

# **NMDM-ND02**

## **BattOnline Software User Guide**



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## **Attention:**

- This manual is only for internal using.
- It needs to be approved by technology department of Huasu company before providing to other company or individual.

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The content of this manual may be modified without inform in advance.

NMDM-ND02 BattOnline Software User Guide, P/N HA-0027AAA1, REV.A0.

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# 1 Overview

BMDM-ND02 BattOnline software is the latest generation online software of Huasu Company. It adopts SQL-SERVER database on the basis of WEB browsing and its kernel also adopts concurrent Multi-threaded data processing technology which has solved big data blockage and leakage problems when applying. In the aspect of data storage, it uses the wave filtering technology to eliminate useless history data and improving the effectiveness of the data.

On user side, it adopts the visual interface design and using curve and histogram, etc to display every period variation trend of data intuitively. It can also record the discharge events and the discharge curve for both the string and also each battery completely.

In terms of the alarm, it can record the alarm time of start and end clearly.

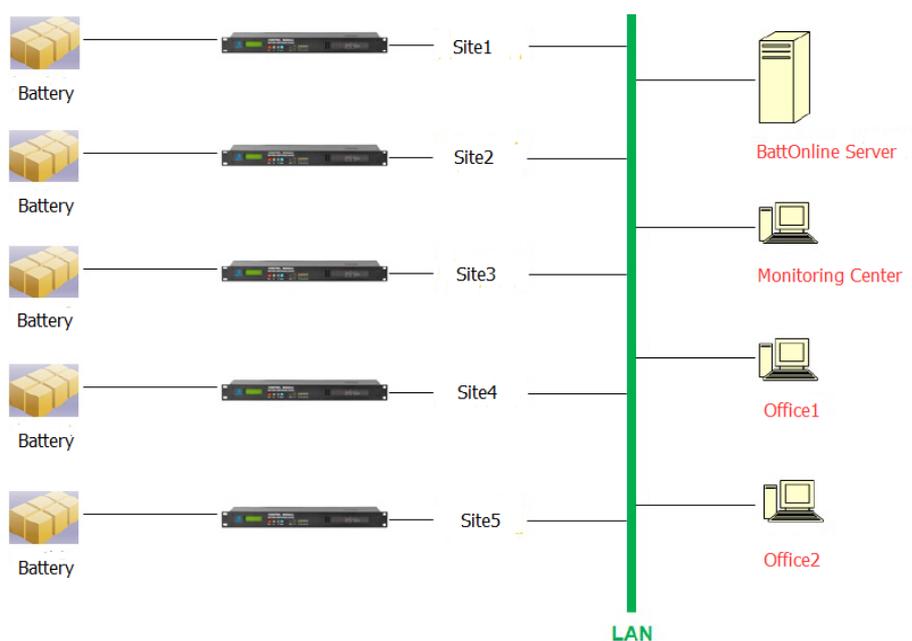
BattOnline Application:

- For those batteries which is more than 10 strings and also far distribution, it will be centralized monitoring and control;
- For those needs to be configured with the server and centralized management of data. With the WEB function, the user can check the data in real time through the IE browser;
- It is used in monitoring the batteries of power substation, communication base station and large data storage battery monitoring room;

For small battery string applications, it is better to install BMDM - S01 software which is very easy to install and no need for database.

**The system diagram for BattOnline software is as follows.**

Every site of battery monitoring equipment will collect the data and upload it to BattOnline server through the LAN. Next, the BattOnline software will save the data to the database after analysis and processing, then, the monitoring center and office can access to the BattOnline web for checking the battery real-time history data of each site through IE browser directly.



## 2 BattOnline Server Requirements

### 2.1 Hardware requirements

The configuration needs to be similar or higher than Dell PowerEdge T110, CPU with E5-2603 v3 1.6GHz and 15M, 8GB memory, 1TB hard disk.

### 2.2 Software requirements

This system needs to install the software is as follows.

- a. BattOnline software file which including file DB: BattOnline database; file Server: Monitoring server and file WEB: Monitoring web.



- b. Win7 or Win8 professional or ultimate edition; Windows Server 2003、2008;
- c. 32 bit of SQL Server 2005、2008;
- d. IIS 6.0or higher edition;
- e. IE: under IE11。

### 2.3 IP address requirements

This system need the IP address is as follows.

1 IP address of server;

If there are N sites to be monitoring, it needs N IP address.

(The station needn't the IP address only if the communication between BMS and server is under RS485 protocol.)

*Attn: Server must be specialty. Otherwise, it may needs the extra charge for software maintenance during the warranty period.*

## 3 Quick Setup

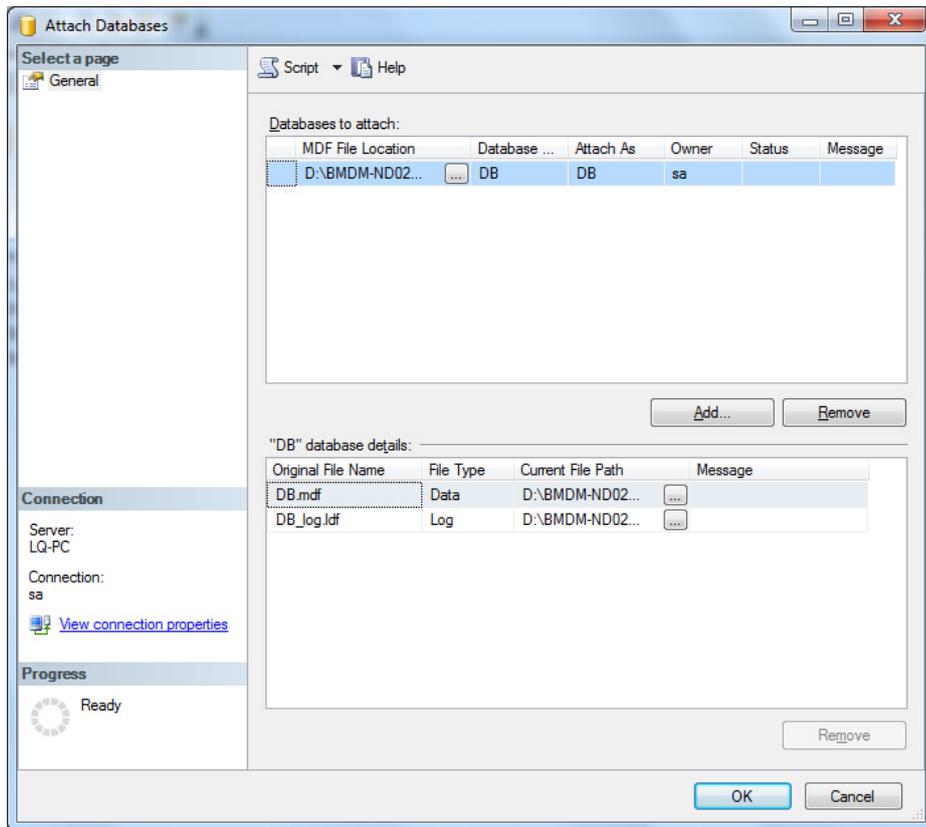
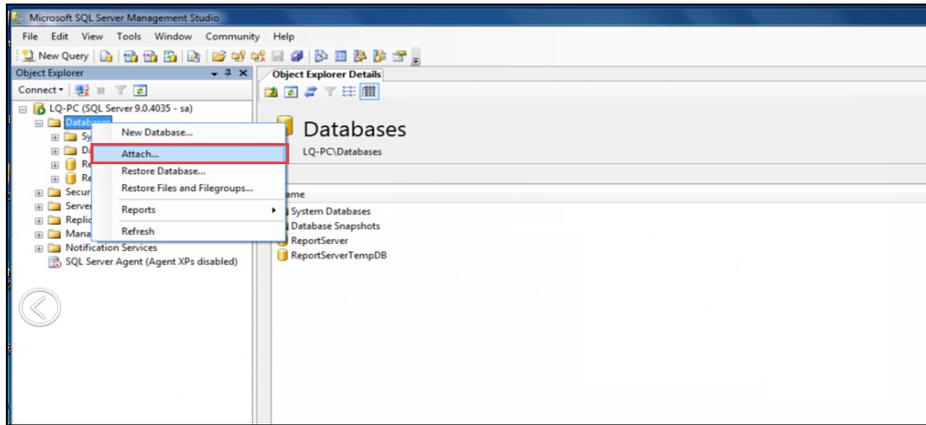
The step for quick setup of BattOnline is as follows and please refer to the detailed instructions behind point 5 when face the problems.

**Step 1.: Make a confirmation for the installation of the system & IIS completely.**

**Step 2.: Install the SQL-SERVER database.**

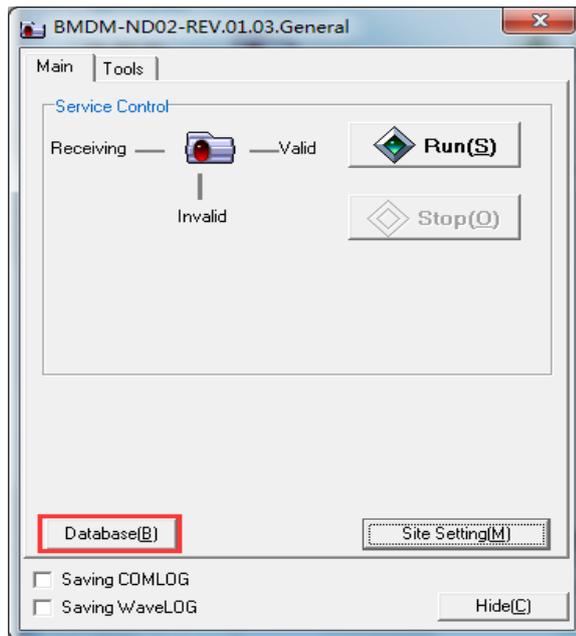
**Step 3.: Add the BattOnline database into SQL-SERVER.**

Please copy BattOnline software file to disk D or E (the space for the disk needs to be more than 200GB). After done it, all collected monitoring data of this software will be kept in this disk, then operating Microsoft SQL Server Management Studio Express, adding the file DB.mdf which is in the DB catalog of BattOnline software file into SQL-SERVER.

