# **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

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 S	Setup Language 🛛 🛛	×			
Select the language to use during the installation					
	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: Image: Create a desktop icon
< <u>B</u> ack <u>N</u> ext > Cancel

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

#### Step 6: Click "Finish" to complete the installation



## 3.3 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	
	VOLTCRAFT.

2. Click Help -> Online Activation

V Online Activation					
Please input Activation Key to unlock all system features					
License Key XXXX-XXXX-XXXX					
Registration					
Company*	Company A				
Department	Department A				
Salutation* & Title	Mr. 🔽				
First Name* & Last Name*	John	Smith			
Street, No.*	Street 1				
Post code* & city*	00000	City A			
Country*	HOLY SEE (VATICAN CITY S	STATE)			
Phone*	01234567	(e.g. 01234567)			
Fax no.		(e.g. 01234567)			
Mobile Phone		(e.g. 01234567)			
Email*	johnsmith@abc.com				
	*Required Field				
Use Proxy Server					
Address		Port 80			
I have read and accept to the privacy policy and license agreement Drivery policy and license agreement					
Privacy policy and license agreement					
		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:

Voltsoft 🛛 🔀	
Activation Success	
ОК	

# 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				
				VOLTO	CRAFT.
- Data Logger	SL451 - 400 DL101T - Lo	gger 1			<b>.</b> ×
DL141TH - 140	Device Graph				
의 DL141TH - 140-2	Data	у	Graph		3
SL451 - 400			4047		
DL101T - Logger 1			L101T - Logger 1		
DMM	30 × Tempera	ture			
VC930 - 930	± × ×	* * * * * * * * *	<del>* * * * * * * *</del>	<del>* * * * * * *</del>	
VC950 - 950	+				
2	25 20 				
	0 +	06:50:47 04-05-2011 <b>Time: 04-0</b> :	06:51:02 04-05-2011 5 <b>-2011 06:51:05 Temp.:28</b> .	06:51:17 04-05-2011 <b>8(°C)</b>	

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>V</mark> General Settin	ngs	
Unit Preference		
Temperature	Celsius	1
Air Pressure	hPa 💌	
Data Storage Remove record	safter <mark>60 📚</mark> 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	ting	5
Maximum Num	ber of Login 🛛 🌻	5
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>

		This setting is available in the professional version only.
5	Web Server Setting	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 Logg	er		~	1
	Model Number	DL121TH			~	
	Alias	Logger 121	1			
	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

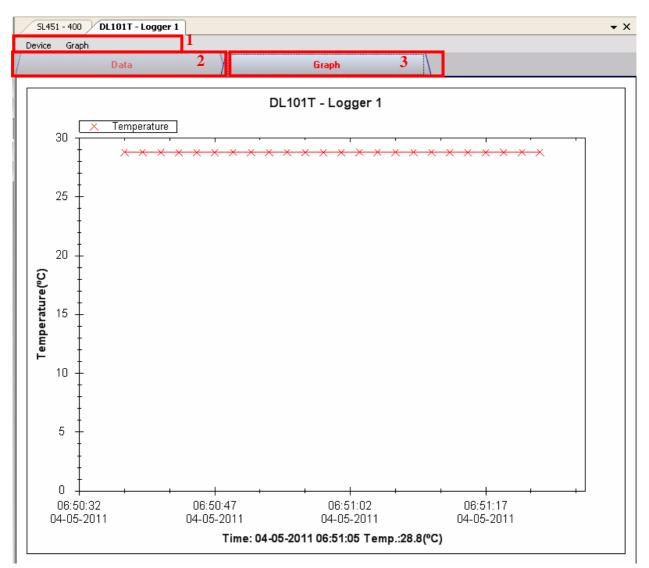
This module allows the user to remove devices which are no longer in use. To launch this module, click Device Management->Remove Existing Device.

1	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 1	Password	*****	
	Confirm Password	XXXXXX	
	Full Name	Administrator	
	Expiry Date	Clear	
	Active	⊙ Yes ○ No	
	User Manag	ement	3
	Device		
		ce if you want to hide it from that user.	4
	101 121 141 161 180 4000		
	5 Deleti	e Add Save Clo	ose

	I	
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.
	Delete	Click on a user in the user list and then the Delete button to
5		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 email alert when device reading reach certain alert level				rt when device
	Addres	-		1
johnsr	nit@gn	nail.com		
johnsn	nit@gm	nail.com		
2		Add	Remove 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

		1
1	Language	Select the language of the email template.
2	Message Content	Fill in the title and content for the email template which will be sent in the different cases:
		Case 1: Maximum Alert This email will be sent when a reading is higher than the maximum alarm level.
		Case 2: Minimum Alert This email will be sent when a reading is lower than the minimum alarm level.
		Case 3: Reset Level This email will be sent when a reading was previously at a max/min alarm level but has returned to a normal level.
3	Save	Click the Save button to save the template.
4	Close	Click the Close button to close the module.

### Variable

The following labels are defined as 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

🚺 Email Alert	
Recipient(s) List	
Following receipient(s) will receive email ale	rt
✓ johnsmit@gmail.com	
ОК	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	raph		
Exist Graph	(New)		~
		OK	Close

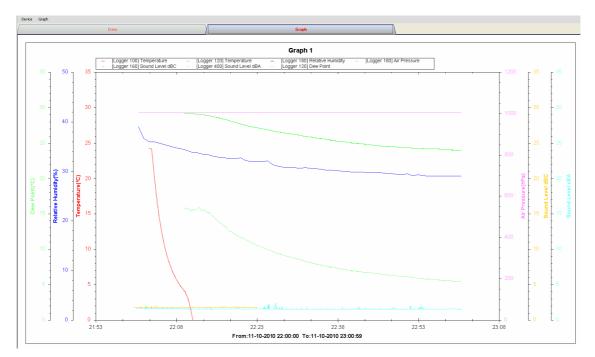
- 2. Select New to create a new graph or select the previous saved graph. Click OK to continue.
- 3. The Custom Graph detailed interface will be displayed:

V Custom Graph				
Graph Name	Graph 1			
Device and Meas	urement			
Data Period	PC storage range Earliest data:	04-05-2011 06:50:37	Latest data: 04-05-2011 06:51:23	
From: 13-06-	2011 00:00 💌 To: 14-06-2011 23:59	💌 🗌 Real Time Data		
Device	Measurement	_	Selected Measurement	
DL101T - Logge DL141TH - 140 DL141TH - 140- SL451 - 400 VC930 - 930 VC950 - 950		>>>	950 - Voltage (V DC)	
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 Set	ting						
Selected Mea	asurement						
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
	0.1						
Delete				< Prev Ste	p 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.

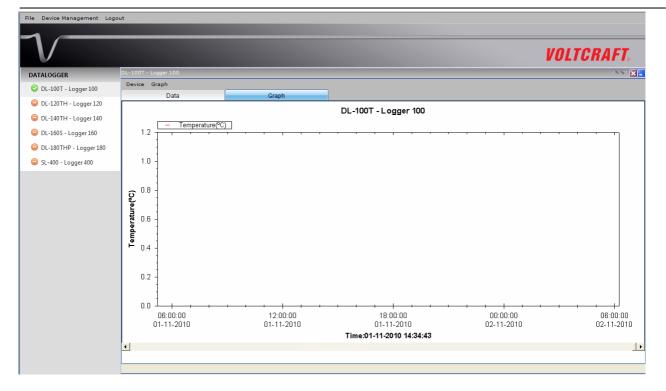
C VOLTCRAFT - Device Management System - Windows Internet Explorer		
G ⊙ ▼	🖌 🗲 🗙 Live Search	<b>P</b> -
😭 🐟 🍘 VOLTCRAFT - Device Management System	🚵 🔹 🔝 👘 🖶 Page 🔹	() T <u>o</u> ols + "
File Device Management Logout		<u>~</u>
1		
V	VOLTCRA	F <b>T</b> .
Data Logger		
😑 DL-100T - Logger 100		
OL-120TH - Logger 120		
😑 DL-140TH - Logger 140		
😑 DL-160S - Logger 160		
C DL-180THP - Logger 180		
SL-400 - Logger 400		
Done	Sinternet C	¥_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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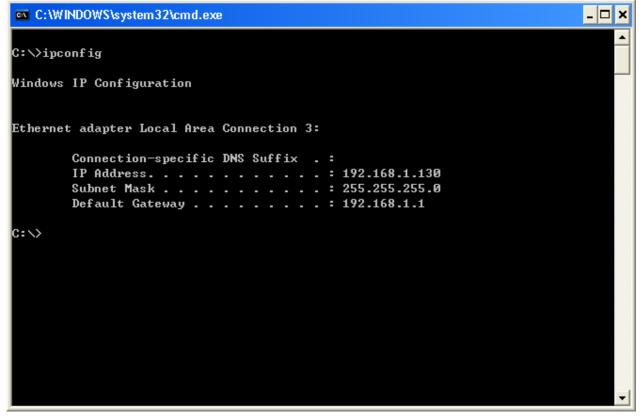


### 5.6.2 Accessing Voltsoft Web from a Remote Computer

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.

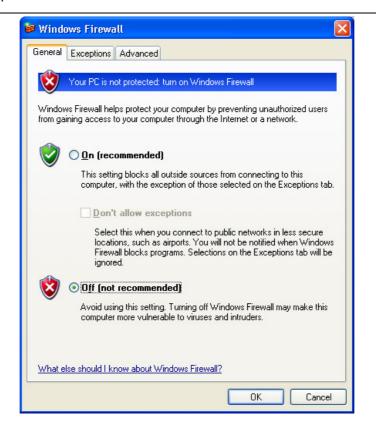
1. First, you need to check the IP address of your computer by opening the settings page in the Windows client or check by using command prompt.

