Building Management System
savic-net™ G5

■ Overview

savic-net™ G5 is Azbil Corporation's latest* building management system.
The savic-net G5 system consists of the supervisory devices, primary devices, and secondary devices.

- Supervisory devices
  Supervisory devices integrally monitor and control the whole system.
  The Supervisory Controller, Network Attached Storage, etc. are included. The Supervisory Controller aggregates information from primary devices and provides the information required for comprehensive monitoring and control of the whole system to a Client PC.
- Primary devices
  Primary devices communicate with the Supervisory Controller directly and control the air conditioning facilities, plumbing facilities, central plant facilities in buildings. The General Controller, Advanced Controller for Chiller Units, Advanced Controller for Pump Units, and Advanced Remote I/O Module are included.
- Secondary devices
  Secondary devices communicate with the primary devices and control facilities such as the FCU and VAV. The FCU Controller, Infilex VC, etc. are included.

Every product features state-of-the-art functions and the ability to build a proven quality system environment that provides stability for long periods of time.
To ensure support for operations by building management personnel, this system has a variety of functions that allow both general administrators and system administrators to use the system effectively and efficiently. This achieves an environment for monitoring, management and control operations that is more appropriate and beneficial than in the past.
In today's world where integrated systems using open communications are mainly used, more complicated system integration management is required in addition to the simple integration of point monitoring. When a variety of devices are connected, or interlocked control or data management extends across multiple devices, savic-net G5 will subsume the functional differences among the devices to realize control and operations without restrictions.
People around the world have a common desire to preserve the natural environment. With the wealth of energy-saving functions that savic-net G5 offers, this system allows users to take the lead in reducing the energy consumption of building facilities.

* As of March 2025.

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Restrictions on Use

This product was developed, designed, and manufactured for general air conditioning use.

Do not use the product in a situation where human life may be at risk or for nuclear applications in radiation-controlled areas. If you wish to use the product in a radiation-controlled area, please contact Azbil Corporation.

Particularly when the product is used in applications like the following where safety is especially required, implementation of fail-safe design, redundant design, regular maintenance, etc., should receive appropriate consideration so that the product can be used safely and reliably.

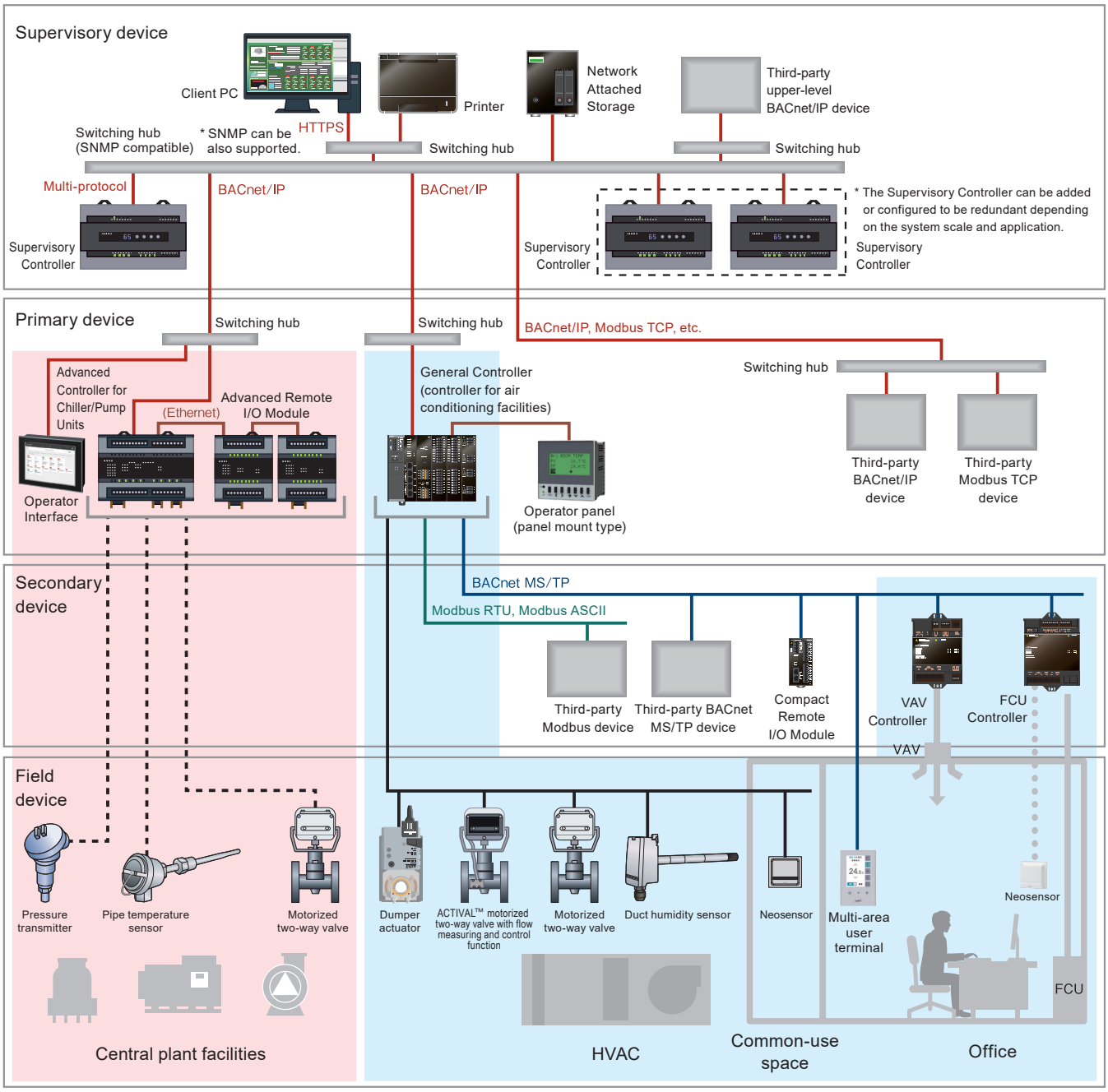
- Safety devices for protecting the human body
- Start/stop control devices for transportation machines
- Aeronautical/aerospace machines

For system design, application design, instructions for use, or product applications, please contact Azbil Corporation. Azbil Corporation bears no responsibility for any result, or lack of result, deriving from the customer's use of the product.

■ Features

- A user interface that provides a superior user experience (UX)
  The user interface's functionality supports the effective use of the system.
  Through its superior UX, this system provides appropriate and beneficial facility monitoring, management, and control.
  Even general administrators who are not familiar with operations can intuitively figure out what screen or information they need to see next. On the other hand, system administrators are provided with an operational environment that streamlines complicated operations.
- Advanced system integration management using an open communication protocol
  The BACnet or Modbus™ open protocol is used as a communication platform for the system. This allows you to integrate and manage devices from various manufacturers, which have different functions. Since the Supervisory Controller, which manages the information of the whole system, subsumes differences in specifications (i.e., the presence or absence of functions such as totalized operation time and high/low limit monitoring) among the devices to be connected and carries out interlocked control of devices and data calculations, it can manage the whole system, including point status monitoring in addition to control and data storage functions, by using the common specifications.
- Proven quality
  Azbil Corporation has been a leading company in building management systems in Japan for more than 50 years. Our high-quality products, which we designed and developed ourselves, have earned the trust of our customers through their long-term operational stability and our long-term maintenance services.
- Energy saving technology
  This system realizes energy-saving functionality based on technologies and know-how developed through more than 50 years of experience.
  This promotes energy consumption reduction in buildings, contributing to conservation of the natural environment.

■ System Configuration



VAV (Variable Air Volume)
FCU (Fan Coil Unit)

Figure 1. System Configuration Example

Note: The mail server should be prepared by the customer.

