

# **BMSQt User Manual**



Ver 2.6 Mar 30<sup>th</sup>, 2023

#### 

Recommended operating environment:

Operating system: Microsoft

Monitor resolution: 1920\*1080

Scale: 100% or 125%

\*User have to install the 232 serial port driver before using this program.

\*Compatible battery system: A version; B version; C8 version.

#### 1. Turn on the battery.

You have to wait all batteries start up if the system has multiple batteries in parallel.

#### 2. Connect the USB-to-RJ45 communication cable.

Plug the USB terminal to the PC and the RJ45 termianl to the console port.

#### 3. Start the program BMSQt.exe.

Double click **BMSQt.exe** to start the program. The program's interface presents in Figure 1.

Normal Real-Time Data AlamaSProtection History Update   Stride Frout State: Total Voltage: Alam C Balance C   Port COM7 CMOS State Total Voltage: CMOS State DES   Logon Logon CMOS State DES Total SOL:   Solt Max Voltage: Call Edit-Free   0% Solt Max Voltage: Call Edit-Free   0% Careet: Max Voltage: Solt   0% Careet: Max Voltage: Solt   0% Careet: Max Voltage: Solt   0% State: System Defuit Solt	PytesBat										- 🗆 🗙
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				Release Date:		Max Charge Curr:	0.0	,			
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		0%	ر								

Figure 1

#### 4. Basic functions

The user can click on **Normal, Real-Time Data, Alarm&Protection, History and Update** button to switch the page.

- a) Normal——This page show the basic information of battery and the whole group.
- b) Real-Time Data—Monitoring the data of single battery.
- c) Alarm&Protection—This page show the parameter of battery settings.
- d) History——Check the records of error information.

e) Update—Update the firmware of battery.

#### 5. Build the connection

User should choose the right COM **Port**. Then, click **Login** button to connect the battery with your PC. The program would start to retrieve the information of battery in real time as shown in Figure 2. Click **Logout** to disconnect.

\*If there are several options of COM, you can judge it through plug and unplug USB terminal of RS232 cable.





#### 6. Normal page (Figure 2)

- a) Battery section—It can present the SOC of max. 8 pcs batteries.
- b) Group section—You will see the information of the whole battery group.
- c) Bat section—To present the information of single battery. You can choose the battery number in Group section to check. And the voltage and temperature of 16 pcs single cells are also shown in this part.
- d) Details——The line chart and the table can be switched to view through the Details button.
- e) Add——This button only appear when the barcode of this battery lost. You can click it to input 16 characters (e.g. LC0B0010402230201). As shown in Figure 3-5. (\*Barcode can be found silver sticker on the shell of each battery)

Normal	Re	al-Time	Data Al	arm&Protection	Histo	ory	Update							
	٦	Group		State: idle		Total Voltage: 49.438 V	,	Alarm <b>Г</b>		<b>n</b> Bal	ance F	0		
Pyles		Bat	1	Present Num: 1		Total Current: 0 A								
COMZ	-			CMOS State ON		Total SOC: 99 %								
, <u>, , , , , , , , , , , , , , , , , , </u>	_			DMOS State ON		Total SOH: 100 %		L			L.			
Login Logout		Bat	SOC: 99 %		Max Voltage: 3.2	26 V				call V	lt-Tasp			
	J	1	SOH: 100 %		Min Voltage: 3.29	5 V	Details Add	4.0		∎ Volt I	1 Tenp		23.	.0
Battery	ີ		Capacity: 49 AH		Vol Difference: 0.	001 V		3.8					-22.1	.6
99%	1		Current: 0 A		Max Vol ID: 3			3.6					-22.0	0
0%			Temp: 25 °C		Min Vol ID: 1			3.4					21.0	5
0%	)		Basic Status: Idle		System Defult: 0x	0		8 3.2					21.0	0
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0%			main our version: or	-bita toar n2203v1.5.19.G	0									

Figure 3







Figure 5

#### 7. Real-Time Data (Figure 6)

There are four curves in this page to present the **SOC**, **Voltage**, **Current and Temperature of single battery** that you chose in the normal page.

The specific value will be displayed when you move the mouse pointer.

- a) RTdata ON—Start to record the charge or discharge data in real time.
- b) RTdata OFF——Stop to record the data.
- c) Download—Download the record data into txt formal files.
- d) Clean All—Clean the records before start the next records.



