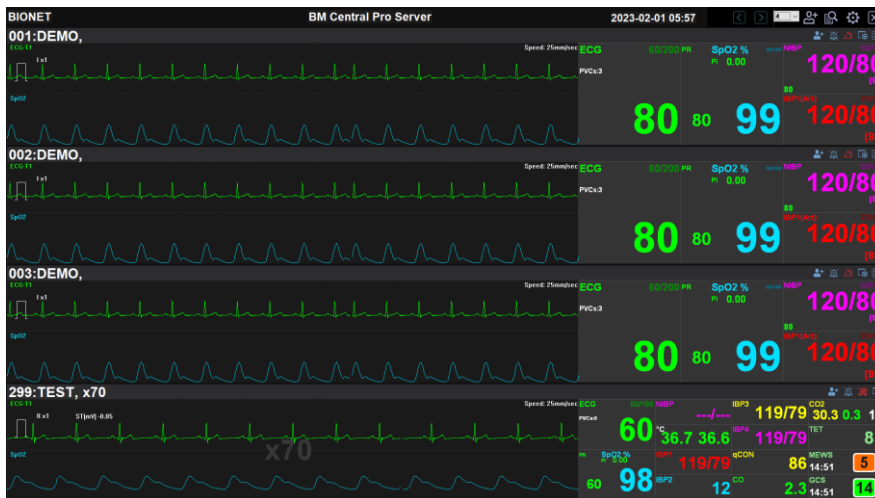




Bionet Software

BM Central Pro Operation Manual



Ver. 4.04

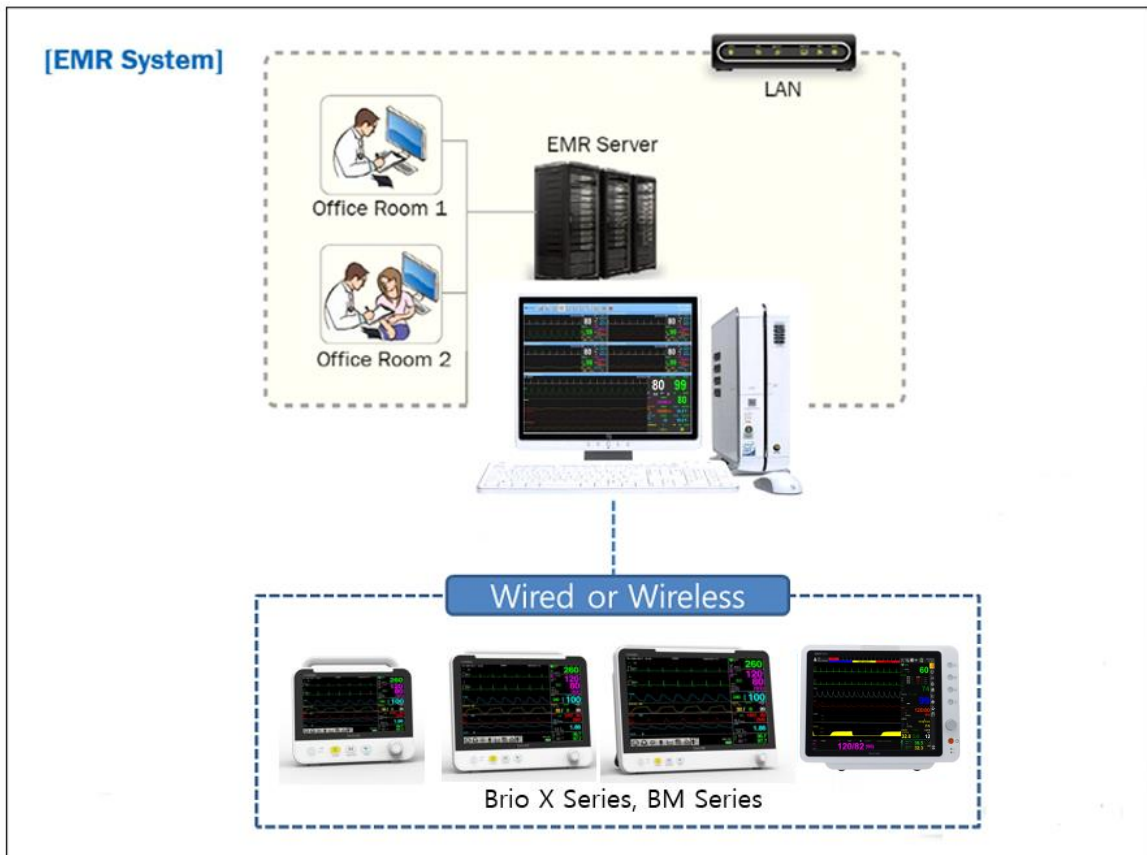
2024. 04. 23



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Revision No.	Date	Contents	Page
3.03	2022.03.02	1. new permit	-
-			
4.00	2023.01.11	1. Change form 2. changed the version form to 3 digits according to management rules	-
4.01	2023.02.16	1. Changed model name from BM Central to BM Central Pro	-
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4.03	2023.10.20	1. change S/W setup	
4.04	2024.04.23	1. Display Client Area Information - Display Time parameter information - Add the function for status display	P36 P53



This manual includes the basic use of BM Central Pro. For proper use and maintenance, please read the guide and use it accurately. For the equipment included in the manual, please refer to the manual provided with the equipment.

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bionet

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Note

The specifications and functions described in this instruction manual can be modified without notice for product improvement.

Chapter 1. General

1. Checkpoints before use

- 1.1. Registered Trademark
- 1.2. Warranty Period
- 1.3. How to reach us
- 1.4. Warning, Caution, Note
- 1.5. General Precaution on environment

2. Outline

- 2.1. Intended Use
- 2.2. Main functions of BM Central Pro











3. Product components

- 3.1. Main features of the product
- 3.2. Program Composition
- 3.3. Hardware Preference
- 3.4. System Requirement

1. Checkpoints before use

1.1. Registered Trademarks

- Microsoft Windows and Windows Logo are trademarks of Microsoft Corporation.
