

BMSQt User Manual



Ver 2.6 Mar 30th, 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: Qty battery in a group <=8pcs.

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.

PytesBat								>
Normal	Real-Tim	e Data A	larm&Protection	History	Update			
Pytes	Group	,	State:	Total Voltage:	Alarm	· · ·	Balance Г	۲
Fytes			PresentNum:	Total Current:				
Port: COM7 _	I		CMOS State	Total SOC:				
			DMOS State	Total SOH:				
Login Logout	Bat	SOC:	Ma	x Voltage:	Details		Cell Volt-Temp	
Battery	n –	SOH:	Min	Voltage:	Details 5.0			1.0
0%		Capacity:	Vol	Difference:				
0%		Current:	Ma	x Vol ID:	3.8			0.8
0%		Temp:	Min	Vol ID:				
		Basic Status:	Sys	tem Defult:	(a) 2.5			0.5 (D)
0%	Info	Device address:		Specification:				+
0%		Cell Number:		Boot version:	1.9			0.3
0%		Comm Version:		Barcode:				
0%		Release Date:		Max Charge Curr:	0.0	1 2		0.0
		Main Soft Version:					Cell ID	
0%								

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	Real-Time	Data Ala	Irm&Protection	Histo	bry	Update					
	Group		State: idle		Total Voltage: 49.438 V	,	Alarm F		n Balar		
Pyt e s	Bat		Present Num: 1		Total Current: 0 A						
COM7 -	1		CMOS State ON		Total SOC: 99 %						
			DMOS State ON		Total SOH: 100 %		L.			L.	
Login Logout	Bat	SOC: 99 %		Max Voltage: 3.29	96 V				call Vole	-7asp	
Battery	1 ر	SOH: 100 %		Min Voltage: 3.29	5 V	Details Add	4.0		∎ Volt @ T	enp	23.0
99%		Capacity: 49 AH		Vol Difference: 0.0	001 V		3.0				22.6
0%		Current: 0 A		Max Vol ID: 3			3.6				22.0
0%		Temp: 25 °C Basic Status: Idle		Min Vol ID: 1			8				21.5 21.0
0%	Info	Basic Status: Idle		System Defult: 0xl	U		3.2 3.0				21.0
0%	-	Device Address: 1			on: 48V/50AH		2.8				20.0
0%		Cell Number: 15 Comm Version: V2.0		Boot Versio Barcode:	on: V1.9		2.6				19.5
0%		Release Date: 23-02-2			e Current: 102000mA		2.4	3 4 5	6 7 8		12 13 14 16
0%		Main Soft Version: SPI	BMS15SPH2203V1.5.19.Cl	3					Cell 1	3	

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.

	Normal	Real-Time Data	Alarm&Protection	History	Update		
	Serial	Alarm&Protection	Download				
D	yt <mark>e</mark> s	alarm&protcet i	tem cell		power	unit	Shut time : 72.0 H
	7000	Over Voltage	3680	54000	mV		BUV/PUV time : 2400 S
		Over VoltageR	3600	52500	mV		
		High Voltage	3650	53900	mV		Data Save Interval : 1800 S
	COM7	 High VoltageR 	3550	52500	mV		
	Joomi	Low Voltage	2900	45600	mV		
		Low VoltageR	3000	48000	mV		
		Under Voltage	2800	44500	mV		
	and the second	Under VoltageR	2900	47000	mV		
LC	ogin Logout	Sleep Voltage	2600	38000	mV		
		Charging OT	52000	52000	mC		
	Battery	Charging OTR	45000	45000	mC		
	Dattery	Charging HT	50000	50000	mC		
	99%	Charging HTR	45000	45000	mC		
-		Charging LT	2000	2000	mC		
	95%	Charging LTR	5000	5000	mC		
_	0%	Charging UT	0	0	mC		
	0%	Charging UTR	5000	5000	mC		
	0%	Discharging OT	52000	52000	mC		
_		Discharging OTR	45000	45000	mC		
	0%	Discharging HT	50000	50000	mC		
_		Discharging HTR	45000	45000	mC		
	0%	Discharging LT	-10000	-10000	mC		
-		Discharging LTR	-5000	-5000	mC		
	0%	Discharging UT	-12000	-12000	mC		
	0%	Discharging UTR	-5000	-5000	mC		
	0.70	Charaina OC	102000		mA		

