# PbmsTools V2.5 host computer

(2018-11-28)

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1. Software operating environment

This software runs on the PC and its compatible computers, using the WINDOWS operating system. System environment requires Microsoft .NET

Framework 2.0 or above is supported. Please confirm that it has been installed before use. The installation is as follows

1. Download Microsoft .NET Framework

http://ftp-idc.pconline.com.cn/2b6a487b74420c5641b3d12d59da2cf3/pub/download

/201010/Microsoft.NET\_Framework\_v2.0.exe



2. Double-click the downloaded program to install



3. This software does not need to be installed independently, only the environment is satisfied, double-click the main program icon to run and use.

| A                   |                 |           |        |
|---------------------|-----------------|-----------|--------|
| 名称                  | 修改日期            | 类型        | 大小     |
| 퉬 Config            | 2018/7/24 16:39 | 文件夹       |        |
| 👕 BmsTools.exe      | 2018/7/24 16:33 | 应用程序      | 526 KB |
| BmsTools.exe.config | 2018/7/3 17:03  | CONFIG 文件 | 1 KB   |

| 2                      | 3  | 6      | 5 6 | 7  | 8   | 9 1  | 0 1 | 1 12 | 13   | 14  | 15 |                                      |
|------------------------|----|--------|-----|----|-----|------|-----|------|------|-----|----|--------------------------------------|
| 8.0.8                  |    |        |     | 28 | 信息  |      |     |      |      |     |    | Park 1 * Parki 1 * Tarki             |
| 总电压                    |    | 52.740 | Ŧ   |    |     |      |     |      |      |     |    |                                      |
| 电波                     |    | 0.00   | *   |    | 温度1 | 25.0 | t   | 温度   | 2 24 | 1.9 | C  | 1842 0 1946(49) 1 • WEAVE            |
| 500                    |    | 50     | 8   |    |     |      |     |      |      |     |    |                                      |
| 508                    |    | 1.00   | 5   |    | 温度3 | 24.8 | t   | 温度。  | 4 20 | .9  | t  | ●元唱-开 ●党派光电电流 ●探测一大 ●Min             |
| 剩余容量                   | -  | 49960  | HAR |    |     |      |     |      |      |     |    | A REAL PRODUCTION CONTRACTOR A PARTY |
| 满充容量                   |    | 100000 | RAR | ×  | 5温度 | 24.9 | t   | 环境温度 | 2    | 5.0 | C  | 无                                    |
| 循环次数                   | F  | D      | 1   |    |     |      |     |      |      |     |    |                                      |
| <b>本电压(mV)</b><br>最高电压 | 13 | 3306   |     |    | i   | 數低电压 | 3   | 3290 |      |     |    | Ref Server<br>无                      |
| 电池1                    |    | 3300   |     |    |     | 电池9  |     | 3295 |      |     |    | 設際状态                                 |
| 电池2                    |    | 3205   |     |    |     | 电池10 |     | 3582 |      |     |    | 7.                                   |
| 电池3                    |    | 3290   |     |    |     | 电池11 |     | 3201 |      |     |    | 开华控制                                 |
| 电池4                    |    | 3294   |     |    |     | 电池12 |     | 3290 |      |     |    | 充电 关闭 放电 关闭                          |
| 电池5                    |    | 3296   |     |    |     | 电过13 |     | 3306 |      |     |    | 声音告誓 打开                              |
| 电池时                    |    | 3299   |     |    |     | 电进14 |     | 1296 |      |     |    | 抱示灯告誓 关闭 强制体眠 关机                     |
| 电池7                    |    | 3293   |     |    |     | 电池15 |     | 3290 |      |     |    |                                      |
| 电波图                    |    | 3299   |     |    |     | 电池16 |     | 3296 |      |     |    | 管理员密码 修改密码 清空                        |

2. Communication connection

Note: Different connection methods may have different operation permissions. Generally speaking, RS232

1) RS232 communication line connection











1. As shown in the picture above, the leftmost crystal

head is pin 1, 3 green 4 white 5 blue pin corresponds to DB9 pin 2 3 5, please make

sure that each pin of the communication line is connected. The best way is to use a

multimeter to measure.