Figure 6

#### 8. Alarm&Protection (Figure 7)

Users can view the configuration information of the current battery. If the configuration information is incomplete or not displayed, click the alarm&protection button again. Then, click the download button to save the configuration information in txt formal.

ormal F	Real-Time Data	Alarm&Protection	History	Update		
Serial 7	Alarm&Protection	Download				
/t-2 e	alarm&protcet iter	m cell	pow	er	unit	Shut time : 72.0 H
.03	Over Voltage	3680	54000	mV		BUV/PUV time : 2400 S
	Over VoltageR	3600	52500	mV		0
	High Voltage	3650	53900	mV		Data Save Interval 1800 S
COM7	High VoltageR	3550	52500	mV		
	Low Voltage	2900	45600	mV		
	Low VoltageR	3000	48000	W		
	Under Voltage	2800	44500	mV		
turne f	Under VoltageR	2900	47000	mV		
Logout	Sleep Voltage	2600	38000	mV		
	Charging OT	52000	52000	mC		
	Charging OTR	45000	45000	mC		
	Charging HT	50000	50000	mC		
	Charging HTR	45000	45000	mC		
	Charging LT	2000	2000	mC		
	Charging LTR	5000	5000	mC		
	Charging UT	0	0	mC		
	Charging UTR	5000	5000	mC		
	Discharging OT	52000	52000	mC		
	Discharging OTR	45000	45000	mC		
	Discharging HT	50000	50000	mC		
	Discharging HTR	45000	45000	mC		
	Discharging LT	-10000	-10000	mC		
	Discharging LTR	-5000	-5000	mC		
	Discharging UT	-12000	-12000	mC		
	Discharging UTR	-5000	-5000	mC		
J	Charging OC	102000		m۸		

Figure 7

#### 9. History (Figure 8)

- a) Event num—Quantity of historical alarm
- b) Event—Click it to get 15 records of alarm.
- c) Continue——Keep on clicking it in 10s after click event button to get more records until all records are displayed.
- d) Refresh—Clean all records before check the other battery.
- e) As shown in Figure 8, double-click any historical event to view the detailed information of it.

\*If you want to check the other battery's alarm records, you have to plug the RS232 cable to the other battery.

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		22 6	0.01.01	00:02.43	49112	0	22000	19000	19900	2957	3303	Elischip	Normal	Normal	Normal	8%	BLV		- 24	00.01.01	00:05:43	1 Cutr. 10		normal l							(Tel	Normal	0%	BLV
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		27 0	0.01.01	00.07.09	40567	.0	22000	19000	19000	2793	3300	101	Normal	Normal	Normal	25	BUV		2	r .00.01.01	000706	40507	0	22000	19000	19000	2793	3300	kte	Normal	Normal	Normal	0%	BUV
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#### 10. Updata (Figure 10)

There are three function button in this page including Updata, Wake and Uboot.

#### Update procedure (Figure 10)

click "updata" button——input password "123456"——upload the right firmware— waiting for initial configration

#### **Uboot procedrure (Figure 10)**



click "uboot" button——input password "123456"——upload the right bootloader— waiting for initial configuration

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Figure 10

#### Wake procedure (Figure 11)

You have to wake battery when reminding the update error.

Switch on power buttom—press the SW button (red button)—click wake button

#### within 5 sec

If wake up successfully, you can re-upload the right firmware.

Normal	Real-Time Data	Alarm&Protection	History	Update				
	Inverter Power buton	annen master 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	How to start and shut down batteries correctly Starting procedure > Step 1.20mp press SW builton of 1 > Step 2.20mp press SW builton of 1	the whole E-E master battery for 1	Sequence of CAN	Sequence of RS485 protocol	E-BOX-4810	OR-C
Battery	-	Excertise slave	Shut do Step 1. seconds > Step 2. Switch off all power putto	rori Please wake battery! Ves C.8 C.16	4-H/5-L	1-B/2-A	V 1.3.X.bin V 1.4.X.bin (Hub) V 1.5.X.c8.bin V 1.5.X.c16.bin	V2.0.4 V3.0.2
0%		99 99			Please confirm the vers	sion of firmware an	d battery. Otherwise battery	will be dead.
0%		Update		Wake		Ľ	Jboot	

Figure 11

\*The background in this page present 1) how to start and shut down the batteries correctly; 2) identify type of battery you have; 3) the right firmware formal for your reference.

\*\*If you want to update the other battery, you have to plug the RS232 cable to the other battery.

#### 11. Notes

- a) While the battery is connected to the PC via the communication cable, plugging out the USB terminal from the PC would disconnect the serial port.
- b) Before closing the program, the user needs to click the button **Logout** to disconnect battery and the PC.
- c) If the program crashes and upon restart, the program prompts the user the program has crashed, as shown in Figure 12. Please send the crash info to our after-sale team and help us to improve our program. You can find the log in location shown as Figure 12.

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Figure 12

#### 12. Changelog Notes

Version	Changelog	Author/Editor	Date
V2.6	Initial creation	Paul	3/30/2023