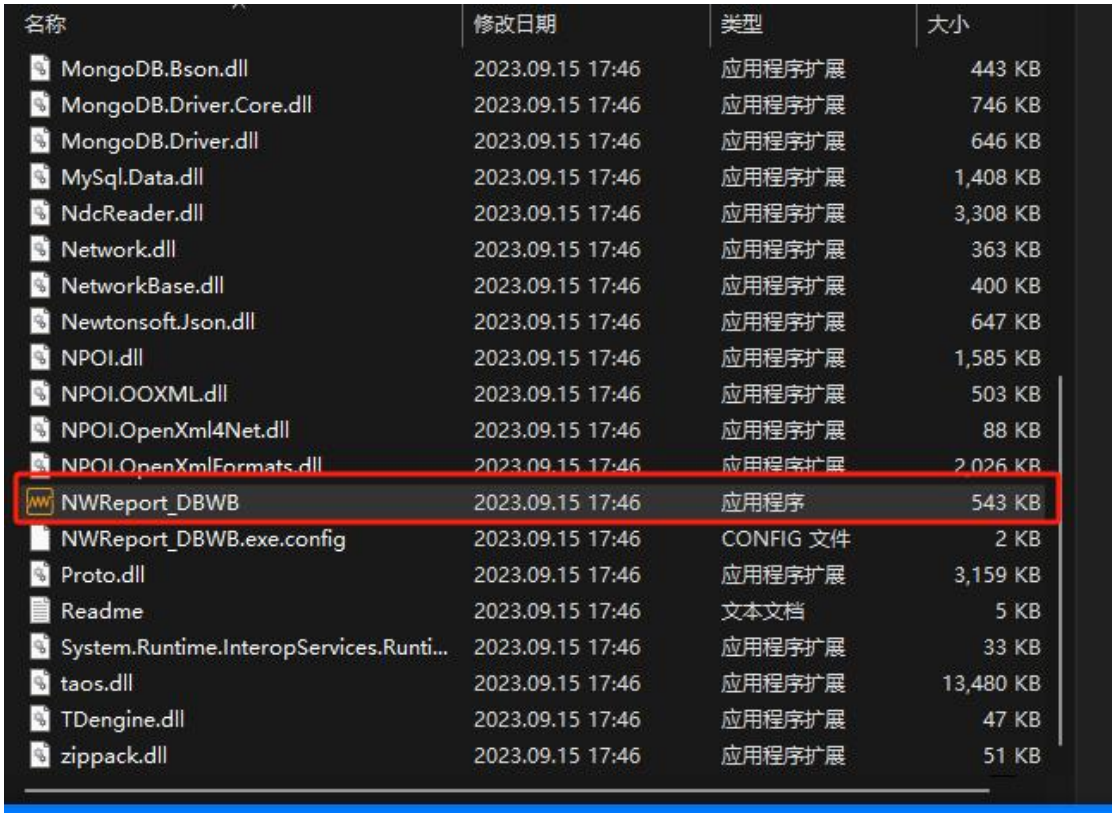
NWReport _ DBWB instructions

第一章 Software

1.1 Download the software, and open the " NWReport _ DBWB. For exe "program,

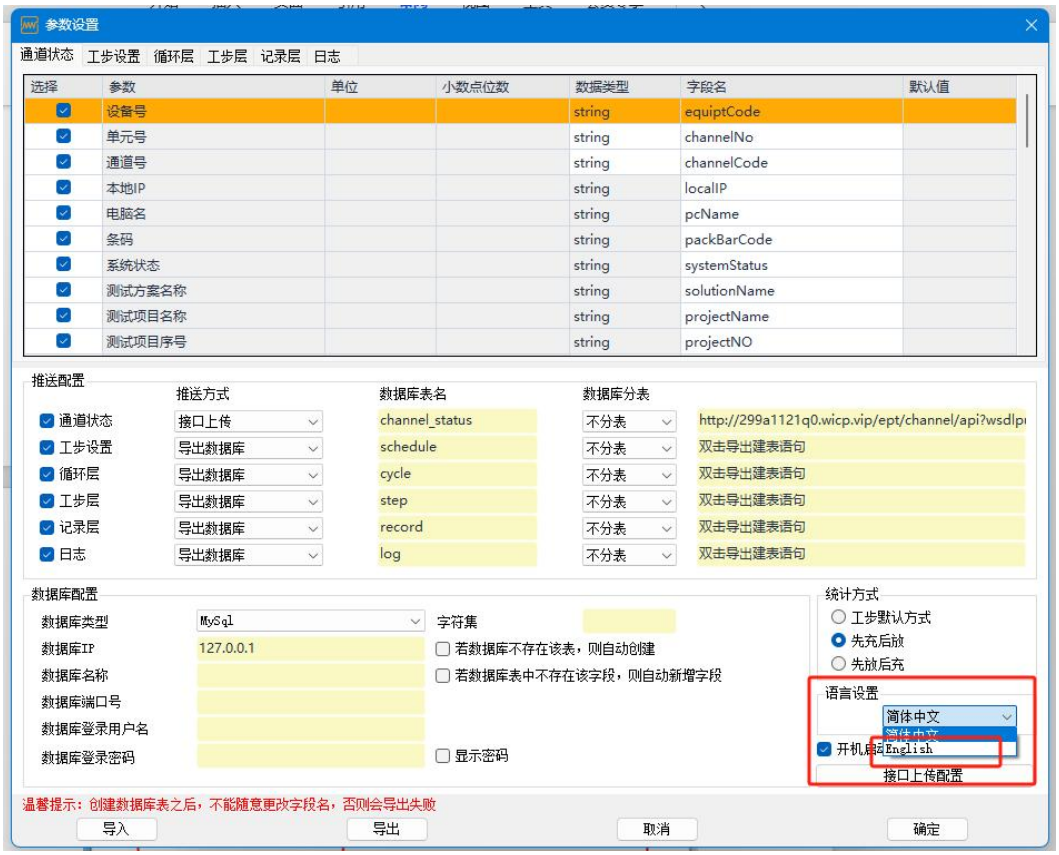


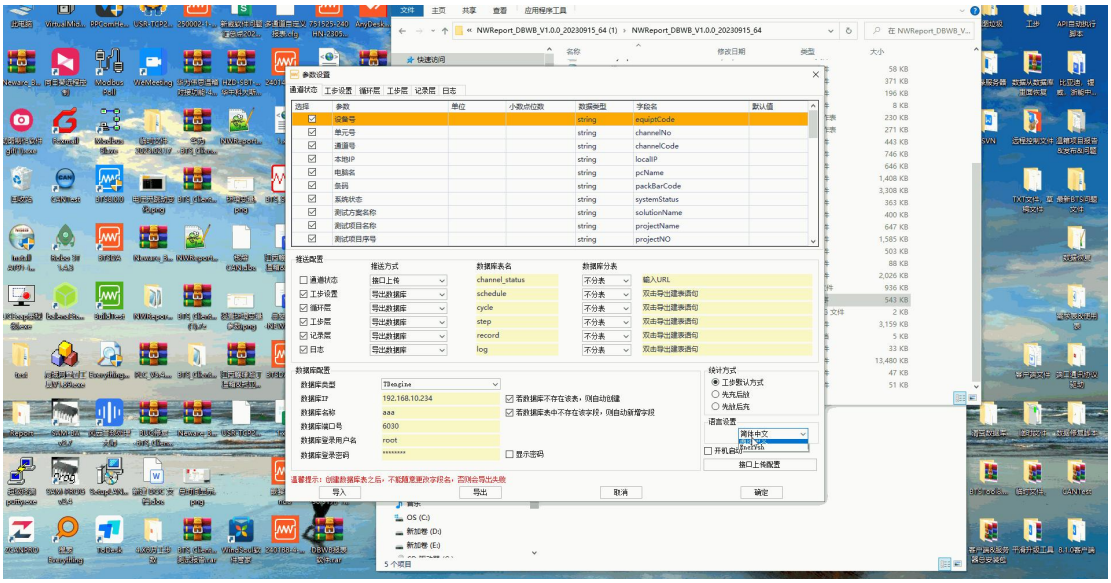
名称	修改日期	类型	大小
MongoDB.Bson.dll	2023.09.15 17:46	应用程序扩展	443 KB
MongoDB.Driver.Core.dll	2023.09.15 17:46	应用程序扩展	746 KB
MongoDB.Driver.dll	2023.09.15 17:46	应用程序扩展	646 KB
MySql.Data.dll	2023.09.15 17:46	应用程序扩展	1,408 KB
NdcReader.dll	2023.09.15 17:46	应用程序扩展	3,308 KB
Network.dll	2023.09.15 17:46	应用程序扩展	363 KB
NetworkBase.dll	2023.09.15 17:46	应用程序扩展	400 KB
Newtonsoft.Json.dll	2023.09.15 17:46	应用程序扩展	647 KB
NPOI.dll	2023.09.15 17:46	应用程序扩展	1,585 KB
NPOI.OOXML.dll	2023.09.15 17:46	应用程序扩展	503 KB
NPOI.OpenXml4Net.dll	2023.09.15 17:46	应用程序扩展	88 KB
NPOI.OpenXmlFormats.dll	2023.09.15 17:46	应用程序扩展	2,026 KB
NWReport_DBWB	2023.09.15 17:46	应用程序	543 KB
NWReport_DBWB.exe.config	2023.09.15 17:46	CONFIG 文件	2 KB
Proto.dll	2023.09.15 17:46	应用程序扩展	3,159 KB
Readme	2023.09.15 17:46	文本文档	5 KB
System.Runtime.InteropServices.Runti...	2023.09.15 17:46	应用程序扩展	33 KB
taos.dll	2023.09.15 17:46	应用程序扩展	13,480 KB
TDengine.dll	2023.09.15 17:46	应用程序扩展	47 KB
zippack.dll	2023.09.15 17:46	应用程序扩展	51 KB

