

# V-BOX user manual



Website: http://www.we-con.com.cn/en Technical Support: support@we-con.com.cn Skype: fcwkkj Phone: 86-591-87868869 QQ: 1043098682 Technical forum: http://wecon.freeforums.net/



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# 1. WEB link

V-BOX Web visit website: http://v-box.net

V-BOX PC application download link: http://www.we-con.com.cn/en/download\_45.html

# 2. Basic Function

# 2.1 Register

Users can register a V-Box account by mobile phone number or mailbox, the registration interface as Figure 2-1 shows, but currently users from out of China countries can only use email address to register.

	Please Input The User Name
Phone Number/Mailbox	Discus local The English dataset
	Please Input The Email Address
Verification Code Click To Send	Please Input Your Password
Please Input Your Password	Please The Password Again
Please The Password Again	I Have Read And Accept It. Registration Clauses
Ok	Register
Return To Login	Register With Phone Number   Have An Account Account? Cllick To Login
By mobile number	By Email

Figure 2-1

#### Operating procedures of Registering by an Email address

1) Enter user name, the username must be a unique name. If the username already exists, the prompt



message will appear, as Figure 2-2. And numbers, letters, and underscores are legal characters for the username, and the length of user name shall not exceed 20 digits;



Figure 2-2

- 2) Enter the email address;
- 3) Set the password, and please ensure that the password which has been entered secondly shall be consistent;
- 4) Select "I have read and accept it", after reading "Registration Clauses", please make sure you can accept all terms of this agreement;
- 5) Click "Register" to execute account registration, and below prompt message will display, as Figure 2-3;



ОК

Figure 2-3

### 2.2 User sign in

The user sign in interface as Figure 2-4 shows;

#### Operating procedures of sign in

1) Select user interface, Chinese or English are supported;





- 2) Enter user name, such as WECONSupport
- 3) Enter password;
- 4) Check "Keeping the state of sign in within 30 days", if necessary, kindly note, please don't use this option in public PC;
- 5) Click "Sign in" button;

English •
WECONSupport
Keeping the state of login within 30 days.
Login
Forget The Password?   Register A New Account

Figure 2-4

#### Operating procedures of sign in

- 6) Select user interface, Chinese or English are supported;
- 7) Enter user name, such as WECONSupport
- 8) Enter password;
- 9) Check "Keeping the state of sign in within 30 days", if necessary, kindly note, please don't use this option in public PC;
- 10) Click "Sign in" button;

# **2.3 Account Information**

Please click user name to go into "Account Information" interface, as shown in Figure 2-5, users can change the account information such as email address, password and so on.

#### Operating procedures of the bound mailbox

- 1) Click "Operating" in "Personal information"
- 2) Select "Bind/Unbind the mailbox" to open the setting screen as Figure 2-6 shows;

3



- 3) Enter the email address, but please ensure, the email is not for other account;
- 4) Email will get a link, please click the link to bind email

	Homepage > Account Information	n	
Anna O Logout itch Language English V	Personal Information		🌣 Operating
CONSupport Q	Liser Name	4nna	
	Mailbox	xuyj@we-con.com.cn	
) (2) (2) (2)	Phone Number		
Monitoring Points	Password	******	
Default Group <			
	Company Information		Coperating
	Company Name		
	Company Owner		
	Contactors		
	Phone Number		

Figure 2-5

Bind/Unbind	The Mailbox	

Please input the email address you want to bind or c

Close	Save
-------	------



#### **Operating procedures of changing password**

- 1) Click "Operating" in "Personal information"
- 2) Select "Change password" to open the setting screen as Figure 2-7 shows;
- 3) Enter the old password and new password;
- 4) Click "Save" to finish settings;



### Change Password

Input The Old Password Please
Input The New Password
Input The New Password
Close Save
Close Save



....

#### **Operating procedures of changing password**

(	Company Name
(	Company Owner
(	Contactors
	<sup>o</sup> hone Number



- 1) Click "Operating" in "Company information"
- 2) Select "Edit the company information" to open the setting screen as Figure 2-8 shows;
- 3) Enter company information;
- 4) Click "Save" to finish settings;

# 3. Configuration

It should be configured before V-BOX is used. The configuration interface is included in the V-BOX PC 5 WECON Technology Co., Ltd.



application and the V-BOX configuration software and configuration interface button is marked in red, as shown in Figure 3-1.

📌 V-BOX		<b>⊊_</b> © ? <b>−</b> •	×
	User Name		
	Password		
	Keeping the state of login within 30 days.		
	Login		
	Forget The Password?   Register A New Account		
	5 , 5		
	Copyright é 2018 v-box.net Inc. All Rights Reserve	d.	
	闽ICP备10008288号-4		
		CAP	SCRL

Figure 3-1

The configuration items of the V-Box includes the Ethernet parameters settings, access password, server connection mode, the V-BOX ID acquisition, update time, and so on, as shown in Figure 3-2.