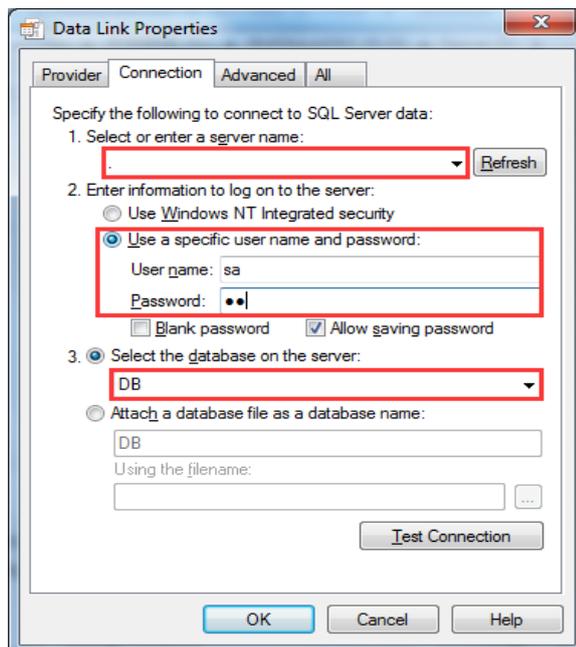


**Step 4.: Connect the monitoring server to BattOnline database**

Operating the file dprServer.exe which is in Server catalog of BattOnline software file and click “Database” on the screen;

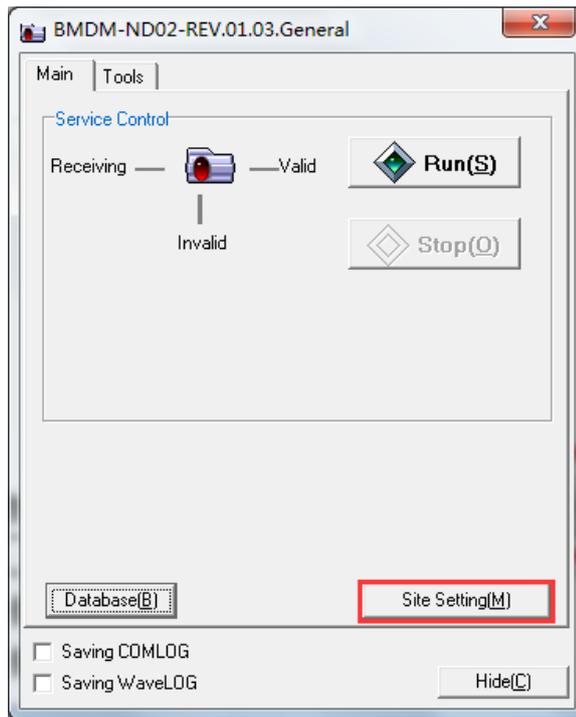


Next, selecting the name of the Server on the popping of “Data Link Properties” (". " stands for the native) and also the database login user name and password when installing SQL SERVER, and selecting the database name (the default is DB), then done the clicking “Test Connection” successfully and at last, clicking “OK” for saving.

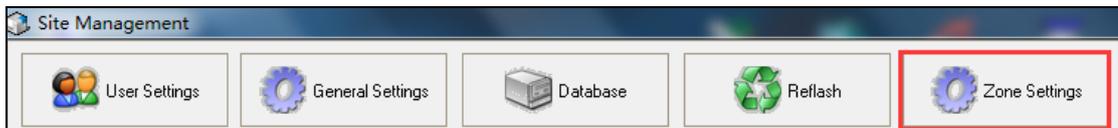


**Step 5: Creating sites and battery strings in the monitoring server.**

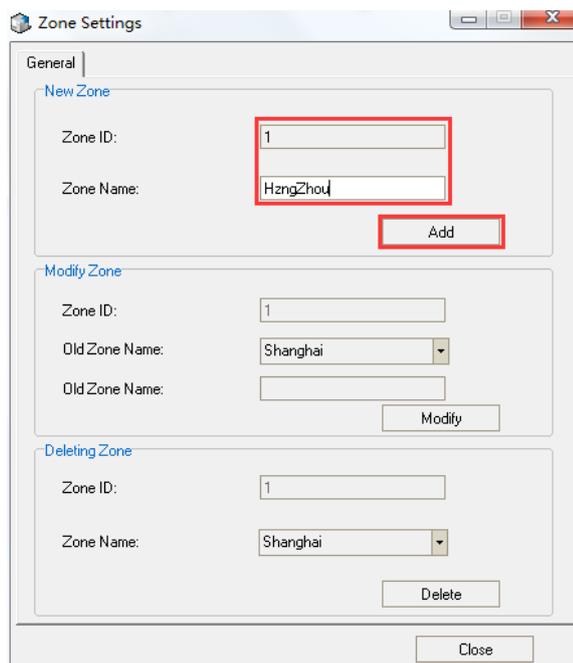
Operating the file “dprServer. Exe” which is on the Sever catalogue of BattOnline software installation package file and clicking “Site Setting” on the monitoring Server interface;



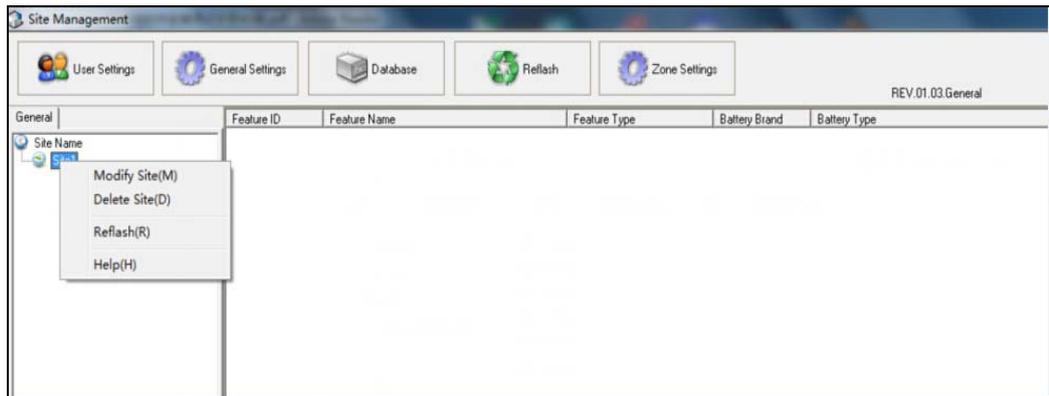
Clicking “Zone Setting” of “Site Management”:



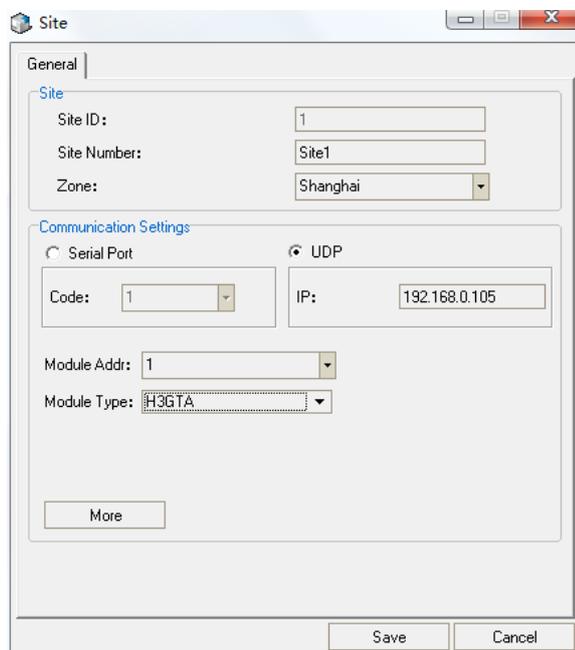
Adding new area in “Zone Settings” , an area can includes several sites and a site can also includes several battery strings. The area name will indicate on the left of BattOnline monitoring web.



On the left of Site management and click the right mouse, then choosing “Add Site” :

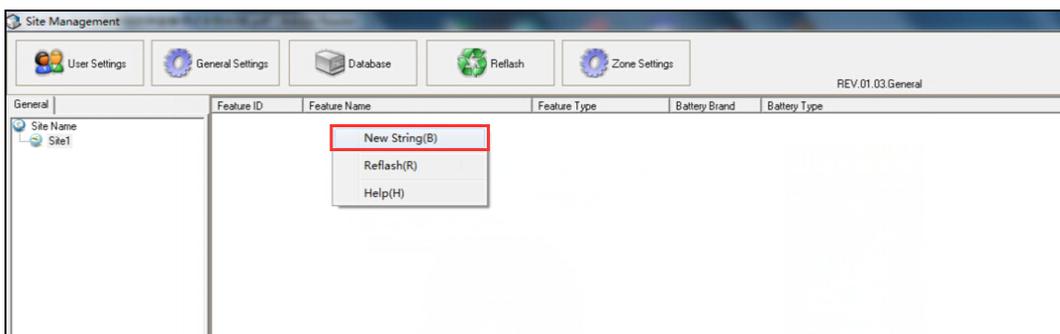


Enter with the site parameter.



In the “Communication Setting” of the site setting, if you choose “UDP” to connect the equipment, just enter the monitoring equipment’s IP which can be set on Control Module.

Clicking the new site and after clicking the right mouse on the right, choose “New String”.



Enter with every parameter of the new battery string:

This way for setting can also be used in creating several sites and several battery strings.

### Step 6.: Setting BattOnline web

Open the files which named “DBConn” and “DBConnjs” of “\BMDM-ND02 BattOnline software 0103 edition\WEB\DBConn” in notes format, amend the route behind ”File Name=” to the same with the actual route of file “DBConn.udl” and save the files.