Change the language. Click the as shown in the following figure:

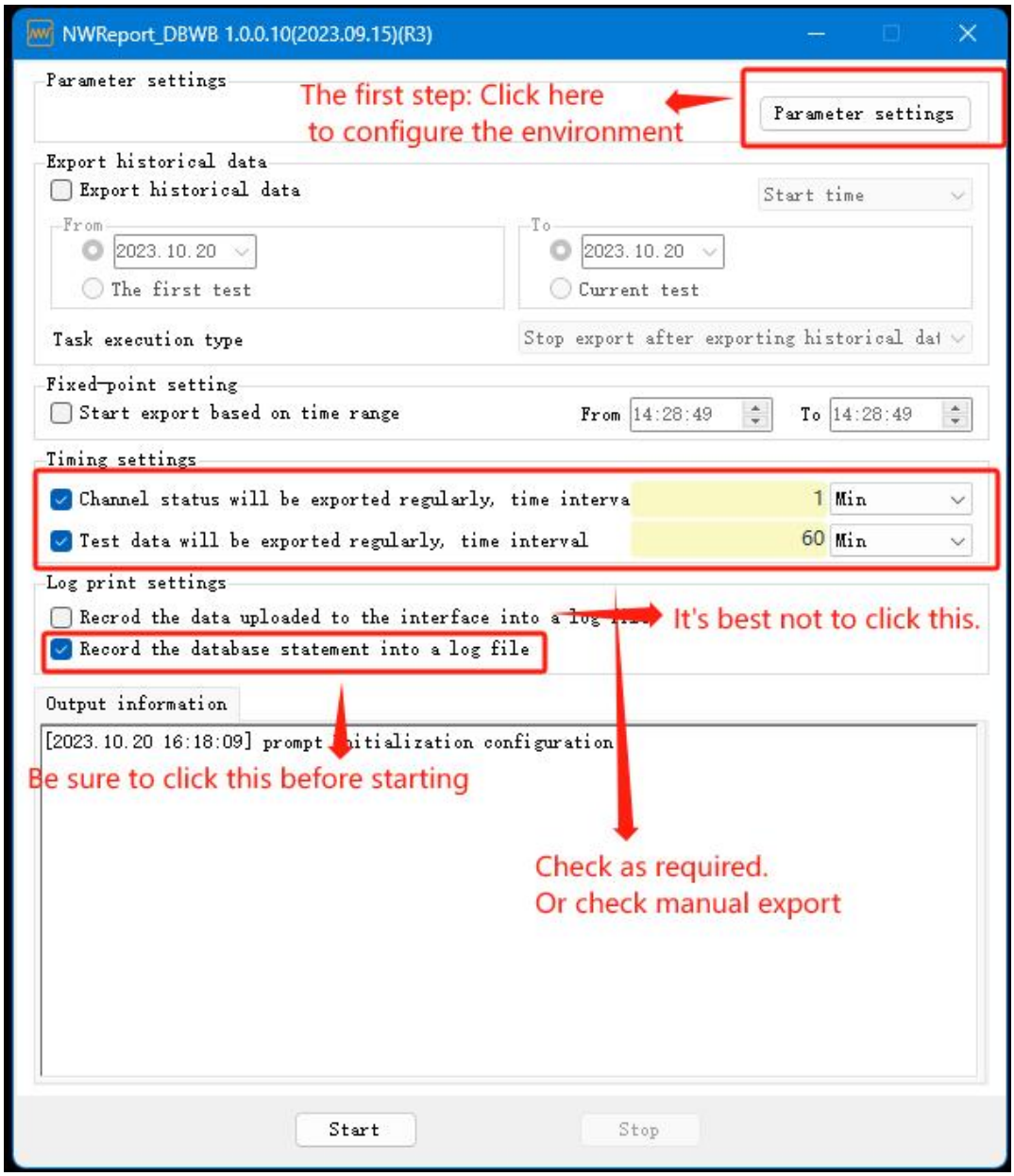
参数设置→语言设置→English


NWReport_DBWB 1.0.0.10(2023.09.15)(R3)
参数设置
参数设置
导出历史数据
导出历史数据
从
2023. 10. 20
第1次测试
至
2023. 10. 20
当前测试
任务执行类型
定点设置
按时间范围启动导出
从 14:28:49
至 14:28:49
定时设置
通道状态定时导出，时间间隔
1 分钟
测试数据定时导出，时间间隔
60 分钟
日志打印设置
打印接口上传详细日志
打印数据库上传详细日志
输出信息
[2023. 10. 20 14:28:49] 提示 初始化配置
[2023. 10. 20 14:38:49] 错误 数据库名称, 数据库登录用户名, 数据库登录密码, 数据库端口号为空
启动
停止





First click the" parameter setting " button to build the environment as shown in the following figure:

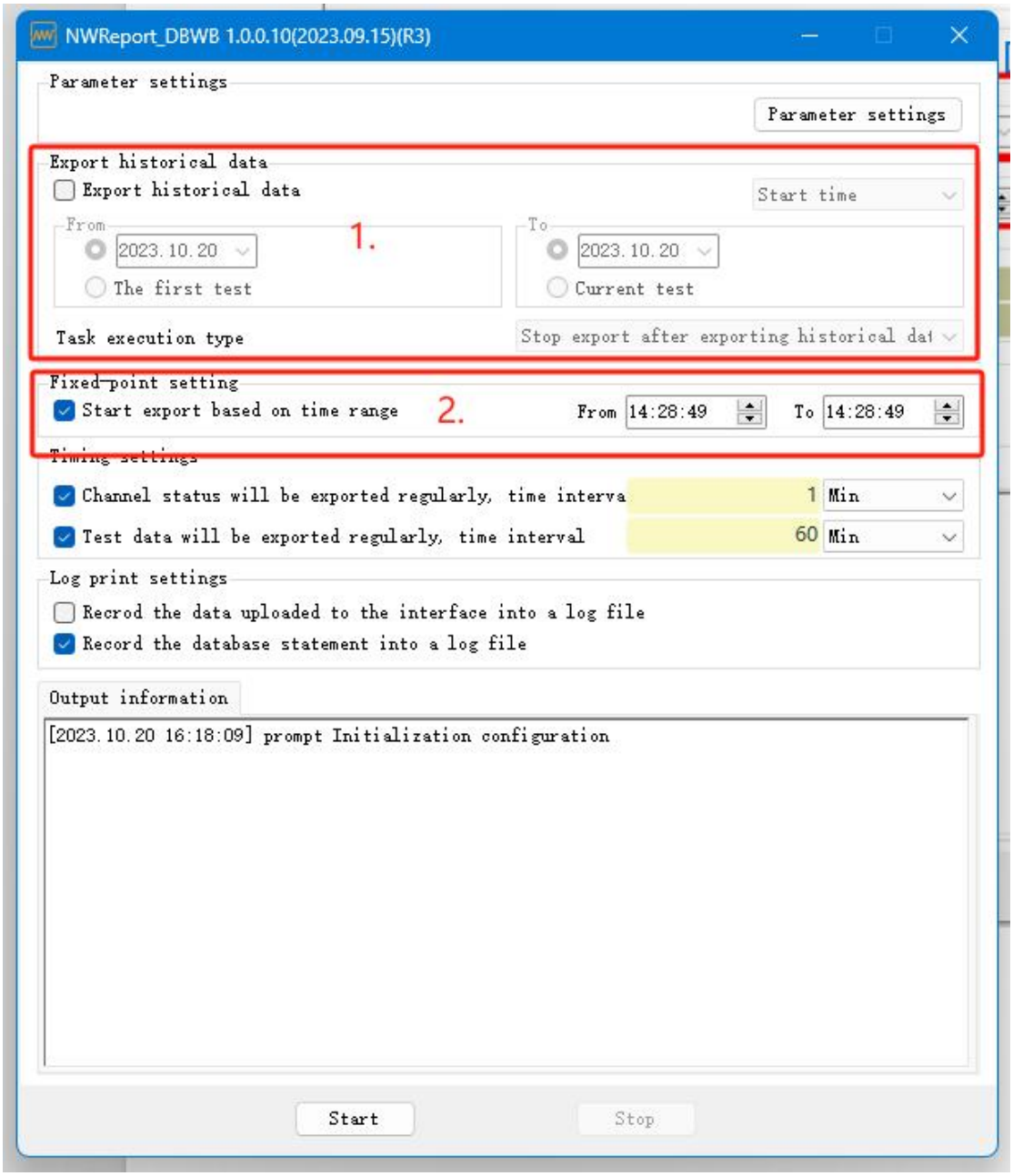

NWReport_DBWB 1.0.0.10(2023.09.15)(R3)
Parameter settings
The first step: Click here
to configure the environment
Parameter settings
Export historical data
Export historical data
Start time
From
2023.10.20
The first test
To
2023.10.20
Current test
Task execution type
Stop export after exporting historical dat
Fixed-point setting
Start export based on time range
From 14:28:49
To 14:28:49
Timing settings
Channel status will be exported regularly, time interva
1 Min
Test data will be exported regularly, time interval
60 Min
Log print settings
Recrod the data uploaded to the interface into a log file
It's best not to click this.
Record the database statement into a log file
Output information
[2023.10.20 16:18:09] prompt itialization configuration
Be sure to click this before starting
Check as required.
Or check manual export
Start
Stop

Supplementary section:

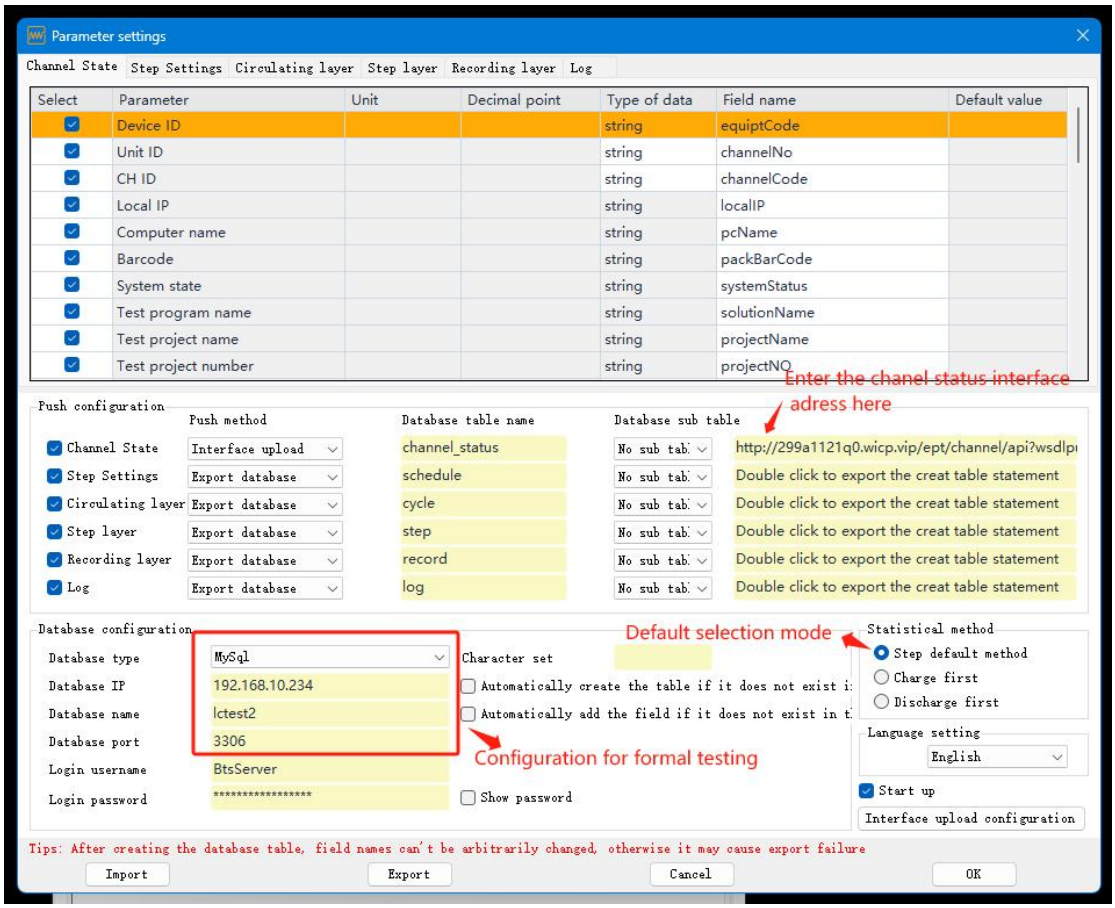
1) Select the export data within the specified time range

2) Set the self-set start work report software

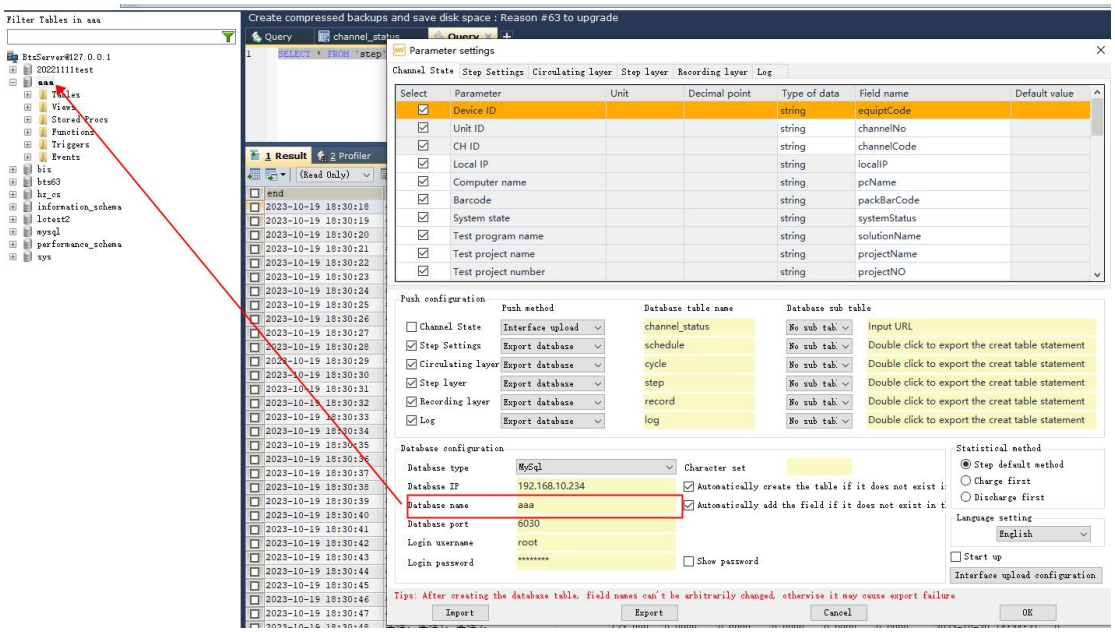
As shown in the figure below:



1.2 Click the parameter setting interface for environment configuration as shown in the following figure:



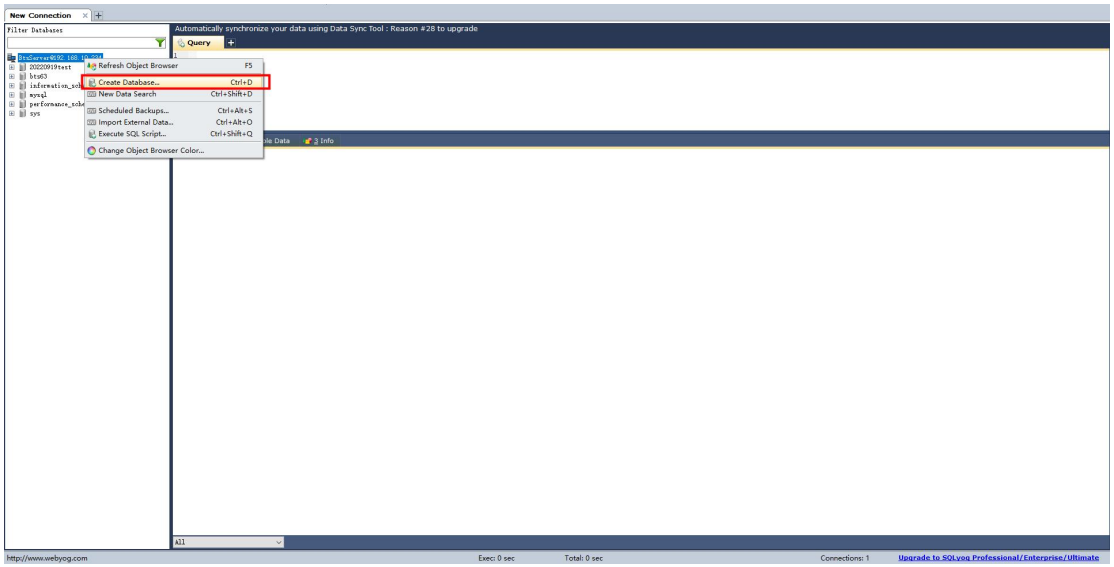
Note: "Database Name" must exist in the database as shown in the following figure, the database is provided by the user.