# **3.1 Configure V-BOX**

Connect V-BOX to PC via Micro USB cable, the window in configuration interface will display connection information, such as Recognise V-BOX without 4G module, as shown in Figure 3-2.



Configure V-E	ddress ress	*	Clear Please connect V-BOX to pc with USB cable Recognise V-BOX without 4G module Please connect V-BOX to pc with USB cable Recognise V-BOX without 4G module	
WIFI name WIFI password Enable 4G	Please enter WIFI name Please enter your passwo	0	Download configuration	
Device access password Server connection	•••••• • Ethernet  • WIFI	] <b>⊙</b> ● 4G	Update time Get machine code	

Figure 3-2

### 3.2 Device access password

For the V-BOX device, there is access password, the default is 888888. Users can change the password as they want.

#### **Operating procedures of changing access password**

1) Enter new password in "Device access password";

### **3.3 Server connection**

The server connection is used to configure the V-BOX network connection mode. There are three connection modes: Ethernet mode, WIFI mode, and 4G network mode.

**KEY NOTES:** 4G connection mode is only available in V-BOX that supports 4G function. Each country's 4G frequency band and system are different. When purchasing a V-BOX containing 4G function, please maintain sufficient communication with the salesman.



- 1) Connect Ethernet cable to V-BOX;
- 2) Check "Enable Ethernet";
- 3) Select modes, "Use a dynamic IP address" or "Use a static IP address";
- 4) If select "Use a static IP address", please enter IP address, subnet mask, default gateway, preferred DNS server and Alternate DNS server;
- 5) Select "Ethernet" in Server connection;

#### **Operating procedure of WIFI settings**

- 1) Check "Enable WIFI";
- 2) Enter WIFI name;
- 3) Enter WIFI password;
- 4) Select "WIFI" in Server connection;

#### **Operating procedure of 4G settings**

- 1) Install 4G SIM card in V-BOX;
- 2) Check "Enable 4G";
- 3) Select "4G" in Server connection;

# **3.4 Update time**

This configuration interface provides V-BOX time calibration.

#### **Operating procedures**

- 1) Connection device to PC;
- 2) Click "Update time" button in interface;

# 3.5 Get V-BOX ID

Every V-BOX has its own unique V-BOX ID. Only when the V-BOX ID is acquired can it be bound and monitored.

#### **Operating procedures**

- 1) Connection device to PC;
- 2) Click "Get V-BOX ID" button in interface;
- 3) Window in Configuration interface will display V-BOX ID;



# 4. V-BOX basic operation

This chapter describes the basic operation and functions of V-BOX.

# 4.1 Basic operations

#### 4.1.1 Add V-BOX

Users need to add V-BOX to account for operation.

#### **Operating procedures**

Click "1" button to open setting screen, as shown in Figure 4-1;



Figure 4-1

- 1) Enter V-BOX ID (How to get V-BOX ID? Chapter 3.5);
- 2) Enter V-BOX password (<u>How to set V-BOX password? Chapter 3.2</u>);
- 3) Enter Description of V-BOX;
- 4) Select Group;
- 5) Select Application type;
- 6) Click the "Save" to complete settings;

#### 4.1.2 Basic information and Map

V-BOX.net and V-BOX application provide basic settings screen for users, as shown in Figure 4-2.



Basic Information Comm	munication Port Configuration register information Version
The Name Of V-BO)	K training
Online State	e Online <b>V</b> Refresh
Machine Code	e V02001171226002d2db2a945cbf
Mode	V-BOX S-4G
Industry Application	n Smart Home v
Maximum records of the alarm record	e 10000 d
Map Information	n Longitude Latitude <b>≁Positioning</b> 绑定监控点
Remark	k DEMO2
Advanced Function	Unbind V-BOX         Save Changes         Copy Configuration         Restart V-Box         Force To Synchronize         Export Configuration           Import Configuration         Import Configuration         Export Configur

Figure 4-2

In this screen, which allows users to modify the V-BOX basic information (such as name, application type, the maximum number of alarm records), get basic information of V-BOX device, and do some basic operations (such as delete V-BOX, copy configuration, and so on).

#### **Operating procedure of modify Configurations**

- 1) Select V-BOX in the list (from the left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Modify configurations of V-BOX, such as name, group and so on;
- 4) Click the "Save" button to complete modification;

#### **Operating procedure of position**

- 1) Select V-BOX in the list (from the left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Enter the latitude and longitude of the location in "Map Information";
- 4) Click the "Positioning" button, it will pop-up map screen;
- 5) Select the position in the map, and right click position in the map, it will pop-up message as shown in Figure 4-3;

V-BOX







Figure 4-3

#### 4.1.3 Remove V-BOX

The V-BOX device can be removed from account.

#### **Operating procedures**

- 1) Select V-BOX in the list (from left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Click "Remove V-BOX" button;

### 4.1.4 Configuration operations

It provides three operations for configuration. Copy, Import and Export.