2. The crystal head is connected to the 232 interface of the protection board,

and the USB end is connected to the computer USB socket

2) RS485 communication line connection



485 communication line







Crystal head wiring

1. As shown in the picture above, the leftmost foot of the crystal head is 1 foot,

Crystal head 1, 8 feet are B;

2 and 7 feet are A; 5 feet are ground

A and B correspond to pins 1 and 2 of the DB9 connector

Please make sure that the pins of the communication line are connected,

The best way is to measure with a universal meter.

2. The crystal head is connected to the 485 interface of the protection board,

USB terminal to computer USB socket

3) Connect to the host computer

step 1:

Ensure that the BMS board is normally energized and not in sleep state, the crystal head of the communication line is inserted into the communication port of the protection board, and the USB end is inserted into the computer.

Step 2:

Double-click to start the host computer

Step 3:

Click the "Try to connect" button to search the serial port and try to connect. Or manually select the serial port and click the "open serial port" button link.

### Connection failed, solution

Reasons for failure may include:

1. Use the wrong host computer.

Method: Replace the upper computer of the correct version

2. The communication line is bad or the wiring is wrong.

Method: replace the good communication line or correct the wrong wiring

3. The computer's USB interface can't be recognized.

Method: change a USB interface

4. The driver is not installed:

install the driver compatible with the communication line.

How to judge whether the communication line driver has been installed

# Method 1

Check whether there is a related COM port in the drop-down of the "Serial port" of the host computer. If it is not found, it may not be installed.

| 串口   | COM48 -       | 波特率      | 9600 • | 打开串口 |
|------|---------------|----------|--------|------|
| Pack | COM1<br>COM48 | ▶ Pack数量 | 1      | 启动监控 |
| 地址   | 0             | 间隔(秒)    | 1      | •    |

# Approach 2

Press the win and r keys at the same time to open the [Run] window, enter the devmgmt.msc command to open the [Device Manager]



| 📼 运行  | x |
|---|---|
| Windows 将根据您所输入的名称,为您打开相应的程序、<br>文件夹、文档或 Internet 资源。 |   |
| 打开( <u>O</u> ): devmgmt.msc                           | • |
| 确定 取消 浏览( <u>B</u> )                                  |   |

Find [Port] in [Device Manager] and find the corresponding COM port. If you can find it, it means the driver has been installed. If you fail to find it, it means the driver is not installed. As shown below:

| 文件(F) 操作(A) 查看(V) 帮助(H)   |
|---------------------------|
| (= =) 🖬 📓 🖬 😡 🕼 😽 😡       |
| 🔺 🛁 pac                   |
| ▷ - Cag IDE ATA/ATAPI 控制器 |
| ▷ 🛄 处理器                   |
| ▷ ; 磁盘驱动器                 |
| ▲ 掌 端口 (COM 和 LPT)        |
| USB Serial Port (COM48)   |
| ···· 打印机端日 (LPT1)         |
| ····· / 通信端口 (COM1)       |
| ▷ ₁壘 计算机                  |
| ▷ — 9 监视器                 |
| ▷ 键盘                      |
| ▷ 编 人体学输入设备               |
| ▷ 🛶 声音、视频和游戏控制器           |
| ▷ 🕑 鼠标和其他指针设备             |
| ▷ -                       |
| ▷ 🔮 网络适配器                 |
| ▷ 1 ■ 系统设备                |
| ▷                         |
|                           |

4) How to install the driver

(Take installation using the driver wizard as an example)

Step 1 Download the driver wizard and install it. Download

reference address: http://www.drivergenius.com/



Step 2 After installing the driver wizard, please make sure that the USB communication cable has been plugged into the computer.