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

1/		
V		<b>VOLTCRAFT</b> 。
VOLTC	RAFT - Welcome to VoltSoft	
	Login Name Password	
	Language English 💌	

### Voltsoft User Manual

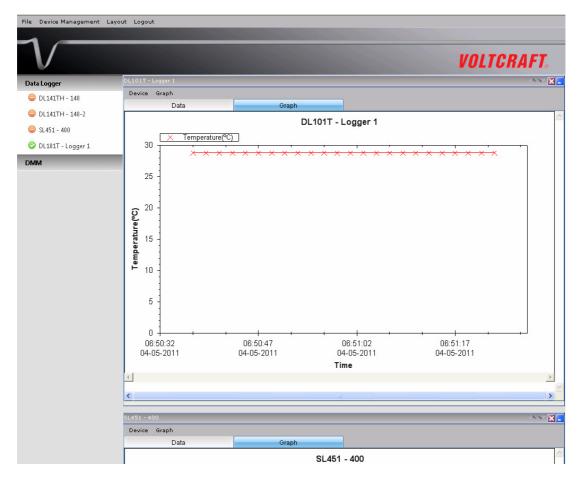
#### ii. Main Screen

V				VOL	TCRAFT.
ata Logger	DL101T - Logger 1 🗵				
DL141TH - 140	Device Graph				
	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					
DL101T - Logger 1	★ Summary	Los estas			
DEIGIN Euggeni	Measurement	Maximum ∀alue	Minimum Value	Average Value	
MM	Temperature (°C)	28.8	28.8	28.8	
	Record Time	Temperature (°C)			<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 04-05-2011 06:50:57	28.8			
	04-05-2011 06:50:57	28.8			
	04-05-2011 06:50:59	28.8			
	04-05-2011 06:51:03	28.8			

#### Screen Layout

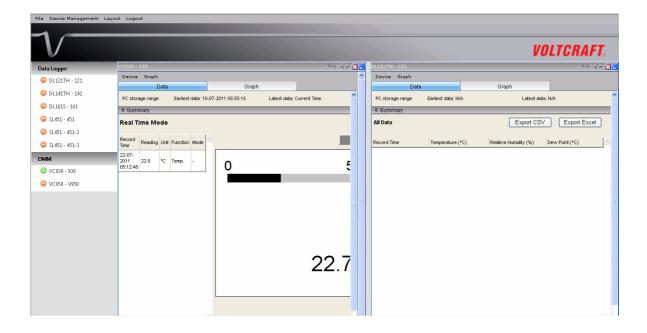
One of the most significant differences between the Windows version and the Web version is that you can arrange the Web version's device windows into three different layouts: 1) Single Column, 2) Two Columns, 3) Tab Layout

### 1) Single Column



### 2) Two Columns

ta Logger         DL017-Logger 1         Average in the second intervence (C)         SL451-400         Data         Oraph	V										VOLT	CRAF
DL1ATTH - 140 DL1ATTH - 140-2 SL451 - 400 DL30 Graph DL30 Grap	a Logger	DL101T - Logger 1			A 🗸 A 🕨 📔	۹.	SL451 - 4	100				
DL141TH-140-2       PC storage range       Barliest data: 04-05-2011 06:50:37       Letest data: 04-05-2011 06:51:23         SL451-400       ¥ Summary         A       A         A       A         Record Time       Temperature (°C)         04-05-2011 06:50:37       28.8         04-05-2011 06:50:43       28.8         04-05-2011 06:50:45       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:52       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:52       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:52       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:51       28.8         04-05-2011 06:50:52       28.8         04-05-2011 06:50:57       28.8         04-05-2011 06:50:57       28.8         04-05-2011 06:50:57       28.8         04-05-2011 06:50:57       28.8         04-05-2011 06:51:05	DL141TH - 140					^	Device	Graph				
SL451-400         PC storage range         Earliest data: 04-05-2011 06:50:37         Latest data: 04-05-2011 06:51:37         Study and the storage range         SL451-400           2         Summary         2         Summary         12         12         12         12         12         12         12         12         10         12         10         12         1	DI 1 1171 1 10 D	Data	Graph	_				Data		Gr	aph	
Summary           Al Data         Export CSV         Export Excel           04-05-2011 06:50.37         28.8           04-05-2011 06:50.43         28.8           04-05-2011 06:50.44         28.8           04-05-2011 06:50.45         28.8           04-05-2011 06:50.45         28.8           04-05-2011 06:50.45         28.8           04-05-2011 06:50.45         28.8           04-05-2011 06:50.45         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05-2011 06:50.51         28.8           04-05		PC storage range E	arliest data: 04-05-2011 06:50:37		: 04-05-2011		12	X Soud Level	× Soud			
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Record line         Temperature (°C)           04-05-2011 06:5037         28.8           04-05-2011 06:5049         28.8           04-05-2011 06:5043         28.8           04-05-2011 06:5043         28.8           04-05-2011 06:5043         28.8           04-05-2011 06:5043         28.8           04-05-2011 06:5045         28.8           04-05-2011 06:5047         28.8           04-05-2011 06:5051         28.8           04-05-2011 06:5055         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8           04-05-2011 06:5059         28.8		All Data	Export CS\	/ Ехр	ort Excel							
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		04-05-2011 06:50:59	28.8				0.2 -					
04.05-2011.06.51.05 28.8		04-05-2011 06:51:01	28.8				1					
04-05-2011 06:51:05 28.8 04-05-2011 06:51:07 28.8 0.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		04-05-2011 06:51:03	28.8									
04-05-2011 06:51:07 28.8 15:00 21:00:00 21:00:00 09:00:00 09:00:00 16:06:2011 17:06:2011 17:06:2011		04-05-2011 06:51:05	28.8					+ + + + + + + + + + + + + + + + + + + +				
		04-05-2011 06:51:07	28.8				10	06-2011	21:00:00 16-06-2011	17-06-2011	17-06-2011	15:0 17-06
04-05-2011 06:51:09 28.8		04-05-2011 06:51:09	28.8				1			Time		
		04-05-2011 06:51:13	28.8		~		<					



#### 2) Tab Layout

Data Logger     DL101T-Logger 1 St L451-400 X            OL141TH - 140         OL141TH - 140-2         St L451-400         OL101T - Logger 1         Otto Graph         OL101T - Logger 1         OL101T	
Operation     Device     Graph       Operation     Data     Graph       Operation     Data     Oraph       Object     DL101T - Logger 1       Object     1.2       Temperature (°C)     1.0	<b>FT</b> .
OLLALIN - 140         Data         Graph           © DL14TH - 140-2         Data         DL101T - Logger 1           © SL451 - 400         Image: Complementation of the second	
Image: Substantial state         DL101T - Logger 1           DL101T - Logger 1         1.2           Image: Substantial state         1.0	
Image: State 400     Image: State 400	
DLIDIT-Logger 1 1.2 1.0	
1.0 -	
0.2	
15:00:00 21:00:00 03:00:00 05:00:00 15	00:00
16-06-2011 17-06-	6-2011
L The second sec	Þ

### 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:

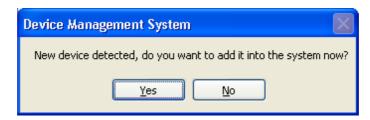
Туре	Device Name
Data Logger	DL101T
Data Logger	DL111K
Data Logger	DL121TH
Data Logger	DL141TH
Data Logger	DL161S
Data Logger	DL181THP
Data Logger	SL451
DMM	VC930 / VC950
DMM	VC880 / VC650BT
DMM	VC890
EL4000	EL4000

# 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	y	Graph		
PC storage range	Earliest data: 09-01-20	013 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

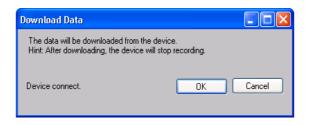
101T - Settings (HW ID:01_1210170003)				
Basic Settings				
Time	27-01-2013 16:15:49	🔽 🗹 Use System Time		
Logger Name	101T			
Record Start Condition	O By Button	<ul> <li>● After Setup</li> </ul>		
Sample Points	32000 💌	Sample Rate 2s 💌		
Recording Time	17 Hours 46 Minutes 4	0 Seconds		
LED Flash Cycle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

	1	
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	Configure the temperature low / high alarm level.
	Alarm	
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
<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.)

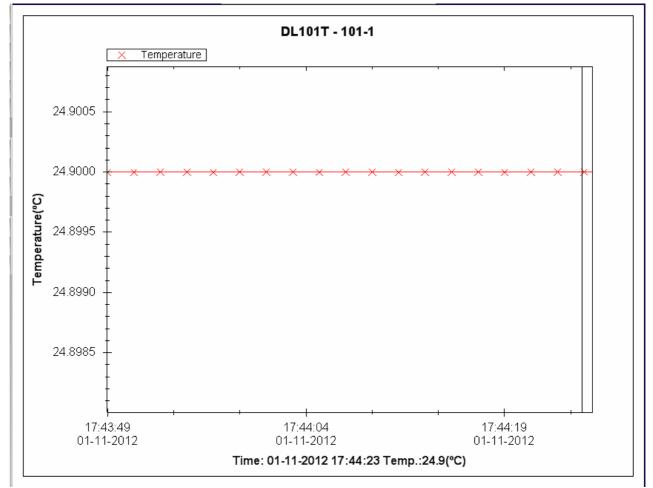
# 6.1.7 DL101T – Data View

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
Papard Time	Townsystems (200)	
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	V	Graph		
PC storage range	Earliest data: 09-01-2013 2	2:43:10 Lat	test data: 10-01-2013 07:36:28	
Summary				
Measurement	Maximum Value	Minimum Value	Average Value	
Temperature (°C) Relative Humidity (%) Dew Point (°C)				
All Data		l	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

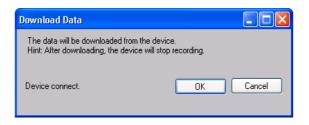
🚺 121TH - Settings (HW ID:02_1211070004)					
Basic Settings					
Time	27-01-201	3 16:25:50	🕑 🔽 Us	e System Time	
Logger Name	121TH				
Record Start Condition	🔿 By Bu	tton	<ul> <li>After Setup</li> </ul>		
Sample Points	16000	~	Sample Rate	2s 💌	
Recording Time	8 Hours 5	3 Minutes 20	Seconds		
LED Flash 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.		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 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.