#### Operating procedures of copy configuration

- 1) Select V-BOX in the list (from the left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Click "Copy configuration" button, it will pop-up copy window, the same model as selected V-BOX will be displayed in the list. For example, in WECONSupport account, Training (S-4G) is selected, then the



same model Beijing (S-4G) and V-BOX5 (S-4G) will be displayed in copy window, as shown in Figure 4-4;

	Copy The Configuration				
C C	hoose The Box Version Below To Copy onfiguration.				
	Beijing 🔹				
	Beijing V-BOX5				
	V BOX3				
	Close Save				

Figure 4-4

- 4) Select the V-BOX from the list;
- 5) Select copy items, it can support communication, real-time data, alarm record, historical data;
- 6) Click "Save" to execute the operation, and it will pop-up below information;

Prompt	
In copying alarm configurations. Success	
In copying realtime configurations. Success In copying historical configurations. Success	
	Ok
	OK

Figure 4-5

Note: To copy the setting of existing V-BOX to the new one, the copy operation is available when the new V-BOX is not configured. Otherwise, it would show the following error message.

In copying COM port.	Communication port configuration already exists, Copying failed!	
		Ok
	Figure 4-6	

Operating procedure of export configuration



- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Click "Export configuration" button, it will generate a "v-boxInfo.vbox" file;

#### Operating procedure of import configuration

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" ->"Basic information";
- 3) Click "Import Configuration" button, all configurations will be deleted in the selected V-BOX;
- 4) Select v-boxInfo.vbox file from PC then import;

#### 4.1.5 Communication

V-BOX could support many PLC brands from the market; the configuration screen is in "Configuration"->"Communication" as shown in Figure 4-7, users can add, modify and delete communication configuration, but only administrator account has permissions to operate this function.

Data Mo	nitor Alarr	n Record	D Historical Data	Remote Download	Configuration 🛆
Basic Informati	ion Communication regist	er information Version 🚯			
Communication	n profile(For example the plc model, D	ata acquisition module or modbus s	standard protocol)		
<b>≥</b> ≣ Add					
ID	Serial Port	Connection Way		Driver Name	Operating
1	COM1	RS422		WECON LX3V	<b>0 m</b>

Figure 4-7

#### Operating procedure of adding communication

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" ->"Communication";
- 3) Click **Add** button, it will pop-up screen as shown in Figure 4-8;



		Add I	New Port			×
Serial Port	COM1	•	Device Type	Allen-Bradley	Ŧ	
Driver Name	Allen-Bradley DF1	•	Station NO.	0		
PLC Station NO.	1		Retry Times	2		
			Wait Timeout	300		ms
Receive Timeout	50	ms	Continuous Length	0		
Delay time	0	ms	Retry Timeout	0		ms
Baudrate	19200	•	Connection Way	RS232	٣	
Stop Bit	1	v	Data Bit	8		
Check Bit	NONE	Ŧ				

Figure 4-8

- 4) Select the connection port: serial port or ethernet port;
- 5) Select PLC brands or protocols from "Device Type";
- 6) Select PLC model or series in "Driver name" (Fill in as needed, optional);
- 7) Set V-BOX station number in "Station No. (Fill in as needed, optional)", Normally, RS485 needs to set this option;
- 8) Set PLC station number in "PLC Station No.";
- 9) Set communication parameters, such as Retry time, wait timeout, receive timeout, continuous Length and so on;
- 10) Click "Save" button to complete configuration;

#### Operating procedure of modifying communication

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" ->"Communication";
- 3) Click "<sup>1</sup> in protocol list, it will pop-up screen as shown in Figure 4-9;
- 4) Change the connection port, serial port or ethernet port;
- 5) Change PLC brand in "Device Type";
- 6) Change PLC model or series in "Driver name" (Fill in as needed, optional);
- 7) Set V-BOX station number in "Station No. (Fill in as needed, optional)"
- 8) Set PLC station number in "PLC Station No."
- 9) Set communication parameters, such as Retry time, wait timeout, receive timeout, continuous Length and so on;
- 10) Click "Save" button to complete modification;

V-BOX



#### Operating procedure of deleting communication

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" -> "Communication";
- 3) Click "<sup>m</sup>" in protocol list, it will pop-up screen as shown in Figure 4-9;





4) Click "OK" button to complete operation;

#### 4.1.6 Version

Users can check the firmware version of V-BOX and update firmware in "Configuration"->"Version" as shown in Figure 4-10.



Figure 4-10



#### **Operating procedure**

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Configuration" ->"Version", it will display the firmware version as shown in Figure 4-10;
- 3) Click "Check for updating" button, if there is new version, it will ask update;
- 4) When updating completed, it will display information as shown in Figure 4-11;



# 4.2 Group management

Admin account can manage account groups for V-BOX devices, including adding groups, modifying groups, and deleting groups, as shown in Figure 4-12.