| 🗸 кана |        |       |   | 🙆 🗉 – 🗡 |
|--------|--------|-------|---|---------|
|        |        |       |   |         |
|        |        | -     |   |         |
|        |        | 100   |   |         |
|        | 全面体检,更 | 新硬件驱动 |   |         |
|        | 立即检    | 测     |   |         |
|        |        |       |   |         |
|        |        |       |   | -       |
|        |        | e     | C |         |

Step 3 Click the big green button "Detect Now", in the page that you enter, click "Drive Management" to switch to this page, and wait for the wizard to complete the driver

detection, as shown in the figure below: 📢 驱动精灵 =\_ . 正在检测驱动信息 🚭 诊断修复 🛛 软件管理 📄 垃圾清理 C 检测概要 (资 驱动管理 🗠 硬件检测 🛟 百宝箱 ✓ 设备异常 异常设备均已支线超均 ○ 没餐正常 正在检测可以升级的运动... Intel MEI管理引擎运动11.7.0.1045版 11.7.0.1045 -741.9KB -升级 主根 Intel(R) Management Engine Interface Intel快速存储整动15.7.1.1015板 9 0 15.7.1.1015 -1.9M8 升级 \* 存储设施 Intel(R) 100 Series/C230 Chipset Family S., 专用软件 待检测 ● 稳定版本 ○ 最新版本 问题反馈 安装游戏组件 打开设备管理器

Step 4 Find the driver of the communication line in "Device Abnormal" and click "Install". If you don't know which one is, look for the installation with the words "USB" or "Serial

Port". After installation, if the host computer is turned on, it will automatically try to connect.

| <b>V</b> 2014A<br>201 | -<br>Z | 正在检测驱动信息  | E Bar          |         | <b>i</b> | - × |
|-----------------------|--------|---|----------------|---------|----------|-----|
|                       | #      | 💮 驱动管理 🛛 🛃 沙断修复 🔷 众件管理  | 📩 垃圾清理         | 🛁 硬件检测  | े 💝 व    | 宝箱  |
| 0                     | 回題     | FTDI CDM裏列USB特多接口芯片驱动2.12.18版<br>其他设备(USB Serial Port 100)                  | 2.12.18.0      | 2.0MB   | 安蒗       | Ĵ١  |
| ○ 愛香正常                | 正在始    | 總可以升級的派遣  |                |         |          |     |
| 0                     | r.     | Intel MEI管理引擎驱动11.7.0.1045版<br>主版 Intel(R) Management Engine Interface      | 11.7.0.1045    | 741.9K8 | 升级       | •   |
| 0                     | 0      | Intel快速存储短闭15.7.1.1015版<br>存储设备 Intel(F) 100 Series/C230 Chipset Family S., | 15.7.1.1015 🔻  | 1.9MB   | 升级       | •   |
| 0                     |        | Intel PRO美列网卡驱动22.6版<br>网 乍 Intel(R) Ethernet Connection (2) I219-V         | 12.15.25.6     | 56.4MB  | 升级       | •   |
| 0                     |        | Intol核心显长驱动21.20.16.4880版<br>是中 Intel(R) HD Graphics 510                    | 21.20.16.486 • | 167.3MB | 升级       | •   |
| 专用软件                  | 待检测    |   |                |         |          |     |
| ● 稳定版本                | 0#     | 萧板本   | 间温反馈           | 安装游戏运作  | 打开设备管理   | 22  |

Follow the prompts to install



Three, interface function

(1) Real-time monitoring

1) Interface introduction

| 串口   | 1      |        | 2      |       |
|------|--------|--------|--------|-------|
| 串口   | COM1 - | 波特率    | 9600 🔻 | 打开串口  |
| Pack | 1 3 -  | Pack数量 | 1 4    | 尝试连接。 |
| 地址   | 0 5    | 间隔(秒)  | 1      | 0     |
|      |        |        | 0      |       |

picture 2-1

| 实时出 | 篮控 | 并机监 | i控 存 | 字储信, | 息│参 | 数设置 | 系 | 统设置 | : 导出 | 数据 | CMD | DATA | 上位机 | 1设置 |
|-----|----|-----|------|------|-----|-----|---|-----|------|----|-----|------|-----|-----|
| 1   | 2  | 3   | 4    | 5    | 6   | 7   | 8 | 9   | 10   | 11 | 12  | 13   | 14  | 15  |