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.)

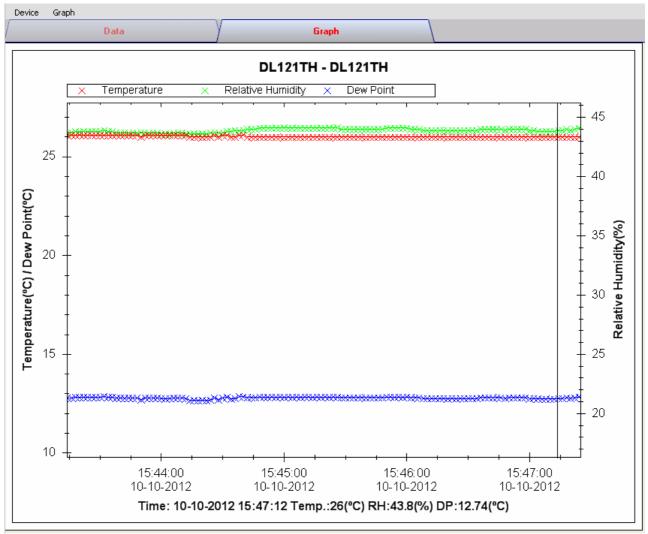
# 6.2.7 DL121TH - Data View

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	3:56	
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		
0-10-2012 15:40:40	26.1	44.2	12.97		
0-10-2012 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		
0-10-2012 15:40:48	26.1	44.2	12.97		
0-10-2012 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 15:41:24	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 15:41:40	26.1	43.9	12.86		
10-10-2012 15:41:40	26.1	43.9 43.9	12.86		
10-10-2012 15:41:42	26.1	43.9 43.9	12.86		
	26.1				
10-10-2012 15:41:46	20.1	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 DL141TH

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

#### 6.3.1 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 <u>N</u> o

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.

### 6.3.2 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.

# 6.3.3 DL141TH – Device Control Panel

DL141TH - 141TH					<b>-</b> ×
Device Graph					
/	Data	Y	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.				

# 6.3.4 DL141TH – Settings

V 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	After Setup
Sampling Rate	10 🛟 s 💌	
Recording Time	1 Day 21 Hours 25 Minutes	
LED Flash Cycle	⊙ 10s O 20s O	) 30s 🛛 Disable
Recording	O Circulating Record	No Circulating
Alarm Settings ☑ Enable LEDs Alert		
Temperature L	.ow Level -40.0 🤤 °C 🛛 Hig	h Level 70.0 🤤 °C
Relative Humidity L	.ow Level 0.0 💲 % Hig	h Level 100.0 文 %
Device connect.	Default	Setup Close

1	Dovice Time	Configure the device data time value	
T	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	0 Humidity Low / High Alarm Configure the humidity low / high alarm level.		
11 Default Button Reload the factory		Reload the factory default settings.	
12	Setup Button	Save changes.	
13	Close Button	Close this interface.	

#### 6.3.5 DL141TH - Download Data

This module allows user to download the data from DL141TH.

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

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

#### 6.3.6 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
<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.)

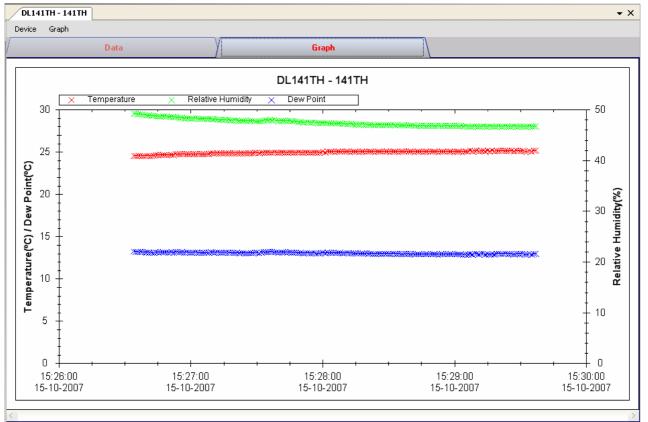
# 6.3.7 DL141TH - Data View

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		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) Relative Humidity (%) Dew Point (°C)	25.2 49.3 13.27	24.6 46.8 12.93	25.00 47.56 13.09				
All Data				Export Exc	el	Export CSV	
Record Time	Temperature (°C)	Relative Humidity (%)	Dew Point (°C)				_
	Temperature (°C) 24.6	Relative Humidity (%) 49.3	Dew Point (°C) 13.27				
15-10-2007 15:26:34							
15-10-2007 15:26:34 15-10-2007 15:26:35	24.6	49.3	13.27				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36	24.6 24.6	49.3 49.3	13.27 13.27				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37	24.6 24.6 24.6	49.3 49.3 49.2	13.27 13.27 13.24				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37 15-10-2007 15:26:38	24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2	13.27 13.27 13.24 13.24				
Record Time 15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37 15-10-2007 15:26:39 15-10-2007 15:26:40	24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.2 49.1	13.27 13.27 13.24 13.24 13.24 13.21				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37 15-10-2007 15:26:38 15-10-2007 15:26:39	24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1	13.27 13.27 13.24 13.24 13.21 13.21				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37 15-10-2007 15:26:38 15-10-2007 15:26:39 15-10-2007 15:26:40	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.1 49.0	13.27 13.27 13.24 13.24 13.24 13.21 13.21 13.21 13.18				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:37 15-10-2007 15:26:38 15-10-2007 15:26:40 15-10-2007 15:26:41	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 49.0	13.27 13.27 13.24 13.24 13.24 13.21 13.21 13.18 13.18				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:37 15-10-2007 15:26:37 15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:41 15-10-2007 15:26:43	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.1 49.0 49.0 48.9	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.18 13.15				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:38 15-10-2007 15:26:38 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 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 49.0 48.9 48.9	13.27 13.27 13.24 13.24 13.21 13.21 13.21 13.18 13.18 13.15 13.15 13.15				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:36 15-10-2007 15:26:38 15-10-2007 15:26:38 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 15:26:45 15-10-2007 15:26 15-10-2007 15:26 15-10-2007 15:26 15-1000 15-1000000000000000000000000000	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 49.0 48.9 48.9 48.9 48.8	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.18 13.15 13.15 13.15 13.15				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:37 15-10-2007 15:26:37 15-10-2007 15:26:40 15-10-2007 15:26:40 15-10-2007 15:26:42 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	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 49.0 48.9 48.9 48.9 48.8 48.8	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.18 13.15 13.15 13.21 13.21				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:37 15-10-2007 15:26:37 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 15:26:45 15-10-2007 15:26:45 15-10-2007 15:26:47	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.1 49.1 49.0 49.0 48.9 48.9 48.9 48.8 48.8	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.18 13.15 13.15 13.15 13.15 13.21 13.21				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:37 15-10-2007 15:26:37 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 15:26:42 15-10-2007 15:26:44	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 48.9 48.9 48.9 48.8 48.8 48.8	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.15 13.15 13.15 13.21 13.21 13.21 13.21				
15-10-2007 15:26:34 15-10-2007 15:26:35 15-10-2007 15:26:37 15-10-2007 15:26:37 15-10-2007 15:26:39 15-10-2007 15:26:40 15-10-2007 15:26:41 15-10-2007 15:26:41 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 15:26:47 15-10-2007 15:26:48	24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	49.3 49.3 49.2 49.2 49.1 49.1 49.0 49.0 48.9 48.9 48.9 48.8 48.8 48.8 48.8 48.8	13.27 13.27 13.24 13.24 13.21 13.21 13.18 13.18 13.15 13.15 13.15 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.

## 6.3.8 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

#### 6.3.9 DL141TH – Web Interface

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

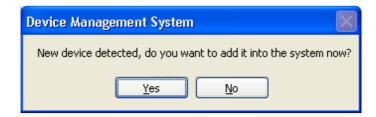
The web interface for DL141TH is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

# 6.4 DL161S

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

#### 6.4.1 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	1615		
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 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.

# 6.4.3 DL161S – Device Control Panel

DL1615 - 1615						<b>-</b> ×
Device Graph						
/	Data	\	Graph			
PC storage range	Earliest data: N/A	Lates	t data: N/A			
Summary						
Measurement	Maximum Value	Minimum Value	Average Value			
Sound Level dBA Sound Level dBC						
All Data				ſ	Export Excel	Export CSV
All Data				L		Exportest
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.

