

BACnet Workstation Software

[Description]

BACsoft is a BTL listed BACnet B-AWS-level Advanced Workstation software. BACsoft via Ethernet and Internet connections to communicate with other BACnet protocol compatible devices, without limitation of the brand. It can monitor, control system equipment and provide trend log, trend log settings, schedule settings, alarm settings, and alarm history data sharing. It Facilitate cross-system controller, cross-system and cross-brand integration of different kinds of devices.

The BACsoft monitoring software provides the main program, BACnet driver, DDC Editor, SCADA interface development, web editing software, Touch HMI editing software, such as software applications and development tools. BACsoft is a full-service application software, the user is only required to learn a software application to work with AIRTEK hardware, saving system implementation time and lower the threshold for application engineers, with the highest cost performance software.

When BACsoft execution window environment workstations can simultaneously perform a variety of applications. Import Export Figure files provided, the database link, an executable program or report data for the production of a variety of third-party software-related statements and other related applications, providing energy efficiency.

Provides energy management programs, such as the schedule and the amount of control required to provide energy recording function, the data support the BACnet communication, energy management system applications, analysis of the energy efficiency, provide other building energy system information for a variety of certifications, such as LEED, Intelligent Green Building applications.

BACsoft environment software is available in English and Chinese, through intranet and Internet from a remote control or installed on a portable computer is directly connected operation. These flexible, centralized control options, can save countless hours and resources for users. Engineering and technical personnel from a central monitoring station to control all devices connected within the BACnet building construction

[Specification]

Model	Model Extension	Total Device	Total Workstation
BACsoft-AWS	-UL	Unlimited	5 or more (Need to additionally purchase MSSQL Server Enterprise Version)
	-128	128	1
	-64	64	1
	-32	32	1
	-16	16	1

Note: All BACsoft software includes both a CD-ROM and a dongle.

Hardware : USB2.0 dongle.

Software : The software main program contains BACnet driver, DDC Editor, SCADA interface development, web editing software, Touch HMI editing software such as software applications and development tools.

Operating System : WINDOWS.

Language : English, Traditional Chinese and Simplified Chinese, when switching languages, software, and operating and edit the page drop-down menu will completely into the language.

Display : No graphics quantity and resolution limitations depend only on the hard drive capacity and graphics card.

Points : Unlimited software points, with BACnet BI, BO, BV, AI, AO, AV software and other kinds of object types.

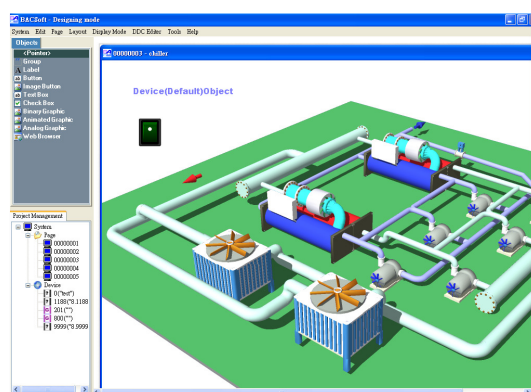
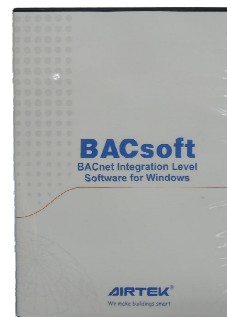
Ethernet network : Optional BACnet Ethernet (ISO-8802-2) or BACnet / IP communications.

Master-slave mode : A Client-Server mode, you can set the host workstation (Server) as the data center, other workstations accessible material.

Database : Standard embedded SQLite database that supports MS SQL and other databases.

Data Sharing : Sharing trend log, trend log setting, schedule settings, alarm settings, alarm history.