Figure 2-2



Figure 2-3

Description of main controls

1. Serial port: select the drop-down item to select the serial port for communication. (Note: Available when the serial port is not open)

2. Baud rate: select the drop-down item to select the baud rate for communication. (Note: Available when the serial port is not open)

3. Pack: select the drop-down item, the currently read Pack, when FF is selected, connect to the RS232 interface of the host, you can get

Get all PACK data. (Note: Available when the serial port is not open)

4. Pack quantity: the total number of packs read by the host computer from the BMS board (when applied to multiple machines in parallel, it will be obtained from the main PACK)

Get PACK data).

5. Address: The currently read BMS address value.

6. Interval (seconds): selectable items. The interval time for this host computer to read data from the BMS board.

7. Open the serial port: alternate function buttons to open or close the serial port.

8. Try to connect: search for an available serial port and open it.

9. Pack serial number group:

The data key is the pack serial number, which displays the pack currently being read and presented in the current interface with white characters on a blue background;

\*Auto\* button, alternate function button. Available when FF is selected for pack in 3 and monitoring is started, it will display automatically in a loop

Each PACK data (applicable when multiple machines are connected in parallel).

10. System status: When a certain system status occurs, the text of the item is blue. When it is gray, it does not happen.

| 1     | 电池3       | 3290     | 电池11                          | 3301           | 耳关抗律师                   | 181 J                  |
|-------|-----------|----------|-------------------------------|----------------|-------------------------|------------------------|
|       | 电池4       | 3294     | 电池12                          | 3290           | 充电 关闭                   | 放电 关闭                  |
|       | 电池5       | 3296     | 电池13                          | 3306           | 声音告警 打开                 |                        |
|       | 电池6       | 3299     | 电池14                          | 3296           | 指示灯告警 关闭                | 强制休眠 关机                |
|       | 电池7       | 3293     | 电池15                          | 3289           | 11                      |                        |
| 12 -  | 电池8       | 3299     | 电池16                          | 3295           | 管理员密码                   | 修改密码 清空 16             |
|       |           |          | 13                            |                | 14                      | 15                     |
| 版本: P | 16S50A-84 | 460-2.00 | BMS S/N: 1650-8460200-8460001 | PACK S/N: 9999 | 9999999999999999 通讯: 正常 | 17 14:58:04 2018/11/28 |

Figure 2-4

11. Administrator password field

Some setting functions require the administrator password to be used. When the password is entered correctly, the input box will turn green.

At that time, you have obtained the administrator's authority.

12. Version: The software version number of the BMS.

| 14. Monite | tor the communication status: the communication status between the host computer and the BMS board.  |
|------------|--|
| 15.        | Screenshot function. Click to enter the screenshot state, and the toolbar will appear after drawing out the screenshot area with the moust |
|            | (255, 255, 255) 🦃 📔 🗙 Can copy/save screenshots.   |

16. Computer current time

13. Bar code and PACK S/N of BMS board.

17. National flag icon: Display the national flag icon of the current language country, click to switch languages.

| 系统语言:         | 中文(简体)           |  |
|---------------|------------------|--|
| 当前语言:<br>变更为: | 中文(简体)<br>中文(简体) |  |
|               | English<br>By PC |  |
|               | 确定取消             |  |

18. When the switch control button is red, it means the function processing is off, and when it is green, it means it is on.



| <ol><li>Try 1</li></ol> | to conne | ct |
|-------------------------|----------|----|
|-------------------------|----------|----|

First set the baud rate and pack on the host computer, connect the BMS board to the RS232 communication line, and then connect the RS232 communication

Insert the USB port of the cable into the USB port of the computer, and then click the "Try to connect" button to automatically search and open a valid serial port.

mouth.

