30         0.02           29-03-2013 17:32:32         0.02           29-03-2013 17:32:34         0.02           29-03-2013 17:32:36         0.02           29-03-2013 17:32:38         0.02           29-03-2013 17:32:40         0.02 <th>PC storage range</th> <th>Earliest data: 29-</th> <th>03-2013 17:32:30</th> <th>Latest data: 29</th> <th>-03-2013 17:32:52</th> <th></th>	PC storage range	Earliest data: 29-	03-2013 17:32:30	Latest data: 29	-03-2013 17:32:52	
Current (mA)           29-03-2013 17:32:30         0.02           29-03-2013 17:32:32         0.02           29-03-2013 17:32:34         0.02           29-03-2013 17:32:36         0.02           29-03-2013 17:32:38         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:40         0.02           29-03-2013 17:32:45         0.02           29-03-2013 17:32:45         0.02           29-03-2013 17:32:45         0.02           29-03-2013 17:32:50         0.02	Summary					
29-03-2013 17:32:30       0.02         29-03-2013 17:32:32       0.02         29-03-2013 17:32:34       0.02         29-03-2013 17:32:36       0.02         29-03-2013 17:32:38       0.02         29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	All Data				Export Excel	Export CSV
29-03-2013 17:32:32       0.02         29-03-2013 17:32:34       0.02         29-03-2013 17:32:36       0.02         29-03-2013 17:32:38       0.02         29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:45       0.02	Record Time	Current (mA)				
29-03-2013 17:32:34       0.02         29-03-2013 17:32:36       0.02         29-03-2013 17:32:38       0.02         29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:45       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:30	0.02				
29-03-2013 17:32:36       0.02         29-03-2013 17:32:38       0.02         29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:32	0.02				
29-03-2013 17:32:38       0.02         29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:49       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:34	0.02				
29-03-2013 17:32:40       0.02         29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:36	0.02				
29-03-2013 17:32:42       0.02         29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:38	0.02				
29-03-2013 17:32:44       0.02         29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02	29-03-2013 17:32:40	0.02				
29-03-2013 17:32:46       0.02         29-03-2013 17:32:48       0.02         29-03-2013 17:32:50       0.02		0.02				
29-03-2013 17:32:48 0.02 29-03-2013 17:32:50 0.02	29-03-2013 17:32:44	0.02				
29-03-2013 17:32:50 0.02	29-03-2013 17:32:46	0.02				
	29-03-2013 17:32:48	0.02				
29-03-2013 17:32:52 0.02						
	29-03-2013 17:32:52	0.02				

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

## 6.12.8 DL191A – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.12.9 DL191A – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL191A is the same as Windows version, except the download data can only have 10,000 readings in a single download.

# 6.13 DL191V

DL191V is a data logger for measuring voltage.

#### 6.13.1 Add new DL191V

When Voltsoft detected a new DL191V attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

Click "Yes", the following dialog will be displayed:

🚺 Add New Device					
Device Series	Data Logger 💌				
Model Number	DL191V				
Alias	191V/				
Auto	Auto-Detect Add Close				

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.13.2 Remove DL191V

To remove DL191V, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.13.3 DL191V – Device Control Panel

DL191V - 191					•	- 3
Device Graph						
Data	•	Y	Graph			
PC storage range	Earliest data: 1	8-03-2013 12:18:01	Latest data: 18-03-20	013 12:19:20		
¥ Summary						
All Data				Export Excel	Export CSV	_
Record Time	Voltage (V)					l
18-03-2013 12:18:01.0000	1.11					1
18-03-2013 12:18:01.0025	1.11					
18-03-2013 12:18:01.0050	1.10					
18-03-2013 12:18:01.0075	1.10					
18-03-2013 12:18:01.0100	1.10					
18-03-2013 12:18:01.0125	1.10					
18-03-2013 12:18:01.0150	1.10					
18-03-2013 12:18:01.0175	1.10					
18-03-2013 12:18:01.0200	1.10					
18-03-2013 12:18:01.0225	1.10					
18-03-2013 12:18:01.0250	1.09					
18-03-2013 12:18:01.0275	1.10					
18-03-2013 12:18:01.0300	1.09					
18-03-2013 12:18:01.0325	1.09					
18-03-2013 12:18:01.0350	1.09					
18-03-2013 12:18:01.0375	1.10					
18-03-2013 12:18:01.0400	1.09					
18-03-2013 12:18:01.0425	1.10					
18-03-2013 12:18:01.0450	1.10					
18-03-2013 12:18:01.0475	1.10					
18-03-2013 12:18:01.0500	1.10					
18-03-2013 12:18:01.0525	1.11					
18-03-2013 12:18:01.0550	1.10					
18-03-2013 12:18:01.0575	1.11					
18-03-2013 12:18:01.0600	1.10					
18-03-2013 12:18:01.0625	1.10					
18-03-2013 12:18:01.0650	1.11					
18 03 2013 12:18:01 0675	1 10					

The DL191V Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL191V.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.13.4 DL191V – Settings

🔽 191V - Settings (HW ID	:0013_12080700003	)	
Basic Settings			
Time	29-03-2013 21:25:14	🕑 🗹 Use System Tin	пе
Logger Name	191∨		
Record Start Condition	O By Button	<ul> <li>After Setup</li> </ul>	
Sample Points	32000		
Sample Rate	2s 💌		
LED Flash Cycle	⊙ 10s 🔿 20s	🔿 30s	
Alarm Settings			
Enable LED Alert			
Low Level	0	High Level 20	\$
Device connect.	C	Default Setup	Close

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 pressed the red button on the device.	
		After Setup – The data logger will start recording immediately after setup.	
4	Sample Points	Configure the data logger sample points.	
5	Sample Rate	Instruct the data logger to log readings at a specific rate.	
6	Record LED Flash	Configure the LED flash cycle - the longer the time, the longer the battery life.	
7	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.	
8	Low / High Alarm	Configure the low / high alarm level for voltage.	
9	Default Button	Load the factory default settings.	
10	Setup Button	Save changes.	
11	Close Button	Close this interface.	

## 6.13.5 DL191V - Download Data

This module allows user to download the data from DL191V.



Click "OK" button to stop the recording and start downloading.

#### 6.13.6 DL191V – Display / Plot Data

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

Display/Plot Data		
Display/Plot Data		
O PC storage range	Earliest data: N/A	Latest data: N/A
• From:	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌
Device connect.		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
4	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 records will be returned.)

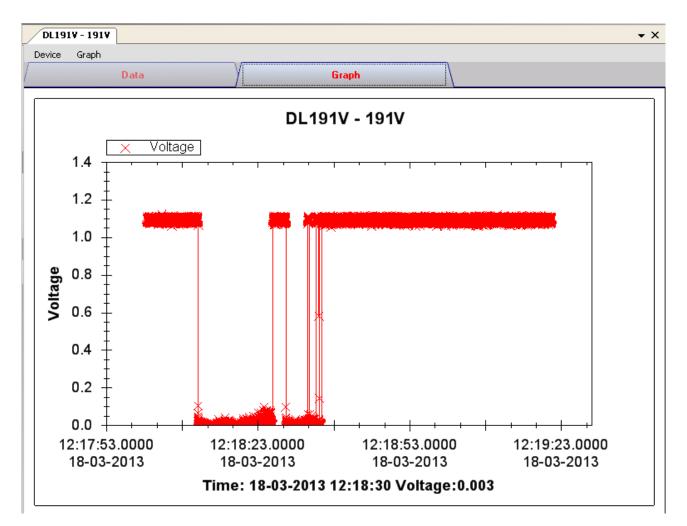
# 6.13.7 DL191V – Data View

DL191V contains one measurement (voltage) only.

DL191¥ - 191					-
Device Graph					
Data	•		Graph		
PC storage range	Earliest data: 18-03	-2013 12:18:01	Latest data: 18	3-03-2013 12:19:20	
Summary					
All Data				Export Excel	Export CSV
Record Time	Voltage (V)				
18-03-2013 12:18:01.0000	1.11				
18-03-2013 12:18:01.0025	1.11				
18-03-2013 12:18:01.0050	1.10				
18-03-2013 12:18:01.0075	1.10				
18-03-2013 12:18:01.0100	1.10				
18-03-2013 12:18:01.0125	1.10				
18-03-2013 12:18:01.0150	1.10				
18-03-2013 12:18:01.0175	1.10				
18-03-2013 12:18:01.0200	1.10				
18-03-2013 12:18:01.0225	1.10				
18-03-2013 12:18:01.0250	1.09				
18-03-2013 12:18:01.0275	1.10				
18-03-2013 12:18:01.0300	1.09				
18-03-2013 12:18:01.0325	1.09				
18-03-2013 12:18:01.0350	1.09				
18-03-2013 12:18:01.0375	1.10				
18-03-2013 12:18:01.0400	1.09				
18-03-2013 12:18:01.0425	1.10				
18-03-2013 12:18:01.0450	1.10				
18-03-2013 12:18:01.0475	1.10				
18-03-2013 12:18:01.0500	1.10				
18-03-2013 12:18:01.0525	1.11				
18-03-2013 12:18:01.0550	1.10				
18-03-2013 12:18:01.0575	1.11				
18-03-2013 12:18:01.0600	1.10				
18-03-2013 12:18:01.0625	1.10				
18-03-2013 12:18:01.0650	1.11				
18 03 2013 12:18:01 0675	1.10				

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

### 6.13.8 DL191V – Graph View



Our	araph	supports	the	followina	operations
001	grapri			ronoring	oporations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.13.9 DL191V – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL191V is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.14 DL151AN

DL151AN is a data logger for measuring air velocity.

#### 6.14.1 Add new DL151AN

When Voltsoft detected a new DL151AN attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

Click "Yes", the following dialog will be displayed:

🚺 Add New Device			
Device Series	Data Logger 💌		
Model Number	DL151AN		
Alias	151AN		
Auto-Detect Add Close			

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

### 6.14.2 Remove DL151AN

To remove DL151AN, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.14.3 DL151AN – Device Control Panel

DL151AN - 151					-
Device Graph					
Da	ta		Graph		
PC storage range	Earliest data: 29-(	3-2013 21:38:22	Latest data: 2	29-03-2013 21:40:03	
¥ Summary					
All Data				Export Excel	Export CSV
Record Time	Unit(m/s)				
29-03-2013 21:38:22	0.00				
29-03-2013 21:38:24	3.92				
29-03-2013 21:38:26	3.41				
29-03-2013 21:38:28	4.81				
29-03-2013 21:38:30	2.14				
29-03-2013 21:38:32	5.45				
29-03-2013 21:38:34	4.62				
29-03-2013 21:38:36	1.89				
29-03-2013 21:38:38	6.09				
29-03-2013 21:38:40	1.76				
29-03-2013 21:38:42	2.40				
29-03-2013 21:38:44	1.19				
29-03-2013 21:38:46	1.20				
29-03-2013 21:38:48	2.21				
29-03-2013 21:38:50	1.06				
29-03-2013 21:38:52	0.80				
29-03-2013 21:38:54	3.60				
29-03-2013 21:38:56	1.38				
29-03-2013 21:38:58	1.60				
29-03-2013 21:39:00	3.35				
29-03-2013 21:39:02	4.49				
29-03-2013 21:39:04	1.83				
29-03-2013 21:39:41	0.00				
29-03-2013 21:39:43	0.00				
29-03-2013 21:39:45	0.00				
29-03-2013 21:39:47	4.68				
29-03-2013 21:39:49	4.68				
29-03-2013 21:39:51	1 51				

#### The DL151AN Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of DL151AN.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.14.4 DL151AN – Settings

🚺 151 - Settings (HW ID:0011_12101000002)				
Basic Settings				
Time	29-03-2013 22:03:27	🔽 🗹 Use System Tim	ie	
Logger Name	151			
Record Start Condition	○ By Button	<ul> <li>● After Setup</li> </ul>		
Sample Points	32000 💌			
Sample Rate	2s 💌			
LED Flash Cycle	⊙ 10s 🛛 0 20s	○ 30s		
Alarm Settings				
Enable LED Alert				
Low Level O	High Level 15	🗘 Unit m/s	3 💙	
Device connect.		Default Setup	Close	

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	Configure the data logger sample points.	
5	Sample Rate	Instruct the data logger to log readings at a specific rate.	
6	Record LED Flash	Configure the LED flash cycle - the longer the time, the longer the battery life.	
7	Enable LED Alert	Enable / disable LED flash when the alarm is triggered.	
8	Low / High Alarm	Configure the low / high alarm level for air velocity.	
9	Default Button	Load the factory default settings.	
10	Setup Button	Save changes.	
11	Close Button	Close this interface.	