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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tes					Care		Tee	Thigh	Vine	e vie	r Bene S	VIKS			e not		Pytes	18	en Deb			Curr	ent Temp	Tow	Then	t Vore	et vhip	C Basel	t we				
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-			00:02:47		0	22000	19000	19000	2957	3301	Oschp	Normal	Normal	Normal	0%	DDG BLV	C 8990			00/02/47		en. 13	2000 M.							(the	Normal	0%	DSC RV
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-	25	00-01-01	00:05:37	45592	0	22900	19000	19000	2790	3301	x3e	Normal	Normal	Nomal	0%	BUV		2	00.01.0	000037	48992	0	22900	19000	19000	2790	3301	ide	Normal	Normal	Normal	0%	BUV
n)	28	00-01-01	00:00.41	49155	0	22000	19000	19000	2950	3301	Dischg	Normal	Normal	Apreal	0%	BUV	(n)	2	00.01.0	00:00:41	49155	0	22000	19000	19000	2956	3301	Dischg	Normal	Normal	Normal	0%	BLV
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n 1	29	00-01-01	00.07.11	49130	0	22900	19000	19000	2955	3301	Drichg	Normal	Normal	Normal	2%	DISG BLV		21	00-01-0	000711	49156	0	22000	19000	19000	2955	3301	Discho	Normal	Normal	Normal	0%	DSC-BLV
	29	00-01-01	00:00:23	48795	0	18000	16000	16000	2790	3299	100	Normal	Normal	Normal	1%	BCV		2	00.01.0	00 00 23	48795	0	18000	10000	190000	2793	3289	kte	Normal	Normal	Normal	0%	BLV
n 1	30	05-01-01	00.00.25	45758		18000	16000	16000	2754	3299	kle	Normal	Normal	Normal	15	8./V			00-01-0	00:00:25	48788	0	18000	10000	10000	2754	3289	kte	Normal	Normal	Normal	0%	BUV
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m 1.	100	10.01.04	00:00:39	49474		10000	10000	10000	2293	1000	100	Anneal	birena i	Annal	05	8.77		12 La	00.01.0	00-00-29	45525		10000	10000	10000	2293	1200	100	Manual	Normal	Abernal	05	8.57



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

Spela - S X	⊂ 9 yeak − 0 ×
Normal Real-Time Data Alam&Protection History Update	a spen for x Update
d d	
Served program	kentpym
The second secon	Image: Standard and Standar

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.

Series Contraction Contraction <	NOTINI IN	eal-Time Data Alarr	m&Protection	History	Update					
Contraction Contractio										
of Image: Control of the processing of the procesing of the procesing of the processing of t						E-BC	X-48100R-E	3	E-BOX-48	100R-C
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Battery 0% 0%	Login Logout			Step 2.Only press SW button of m	aster battery for 1	Version of 48100R			Firmware	Appendix
Image: Construction Open formula 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%			slave	Battery update erro		в				V2.0.4
89% Sup 2 been or an power round. C.16 V15.Xc18 bin 0% I Please confirm the version of firmsare and battery. Otherwise battery will be deal. 0% 0% 0% Update Update Wake	Battery			> Step 1.	Yes		4-H/5-L	1-B/2-A		V3.0.2
0% 0% 0% 0% 0% Update Wake Uboot			slave	 Step 2. Switch on an power button 			ease confirm the v	ersion of firmware ar		ery will be dead.
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0% Update Wake Uboot	0%									
Update Wake Uboot	0%									
0%	0%		Undata	_	16/-1-	_		_	lhest	
795	0%		Update		Wake	:				
	0%									

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.

	Group	Tak .	Ma Wilson	Alarn F	D Balance C	5	Durk D	Gree		- (a)	, n P	lalance 🗖
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Figure 12

12. Changelog Notes

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