# 6.4.4 DL161S – Settings

🚺 160 - Settings			
Basic Settings			
Time	05-05-2011 06	:29:11 💌	Use System Time
Logger Name	160		
Sound Unit	💿 dBA	⊖ dBC	
Measuring Speed	<ul> <li>Fast</li> </ul>	O Slow	
Mode Setup	💿 Peak	🔿 Normal	
Sample Rate	1 🛟 s	<b>~</b>	
Sample Points	129920	🗧 🔽 Infinite	
Recording Time	1 Day 12 Hour	rs 5 Minutes 20 Seconds	
LED Flash Cycle	💿 10s 🛛 🔿	20s 🔿 30s 🔿 D	lisable
Record Start Condition	By Button	<ul> <li>After Setup</li> </ul>	
Storage Setup	○ Store	<ul> <li>Real Time</li> </ul>	
Alarm Settings			
Enable LEDs Alert			
Sound Level	_ow Level 30	ᅌ dBA 🛛 High Le	vel 130 🛟 dBA
Sound Level	Low Level 30	ᅌ dBC 🛛 High Le	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 da		
		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.

## 6.4.5 DL161S - Download Data

This module allows user to download the data from DL161S.

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

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

# 6.4.6 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.		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.
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.)

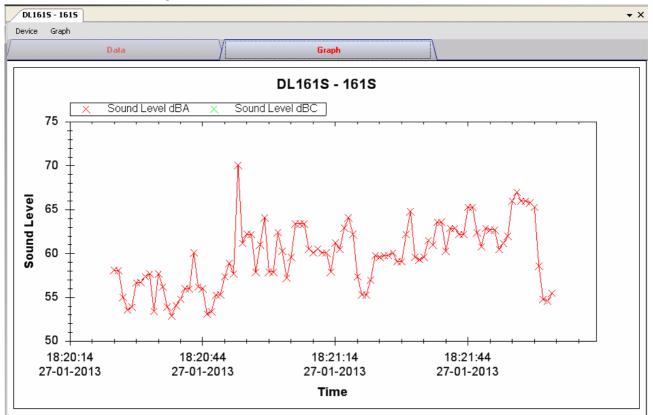
# 6.4.7 DL161S – Data View

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: 27-01-2	2013 18:20:24	Latest data: Current Time		
☆ Summary					
Measurement	Maximum Value	Minimum Value	Average Value		
Sound Level dBA Sound Level dBC	70.1	52.9	59.73		
All Data				Export Ex	cel Export CSV
Record Time	Sound Level dBA	Sound Level dBC			
27-01-2013 18:20:24	58.1				
27-01-2013 18:20:25	58.1				
27-01-2013 18:20:26	55.0				
27-01-2013 18:20:27	53.6				
27-01-2013 18:20:28	53.9				
27-01-2013 18:20:29	56.7				
27-01-2013 18:20:30	56.7				
27-01-2013 18:20:31	57.4				
27-01-2013 18:20:32	57.7				
27-01-2013 18:20:33	53.4				
27-01-2013 18:20:34	57.7				
27-01-2013 18:20:35	56.2				
27-01-2013 18:20:36	53.9				
27-01-2013 18:20:37	52.9				
27-01-2013 18:20:38	54.1				
27-01-2013 18:20:39	54.8				
27-01-2013 18:20:40	56.0				
27-01-2013 18:20:41	56.0				

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

# 6.4.8 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

## 6.4.9 DL161S - Email Alert

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

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.

### 6.4.10 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 Adjustmen	t 📃 🗖 🔀
Adjustment Value	
þ.o	•
(-12.5dB to	12.5dB)
Device connect.	OK Cancel

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

### 6.4.11 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.

# 6.5 DL181THP

DL181TH is a data logger for storing temperature, humidity and air pressure reading.

#### 6.5.1 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 <u>N</u> o

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

🚺 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.

# 6.5.2 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.

# 6.5.3 DL181THP – Device Control Panel

DL181THP - 181THP				•
Device Graph				
Dal	ta	Graph		
PC storage range	Earliest data: 27-01-2013 2	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	

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.

# 6.5.4 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 O 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 Low I	Level -40.0 🗢 °C High Level 70.0 🗘 °C		
Humidity Low I	.evel 0.0 🗘 % High Level 100.0 🗘 %		
Air Pressure Low I	evel 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.

#### 6.5.5 DL181THP - Download Data

This module allows user to download the data from DL181THP.

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

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

### 6.5.6 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
<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 records will be returned.)

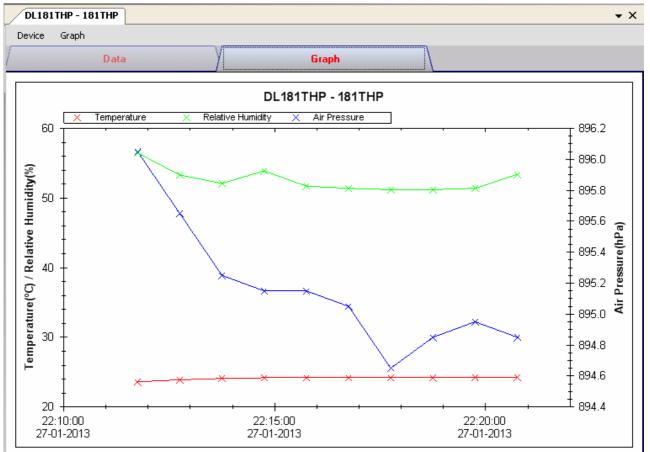
### 6.5.7 DL181THP - Data View

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				
Dat	a	Graph		
PC storage range	Earliest data: 27-01-2013 2	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.

# 6.5.8 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

### 6.5.9 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.

# 6.6 DL111K

DL111K is a data logger for storing temperature reading.

#### 6.6.1 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.

### 6.6.2 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.

# 6.6.3 DL111K – Device Control Panel

DL111K - 111K				<b>▼</b> X
Device Graph				
/	Data	Graph		
PC storage range	Earliest data: N/A	La	test data: N/A	
Summary				
Measurement	Maximum Value	Minimum Value	Average Value	
All Data			Export Exce	I 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.

# 6.6.4 DL111K – Settings

🚺 111K - Settings (HW ID:0017_07030100001)		
CBasic Settings		
Time	02-02-2013 22:54:22 💽 🔽 Use System Time	
Logger Name	111K	
Record Start Condition	O By Button <ul> <li>After Setup</li> </ul>	
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.

# 6.6.5 DL111K - Download Data

This module allows user to download the data from DL181THP.

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

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

## 6.6.6 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		
🔿 PC Storage Range	Earliest data: 05-02-2013 18:24:04	Latest data: 05-02-2013 18:35:29
From:	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.)

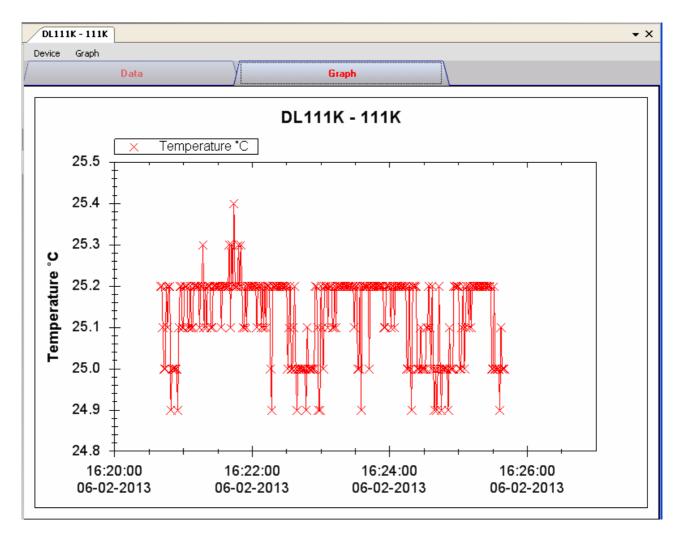
# 6.6.7 DL111K - Data View

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	ta	Graph	
PC storage range	Earliest data: 06-02-2013 16:20:24	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		
	05.4		

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

## 6.6.8 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

## 6.6.9 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.

## 6.7 DL191A

DL191A is a data logger for measuring current.

### 6.7.1 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?
<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	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.

### 6.7.2 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.

## 6.7.3 DL191A – Device Control Panel

Latest data: 29-03-2013 17:32:52
0.02
0.02
Export Excel Export CSV

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.

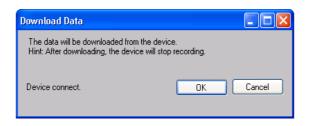
# 6.7.4 DL191A - Settings

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	After Setup		
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.	Defa	ault 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.

## 6.7.5 DL191A - Download Data

This module allows user to download the data from DL191A.



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

## 6.7.6 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.

D	isplay/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 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.)

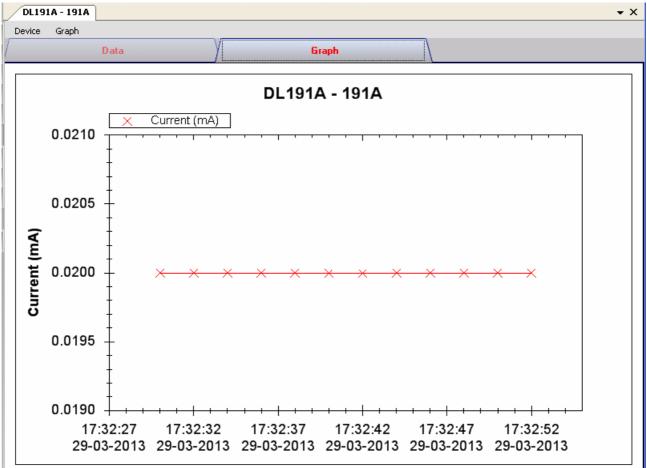
## 6.7.7 DL191A - Data View

DL191A contains one measurement (current) only.