3) Automatic carousel pack

step:

When FF is selected in the "Pack" drop-down item, the interface "Carousel" checkbox becomes available. Check it to use the carousel function.

Uncheck it to cancel the carousel function.

| <b>串口</b><br>串口 COM1 ▼ | 〕  波特率  | 9600 🔹 | 打开串口 |
|------------------------|---------|--------|------|
| Pack FF 🗸              | ▶Pack数量 |        | 尝试连接 |
| 地址 〇                   | 间隔(秒)   | 1      |      |
| ● 轮播                   |         |        |      |

Figure 2-3 Carousel function

4) Change password

| Click at the bottom right of the interface | 修改密码 | Button, a password modification window pops up, enter the old password and the new password and confirm |
|--|------|---|
|  |      |   |

That's it. Note: There is no function to retrieve the password, please keep in mind the new password after modification.

| 修改密码 | 2.002 |
|------|-------|
| 原密码  | *     |
| 新密码  | *     |
| 确认密码 | *     |
| 确定   | 取消    |

Turns into green, and you have obtained administrator privileges at this time. Figure 1-4

Figure 1-3

# 5) Obtain admin rights

Enter the administrator password in the "Administrator Password" input box at the bottom right of the interface. After the password is entered correctly, the input box changes

|              | 管理员密码                           | ***  | 修改密码 |  |
|--------------|---------------------------------|--|------|--|
| F            | Figure 1-4                      |  |      |  |
| (2) Paralle  | el monitoring                   |  |      |  |
| 1. Interface | e                               |  |      |  |
| Click the n  | nain interface tab [Parallel Mc | nitoring] to enter the interface, as shown in Figure 2-1 |      |  |

|                    | P. J. 110 | -            | Charles II. a.a. | St.A. stalling as to | introductional in a second | MARKEN CO.       |                  |
|--------------------|-----------|--------------|------------------|----------------------|----------------------------|------------------|------------------|
| 10                 | Pack_NO   | PENE(A)      | SCHELE(V)        | 利示否证(AH)             | 减力包容证(AH)                  | 10194-15203 (mV) | 10150-102112(mV) |
| 18-11-28 14:52:59  | 1         | 0.00         | 52.739           | 49.950               | 100.000                    | 3306             | 3289             |
| 18-11-28 14:53:00  | 1         | 0.00         | 52, 739          | 49,950               | 100,000                    | 3306             | 3289             |
| 18-11-28 14:53:01  | 1         | 0.00         | 52, 739          | 49,950               | 100,000                    | 3306             | 3289             |
| 18-11-28 14:53:02  | 1         | 0.00         | 52, 739          | 49.950               | 100.000                    | 3306             | 3289             |
|                    |           |              |                  |                      |                            |                  |                  |
|                    |           |              |                  |                      |                            |                  |                  |
|                    |           |              |                  |                      |                            |                  |                  |
| ··<br>2 显示   区 选择鼎 | 后一行       | 補空           |                  |                      |                            |                  |                  |
|                    | 2后一行 [    | 清空<br>祥山数据 君 | <b>元</b> 名:      |                      |                            |                  |                  |

2. Display real-time data

Check the bottom left 回显示 , The data area can display the real-time monitoring data. Note: This function only displays the data in

Only on the interface, the data has not been saved yet.

# 3. Clear interface data

| Olialı az | 清空 |  |
|-----------|----|--|
| Click on  |    | Button to clear the real-time data on the interface. |

# 4. Record data

Check "Record data" to start recording data. When there is data recording, the number of saved data will appear on the right.

| ☑ 显示       | 清空   |
|------------|------|
| ☑ 记录数据 (2) | 导出数据 |

```
5. Export data
```

Click the "Export Data" button to export the recorded real-time data. It can also be exported on the [Export Data] page.