Figure 4-12



#### 4.2.1 Add group

It is used for adding group in device list;

#### **Operating procedures**

Homepage > Group Management	
+ Add New Group	
Group Name	Operating
Default Group	<b>6</b>
Test	c m



- 1) Click "[]" in left of main screen, it will pop-up setting screen as shown in Figure 4-13;
- 2) Click "Add new group", it will pop-up screen as shown in Figure 4-14;





- 3) Enter group name;
- 4) Click "Add" button to complete operation;

#### 4.2.2 Modify group

It is used for modify group information;



#### **Operating procedures**

- 1) Click "<sup>[[]</sup> in left of main screen, it will pop-up setting screen as shown in Figure 4-14;
- 2) Click "<sup>C</sup> in group list, it will pop-up screen as shown in Figure 4-15;
- 3) Enter the new name of group;
- 4) Click "Update" button to complete operation;

U	pdate	Group	×
Test			
		Close	Update
	Figur	e 4-15	

#### 4.2.3 Delete group

- 1) Click "[]" in left of main screen, it will pop-up setting screen as shown in Figure 4-13;
- 2) Click "<sup>1</sup> in group list, it will pop-up screen as shown in Figure 4-16;
- 3) Click "OK" to complete operation;



# Are you sure to delete this group?



Figure 4-16

# 5. Monitoring operation



This section describes how to add real-time monitoring points, alarms and historical data.

# 5.1 Data monitor

Data M	1 onitor		Alarm Record	Histo	Dirical Data	Remote Download	Config
efault Group	Group Set	-					
Add New M	Monitoring Point	I Add More	In Batch				
a	Coding	Name	Value	Serial Port	Read Address	Operating	
Status	County	Humo				oporating	
•	109433	×0	OFF	COM1	X0	☑ Edit ↔ Move	
•	109433 109431	x0 m0	OFF	COM1 COM1	X0 M0	Image: Contract of the second sec	

#### Figure 5-1

In data monitor screen, it displays all the monitoring tags, and users can add new tag, edit exist tags, modify tag's group and delete tags.

#### 5.1.1 Add tag

When set communication between V-BOX device and other device, user can add any monitoring tags.

#### **Operating procedures**

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Data Monitor" into monitoring screen;
- 3) Click "Add new monitoring point" to pop up setting screen as shown in Figure 5-2;
- 4) Enter name of tag;
- 5) Select Connection;
- 6) Select address type, Bit address, word address or double word address;
- 7) Select "Register type";
- 8) Enter "Register address";
- 9) Set permissions, station number and others;
- 10) Click "OK" to complete settings;



×

Add	Мо	nito	ring	Data
-----	----	------	------	------

Name	Please input les	ss than 50 characters		
Connect Device	1-COM1			٣
Address Type	Bit Addre 🔻	Register Type	Х	*
Register Address (Main Number)	0	Main Number: 0 303	3237 ( Octa	al)
Permissions	Read&Write	Readonly		
Station Number		Range: 0~255		
Map Display	🔿 ON 🛛 🕑	OFF		
Description	Please input les	ss than 50 characters		

		Ok	Cancel	
Figure 5-2	2			

#### 5.1.2 Add tags in batch

This function is used to quickly add continuous tags;

#### **Operating procedures**

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Data Monitor" into monitoring screen;
- 3) Click "Add more in batch" button to pop up setting screen as shown in Figure 5-3;
- 4) Enter name of tag;
- 5) Set connection; Set first address;
- 6) Set address length in "Count of batch";
- 7) Set address interval in "Increment";
- 8) Select map display and others;
- 9) Click "OK" to complete settings;



Add	Monitoring	In	Batch.
-----	------------	----	--------

Name	Please input le	ess than 50 characters		
Connect Device	1-COM1			Ŧ
ddress Type	Bit Addr∈ ▼	Register Type	Х	Ŧ
Register Address lain Number)	0	Main Number: 0 30	3237 ( Octal )	
Permissions	🕑 Read&Write	Readonly		
Station Number		Range: 0~255		
Count Of Batch	1	Increment	1	
Map Display	🔾 ON 🛛 🥥	OFF		
Description	Please input le	ess than 50 characters		

Figure 5-3

#### 5.1.3 Group settings

Group settings can group monitoring tags for user classification management;

#### Operating procedure of adding group

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Data Monitor" into monitoring screen;
- 3) Select "Group settings", it will show group information as shown in Figure 5-4;





4) Click "Add new group" button to open setting screen, as shown in Figure 5-5;





Figure 5-5

- 5) Enter group name;
- 6) Click "OK" to complete operations;

#### Operating procedures of modifying group

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Data Monitor" into monitoring screen;
- 3) Select "Group settings", it will show group information as shown in Figure 5-4;
- 4) Click "<sup>[C]</sup>" button to open setting screen, as shown in Figure 5-6;

	Edit	Grou	ıp	
G	iroup 1			
		0	k	Cancel

Figure 5-6

- 5) Change group name;
- 6) Click "OK" to complete operations;

#### Operating procedures of deleting group

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Data Monitor" into monitoring screen;
- 3) Select "Group settings", it will show group information as shown in Figure 5-4;



4) Click " button, it will pop-up tip message as shown in Figure 5-7;



5) Click "OK" to execute operation;

#### 5.1.4 Data monitor and operation

In the "Data monitoring" interface, user can check and modify data value of tags, as shown in Figure 5-8.