Device	Description
Supervisory Controller	A device that manages the whole savic-net G5 system. It receives point data possessed by a primary device and comprehensively monitors and controls the facility equipment. In addition, the Supervisory Controller stores and manages the received data and provides the data to a Client PC.
Network Attached Storage	The Network Attached Storage is a storage device connected to the supervisory device network. It makes it possible to expand the amount of data managed by the Supervisory Controller and to store the data for long term in the savic-net G5 system.
Client PC	A device that receives data such as status, alarms, measured values from the Supervisory Controller and displays the data required for monitoring and operation. Also, using the Client PC the user can output various types of data to a file in order to analyze the data. The Client PC can be installed anywhere as long as it can be connected to a network, and can be monitored simultaneously by multiple administrators in various locations.
Switching hub (SNMP compatible)	When the switching hub is SNMP compatible, the Supervisory Controller can monitor information such as port link up/down.
General Controller	It is a general-purpose controller that controls facility equipment such as the building air conditioning equipment and plumbing equipment. By using the I/Os and control applications that have been built according to the instrumentation, it realizes optimal control.
Direct Mount I/O Module	These are I/O modules dedicated for the General Controller. According to the applications, these products can be connected to the General Controller in any combination.
SAnet Interface Module	This module is specifically for the General Controller. You can use this module to connect the Intelligent Component Series to the General Controller.
Setting-Device Connection Module, Operator Panel (Integrated Type) Module	This module is specifically for the General Controller. You can use the Setting-Device Connection Module to connect the operator panel (panel mount type) to the General Controller. In addition, the Setting-Device Connection Module and the Operator Panel (Integrated Type) Module make it possible to connect Neopanel, Neoplate, Neopanel Wireless, and Neosensor Wireless to the General Controller.
Compact Remote I/O Module	An I/O module that allows to connect various I/Os, such as digital I/Os, pulse input meter, remote control relay output, analog I/Os, RTD input via suitable communication method. It is distributed in the various facilities in a building in order to monitor the operation status and alarms, turn the equipment on/off, and measure value/volume.
Advanced Controller for Chiller Units, Advanced Controller for Pump Units	These are controllers that control the central plant system for buildings. By using the I/Os and control applications that have been built according to the instrumentation, the controllers realize optimal control. Note Also Advanced Controller (for AHU) is available.

Device	Description
Advanced Remote I/O Module	An I/O module dedicated to the Advanced Controller. By adding inputs/outputs via the Advanced Remote I/O Module, the Advanced Remote I/O Module can flexibly respond to operation changes such as the addition of control applications or repair work. It enables to connect the Advanced Controller for Chiller Units, Advanced Controller for Pump Units, and Advanced Controller (for AHU).
Operator Interface	An interface device for Advanced Controllers for Chiller Units, Advanced Controllers for Pump Units, and Advanced Controllers (for redundancy). Central plant equipment can be operated and managed using the central monitoring unit and the Operator Interface. Also, this product allows standalone operation without the central monitoring unit.
VAV Controller	A VAV controller with an actuator, which controls in a sophisticated way the VAV units for AHUs in a building. It sends unique energy-saving data to the General Controller or Advanced Controller to which it is connected in order to largely improve its controllability.
FCU Controller	A controller that starts or stops the FCUs, changes airflow volume, and controls the valves. Furthermore, it enables the setback operation, the interlock operation with the outdoor air handling units, etc.
Multi-area user terminal	A terminal that allows the user to turn ON/OFF AHUs, display or set the temperature, humidity and CO_2 concentration, set the airflow volume, and perform other operations for each area or AHU in multiple areas.

■ Hardware Specifications for Major Devices

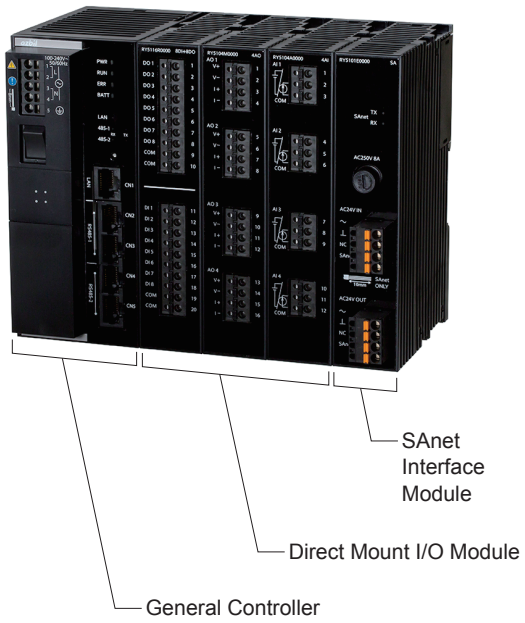
● Client PC

Item	Recommended specifications	
	Number of monitoring points is 30,000 or less and regular frequency of changes in present value is 1,200/sec or less	Number of monitoring points is more than 30,000 and regular frequency of changes in present value is from 1,200/sec to 2,000/sec
CPU	Intel® Core™ i3-5157U or faster	Intel® Core™ i7-8700 or faster
GPU	Intel® HD 5500 or more	Intel® UHD Graphics 630 or more
Main memory	8 GB min.	16 GB min.
Storage	Free space of 70 GB min.	Free space of 120 GB min.
Display	FHD (1,920 x 1,080 pixels) recommended 1,366 x 768 (FWXGA) to 3,840 x 2,160 (4K) supported Note: If the size of pixel graphics such as characters does not change and the graphics are too large for the screen, the scroll bar will appear.	
OS	Windows 11 or Windows 10 Pro 64-bit (Japanese, English, Chinese [simplified], Korean, Chinese [traditional]) Note: OS for 32-bit cannot be used.	
Additional software	Microsoft Excel 2016, 2019, 2021 Note: Used for exporting data sheets, etc.	

● Supervisory Controller

Basic specifications	
Number of points	Up to 150,000 points per system Up to 5,000 points per Supervisory Controller
Power supply	Rated voltage: 100–240 V AC, 50/60 Hz Power consumption: 60 VA max. (240 V AC)
CPU	64-bit
Main memory	Model BH-101 SDRAM 2GB Model BH-102 SDRAM 8GB
Auxiliary storage device	Model BH-101 SATA SSD 32GB Model BH-102 SATA SSD 64GB
Communication	BACnet/IP, Modbus/TCP, etc.
Communication speed	100/1000 Mbps
Dimensions	230 mm (W) × 140 mm (H) × 80 mm (D)
Weight	1.4 kg

● General Controller, Direct Mount I/O Module, Setting-Device Connection Module, SAnet Interface Module



General Controller

Basic specifications	
Power supply	Rated voltage: 100–240 V AC, 50/60 Hz
	Power consumption: 45 VA max.
CPU	32-bit
Memory device	SDRAM 256 MB, Flash ROM 32 MB, SRAM 2 MB
Communication	BACnet/IP Speed: 100 Mbps
	BACnet MS/TP, Modbus Speed: 4.8 kbps, 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps
Dimensions	60 mm (W) × 140 mm (H) × 90 mm (D)
Weight	0.45 kg

Direct Mount I/O Module, Setting-Device Connection Module, SAnet Interface Module

Basic specifications		
Number of I/Os	■ “Model Numbers”	
Power retention	Non-volatile memory	
Dimensions	30 mm (W) × 140 mm (H) × 90 mm (D)	
Weight	DI module	0.16 kg
	DO module	0.21 kg
	DO + DI module	0.19 kg
	DOC module	0.23 kg
	RRD module	0.17 kg
	TOT module	0.16 kg
	AO module	0.17 kg
	AI module	0.16 kg
	Pt module	0.16 kg
	AI + Pt module	0.16 kg
	MM module	0.19 kg
	SAnet Interface Module	0.17 kg
	SD module	0.16 kg
	OP module	0.17 kg

Operator Panel (Panel Mount Type)