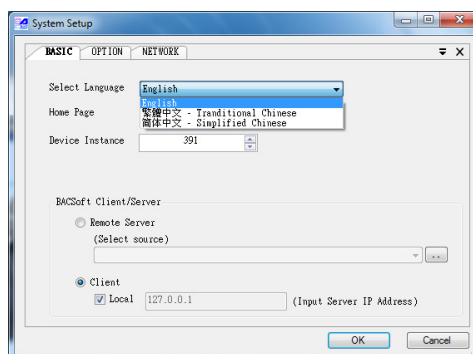
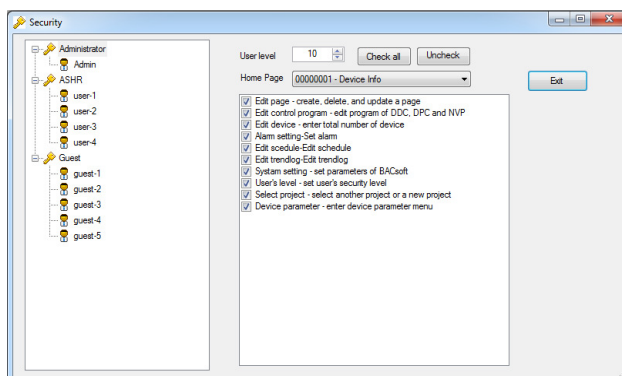
Certification : BTL(B-AWS)



【Features】

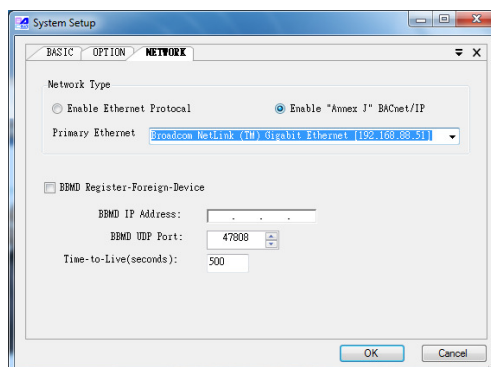
● User Management (USER ID)

- **Password management**→with administrative user ID and password protection program, you can set permissions, and an unlimited number of 10 users.
- **User Priority Management**→Setting the operating range and browsing permissions a user ID, such as monitoring points, monitoring programs, and related software layers of the controller functions such as schedule, alarm notices, trend setting record operating level.
- **Group Management**→You can set many groups and user account passwords, and set different permission levels and functional limitations for each operating group.
- **Language Selection**→Built Traditional, Simplified and English and other languages, the user can according to their own needs, a custom locale, switch languages, software, operations and editorial pages and drop-down menus will completely into the language.
- **Operation History**→Record the user out of the system and related activity history.



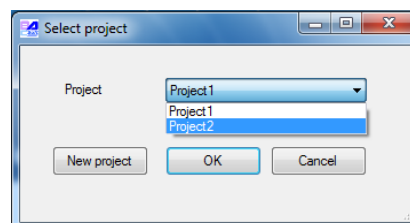
● Network Management

- **Network communication**→BACsoft work servos can be linked BACnet Ethernet or BACnet / IP communication layer communications.
- **Data Sharing**→Simultaneously share data with the MS / TP RS485, BACnet Ethernet, BACnet / IP, AIRTEK DDC, and other brands BACnet DDC.
- **Database sharing**→ Can be set to use the Client-Server architecture, so that multiple PCs share the same SQL database and share the same hardware key (License)
- **BBMD Foreign Device**→ Can be set to become BBMD Foreign Device, with BBMD devices on different network segments, which can realize BACnet network management across network segments.



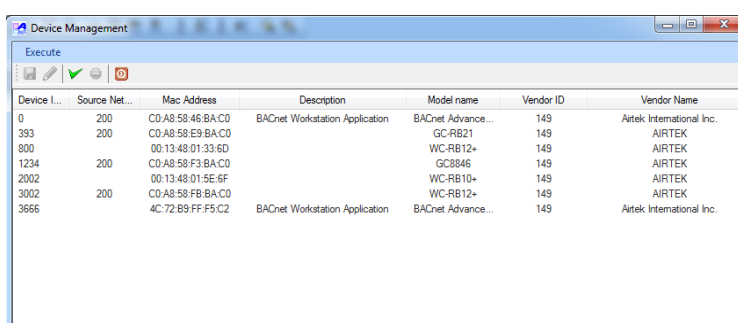
● Project Management

- **Deletions and switching**→Providing engineers can simultaneously develop and design many projects SCADA screens.
- **Data management**→Project drawing, control program, folder path, easy to manage the project.