(3) Store information

#### 1. Interface

| Pbms Tools V2.5             | -           |                  |                    | 1000                |                  |    |   | ×                   |
|-----------------------------|-------------|------------------|--------------------|---------------------|------------------|----|---|---------------------|
| 实时监控 并机监控 存储信               | 参数设置        | 系统设置             | 导出数据 操作            | 说明书                 |                  |    |   |                     |
| 时间<br>1 2155年0月7日 88时49分30년 | 电液(A)       | 总电压(V)<br>52.739 | 剩余容量(AB)<br>69.360 | 清充容量(AB)<br>100.000 | 最高电压(aV)<br>3304 | 32 | yyyy-MM-dd HH:mm:ss   | 读取BMS时间<br>写入系统时间   |
|                             |             |                  |                    |                     |                  |    | 存存       充活:     1     -     2000         充活:     1     -     2000         解除記録   保存记录       没有更多数提 | 建设                  |
|                             |             |                  |                    |                     |                  |    | <ul> <li>● 単行</li> <li>● 多行</li> <li>● 列</li> <li>● 単元格</li> <li>● 无</li> </ul>                     |                     |
| 164: P26550A-8480-2.00      | MS S/N: 26% | -8460200-845     | 0001   PACK S/N    | . 199669696969696   | 93939   ##L      |    | 正常  | 14:53:44 2018/11/28 |

Click the main interface tab [Storage Information] to enter the interface, as shown in Figure 3-1

Figure 3-1

| <ol><li>Read/write BMS</li></ol> | time |
|----------------------------------|------|
|----------------------------------|------|



3. Storage settings

Range: starting sequence number and maximum sequence number.

Read record: read storage record

Pause/Continue: When reading, click "Pause" to read, and click again to continue reading.

Save record: save the record on the interface to the local.

Delete record: delete the storage record of the BMS board.

Note: When reading, when the prompt "no more data" indicates that the reading has been completed.

(4) Parameter setting

1. Interface

Click the main interface tab [Storage Information] to enter the interface. When entering the interface, the interface value is empty by default. Figure 4-1

| 实时监控   并机监控   存储 | <b>信息 参数</b> 设 | □ 系统设置   导出数据   抽 | 曩作说明书│   |                |   |               |     |
|------------------|----------------|-------------------|----------|----------------|---|---------------|-----|
| ☑ 单体过充告警(V)      | -              | ☑ 总体过充告警 (V)      | -        | ☑ 单体过放告警(V)    | • | ☑ 总体过放告警(V)   |     |
| 单体过充保护(V)        | -              | 总体过充保护(V)         | -        | 单体过放保护(V)      | • | 总体过放保护(V)     |     |
| 单体过充保护恢夏(V)      | -              | 总体过充保护恢复(V)       | -        | 单体过放保护恢夏(V)    | • | 总体过放保护恢复(V)   |     |
| 单体过充保护延时 (mS)    | -              | 总体过充保护延时 (mS)     | •        | 单体过放保护延时 (mS)  |   | 总体过放保护延时 (mS) |     |
| ☑ 充电过流告警(A)      | -              | ☑ 充电高温告警(℃)       | -        | ☑ 充电低温告警(℃)    | • | ☑ mos高温告警(C)  |     |
| 充电过流保护(A)        | •              | 充电高温保护(C)         | <b>•</b> | 充电低温保护(°C)     | • | MOS高温保护(C)    |     |
| 充电过流保护延时 (mS)    | -              | 充电高温保护恢复(C)       | -        | 充电低温保护恢复(C)    | • | ■OS高温保护恢复(℃)  |     |
|                  |                | 放电高温告警(°C)        | •        | 放电低温告馨 (°C)    | - |               |     |
| ✓ 放电过流音警(A)      |                | 放电高温保护(°C)        | •        | high state and |   | ☑ 环境低温告警(C)   |     |
| 放电过流保护1(A)       | -              | 放电高温保护恢夏(°C)      |          | 放电低温保护(C)      | • | 环境低温保护(°C)    |     |
| 放电过流保护1延时(mS)    | -              | 均衡开启电压(V)         | •        | 放电低温保护恢复(C)    |   | 环境低温保护恢复(°C)  |     |
| 放电过流保护2(A)       | •              | 均衡开启压差(nV)        | •        | 电池包截止电压 (V)    | • | 环境高温告馨(°C)    |     |
| 放电过流保护2延时(mS)    | -              | 单体休眠电压 (V)        | -        | 电池包截止电流 (mA)   | • | 环境高温保护(°C)    |     |
| 短路保护延时(公)        | -              | 单体休眠延时(min)       | -        | 低电量告警(%)       | • | 环境高温保护恢复(°C)  |     |
| 读取参数             |                | 写入参数              | 複默认值     | 导入参数           | 导 | 出参数 设置        | 默认值 |