Basic specifications	
Power supply	Rated voltage: 100−240 V AC, 50/60 Hz Power consumption: 8 VA
Display LCD	Resolution:128 × 64 dots Gradation: Black and white, 2 gradations Backlight: LED backlight
Communication DP-bus	Transmission method: RS-485 Transmission speed: 4800 bps Transmission distance: 10 m Number of connectable units: 1
Dimensions	960 mm (W) × 960 mm (H) × 910 mm (D)
Weight	400 g

● Compact Remote I/O Module

Basic specifications	
Number of I/Os	■ "Model Numbers"
Power supply	Rated voltage: 100–240 V AC, 50/60 Hz
	Power consumption: 10 VA max.
Communication	BACnet MS/TP Speed: 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps
Dimensions	50 mm (W) × 100 mm (H) × 75 mm (D)
Weight	0.23 kg

● Advanced Controller for Chiller Units, Advanced Controller for Pump Units, Advanced Controller (for AHU)

Basic specifications	
Number of I/Os	4 digital inputs, 8 universal inputs, 6 digital outputs, and 6 analog outputs
Power supply	Rated voltage: 100–240 V AC, 50/60 Hz
	Power consumption: 30 VA max.
CPU	32-bit
Memory device	SDRAM 256 MB, Flash ROM 32 MB, SRAM 2 MB
Communication	BACnet/IP Communication speed: 100/1000 Mbps
	Proprietary protocol (Ethernet) Communication speed: 100 Mbps
	BACnet MS/TP or Modbus Communication speed: 4.8 kbps, 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps
Dimensions	190 mm (W) × 140 mm (H) × 80 mm (D)
Weight	1.1 kg

● Advanced Remote I/O Module

Basic specifications	
Number of I/Os	Model RJ-1101: 16 digital inputs Model RJ-1102: 8 digital inputs + 8 digital outputs Model RJ-1103: 4 universal I/Os
Power supply	Rated voltage: 100–240 V AC, 50/60 Hz
	Power consumption Model RJ-1101: 13 VA max. Model RJ-1102: 14 VA max. Model RJ-1103: 16 VA max.
CPU	32-bit
Memory device	Flash ROM 512 kB, SRAM 96 kB
Communication	Proprietary protocol (Ethernet) Communication speed: 100 Mbps
Dimensions	110 mm (W) × 140 mm (H) × 80 mm (D)
Weight	0.65 kg

● Operator Interface

Basic specifications		
Power supply	Input voltage: 24 V DC (21.6–26.4 V DC)	
	Power consumption: 12 W (at 24 V DC)	
	Inrush current: 24 A max. (at 24 V DC)	
	Ground with 100 Ω or lower ground resistance	
CPU	32-bit	
Memory device	512 MB SDRAM, 4 GB SD card	
External memory	SD card slot for data collection × 1	
Display LCD	Type: 8.4-inch TFT LCD	
	Size: 170.4 × 127.8 mm	
	Resolution: 800 × 600 (SVGA)	
	Colors: 65,536	
Screen operation type	Projected capacitive touch screen with protective glass	
Communication	Ethernet	2 ports (LAN 1 and LAN 2*)
		Function of ports: Auto negotiation, MDI/MDI-X auto recognition
		Protocol: Proprietary
		Speed: 100 Mbps
Dimensions	220 mm (W) × 170 mm (H) × 50.5 mm (D)	
Mass	1.1 kg	

* LAN 2 must not be used.

● VAV Controller with Actuator

Controller

Basic specifications	
Power supply	Rated voltage: 24 V AC (20.4–27.6 V AC)
	Consumption: 5 VA max.
Communication	BACnet MS/TP Speed: 9.6, 19.2, 38.4, 76.8 kbps
	Format: Dedicated serial communication (requires 12 V DC power) Speed: 100 bps
Dimensions	100 mm (W) × 150 mm (H) × 35.9 mm (D)
Mass	0.3 kg

Actuator (model MY8440C5200)

Basic specifications	
Power supply	Rated voltage: 24 V AC (19.2–28.8 V AC)
	Consumption: 5 W / 8 VA
Communication with controller	Method: proprietary
	Distance: 2 m
	Connectable units: 1
Dimensions	187 mm (W) × 80 mm (H) × 62 mm (D)
Mass	0.7 kg

● FCU Controller

Basic specifications	
Power supply	Rated voltage: 100–240 V AC (85–264 V AC)
	Power consumption: Model WJ-1202W1000: 6 VA max.
Communication	BACnet MS/TP Communication speed: 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps
	Voltage transmission (digital user terminal) Communication speed: 100 bps
Dimensions	140 mm (W) × 200 mm (H) × 47.9 mm (D)
Weight	0.52 kg

● Multi-area user terminal

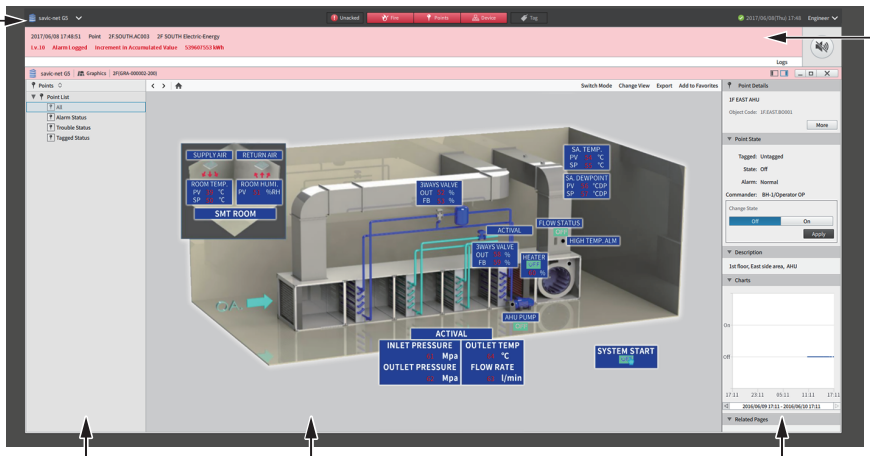
Basic specifications	
Power supply	Rated voltage: 24 V AC (20.4–27.6 V AC)
	Power consumption: 2.5 VA
Communication	BACnet MS/TP Communication speed: 9.6 kbps, 19.2 kbps, 38.4 kbps, 76.8 kbps
Display LCD	Type: 3.5-inch TFT-LCD Resolution: 320 × 240 (QVGA) Backlight: LED backlight
Screen operation type	Capacitive touch switch
Dimensions	70 mm (W) × 120 mm (H) × 15 mm (D)
Weight	0.15 kg

■ Overview of savic-net G5 User Operation Screen

To support daily operations of both general administrators, who mainly monitor alarms and do not operate savic-net G5 so frequently, and system administrators, who mainly perform setting, evaluation, and analysis, screens that are useful for both parties are provided.
General administrators: Screens providing guidance on basic operations to improve the quality of their operations.
System administrators: Screens supporting sophisticated operations to make complicated operations more efficient.

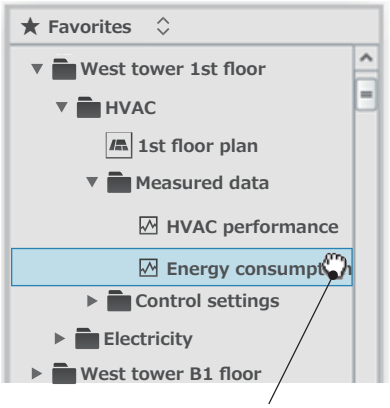
System Status Window
Always displays the system status (alarm indicator, system clock, and login information, etc.).
Also, the user can directly call up a list of items in alarm status or a list of unchecked alarms, or call up a home screen that was registered in advance.