# 6.14.5 DL151AN - Download Data

This module allows user to download the data from DL151AN.



Click "OK" button to stop the recording and start downloading.

### 6.14.6 DL151AN – Display / Plot Data

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

Display / Plot Data		
Display / Plot Data		
O PC Storage Range	Earliest data: 29-03-2013 21:38:22	Latest data: 29-03-2013 21:40:03
<ul> <li>From:</li> </ul>	28-03-2013 22:03:13	To: 29-03-2013 23:03:13 💌
Measurement	Unit(m/s)	▼
		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select which measurement unit to download.
4	ОК	Click OK to accept the input and display the selected
		reading in the data and graph tabs.
5	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 records will be returned.)

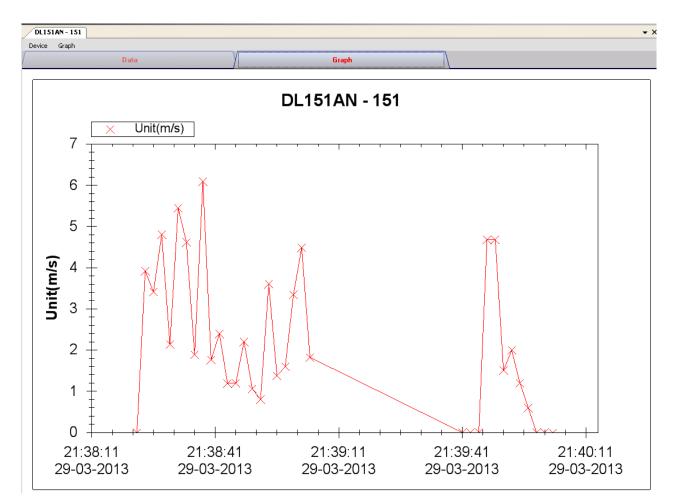
#### 6.14.7 DL151AN – Data View

DL151AN contains one measurement (air velocity) only, but in different unit (m/s, ft/min, knots, km/h and MPH).

DL151AN - 151 Device Graph					•
Device Graph Da	ta	G	raph		
PC storage range	Earliest data: 29	3-03-2013 21:38:22	Latest data:	29-03-2013 21:40:03	
¥ Summary					
All Data				Export Excel	Export CSV
Record Time	Unit(m/s)				
29-03-2013 21:38:22	0.00				
29-03-2013 21:38:24	3.92				
29-03-2013 21:38:26	3.41				
29-03-2013 21:38:28	4.81				
29-03-2013 21:38:30	2.14				
29-03-2013 21:38:32	5.45				
29-03-2013 21:38:34	4.62				
29-03-2013 21:38:36	1.89				
29-03-2013 21:38:38	6.09				
29-03-2013 21:38:40	1.76				
29-03-2013 21:38:42	2.40				
29-03-2013 21:38:44	1.19				
29-03-2013 21:38:46	1.20				
29-03-2013 21:38:48	2.21				
29-03-2013 21:38:50	1.06				
29-03-2013 21:38:52	0.80				
29-03-2013 21:38:54	3.60				
29-03-2013 21:38:56	1.38				
29-03-2013 21:38:58	1.60				
29-03-2013 21:39:00	3.35				
29-03-2013 21:39:02	4.49				
29-03-2013 21:39:04	1.83				
29-03-2013 21:39:41	0.00				
29-03-2013 21:39:43	0.00				
29-03-2013 21:39:45	0.00				
29-03-2013 21:39:47	4.68				
29-03-2013 21:39:49	4.68				
29-03-2013 21:30:40	1 51				
Export Exce	1	Export the	rooding to F	(ad ( via) format	]
Export Exce				cel (.xls) format.	
Even ort CCV	Export CSV		reading to Ex	(col ( cou) format	

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

### 6.14.8 DL151AN – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.14.9 DL151AN – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for DL151AN is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.15 DL200T / DL210TH / DL220THP

DL200T is a data logger for storing temperature.

DL210TH is a data logger for storing temperature and humidity.

DL220THP is a data logger for storing temperature, humidity and air pressure reading.

# 6.15.1 Add new DL200T / DL210TH / DL220THP

When Voltsoft detects a new DL200T / DL210TH / DL220THP attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes No

Click "Yes", the following dialog will be displayed:

V	ł	Add New Device	- 🗆 🗙
	Device Series	Data Logger	~
	Model Number	DL220THP	~
	Alias		
	Auto-Detect	Add	Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

### 6.15.2 Remove DL200T / DL210TH / DL220THP

To remove DL200T / DL210TH / DL220THP, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.15.3 DL200T / DL210TH / DL220THP – Device Control Panel

DL220THP - DL220THP	]				• ×
Device Graph					
/	Data	γ	Graph		
PC storage range	Earliest data: N/A	l	Latest data: N/A		
Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
All Data				Export Excel	Export CSV
Record Time					

The DL200T / DL210TH / DL220THP Device Control Panel contains follow items in menu:

1	Device -> Settings	This will launch the setting page of DL200T / DL210TH / DL220THP.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

4 DL200T / I	DL220THP - Settings (HW ID:DL-220THP0000004) -
Basic Setting	
-	
Logger Name	DL220THP
Logger ID	0001
Record Start Condition	Immediately until memory full v
Stop Style	None 🗸
Start Time	22-07-2016 22:49:29
Stop Time	22-07-2016 22:49:29
Start Delay Minutes	0  ➡ Minutes LED Flash Interval 5s ✓
Sampling Rate	0 🕂 Hours 1 🗭 Minutes
Recording Time	9 Days 6 Hours 20 Minutes
	Enable Display
Alarm Setting PDF Report Op	vtions
Enable LED Alarm	
Temperature	Low Alarm 0.0 ≑ High Alarm 0.0 ≑ °C
Relative Humidity	Low Alarm 0.0 💠 High Alarm 0.0 🗢 %RH
Air pressure	Low Alarm 300 🗢 High Alarm 300 🗢 hPa 🗸
Limit Pause Function	
Device connect.	Default Create Configuration Close

1	Logger Name	Input the unique alias for that device.
2	Logger ID	Logger ID is a four digit identifier. Enter a number
		between 0000 and 9999 e.g. 0014.
2	Record Start Condition	"IMMEDIATELY UNTIL MEMORY FULL": Data logger
		starts recording data immediately until the memory is
		full.
		"START UPON KEYPRESS": Data logger starts recording
		after holding button ENTER pressed for few seconds.
		Data logger stops recording until memory is full.
		"START UPON START TIME": Data logger starts
		recording at a defined date and time until the memory
		is full.
		"START/STOP TIME": Data logger starts and stops
		recording data at a defined date and time.

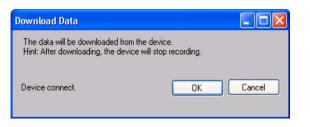
4	Stop Style	<ul> <li>"CIRCULAR LOGGING": Data logger starts recording immediately and circularly. The newest data overwrites the oldest data. It stops recording/logging once the battery is depleted or "CIRCULAR LOGGING" has been replaced by another "RECORD START CONDITION" during configuration.</li> <li>"NONE": No stop condition is specified. Data logger stops recording based on the "RECORD START CONDITION" stops recording based on the "RECORD START CONDITION" stops.</li> <li>"STOP BUTTON": Data logger stops recording after holding button ENTER pressed for few seconds.</li> </ul>
		"AFTER PDF CREATED": Data logger stops recording after PDF report is generated.
5	Start Time	Define date and time when to start recording data.
6	Stop Time	Define date and time when to stop recording data.
7	Start Delay Minutes	Define delay time of immediate start of recording.
8	Sampling Rate	Define how frequent the data logger measures and records data in "SECONDS", "MINUTES" or "HOURS".
9	Recording Time	This value is automatically calculated based on the sampling rate and cannot be set by the user.
10	LED Flash Interval	Select how fast the LED control lights (2,3) shall flash. Choose an interval of 5, 10, 15, 20, 25 or 30 seconds.
11	Enable Display	Remove the checkmark from the check box to turn off the LC display, or check the checkbox to turn on the LC display.
12	Enable LED Alarm	<ul><li>The LED alarm indicates when a measured value is outside the defined range.</li><li>To disable the LED alarm, remove the checkmark in the checkbox.</li><li>To enable the LED alarm, check the checkbox .</li></ul>
13	Limit Pause Function	During recording, the limit alarm can be suspended. Select "ENABLE" or "DISABLE" to enable/disable the pause function. Pause function will not stop the recording.
14	Low Alarm / High Alarm	<ul> <li>Select parameter(s) by checking parameter checkboxes and specify the low and high alarm in numbers.</li> <li>For air pressure, choose the desired unit from the drop menu (DL-220THP only).</li> </ul>
15	Language	Choose the language, in which the PDF report shall be shown, from the selection box.
16	PDF File Name	<ul> <li>Click on "INSERT NAME" to define the pattern of the file name.</li> <li>A new window "PLEASE CHOOSE THE NAME PATTERN BELOW" opens. Choose the required elements (OWNER/SERIAL ID/MODELNAME/DATE/TIME/LOCATION) and their order.</li> <li>Up to 6 elements can be chosen. Chosen elements appear in the field "FILE NAME".</li> <li>Press "CLEAR" to delete all chosen elements. The field</li> </ul>

		"FILE NAME" is empty again.
		Press "CLOSE" to save the file name pattern and close this window.
17	Date Format	Select your prefered date format from menu
18	Time Format	Select between 12 hour or 24 hour format.
19	Owner	Key in the owner's name.
20	Location	Key in the location's name e.g. the name of the location where you will record.
21	Report Title	Enter a report title, which will be shown on the PDF report.
22	User Text	Enter some remarks or additional information if needed.
23	Default Button	Reload the factory default settings.
24	Create Configuration Button	Save changes.
25	Close Button	Close this interface.

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

### 6.15.5 DL200T / DL210TH / DL220THP - Download Data

This module allows user to download the data from DL200T / DL210TH / DL220THP.



Click "OK" button to stop the recording and start downloading.

#### 6.15.6 DL200T / DL210TH / DL220THP – Display / Plot Data

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

	Display/Plot Data	- 🗆 🗙
Real Time Data		
O PC Storage Range	Earliest data: 22-07-2016 22:54:14	Latest data: 22-07-2016 22:54:14
From:	21-07-2016 22:52:05	To: 22-07-2016 23:52:05
Measurement	Temperature 'C 🗸 🗸	
	Air Pressure (hPa) V	
		OK Close

1	PC Storage Range	Download all data stored in the database.	
2	Time Range	Select the data reading range.	
3	Measurement	For DL200T / DL210TH, user can select Celsius or Fahrenheit record to download. For DL220THP, user can select air pressure unit too.	
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.	
5	Close	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.)

### 6.15.7 DL200T / DL210TH / DL220THP – Data View

DL200T contain two measurement: Temperature and Pause.