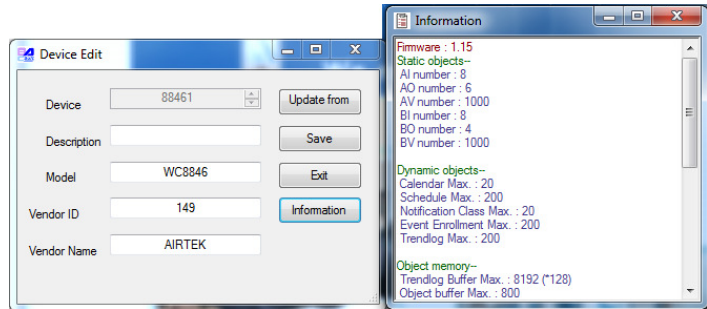


● Device Management

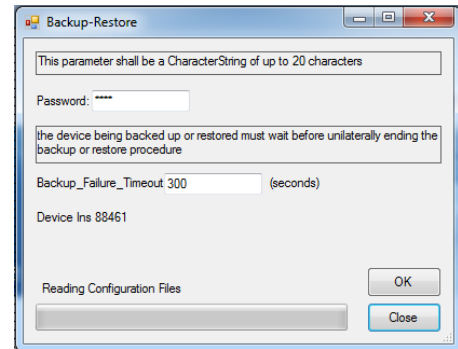
- **Device search**→Search Airtek and other brand BACnet devices on the network for application.



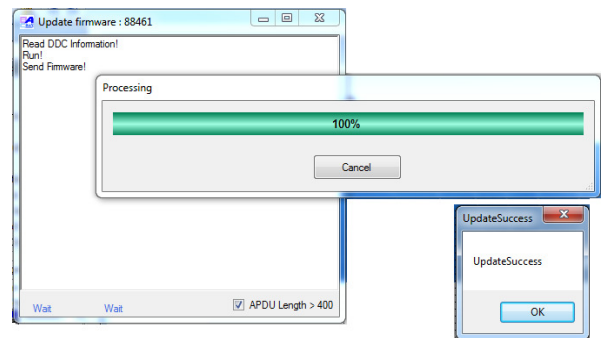
- **Data sharing**→To scan device on the network, we can get information about device numbers, network number, device type, device vender name. These information will be help for the system integration.



- **Edit control page**→To create or edit control pages for a new or exist system.
- **DDC information**→To read AIRTEK DDC specification information and the information about its firmware version.
- **DDC backup and restore**→Online backup, restore and restart a controller without interrupt the system operation. This is convenient for system update, test, and maintenance.

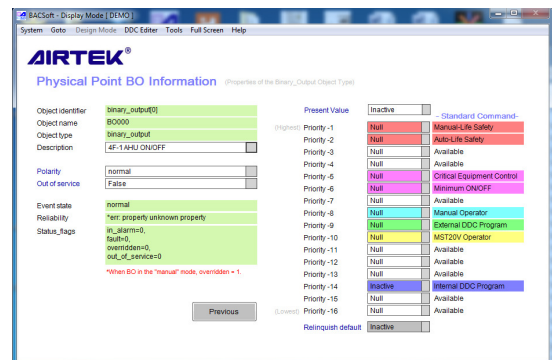


- **Device communication management**→Manage DDC communication. Set up a network device number, communication speed of each DDC. Set up DDC working or not working online.
- **Update firmware**→User can update DDC firmware online by using the BACsoft software.



● Object Management

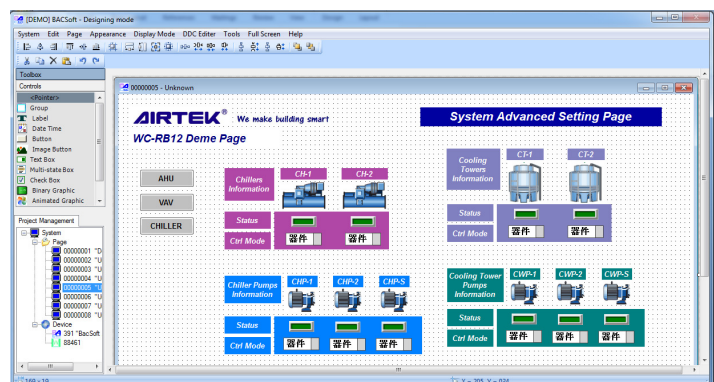
- **Object**→Standard BACnet objects contain all properties. It is a benefit for inter-system integration. Needless to add functions for these objects. Save time and money.