#### DBConn:

```

<%
dim DbConn
'On Error Resume Next

'=====
Sub OpenDB ()
    Const strConnectionStringCn = "File Name=F:/BMDM-ND02/Server/DBConn.udl"
    If Not IsObject(DbConn) Then
        Set DbConn = Server.CreateObject("ADODB.Connection")
    End If
    IF DbConn.State<>1 Then
        DbConn.open strConnectionStringCn
    End If
End Sub
    
```

#### DBConnjs:

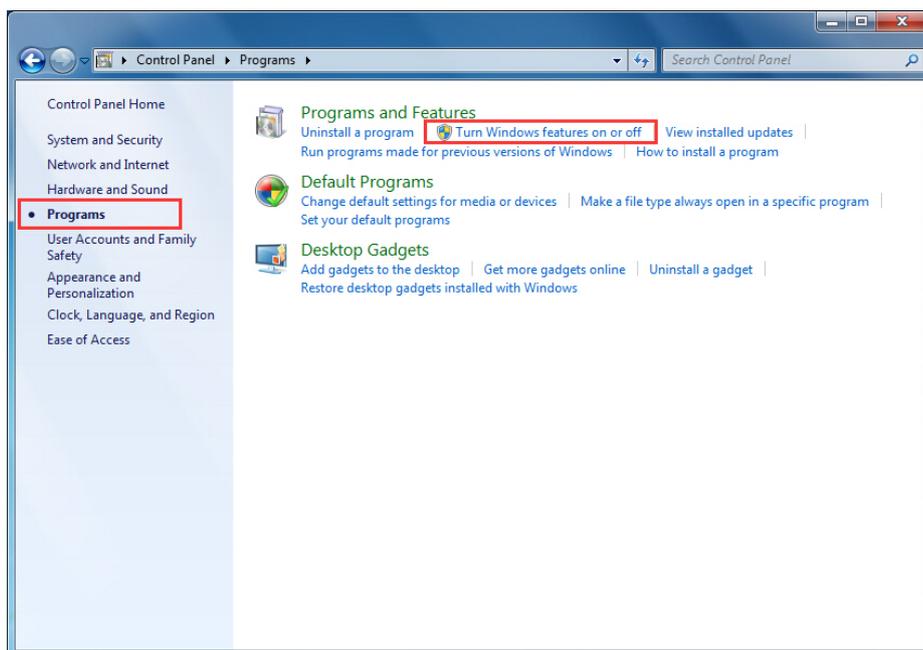
```

<% @Language="JavaScript" %>
<%
function OpenDB ()
{
    var connstr = "File Name=F:/BMDM-ND02/Server/DBConn.udl";
    var conn = Server.CreateObject("ADODB.Connection");
    conn.Open(connstr);
    return conn;
}

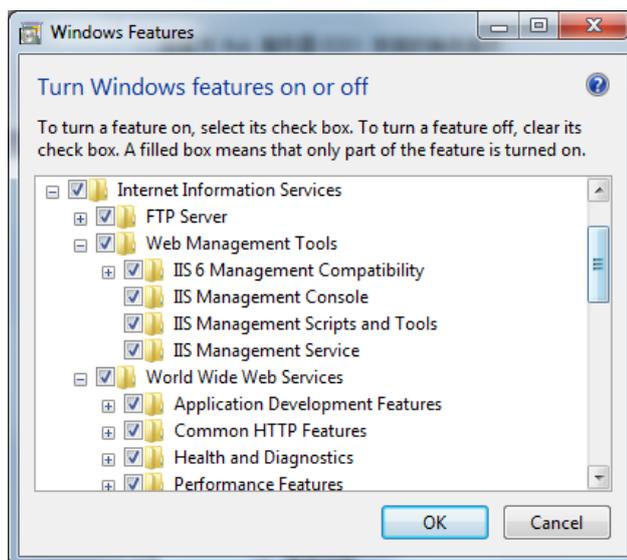
function isObject(x)
{
    
```

### Step 7.: IIS configuration

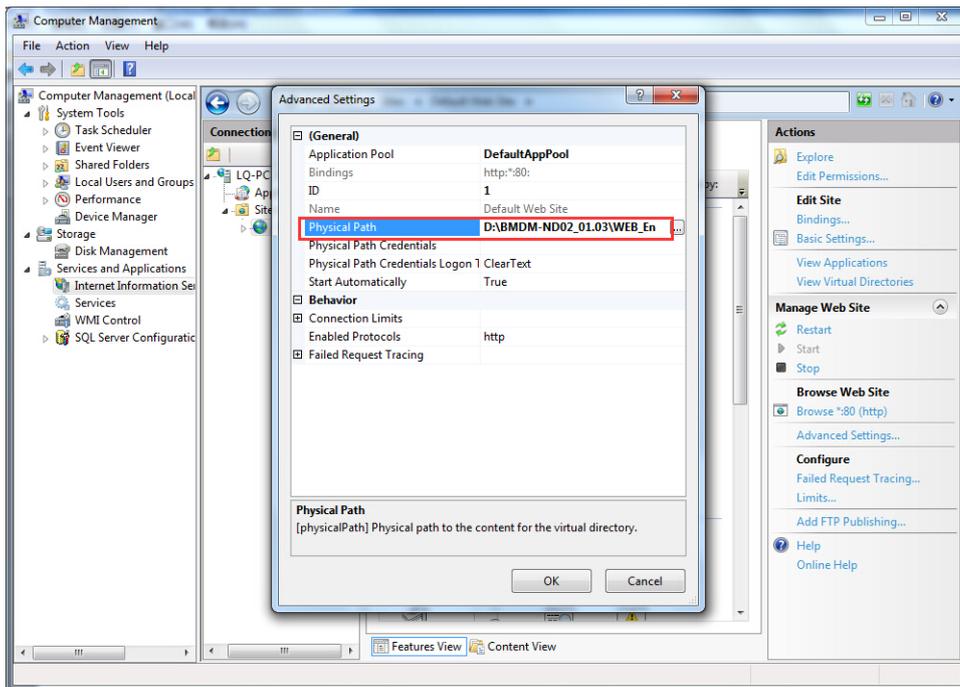
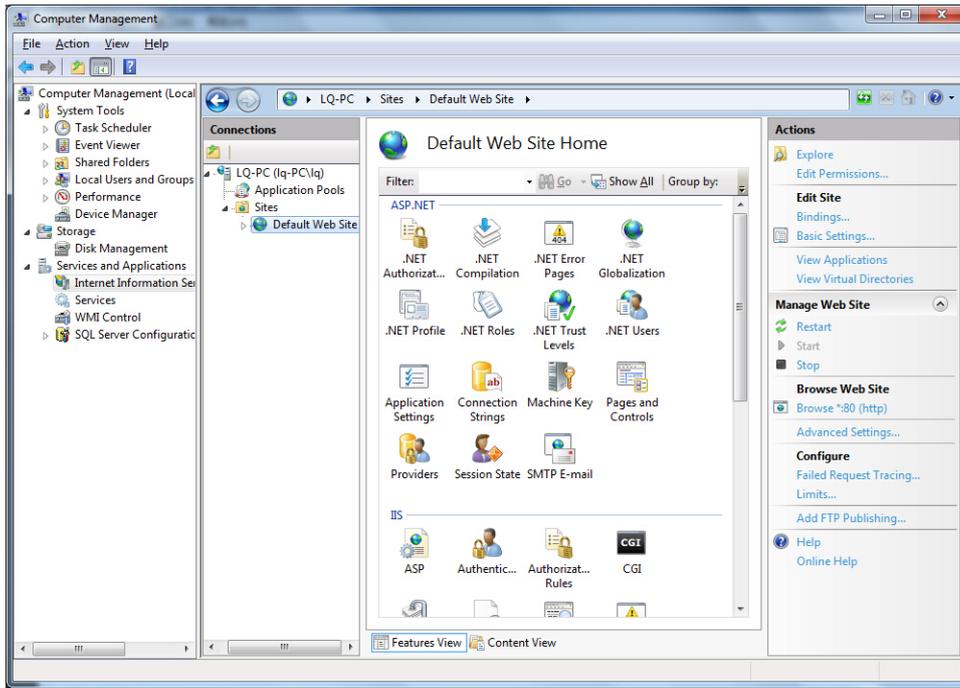
Open the control panel;



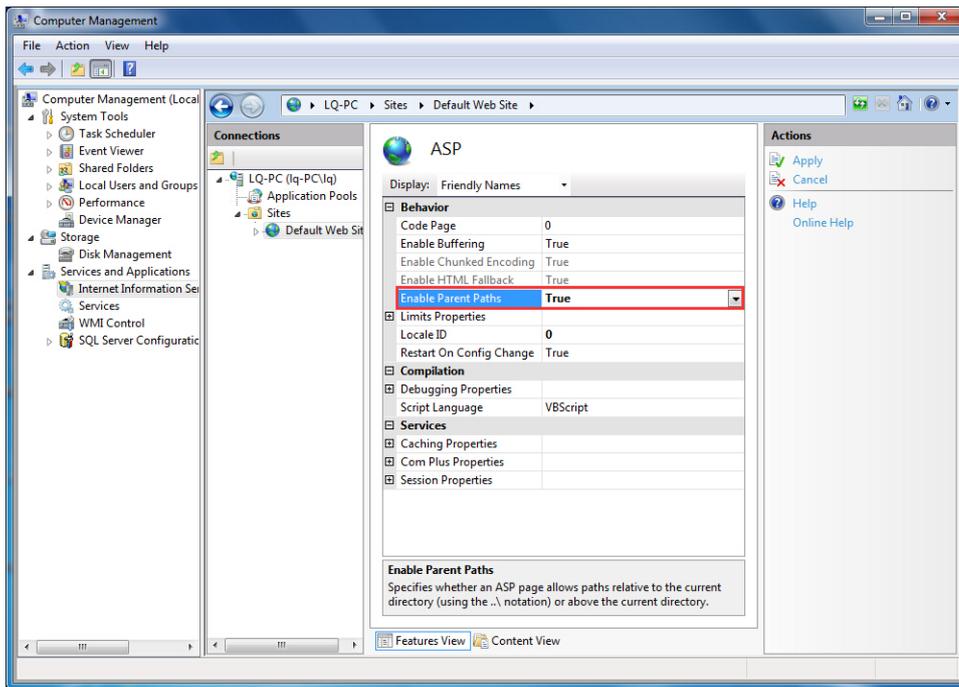
Select all the contents of item “FTP Server” , “Web Management Tools” , “World Wide Web Services” in the “Internet Information Services” to finish the installation of IIS.