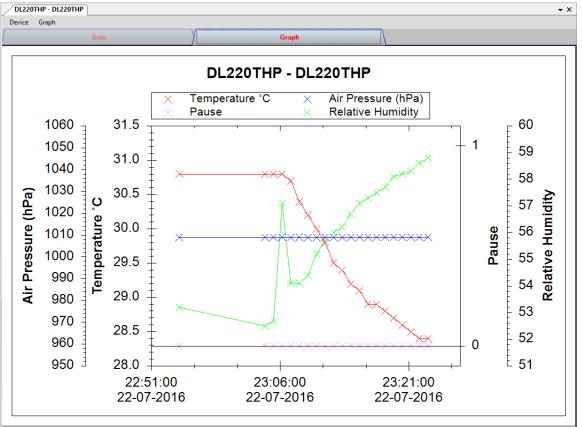
DL210TH contain three measurements: Temperature, humidity and Pause.

DL220THP contains four measurements: Temperature, humidity, air pressure and Pause.

Pause will only have value 0 or 1 to indicate the limit alarm was suspended or not (1 = suspended).

	Data	/	Graph					
PC storage range	Earliest data: 2	22-07-2016 22:54:14 L	atest data: 22-07-2016 23:23:14					
Summary								
Measurement	Maximum Value	Minimum Value	Average Value					
Temperature °C (°C)	30.8	28.4	29.56					
Relative Humidity (%)	58.8	52.5	56.17					
Air Pressure (hPa)	1009	1009	1,009.00					
All Data						Export Excel	Б	port CSV
Record Time	Temperature °C (°C)	Relative Humidity (%)	Air Pressure (hPa)	Pause				
22-07-2016 22:54:14	30.8	53.2	1009	0				
22-07-2016 23:04:14	30.8	52.5	1009	0				
22-07-2016 23:05:14	30.8	52.7	1009	0				
22-07-2016 23:06:14	30.8	57.1	1009	0				
22-07-2016 23:07:14	30.7	54.1	1009	0				
22-07-2016 23:08:14	30.4	54.1	1009	0				
22-07-2016 23:09:14	30.2	54.4	1009	0				
22-07-2016 23:10:14	30.0	55.2	1009	0				
22-07-2016 23:11:14	29.8	55.7	1009	0				
22-07-2016 23:12:14	29.5	56.0	1009	0				
22-07-2016 23:13:14	29.4	56.2	1009	0				
22-07-2016 23:14:14	29.2	56.7	1009	0				
22-07-2016 23:15:14	29.1	57.1	1009	0				
22-07-2016 23:16:14	28.9	57.3	1009	0				
22-07-2016 23:17:14	28.9	57.5	1009	0				
22-07-2016 23:18:14	28.8	57.7	1009	0				
22-07-2016 23:19:14	28.7	58.1	1009	0				
22-07-2016 23:20:14	28.6	58.2	1009	0				
22-07-2016 23:21:14	28.5	58.3	1009	0				
22-07-2016 23:22:14	28.4	58.6	1009	0				
22-07-2016 23:23:14	28.4	58.8	1009	0				
Eveas	t Evoal		Export the	rooding t		al ( yla) fa	r <b>m</b> ot	
Expor	t Excel		Export the	reading t	U EXCE	er (.xis) to	mat.	
Expor	t CSV		Export the		-			





Our graph support following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

### 6.15.9 DL200T / DL210TH / DL220THP – Web Interface

DL200T, DL210TH and DL220THP are not available for web interface.

# 6.16 PL-125-T2 / PL-125-T4

PL-125-T2 / PL-125-T4 are data loggers for storing temperature reading. PL-125-T2 has two channels while PL-125-T4 has four channels for measurement.

#### 6.16.1 Add new PL-125-T2 / PL-125-T4

When Voltsoft detected a new PL-125-T2 / PL-125-T4 attached, the following dialog will be popped up:

Devic	Management System	]
New	device detected, do you want to add it into the system now?	,
	Yes No	

Click "Yes", the following dialog will be displayed:

V Add New Device	
Device Series	Data Logger 💌
Model Number	PL-125-T2
Alias	
Auto-Detect	Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.16.2 Remove PL-125-T2 / PL-125-T4

To remove PL-125-T2 / PL-125-T4, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.16.3 PL-125-T2 / PL-125-T4 – Device Control Panel

PL-125-T4 - PL-125-T41					<b>-</b> ×
Device Graph					
Data	)	Graph			
PC storage range	Earliest data: 11-07-20	13 15:48:40 Latest d	ata: 20-10-2013 23:33:5	6	
¥ Summary					
All Data				Export Excel	Export CSV
Record Time					

6.11.3 PL-125-T2 / PL-125-T4 contain follow items in menu:

1	Device -> Settings	This will launch the setting page of PL125-T2 / PL-125-T4.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

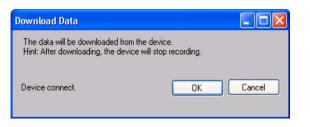
# 6.16.4 PL125-T2 / PL-125-T4 - Settings

M	125 - Settings (HW ID:T4_1405260001) – 🗆 🗙
Basic Settings	
Logger Name	PL-125-T4
Time	18-06-2014 14:09:03
Sample Rate	2 Second V
Device disconnect.	Clear Device Defualt Setup Close

1	Logger Name	Input the unique alias for that device.	
2	Time	Configure the device data time value. The user can specify a defined time or use the system	
		date time.	
3	Sample Rate	Instruct the logger to log readings at a specific rate.	
4	Clear Device	Clear the memory on logger.	
5	Default Button	Reload the factory default settings.	
6	Setup Button	Save changes.	
7	Close Button	Close this interface.	

# 6.16.5 PL125-T2 / PL-125-T4 - Download Data

This module allows user to download the data from PL125-T2 / PL-125-T4.



Click "OK" button to stop the recording and start downloading.

### 6.16.6 PL125-T2 / PL-125-T4 – Display / Plot Data

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

Display / Plot Data		
Display / Plot Data		
O PC Storage Range	Earliest data: 05-02-2013 18:24:04	Latest data: 05-02-2013 18:35:29
<ul> <li>From:</li> </ul>	04-02-2013 18:56:09	To: 05-02-2013 19:56:09 💌
Measurement	Temperature °C	▼
		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select Celsius or Fahrenheit record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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.)

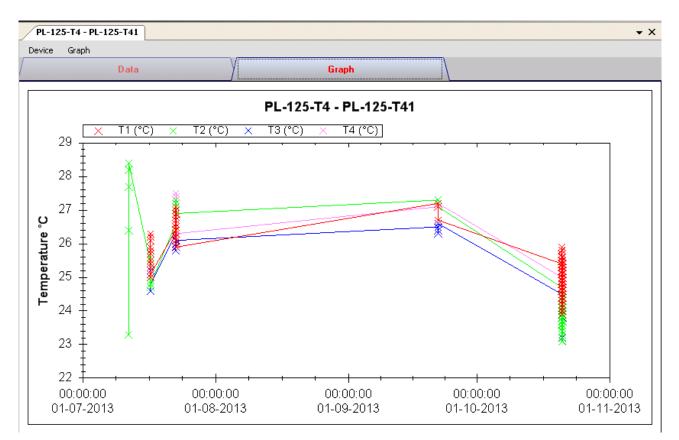
# 6.16.7 PL125-T2 / PL-125-T4 – Data View

PL125-T2 / PL-125-T4 are both measuring template. PL125-T2 will have two measurements and PL125-T4 will have four measurements. Template unit can be Celsius or Fahrenheit, depending on the selection in download page.

PL-125-T4 - PL-125-T41 <ul> <li>X</li> <li>Device Graph</li> <li>X</li> </ul>					
PC storage range	Earliest data: 11-	07-2013 15:48:40	Latest data: 20-10-2013 23:33:56		
¥ Summary					
All Data			C	Export Excel	Export CSV
Record Time	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)	
16-07-2013 18:23:15	25.8	25.5	25.5	25.1	
16-07-2013 18:23:16	25.8	25.5	25.4	25.1	
16-07-2013 18:23:17	25.8	25.5	25.4	25.2	
16-07-2013 18:24:52	26.3	25.6	25.3	25.8	
16-07-2013 18:24:53	26.3	25.6	25.3	25.8	
16-07-2013 18:24:54	26.3	25.6	25.3	25.8	
16-07-2013 18:24:55	26.2	25.6	25.3	25.7	
16-07-2013 18:24:56	26.3	25.6	25.3	25.9	
16-07-2013 18:24:57	26.3	25.6	25.3	25.9	
16-07-2013 18:24:58	26.3	25.6	25.3	25.9	
16-07-2013 18:24:59	26.3	25.8	25.5	25.9	
16-07-2013 18:25:00	26.3	25.6	25.5	25.9	
16-07-2013 18:25:01	26.3	25.6	25.5	25.9	
16-07-2013 18:25:02	26.3	25.7	25.5	25.7	
16-07-2013 18:25:03	26.3	25.7	25.5	25.7	
16-07-2013 18:25:04	26.3	25.7	25.4	25.7	
16-07-2013 18:25:05	26.2	25.6	25.4	25.7	
16-07-2013 18:25:06	26.2	25.6	25.4	25.7	
16-07-2013 18:25:07	26.2	25.6	25.4	25.7	
16-07-2013 18:25:08	26.2	25.6	25.2	25.7	
16-07-2013 18:25:09	26.2	25.6	25.2	25.7	
16-07-2013 18:25:10	26.2	25.6	25.2	25.7	
16-07-2013 18:25:11	26.2	25.6	25.2	25.7	
10 07 0010 10:05:10	 	757	 	757	

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

# 6.16.8 PL125-T2 / PL-125-T4 – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.16.9 PL125-T2 / PL-125-T4 – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for 6.11.9PL125-T2 / PL-125-T4 is the same as Windows version, except the downloaded data can only have 10,000 reading in a single download.

# 6.17 IR 1200-50D / IR 1201-50D

IR 1200-50D / IR 1201-50D is a data logger for measuring temperature.

### 6.17.1 Add new IR 1200-50D / IR-1201-50D

When Voltsoft detected a new IR 1200-50D / IR 1201-50D attached, the following dialog will be popped up:

Device Management System			
New device detected, do you want to add it into the system now?			
<u>Y</u> es <u>N</u> o			

Click "Yes", the following dialog will be displayed:

V Add New Device	, 📃 🛛				
Device Series	Data Logger 💌				
Model Number	IR 1200-50D				
Alias	1200-50D				
Auto	-Detect Add Close				

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

### 6.17.2 Remove IR 1200-50D / IR-1201-50D

To remove IR 1200-50D / IR 1201-50D, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.17.3 IR 1200-50D / IR-1201-50D – Device Control Panel

IR 1200-50D - 1200						<b>▼</b> X
Device Graph						
/ Data		Y	Graph			
PC storage range	Earliest data: 0	5-03-2013 16:56:	25 Latest data: Current Time			
¥ Summary						
All Data				Export Excel	Export	CSV
Record Time	IR (°C)		Stop Download Logge	er		
			EMS:0			
			IR Max: 0	IR Min:	0	
			IR AVG: 0	IR DIF:	0	
			IR: <b>0</b>		°C	
			<sup>тк:</sup> <b>N / A</b>	•		
		>	1/1/0001 12:00:00	) am		

The IR 1200-50D / IR 1201-50D Device Control Panel contains the follow items in menu:

1	Device -> Settings	This will launch the setting page of IR 1200-50D.
2	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
3	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
4	Graph -> Background Colour	Change the background colour of the graph to either black or white.
5	Graph -> Grid	Control whether to show / hide the grid on the graph area.
6	Graph -> Line	Control whether to show / hide the line on the graph area.
7	Graph -> Points Indicator	Control whether to show / hide the points indicator.
8	Graph -> Print	Prints the generated chart.
9	Graph -> Save Image As	Save the image in the chosen file format.
10	Graph -> Zoom Out	Zoom out one level.
11	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.17.4 IR 1200-50D / IR-1201-50D – Settings



1	Logger Name	Input the unique alias for that device.	
2	Sample Rate	Instruct the data logger to log readings at a specific rate (for real time mode only).	
3	Setup Button	Save changes.	
4	Close Button	Close this interface.	