Alarm Notification Window
The Alarm Notification window is automatically displayed when an alarm occurs. It sounds an audible alarm and displays the details of the alarm in text.
The alarm sound can be stopped from the Alarm Notification window.
In addition, the Alarm Notification window also allows to call up a screen for checking the alarm history.



Menu Pane
Displays a list of screens that are categorized by function or a list organized by the user in tree format. By selecting from the list, the relevant function screen can be displayed in the Contents Pane.

Sample Display of Menu Pane:
Favorites Tree

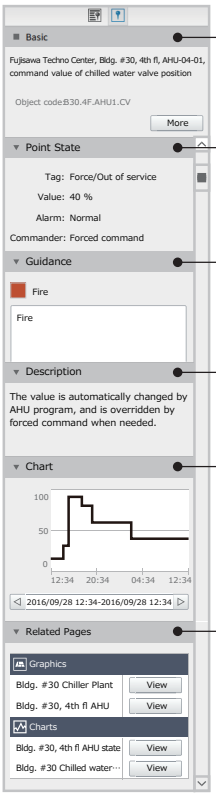


The display position can also be changed by using drag and drop.

Contents Pane
Displays the contents to be set for each "application" such as graphics and charts.

Utility Pane
Allows operations of the points and devices selected in the Contents Pane, and provides information about them.

Sample Display of Utility Pane: When a Point Is Selected



Basic information, such as the device name, and the transition button to the point details screen in order to obtain detailed information.

The current equipment status.
The operation and settings of output points can be changed.

In order to help users quickly check the situation and take appropriate measures if a device alarm occurs, corrective action, contact information, a link to the IP camera, etc. can be displayed.

A description of this piece of equipment.
(Installation date, next scheduled maintenance, rated capacity, etc.)

Change history in the last 24 hours.
A longer period of past information can also be called up. When clicked, the value of the current time is displayed.

The pages registered for this piece of equipment displayed by application.
The desired page screen can be called up by pressing the View button.

■ Overview of Functions

● Monitoring

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Function	Description
Graphics	This function displays the status of each facility managed by the system in a graphical format, such as a floor plan, cross section, or system diagram, in the Contents Pane. It also refreshes the information on the displayed facility every time the state changes. Selecting a point on the Contents Pane displays the information about the selected point in the Utility Pane. This allows the user to switch the point on/off, change the set value, and confirm the most recent trends and related programs. You can also select multiple points to start or stop all equipment at once or change settings. In addition, you can list the symbols displayed on the graphic in the Contents Pane and start or stop all equipment at once or change settings from the list. The graphic size is enlarged/reduced automatically to fit the screen size. The value and state of a point and point property information are indicated on the background of a facility or floor with a changing dynamic symbol color or measurement value/integration value, etc. If you allocate a symbol for a screen transition on the graphic, selecting the symbol allows you to move to another graphic or a desired function screen. <u>Dynamic symbol types:</u> String of (for) Digital Data Shape of (for) Digital Data Color of (for) Digital Data Image of Digital Data Animation Animated GIF String of (for) Analog Data Shape of (for) Analog Data Color of (for) Analog Data Image of (for) Analog Data Gradation Bar of (for) Analog Data Meter of (for) Analog Data Page Jump Date and Time Pie graph Line graph Bar graph Thumbnail page jump Color of (for) Digital Data (Point Property) Shape of (for) Digital Data (Point Property) String of (for) Analog Data (Point Property) Bar of (for) Analog Data (Point Property) Meter of (for) Analog Data (Point Property) Point Alarm Application Calling
Graphics Generator (optional)	Users can create or edit graphics. When the use of a building (regarding partitions, room names, etc.) is changed, you can edit the screen as required.

(2/3)

Function	Description
Point list	Point data (name, status, alarm, tag, type, object code, commander, priority, alarm level, Monitor Elapsed Active Time: Elapsed Active Time, Monitor Elapsed Active Time: High Limit, Monitor Change of State Count: Change of State Count, Monitor Change of State Count: High Limit, Monitor State Duration Monitoring: State Duration, Monitor State Duration Monitoring: High Limit, and Monitor Operating Hours by Time Slot: Schedule Referred by Time Slot) are displayed in a list or tree format (when the object code has a hierarchical structure). Listed items can be filtered by type before being displayed. Points can be grouped and displayed in a list or tree format. You can export the displayed data as a CSV, XLSX or PDF file and save it in the desired folder on the client PC. Multiple points can be selected for batch ON/OFF operation or settings configuration. Users can: • Change the high/low limits • Enable/disable monitoring Increment in Accumulated Value (specified period) • Set/remove the Out of Service tag • Enable/disable analog high/low limits
Point details	The Point Details screen allows the user to display basic information and perform basic operations for each point. It also allows the user to change or view point attributes such as the point name, description, or alarm level, as well as perform special operations such as registration of forced commands, out of service, or meter replacement tags. You can register an operation confirmation message for points that start or stop the equipment of the critical facility and set the 3-action operation, Operation -> Message Confirmation -> Execution, to prevent erroneous operations. You can also temporarily block manual user operations on the screen regardless of the user scope with the setup operation on the Point Details screen.
Device list	This screen displays information about the Supervisory Controller and primary devices managed by the system (device name, alarm status, object code, and IP address) as a list. It can display all the available devices or only the devices in an alarm state by default.
Device details	This screen displays detailed information about each of the Supervisory Controller and primary devices managed by the system. Also, the device settings and the accumulated data can be manually backed up. The information is displayed in each of the tabs, which are named Basic, Network Information, Shipping Information, About, Time Management Information, Service Parts Information, and Malware Monitoring. * The Malware Monitoring tab is displayed when the SVC malware monitoring function (optional) is in use.
Automatic data backup (optional)	The Supervisory Controller settings and accumulated data are automatically backed up on the client PC every day or on a specified day of the week.

(3/3)

Function	Description
Alarm processing	When the system detects an alarm, this function automatically notifies the user of the alarm in the following ways: • Sounds an alarm corresponding to the alarm level • Displays the details of the alarm in the Alarm Notification window • Turns on the indicator in the System Status window • Forcibly displays a function screen that has been specified in advance, such as Graphics • Alarm output • E-mail Alarm Notification (optional) • Uses the logging function to log the occurrence of alarms and alarm resets (optional) The following monitored alarm items can be used: • Alarm input • Command mismatch (Failure to start or stop at the ON/OFF point or state mismatch) • Analog hi/lo limits alarm (optional) • Point error • Device alarm (Abnormal or No Response) and other items
Analog high/low limits monitoring	This function generates an alarm if the present value of an analog point (AI, AO, AV) falls outside the range of the specified high/low limits (analog high/low limits monitoring), or if the deviation between the present value and the reference value of a point (set value) exceeds a specified range (analog deviation monitoring). When the value returns to within the specified high/low limit range, the alarm will be reset. You can use this function to monitor if the environment monitored, such as chilled/hot water temperature, is in the correct range or not. This function enables one of the following monitoring; high limit only, low limit only, high and low limits. Also, when an interlock point satisfies the conditions, each of the monitoring can be enabled.
Increment in accumulated value (during a specified period) monitoring (optional)	Specify the period to calculate the increment (monitoring cycle) and high limits for the accumulation point (AC) in advance. If the increment value exceeds high limits during the calculation period, this function generates alarms. When the calculation period ends, the alarms are cleared. You can set up to three high limits.
State duration monitoring (optional)	This function counts time when the digital points to be monitored (BI, BO, BV, MI, MO, MV) are continuously in the active state (normally ON) or the inactive state (normally OFF) and it generates an alarm if the count reaches the high limit specified in advance. This function helps keep the user from forgetting to stop equipment manually.
Elapsed active time monitoring	This function displays the period of time during which the monitoring target digital points (BI, BO, BV, MI, MO, MV) were in the active state (normally ON) as the elapsed active time on the Point Details screen. When the elapsed active time exceeds the preset threshold value, it is possible to issue an alarm. This information is useful for estimating the degree of deterioration of the equipment and developing a maintenance plan and parts replacement timing.
Change of state count monitoring	This function displays the number of times the monitoring target digital points (BI, BO, BV, MI, MO, MV) have changed from the active state (normally ON) to the inactive state (normally OFF) as the Change of State Count on the Point Details screen. When the change of state count exceeds the preset threshold value, an alarm will be issued. This information is useful for estimating the degree of deterioration of the equipment and developing a maintenance plan and parts replacement timing.