Data Monitor			Alarm Record Historical Data			Remote Download	Configuration	
)efault Group	Group 1	🌣 Group Set.						
Add New N	Ionitoring Point	E Add More	In Batch					
Status	Coding	Name	Value	Serial Port	Read Address	Operating		
	100076	D0	253	COM1	D0	🖸 Edit ↔ Move 🟛 Delete		
•	105570							



#### **Operating procedures**

- 1) Select tag;
- 2) Change value or state in "Value" column;

#### Operating procedures of editing tag

- 1) Select tag;
- 2) Click "Edit" button to open setting screen;



#### Change monitoring tag parameters; 3)

#### Operating procedures of changing group

- 1) Select tag;
- 2) Click "Move" to open group list as shown in Figure 5-9;

Mo	ove Monitoring Point	
Current Group	Default Group	
Move To	Default Group	Ŧ
	Default Group	
	Group 1	
		Ok Can



- 3) Select group;
- Click "OK" to complete operations; 4)

#### Operating procedures of deleting tag

- 1) Select tag;
- 2) Click "Delete" button, it will pop-up tip message as shown in Figure 5-10;





3) Click "OK" to complete operation;

# 5.2 Alarm record

User can modify the alarm conditions in "Alarm record" and query current alarm data and history alarm record information. Alarm record can be divided into current alarms and history alarms according to that

×



the administration account confirm the status.

#### 5.2.1 Add alarm tag

In the "Alarm registration" sub-page under "Alarm data" interface, alarm data could be added. When adding alarm records, you need to select or enter the name, group, connection device (communication port) and address type.

#### **Operating procedure**

- 1) Select V-BOX;
- 2) Click "Alarm record" in top of mainscreen;
- 3) Click "Alarm Record"-> "Group setting" to create group;
- 4) Click "Alarm Record"-> " <a>Alarm Record</a> " to open setting screen;
- 5) Configure alarm tag parameters;

Name	Please input less	s than 50 characters	
Grouping	11		Ŧ
Connect Device	1-COM1		Ŧ
larm Level	General Alarm		
dress Type	Bit Addr 🔹	Register Type	X v
Register Address n Number)	0	Main Number: 0	303237 ( Octal )
Bit Setting	🕑 ON 🔵 OFF		
on Number		Ran	ge: 0~255
ap Display	🔿 ON 🥑 OFF		
	Please input less	s than 249 characters	

#### Figure 5-11

6) Click "OK" to complete operations;

#### 5.2.2 Alarm display

Add Alarm Record



The information in "current alarm" sub-screen is alarm that not be confirmed, users can change the status of alarm record by "confirm" it. The "confirmed" alarm record will become history alarm record and will be transferred to "history alarm" sub-screen. In the sub-screen of "history alarm" User can search the alarm database on series number, name, starting and ending date and some other conditions.

rent Alarm	Historical /	Alarm	Alarm Record	I								
All 🔻	All	Ŧ	All 🔻	Confirm in bate	ch Expor	t To Excel	File Cu	irrent Pages	v			
Select All Na	me	Alarm Leve	2l	Alarm Content	V	alue	Event	Alarm Tir	ne	Status		Marked As
. m0	)	General Ala	irm		1		Trigger	2019-04-2	8 15:08:40	Unconf	irmed	Confirm
« 1 » No. 1 Page Per Page 10 V /Total 1 Item												
Figure 5-12 Current alarm       Current Alarm     Historical Alarm       Alarm Record       Coding     Name												
Obert Time					Fad Data							
Start Time				110	End Date				100	C.		
Export To Excel File Current Pages v												
Coding	Name	e	Alarm Level		Alarm Conte	ent	,	/alue	Event	Status	Time	
4906	m0		General Alarm						Trigger	Confirm	2019-04-	-28 15:08:40
« 1 »	No. 1	Page Per	Page 10 🔻	/Total 1 Item								



# 5.3 Data record

In "Historical Data", the user can add the monitored address, set the data collection conditions, and the collected data is displayed in a data table, which can be used for query and storage.

#### 5.3.1 Group setting

The user can set data logging trigger conditions for different groups and set the addresses of the same trigger conditions to the same group.