Select “Advanced Setting” of the default web after done the installation IIS and change “Physical Path” to the same with the catalogue of BattOnline software web. For example, D:\BMDM-ND02 BattOnline software edition\WEB

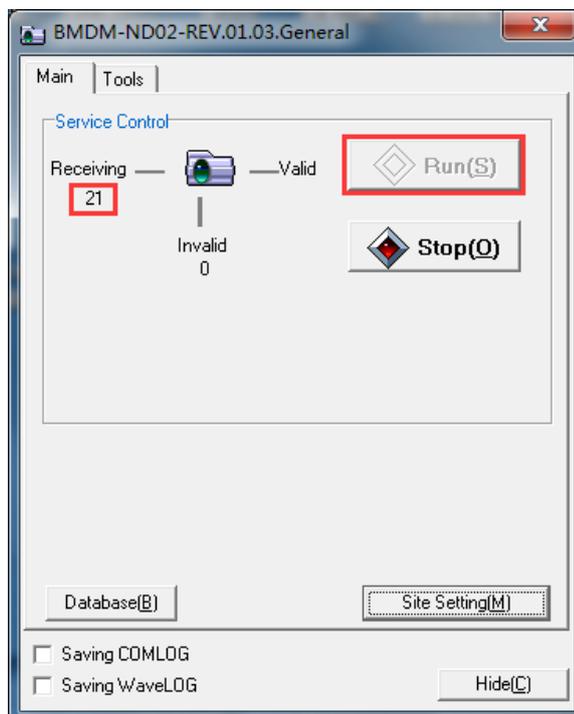


Change the property of “Enable Parent Paths” to “Ture” in the property of ASP and after done it, click “Apply” .



**Step 8.: Start operating BattOnline software**

Click button “Run” of the monitoring server; If the setting for site is correct and the battery monitoring system also connects well, behind item “Receiving” will indicates the number for data packet which is sending from the equipment side.



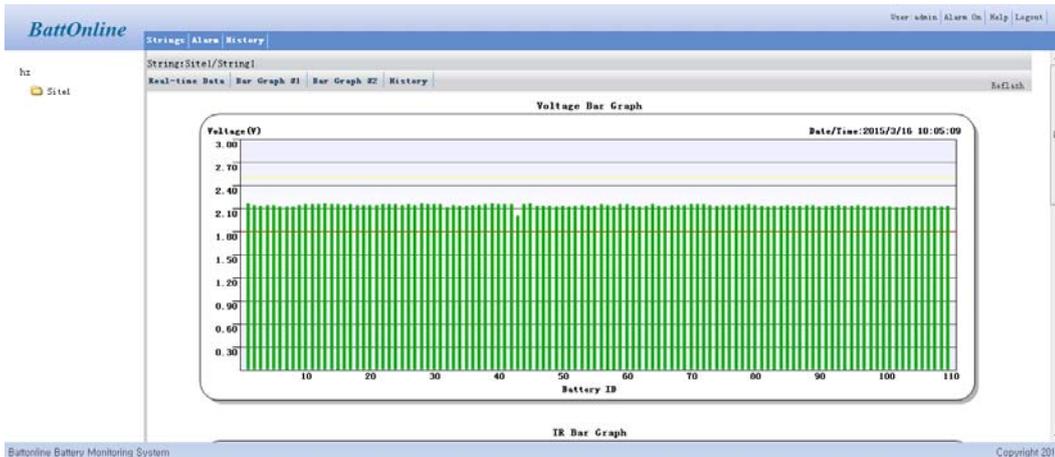
Enter the server’s IP in IE explore, you can find the login in screen of BattOnline battery monitoring web.



Both default username and password is admin. You can find the whole information states of all battery string after login.



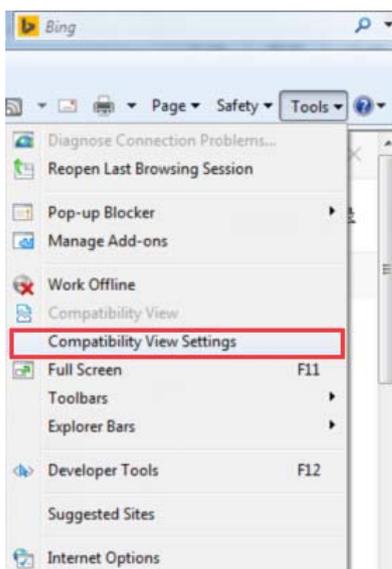
You can find the details by clicking of the battery string.



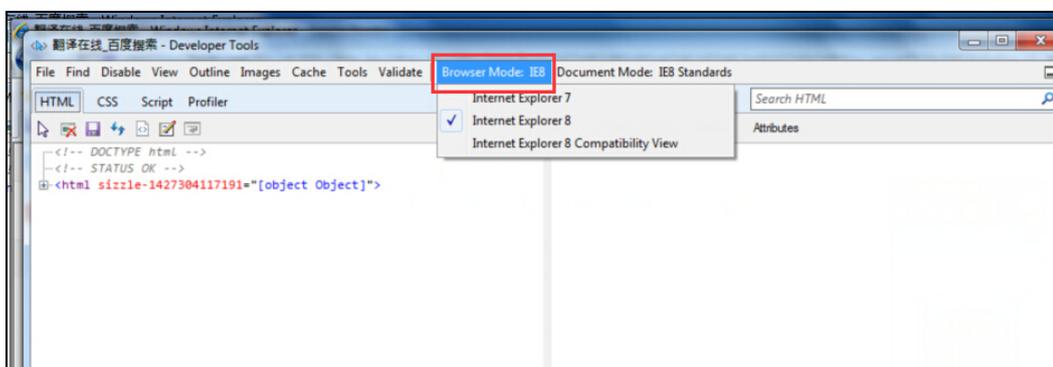
Some charts and curves of BattOnline monitoring web may not be indicated correctly by the latest IE version. You can click the icon in the red frame of the IE address bar to set.



For some of the IE version which is without the icon, it needs to choose " F12 Developer Tools" in IE Settings.

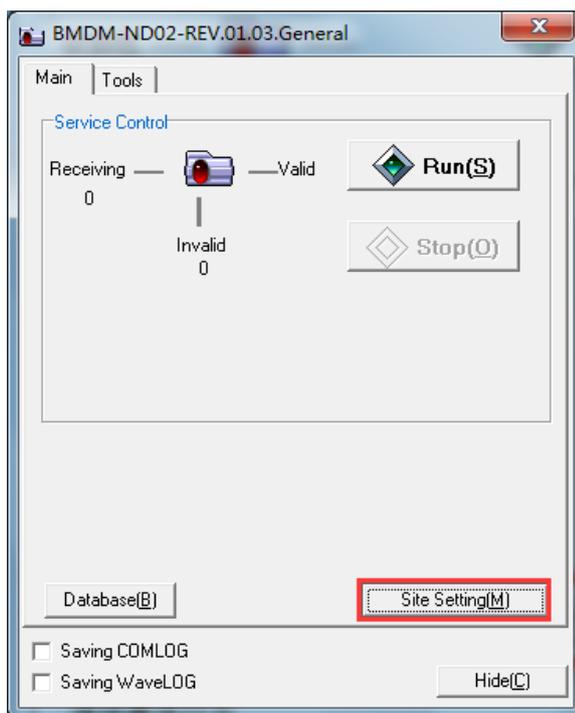


Choosing “Internet Explorer XX Compatibility View ” of item “Browser Mode” .



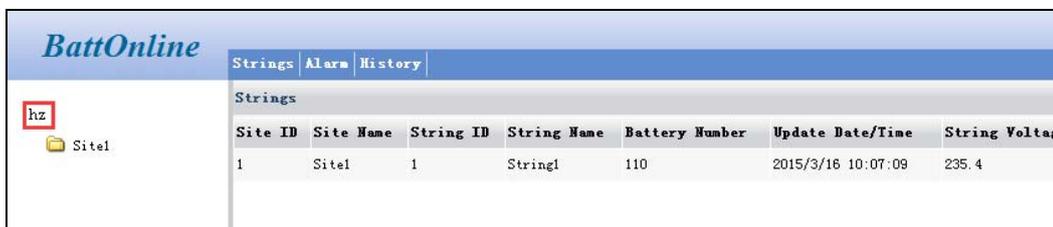
#### 4 Parameter Settings For Monitoring Site And Battery String

In item " Site Setting" of the monitoring server, you can set up new sites and the battery string, modifying & deleting the created sites and battery string.

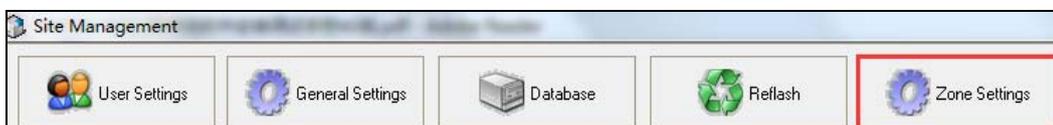


#### 4.1 Set up new zone

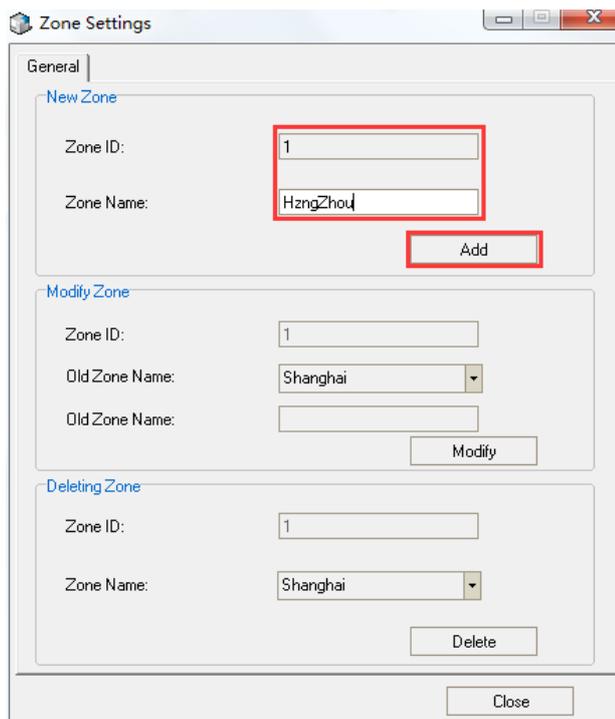
It needs to set up new zone if the setting of site is the first time. In general, it is the name for the place, company, or building. Zone includes multiple sites and the site includes multiple battery pack. The name of related zone will be indicated in the left of the BattOnline monitoring web.