● Management

(1/3)

Function	Description
Operating hours by time slot monitoring (optional)	This function measures the time in which the monitoring target digital points (BI, BO, BV, MI, MO, MV) are active in two time slots (Time Slot 1 / Time Slot 2). You can use this function to perform count correction by taking into account the delay from the scheduled time and count control due to the state of count inhibiting points, and to set conditions to inhibit counting by the commander of a monitoring target point
Voice Alarm Message (optional)	If a voice alarm message is preset instead of an alarm sound, it gives details about the alarm when the alarm is triggered. Different voice messages can be set according to the alarm level.
E-mail alarm notification (optional)	When an alarm is generated by the points, devices, or applications, this function notifies you of occurrence of the alarm, its status change, and its recovery by e-mail. Even when the building manager does not operate the Client PC or he/she is out of office or away for a patrol, this function enables him/her to check occurrence of an alarm. * The mail server and DNS server must be supplied by the customer.
Linked Stop of Client Terminals Alarm Sound	If a user in a group stops the alarm sound, it stops on the client PCs of other logged-in users in the same group.
Point Guidance (optional)	Guidance can be set for points. You can write corrective actions for alarms in the Guidance area so that users know how to deal with alarms. If an alarm occurs, the instructions in the Guidance can be displayed in the utility pane. If a high alarm occurs, the forced display window or guidance can be automatically displayed to prevent delay or failure to properly respond. Guidance is displayed in the browser.
Value/state change recording	This function accumulates the following information of the target point in the Supervisory Controller and displays it as the latest history in the Utility Pane. • Time and other data when there is a change from the previous value during a periodic scan • COV (time and other data received by the Supervisory Controller) • Event (Time of occurrence and other data) • Manually input value and time (Manual Input of Points function) The accumulated information is displayed and used for charts, flexible reporting, the data aggregation function, etc.
Data aggregation	This function aggregates and stores the on-the-hour value, increment value, maximum value, minimum value, and average value from the data collected by the value/state change-recording function for each hour, day, and month. In addition, when Monitor Elapsed Active Time, Monitor Change of State Count, and Monitor Operating Hours by Time Slot are enabled by the Point Details function, the elapsed active time, the change of state count, the elapsed active time in time slot 1, and the elapsed active time in time slot 2 are also aggregated and stored. The stored data can be displayed by using the daily, weekly, monthly, and yearly reports, charts, graphics, and flexible reporting functions. In addition, by registering an interlock point and specifying a desired status, only the time period during which the device is in the specified status can be included in the calculation.
Manual input of points	This function records the measured values and amount of the meters, sensors, and other instruments not monitored by the system at AC and AV points for manual input set using the engineering tool during patrol or on other occasions. You can specify the date and time and manually input data to accumulate and aggregate it. Processed data of points for Manual Input of Points can be registered for Numerical Operation (Operation with Processed Value), Charts, Reports, and Meter Reading, for example.

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Function	Description
Charts	This function shows time-series variations in power, temperature, operation status (ON/OFF), etc., that have been collected by the value/state change-recording or data aggregation function in time-series (oblique lines/rectangles) or bar (bar/stacked) charts. It also shows data accumulated by the data aggregation function in non-time-series charts (scatter plot, pie chart, and histogram). In the time-series graph, scatter plot, pie chart, and histogram, you can specify two periods and display data for the periods. In addition to using data that has been accumulated within the system, this function can use data that was output from the Supervisory Controller by the Data Archiving and Retrieval function and was retrieved by the client PC (retrieved data), and can display it in graphs. Deselecting the ☑ checkbox in the Legends allows users to easily hide specific data. The raw data and process data that are used for a graph can be manually output to a CSV file (raw data can be automatically output). The displayed graph and data can be manually output to an Excel or PDF file.
Daily/weekly/monthly/yearly reports	The data aggregation function generates tabular report files from data which is accumulated and totaled. The function then accumulates such files over a certain period of time. It also allows you to automatically or manually output the following data that has been totaled by the data aggregation function into a file in CSV, XLSX, or PDF format. • Daily reports (hourly data, daily aggregated data) • Weekly reports (daily data, weekly aggregated data) • Monthly reports (daily data, monthly aggregated data) • Yearly reports (monthly data, yearly aggregated data)
Reports format editor (optional)	This function allows you to change display formats for Daily Reports, Weekly Reports, Monthly Reports, and Yearly Reports to ones that are suitable for your business so as to perform daily operations more efficiently. You can edit the formats while the system is in operation.
Meter reading (optional)	You can use this function to manually or automatically collect and display data on the reading day in a list. Data is read from meters (electricity, water, gas, etc.) using functions for monitoring the elapsed active time and operating hours by time slot, and it is accumulated by the Data Aggregation function. The consumption is calculated based on the difference with the data of the last meter reading. The data being displayed can be output as a CSV or PDF file.
Meter Reading Value (Operation)	The meter readings will be processed using arithmetic operations, and the results will be output to the Meter tab screen of the Meter Reading application.
Logs	This function accumulates and manages operation information on alarms, changes of state, on/off, and changes of setpoints, as log records. It offers a search function that allows you to extract "All," "Alarms," or "Unacked Alarms" or specify conditions to narrow data down to the information that is really needed and display the data. You can automatically or manually output the displayed data in CSV, XLSX, or PDF format. You can display unacknowledged alarms using the icon and acknowledge alarms or leave them unacknowledged in the Utility Pane. A comment can be appended to each item of data. * Unacknowledged alarms are not displayed in Logs when the alarm summary is enabled. Alarms cannot be acknowledged or left unacknowledged, either.

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Function	Description
Logs format editor (optional)	You can perform daily operations more efficiently by adjusting the format of XLSX or PDF files output from logs according to the actual application. You can edit the formats while the system is in operation.
No log comment (optional)	This function disables the entering of log comments in the system. When the use of log comments is prohibited, the comment field will always be blank. You can hide comment columns in the setting mode.
No change of point logging (optional)	This function prohibits changing the enable/disable setting for Save Operation and State Change to prevent users from temporarily recording or interrupting the recording of operation logs or change of state logs.
PDF edit permission update (optional)	This function disables editing, filtering, and copying PDF files by setting a random authorization password for all PDF files that are manually or automatically output.
No XLSX output (optional)	This function prohibits the output of XLSX files with Reports or Logs so that it is difficult to create report or log materials using data that is different from the actual data.
Data archiving and retrieval (optional)	Data archiving saves change accumulation, data aggregation, and logs stored in each Supervisory Controller to the external storage automatically or manually for each day. Data retrieval reads a specified period of data that was saved in external storage on the client PC and shows the data in charts, reports, or logs.
Flexible reporting (optional)	This function creates a report in XLSX or CSV format using data (change accumulation, data aggregation, logs) collected by the system. When editing the format, you can specify the desired type of report (daily, monthly, or yearly), output format (XLSX or CSV), accumulated data, point type to be included, and data interval. By editing to produce the report format that best suits your business, you can improve work efficiency. You can edit the formats while the system is in operation.
Time-series data export (optional)	You can specify a period for raw data (1-minute, 10-minute, and 30-minute cycle) and processed data (hourly, daily, monthly, and yearly basis) accumulated across the system to output the relevant data to a CSV file. Data stored in the Network Attached Storage (NAS) can also be output.
Use of external storage (optional)	This function stores the following system data in the Network Attached Storage. • Historical data from the Supervisory Controller • Data output from Client PCs • Engineering data In the event of a power failure, the Supervisory Controller outputs a shutdown command to protect data safety.
Alarm Summary	Alarm Summary lists unacknowledged alarms, acknowledged alarms, and unacknowledged alarm resets with their timestamps, statuses at the time of generation, and present values in descending order so that the latest alarm is displayed on the first row. If a new alarm occurs after alarms are listed when Auto Refresh is enabled, a new row is added and displayed at the beginning of the list. You can narrow down conditions using the filter in the column header of the list to display the alarms that meet the conditions. When you select an event (row) in the list to acknowledge it, that event is regarded as an acknowledged alarm reset, so it is deleted from the list and recorded in the log with the timestamp at the time of acknowledgment. The acknowledged event cannot be returned to the unacknowledged state. * Use the Azbil engineering tool to enable or disable the alarm summary. When the alarm summary is enabled, alarms cannot be acknowledged or left unacknowledged in Logs.