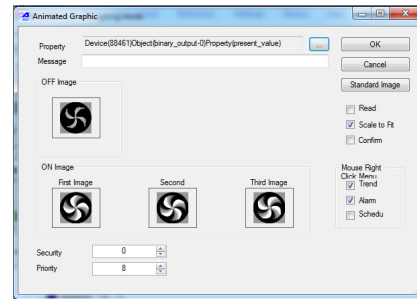
- **Description object**→This is an object for user to enter a description of this control point.
- **Priority object**→ Some object has 16 level priority array to control this point. Priority control provides control of each emergency level.

● DISPLAY

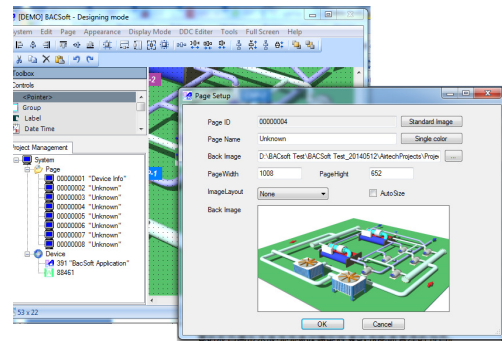
- **Online editing**→User can edit and update control pages online while all stand alone controllers in the system is running.



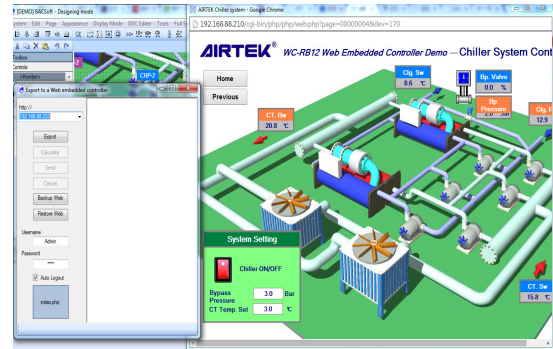
- **Graphic database**→Selectable graphic database for user to apply graphic set of running fan, On/Off switch etc.



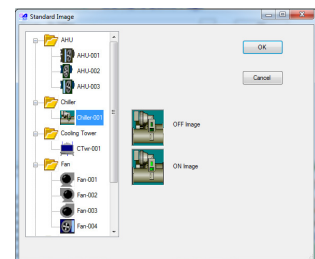
- **Touch panel**→User can design control pages and upload these control pages to AIRTEK NVT, DST, MFT, and NFT touch panel by using BACsoft.



- **Edit Web page**→User can use this software to edit some control pages, convert it into web pages, and send these web pages into a Airtek web embedded controller.

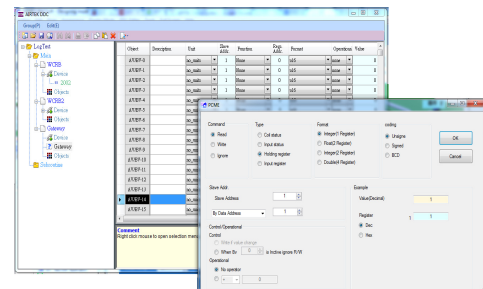


- **Control Page Management**→Page management functions like page list, setting, and save.
- **User Designed Graphic Item**→Beside the default AIRTEK graphic items. User can design or add their own graphic items to the default graphic bank.
- **Simple**→Mouse click to operate. Even though the programming can be edited by mouse click.
- **Available for many graphic types**→jpg, gif, bmp, png picture can be inserted into control pages of BACsoft.
- **Click trigger**→User can click a text or a picture to trigger a preset action.
- **Many selectable I/O objects**→BACsoft provides many graphic objects which have I/O control and other functions. These graphic objects will change its display dynamically according to the value of control point it to be assigned.



● DDC programming

- **All in one software**→BACsoft has a controller programming editor, a control page editor for the control panel, gateway point-to-point editor.