### 6.17.5 IR 1200-50D / IR-1201-50D – Play (Real Time Mode)

Click the "Play" button in device control panel will switch IR 1200-50D / IR 1201-50D into real time mode and the button label will become "Stop", click it again to leave real time mode.

IR 1200-50D - 120	10	<b>-</b> ×
Device Graph		
/	Data	Graph
PC storage range	Earliest data: 05-03-2013	16:56:25 Latest data: 05-03-2013 17:09:20
♥ Summary		
All Data		Export Excel Export CSV
Record Time	IR (°C)	EMS Play Download Logger

In real time mode, pressing the trigger on the device will start sending data to PC, no data will be sent if the trigger is not pressed.

IR 1200-50D - 1200		• X
Device Graph		
Data	G	raph
PC storage range Earlie	est data: 05-03-2013 16:56:25	Latest data: Current Time
Summary		
All Data		Export Excel Export CSV
Record Time IR (*C	) Stop	Download Logger
	EMS:	0
	IR Ma:	x: 0 IR Min: 0
	IR AV	G: 0 IR DIF: 0
		0°C
		N/A
	1/1/00	001 12:00:00 AM

#### 6.17.6 IR 1200-50D / IR-1201-50D – Download Store Data

Click the "Download Logger" button in the device control panel will trigger the download data action, and the following dialog will be popped up:

IR 1200-50D - 1200	•
Device Graph	
Data	Graph
PC storage range E	Earliest data: 05-03-2013 16:56:25 Latest data: 05-03-2013 17:09:20
Summary	
All Data	Export Excel Export CSV
Record Time IR	To download data from device:
	<ol> <li>1) Enter the "Set" menu of the device</li> <li>2) Press the up and down arrow softkey to select Send data</li> <li>3) Press the Set softkey to enter Send data setting</li> <li>4) Press the up and down arrow softkey to select memory.</li> <li>5) Press the Ok softkey</li> </ol>
	Cancel
	Connected

Follows the instructions displayed, if success, the dialog will dismiss and data will be displayed.

IR 1200-50D - 1200					• ×
Device Graph					
/	Data			Graph	
PC storage range	Earliest data:	05-03-2013 16:56	6:25	Latest data: 03-04-201	3 23:05:38
Summary					
All Data					Export Excel Export CSV
Record Time	IR (*C)	EMS	TK (°C)		
24-12-2012 14:49:00	21.3	0.95		Play	Download Logger
03-01-2013 14:33:00	23.4	0.95			
03-01-2013 14:33:20	21.8	0.95			
03-01-2013 14:33:40	38.0	0.95			
03-01-2013 14:37:00	22.2	0.95			
03-01-2013 14:37:30	38.8	0.95			
03-01-2013 18:10:00	24.6	0.95			
02-02-2013 19:20:00	33.0	0.95			
02-02-2013 19:20:30	33.0	0.95			
05-02-2013 17:00:00	25.6	0.95			
03-04-2013 23:10:00	25.2	0.95			
03-04-2013 23:10:30	27.6	0.95			
					Connected
					Connected
<			>		

#### 6.17.7 IR 1200-50D / IR-1201-50D – Display / Plot Data

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

Display / Plot Data		
Display / Plot Data		
O PC Storage Range	Earliest data: 05-03-2013 16:56:25	Latest data: 05-03-2013 17:09:20
<ul> <li>From:</li> </ul>	30-03-2013 23:52:20 💌	To: 01-04-2013 00:52:20 💌
Measurement	Temperature °C	×
		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select which measurement unit to download.
4	ОК	Click OK to accept the input and display the selected
		reading in the data and graph tabs.
5	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 records will be returned.)

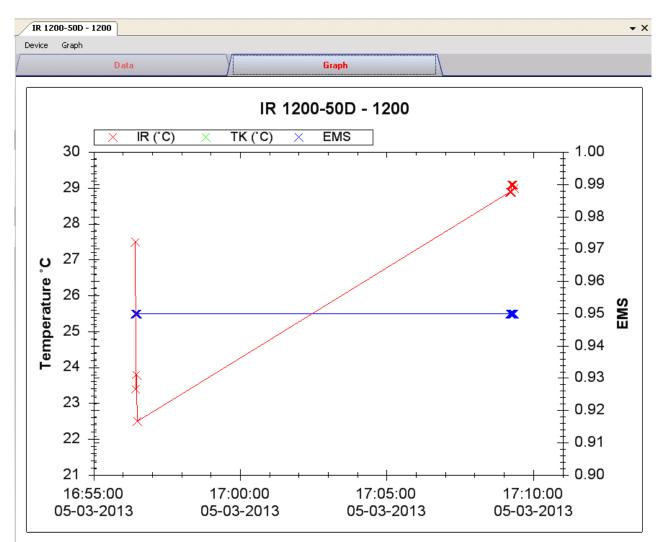
# 6.17.8 IR 1200-50D / IR-1201-50D – Data View

IR 1200-50D / IR 1201-50D contains one measurement (Temperature) only, its unit can be Celsius or Fahrenheit, can be selected in Display / Plot Data dialog.

IR 1200-50D - 1200				
Data			Graph	
PC storage range	Earliest data: 05-1	03-2013 16:56:25	Latest data: 05-03-2013 17:09:20	
Summary				
All Data			Export Excel Export CSV	
Record Time	IR (*C)	EMS		
05-03-2013 16:56:25	27.5	0.95	Play Download Logger	
05-03-2013 16:56:26	23.4	0.95		
05-03-2013 16:56:27	23.8	0.95		
05-03-2013 16:56:29	22.5	0.95		
05-03-2013 17:09:12	28.9	0.95		
05-03-2013 17:09:13	28.9	0.95		
05-03-2013 17:09:14	28.9	0.95		
05-03-2013 17:09:15	29.1	0.95		
05-03-2013 17:09:16	29.1	0.95		
05-03-2013 17:09:17	29.1	0.95		
05-03-2013 17:09:18	29.1	0.95		
05-03-2013 17:09:19	29.1	0.95		
05-03-2013 17:09:20	29.0	0.95		
			Connected	
			Connected	
<		>		

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.
3	Play	Enter the real time mode.
4	Download Logger	Download stored data in device.

## 6.17.9 IR 1200-50D / IR-1201-50D – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

### 6.17.10 IR 1200-50D / IR-1201-50D – Web Interface

Please refer to section 5.6 on how to launch the web interface.

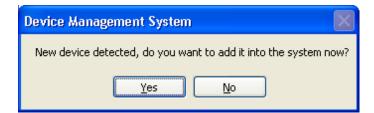
The web interface for IR 1200-50D / IR 1201-50D is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.18 SL451

SL451 is a data logger for storing sound level reading. SL451 support real time measurement.

#### 6.18.1 Add new SL451

To add SL451 to Voltsoft, first connect SL451 to PC via USB port, press the "SETUP" button on the device until the circle icon (on lower left corner) disappears. When Voltsoft detected a new SL451 attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

V Add New Device	
Device Series	Data Logger 💌
Model Number	SL451
Alias	451
Auto	Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.18.2 Remove SL451

To remove SL451, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.18.3 SL451 – Device Control Panel

Data	)	(	Graph				
	Earliest data: N	/A		Latest (	data: N/A		
	Maximum Value		Minimum Value		Average Value		
					Export Excel		Export CSV
	Sound Level dB	A	Sound Level dBC				
	Data	Earliest data: N Maximum ∀alue	Data         Earliest data: N/A         Maximum Value         Sound Level dBA	Earliest data: N/A Maximum ∀alue Minimum ∀alue	Earliest data: N/A Latest o Maximum ∀alue Minimum ∀alue	Earliest data: N/A Maximum Value Minimum Value Average Value Export Excel	Earliest data: N/A Maximum Value Minimum Value Average Value Export Excel

The SL451 Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of SL451.
2	Device -> Stop	Stop the real time data download.
3	Device -> Download Data	Download reading from device.
4	Device -> Display / Plot Data	Select the time range that the device reading should be retrieved.
5	Device -> Email Alert	This will launch the email alert module. (Available in Professional version only)
6	Device -> Calibration	Launch the calibration module.
7	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
8	Graph -> Background Colour	Change the background colour of the graph to either black or white.
9	Graph -> Grid	Control whether to show / hide the grid on the graph area.
10	Graph -> Line	Control whether to show / hide the line on the graph area.
11	Graph -> Points Indicator	Control whether to show / hide the points indicator.
12	Graph -> Print	Prints the generated chart.
13	Graph -> Save Image As	Save the image in the chosen file format.
14	Graph -> Zoom Out	Zoom out one level.
15	Graph -> Zoom To Fit	Undo all zoom in and out.
16	Graph -> View All Data	Zoom out the graph to view all data.

### 6.18.4 SL451 – Settings

🚺 451 - Settings (HW ID:0006_1210170003)					
CBasic Settings					
Logger Name	4 <mark>51</mark>				
	Please change the device settings by using the hardware key on the device.				
Sample Rate	1 S 💌				
Sample Points	40000 🗧 🗌 Infinite				
Alarm Settings —					
Sound	Low Level 30 🤤 dB High Level 130 🤤 dB				
Sound	Low Level 🛛 30 🤤 dB 🛛 High Level 130 🤤 dB				
Device connect.	Default Setup Close				

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 stopped 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.

#### 6.18.5 SL451 - Download Data

This module allows user to download the data from SL451, it will download the data when user pressed the "REC" button on the device.

Download Data		
The data will be downloaded from the Hint: After downloading, the device		
Device connect.	ОК	Cancel

Click "OK" button to stop the recording and start downloading.

### 6.18.6 SL451 – Display / Plot Data

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

Display/Plot Data			
Display/Plot Data			
O PC Storage Range	Earliest data: N/A	Latest data: Current Time	
From:	26-01-2013 17:38:17 💌	To: 27-01-2013 18:38:17 💌	]
🔘 Real Time Data			
Device connect.		OK Close	

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Real Time Data	Download real time data, will only enable if the device in real time mode. (by press the "Setup" button in Settings)
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
	Cancel	Close this module.

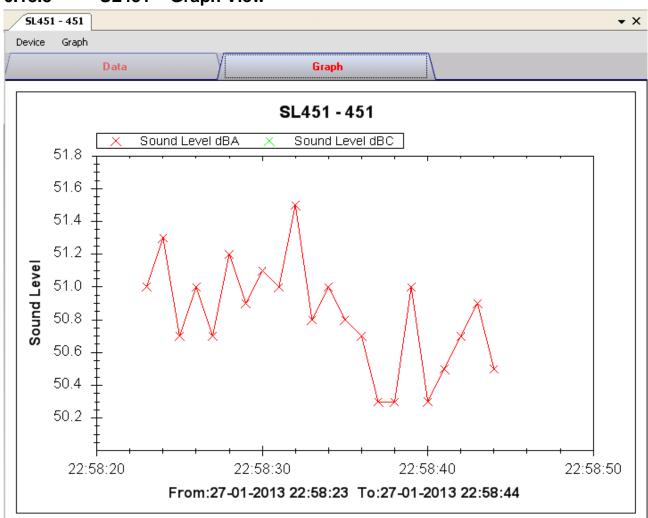
The loading time will increase when more data is retrieved; therefore, the system will be limited to return the first 100,000 records which meet your selection criteria. (For the Web version, only the first 10,000 records will be returned.)

# 6.18.7 SL451 – Data View

SL451 contains two measurements (sound level in dBA and sound level in dBC), the device can record only one measurement at any specific unit of time (by press the "A/C" button on device).