● Control

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Function	Description
Calendar	This function is used in combination with the schedule function. It registers control patterns that are not part of the pattern for each day of week, such as holidays and long-term vacations, into the patterns of events schedule. You can set them to be shown to or hidden from operator workstations per program when operator workstations (upper-level devices) are connected.
Schedule	This function automatically starts/stops devices or changes settings (presetting daily settings, changing settings as the season transforms, etc.) according to the preset schedule. It generates an execution schedule for a week from today based on the weekly master schedule for which the regular schedules for each day of week are set, and deploys it to the primary device connected to the Supervisory Controller. In combination with the calendar function, it can generate an execution schedule based on the patterns of events master schedule for which specific days such as holidays, special week days, and summer holidays are set, and deploy it to the primary device connected to the Supervisory Controller. If the primary device does not have the schedule function, the Supervisory Controller can execute the control. You can set them to be shown to or hidden from operator workstations per program when operator workstations (upper-level devices) are connected.
Schedule integration (optional)	This function uses multiple operation schedules as input, integrates their active times and inactive times, and creates an integrated operation schedule. Sample use: creating a schedule for shared areas such as an entrance hall
Numerical operation (optional)	You can carry out a numeric operation using various values managed by the system and output the result to a point. Data useful for management such as the total and average values can be generated from the values of multiple measuring devices. Numerical operations are broken down into present value operations in which the present value of the specified point is input and operated on and processed value operations in which the raw data type and data set of the specified point is set and then the processed value is input and operated on.
Conditional operation	You can create a program that, when a specific condition is satisfied, initiates device interlocking, combines operations, orders input, or makes automatic settings changes. This allows you to reduce the workloads for operation management at each facility and take emergency action in a unified way. E.g. Interlocking of the facility equipment such as AHUs and lighting, preventing facility equipment starting up simultaneously, and automatic change of room temperature settings when a specific condition is satisfied
Alarm output	When an alarm (any alarm Level) occurs in any user scope (group of applications, points, or devices) in the system, the BO and BV points are turned ON. E.g. The alarm light can be turned on when an alarm occurs in an AHU.
Fire control (optional)	When the input point, which monitors the occurrence and recovery of fire, detects a fire alarm, the system notifies the user of the occurrence of fire by lighting the fire indicator in addition to sounding an alarm, displaying the alarm notification message, and logging the event. Also, it is possible to output the default value to the multiple output points when fire occurs. E.g. When fire occurs, can stop the AHUs or forcibly unlock the electric locks. You can set them to be shown to or hidden from operator workstations when operator workstations (upper-level devices) are connected. When show to operator workstations is set, the fire control state can be notified to the operator workstations, the fire control cancel command can be received from the operator workstations, and fire control can be canceled from the Supervisory Controller.

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Function	Description
Power failure recovery control	If the Supervisory Controller is backed up by the UPS unit, the following operation will be executed: 1. Detection of power failure 2. Alarm notification of power failure 3. Processes when power failure occurs 4. Processes for operating generator 5. Processes for recovering power 6. Cancellation of alarm notification for power failure You can set them to be shown to or hidden from those operator workstations when operator workstations (upper-level devices) are connected. When show to operator workstations is set, the power failure recovery control state can be notified to the operator workstations, the power recovery control command can be received from the operator workstations, and the power failure recovery control can be canceled from the Supervisory Controller.
Generator load distribution (optional)	When supplying power from an emergency independent power generator installed in a building in the event of a power failure, this function controls the power load so that the capacity of the generator will not be exceeded. Using generator load control objects that comply with IEIEJ-G-0006:2006, it is possible to link to other companies' BACnet devices and to implement control based on control level notifications.
Power Factor Correction (optional)	This function cancels out the phase lag caused by the load of a motor, etc., by adding phase-advancing capacitors. By keeping the power factor at nearly 100 %, it is possible to purchase electricity at a discount (depending on the electric company and/or country). This function supports both the case where multiple phase-advancing capacitors have different capacitances and the case where they all have the same capacitance.
Power demand control (optional)	This function consists of monitoring, control, and history data management functions, including the output of history data. Also, using power demand monitoring and control objects that comply with IEIEJ-G-0006:2006, it is possible to link to other companies' BACnet devices and to implement control based on control level notifications.
Duty cycle control (optional)	In order to reduce the energy consumption of the AHUs and chillers, it executes the duty cycle for operating equipment such as the AHU by the schedule, etc. Depending on the specified room temperature or CO_2 concentration, it is possible to force the equipment that was stopped by the duty cycle operation to restart.
No humidification (optional)	This function stops humidification before stopping AHUs to let them dry to keep AHUs sanitary. It outputs No Humidification earlier than the stop time based on the schedule program or the stop time according to Optimum Start/Stop of HVAC.
Optimum start/stop of HVAC (optional)	The optimum start/stop function treats the schedules set for the air conditioning equipment as occupancy hours and learns operation characteristics at start and stop times. It then starts the equipment earlier than the scheduled time so that the room temperature reaches the set range when room occupation begins. It eliminates wasteful energy use by stopping the equipment earlier than the scheduled time while maintaining the programmed room temperature until the occupancy period ends.

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Function	Description
Optimum start/stop of central plant (optional)	This function refers to the predicted optimum start/stop time from the optimum start/stop of HVAC function. This function starts the central plant ahead of the fastest optimum start/stop time for the AHU among other AHUs in the same central plant system by the time set for Minutes to Advance. It also stops the central plant ahead of the latest optimum stop time of the AHU among other AHUs in the same central plant system by the time set for Minutes to Advance.
VWV demand calculation (optional)	This function calculates the VWV demand by calculating the total weight of AHUs in each control state (insufficient, excessive, operating) and the total weight of registered AHUs based on the control states and the weighting for each AHU. The calculated result is used as input for the VWV Pressure Calculation. The combination of VWV Demand Calculation and VWV Pressure Calculation executes VWV control that achieves energy savings by reducing the force exerted by the water pumps for the central plant while maintaining a comfortable indoor environment.
VWV pressure calculation (optional)	This function determines whether it is necessary to change the pressure setpoint for the water supplied from the central plant based on the demand from the AHU systems, which is aggregated by the VWV demand calculation function. As necessary, it determines the demand for change (increase, decrease, keep) and calculates the pressure setpoint. The combination of VWV Demand Calculation and VWV Pressure Calculation executes VWV control that achieves energy savings by reducing the force exerted by the water pumps for the central plant while maintaining a comfortable indoor environment.
DDC program (optional)	A DDC program is a control program that operates on Advanced Controller or General Controller. Premade DDC program blocks can be combined freely to define the desired control logic. The following various types of information can be handled as its input/output. • The PV values, commands, and other properties of I/O objects • Properties of the objects in the relevant Advanced Controller or General Controller. E.g. Device information, secondary devices, cooling and heating modes, power restoration information, time, calendar, etc. • Settings of other networked devices
VAV control	When a VAV Controller is installed on the VAV unit, it performs VAV air flow control. In addition, by connecting a room temperature sensor, air flow can be controlled so that the room temperature is kept at a set value. By controlling the VAV in the Open direction to minimize the static pressure, this function minimizes the operating power of the air conditioning fans. It also changes the supplied air temperature to the optimal value automatically to realize both comfort and energy efficiency.
Extension allowed	This function extends the operation time of predetermined equipment in response to a request from the multi-area user terminal (MUT). To extend the operation, specify the following settings. • Equipment schedule: Operation schedule • Restricted UT schedule: Setting to allow or prohibit operations in each area according to the schedule. • MUT timer management schedule: Setting to change the operation of the MUT in each time slot. (This setting applies to each MUT.)