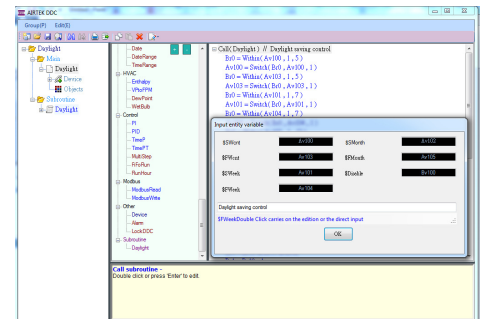
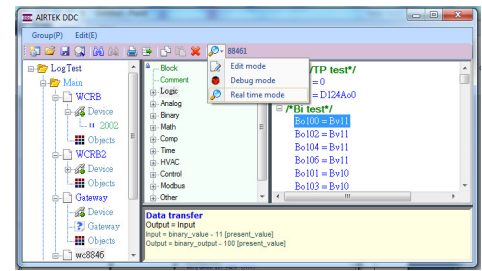
■ **Tools**→Edit, debug, and the real time status display are default engineering tools.

■ **Online edit**→Edit program of controller, upload and download program of a controller through the network of controllers.

■ **Function blocks program**→Edit program by select function blocks and enter related key control points. Function blocks include mathematic, logic, entropy, dew points, PID, and many other functions.

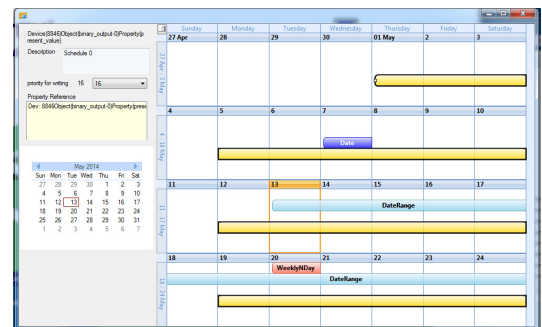
■ **Explain in program**→ Program editor can insert explaining lines in the program to make it easy for maintenance.

■ **Program group** → Program editor can select a part of a program as a group. A controller program can contain many groups. This group function is good for program management. For example, each group of program has its specific function. When an editor tries to copy this function, the editor can copy this group of program at once, instead of to figure out how many lines of the program are included.



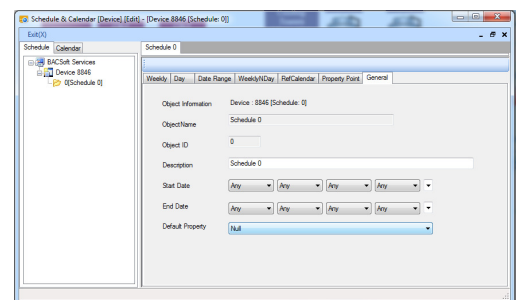
● Calendar

■ **BACnet standard calendar**→Handle calendar of various brand BACnet B-AAC class devices.



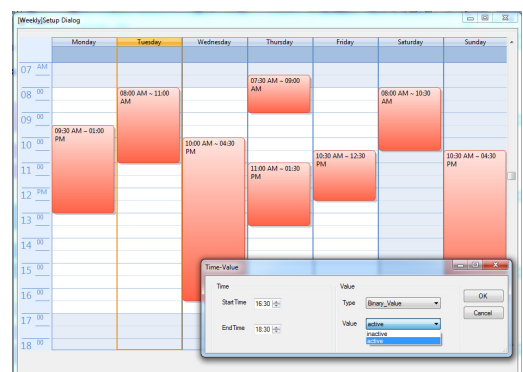
● Scheduling

■ **BACnet standard scheduling**→Handle schedule of various brand BACnet B-AAC class devices.



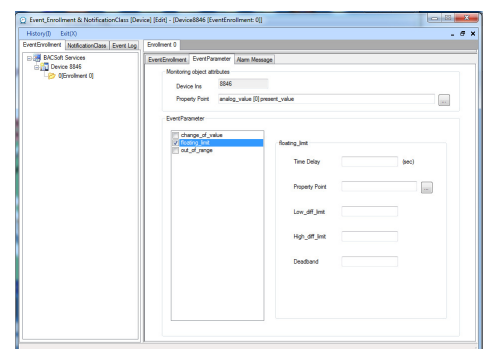
■ **Set up**→A BACnet standard visualized schedule setup tool.

■ **Various scheduling selection**→Selectable daily, weekly, special day, reference calendar, and many some other schedule functions to control status or value of a control point.