- Mac is a trademark of Apple Corporation.
- HDMI, HDMI Logo and High Definition Multimedia Interface are trademarks of HDMI Licensing LLC.
- Wi-Fi and Wi-Fi logo are trademarks of Wi-Fi association.
- Patient Monitor in the manual means a patient monitoring device manufactured by Bionet.
- Brio X Series is a trademark of Bionet
- BM Series is a trademark of Bionet
- BM Central Pro and BM Review are trademarks of Bionet
- Trademarks and product names indicated in the manual are the trademarks of each company.
- Mark marked on the product

	Caution: Consult accompanying documents		Safety Sign: To signify that the instruction
	Manufacturer		Date of Manufacture
	This way up		Medical device
	CE Mark		Authorized European Representative
	Recycle		Keep dry

- Product standard or the contents of the manual may be modified without notice, due to the product improvements.
- Copying the whole or the part of the manual is prohibited unless authorized.
- Use the product in the country where you purchased.
- BM Central Pro use the product provided by our company or the one with

recommended specification.

1.2. Warranty Period

- This product is manufactured and passed through strict quality control and through inspection.
- Warranty period is 1 year.
- We will repair or replace any part of the product that fails due to manufacturer defects.
- This warranty does not apply to any defect caused by improper abuse, misuse or exposure to poor management.

1.3. How to reach us

BIONET services are always available to you.

The followings are address and phone number for contacting information, services, and product supplies.

However, the service is limited for genuine products only. Service may not be provided for other cases.