#### **Operating procedure**

1) Select V-BOX in the list (From the left side of the main screen);



- 2) Click "Historical Data" -> "Historical data registration" -> "Group setting" to open setting screen;
- 3) Click "Add" to create an new group;
- 4) Set group parameters as shown in Figure 5-14;

Name	Please input less than 50 characters	
Trigger Type	No Trigger	,
Sampleing	60	
cyclo(occolla)		

- 5) Click "<sup>C</sup>" to change the group parameters;
- 6) Click "<sup>1</sup> to delete group;

#### 5.3.2 Add tags for Historical data

There are two ways to add historical data for V-BOX. This section will introduce how to add historical data;

#### Operating procedures of adding one tag

Crowning	toot			_
Grouping	lesi			*
onnect Device	1-Ethernet			•
Address Type	Bit Addre 🔻	Register Type	0	۳
Register Address	0	Main Number: 0 9999	9(Decimals)	
(Main Number)				
Station Number		Range: 0~255		
Description	Please input les	s than 50 characters		

Historical Data Registration

×



- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Historical Data" -> "Historical data registration" -> "Historical data registration" to open setting screen as shown in Figure 5-15;
- 3) Enter the parameters for tag;
- 4) Click "Save" to complete operation;

#### Operating procedures of adding tags in batch

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Historical Data" -> "Historical data registration" -> "Add more in batch" to open setting screen as shown in Figure 5-16;
- 3) Set the parameters for the start address;
- 4) Set data length in "Count of batch";
- 5) Set address interval in "Increment";

Name	Please input les	ss than 50 characters		
Grouping	test			
nnect Device	1-Ethernet			٣
Address Type	Bit Addre 🔻	Register Type	0	•
Register Address Main Number)	0	Main Number: 0 999	99 ( Decimals	)
tation Number		Range: 0~255		
ount Of Batch	1	Increment	1	
Description	Please input les	ss than 50 characters		



#### 5.3.3 Data record display

There are two modes for display data, one is in list, and the other is in curve, users can select the mode as they need.

 $\times$ 



Lit         Curre         Q         Export To Excel File         Current Page           Lot Day         Last Work         Last Month         Order         Add           2019-05-011         51-423.045         0         0           2019-05-011         51-423.045         0         0           2019-05-011         51-423.045         0         0           2019-05-011         51-423.045         0         0           2019-05-011         51-40.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51-23.045         0         0           2019-05-011         51/04.25.045         0         0           2019-05-011         115/04/25.045         0         0	Starting Date	HO End Date	HO	
Last Day Last Week Last Month Order Reverse Order Time 40 2019 465 01 15 14 35 045 0 2019 45 01 15 14 30 045 0 2019 45 01 15 14 15 045 0 2019 45 01 15 14 15 045 0 2019 45 01 15 14 15 045 0 2019 45 01 15 14 25 045 0 2019 45 01 15 12 25 045 0 1 2 2 1 2 1	List Curve <b>Q</b>	Export To Excel File Current Page 🔹		
Time         40           2019.05.01 15 14 35 045         0           2019.05.01 15 14 35 045         0           2019.05.01 15 14 25 045         0           2019.05.01 15 14 15 045         0           2019.05.01 15 14 15 045         0           2019.05.01 15 14 15 045         0           2019.05.01 15 14 10 045         0           2019.05.01 15 14 00 045         0           2019.05.01 15 14 00 045         0           2019.05.01 15 12 25 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05.01 15 12 20 045         0           2019.05 0 11 15 04 25 045         0           0.0         2019 - 05 - 01 15 04 25 045	Last Day Last Week Last Month	Order Reverse Order		
2019-05-01 15:14:35.045 0 2019-05-01 15:14:35.045 0 2019-05-01 15:14:15:045 0 2019-05-01 15:14:05:045 0 2019-05-01 15:12:55:045 0 2019-05-01 15:12:55:045 0 2019-05-01 15:12:55:045 0 2019-05-01 15:12:15:045 0 End Date End Date End Date End Date 100 2019-05-01 15:04:25:045 0 2019-05-01 15:04:25:045 0	Time		40	
2019-05-01 15:14:30:045 2019-05-01 15:14:15:045 2019-05-01 15:14:15:045 2019-05-01 15:14:00:045 2019-05-01 15:12:50:045 0 2019-05-01 15:12:50:045 0 2019-05-01 15:12:15:045 0 2019-05-01 15:12:15:045 0 2019-05-01 15:12:15:045 0 2019-05-01 15:04:25:045 0 2019-05-01 15:04:25:045 0 2019-05-01 15:04:25:045 0 0 0 0 0 0 0 0 0 0 0 0 0	2019-05-01 15:14:35.045		0	
2019-05-01 15:14:25:045       0         2019-05-01 15:14:15:045       0         2019-05-01 15:14:00.045       0         2019-05-01 15:14:00.045       0         2019-05-01 15:12:05:045       0         2019-05-01 15:12:05:045       0         Figure 5-17 in list         Starting Date         Image: Curve       Q         Export To Excel File       Current Page         List Ourve       Q         Export To Excel File       Current Page         Image: Curve       40	2019-05-01 15:14:30.045		0	
2019-05-01 15.14.05.045       0         2019-05-01 15.14.05.045       0         2019-05-01 15.14.05.045       0         2019-05-01 15.14.05.045       0         2019-05-01 15.12.55.045       0         2019-05-01 15.12.0045       0         2019-05-01 15.12.0045       0         2019-05-01 15.12.0045       0         Figure 5-17 in list	2019-05-01 15:14:25.045		0	
2019-05-01 15.14.00.445       0         2019-05-01 15.14.00.045       0         2019-05-01 15.12.00.45       0         2019-05-01 15.12.00.45       0         2019-05-01 15.12.00.45       0         Figure 5-17 in list	2019-05-01 15:14:15.045		0	
2019-05-01 15:14:05 045 0 2019-05-01 15:12:55 045 0 2019-05-01 15:12:25 045 0 2019-05-01 15:12:15:045 0 2019-05-01 15:12:15:045 0 TFigure 5-17 in list Starting Date Starting Date S	2019-05-01 15:14:10.045		0	
2019-05-01 15:12:50.045       0         2019-05-01 15:12:20.045       0         2019-05-01 15:12:15:045       0         Figure 5-17 in list         Starting Date         Ext       Curve         Q       Export To Excel File         Current Page       40	2019-05-01 15:14:05.045		0	
2019-05-01 15:12:20:045 0 2019-05-01 15:12:20:045 0 2019-05-01 15:12:15:045 0 Figure 5-17 in list Starting Date End	2019-05-01 15:14:00.045		0	
2019-05-01 15:12:20.045       0         Digure 5-17 in list         Figure 5-17 in list         Starting Date         Image: End Date         Image: Export To Excel File       Current Page         Image: End Date         Image: Export To Excel File       Current Page         Image: End Date         Image: Export To Excel File       Current Page         Image: End Date         Image: Export To Excel File       Current Page         Image: End Date         Image: Export To Excel File       Current Page         Image: End Date         Image: Export To Excel File       Image: End Date <td colspan<="" td=""><td>2019-05-01 15:12:55.045</td><td></td><td>0</td></td>	<td>2019-05-01 15:12:55.045</td> <td></td> <td>0</td>	2019-05-01 15:12:55.045		0
2019-05-01 15:12:15:045       0         Figure 5-17 in list         Starting Date         Image: Curve       Q       Export To Excel File       Current Page         Last Day       Last Week       Last Month       Order       40	2019-05-01 15:12:20.045		0	
Figure 5-17 in list Starting Date End Date Export To Excel File Current Page Last Day Last Week Last Month Order Reverse Order	2019-05-01 15:12:15.045		0	
List Curve Q Export To Excel File Current Page  Last Day Last Week Last Month Order Reverse Order	Starting Date			
List Curve Q Export To Excel File Current Page  Last Day Last Week Last Month Order Reverse Order				
Last Day       Last Week       Last Month       Order       40         0       1       0.3       0.584       0.584         0.584       2019-05-01 15:04:25:045       0.4       0.2		Export to Excer File Current Page V		
• 40	Last Day Last Week Last M	onth Order Reverse Order		
0.584 0.584 0.4 0.2		• 40		
0.8 0.8 0.8 0.4 0.4 0.2 0.2	1			
0.8- 0.584 0.4 0.2 0.2				
0.584 0.4 0.2				
0.584 0.4 0.2	0.8			
0.4 2019-05-01 15:04:25.045 0.4 40: 0	0.8 -			
0.4 0 40: 0	0.584			
0.2	0.8	2019-05-01 15:04:25.045		
0.2	0.8	2019-05-01 15:04:25.045 • 40: 0		
	0.8	2019-05-01 15:04:25.045 40: 0		