		Grapi		
PC storage range	Earliest data: 27-01-20	13 22:58:14	Latest data: 27-01-2013 22:58:	45
¥ Summary				
All Data			Export Excel	Export CSV
Record Time	Sound Level dBA	Sound Level	dBC	
27-01-2013 22:58:24	51.3			
27-01-2013 22:58:25	50.7			
27-01-2013 22:58:26	51			
27-01-2013 22:58:27	50.7			
27-01-2013 22:58:28	51.2			
27-01-2013 22:58:29	50.9			
27-01-2013 22:58:30	51.1			
27-01-2013 22:58:31	51			
27-01-2013 22:58:32	51.5			
27-01-2013 22:58:33	50.8			
27-01-2013 22:58:34	51			
27-01-2013 22:58:35	50.8 50.7			
27-01-2013 22:58:36 27-01-2013 22:58:37	50.7 50.3			
27-01-2013 22:58:37	50.3 50.3			
27-01-2013 22:58:39	50.5 51			
27-01-2013 22:58:40	50.3			
27-01-2013 22:58:41	50.5			
27-01-2013 22:58:42	50.7			
27-01-2013 22:58:43	50.9			
27-01-2013 22:58:44	50.5			

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.



# 6.18.8 SL451 – Graph View

Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

### 6.18.9 SL451 – Email Alert

V Email Alert	
Recipient(s) List Following receipient(s) will receive email aler	t
✓ johnsmit@gmail.com	
ОК	Close

As SL451 supports real time measurement, therefore, it 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 alert level can be configured in Setting.

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

#### 6.18.10 SL451 – Web Interface

Please refer to section 5.6 on how to launch the web interface.

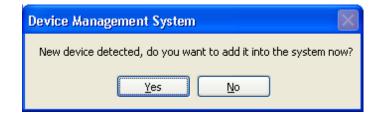
The web interface for SL451 is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.19 VC930 / VC950

VC930 / VC950 are DMM devices which measure a number of different measurements.

#### 6.19.1 Add new VC930 / VC950

When Voltsoft detected a new VC930 / VC950 attached, the following dialog will be popped up:



Click "Yes", the following dialog will be displayed:

V Add New Device	, 🔳 🗖 🔀
Device Series	DMM
Model Number	VC930
Alias	930
Auto	-Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.19.2 Remove VC930 / VC950

To remove VC930 / VC950, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.19.3 VC930 / VC950 – Device Control Panel

	Data		(		Graph	
°C storage range	Earliest data: 15	5-06-2011 06:	39:52	Latest c	Current Time	
Summary						
leal Time Mode						Export Excel Export CS\
Record Time	Reading	Unit	Function	Mode	Start Record	Stop Display
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.	-	0 50	100
16-06-2011 12:40:03	27.3	°C	Temp.	-	U JU	100
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.	-		0
16-06-2011 12:40:08	27.6	°C	Temp.	-		U
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.	-		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.	-	27.6	°C
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.	-		
		°C	Temp.			

The VC930 / VC950 Device Control Panel contains the following items in menu:

1	Device -> Data Record Settings	This will launch the setting page of VC930 / VC950.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should retrieve.
4	Device -> Email Alert	This will launch the email alert module.
		(Available in Professional version only)
5	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
6	Graph -> Background Colour	Change the background colour of the graph to either black or white.
7	Graph -> Grid	Control whether to show / hide the grid on the graph area.
8	Graph -> Line	Control whether to show / hide the line on the graph area.
9	Graph -> Points Indicator	Control whether to show / hide the points indicator.
10	Graph -> Print	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.

# 6.19.4 VC930 / VC950 - Download Data

This module allows user to download the data from VC930 / VC950.

😸 Download Data		
<ul> <li>Download DataLog</li> </ul>	🔘 Download Storage	
Device disconnect.	OK	Close

Click "OK" button to stop the recording and start downloading.

# 6.19.5 VC930 / VC950 – Settings

🚺 V950 - Settings (HW II	0:0008_00000001)	
Basic Settings		
Logger Name	∨950	
Sample Points	40000 🗘 🗌 Infinite	
Sample Rate	1 S 💌	
Alarm Settings		
Measurement	AC (V)	
AC (V)	Low Level 0	High Level 1000
Device disconnect.		Setup Close

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 stopped the download.					
4	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	<b>□%</b>
V	DC	-	%	mA DC	□%
V	AC+DC	-	%	mA AC+DC	□%
V	AC		А	AC	-
V	DC		А	DC	-

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V	AC+DC		А	AC+DC	-
%	V AC	<b>□</b> %	А	AC	
%	V DC	□%	А	DC	
%	V AC+DC	□%	Α	AC+DC	
mV	AC	-	%	A AC	<b>□%</b>
mV	DC	-	%	A DC	<b>□%</b>
mV	AC+DC	-	%	A AC+DC	<b>□%</b>
mV	AC		ОС	Temp.	-
mV	DC		оС	Temp.	
mV	AC+DC		оС	Temp.	<b>□%</b>
%	mV AC	□%	oF	Temp.	-
%	mV DC	□%	oF	Temp.	
%	mV AC+DC	□%	oF	Temp.	<b>□%</b>
mA	AC	-			
mA	DC	-			
mA	AC+DC	-			
mA	AC				
mA	DC				
mA	AC+DC				

## 6.19.6 VC930 / VC950 – Display / Plot Data

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

Display / Plot Data		
Display / Plot Data		
O PC Storage Range	Earliest data: N/A	Latest data: N/A
<ul> <li>From:</li> </ul>	23-03-2013 13:16:27 💌	To: 24-03-2013 14:16:27 💌
Measurement	AC (V)	×
		OK Close

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	Measurement	User can select which measurement record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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 records will be returned.)

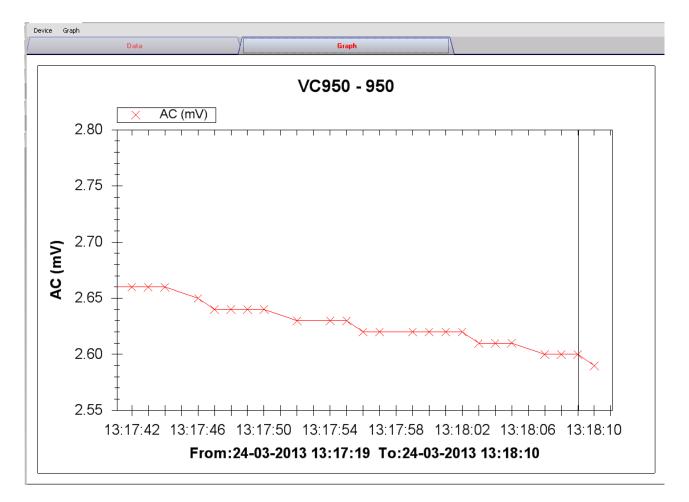
# 6.19.7 VC930 / VC950 – Data View

VC930 / VC950 contains many different measurements, you will need to specify which measurement (and unit) to download in "Display / Plot data" dialog.

	Dat	a		X	Gra	ph				
PC storage range	Earliest data: 🔅	24-03-2013 13:	17:19	Latest dat	Current Time					
¥ Summary										
History Data $3$	Ba	ack to real time	mode		4				Export Excel	Export CSV
Record Time	Reading	Unit	Function	Mode 🔼	1				Stop Record	Stop Displa
24-03-2013 13:17:19	2.77	mV	AC	-					stop necora	Stop Displa
24-03-2013 13:17:21	2.75	m∨	AC							
24-03-2013 13:17:22	2.75	m∨	AC							
24-03-2013 13:17:23	2.65	mV	AC		•		E			
24-03-2013 13:17:24	2.65	mV	AC	-	0		5			- 10
24-03-2013 13:17:25	2.66	mV	AC	-	-					
24-03-2013 13:17:26	2.65	mV	AC	-						
24-03-2013 13:17:28	2.65	mV	AC	-						
	2.65		AC							1
24-03-2013 13:17:29 24-03-2013 13:17:30	2.65	m∨ mV	AC	- =						J
	2.65		AC							
24-03-2013 13:17:31		m∨		-						
24-03-2013 13:17:32	2.65	mV	AC	-	•					лс
24-03-2013 13:17:33	2.65	mV	AC	-	2					AC
24-03-2013 13:17:34	2.65	m∨	AC	-	_					
24-03-2013 13:17:36	2.64	m∨	AC	-						
24-03-2013 13:17:37	2.64	m∨	AC	-						
24-03-2013 13:17:38	2.64	m∨	AC	- 📃						
24-03-2013 13:17:39	2.65	m∨	AC							
24-03-2013 13:17:40	2.66	mV	AC							
24-03-2013 13:17:41	2.66	mΥ	AC	· ·						
24-03-2013 13:17:42	2.66	m∨	AC	-						
24-03-2013 13:17:43	2.66	mV	AC	-						
24-03-2013 13:17:44	2.66	mV	AC							
24-03-2013 13:17:46	2.65	mV	AC	· ·						
24-03-2013 13:17:47	2.64	m∨	AC	· ·			_			
24-03-2013 13:17:48	2.64	mV	AC	· ·				nr	hier	
24-03-2013 13:17:49	2.64	mΥ	AC	· ·				<u> </u>	mV	
24-03-2013 13:17:50	2.64	mΥ	AC	· ·				.36		
24-03-2013 13:17:52	2.63	m∨	AC	· ·			-			
24-03-2013 13:17:54	2.63	m∨	AC	· ·						
24-03-2013 13:17:55	2.63	m∨	AC							
24-03-2013 13:17:56	2.62	m∨	AC							
24-03-2013 13:17:57	2.62	m∨	AC							
24-03-2013 13:17:59	2.62	mΥ	AC							
24-03-2013 13:18:00	2.62	mΥ	AC	-						
24-03-2013 13:18:01	2.62	mΥ	AC							
24-03-2013 13:18:02	2.62	mV	AC							
24-03-2013 13:18:03	2.61	m∨	AC	· ·						
24-03-2013 13:18:04	2.61	m∨	AC							
24-03-2013 13:18:05	2.61	m∨	AC							
24-03-2013 13:18:07	2.60	mΥ	AC							

1	Record / Display Button	<ul> <li>Use these two buttons to toggle between display and record mode.</li> <li>In display mode, the reading measured by the device will be displayed in the display area.</li> <li>In record mode, the reading measured will not only display in the display area, but also be stored in the database for future use.</li> <li>N.B.</li> <li>i) If the device is in record mode this means it is also in display mode.</li> <li>ii) Stopping the display mode will also stop the record mode.</li> </ul>
2	Display Area	Display the measured value.
3	Back to real time mode	<ul> <li>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).</li> <li>Clicking this button can return the interface to display real-time data.</li> </ul>

# 6.19.8 VC930 / VC950 – Graph View



#### Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.19.9 VC930 / VC950 – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for VC930 / VC950 is similar to the Windows version, except two points:

- 1. Downloaded data can only have 10,000 readings in a single download.
- 2. The status of the "Record" and "Display" button will not be refreshed automatically. A "Refresh" button was therefore added, so click on the button to refresh the button status.

VC950 - 950 🗵							
Device Graph							
Data		Graph					
PC storage range	Earliest data: 24	03-2013 13:17:19	Latest data: 2	4-03-2013 13:18:10			^
¥ Summary							
,					Ехр	ort CSV Expo	rt Excel
Record Time	Reading	Unit Funct	tion Mode		Refresh	Start Record	Start Display
				0	0		0
						0	-
							-
							-
					0 -		
			5	✓			~

# 6.20 VC880 / VC650BT

VC880 / VC650BT are DMM devices which measure a number of different measurements.

#### 6.20.1 Add new VC880 / VC650BT

To add VC880 / VC650BT to Voltsoft, first connect the device to PC via USB port, press "REL / PC" button on the device until the PC icon appear. When Voltsoft detected a new VC880 / VC850 attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
Yes <u>N</u> o

Click "Yes", the following dialog will be displayed:

🚺 Add New Device	
Device Series	DMM
Model Number	VC880
Alias	880
Auto	-Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by selecting Device Management->Add New Device in menu.