Product Supply Information	Bionet Co., Ltd. – Sales Department Address #5F, 61 Digital-ro 31 gil, Guro-gu, Seoul, REPUBLIC OF KOREA (ZIP 08375) TEL : 82-2-6292-6410 E-mail : info.sales@ebionet.com , service@ebionet.com
Consumables Order	TEL : 82-2-6292-6410
A/S and Technical Support	Bionet Co., Ltd. – Customer Service Department TEL : 82-80-801-6410 FAX : 82-2-6499-7789 E-mail : service@ebionet.com
Internet	URL : http://www.ebionet.com

* In the event of abnormalities such as BM Central Pro malfunction or product failure, simply identify the abnormal symptoms and contact the model name and product name of the damaged equipment with the serial number

1.4. Definition of Warning, Caution and Notes

Terms are defined as follows to emphasize the agreed contents in the user manual. Users shall follow all the warnings or notes.

Warning
"Warning" is used to indicate how there are causes for severe injuries, casualty, or physical damages on a patient if ignoring the warning.

Caution
"Caution" is used to indicate how there is no concern on life if ignoring the caution but that there are causes for injuries

Note
"Note" are used for the notification about how it is not dangerous but important information on installation, usage, or maintenance

1.5. General Precaution on Environment

- This product does not have a lifespan as S/W and can be used continuously as long as Windows supports it. However, for stable use, management is required according to the update and security policies recommended by the manufacturer (Microsoft).
- This S/W cannot receive an alarm or data loss when the power supply to the PC is cut off. EPS is recommended for stable power supply
- Keep at room temperature
- Do not install or store patient central monitors in environmental conditions with high atmospheric pressure, temperature, humidity, or high levels of sunlight, dust, sodium, and sulfur.

-
- Operating condition
 - Temperature range: 5 °C to 40 °C
 - Relative humidity range: 30 % to 85 %,
 - Ambient pressure range: 70 kPa to 106 kPa
 - Storage and delivery condition
 - Temperature range: -10 °C to 60 °C
 - Relative humidity range: 10 % to 90 %
 - Ambient pressure range: 70 kPa to 106 kPa
 - Moved from one place to another, condensation may occur as a result of temperature or humidity difference. In this case, never start the system before the condensation disappears.
 - PC should be cleaned on a regular basis. If you are in an area that is heavily polluted or dusty, the equipment should be cleaned more frequently. The equipment to be cleaned includes the displays, printer, keyboard and mouse. Before cleaning the equipment, consult your hospital's regulations for cleaning, disinfecting and sterilizing equipment.
 - To avoid contaminating or infecting personnel, the environment or other equipment, disinfect, decontaminate and dispose of equipment in accordance with applicable national laws for installed equipment. Disposal of other parts and cases follow local regulations regarding hospital waste disposal, unless otherwise specified.

2. Outline

2.1. Intended Use

BM Central Pro is a software only for patient monitors which are manufactured by BIONET Co.,Ltd. BM Central Pro can be connected to up to 64 units of patient monitors. This system is able to monitor and save parameters and waveforms. You can retrieve and register patient information, you can have various data by using this system also.

- Bionet patient monitor is used in medical facilities under the guidance of clinical experts or their guidance. It should be used only by persons who have been properly trained in its use.
- Bionet patient monitor can monitor adult, pediatric and neonatal patients according to each model and parameter. Please refer to the manual of the device for use.
- This program is not intended for helicopter transport, hospital ambulance or home use.

2.2. Specification

Functions	Description
Monitoring units	Max. 64 units
Supported device	Brio Sereis, BM Series
View Mode	2, 4, 6, 8, 10, 12, 16, 32 Channel View Mode (Supported Dual Monitor)
Data Save	Max 10 days
Alarm	Sound and Display
Communication type	Bidirectional communication with patient monitor
Reviewer	Alarm View, Wave View, Graphic Trend View, Tabular Trend View, ECG View
Print and Report	Supported Preview and Print (5 kinds of Report Form)
Supported Language	English, Italian, French, Spanish, German, Chinese, Russian, Polish, Czech, Turkish, Romanian, Portugues, Bulgarian, Kazakhstan, Korean (15 languages in total)

3. Product Component

3.1. Main features of the product



BM Central Pro, as a central patient monitoring device, enhances convenience by supporting parameter configuration changes and viewing patient information in various formats according to the user environment. In addition, it supports various review forms and print functions to increase the efficiency of patient information analysis, and is designed to effectively monitor multiple devices by providing detailed alarm settings and control functions for each device.