Figure 5-18 in curve

#### 5.3.4 Export data record

It provides export data record to a CSV file. Users can export data record for backup;

#### **Operating procedure**

- 1) Select V-BOX in the list (From the left side of the main screen);
- 2) Click "Historical Data" -> "Raw data" -> "Export to excel file";

V-BOX



# 6. View-accounts management

The account bound to the V-BOX is called the "admin account" (relative to the view-account). A V-BOX can only be added to an admin account.

# 6.1 About view-accounts

An admin account can set multiple view-accounts and configure the view-account operation rights of the V-BOX. As shown in Figure 6-1.

#### For example

Admin account has four V-boxes (A, B, C, D), and every V-BOX has more than one value, (A1, A2, A3, A4, B1, B2, B3, C1, C2, C3, C4, D1, D2, D3). And Admin account creates four view-accounts, and assigns different value for those view-accounts, and the result as below;

View-account1: A1, B1, C1, D1;

View-account2: A2, B2, C2, D2;

View-account3: A3, A4, C3, C4, D3;



Figure 6-1

# **1.1 6.2 View-account management**

On the left side of the main screen, click the "View Account Management" button to enter the management interface. Users can add and disable view-accounts, modify view-account permissions, etc. as 30 WECON Technology Co., Ltd.

![](_page_33_Picture_0.jpeg)

shown in Figure 6-2.