#### 6.20.2 Remove VC880 / VC650BT

To remove VC880 / VC850BT, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.20.3 VC880 / VC650BT – Device Control Panel

Device Graph						
/	Data					Graph
PC storage range	Earlies	st data: 02-1;	2-2012 19	):38:13		Latest data: 02-12-2012 19:38:21
Summary						
Real Time Mode	Ba	ck to real time	mode			Export Excel Export CSV
Record Time	Function	Reading	Unit	Range	Sub Va	
02-12-2012 19:38:13 02-12-2012 19:38:14	DCV DCV	0.26	m∨ m∨	600 600	0	Device Control     Cop Field Cop       Manual Range     Auto Range     MAXIMINAVG       Select     Hold     REL       Pass Beep     COMP Value     COMP Setting       Single Log     Series Log       Load Device Memory     Clear Device Memory       Load Comparison Memory     Clear Comparison Memory
<	- Alla				>	DC 0 1 2 3 4 5 600mV

The VC880 / VC650BT Device Control Panel contains the following items in menu:

1	Device -> Data Record Settings	This will launch the setting page of VC880 / VC650BT.
2	Device -> Display / Plot Data	Select the time range that the device reading should retrieve.
3	Device -> Email Alert	This will launch the email alert module. (Available in Professional version only)
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.20.4 VC880 / VC650BT – Settings

VC880 - Settings (HW	ID:0009-000000000000507)	
Basic Settings		
Logger Name	VC880	
Sample Points	40000 🗘 🗋 Infinite	
Sample Rate	1 S 💌	
	✓ Skip repeat reading	
Alarm Settings		
	Function Unit Mode	
Measurement	AC+DC V 🔽 V 🔽 N/A 💌	
Low Level	0 High Level 1000	
Device disconnect.	Setup	Close

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.

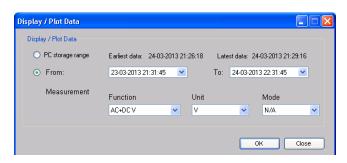
\* Note: The alarm can be configured in the following measurement ranges:

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	А	N/A
ACA	mA	N/A
ACA	μA	Δ
ACA	А	Δ
ACA	mA	Δ
Continuity	Ω	N/A

Diode	V	N/A
Duty Cycle	%	N/A
DCA	μA	N/A
DCA	А	N/A
DCA	mA	N/A
DCA	μA	Δ
DCA	А	Δ
DCA	mA	Δ
Capacity	μF	N/A
Capacity	mF	N/A
Capacity	nF	N/A
Capacity	μF	Δ
Capacity	mF	Δ
Capacity	nF	Δ
Freq	Hz	N/A
Freq	kHz	N/A
Freq	MHz	N/A
Impedance	Ω	N/A
Impedance	kΩ	N/A
Impedance	MΩ	N/A
Temperature	°C	N/A
Temperature	°F	N/A
ACV Low-pass	V	N/A

## 6.20.5 VC880 / VC650BT – Display / Plot Data

This module allows 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	Measurement	User can select which measurement record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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 records will be returned.)

# 6.20.6 VC880 / VC650BT – Data View

VC880 / VC650BT contains many different measurements, you will need to specify which measurement (and unit) to download in "Display / Plot data" dialog.

		Da	ta		Y		Graph			
PC storag	je range	Earl	iest data: 24-(	03-2013 21:2	3:18	Latest data: Current	Time			
Summa	ry									
	Г	E	lack to real tim	e mode	_ 4		_		Export Excel	Export CSV
Record T	lime	Function	Reading	Unit	Range Sub Value			1	Stop Record	Stop Display
	13 21:26:18	DCV DCV	0.23 0.19		400	- Dev	rice Control	L		
	13 21:26:19 13 21:26:20	DCV	0.19		400 400	. м	anual Range	Auto Range MAX	(MINVAVG Exit Max	NG Beep Light
	13 21:26:21	DCV	0.05		400	-				
	13 21:26:22	DCV	0.05		400	-	Select	Hold	REL Pass Beep	COMP Value COMP Setting
	13 21:26:23	DCV	0.12		400		Single Log	Series Lo	Load Comparison Mer	nory Clear Comparison Memory
	13 21:26:24 13 21:26:25	DCV DCV	0.07 0.06		400 400		Single Eog			
	13 21:26:25	DCV	0.04		400		Load Device Mer	nory Clear Device N	1emory	2
	13 21:26:27	DCV	0.02		400	-				
24-03-201	13 21:26:28	DCV	0.01	mV	400	-				
	13 21:26:29	DCV	0.01		400	-	MEM	0034		
	13 21:26:30 13 21:26:31	DCV DCV	0		400 400	-		0004		3
	13 21:26:31	DCV	0		400	: <b> </b>				•
	13 21:26:33	DCV	0		400	-				
24-03-201	13 21:26:34	DCV	0		400	-				
	13 21:26:35	DCV	0		400	-				
	13 21:26:36	DCV	0		400	-		-00	0.05	
	13 21:26:37 13 21:26:38	DCV DCV	0		400 400	-			0.00	m)/
	13 21:26:39	DCV	0		400					mV
	13 21:26:40	DCV	ŏ		400	- I				
24-03-201	13 21:26:41	DCV	0	mV	400	- I		Man	iual 400	
	13 21:26:42	DCV	0		400	· ·	1			
	13 21:26:43	DCV DCV	0		400	-	0	10	20 30	40
	13 21:26:44 13 21:26:45	DCV	0		400 400		U	10	20 30	40
	13 21:26:46	DCV	ŏ		400					
	13 21:26:47	DCV	0		400					
	13 21:26:48	DCV	0		400	- I				
	13 21:26:49	DCV	0		400	· ·				
	13 21:26:50 13 21:26:51	DCV DCV	0		400 400					
	13 21:26:52	DCV	ō		400					
	13 21:26:53	DCV	0		400					
	13 21:26:54	DCV	-0.12		400					
	13 21:26:55	DCV	0.02		400	· ·				
	13 21:26:56 13 21:26:57	DCV DCV	0.06 0.13		400 400					
	13 21:20:51	DCV	0.15		400	~				
*										
	Deeer	-d / D	color		llee th	aca tura '	huttop	to togalo k	atwaan dianla	u and record
	Recoi	<sup>-</sup> d / Di	spiay		Use in	ese two	outtons	s to toggle i	petween displag	y and record
	<b>Butto</b>	n			mode.					
		••								
					In disr	lav mod	o tho r	eading mea	asured by the o	levice will
						-		-	isuled by the t	
					be dis	played in	the dis	splay area.		
						J				
					In reco	ord mode	, the re	ading mea	sured will not a	only display
					in the	aispiay a	irea, bu	it also be st	ored in the dat	tapase for
					future					
					Tature	<b>u</b> 30.				
					N.B.					
						e device	is in re	cord mode	this means it i	s also in
					i) If th		is in re	cord mode	this means it is	s also in
					i) If th	e device / mode.	is in re	cord mode	this means it is	s also in
					i) If th display	/ mode.				
					i) If th display	/ mode.			this means it is also stop the	

2	Command Button	Refer to below section.
3	Display Area	Display the measured value.
4	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.

**Command Button** 

Manual Range	Click to send commands to make device entering the manual range.
Auto Range	Click to send commands to make device entering 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
3 3	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.

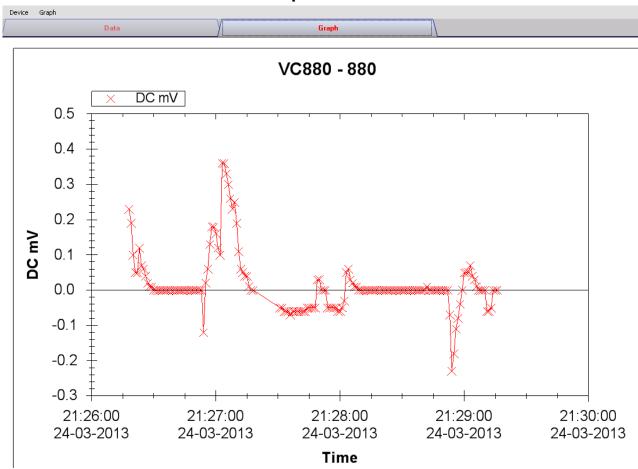
#### Data Comparison dialog

High Limit	0.0022	\$	
Low Limit	0.0020	÷	
Inner/Outer	Inner	~	Setup Enter
Close			

•	High Limit	0.0022	*		[
	Low Limit	0.0020	\$		]
	Inner/Outer	Inner	~	Setup ESC	]
	Close				Lc

**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.

# 6.20.7 VC880 / VC650BT – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.20.8 VC880 / VC650BT – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for VC880 / VC650BT is the similar to Windows version, except two points:

- 1. Downloaded data can only have 10,000 readings in a single download.
- 2. The status of the "Record" and "Display" button will not be refreshed automatically. A "Refresh" button was therefore added, so click on the button to refresh the button status.

VC880 - 880 🗵								
Device Graph								
Data		Graph						
PC storage range	Earliest data: 24	-03-2013 21:26:18	Latest data: :	24-03-2013 21:29:16				
➤ Summary								
								Export CSV Export Excel
Record Time	Function	Reading	Uni 🛆				Refresh	Start Record Start Display
			C	ommand Key		_		
			C	Manual Range	Auto Range	MAX\MIN\AVG	Exit Max	NG Beep Light
			C	Select	Hold	REL	Pass Beep	COMP Value COMP Setting
			(	Single Log		Series Log	Load Comparison 1	Memory Load Device Memory
			Č	Clear Comparison Me	mory Clea	r Device Memory	]	
			Г					
				MEN				
								_
					,	Auto		
					· ·	huito		
				0	10	20	20	40
<			>	0	10	20	30	40
			<u> </u>					

## 6.21 VC890

VC890 is a DMM device which measures a number of different measurements.

#### 6.21.1 Add new VC890

To add VC890 to Voltsoft, first connect the device to PC via USB port, press "REL / PC" button on the device until the PC icon appears. When Voltsoft detected a new VC890 attached, the following dialog will be popped up:

Device Management System
New device detected, do you want to add it into the system now?
<u>Y</u> es <u>N</u> o

Click "Yes", the following dialog will be displayed:

V Add New Device	
Device Series	DMM
Model Number	VC890
Alias	890
Auto	-Detect Add Close

Enter a unique alias for this device, click "Add" will add the device into Voltsoft. User may also launch this module by select Device Management->Add New Device in menu.