● **Others**

Function	Description
User management	User management contains the following functions: • User registration and deletion • Login ID and password settings • Enabling/disabling users • Setting or not setting user expiration; if set, specify the expiration • Login condition setting • Limitation of the points and functions that can be viewed or operated by each user (user scope and access level settings) • User-specific settings (e.g., language settings) • Automatic logout after a certain time has passed with no operation having been executed • Alarm notification settings
Redundancy (optional)	In addition to the Supervisory Controller (active), a backup unit (standby) of the Supervisory Controller is installed, and if an error occurs in the Supervisory Controller or the network, the system functions are quickly and automatically restored by the backup unit. In normal operation mode, monitoring is always executed by the active unit, and data is copied to the standby unit in a short cycle. Communication load on the primary devices can be reduced to be equal to that of during non-redundancy, and the setting data and logs accumulated in the standby unit can be consistent with those of the active unit.
Full-screen mode (optional)	When starting a Client PC, you can automatically log in as the default user set for the PC and display the screen that has been registered as the home screen in full-screen mode (only the application window is maximized). As an alternative to a graphics panel, etc., a graphics screen can be set to always show on the display in full-screen mode.
Slideshow (optional)	By automatically displaying various graphics and chart screens used for daily monitoring at a set interval, the opening operation for each screen can be omitted, improving work efficiency. By using this function with full-screen mode, you can sequentially display screens in full-screen mode. This allows you to show the energy use status of buildings and other information to visitors on a display.
Screen capture	This function outputs a screenshot of the entire client PC screen to a PNG file or prints it. * This function cannot be used if the display is in full-screen mode.
SVC malware monitoring (optional)	This function uses the whitelist-based malware protection tool to prevent the execution of unauthorized programs on the Supervisory Controller and sends alarm notifications. * The whitelist-based malware protection tool allows the execution of authorized monitoring, management, and control applications that are required to execute programs on the OS in the Supervisory Controller and blocks the execution of other applications. Note: If your version of the Supervisory Controller is 2.3 or earlier, you cannot purchase the SVC Malware Monitoring (optional). If you wish to purchase SVC Malware Monitoring, please upgrade the Supervisory Controller to version 2.4 or higher first.
Charge calculation software -charge calculation- (optional)	This software adds a charge calculation function to the client PC for use in billing. A report can be output for each tenant showing the amount of the bill. The amount is based on the use of heating and lighting (measured by the Supervisory Controller meter-reading function), fixed costs, manual input charges, etc.
Charge calculation software -billing- (optional)	This function outputs the bill calculated by the Charge Calculation Software in the specified format.
System portal for wide-area management (optional)	Alarms from multiple savic-net G5 systems can be monitored remotely at one place. The monitoring screen for each system can be started. Note: A network contract with a carrier is required.

■ Model Numbers

● Supervisory Controller (Model BH-1)

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Product name (application name)	Model number
savic-net™ G5 Supervisory Controller	BH-101G0W0000 BH-101G0W0000-F BH-102G0W0000
savic-net™ G5 Supervisory Controller (without azbil logo)	BH-101G0N0000 BH-101G0N0000-F BH-102G0N0000
savic-net™ G5 Supervisory Controller: Package software model 500	BS-10B050001G
savic-net™ G5 Supervisory Controller: Package software model 1000	BS-10B100001G
savic-net™ G5 Supervisory Controller: Package software model 2000	BS-10B200001G
savic-net™ G5 Supervisory Controller: Package software model 5000	BS-10B500001G
savic-net™ G5 Supervisory Controller: Package software model 10000	BS-10B1X0001G
savic-net™ G5 Supervisory Controller: Package software model 20000	BS-10B2X0001G
savic-net™ G5 Supervisory Controller: Package software model 30000	BS-10B3X0001G
savic-net™ G5 Supervisory Controller: BACnet communication between Supervisory Controller and primary devices	BS-10AD12001G
savic-net™ G5 Supervisory Controller: Modbus communication between Supervisory Controller and primary devices	BS-10AD13001G
savic-net™ G5 Supervisory Controller: SNMP communication between Supervisory Controller and primary devices	BS-10AD14001G
savic-net™ G5 Supervisory Controller: Redundancy	BS-10AD00011G
savic-net™ G5 Supervisory Controller: Use of external storage	BS-10AD00031G
savic-net™ G5 Supervisory Controller: Automatic Data Backup	BS-10AD00041G
savic-net™ G5 Supervisory Controller: Simultaneous logins	BS-10AD00101G
savic-net™ G5 Supervisory Controller: Voice Alarm Message	BS-10AD00201G
savic-net™ G5 Supervisory Controller: Full-screen mode	BS-10AD00301G
savic-net™ G5 Supervisory Controller: Slideshow	BS-10AD00401G
savic-net™ G5 Supervisory Controller: SVC malware monitoring	BS-10AD00501G
savic-net™ G5 Supervisory Controller: Linked Stop of Client Terminals Alarm Sound	BS-10AD00601G
savic-net™ G5 Supervisory Controller: Point Guidance	BS-10AD00701G
savic-net™ G5 Supervisory Controller: Point management	BS-10AD10001G
savic-net™ G5 Supervisory Controller: Analog high/low limits monitoring	BS-10AD20101G
savic-net™ G5 Supervisory Controller: Increment in accumulated value (during a specified period) monitoring	BS-10AD20501G
savic-net™ G5 Supervisory Controller: State duration monitoring	BS-10AD20601G
savic-net™ G5 Supervisory Controller: Elapsed active time monitoring	BS-10AD20701G
savic-net™ G5 Supervisory Controller: Change of state count monitoring	BS-10AD20801G
savic-net™ G5 Supervisory Controller: Operating hours by time slot monitoring	BS-10AD21001G
savic-net™ G5 Supervisory Controller: E-mail alarm notification	BS-10AD11111G
savic-net™ G5 Supervisory Controller: Graphic	BS-10AD30101G
savic-net™ G5 Supervisory Controller: Graphic generator	BS-10AD30111G
savic-net™ G5 Supervisory Controller: Data aggregation	BS-10AD40101G
savic-net™ G5 Supervisory Controller: Processed Data Correction	BS-10AD40111G
savic-net™ G5 Supervisory Controller: Charts	BS-10AD40401G
savic-net™ G5 Supervisory Controller: Daily, weekly, monthly, and yearly reports	BS-10AD40601G
savic-net™ G5 Supervisory Controller: Reports Format Editor	BS-10AD40611G
savic-net™ G5 Supervisory Controller: Meter reading	BS-10AD40301G
savic-net™ G5 Supervisory Controller: Meter Reading Value	BS-10AD40331G
savic-net™ G5 Supervisory Controller: Logs	BS-10AD40701G
savic-net™ G5 Supervisory Controller: Logs format editor	BS-10AD40711G
savic-net™ G5 Supervisory Controller: No Log Comment	BS-10AD40721G
savic-net™ G5 Supervisory Controller: No Change of Point Logging	BS-10AD40731G
savic-net™ G5 Supervisory Controller: PDF edit permission update	BS-10AD40801G