Click the item “Zone Settings” of the site Management;

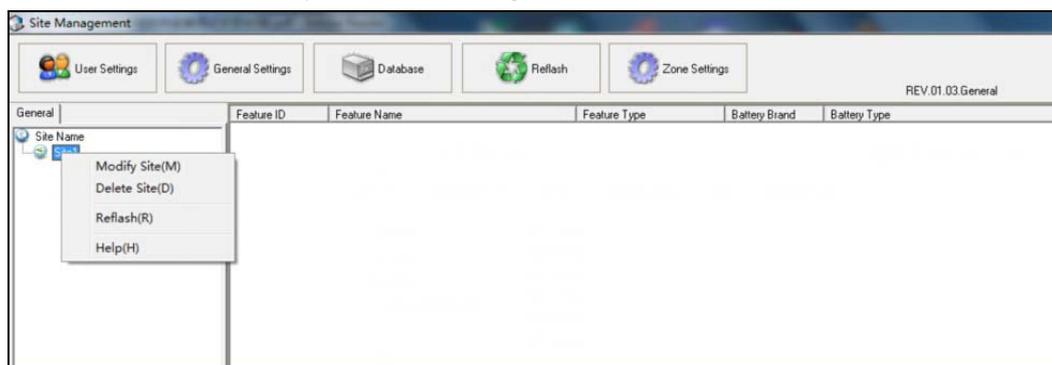


After done the enter with zone number and name of item “New Zone” , click the item "add" and the zone numbers is starting from number 1. In this interface, it can also modify and delete the name which has been added.



#### 4.2 Set up new site

Find the left of the site explorer, click the right mouse and select “Add Site” ;



Then enter with the parameter of the site and the explanation for every item is as follows.

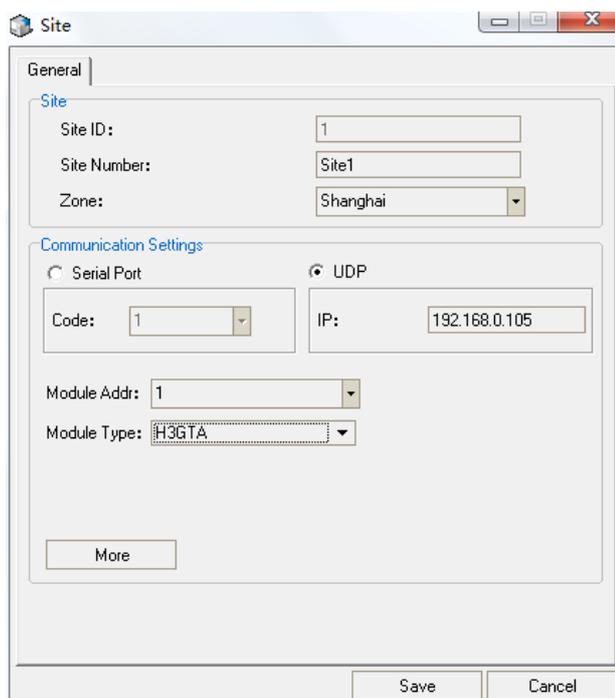
Monitoring site number: Starting from number 1; No repeat;

Monitoring site name: In general, it is the name of UPS or room, etc;

Region name: Click right button and choose the name from those created regions.

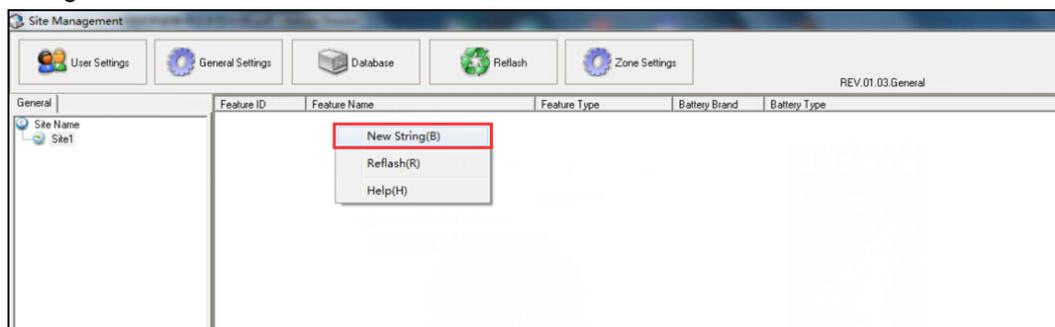
Serial Port: If the monitoring equipment of site is connected via RS485 to the serial port of BattOnline server, then choosing "Serial Port" and entering with the actual connection of the device server's serial port code in the "Code"

UDP: If the monitoring equipment of site is connected via network port to the serial port of BattOnline server, then choosing “UDP” and also entering with the IP address of the device in “IP”.



### 4.3 Set up battery string

Click the created site and then click the right mouse on the right and choosing “New String” .



Enter with each parameters of the new battery string;

#### “String”

String ID: Start from number 1;

Battery Name: In general, it showed as “no. X string” ;

Battery Brand: The manufacturer of the battery;

Battery Type: It can be found on the battery shell generally;

Battery Beginning Use: It’s the time when starting to operate after done the battery installation completely.

#### “Battery”

The data which with “\*” can be read on the related monitoring device directly. Click item “Add” for saving the data after done the reading of “Read from device” .

It can also records the data of current page to battery device. Click item “Write to device” and enter with the password 2022.

In order to keeping the parameter of the monitoring device in correspondence with the BattOnline software, we suggest to read from device.

Number: The quantity for the string;

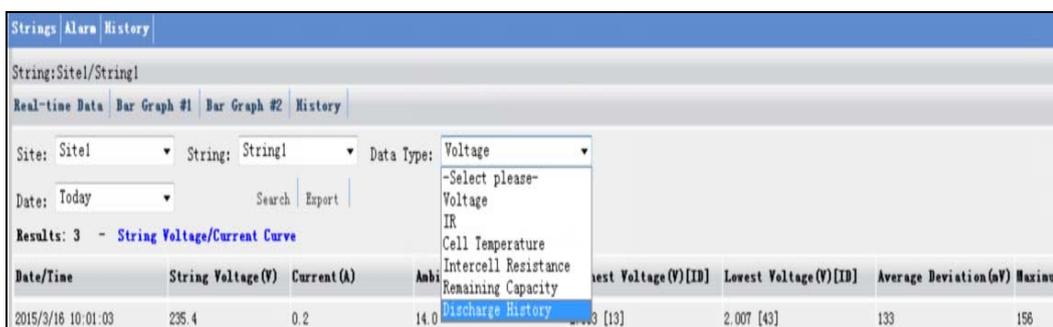
Type: In general, the cell voltage is 2V, 12V and 6V;

Capacity: It can be found on the battery shell generally;

Cell Temperature Number: It means the number of the monitoring battery temperature; If it hasn't this function, then choosing "0";

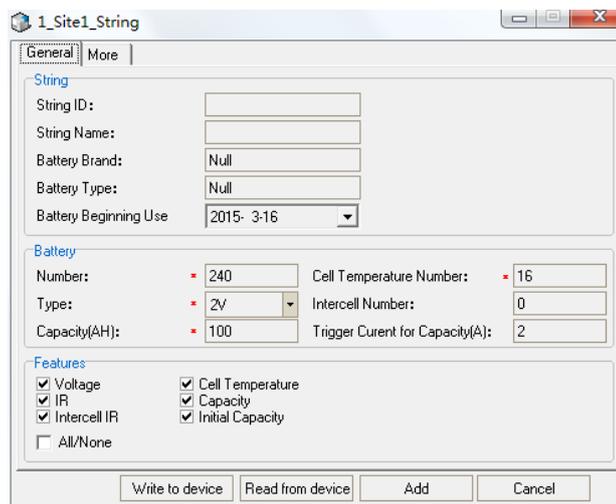
Intercell Number: It means the number of the monitoring intercell resistance; If it hasn't this function, then choosing "0";

Tigger Current for Capacity: When the battery discharge current is beyond the current value, BattOnline software will consider the battery situation as in discharging and it will be in recording mode automatically and fast recording the battery changing for every cell. When the discharge is over, it will exit the recording mode automatically and there will be a discharge record which can be found in item "Discharge History" of BattOnline web.



### “Features”

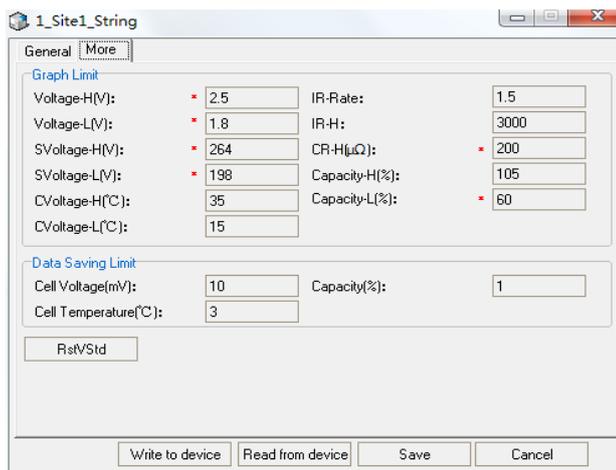
Please select the actual monitoring content and leaving the additional contents. BattOnline only indicates the selected contents.



In the item "More", the data which with "\*" can be read on the related monitoring device directly.

### “Graph Limit”

The parameter for this item is been used when indicating the chart on BattOnline web. It is used for confirming the limit of the indicating and whether the alarming decides by the monitoring device. BattOnline software can only read and indicate the alarm status.



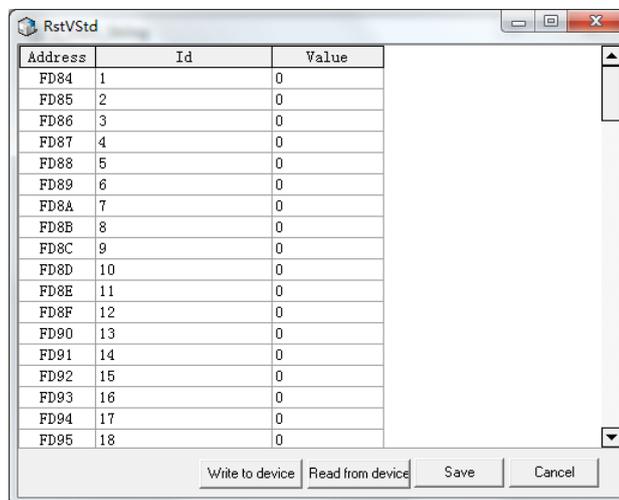
### “Data Saving Limit”

Normally, if the fluctuation of voltage, temperature and capacity is under the scope, the BattOnline software can only save the data a time for an hour. When the fluctuation is beyond the range, the BattOnline software will save the data for every time. Please do not modify these parameters unless there has special situation.

### “RstVStd”

Every battery has an data of RstVStd and we suggest the data to be read from monitoring device.

Click “RstVStd” → “Read from device” → “Save” to revise the RstVStd of the monitoring device and the setting can also be done by click “Write to device” after revising the data of RstVStd.