Pic 4-1

2. Function

Read parameters: read all the parameters of the interface.

Write parameters: rewrite BMS parameters. This operation requires administrator rights.

Restore default parameters: restore all parameters to the default parameters. The default parameters come from the preset parameters in the BMS.

This operation requires administrator rights.

Import parameters: read the data in the local file into this interface. Note: The data is only read on the interface, not yet

Write to the BMS, if you need to write, please perform the write operation.

Export parameters: save the interface data to the local.

(5) System settings

1. Interface

Click the main interface tab [System Settings] to enter the interface, as shown in Figure 5-1

| BMS Manitaring Tools V1.00            |                        |
|---------------------------------------|------------------------|
| 3时监控 并机监控 存储信息 参数设置 系统设置 切换语言         |                        |
| 率數设置                                  | 电量(mAH)                |
| 电池串数 - 设置                             | 设计容量                   |
| 夺 <b>由由</b> 法沿置                       | 刺余苔量 读取                |
| 26.45.45.06.06.00                     | 見容量                    |
| 启动电流(A) · 设置 读取                       | 2 Martine Contraction  |
|                                       | 元度电值环                  |
| 间擦式充电设置                               | 御野次数 0 手 後置            |
| 间谍式充电门课 * 设置                          |                        |
|                                       | 生产信息                   |
|                                       | <b>条形码</b> 写入          |
|                                       |                        |
|                                       |                        |
|                                       |                        |
|                                       |                        |
|                                       |                        |
|                                       |                        |
|                                       |                        |
|                                       |                        |
| 本: 条形码: 通讯状态:无效 状态: 以次尝试这接均头粉,请接入有效图口 | 系統时间: 2017-04-17 17:01 |

Figure 5-1

2. Function

Just follow the instructions on the interface. Some functional operations require administrator privileges.

# (6) Export data

After checking "Record Data" on the [Parallel Monitoring] page, the recorded data can be exported on this page. Start of record

Time point naming. The data is stored for up to two months, and the expired data will be automatically cleared by the host. You can double-click the table name to export the data.

| Pbms Tools V2.5  |   |
|--|---|
| 实时监控 并机监控 存储信息 参数设置 系统设置 导出数据                                | 操作说明书                                       |
| 只保留最近  | 近两个月的数据,请及时导出保存。                            |
|  | 所有记录表                                       |
| 2018-11-28   | 14:25:05                                    |
| 2018-11-28   | 14:26:56                                    |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
| 导出数据   | n 新除表 <b>副除全部</b>                           |
|  |   |
|  |   |
|  |   |
|  |   |
|  |   |
| 版本: P16550A-8460-2.00   BMS 5/N: 1650-8460200-8460001   PACK | x S/N: 999999999999999999999999999999999999 |

| 导出数据 |       |    |  |
|------|-------|----|--|
|      |       |    |  |
|      | excel | •  |  |
|      |       |    |  |
|      | 确定    | 取消 |  |
|      |       |    |  |

(7) Switch language



Click the flag icon in the bottom status bar to switch languages in the pop-up window.