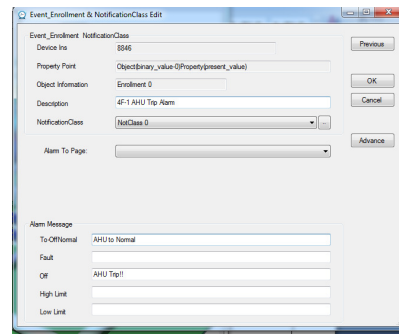


● Alarm and Event Notification

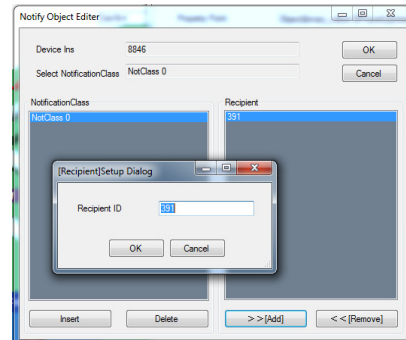
■ **BACnet Alarm and Event Notification**→Handle alarm and event notification of various brand BACnet B-AAC class devices.



- **Alarm setting**→Set up alarm for each point and include it alarm description.



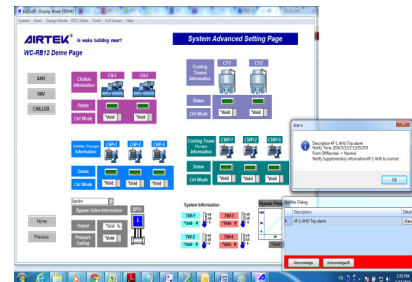
- **Notification setting**→Set alarm notification for each alarm to notify one or multiple devices when an alarm is triggered.



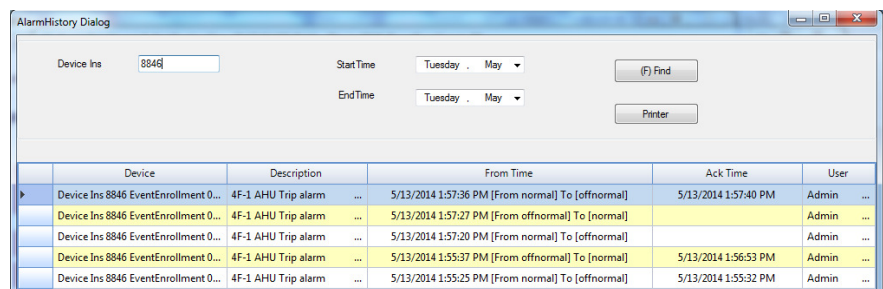
- **E-Mail an alarm notification**→BACsoft can send alarm notification emails when an alarm is triggered.
- **SMS of an alarm notification**→When an SMS device is installed in the system, user can get short message when an alarm is triggered.



- **Alarm signals**→When an alarm is happening, a pop-up windows and buzz signal will notify users.
- **Alarm message**→The pop-up alarm message will always display on the top of all windows.

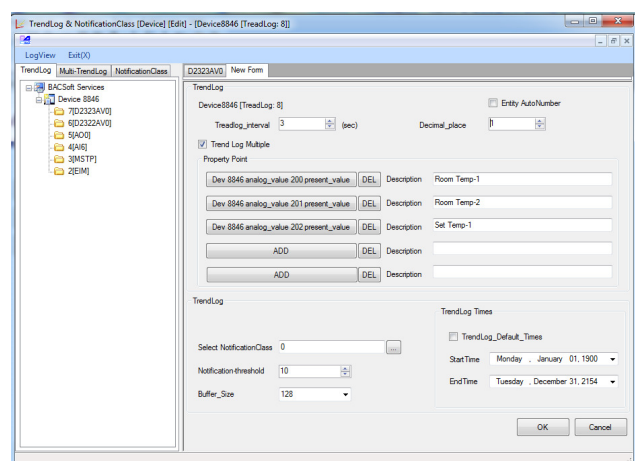
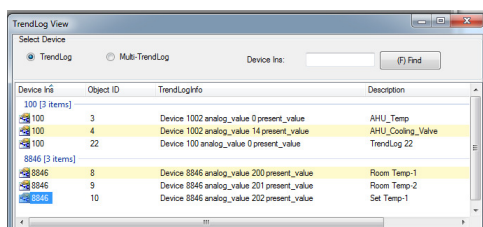


- **Alarm history**→Keep alarm history for the user to trace what happened.



● Trending

- **BACnet Trending**→Keep record of selected control points of B-BC class devices.
- **Trend log setting**→Provide a standard trend log setting tool. User can setup and check graphic trend log display.