This way for setting can also be used in creating multiple sites and multiple battery strings.

#### 4.4 Revise & delete site and battery string

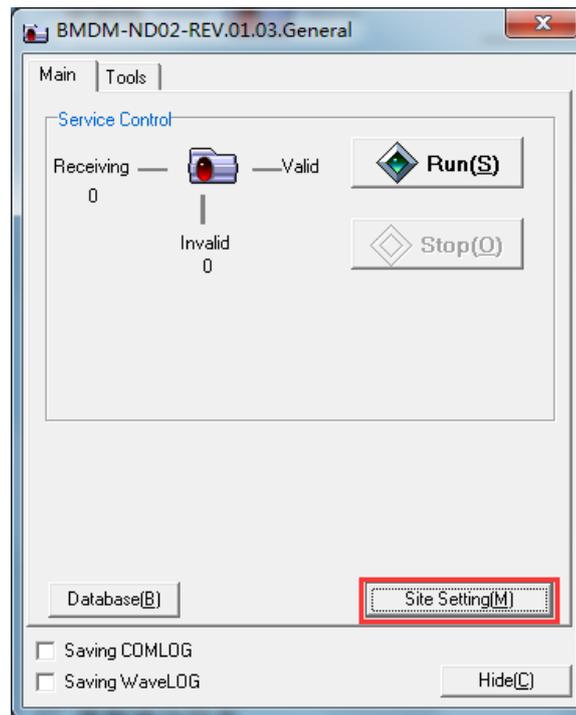
Click right mouse on the battery name or site name and click “Delete”.

## 5 User Management

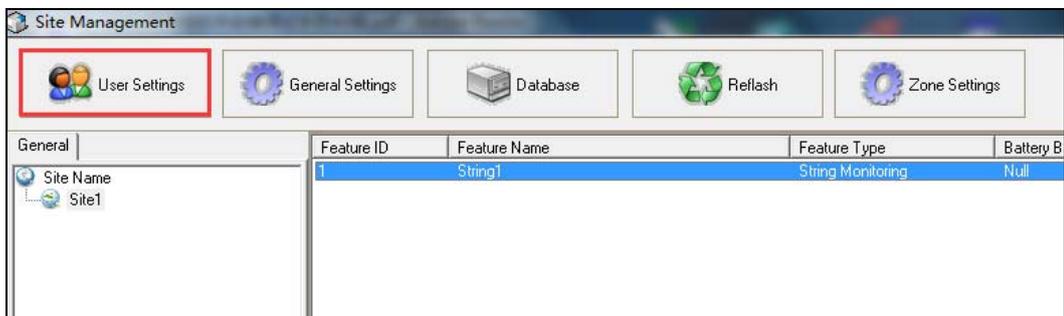
The web of BattOnline needs the user name and password to enter in, the initial user name and password is “admin” and the user can be create, amend and delete in item

“Site Setting” . The step is as follows.

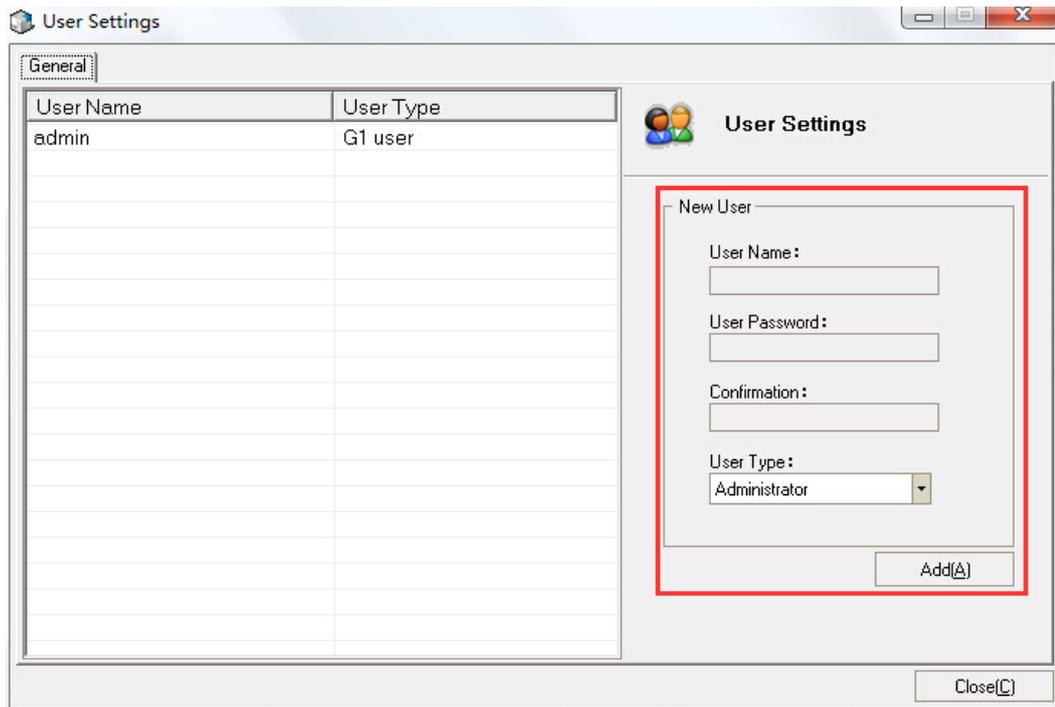
1. Press “Site Setting” in the interface of monitoring server.



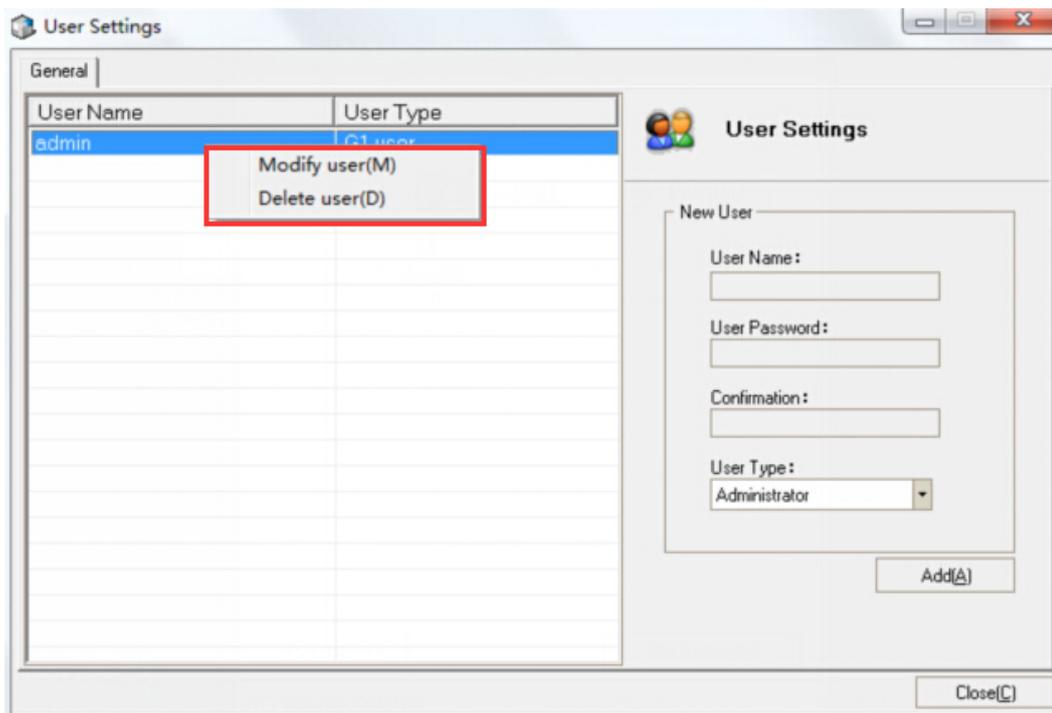
2. Press “User Settings” in the interface.



3. On the right side of the frame to add a new user; The user permissions can be choose “G 1 user” or "administrator", administrator can modified some parameters of BattOnline on web server, the function is not opened.



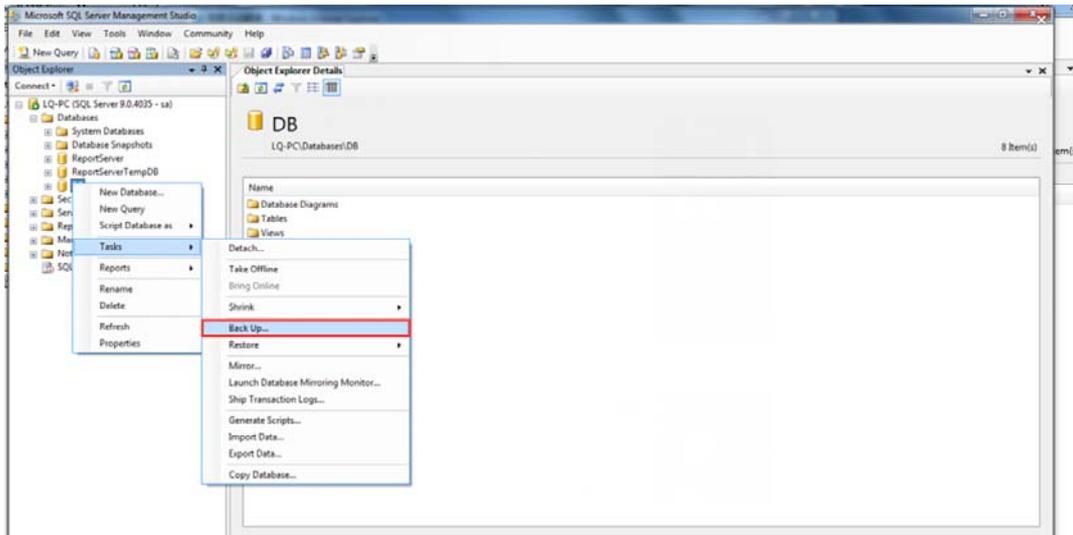
4. Selecting the user name and click right mouse, then choosing "Modify user" or "Delete user".