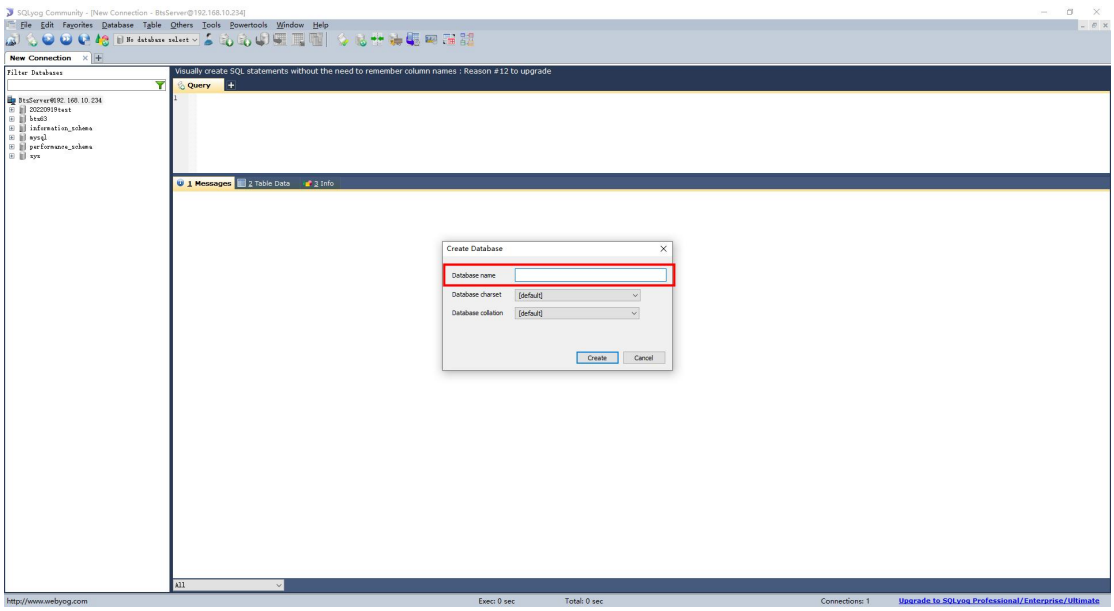
If not, you can create it manually, by the following steps:

1) Log in to the database

2) Right-click on the database to select the part circled under the graph



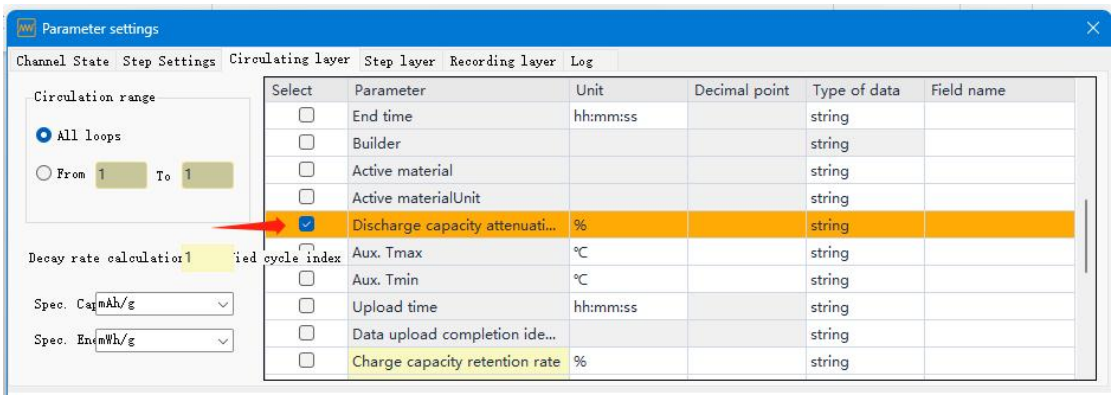
3) Create the corresponding library name



1.3 Database table name has a lot of columns, users can modify the field name or check the data to export as required (note: check whether the field name of exported parameters is “null”, if it is null, please add a field that does not repeat the name). The data that does not need to be exported can also be selected.(note: once created the database table, don't change the field name, otherwise the data will export failure)

The current checked parameters are as follows:

1) Failure rate of the circulating layer discharge capacity: the field name is dc _ cap _ journal _ rate

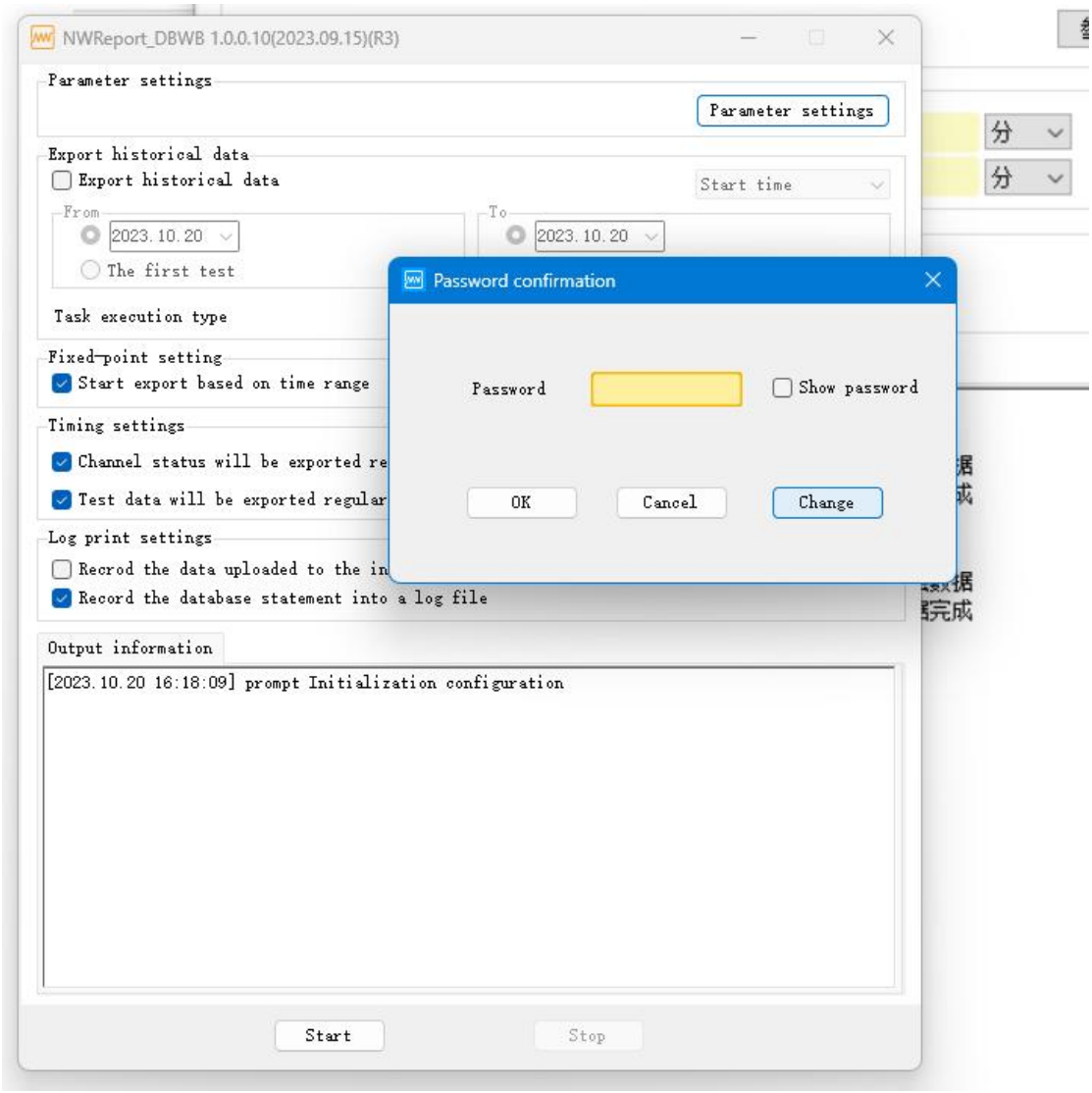


2) Step layer

3.2 step 表添加字段

参数	字段名称	字段类型	备注	说明
energy	能量	string		
capacity	容量	string		
start_current	起始电流	string		
end_current	结束电流	string		