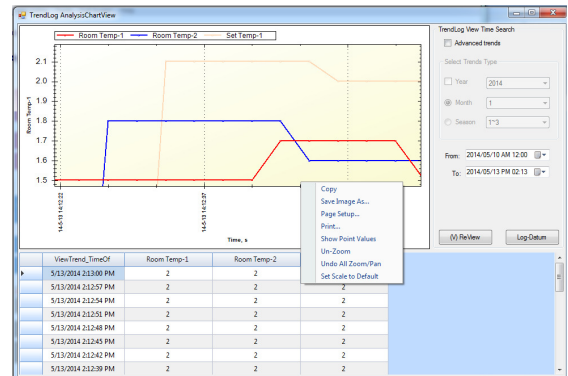


- **Display Multiple trend log data**

- **File type**→Save trend log data in the database of the software and user can save these data in selectable file type such as emf, png, gif, jpeg, tiff, and bmp.

- **Power demand**

- **Data collection**→Collect data from the database of this software and even another database.

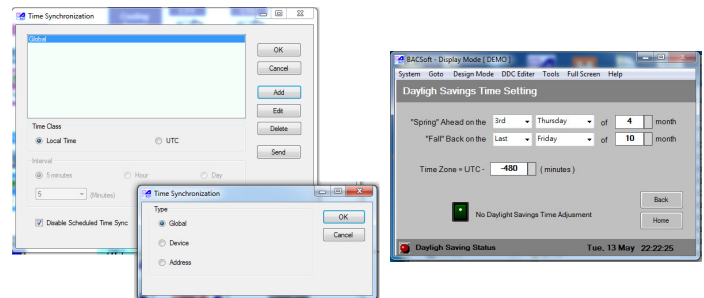


- **Real time**→Monitor the real-time system information to maintain the power consumption under the limit.

- **Time synchronization (UTC)**

- **Time synchronobization**→The software provides a time synchronization function to maintain the system time of each device.

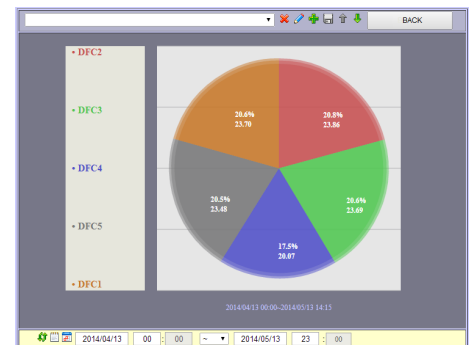
- **UTC**→When the system in connecting to the internet, users can set BACsoft to get UTC time from the internet and apply it to the system.



- **Building Energy Management system (BEMS)**

- **BEMS Embedded**→Support AIRTEK Embedded BACnet Building Energy Management system setup function.

- **Database**→SQLite or MS SQL database available.



- **Report**

- **Output**→To a display, a printer, or a file.

- **Multi reports**→Generate running status, operator login and operate record, trend log, and other data reports.

- **Selectable report period**→Daily, weekly, monthly, yearly report.

Index	Trend Time	Room Temp-1	Room Temp-2	Set Temp-1
1	5/13/2014 2:18:42 PM	1.70	1.20	2.00
2	5/13/2014 2:19:39 PM	1.70	1.20	2.00
3	5/13/2014 2:19:36 PM	1.70	1.20	2.00
4	5/13/2014 2:19:33 PM	1.70	1.20	2.00
5	5/13/2014 2:19:30 PM	1.70	1.20	2.00
6	5/13/2014 2:19:27 PM	1.70	1.20	2.00
7	5/13/2014 2:19:24 PM	1.70	1.20	2.00
8	5/13/2014 2:19:21 PM	1.70	1.20	2.00
9	5/13/2014 2:19:18 PM	1.70	1.20	2.00
10	5/13/2014 2:19:15 PM	1.70	1.20	2.00
11	5/13/2014 2:19:12 PM	1.70	1.20	2.00
12	5/13/2014 2:19:09 PM	1.70	1.20	2.00
13	5/13/2014 2:19:06 PM	1.70	1.20	2.00
14	5/13/2014 2:19:03 PM	1.70	1.20	2.00
15	5/13/2014 2:19:00 PM	1.70	1.20	2.00

- **AIRTEK BMCS Architecture**