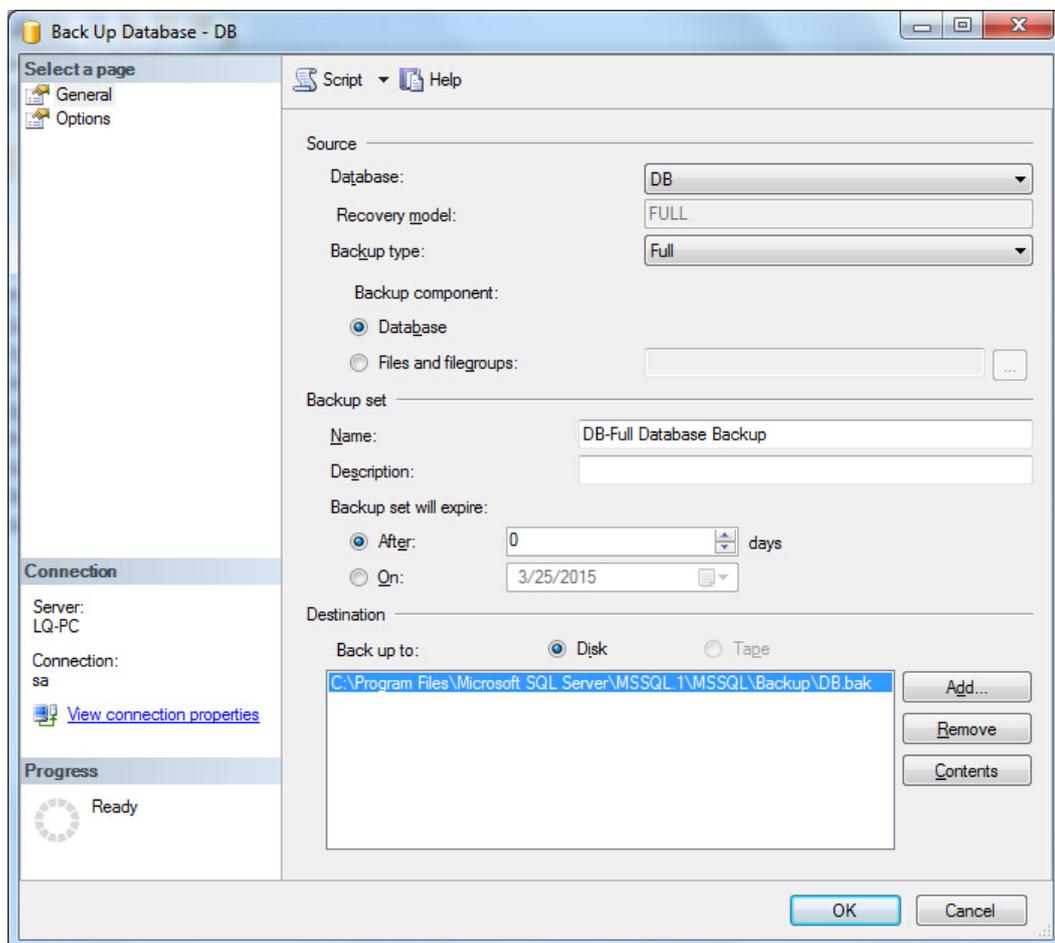
## 6 Historical data maintenance

### 6.1 Data backup and restore

It can be done under "SQL Server Management Studio Express" of SQL-SERVER. Step as follows: 1. Operating this tool software and find the left database, select the database which need to be backup. 2. Press the right of the mouse and choose "Tasks" → "Back Up", after choosing "Restore", the previous backup data will be recovery.

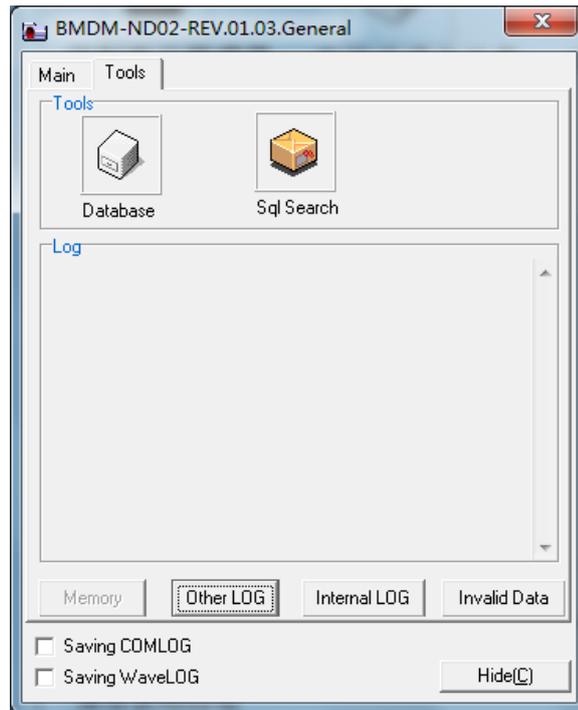


Then select the backup type to “Full” and press “OK” , the data will be kept in the file “Destination” .

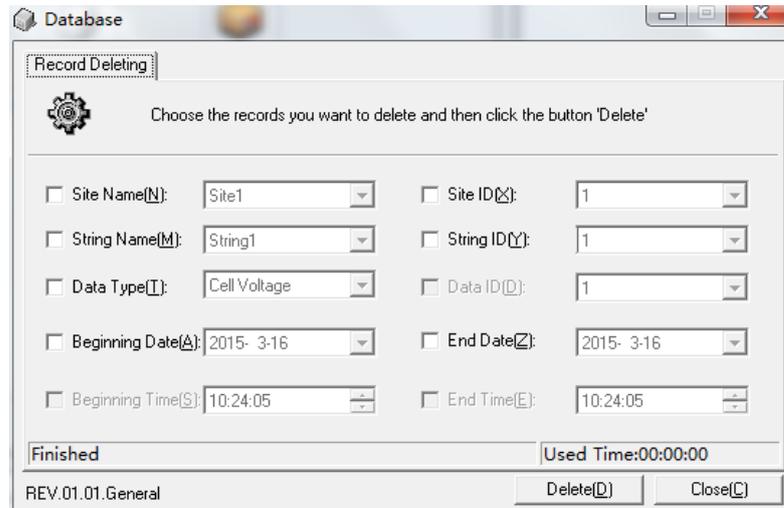


## 6.2 Data cleaning

Find the “Tools” of the monitoring server and press “Database” ;



Select site and string which needs to be clear and press “Delete” . Attn: If one item hasn't selected the content, the whole data of it will be deleted.

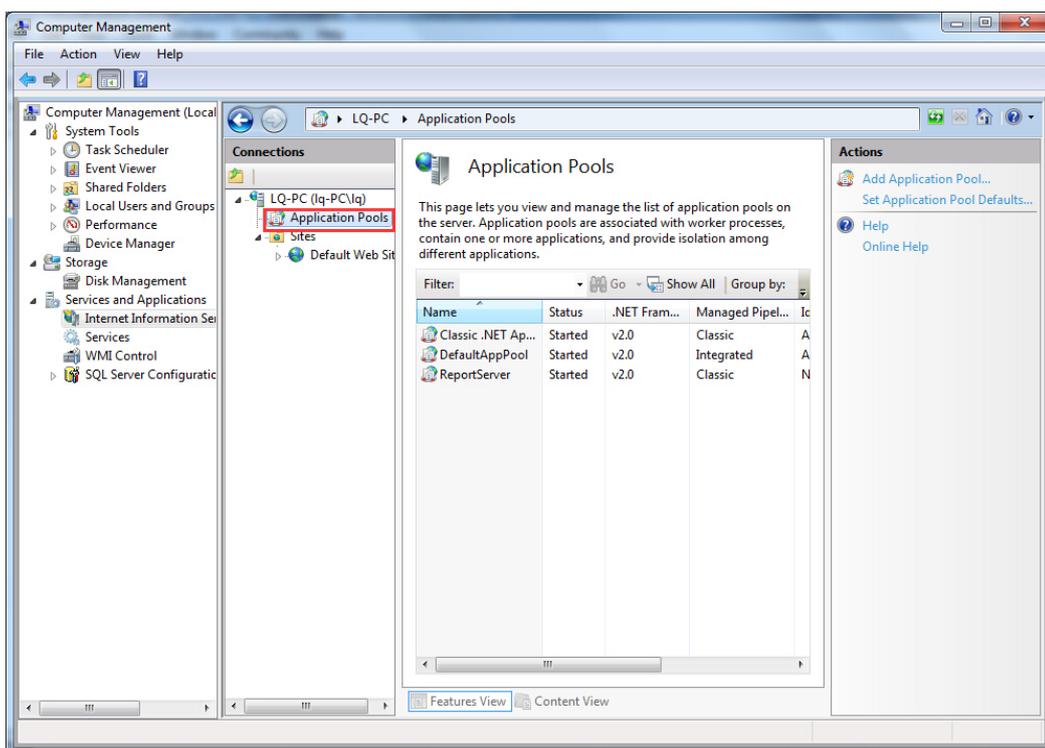


## 7 Trouble Shooting

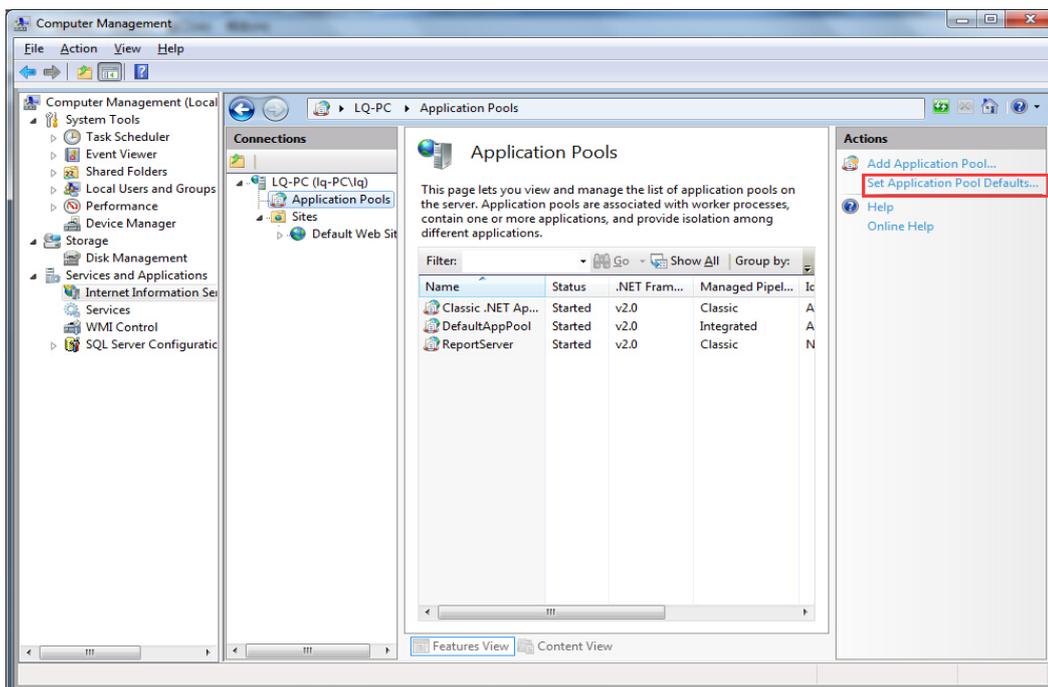
### 7.1 Install BattOnline software in 64 bit system

BattOnline software is in 32-system and it can operates in 64-system.