#### 6.21.2 Remove VC890

To remove VC890, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.21.3 VC890 – Device Control Panel

	Da	ata			Y	Graph
PC storage range	Ear	liest data: 2	4-03-201	3 22:02:05		Latest data: Current Time
¥ Summary						
Real Time Mode						Export Excel Export CSV
Record Time	Function	Reading	Unit	Range	Sub Value	Stop Record Stop Display
24-03-2013 22:02:05	DCV	0.45	m∀	600		Device Control
24-03-2013 22:02:06	DCV	0.46	mΥ	600		
24-03-2013 22:02:07	DCV	0.45	m∨	600		Manual Range Auto Range MAXIMINIAVG Exit Max NG Beep Pass Beep
24-03-2013 22:02:09	DCV	0.45	mΥ	600		
24-03-2013 22:02:10	DCV	0.45	mΥ	600		Select Hold REL Light COMP Value COMP Setting
24-03-2013 22:02:10	DCV	0.45	mV	600		
24-03-2013 22:02:12	DCV	0.45	mΥ	600		Single Log Series Log
24-03-2013 22:02:12	DCV	0.45	mV	600		
24-03-2013 22:02:15	DCV	0.45	mV	600		Load Device Memory Clear Device Memory
24-03-2013 22:02:15	DCV	0.43	mV	600		
24-03-2013 22:02:10	DCV	0.44	mV	600		Load Comparison Memory Clear Comparison Memory
24-03-2013 22:02:17	DCV	0.45	mV	600		
24-03-2013 22:02:19	DCV	0.44	mV	600		
24-03-2013 22:02:21	DCV	0.44	mv mV	600 600		
24-03-2013 22:02:23	DCV	0.43	mv mV	600		
24-03-2013 22:02:24	DCV	0.44	m∨ mV	600		
24-03-2013 22:02:25	DCV	0.43		600		
24-03-2013 22:02:26 24-03-2013 22:02:27	DCV DCV	0.43	mV			
			mV	600 600		
24-03-2013 22:02:29	DCV	0.43	mV	600		
24-03-2013 22:02:30	DCV	0.42	mV	600		
24-03-2013 22:02:31	DCV	0.43	mV	600		
24-03-2013 22:02:32	DCV	0.42	m∨	600		
24-03-2013 22:02:33	DCV	0.43	m∨	600		
24-03-2013 22:02:34	DCV	0.43	mΥ	600		000.40 mV
24-03-2013 22:02:35	DCV	0.42	mΥ	600		mV
24-03-2013 22:02:37	DCV	0.42	mΥ	600		
24-03-2013 22:02:38	DCV	0.42	mΥ	600		
24-03-2013 22:02:39	DCV	0.43	mΥ	600		0 1 2 3 4 5 600mV
24-03-2013 22:02:41	DCV	0.42	mΥ	600		
24-03-2013 22:02:42	DCV	0.42	mΥ	600		
24-03-2013 22:02:43	DCV	0.41	mΥ	600		
24-03-2013 22:02:44	DCV	0.42	mΥ	600		
24-03-2013 22:02:45	DCV	0.41	mΥ	600		
24-03-2013 22:02:46	DCV	0.42	mΥ	600		
24-03-2013 22:02:48	DCV	0.41	mΥ	600		
24-03-2013 22:02:49	DCV	0.41	mΥ	600		
24-03-2013 22:02:50	DCV	0.4	mΥ	600		

The VC890 Device Control Panel contains the following items in menu:

1	Device -> Data Record Settings	This will launch the setting page of VC890.
2	Device -> Device Settings	Launch extra setting page of VC890.
3	Device -> Display / Plot Data	Select the time range that the device reading
		should retrieve.
4	Device -> Email Alert	This will launch the email alert module.
		(Available in Professional version only)
5	Graph -> Plot Colour	This will launch the Plot Colour module to change
		the colour of the individual lines.
6	Graph -> Background Colour	Change the background colour of the graph to
		either black or white.
7	Graph -> Grid	Control whether to show / hide the grid on the
		graph area.
8	Graph -> Line	Control whether to show / hide the line on the
		graph area.
9	Graph -> Points Indicator	Control whether to show / hide the points
		indicator.
10	Graph -> Print	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.

# 6.21.4 VC890 – Settings

VC880 - Settings (HW	ID:0009-00000000000507)	
Basic Settings		
Logger Name	VC880	
Sample Points	40000 🗘 🗌 Infinite	
Sample Rate	1 S 💌	
	✓ Skip repeat reading	
Alarm Settings		
	Function Unit Mode	
Measurement	AC+DC V V V N/A V	
Low Level	0 High Level 1000	
Device disconnect.	Setup	Close

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 stopped the download.				
4	4 Sample Rate Instruct the data logger to log readings at a specif 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	А	N/A
ACA	mA	N/A
ACA	μA	Δ
ACA	А	Δ
ACA	mA	Δ
Continuity	Ω	N/A

Diode	V	N/A
Duty Cycle	%	N/A
DCA	μA	N/A
DCA	А	N/A
DCA	mA	N/A
DCA	μA	Δ
DCA	А	Δ
DCA	mA	Δ
Capacity	μF	N/A
Capacity	mF	N/A
Capacity	nF	N/A
Capacity	μF	Δ
Capacity	mF	Δ
Capacity	nF	Δ
Freq	Hz	N/A
Freq	kHz	N/A
Freq	MHz	N/A
Impedance	Ω	N/A
Impedance	kΩ	N/A
Impedance	MΩ	N/A
Temperature	°C	N/A
Temperature	°F	N/A
ACV Low-pass	V	N/A

# 6.21.5 VC890 – Device Setting

Extra settings are available for VC890, the user can launch them via Device -> Device Setting.

V Device Setting			
Time 05-01-2013 14:11:57 ▼ U	Jse System Time 🔲	1 Set	
Other Setting			
Battery	<ul> <li>Alkaline</li> </ul>	🔿 Li-Akku (Lithium battery)	2
Logger Memory	⊙ Fix	<ul> <li>Overwrite</li> </ul>	3
Logger data display	<ul> <li>Activate</li> </ul>	<ul> <li>Deactivate</li> </ul>	4
Auto brightness	<ul> <li>Activate</li> </ul>	<ul> <li>Deactivate</li> </ul>	5
Logger sampling rate	1s	<b>V</b>	6
Auto Power Off	⊙ 5 mins	🔿 15 mins 🧳	7
	🔿 30 mins	🔿 Never	
		Set	
Device connect.		Close	)

1	Time	Configure the device date time value. The user can specify a defined time or use the system date time.
2	Battery	Configure the device current using Alkaline or Lithium battery.
3	Logger Memory	Configure logger memory to be fixed or overwritten when full.
4	Logger data display	Configure the battery saving mode to activate or not during data logging.
5	Auto brightness	Configure the battery saving mode to activate or not during normal operation.
6	Logger sample rate	Configure logger sample rate.
7	Auto Power Off	Configure the auto power option

## 6.21.6 VC890 - Download Data

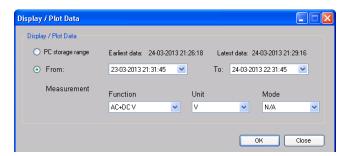
This module allows user to download the storage data from VC890.



Click "OK" button to stop the recording and start downloading.

### 6.21.7 VC890 – Display / Plot Data

This module allows 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	Measurement	User can select which measurement record to download.
4	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
5	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 records will be returned.)

# 6.21.8 VC890 – Data View

VC890 contains many different measurements, you will need to specify which measurement (and unit) to download in "Display / Plot data" dialog.

Device Graph						
/	D	ata			Y	Graph
PC storage range	Ea	rliest data: 24-	03-2013 2	2:02:05		Latest data: Current Time
		Back to real tim	e mode		4	Export Excel Export CSV
Record Time	Function	Reading	Unit	Range	Sul 🛆	Stop Record Stop Display
24-03-2013 22:02:05	DCV	0.45	m∨	600		Device Control
24-03-2013 22:02:06	DCV	0.46	m∨	600		Manual Range Auto Range MAXIMINIAVG Exit Max NG Beep Pass Beep
24-03-2013 22:02:07 24-03-2013 22:02:09	DCV DCV	0.45 0.45	mV mV	600 600		
24-03-2013 22:02:09	DCV	0.45	mV mV	600		Select Hold REL Light COMP Value COMP Setting
24-03-2013 22:02:10	DCV	0.45	mV	600		
24-03-2013 22:02:12	DCV	0.45	m∨	600		Single Log Series Log
24-03-2013 22:02:13	DCV	0.45	mΥ	600		
24-03-2013 22:02:15	DCV	0.45	mΥ	600		Load Device Memory Clear Device Memory 2
24-03-2013 22:02:16	DCV	0.44	mΥ	600		
24-03-2013 22:02:17	DCV	0.45	mΥ	600		Load Comparison Memory Clear Comparison Memory
24-03-2013 22:02:19	DCV	0.44	m∀	600		
24-03-2013 22:02:21	DCV	0.44	m∨	600		
24-03-2013 22:02:23	DCV	0.43	mV	600		
24-03-2013 22:02:24	DCV	0.44	m∨	600		
24-03-2013 22:02:25	DCV	0.43	m∨	600		
24-03-2013 22:02:26 24-03-2013 22:02:27	DCV DCV	0.43 0.43	mV	600 600		
24-03-2013 22:02:27	DCV	0.43	mV mV	600		3
24-03-2013 22:02:29	DCV	0.43	m∨ mV	600		
24-03-2013 22:02:30	DCV	0.42	m∨	600		
24-03-2013 22:02:31	DCV	0.42	m∨	600		
24-03-2013 22:02:32	DCV	0.43	mV	600		DC
24-03-2013 22:02:34	DCV	0.43	m∨	600		
24-03-2013 22:02:35	DCV	0.42	m∨	600		000.20 mV
24-03-2013 22:02:37	DCV	0.42	m∀	600		000.20 m\/
24-03-2013 22:02:38	DCV	0.42	mΥ	600		
24-03-2013 22:02:39	DCV	0.43	mΥ	600		0 1 2 3 4 5 600m∨
24-03-2013 22:02:41	DCV	0.42	mΥ	600		
24-03-2013 22:02:42	DCV	0.42	mΥ	600		
24-03-2013 22:02:43	DCV	0.41	mV	600		
24-03-2013 22:02:44	DCV	0.42	mV	600		
24-03-2013 22:02:45	DCV	0.41	mV	600		
24-03-2013 22:02:46	DCV	0.42	mV mV	600 600		

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.
		<ul><li>N.B.</li><li>i) If the device is in record mode this means it is also in display mode.</li><li>ii) Stopping the display mode will also stop the record mode.</li></ul>
2	Command Button	Refer to below section.
3	Display Area	Display the measured value.
4	Back to real time mode	This button will be displayed 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.

#### **Command Button**

Click to send commands to make device entering the
manual range.
Click to send commands to make device entering the

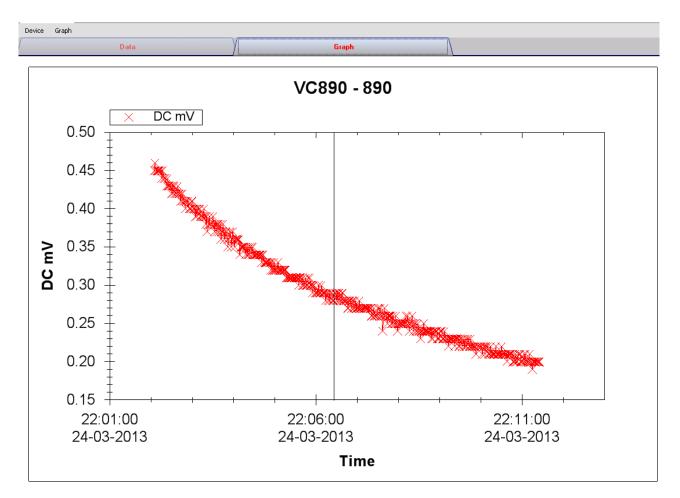
auto range. Click to send commands to enable maximum, minimum, average function.
Click to send commands to exit maximum, minimum, average function.
In the COMP VALUE mode, if failed, click button to turn the alarm on/off.
Click to send commands to enable device backlight function, and then click the exit functions.
Click to send commands to enable device function selection.
Click to send commands to enable device to maintain the function, and then click to exit maintain function.
Click to send commands to enable the relative value function; then click to exit the function.
In the COMP VALUE mode, if passed, click button to turn the alarm on/off.
Enter / Leave COMP value mode.
Pop up Data Comparison dialog.
Click to send commands to enable device to store a single data.
Click to send commands to enable device to continuously store data, and then click to exit the function.
Click to send commands to send out the comparison data stored by device.
Clear the comparison data in device.
Click to send commands to send out the no comparison data stored by device.
Clear the no comparison data in device.

#### Data Comparison dialog

High Limit	100	\$	
Low Limit	0	÷	
Inner / Outer	Outer	*	Setup Enter
Close			

Setup Enter : When button is pressed, the settings will be sent and saved in the device.

# 6.21.9 VC890 – Graph View



Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

### 6.21.10 VC890 – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for VC890 is similar to Windows version, except two points:

- 1. Downloaded data can only have 10,000 readings in a single download.
- 2. The status of the "Record" and "Display" button will not be refreshed automatically. A "Refresh" button was therefore added, so click on the button to refresh the button status.