DL191A - 191A					•
Device Graph Da	Ita		Graph		
<sup>D</sup> C storage range	Earliest data: 29-	03-2013 17:32:30	Latest data: 2	9-03-2013 17:32:52	
Summary					
All Data				Export Excel	Export CSV
Record Time	Current (mA)				
9-03-2013 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				
9-03-2013 17:32:40	0.02				
29-03-2013 17:32:42	0.02				
9-03-2013 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				
9-03-2013 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.

## 6.7.8 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

### 6.7.9 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.

## 6.8 DL191V

DL191V is a data logger for measuring voltage.

### 6.8.1 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 No

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

🚺 Add New Device	
Device Series	Data Logger 💌
Model Number	DL191V
Alias	191V
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.

### 6.8.2 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.

## 6.8.3 DL191V – Device Control Panel

DL191¥ - 191						• >
Device Graph						
Data	1	Y	Graph			
PC storage range	Earliest data: 18-0	3-2013 12:18:01	Latest data: 18-03-2	013 12:19:20		
¥ Summary						
All Data				Export Excel	Export CSV	
Record Time	Vottage (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					

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

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

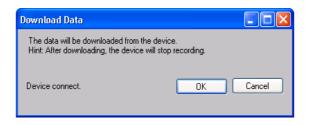
# 6.8.4 DL191V - Settings

V 191V - Settings (HW ID	:0013_12080700003	) [	
Basic Settings	29-03-2013 21:25:14	🗸 🗸 Use System Time	
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.	(	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	<ul> <li>By Button – The data logger will start recording only after the user pressed the red button on the device.</li> <li>After Setup – The data logger will start recording immediately after setup.</li> </ul>
4	Sample Points	immediately after setup. 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.

## 6.8.5 DL191V - Download Data

This module allows user to download the data from DL191V.



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

## 6.8.6 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.

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 records will be returned.)

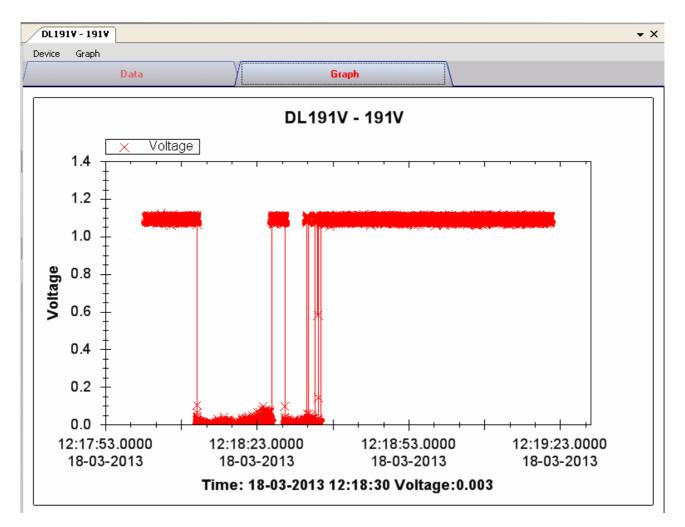
## 6.8.7 DL191V - Data View

DL191V contains one measurement (voltage) only.

DL191V - 191					-
Device Graph					
Data	3	(	Graph		
<sup>D</sup> C 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)				
8-03-2013 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.

## 6.8.8 DL191V – 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

#### 6.8.9 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.

## 6.9 DL151AN

DL151AN is a data logger for measuring air velocity.

#### 6.9.1 Add new DL151AB

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 No

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.

#### 6.9.2 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.

## 6.9.3 DL151AN – Device Control Panel

DL151AN - 151					•
Device Graph					
Da	ta		Graph		
PC storage range	Earliest data: 29-03-2	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 21:39:51	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.

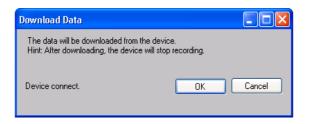
# 6.9.4 DL151AN – Settings

🚺 151 - Settings (HW ID:	0011_12101000002)		
Basic Settings			
Time	29-03-2013 22:03:27	🔽 🗹 Use System Tim	e
Logger Name	151		
Record Start Condition	○ 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 O	High Level 15	🛟 Unit m/s	•
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 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.

### 6.9.5 DL151AN - Download Data

This module allows user to download the data from DL151AN.



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

## 6.9.6 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.)

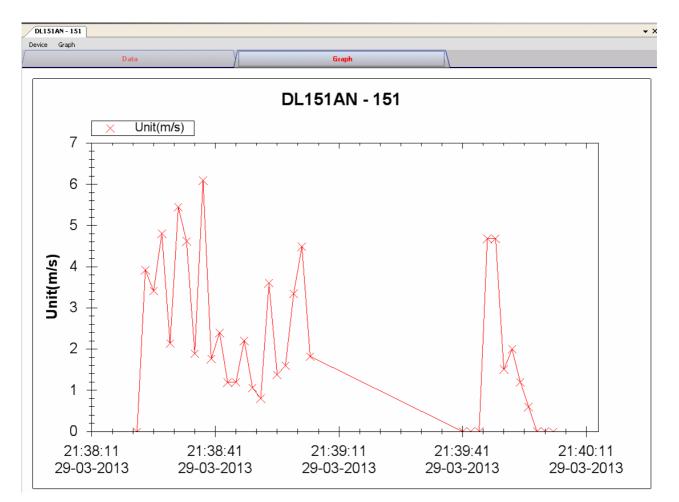
## 6.9.7 DL151AN - Data View

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	V	Graph		
PC storage range	Earliest data: (	29-03-2013 21:38:22	Latest dat	a: 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				
9-03-2013 21:38:26	3.41				
29-03-2013 21:38:28	4.81				
9-03-2013 21:38:30	2.14				
9-03-2013 21:38:32	5.45				
9-03-2013 21:38:34	4.62				
9-03-2013 21:38:36	1.89				
9-03-2013 21:38:38	6.09				
9-03-2013 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				

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

## 6.9.8 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

#### 6.9.9 DL151AN – Web Interface

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

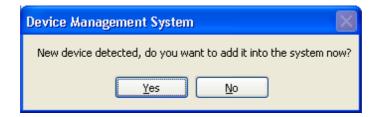
The web interface for DL151AN is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.10 IR 1200-50D

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

#### 6.10.1 Add new IR 1200-50D

When Voltsoft detected a new IR 1200-50D 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	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.

### 6.10.2 Remove IR 1200-50D

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

## 6.10.3 IR 1200-50D – Device Control Panel

IR 1200-50D - 1200		• X
Device Graph		
Data	Graph	
PC storage range Earliest 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 Max: 0 IR Min: 0	
	IR AVG: 0 IR DIF: 0	
	IR: <b>0</b> °C	
	<sup>τκ:</sup> Ν / Α	
	1/1/0001 12:00:00 AM	

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

1	Device -> Settings	This will launch the setting page of DL191V.
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.

## 6.10.4 IR 1200-50D – 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.

## 6.10.5 IR 1200-50D – Play (Real Time Mode)

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

IR 1200-50D - 120	10	• ·	×
Device Graph			
/	Data	Graph	
PC storage range	Earliest data: 05-03-2013		
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	Graph	h
PC storage range Earlie	est data: 05-03-2013 16:56:25 La	atest data: Current Time
Summary		
All Data		Export Excel Export CSV
Record Time IR (*C)	) Stop	Download Logger
	EMS:0	
	IR Max:	0 IR Min: 0
	IR AVG	: 0 IR DIF: 0
		) °C
	TK:	N/A
	1/1/000	01 12:00:00 AM

#### 6.10.6 IR 1200-50D – 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	• X
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	R 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	·			• X
Device Graph				
/	Data	У	Graph	
PC storage range	Earliest data: 05	5-03-2013 16:56:25	Latest data: 03-04-20	13 23:05:38
Summary				
All Data				Export Excel Export CSV
Record Time	IR (℃)	EMS TK (*	)	
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
				Connociou
<			>	

## 6.10.7 IR 1200-50D – 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.)

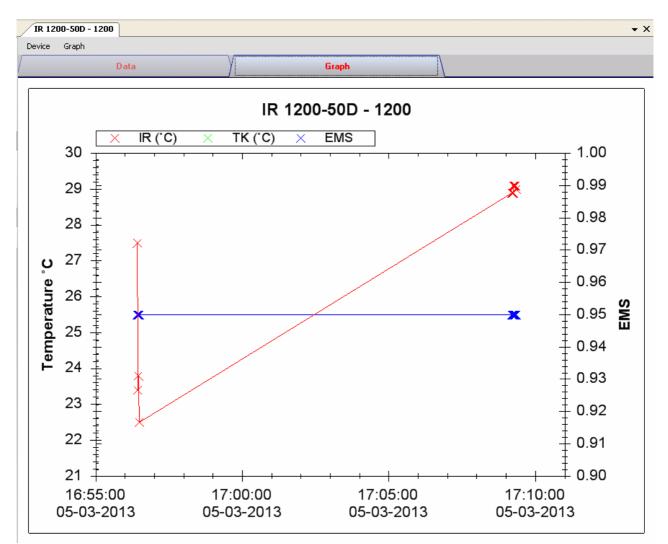
## 6.10.8 IR 1200-50D – Data View

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

IR 1200-50D - 1200 Device Graph	]		•
	Data	V	Graph
PC storage range	Earliest data: 05-0	13-2013 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
<		>	

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.

## 6.10.9 IR 1200-50D – 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

#### 6.10.10 IR 1200-50D – Web Interface

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

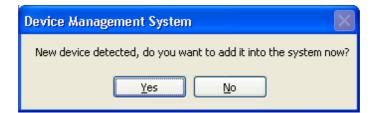
The web interface for IR 1200-50D is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.11 SL451

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

### 6.11.1 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	o-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.