3.2. Program Composition

BM Central Pro Program is consisted of three programs. They are, BM Central Pro, which implements server function, BM Review, which can analyze and make a judgment on measurement data, and BM Central Pro Client(Broker), in which the measurement data of server may be checked in each work area.

BM Central Pro Client(Broker) is an optional product.

3.3. Hardware Preference

Type	Central system	Description
Common	 <p>The image shows a CD-ROM for BM Central Pro software. The text on the CD includes 'BM Central Pro', 'Ver.4.02', 'Central Monitoring S/W', 'S/N CBB5KOA0001', and the bionet logo. At the bottom, there is a copyright notice: '© Copyright Bionet Company. All Rights Reserved. This material is produced by Korea and other copyrights and may not be copied, sold or redistributed in any form without the written permission of Bionet company. www.ebionet.com'.</p>	BM Central Pro Software CD
Common	 <p>The image shows a blue USB lock key, which is a small hardware device used for license verification.</p>	USB Lock Key (For License)

3.4. System Requirement

Minimum requirement for BM Central Pro is Windows 7. Installation is available for BM Central Pro CD only.

The minimum requirements of installation of BM Central Pro are as below.

Sortaion	Minimum Requirement	Recommended Requirement
OS	Windows 7	Windows 10 / 11
CPU	1GHz or faster 2cores CPU (32/64bit)	2GHz or faster 4cores CPU (64bit)
RAM	4GB	8GB or more
Monitor	19 inches	24 inches or more
Graphic Card	VGA RAM 256 MB 1600 x 900	VGA RAM 512MB or more 1920 x 1080
CD-ROM drive	24X	48X
HDD	500 GB	1 TB or more
LAN	100 Mbps	1000 Mbps or more
USB	2 ports	3 ports or more

Chapter 2. Installation

4. Installation of BM Central Pro

4.1. Installation in Window 10

5. Uninstallation of BM Central Pro

5.1. How to uninstall in a Windows 10 environment

6. Execute / Close BM Central Pro

6.1. Execute BM Central Pro Program

6.2. Close BM Central Pro Program

4. Installation of BM Central Pro

4.1. Installation in Window 10

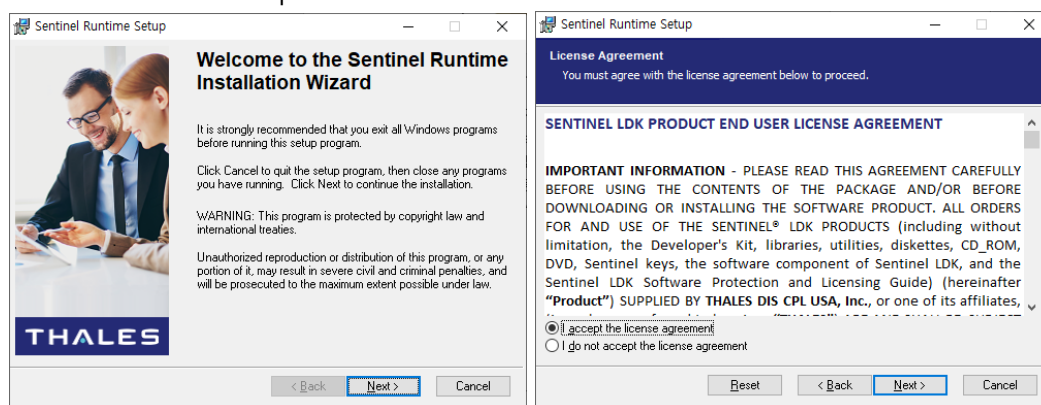
Backup

- (1) If you were using BM Central Pro, you should back up measurement data and DB data files which manage the data in order to secure the safety of data. After that, start the installation
- (2) The Data folder exists in the Folders folder in User Preferences. Checking out that location and backing up the folder where the data exists. After reinstalling this backup copy and DB file, you will copy it again in that location.