VC890 - 890 🗵													
Device Graph													
Data		Graph											
PC storage range	Earliest data: 24-03-2013	22:02:05	Latest data: 24	-03-2013 22:14:12									
Summary													
											Export C	SV Export	Excel
Record Time	Function	Reading	Unit	Range	Sub Va					Refresh	Start Record 3	Start Display	
						Command Key							
						Manual Range	Auto R	lange	MAX\MIN\AVG	Exit Max	NG Beep	Pass Beep	
						Select	Hol	ld	REL	Light	COMP Value	COMP Setting	
						Single Log	1	:	Series Log				
						Load Device Me	emory	Clear	Device Memory				
						Load Comparison	Memory	Clear Co	omparison Memory				
¢					>	<b>↓</b> )) →⊢ LO Auto							

## 6.22 EL4000

EL4000 is a data logger which measures the power consumption of different electronic devices.

#### 6.22.1 Add new EL4000

As EL4000 will not be physically connected to computer, therefore, to create a new EL4000 in Voltsoft, user is required to select Device Management->Add New Device in menu.

V Add New Device					
Device Series	EL4000				
Model Number	EL4000				
Alias	EL4000				
Auto	Detect Add Close				

Select "EL4000" in device series, "EL4000" in model number, enter a unique device alias and click the "Add" button.

#### 6.22.2 Remove EL4000

To remove EL4000, go to Device Management -> Remove Existing Device and its PC data Storage, select the device you want to remove and click the "Remove" button.

# 6.22.3 EL4000 – Device Control Panel

Device Graph				
Data	•	Graph		
PC storage range	Earliest data: 05-09-201	2 10:37:00 Latest data:	10-10-2012 20:40:00	
¥ Summary				
All Data			Export Excel Export CS	V
Record Time	Current (A)	Active Power (W)	Apparent Power (W)	
05-09-2012 10:37:00	2.253	0	0	
05-09-2012 10:38:00	2.258	0	0	
05-09-2012 10:39:00	2.255	0	0	
05-09-2012 10:40:00	57.541	0	0	
05-09-2012 10:41:00	3.082	355.8169	711.6338	
05-09-2012 10:42:00	0	0	0	
05-09-2012 10:43:00	0	0	0	
05-09-2012 10:44:00	0	0	0	
05-09-2012 10:45:00	0	0	0	
05-09-2012 10:46:00	0	0	0	
05-09-2012 10:47:00	0	0	0	
05-09-2012 10:48:00	0	0	0	
05-09-2012 10:49:00	0	0	0	
05-09-2012 10:50:00	0.009	0.303885	2.0259	
05-09-2012 10:51:00	0	0	0	
05-09-2012 10:52:00	0.01	0.3375	2.25	
05-09-2012 10:53:00	0.008	0.234104	1.8008	
05-09-2012 10:54:00	0.004	0.063	0.9	
05-09-2012 10:55:00	0.006	0.121608	1.3512	
05-09-2012 10:56:00	0.006	0.121662	1.3518	
05-09-2012 10:57:00	0	0	0	
05-09-2012 10:58:00	0	0	0	
05-09-2012 10:59:00	0	0	0	
05-09-2012 11:00:00	0	0	0	
05-09-2012 11:01:00	0	0	0	
05-09-2012 11:02:00	0	0	0	
05-09-2012 11:03:00	0	0	0	

The EL4000 Device Control Panel contains the following items in menu:

1	Device -> Settings	This will launch the setting page of EL4000.
2	Device -> Download Data	Download reading from device.
3	Device -> Display / Plot Data	Select the time range that the device reading should retrieve.
4	Graph -> Plot Colour	This will launch the Plot Colour module to change the colour of the individual lines.
5	Graph -> Background Colour	Change the background colour of the graph to either black or white.
6	Graph -> Grid	Control whether to show / hide the grid on the graph area.
7	Graph -> Line	Control whether to show / hide the line on the graph area.
8	Graph -> Points Indicator	Control whether to show / hide the points indicator.
9	Graph -> Print	Prints the generated chart.
10	Graph -> Save Image As	Save the image in the chosen file format.
11	Graph -> Zoom Out	Zoom out one level.
12	Graph -> Zoom To Fit	Undo all zoom in and out.

# 6.22.4 EL4000 – Settings

V Setting		
Basic Settings		
Time	17-03-2012 04:06	🗸 🗹 Use System Time
Date Format:	<ul> <li>dd/mm/yyyy</li> </ul>	O mm/dd/yyyy
Time Format:	<ul> <li>24-hour</li> </ul>	O 12-hour
Logger Name	4000	
Logger ID	0 💌	
Currency	Pound 💌	
Tariff1	0.00	
Tariff2	0.00	
	Default Save	Setup Close

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.

#### 6.22.5 EL4000 - Download Data

This module allows user to download the storage data from EL4000.

Download Data	
Browse the location of data files:	
FX	
	OK Cancel

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

Please note that the logger ID of the data file must be the same of the logger ID configured in setting, otherwise download will not be allowed.

### 6.22.6 EL4000 – Display / Plot Data

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

Display/Plot Data	Display/Plot Data				
Display/Plot Data					
O PC storage range	Earliest data: N/A	Latest data: N/A			
<ul> <li>From:</li> </ul>	09-12-2012 16:22:34 🛛 💌	To: 10-12-2012 17:22:34 💌			
Device connect.		OK Close			

1	PC Storage Range	Download all data stored in the database.
2	Time Range	Select the data reading range.
3	ОК	Click OK to accept the input and display the selected reading in the data and graph tabs.
		reading in the data and graph tabs.
4	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 records will be returned.)

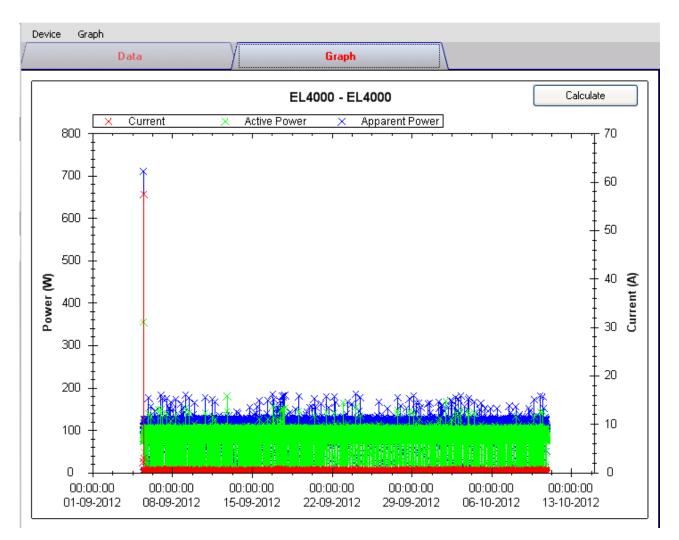
## 6.22.7 EL4000 – Data View

EL4000 contains three measurements (Current, Active Power and Apparent Power),

Dat	a	Graph		
PC storage range	Earliest data: 05-09-20	12 10:37:00 Latest data:	10-10-2012 20:40:00	
¥ Summary				
				o.u
All Data			Export Excel Export C	57
Record Time	Current (A)	Active Power (VV)	Apparent Power (W)	
05-09-2012 10:37:00	2.253	0	0	
05-09-2012 10:38:00	2.258	0	0	
05-09-2012 10:39:00	2.255	0	0	
05-09-2012 10:40:00	57.541	0	0	
05-09-2012 10:41:00	3.082	355.8169	711.6338	
05-09-2012 10:42:00	0	0	0	
05-09-2012 10:43:00	0	0	0	
05-09-2012 10:44:00	0	0	0	
05-09-2012 10:45:00	0	0	0	
05-09-2012 10:46:00	0	0	0	
05-09-2012 10:47:00	0	0	0	
05-09-2012 10:48:00	0	0	0	
05-09-2012 10:49:00	0	0	0	
05-09-2012 10:50:00	0.009	0.303885	2.0259	
05-09-2012 10:51:00	0	0	0	
05-09-2012 10:52:00	0.01	0.3375	2.25	
05-09-2012 10:53:00	0.008	0.234104	1.8008	
05-09-2012 10:54:00	0.004	0.063	0.9	
05-09-2012 10:55:00	0.006	0.121608	1.3512	
05-09-2012 10:56:00	0.006	0.121662	1.3518	
05-09-2012 10:57:00	0	0	0	
05-09-2012 10:58:00	0	0	0	
05-09-2012 10:59:00	0	0	0	
05-09-2012 11:00:00	0	0	0	
05-09-2012 11:01:00	0	0	0	
05-09-2012 11:02:00	0	0	0	
05-09-2012 11:03:00	0	0	0	

1	Export Excel	Export the reading to Excel (.xls) format.
2	Export CSV	Export the reading to Excel (.csv) format.

# 6.22.8 EL4000 – Graph View



#### Our graph supports the following operations

1	Mouse wheel	Zoom-in / Zoom-Out
2	Mouse click and drag	Zoom-in
3	Shift + mouse click	Pan
4	Mouse over on point	Display reading values

#### 6.22.9 EL4000 – Calculate

rice Settings	Results	10.1015-4
From 1	Consumption:	13.42 kWh
05-09-2012 10:37 🛛 💌	Cost:	£ 1.96
То	· ·	
10-10-2012 20:40 💌	<ul> <li>Forcast</li> </ul>	
	<u>Monthly</u>	
Price 1	Consumption:	11.369 kWh
From: 08:00 📚 2	Cost:	£ 1.66
To: 19:59 😂	<u>Yearly</u>	
Price:(£ ) 0.100 /kWh	Consumption:	138.323 kWh
Price 2	Cost:	£ 20.17
From: 20:00		
To: 07:59 🛟		
Price:(£ ) 0.200 /kWh		

User can calculate the price for power consumption by using this module.

1	From / To	Define the record period
2	Price 1 / Price 2	Unit price for different time period

Click the "Calculate" button to calculate the price.

#### 6.22.10 EL4000 – Web Interface

Please refer to section 5.6 on how to launch the web interface.

The web interface for EL4000 is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 7 Auto Upgrade

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

Voltsoft System Upgrade 🛛 🕅			
New Version found! Do you wish to update at this time?			
Yes No			

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

System Updater				
Downloading latest application				

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

# 8 Appendix

# 8.1 Real-Time device list

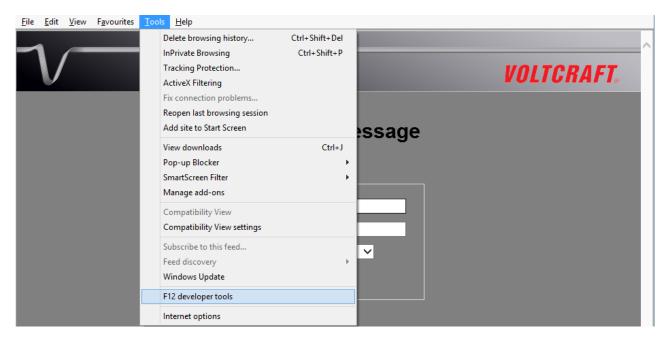
Only the following devices will have real-time features:

Family	Model Number
Data Logger	DL131G
	DL161S
	SL400
DMM	VC 930 / VC950
DMM	VC 880 / VC650BT / VC890

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.

# 8.2 Internet Explorer 10

Current version of Voltsoft web version do not support Internet Explorer 10 (I.E. 10), to access Voltsoft by I.E. 10, please select "Tools"->"F12 developer tools" in user menu, then select "Internet Explorer 9" for Browser Mode.



Voltsoft User Manual

$\mathcal{V}^{$		NOLTCRAFT.
V	Velcome message	
	Login Name	
	Browser Mode: IE9 Document Mode: IE7 standards	
HTML       CSS       Console       Script       Profiler       Network         Image: Second Sec	Internet Explorer 10 Internet Explorer10 Compatibility View Internet Explorer 9 Internet Explorer 8 Internet Explorer 7	Search HTML P yout Attributes