The setting as follows: 1. Choosing“Application Pools”of “Internet Information Service”;



2. Setting “Enable 32-bit applications” to “True” in item “Set Application Pool Defaults” .



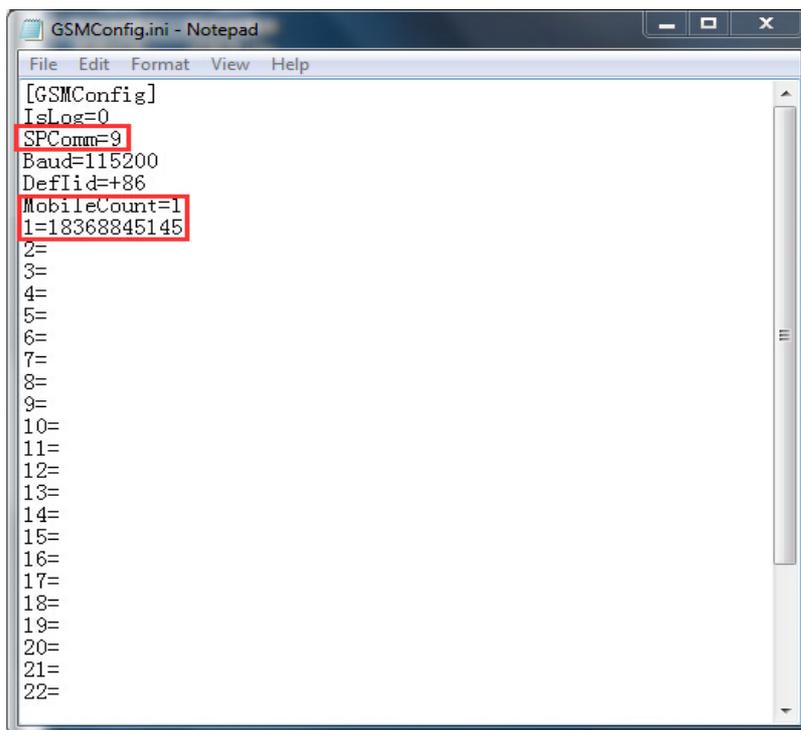
## 7.2 Way to improve data refresh time

### 7.3 Access SMS module

BattOnline software can send the alarm to multiple specified mobile phones. This function needs configure a message module to connect with the server and then do the following Settings:

Firstly, find the file GSMConfig which is in the catalogue Server of BattOnline software installation catalogue. Secondly, set the following things after open the file under notepad

format: 1. Enter the connected SMS module COM behind “SPComm= ”; 2. Enter the quantity of mobile phone which needs to receive the alarm behind “MobileCount= ”; 3. Enter the mobile phone number behind “1= ” and save.



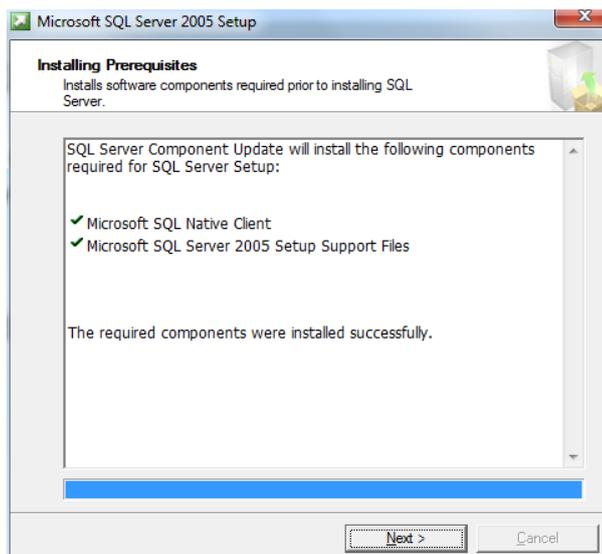
**7.4 Installation on multiple servers**

**7.5 Way to reduce monitoring data**

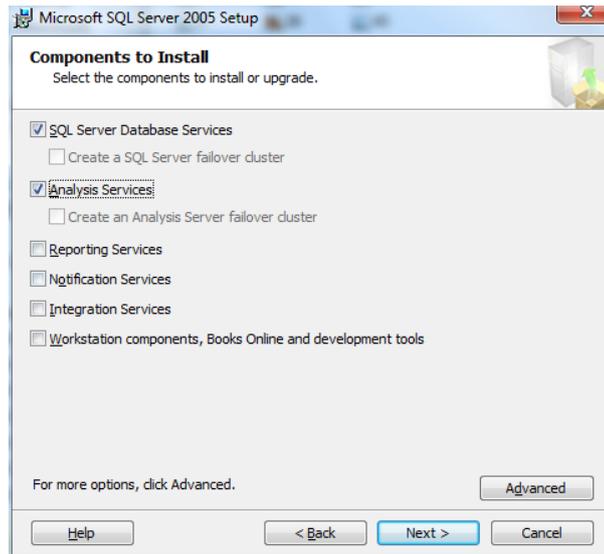
**7.6 Fault tracing**

**8 SQL-SERVER Installation Method**

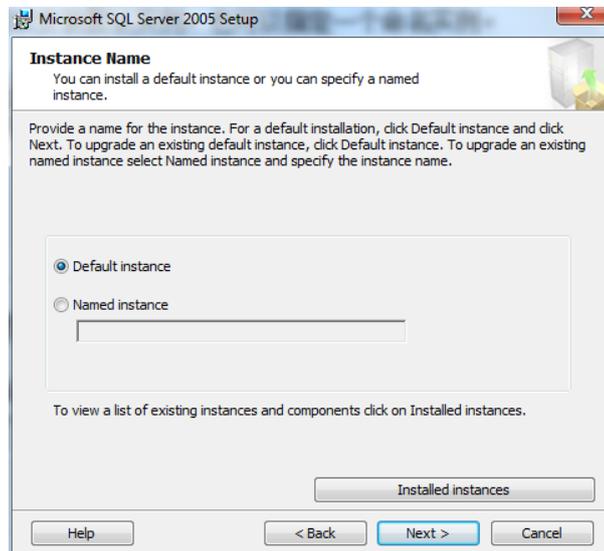
Operate the program“ SQL-SERVER” by installation disk or document.



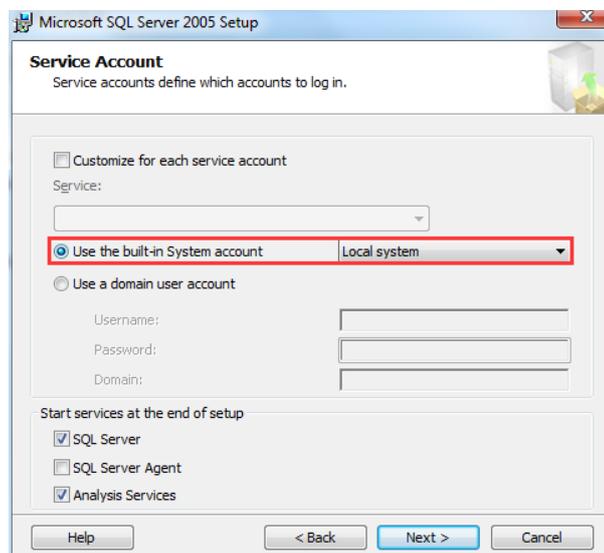
Choose the installation content.



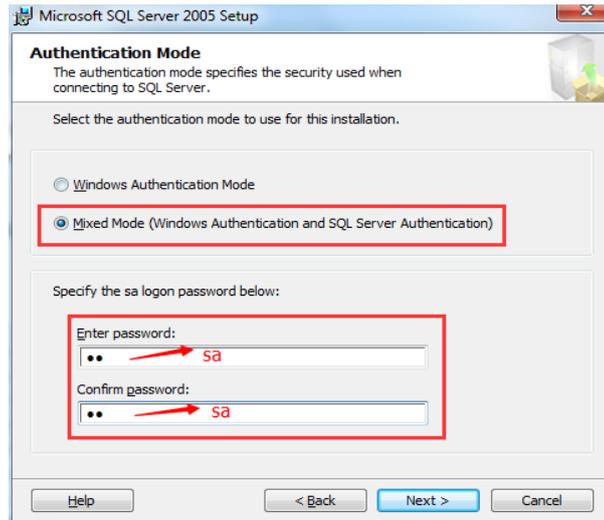
Select “Default instance” :



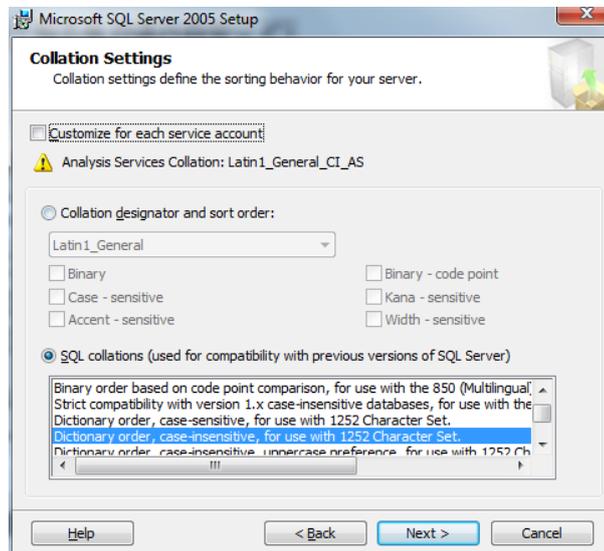
Select “Use the built-in System account” :



Select "Mixed mode" and enter with the password.



Select "Chinese\_PRC" of the item "Collation designator and sort order".



Press "NEXT" and installation will be done.

## Change record:

A0 version (20150108)