(default path : %Users%\user name\AppData\Roaming\BIONET\BMCentral\Data)

Install USB Lock Key

- (3) Insert BM Central Pro Installation CD to the CD Drive.
- (4) Select the "USB Lock Key Driver" folder included in the CD And run "Sentinel_LDK_Runtime_setup.8.43".
(For older OS such as XP and Win7, select "Sentinel_LDK_Runtime_setup.7.41" folder)
- (5) Execute "HASPUserSetup.exe" in the folder.



Select I accept... and proceed with the installation.

Install BM Central Pro Server

- (6) Close all software in use before installation.
(Depending on the OS environment, automatic reboot may occur after installation)
- (7) Insert BM Central Pro Installation CD to the CD Drive.



- (8) Run "setup.exe" included in the CD.

(Depending on the OS environment, the installation process may be skipped for already

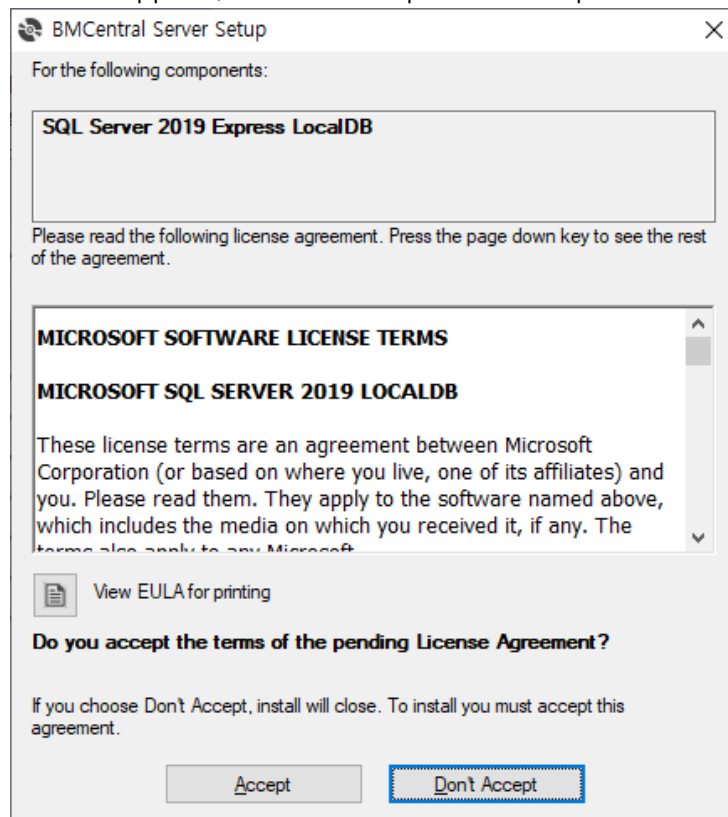
installed s/w packages)

- (9) When installing in Windows 10 version environment, proceed with installation in administrator mode. (Right-click on the installation icon > Run as administrator)