### 6.11.2 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.

## 6.11.3 SL451 – Device Control Panel

SL451 - 451 Device Graph					
	Data	V	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 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.

## 6.11.4 SL451 – Settings

V 451 - Settings (H)	V ID:0006_12101	70003)		
Basic Settings Logger Name	<mark>451</mark> Please change hardware key o		tings by using th	e
Sample Rate Sample Points	1 S 💌 40000	🗘 🗌 Inf	inite	
Alarm Settings Sound Sound		30 🗘 dB 30 🗘 dB		130 🗘 dB 130 🗘 dB
Device connect.		C	Default Setu	ip 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.

### 6.11.5 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 de Hint: After downloading, the device will st	
Device connect.	OK Cancel

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

### 6.11.6 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	<b>×</b>
🔘 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. (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.)

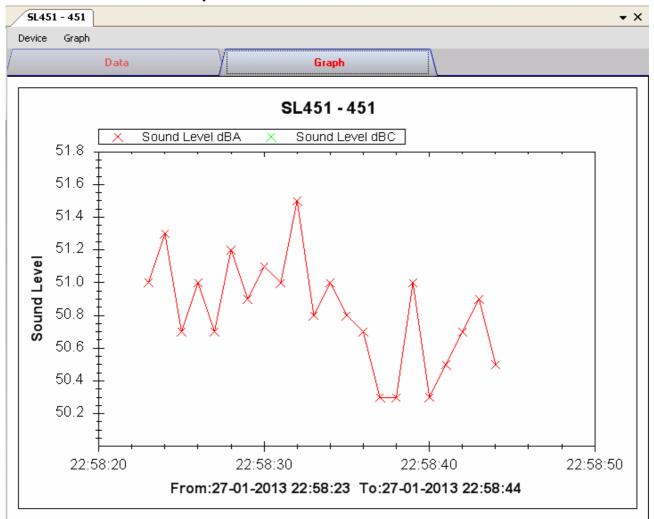
## 6.11.7 SL451 – Data View

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).

PC 1				
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 51.5			
27-01-2013 22:58:32 27-01-2013 22:58:33	51.5 50.8			
27-01-2013 22:58:33	50.0			
27-01-2013 22:58:35	50.8			
27-01-2013 22:58:36	50.7			
27-01-2013 22:58:37	50.3			
27-01-2013 22:58:38	50.3			
27-01-2013 22:58:39	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.

## 6.11.8 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

### 6.11.9 SL451 – Email Alert

V Email Alert	
Recipient(s) List Following receipient(s) will receive email al	ert
✓ johnsmit@gmail.com	
10	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.

#### 6.11.10 SL451 – Web Interface

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

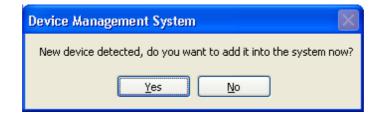
The web interface for SL451 is the same as Windows version, except the downloaded data can only have 10,000 readings in a single download.

## 6.12 VC930 / VC950

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

### 6.12.1 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.

### 6.12.2 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.

## 6.12.3 VC930 / VC950 – Device Control Panel

	Data		<u> </u>		Graph		
PC storage range	Earliest data: 1!	5-06-2011 06:	39:52	Latest da	a: Current Time		
Summary							
leal Time Mode							Export Excel Export CSV
Record Time	Reading	Unit	Function	Mode		Start Record	Stop Display
6-06-2011 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.	-		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.	-	1		~~
16-06-2011 12:40:18	27.4	°C	Temp.	-		27.6	°C
16-06-2011 12:40:19	27.4	°C	Temp.	-			v
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.	-			
	27.4	°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.		

# 6.12.4 VC930 / VC950 - Download Data

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

🔡 Download Data		
<ul> <li>Download DataLog</li> </ul>	O Download Storage	
Device disconnect.	OK	Close

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

## 6.12.5 VC930 / VC950 – Settings

V950 - Settings (HW	ID: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	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	%
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		Α	AC+DC	-
%	V AC	%	Α	AC	
%	V DC	%	Α	DC	
%	V AC+DC	%	Α	AC+DC	
mV	AC	-	%	A AC	%
mV	DC	-	%	A DC	%
mV	AC+DC	-	%	A AC+DC	%
mV	AC		оС	Temp.	-
mV	DC		оС	Temp.	
mV	AC+DC		оС	Temp.	%
%	mV AC	%	oF	Temp.	-
%	mV DC	%	oF	Temp.	
%	mV AC+DC	%	oF	Temp.	%
mA	AC	-			
mA	DC	-			
mA	AC+DC	-			
mA	AC				
mA	DC				
mA	AC+DC				

### 6.12.6 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
From:	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.)

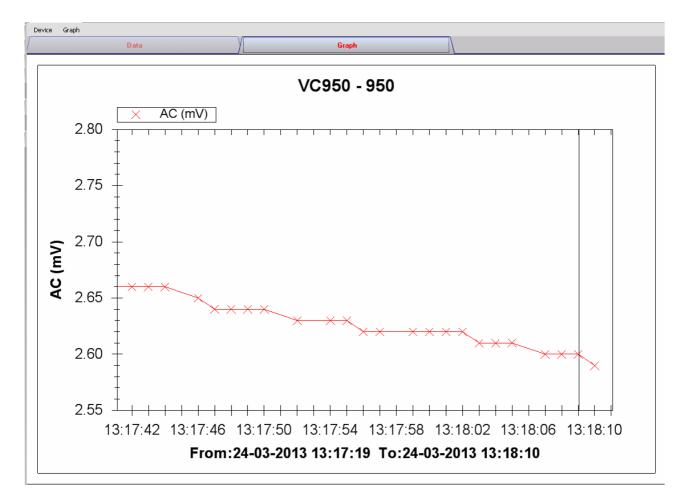
## 6.12.7 VC930 / VC950 – Data View

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

	Data	1		Y	Graph	
PC storage range	Earliest data: 2	4-03-2013 13:	17:19	Latest data: Curr	t Time	
≭ Summary	_					
History Data <b>3</b>	Ba	ck to real time	mode			ort CSV
Record Time	Reading	Unit	Function	Mode 🔨	Stop Record Sto	op Displa
24-03-2013 13:17:19	2.77	mΥ	AC			p Displa
24-03-2013 13:17:21	2.75	mν	AC			
24-03-2013 13:17:22	2.75	mV	AC			
24-03-2013 13:17:23	2.65	mV	AC		E E	-14
24-03-2013 13:17:24	2.65	mV	AC		) 5	10
24-03-2013 13:17:25	2.65	mV	AC		· · · · · · · · · · · · · · · · · · ·	
24-03-2013 13:17:26	2.65	mV				
	2.65		AC			
24-03-2013 13:17:28		mV	AC	-	•	
24-03-2013 13:17:29	2.65	mV	AC		0	
24-03-2013 13:17:30	2.65	mV	AC	-	-	
24-03-2013 13:17:31	2.65	mV	AC			
24-03-2013 13:17:32	2.65	mV	AC	8 <b>-</b> 0		
24-03-2013 13:17:33	2.65	mV	AC	8.5.0	2	A
24-03-2013 13:17:34	2.65	mV	AC	87 <b>5</b> 3	_	
24-03-2013 13:17:36	2.64	mV	AC			
24-03-2013 13:17:37	2.64	mV	AC	-		
24-03-2013 13:17:38	2.64	mV	AC	-		
24-03-2013 13:17:39	2.65	mν	AC	S-S		
24-03-2013 13:17:40	2.66	mΥ	AC	2 <b>-</b> 2		
24-03-2013 13:17:41	2.66	mV	AC	·••		
24-03-2013 13:17:42	2.66	mν	AC	2.5 C		
24-03-2013 13:17:43	2.66	m∨	AC	2.5		
24-03-2013 13:17:44	2.66	m∨	AC			
24-03-2013 13:17:46	2.65	mν	AC	-		
24-03-2013 13:17:47	2.64	mν	AC	242		
24-03-2013 13:17:48	2.64	mV	AC			
24-03-2013 13:17:49	2.64	mν	AC		<b>1.36</b> mv	
24-03-2013 13:17:50	2.64	mΥ	AC			
24-03-2013 13:17:52	2.63	m∨	AC			
24-03-2013 13:17:54	2.63	mΥ	AC			
24-03-2013 13:17:55	2.63	mΥ	AC			
24-03-2013 13:17:56	2.62	mΥ	AC	-		
24-03-2013 13:17:57	2.62	mΥ	AC	243		
24-03-2013 13:17:59	2.62	m∨	AC	1.00		
24-03-2013 13:18:00	2.62	m∨	AC			
24-03-2013 13:18:01	2.62	mΥ	AC			
24-03-2013 13:18:02	2.62	m∨	AC	-		
24-03-2013 13:18:03	2.61	mν	AC	-		
24-03-2013 13:18:04	2.61	mV	AC	-		
24-03-2013 13:18:05	2.61	mV	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	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 display real- time data.

# 6.12.8 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

#### 6.12.9 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	-03-2013 13:18:10			<u>^</u>
¥ Summary							
					Export	CSV Expo	rt Excel
Record Time	Reading	Unit Functio	on Mode	<u> </u>	Refresh	Start Record	Start Display
				0	0		0
						0	-
						-	-
							_
					0		
					0 -		
2				*			~

# 6.13 VC880 / VC650BT

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

#### 6.13.1 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:

V 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.