1.4 Close the software will pop up the password prompt box, the default password is neware



第二章 Interface information and examples

2.1 Interface information

The interface name	Neware device status acquisition interface
Interface encoding	LIMS -XW -001
Service delivery system	LIMS system
Service call system	Xinwei equipment software
Method of data access	propelling movement
interface type	WebService
Business description	Test equipment and channel status are transmitted to the LIMS system, and the corresponding data is displayed on the LIMS system;
Interface processing logic	In the transmission of all channel states of one device in the interface at a time, the failure of the call end requires recording and early warning;
Call address (test)	indeterminate
Call address (formal)	indeterminate
Call the path	indeterminate
method of calling	Post
Call frequency	Timing call, 5S once
Access time period	7X24

.22 Example of the request parameters

The json string:

```
{
        "Equip _ code": "Device Number",
        "Unit _ no": "Unit number",
        "channel_no": "Channel number",
```

```
            "Pc _ IP": "computer ip",
            "Pc _ Name": "Computer Name",
            "sample_code": "Battery barcode",
            "system_status": "Charge",
            "project_no": "Test item",
            "Step _ id": "Step number",
            "Step _ name": "Step name",
            "cyclegruop_no": "cycle group",
            "Cycle _ count": "Number of cycles",
            "Run _ mode": "Run Mode",
            "control_mode": "Control mode",
            "voltage": "Current voltage",
            "current": "Current current",
            "capacity": "Current step capacity",
            "Total _ capacity": "cumulative capacity",
            "energy": "Current Energy",
            "tatal energy": "Accumulated energy",
            "step_time": "12:22:22",
            "total_time": "29:23:12",
            "set_temperature": "44",
            "max_temperature": "45",
            "min_temperature": "43",
            "tem_deff": "2",
            "submit_time": "2021-08-23 12:34:22"
}
```


.32. Description of the response parameters

The server side responds to data in JSON format to the caller, the response parameter field is:

parameter	Field name	field type	Whether must	explain
Success	condition code	bool	yes	false: Failed true: success
ErrorInfo	Call feedback	s tring	yes	The success is empty, and the failure returns the failure informatio

				n

.42 Example of the response parameters

The json string:

```
{
    "Success ": true ,
    ″ErrorInfo ″: ″″
}
```

MySQL upload:

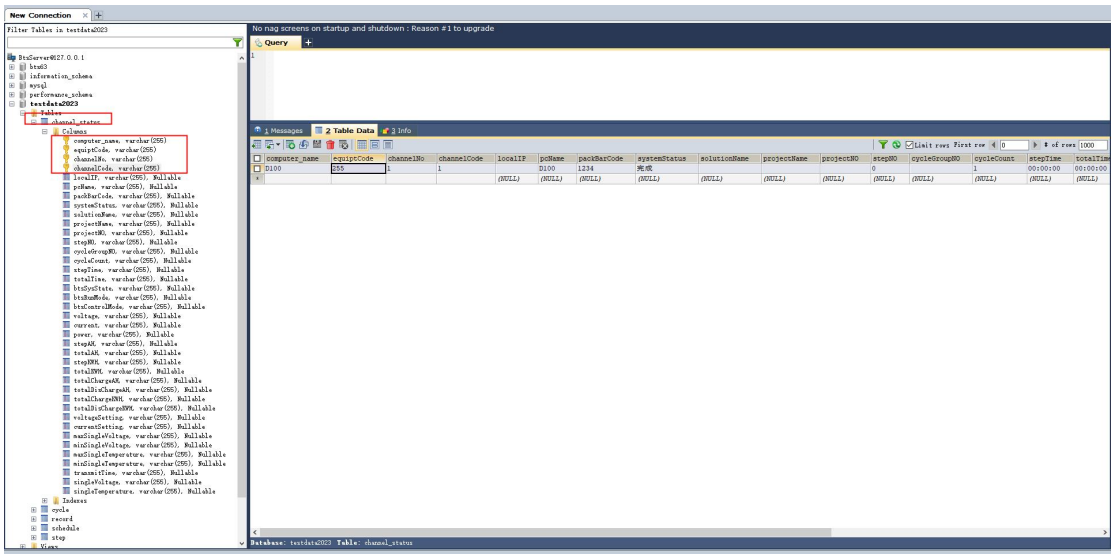

step.sql


schedule.sql


record.sql


channel_status.sql


cycle.sql



Step: the step layer

shcedule: Work-step setting

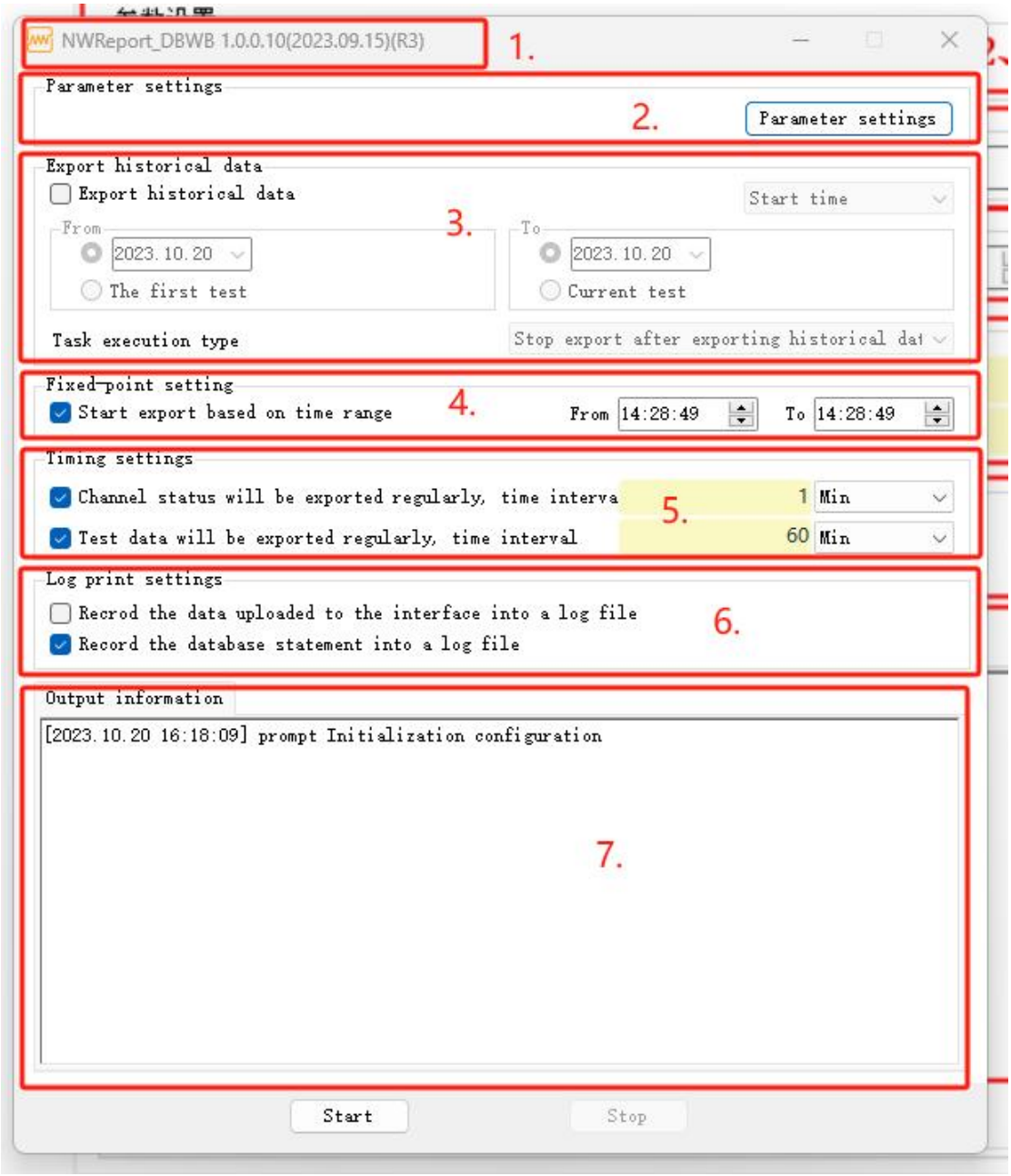
record: Record layer

channel_status: Channel status

Cycle: a cyclic layer

第三章 Interface introduction

3.1 Introduction of the main interface



1) Version information

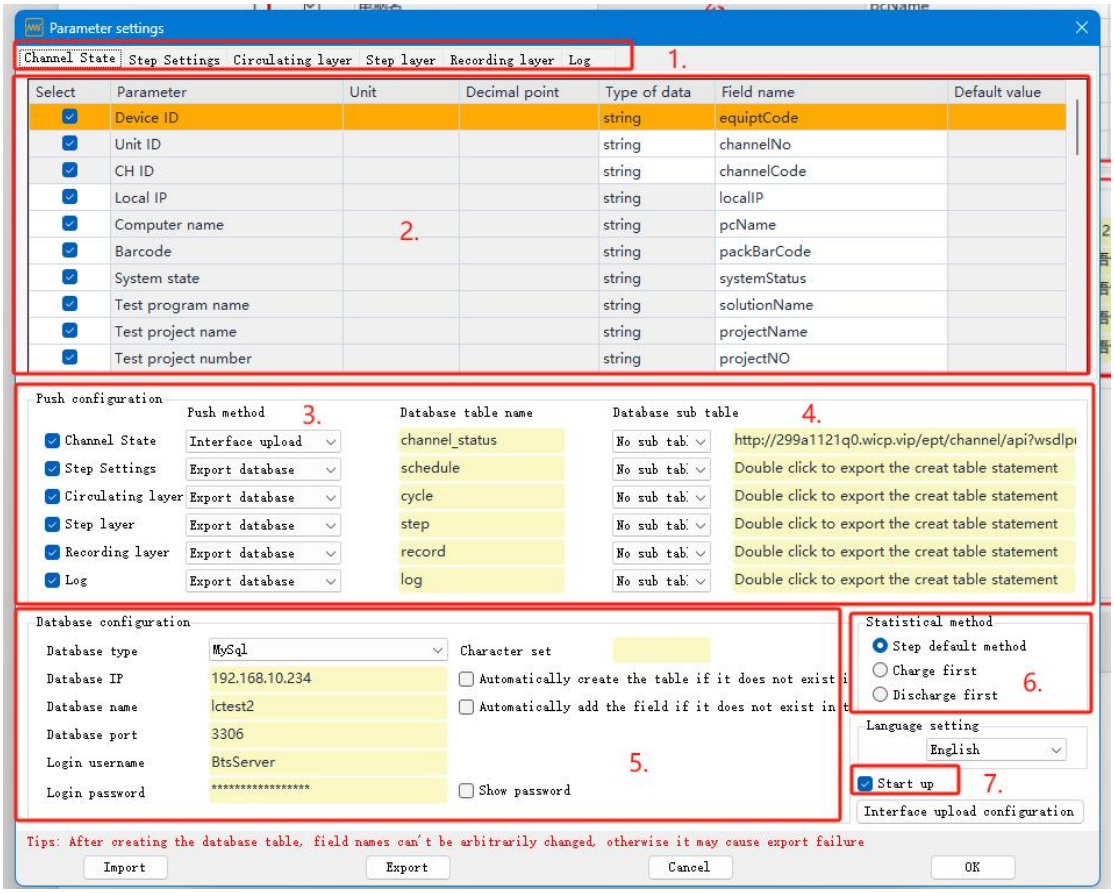
2) Configure the connection mode

3) Export the specified historical data (the start time or end time can be set. The start time refers to the start test data of the channel time range, and the end time indicates the data of the end time of all channels)

4) Fixed-point upload means that data uploading is operated by the software within a fixed time range; wait until the next time range

5) Regular upload is uploaded through the time interval. The user can configure the data upload interval on the software interface, and the software can perform the upload operation according to the time interval configured by the user;
Because the channel status is used for monitoring, the main data of test data (step scheme, cycle layer, step layer, recording layer) is extracted; the two types of data are inconsistent (the frequency of channel status update is often high, and the frequency of test data update is often low), so the two types of data separately configure the interval of data uploading;
6) View the problem print detailed log
7) Print logs

3.2 Parameter setting interface



1) Corresponding data and information

1.1) Channel status

Channel number (equiptCode): Equipment number

Unit number (unitCode): Unit number

Channel number (channelCode): Channel number

Local ID (localIP): localIP

Computer name (pcName): the life name of the current computer.

Barcode (packBarCode): Current channel-bound barcode.

System status (systemStatus): This field is not passed.

Test scheme name (solutionName): The field is not passed.

Test Item Name (projectName): The field is not passed.

Test item serial number (projectNO): The field is not passed.

Step number (stepNO): the original step number.

Cycle group serial number (cycleGroupNO): This field is not passed.

Cynumber (cycleCount): cycle number; (the statistical mode of cycle is configured on the software interface)

Step time (stepTime): the current step running time, time format: hh: mm: ss;

Total time (totalTime): the current test run time, time format: hh: mm: ss;

Charge and discharge system status (b tsSysState): To display the current channel operation status, please refer to the following table:

move	running
cease	stop
protect	protect
suspend	pause
idle	idle
accomplish	finnish
synchrocontrol	synCtrl
light up	ligth
Synchronous timeout	waitTimeOut
Wait for the load	waitStart

Charge and discharging operation mode (b tsRunMode): divided into charging, discharging, static stand;

Charge and discharge control mode (b tsControMode): it is divided into constant current, constant pressure, constant current constant pressure, constant resistance, constant work, working condition, pulse, etc. (all charge and discharge modes in the client).

Voltage (voltage): the real-time voltage value of the current channel;

Current (current): Current channel real-time current value:

Power (power): the real-time power value of the current channel.

Capacity (capacity): the current working step real-time capacity value of the current channel.

Total capacity (totalAH): Current test total capacity value (negative positive discharge and negative)

Energy (stepKWH): the current working step real-time energy value of the current channel.

Total energy (totalKWH): current test value (positive discharge and negative charge)

Total charging capacity (totalChargeAH): the sum of the capacity of all charging stages currently tested;

Total discharge capacity (totalDischargeAH): the sum of current test;

Total charging energy (totalChargeKWH): the sum of energy in all charging phases currently tested;

Total discharge energy (totalDischargeKWH): the sum of all discharge stages in the current test;

Voltage setting value (voltageSetting): the voltage setting value of the current working step.(Note: that is, the medium cut-off voltage in the constant current step or the voltage value set in the constant voltage step. If not set, the field is not written)

Current setting (currentSetting): voltage setting for the current step.(Note: the current current in the

constant voltage step or the current set in the constant current step. If not set, the field is not written)

Maximum auxiliary channel voltage (maxSingleVoltage): the maximum real-time voltage in all auxiliary channels under the current channel.

Auxiliary channel minimum voltage (minSingleVoltage): minimum of real-time voltage in all auxiliary channels under the current channel.

Maximum auxiliary channel temperature (maxSingleTemperature): the maximum real-time temperature in all auxiliary channels under the current channel.

Auxiliary channel minimum temperature (minSingleTemperature): the minimum of real-time temperature in all auxiliary channels under the current channel.

Temperature difference (tem _ def): the maximum difference of all auxiliary channels in the current channel.

Device IP (dev _ ip): the IP address of the middle machine to which the current channel belongs.

Absolute time (transmitTime): the absolute time of the current message push. Format: YYYY-MM-DDhh: mm: ss

Auxiliary channel voltage (singleVoltage): the real-time voltage value of all auxiliary channels under the current channel, stored and uploaded by array.

Auxiliary channel temperature (singleTemperature): the real-time temperature value of all auxiliary channels under the current channel, stored and uploaded by array.