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Product name (application name)	Model number
savic-net™ G5 Supervisory Controller: No XLSX Output	BS-10AD40811G
savic-net™ G5 Supervisory Controller: Data Archiving and Retrieval	BS-10AD40901G
savic-net™ G5 Supervisory Controller: Flexible Reporting	BS-10AD41001G
savic-net™ G5 Supervisory Controller: Time-series data export	BS-10AD41101G
savic-net™ G5 Supervisory Controller: Calendar	BS-10AD50501G
savic-net™ G5 Supervisory Controller: Schedule	BS-10AD50601G
savic-net™ G5 Supervisory Controller: Schedule Integration	BS-10AD50611G
savic-net™ G5 Supervisory Controller: Numerical operation	BS-10AD50301G
savic-net™ G5 Supervisory Controller: Conditional operation	BS-10AD50201G
savic-net™ G5 Supervisory Controller: Alarm output	BS-10AD50101G
savic-net™ G5 Supervisory Controller: Fire control	BS-10AD51601G
savic-net™ G5 Supervisory Controller: Generator load distribution	BS-10AD50731G
savic-net™ G5 Supervisory Controller: Power Factor Correction	BS-10AD50801G
savic-net™ G5 Supervisory Controller: Power demand	BS-10AD50901G
savic-net™ G5 Supervisory Controller: Duty cycle control	BS-10AD51001G
savic-net™ G5 Supervisory Controller: No Humidification	BS-10AD51701G
savic-net™ G5 Supervisory Controller: Optimum start/stop of HVAC	BS-10AD51101G
savic-net™ G5 Supervisory Controller: Optimum start/stop of central plant	BS-10AD51201G
savic-net™ G5 Supervisory Controller: VWV Demand Calculation	BS-10AD51311G
savic-net™ G5 Supervisory Controller: VWV Pressure Calculation	BS-10AD51321G
savic-net™ G5 Supervisory Controller: Charge Calculation Software for the Charge Calculation Function	BS-10AD40311G
savic-net™ G5 Supervisory Controller: Charge Calculation Software for the Billing Function	BS-10AD40321G

● System Portal for Wide-Area Management (Optional)

Product name	Model number
System Portal: Basic Function	BS-40AD000001G
System Portal: Licenses for Connected Systems	BS-40AD000001G

● **General Controller (Model WJ-1111), Direct Mount I/O Module (Model RY51), SAnet Interface Module (Model RY5101E), Setting-Device Connection Module (Model RY5101U), Operator Panel (Integrated Type) Module (Model RY5101Q), Operator Panel (Panel Mount Type) (Model QY5100W)**

Product name	Model number
General Controller	WJ-1111W0000
Direct Mount I/O Module: 8 digital inputs	RY5108S0000
Direct Mount I/O Module: 16 digital inputs	RY5116S0000
Direct Mount I/O Module: 8 relay outputs (normally open contact)	RY5108D0000
Direct Mount I/O Module: 16 relay outputs (normally open contact)	RY5116D0000
Direct Mount I/O Module: 8 relay outputs (normally open contact) + 8 digital inputs	RY5116R0000
Direct Mount I/O Module: 8 relay outputs (normally open/normally close contact)	RY5108C0000
Direct Mount I/O Module: 4 remote control outputs	RY5104Y0000
Direct Mount I/O Module: 4 pulse inputs	RY5104T0000
Direct Mount I/O Module: 16 pulse inputs	RY5116T0000
Direct Mount I/O Module: 2 voltage/current outputs	RY5102M0000
Direct Mount I/O Module: 4 voltage/current outputs	RY5104M0000
Direct Mount I/O Module: 4 voltage/current inputs	RY5104A0000
Direct Mount I/O Module: 4 temperature inputs (Pt100 Ω)	RY5104P0000
Direct Mount I/O Module: 4 temperature inputs (Pt1000 Ω)	RY5104P000K
Direct Mount I/O Module: 2 voltage/current inputs + 2 temperature inputs (Pt100 Ω)	RY5104J0000
Direct Mount I/O Module: 2 voltage/current inputs + 2 temperature inputs (Pt1000 Ω)	RY5104J000K
Direct Mount I/O Module: 1 modutrol motor output	RY5101F0000
Direct Mount I/O Module: 3 modutrol motor outputs	RY5103F0000
Direct Mount I/O Module: SAnet Interface Module	RY5101E0000
SAnet Interface Module	RY5101E0000
Setting-Device Connection Module (SD Module)	RY5101U0000
Operator Panel (Integrated Type) Module	RY5101Q0000
Operator Panel (Panel Mount Type)	QY5100W0000

● **Compact Remote I/O Module (Model RJ-12)**

Product name	Model number
Compact Remote I/O Module: 8 digital inputs / 8 pulse inputs	RJ-1201W0800
Compact Remote I/O Module: 4 digital inputs + 4 digital outputs	RJ-1202W0800
Compact Remote I/O Module: 2 universal inputs/outputs	RJ-1203W0200
Compact Remote I/O Module: 4 remote control relay outputs	RJ-1204W0400
Compact Remote I/O Module: Combination (2 digital inputs + 2 digital outputs + 1 analog output)	RJ-1205W0500

● **Advanced Controller for Chiller/Pump Units (Model WJ-1102), Advanced Controller (Model WJ-1101), Advanced Remote I/O Module (Model RJ-11)**

Product name	Model number
Advanced Controller for Chiller Units	WJ-1102Q
Advanced Controller for Pump Units	WJ-1102P
Advanced Controller	WJ-1101W0000
Advanced Remote I/O Module: 16 digital inputs	RJ-1101W1600
Advanced Remote I/O Module: 8 digital inputs + 8 digital outputs	RJ-1102W1600
Advanced Remote I/O Module: 4 universal inputs/outputs	RJ-1103W0400
Operator Interface	QJ-1101D0000

● **Infilex VC: VAV Controller with Actuator (Model WY5706)**

Product name	Model number
Infilex VC: 24 V AC power, 5 Nm, Int. air flow sensor, No digital output, Pt100	WY5706C5110
Infilex VC: 24V AC power, 5Nm, Int. air flow sensor, No digital output, Pt1000	WY5706C511K
Infilex VC: 24V AC power, 5Nm, Int. air flow sensor, 3 digital outputs, Pt100	WY5706C5130
Infilex VC: 24V AC power, 5Nm, Int. air flow sensor, 3 digital outputs, Pt1000	WY5706C513K
Infilex VC: 24 V AC power, 10 Nm, Int. air flow sensor, No digital output, Pt100	WY5706C5210
Infilex VC: 24 V AC power, 10 Nm, Int. air flow sensor, No digital output, Pt1000	WY5706C521K
Infilex VC: 24 V AC power, 10 Nm, Int. air flow sensor, 3 digital outputs, Pt100	WY5706C5230
Infilex VC: 24 V AC power, 10 Nm, Int. air flow sensor, 3 digital outputs, Pt1000	WY5706C523K

● **FCU Controller (Model WJ-1202W)**

Product name	Model number
FCU Controller: Valve ON/OFF control, No external contact	WJ-1202W1000
FCU Controller: Valve proportional control, No external contact	WJ-1202W2000
FCU Controller: Valve proportional control, External contact	WJ-1202W2010
FCU Controller: Valve proportional control with return water temperature control, No external contact	WJ-1202W3000
FCU Controller: Valve proportional control with return water temperature control, External contact	WJ-1202W3010

● **Multi-area User Terminal (Model QJ-1201)**

Product name	Model number
Multi-area User Terminal: “azbil” logo	QJ-1201C0000
Multi-area User Terminal: no “azbil” logo	QJ-1201C0010

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