### 6.13.2 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.

# 6.13.3 VC880 / VC650BT – Device Control Panel

Device Graph						
	Data			Y		Graph
PC storage range	Earlie	st data: 02-1	2-2012 19	9:38:13		Latest data: 02-12-2012 19:38:21
¥ Summary						
Real Time Mode	Ba	ck to real tim	e mode			Export Excel Export CSV
Record Time	Function	Reading	Unit	Range	Sub Va	Stop Record Stop Display
02-12-2012 19:38:13 02-12-2012 19:38:14	DCV DCV	0.26	m∨ m∨	600 600	0	Device Control       Light         Manual Range       Auto Range       MAXMINVAVG       Exit Max       NG Beep       Light         Select       Hold       REL       Pass Beep       COMP Value       COMP Setting         Single Log       Series Log       Load Device Memory       Clear Device Memory       Load Comparison Memory         Load Comparison Memory       Clear Comparison Memory       Clear Comparison Memory       Memory
<					>	DC 0 1 2 3 4 5 600mV

The VC80 / 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.

# 6.13.4 VC880 / VC650BT – Settings

VC880 - Settings (HW	ID:0009-00000000000507)	
CBasic 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 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.

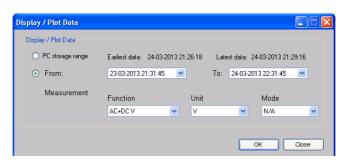
\* Note: The alarm can be configured in the following measurement ranges:

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	μΑ	N/A
DCA	A	N/A
DCA	mA	N/A
DCA	μΑ	Δ
DCA	A	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

### 6.13.5 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.)

4

## 6.13.6 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.

Device Grap	h										
	Data					Graph					
PC storage rang	e Ea	arliest data: 24	-03-2013 21	1:26:18		Latest data: (	Current Time				
¥ Summary											
		Back to real tin	me mode		4		Export Excel Export CSV				
Record Time	Function	Reading	Unit	Range	Sub Value	Mode 🔺					
24-03-2013 21: 24-03-2013 21:		0.23 0.19	mV mV	400 400		1	Device Control				
24-03-2013 21: 24-03-2013 21:	26:20 DCV	0.1 0.05	mV mV	400 400		-	Manual Range Auto Range MAXIMINIAVG Exit Max NG Beep Light				
24-03-2013 21:	26:22 DCV	0.05	m∨	400		-	Select Hold REL Pass Beep COMP Value COMP Setting				
24-03-2013 21: 24-03-2013 21:		0.12	mV mV	400 400		-	Single Log Series Log Load Comparison Memory Clear Comparison Memory				
24-03-2013 21:	26:25 DCV	0.06	m∨	400		-	Load Device Memory Clear Device Memory 2				
24-03-2013 21: 24-03-2013 21:		0.04	mV mV	400 400			Load Device Memory Clear Device Memory 2				
24-03-2013 21:	26:28 DCV	0.01	mΥ	400		- 8					
24-03-2013 21: 24-03-2013 21:		0.01 0	mV mV	400 400		1	MEM 0034				
24-03-2013 21:	26:31 DCV	0	m∨	400		-	3				
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400							
24-03-2013 21:	26:34 DCV	0	m∨	400							
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400		1 I I	-000.05				
24-03-2013 21:	26:37 DCV	0	mν	400		140	-000.00 m)/				
24-03-2013 21: 24-03-2013 21:		0 0	mV mV	400 400			mV				
24-03-2013 21: 24-03-2013 21:		0	m∨ mV	400 400		-	Manual 400				
24-03-2013 21: 24-03-2013 21:		0	m∨	400		-					
4-03-2013 21: 4-03-2013 21:		0	mV	400		-	0 10 20 30 40				
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400		1.0	0 10 20 30 40				
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400		-					
24-03-2013 21:	26:48 DCV	Ő	m∨	400		-					
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400		-					
24-03-2013 21:	26:51 DCV	Ō	mΥ	400		-					
24-03-2013 21: 24-03-2013 21:		0	mV mV	400 400		1					
24-03-2013 21:	26:54 DCV	-0.12	m∨	400		-					
24-03-2013 21: 24-03-2013 21:		0.02 0.06	mV mV	400 400							
24-03-2013 21:	26:57 DCV	0.13	mV	400 400		- ~	2				
	/ · · · · · · · · · · · · · · · · · · ·		mo	2010							
Re	cord / D	Display	,	1	Jse th	ese tv	wo buttons to toggle between display and record				
Βι	itton				node.						
					in dien	lav m	node, the reading measured by the device will				
	be displayed in the display area.										
					To present model when we diverge the transmission of t						
							ode, the reading measured will not only display				
						•	ay area, but also be stored in the database for				
				1	future use.						
					N.B.						
							ice is in record mode this means it is also in				
					display	/ mod	le.				
							the display mode will also stop the record				
					node.	Ping					
	mmand	Butto	n			o hole	ow section.				
			11								
וט	splay Ar	ea			Jispia	y une l	measured value.				

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
0	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.

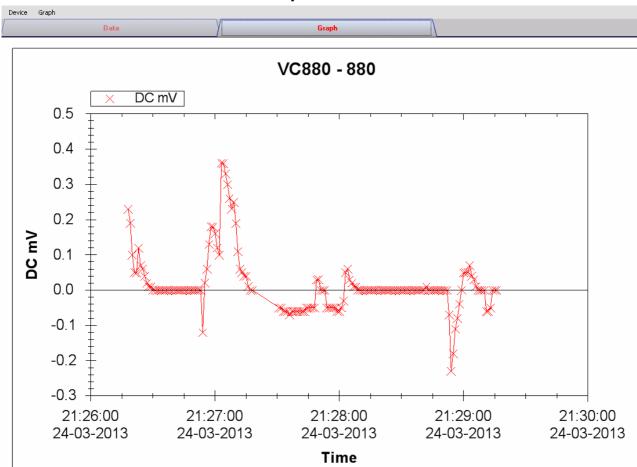
### Data Comparison dialog

Close	High Limit Low Limit Inner / Outer	0.0022 0.0020 Inner	× ×	Setup Enter
-------	--	---------------------------	--------	-------------

	High Limit	0.0022	*		
	Low Limit	0.0020	\$		]
	Inner/Outer	Inner	*	Setup ESC	J
	Close				Lc
l					

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.

# 6.13.7 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

#### 6.13.8 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 Exc	el
Record Time	Function	n Reading	Uni 🛆				Refresh	Start Record Start Display	
				Command Key Manual Range Select Single Log Clear Comparison Me MEN	Auto Range Hold mory Clea	MAXIMINVAVG REL Series Log ar Device Memory	Exit Max Pass Beep Load Comparison M	NG Beep Light COMP Value COMP Settin Memory Load Device Memory	•
				_		Auto			
<			>	0	10	20	30	40	

# 6.14 VC890

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

#### 6.14.1 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?		
Yes No		

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.

#### 6.14.2 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.

# 6.14.3 VC890 – Device Control Panel

PC storage range Summary Real Time Mode	Ea	rliest data: 2				
			4-03-201	3 22:02:05		Latest data: Current Time
teal Time Mode						
cal line moue						Export Excel Export CSV
Record Time	Function	Reading	Unit	Range	Sub Value	Stop Record Stop Display
4-03-2013 22:02:05	DCV	0.45	mΥ	600		Device Control
4-03-2013 22:02:06	DCV	0.46	mΥ	600		
4-03-2013 22:02:07	DCV	0.45	mΥ	600		Manual Range Auto Range MAXMINVAVG Exit Max NG Beep Pass Beep
4-03-2013 22:02:09	DCV	0.45	mΥ	600		
4-03-2013 22:02:10	DCV	0.45	mV	600		Select Hold REL Light COMPValue COMPSetting
4-03-2013 22:02:11	DCV	0.45	mΥ	600		
4-03-2013 22:02:12	DCV	0.45	mν	600		Single Log Series Log
4-03-2013 22:02:13	DCV	0.45	mΥ	600		
4-03-2013 22:02:15	DCV	0.45	mV	600		Load Device Memory Clear Device Memory
4-03-2013 22:02:16	DCV	0.44	mV	600		
4-03-2013 22:02:17	DCV	0.45	mV	600		Load Comparison Memory Clear Comparison Memory
4-03-2013 22:02:19	DCV	0.44	mΥ	600		
4-03-2013 22:02:19	DCV	0.44	mV	600		
4-03-2013 22:02:23	DCV	0.44	mV	600		
4-03-2013 22:02:24	DCV DCV	0.44 0.43	m∨	600	77	
4-03-2013 22:02:25			m∨	600	1	
4-03-2013 22:02:26	DCV	0.43	m∨	600		
4-03-2013 22:02:27	DCV	0.43	mV	600		
4-03-2013 22:02:29	DCV	0.43	mΥ	600		
4-03-2013 22:02:30	DCV	0.42	mΥ	600		
4-03-2013 22:02:31	DCV	0.43	mΥ	600		
4-03-2013 22:02:32	DCV	0.42	mΥ	600		
4-03-2013 22:02:33	DCV	0.43	mΥ	600		
4-03-2013 22:02:34	DCV	0.43	mΥ	600		
4-03-2013 22:02:35	DCV	0.42	mΥ	600		000.40 mV
4-03-2013 22:02:37	DCV	0.42	mΥ	600		
4-03-2013 22:02:38	DCV	0.42	mΥ	600		
4-03-2013 22:02:39	DCV	0.43	mΥ	600		0 1 2 3 4 5 600mV
4-03-2013 22:02:41	DCV	0.42	mΥ	600		
4-03-2013 22:02:42	DCV	0.42	mΥ	600		
4-03-2013 22:02:43	DCV	0.41	mΥ	600		
4-03-2013 22:02:44	DCV	0.42	mΥ	600		
4-03-2013 22:02:45	DCV	0.41	mΥ	600		
4-03-2013 22:02:46	DCV	0.42	mΥ	600		
4-03-2013 22:02:48	DCV	0.41	mV	600		
4-03-2013 22:02:49	DCV	0.41	mΥ	600		
4-03-2013 22:02:50	DCV	0.4	mV	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.