Laboratory (laboratory): If the user enters the default value, and the software uploads the default value;

Area (area): if the user enters the default value, and the software uploads the default value;

Supplier (supplier): If the user enters the default value, and the software uploads the default value;

1.2) Step setting

Channel number (chl _ id): device number-unit number-channel number;

Bar code (barcode): the barcode of the battery;

Step number (step_id): the original step number;

Step name (step _type): step name;

Step time (setting _time): the set step time. Format: hh: mm: ss. MS; (not written without setting)

Voltage (setting_voltage): the voltage conditions / parameters set in the working step. Unit: V; (no setting is not written);

Current (setting_current): the current parameters set in the working step. Unit: A; (no setting is not written);

Rate (setting _rate): the charge / discharge rate set in the work step.(No setting, no writing); unit: C;

Cutoff (cut_of_rate): the cut-off condition set in the step.(No setting); unit: C

Cut-off current (cut_of_current): current cut condition set in the step.(No setting); unit A;

Energy (cut_of_energy): the energy cut-off condition set in the work step.(No setting, not written); unit Wh;

- △ V (- △ V): Cutoff condition for the voltage variation set by the working step.(No setting, not written); unit V;

Power (setting_power): the power parameter set in the work step.(No setting, do not write); unit: W;

Load (setting _ ohms): the load parameters set in the work step.(No setting, no writing); unit: m Ω;

Capacity (cut_of_capacity): Capacity cutoff for the step.(Without setting, do not write); unit: Ah;

Record condition (recording_conditions): the main channel record condition set in the work step. Format: Time / voltage / current; example: 1s / 1V / 1A; (without setting, write 0);

Secondary channel recording (aux_record_ conditions): main channel recording conditions set in step secondary channel recording condition.

Max Vi: The maximum voltage cut-off condition of the auxiliary channel set by the working step;

Min Vi: The minimum voltage cut-off condition of the auxiliary channel set by the working step;

Max Ti: Maximum temperature threshold condition of the auxiliary channel set by the working step;

Min Ti: Minimum temperature threshold condition of the auxiliary channel set by the working step;

Section Record 1 (segment_recording1):

Section Record 2 (segment_recording2):

Test start time (star_time): the start time of the current channel test; format: YYYY-MM-DDhh: mm: ss

Test end time (end_time): the test end time of the current channel; format: YYYY-MM-DDhh: mm: ss

Starting step (start_step): setting parameter for step type [cycle]. The current cycle setting starts with the original step number.

Number of cycles (cycle_times): setting parameter for step type [cycle]. Number of cycles in the current cycle setting.

1.3) Circulation layer

Device number-unit number-channel number (chl _ id): the device number, unit number and channel number are merged into a field and connected with "-";

Battery Barcode (barcode): the barcode for the current channel test battery.(If this field is not written);

Cycle serial number (cycle _id): cycle number. Statistical mode: one charge and one put as a cycle;

Charging capacity (charge _capacity): the sum of the capacity of all charging steps in the current cycle.(Add up the capacity of all charging stages.) Unit: Ah;

Discharge capacity (discharge _capacity): the sum of the capacity of all discharge steps in the current cycle.(Add up the capacity of all discharge stages) Unit: Ah;

Charging energy (charge_ energy): the sum of the energy of all charging steps in the current cycle.(Add up the energy of all charging stages.) Unit: Wh;

Discharge energy (discharge _ energy): the sum of energy of all discharge steps in the current cycle.(The simulated working step adds up the energy of all discharge stages) unit: Wh;

Net discharge capacity (Net _ cap _ dchhg): the sum of capacity for all discharge phases in the cycle minus the sum of charging capacity for all charging phases.(The charge and discharge stage in the simulation working step also needs statistics) Unit: Ah; (it is not recommended to check without special requirements, which affects the performance of the throw)

Net discharge energy (Net _ cap _ dchhg): the sum of energy for all discharge phases in the cycle minus the sum of charging energy for all charging phases.(The charge and discharge stage in the simulation working condition step also needs statistics) Unit: Wh; (it is not recommended to check without special requirements, affecting the performance of the throw)

Median charging voltage (chg _ mid _ voltage): the voltage during charging, when the charging capacity reaches half of the total charging capacity of this cycle. If an equivalent cycle has multiple continuous charges, the total charging amount is the sum of the charging amount of these charging steps. Unit: V; (no special requirements, affecting the performance of throwing)

Median discharge voltage (dc _ mid _ voltage): the voltage when the discharge capacity reaches half of the total discharge capacity of this cycle. If an equivalent cycle has multiple continuous discharges, the total discharge is the sum of the discharges of the discharge steps. Unit: V; (no special requirements, affecting the performance

of throwing)

Maximum temperature of auxiliary channel (aux _ Temp _ Max): extract the maximum temperature value in all auxiliary channel data; unit ℃ (not checked without special requirements, affecting the cast performance)

Minimum temperature of auxiliary channel (aux _ Temp _ Min): In the current cycle, extract the minimum temperature value in all data of auxiliary channel; unit ℃ (not checked without special requirements, affecting the cast performance)

1.4) Step layer

Device number-unit number-channel number (chl _ id): the device number, unit number and channel number are merged into a field and connected with "-";

Battery Barcode (barcode): the barcode for the current channel test battery.(If this field is not written);

Cycle serial number (cycle _id): cycle number. Statistical mode: one charge and one put as a cycle;

Step serial number (step _num): the serial number of the current test step;

Original step step step number (step _id): the step number of the current test step in the step scheme;

Step name (step _type): step name;

Step time (step _time): the time of the step operation.unit:min;

Charging capacity (chg _ capacity): the charging capacity of the current working step.(If the step is not charging, it is not written, if the step is simulated, the capacity of all charging stages will be added) Unit: Ah;

Discharge capacity (dc _ capacity): the discharge capacity of the current working step.(If the step is not discharge, it is not written; if the step is simulated condition, the capacity of all the discharge stages will be added) Unit: Ah;

Charging energy (chg _ energy): the charging energy of the current working step.(If the step is not charging, it is not written, if the step is simulated, the energy of all charging stages will be added) Unit: Wh;

Discharge energy (dc _ energy): the discharge energy of the current working step.(If the step is not discharge, it is not written, if the step is simulated condition, the energy of all the discharge stage is accumulated) unit: Wh;

Median charging voltage (chg _ mid _ voltage): voltage at half of the current step capacity value.(If the step is not charged, it is not written; if the step is simulated, the capacity of all charging stages will be accumulated); unit: V; (it is not recommended to check without special requirements, affecting the performance of throwing)

Median discharge voltage (dc _ mid _ voltage): the voltage at half of the current step capacity value.(If it is not written, if it is simulated working condition, the capacity of all the discharge stages will be added); unit: V; (it is not recommended to check without special requirements, affecting the upper performance of casting)

Charging time: the accumulation of the current working step charging stage time.(If the charging step is not charged, it is not written; if the charging step is simulated, the charging time of all the stages will be added); unit: s;

Discharge time: the accumulation of the current working step discharge stage time.(If the step is not written, if the step is simulated, the time of all discharge stages is accumulated); unit: s;

Starting voltage (start _voltage): the first voltage data at the beginning of the current step.unit:V;

End voltage (end _voltage): the last voltage data at the end of the current step.unit:V;

End temperature (end _ temp): the last temperature auxiliary channel data of the current step. Unit: ℃; (if there is no auxiliary channel, do not write, if there are multiple auxiliary channels, arrange each auxiliary channel in order and write to the field, separated by ",")

Note (remark): Note field in the current test step file.

Constant current ratio (): the proportion of constant current stage capacity to the whole step capacity in the

current step; (not checked without special requirements, affecting the cast performance)

1.5) Record layer

Device number-unit number-channel number (chl _ id): the device number, unit number and channel number are merged into a field and connected with "-";

Battery Barcode (barcode): the barcode for the current channel test battery.(If this field is not written);

Cycle serial number (cycle _id): cycle number. Statistical mode: one charge and one put as a cycle;

Step serial number (step _num): the serial number of the current test step;

Original step step step number (step _id): the step number of the current test step in the step scheme;

Record serial number (record _id): the serial number of the record layer data of the current test;

Step name (step _type): step name;

Record time (record _time): the data is at the point of the current step.unit:s;

Voltage (voltage): current voltage; unit: V;

Current (current): current current; unit: A;

Capacity (capacity): Currently recorded capacity value; in: Ah; (capacity value accumulated from the current step to this record)

Energy (energy): current recorded energy value; unit: Wh; (accumulated energy value from current step to this record)

Power (power): current power; (voltage * current) unit: W;

Charging time (chg _ time): the accumulation of the current working step charging stage time.(If the charging step is not charged, it is not written; if the charging step is simulated, the charging time of all the stages will be added); unit: s;

Discharge time (dc _ time): the accumulation of the current working step discharge stage time.(If the step is not written, if the step is simulated, the time of all discharge stages is accumulated); unit: s;

Absolute time: the absolute time of the current record. Format: YYYY-MM-DDhh: mm: ss

Additional temperature (temperature): the current auxiliary channel temperature.unit: ℃ .(If there is no auxiliary channel, do not write. If there are multiple auxiliary channels, arrange each auxiliary channel in order and write to the field, separated by ",")

2) The corresponding fields in the data

3) Select the export mode there are export database and interface export mode (if you choose the interface export point 5, no settings are required)

4) If you choose the interface export, write the interface address here

5) Set the database (you can set MySQL or Mongdb)

5.1) Database IP: the IP address of the MySQL stored on that computer (fill in the IP on which MySQL needs to be exported to)

5.2) Database name: the name of the library created by MySQL

5.3) Database port number: database port number (the default installed port number is 3306, Note: the same computer cannot install two MySQL, unless the port is inconsistent, you can modify the port number when installing)

5.4) Database login user name: MySQL login name

5.5) Database login password: MySQL password

6) Export the cycle statistics mode

6.1) By default: from the current cycle jump to the next loop jump. Example: step document process is: 1. shelved; 2. charging; 3. shelved; 4 discharge; 5. shelved; 6. charging; 7; 7. shelved; 8. discharge; 9. cycle (starting step 5~8; 1); actual step operation is: 123456785678, under the rule of step default cycle number, cycle 1 is 1 to 8, cycle 2 is: 5 to 8.