Chinese (Simplified): The interface language is simplified Chinese

English: The interface language is English

By PC: The interface language is determined according to the computer language. What language the computer uses, what language the host computer corresponds to,

If the language is not entered on the host computer, English will be used by default.

| 系统语言:<br>当前语言: | 中文(简体)<br>中文(简体)           |
|----------------|----------------------------|
| 变更为:           | 中文(简体)<br>English<br>By PC |
|                | 确定取消                       |

| altime Monitor  | ing Mult | i Moni | toring Me | emory  | Info. | Par | ameter  | Sett | ing S | ystem C | onfig. Export Datas CMD DATA Upper Setting      |
|-----------------|----------|--------|-----------|--------|-------|-----|---------|------|-------|---------|---|
| 2 3             | 4 5      | 6      | 7 8       | 9      | 10    | 11  | 12      | 19   | 1.4   | 15      | Serial Port                                     |
|                 | 1 0      | 0      | 1 0       |        | 10    |     | 1 10    | 10   | 7.4   | 10      | Port COM60 - Baud Rate 9600 - Auto Disp         |
| ack Information |          | 1      | Temper    | rature |       |     |         |      |       |         | Pack 1 - Pack Qty 1 Close                       |
| Pack Voltage    | 52.738   | V      |           | _      |       |     |         | _    |       | -       | ADDR 0 Interval (S) 1 To Conn                   |
| Pack Current    | 0.00     | A      | Tcell     | 1      | 24.7  | C   | Tcell 2 | 2    | 24.5  | C       |   |
| SOC             | 50       | %      |           |        |       |     |         |      |       |         | System Status                                   |
| SOR             | 100      | *      | Tcell     | . 3    | 24.8  | C   | Tcell 4 | 2    | 24.7  | C       | CHARGING-ON CHARGING CHG-LIMIT-OFF CACin        |
| Joh             |          | ~      |           |        |       |     |         |      |       |         | ●DISCHARGING-ON ●DISCHARGING ●HEATER-OFF ●Fully |
| RemainCapacity  | 49940    | mAH    | MOS       | т      | 24.9  | 97  | ENV T   | 2    | 26.1  | 1       | Alarm Status                                    |
| FullCapacity    | 100000   | mAH    |           |        |       |     | 2       |      |       | 10      | None  |
| Battery Cycle   | 0        |        |           |        |       |     |         |      |       |         |   |
|                 |          |        |           |        |       |     |         |      |       |         | Protect Status                                  |
| ell Voltage(mV) |          |        |           |        |       |     | -       | _    |       |         | None  |
| MaxVolt 13      | 3306     |        |           | Mir    | Nolt  | 15  | 3289    |      |       |         |   |
| ¥cell 1         | 3300     |        |           | Vce    | 911 9 |     | 3295    |      |       |         | Fault Status                                    |
| Vcell 2         | 3302     |        |           | Vce]   | 11 10 |     | 3293    |      |       |         | None  |
| Vcell 3         | 3290     | 1      |           | Vce]   | 11 11 |     | 3301    |      |       |         | Switch Control                                  |
| Vcell 4         | 3294     |        |           | Vce]   | 11 12 |     | 3290    |      |       |         | CHG Circuit Close DSG Circuit Close             |
| Vcell 5         | 3296     |        |           | Vce]   | 11 13 |     | 3306    |      |       |         | Saund Alarm Onen (110 Limitar Onen              |
| Vcell 6         | 3299     |        |           | Vcel   | 11 14 |     | 3296    |      |       |         | Sound Alark Open Cho Limiter Open               |
| Vac11 7         | 3293     | -      |           | Va-3   | 1 15  |     | 3289    | -    |       |         | LED Alara Close Shutdown Shutdown               |
| #cell 7         | 2000     |        |           | ∜ce.   | 11 15 |     | 2005    |      |       |         |   |
| Vcell 8         | 3299     |        |           | Vce]   | 11 16 |     | 3290    |      |       |         | Administrator Password Change C1                |

Figure 6-2 English interface