# 6.14.4 VC890 – 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 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	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

# 6.14.5 VC890 – Device Setting

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

V Device Setting		
1ime 05-01-2013 14:11:57	🖌 Use System Time 🗌	1 Set
Other Setting		
Battery	⊙ Alkaline	🔿 Li-Akku (Lithium battery) <mark>2</mark>
Logger Memory	⊙ Fix	Overwrite 3
Logger data display	<ul> <li>Activate</li> </ul>	O Deactivate 4
Auto brightness	⊙ Activate	O Deactivate 5
Logger sampling rate	1s	▶ 6
Auto Power Off	⊙ 5 mins	0 15 mins <b>7</b>
	🔿 30 mins	<ul> <li>Never</li> </ul>
		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

### 6.14.6 VC890 - Download Data

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



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

#### 6.14.7 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.)

## 6.14.8 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						
Data						Graph
PC storage range	Ear	rliest data: 24-	03-2013 2	2:02:05		Latest data: Current Time
Summary						
			_		4	
		Back to real tim	ie 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	mV	600		Device Control
24-03-2013 22:02:06 24-03-2013 22:02:07	DCV DCV	0.46 0.45	mV mV	600 600		Manual Range Auto Range MAXIMINIAVG Exit Max NG Beep Pass Beep
24-03-2013 22:02:07	DCV	0.45	mv mV	600		
24-03-2013 22:02:03	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 22:02:13	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	mΥ	600		
24-03-2013 22:02:21	DCV	0.44	mΥ	600		
24-03-2013 22:02:23	DCV	0.43	mΥ	600		
24-03-2013 22:02:24	DCV	0.44	mΥ	600		
24-03-2013 22:02:25	DCV	0.43	mΥ	600		
24-03-2013 22:02:26	DCV	0.43	mΥ	600		
24-03-2013 22:02:27	DCV	0.43	m∨	600		3
24-03-2013 22:02:29	DCV	0.43	mV	600		<b>.</b>
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 24-03-2013 22:02:33	DCV DCV	0.42	mV	600		DC
24-03-2013 22:02:33	DCV	0.43 0.43	mV mV	600 600		
24-03-2013 22:02:34	DCV	0.43	mv mV	600		000.20 m)/
24-03-2013 22:02:35	DCV	0.42	m∨	600		000.20 mV
24-03-2013 22:02:38	DCV	0.42	mΥ	600		
24-03-2013 22:02:30	DCV	0.42	mΥ	600		0 1 2 3 4 5 600mV
24-03-2013 22:02:41	DCV	0.42	mΥ	600		0 1 2 3 4 5 600m∨
24-03-2013 22:02:42	DCV	0.42	mV	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		
34.02.3042.33-03-49	DOV	0.44	100	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**

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

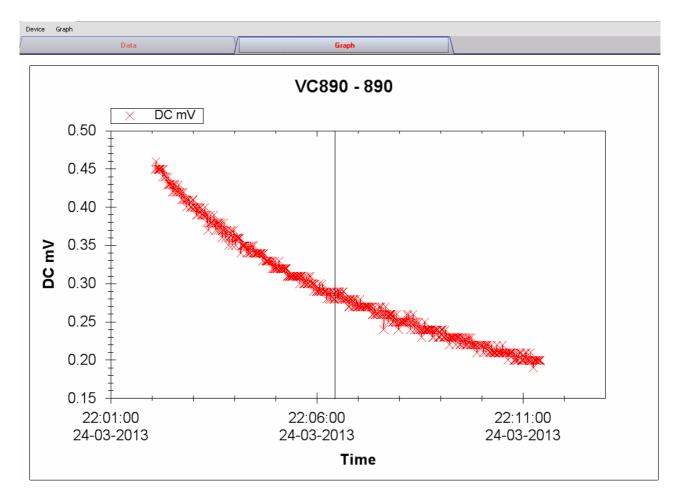
	auto range.
MAX / MIN / AVG	Click to send commands to enable maximum, minimum, average function.
Exit Max	Click to send commands to exit maximum, minimum,
NG Beep	average function. In the COMP VALUE mode, if failed, click button to turn
<b>P</b>	the alarm on/off.
Light	Click to send commands to enable device backlight
	function, and then click the exit functions.
Select	Click to send commands to enable device function
	selection.
Hold	Click to send commands to enable device to maintain the
	function, and then click to exit maintain function.
REL	Click to send commands to enable the relative value
	function; then click to exit the function.
Pass Beep	In the COMP VALUE mode, if passed, click button to turn
	the alarm on/off.
COMP Value	Enter / Leave COMP value mode.
COMP Setting	Pop up Data Comparison dialog.
Single Log	Click to send commands to enable device to store a single data.
Series Log	Click to send commands to enable device to continuously
5	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
Clear Davice Memory	data stored by device.
Clear Device Memory	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.

# 6.14.9 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

#### 6.14.10 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.
- 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 2	2:02:05	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 5	Start Display	
						Command Key							
						Manual Range	Auto F	Range	MAX\MIN\AVG	Exit Max	NG Beep	Pass Beep	
						Select	Ho	old	REL	Light	COMP Value	COMP Setting	
						Single Log			Series Log				
						Load Device Me	emory	Clear	Device Memory				
						Load Comparison	Memory	Clear Co	mparison Memory				
۲					>	<b>■</b> )) →- LO Auto						]	

# 6.15 EL4000

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

#### 6.15.1 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.

### 6.15.2 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.

# 6.15.3 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 Expo	t CSV
Record Time	Current (A)	Active Power (W)	Apparent Power (W)	
05-09-2012 10:37:00	2.253	0	0	e e
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	õ	0	0	
05-09-2012 11:02:00	Ő	ő	0	
05-09-2012 11:03:00	ů	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.

# 6.15.4 EL4000 – Settings

V Setting		
Basic Settings		
Time	17-03-2012 04:06	🗸 🗹 Use System Time
Date Format:	⊙ dd/mm/yyyy	O mm/dd/yyyy
Time Format:	⊙ 24-hour	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.

#### 6.15.5 EL4000 - Download Data

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

Download Data	
Browse the location of data files:	
ΕX	
	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.

#### 6.15.6 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		
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 records will be returned.)

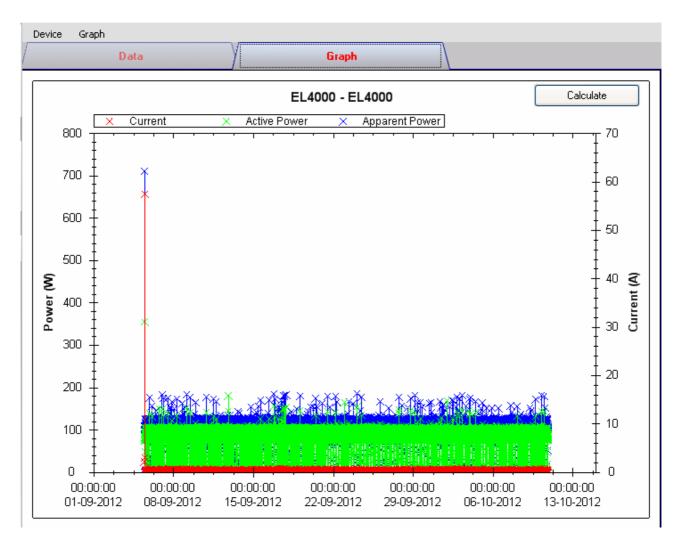
### 6.15.7 EL4000 – Data View

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

Dat	a	Graph		
PC storage range	Earliest data: 05-09-20		10-10-2012 20:40:00	
Summary				
· · · · · · · · · · · · · · · · · · ·				
All Data			Export Excel Export CSV	_
Record Time	Current (A)	Active Power (W)	Apparent Power (VV)	
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	ů.	0	0	

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

# 6.15.8 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

## 6.15.9 EL4000 – Calculate

Price Settings	Results	40.4011.4
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		
Τα: 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.

#### 6.15.10 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 applicatio	n

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

# 8 Appendix

# 8.1 Real-Time device list

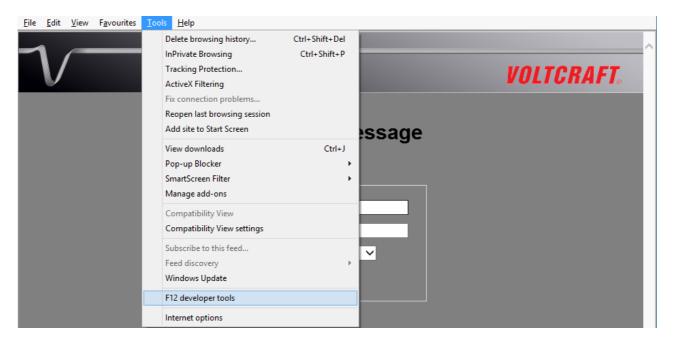
Only the following devices will have real-time features:

Family	Model Number
Data Logger	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

$\sqrt{-}$	VOLTCI	RAFT.
١	Velcome message	
	Login Name Password Language English ✓ Login	~
File Find Disable View Images Cache Tools Validate	Browser Mode: IE9 Document Mode: IE7 standards	- 🗗 X
HTML       CSS       Console       Script       Profiler       Network <ul> <li></li></ul>	Internet Explorer 10 Internet Explorer 10 Internet Explorer 9 Internet Explorer 8 Internet Explorer 7 Internet Explorer 7	م