6.2) First charge and then release: the first charge and then release statistical method: take one charging step and one discharge step as the cycle. When there are multiple continuous charging steps and multiple continuous discharge steps, the first charging step is the beginning of the cycle, and the last discharge step is the end of the cycle. That is, when the one step after the discharge step is the charging step, it is the beginning of the new cycle.(Use the function of [charge first before putting statistics mode] in the circular statistics mode in NDA).

6.3) First put and then charge: take one discharge step and then one charging as the cycle. When there are multiple continuous charging steps and multiple continuous discharge steps, the first discharge step is the beginning of the cycle, and the last charging step is the end of the cycle. That is, when the one step after the charging step is the discharge step, it is the beginning of the new cycle.(Use the function in the circular statistics mode in NDA)

7) Start start the report software

8) Import / export configuration function

Considering the actual users use there are multiple server (neware software server) computer, each server computer need to install a report software, in order to reduce the user configuration time, improve the software configuration of convenience and Suggestions, and improve the software users use physical examination, need to add [export / import configuration] function;

8.1) Export the configuration

Users only need to install the report software on a service computer, set the relevant configuration content (including data configuration, data table configuration, database configuration, etc.) and save it; users can export the configuration; the software exports the configuration to.iconf File, users can manually select the location of the file storage;

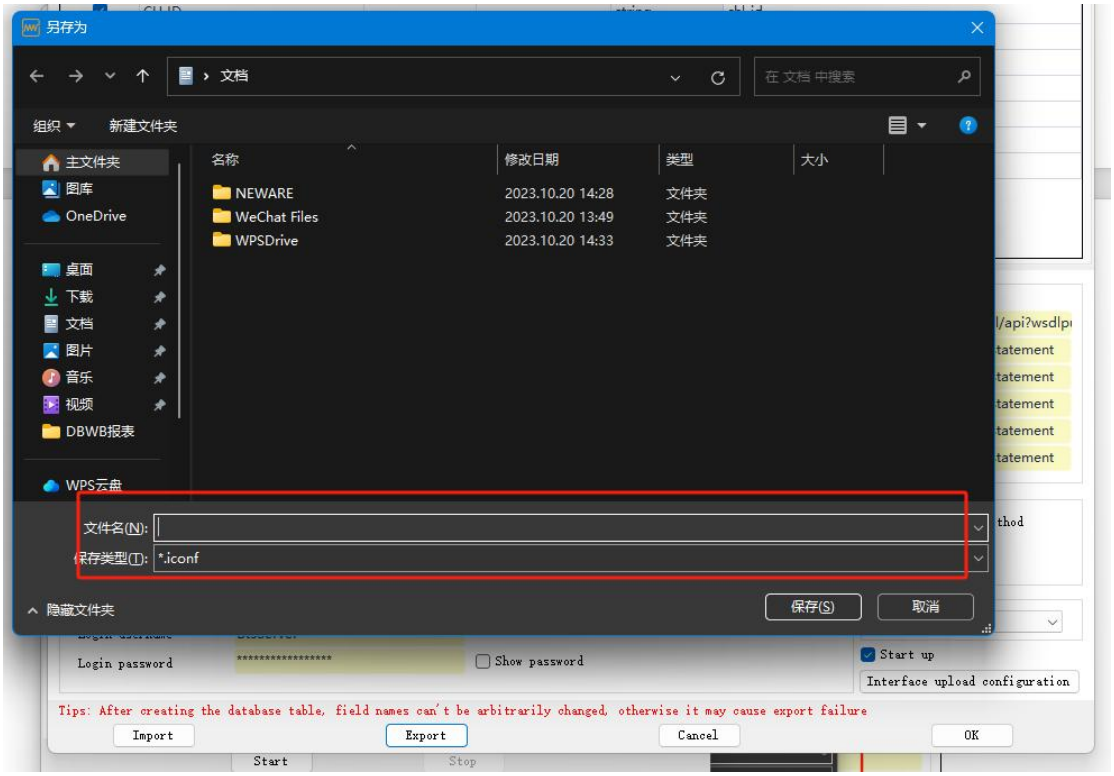


图 1. Export configuration

8.2) Import the configuration

When users install the new report software, if there are exported profiles, click Import in the [Parameter Configuration] interface and then select the corresponding one.iconf File, you can be one key configuration setting completed;

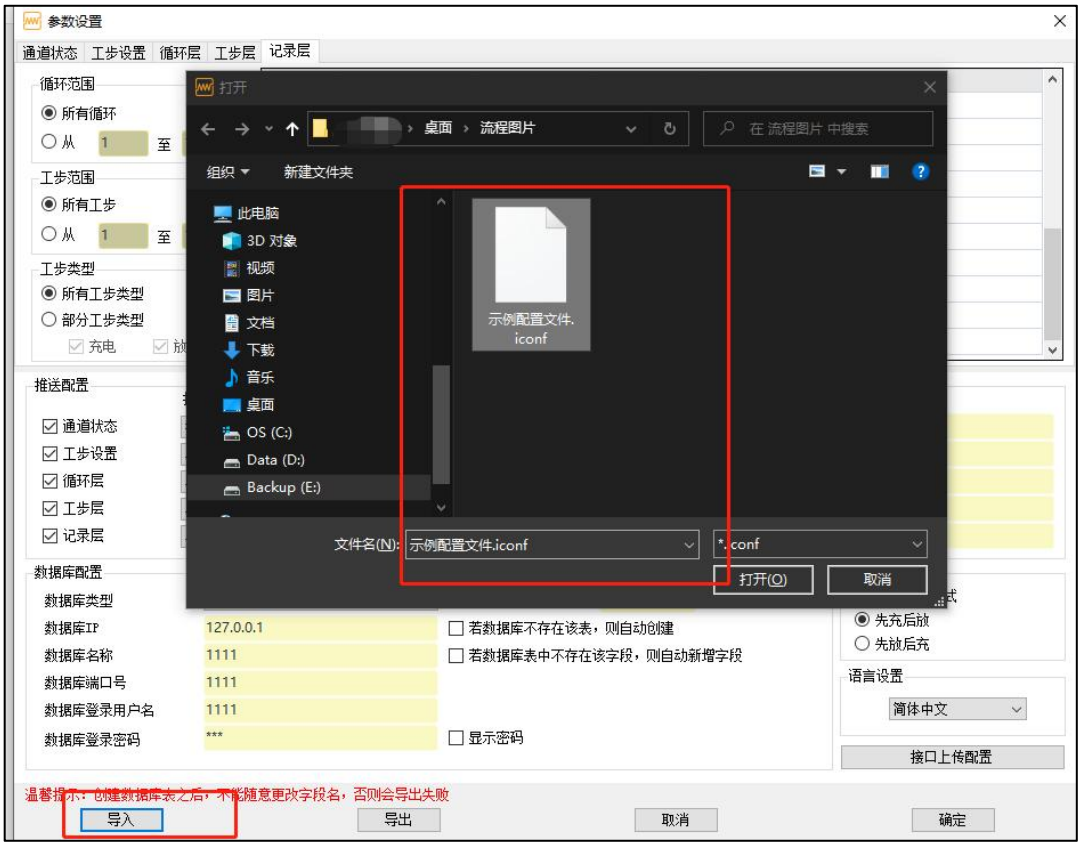


图 2. Import Profile

Step-step type field definition (step_type)

constant-current	cc_chg
constant-current	cc_dchg
constant-voltage	cv_chg
shelve	rest
finish	end
Constant current	cccv_chg
Constant power	cp_dchg
Constant power charging	cp_chg
constant-resistance	cr_dchg
Constant resistance	cr_chg
suspend	pause
simulated condition	sim
Constant current and	pcccv_chg
Constant pressure	cv_dchg
Constant current	cccv_dchg
Control step	ctrl
Pulsar step	pulse
ZiGongBu	SubStep
OCV step	OCV
Follow the step	follow