WECONSupport O Log	jout	Homepage	e > View-A	Account Manage	ment		
Switch Language Eng	lish 🔻						
weconsupport	Q	🕂 Add a N	ew View-A	ccount Sta	rt •		
💿 🗉 💽	$( \cdot )$	User Name	Mailbox	Phone Number	Start	Create Time	Operating
		account2			ON	2019-04-10 14:34:32	Change Password ®Real-Time Monitoring Points diHistorical Monitoring Points ∆Alarm Monitoring Points
<b>@</b>		account1			ON	2019-03-30 12:55:10	Change Password Real-Time Monitoring Points HHstorical Monitoring Points AAlarm Monitoring Points
Monitoring Points		« 1 »	No. 1	Page Per Page	e 10 🔻 /To	tal <b>2</b> Item	
Default Group	▲ <						

Figure 6-2

#### Operating procedures of adding and disable view-account

- 1) Click "view-account management" to access setting interface;
- 2) Click "Add an new view account" to pop up screen as shown in Figure 6-3;

Add a New Vie	w-Account		×
User Name			
Password			
	✓ Start		
		Close	ave

![](_page_33_Figure_9.jpeg)

- 3) Enter user name and password, the user name is unique;
- 4) Click "Save" to complete operations for adding new;
- 5) In the view-account list, admin can click switch button to disable view-account, as shown in Figure 6-4;

User Name	Mailbox	Phone Number	Start
account2			OFF
account1			ON

![](_page_34_Picture_0.jpeg)

#### **Operating procedures of setting permissions**

- 1) Click "view-account management" to access setting interface;
- 2) Click "Change password" to pop-up setting interface as shown in Figure 6-5;
- 3) Enter new password and click "Save";
- 4) Click "Real-time monitoring points" to set the permission of real time tag;
- 5) Click "Assign monitoring point" to open the setting interface as shown in Figure 6-6;
- 6) Assign the tags for view account;
- 7) Click "OK" to save configuration;
- 8) The save operations for Historical monitoring points and alarm monitoring points;

New Password	New Password	Password R	eset	×
Password	Password	New		
		Password		

Figure 6-5

nissions list for realtime monit	V-BOX	All V-BOX	٣	Q Inquire	
Assign Monitoring Point	Select All	Name	Owned V-BOX	Permissions	Address
		Water input M0	Beijing	Readonly	0
ial Number Data		water out M1	Beijing	Readonly     Read&Write	1
		run frequency D0	Beijing	Readonly     Read&Write	0
		Setting frequency D2	Beijing	Readonly     Read&Write	2
		instantaneous flow D4	Beijing	Readonly     Read&Write	4
		Current D6	Beijing	Readonly     Read&Write	6
	« 1 2	3 4 5 6 »	No 1 Pao	e Per Page 10 🔻 /Total 54 Item	

![](_page_35_Picture_0.jpeg)

# 7. OPC function

This chapter describes how to use OPC TOOL on your computer to realize WECON V-box OPC function.

# 7.1 Function description

### 7.1.1 Sign in interface

🖂 BoxCommTools X				
Login				
User Name: weconsupport 🗸 🗸				
Password:				
Remember password Settings				
Run With Windows				
Auto Login				
Login Exit				

Figure 7-1

#### Interface function:

- 1) User Name: For enter V-BOX account;
- 2) Password: For account password;
- 3) Settings: For server address;
- 4) Remember password: Check it to keep account information;
- 5) Run with Windows: Software will run automatically, when Windows boot;
- 6) Auto Login: When run software, it will login automatically;

#### 7.1.2 Server setting

![](_page_36_Picture_0.jpeg)

Settings	×
Server Settings	
Server Address: http://api.v-box.net	
Please restart program after settings changed OK	

Figure 7-2

- 1) URL address verification
- 2) The software needs to be restarted to take effect.

#### 7.1.3 Right click menu

![](_page_36_Figure_7.jpeg)

Figure 7-3

- 1) About: Software version information;
- 2) Settings: Open the server address settings dialog;
- 3) Logout: Switch user;
- 4) Exit: Exit the software;

# 7.2 Example

### 7.2.1 Use OPC SERVER and OPC CLIENT on the same PC

#### Operating procedure

1) User sign in

![](_page_37_Picture_0.jpeg)

뤎 BoxTool		×
Login		
User Name:	WECONSupport ~	
Password:		
Remem	ber password Settings	
Login	Exit	

![](_page_37_Figure_2.jpeg)

- The user name and password are based on the corresponding server address. After the user logs in successfully, the software starts OPC SERVER.
- After successfully sign in, the software will be minimized to the lower right corner and prompt "obtaining server data"
- When the prompt "Server data obtained", it means that the OPC SERVER is successfully started.
- 2) Use third-party OPC CLIENT software to monitor V-BOX tags;

#### 7.2.2 Configuring OPC remote access

#### **Operating procedure**

- 1) Configuring DCOM
- 2) OPC CLIENT settings
  - Use the IP address of the PC where the OPC SERVER is located as the network node name.

# **7.3 Note**

After the software is started, OPC tool cannot synchronized with the dynamic modification tags on the V-BOX software. Restart is needed.

Version: V1.0.1 Date: May 2019 V-BOX