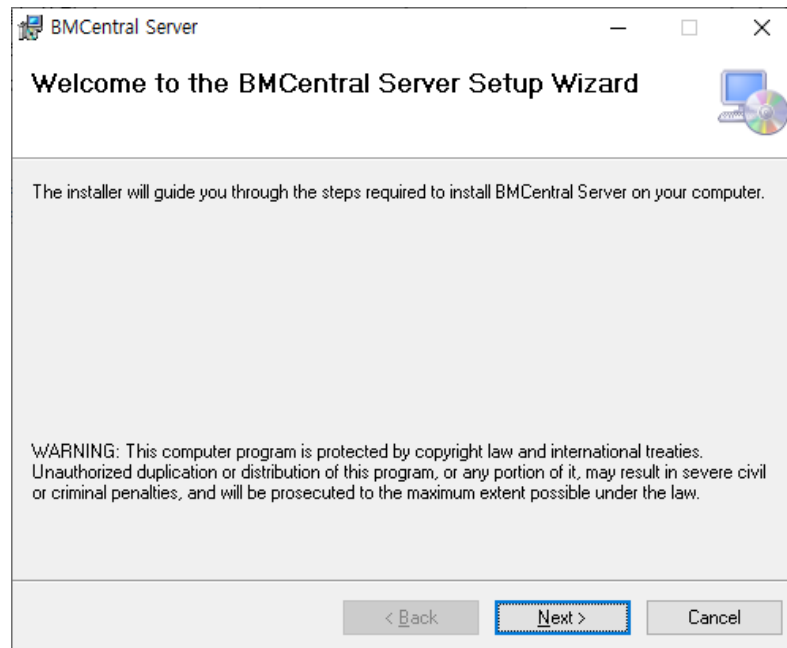
When the installation screen appears, click the "Next>" button to proceed with the installation.

(NET Framework and MICROSOFT VISUAL C++ 2015-2022 RunTime are automatically installed depending on the PC environment.)

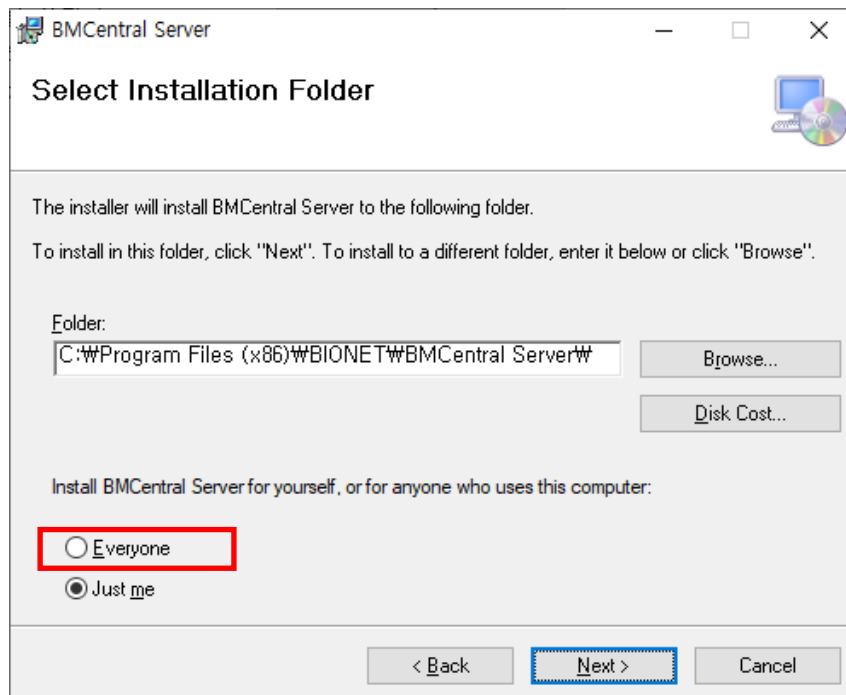
- (10) When the screen below appears, click the "Accept" button to proceed with installation.



- (11) Install the relevant program in the folder which is set above. Click "Next" button.

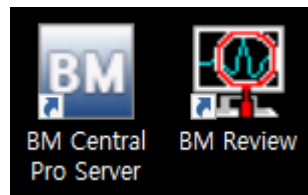


When the next screen appears, click "Browse..." button with the mouse to select the folder where the program will be installed. The recommendation is to check for everyone and then click the "Next>" button to install.

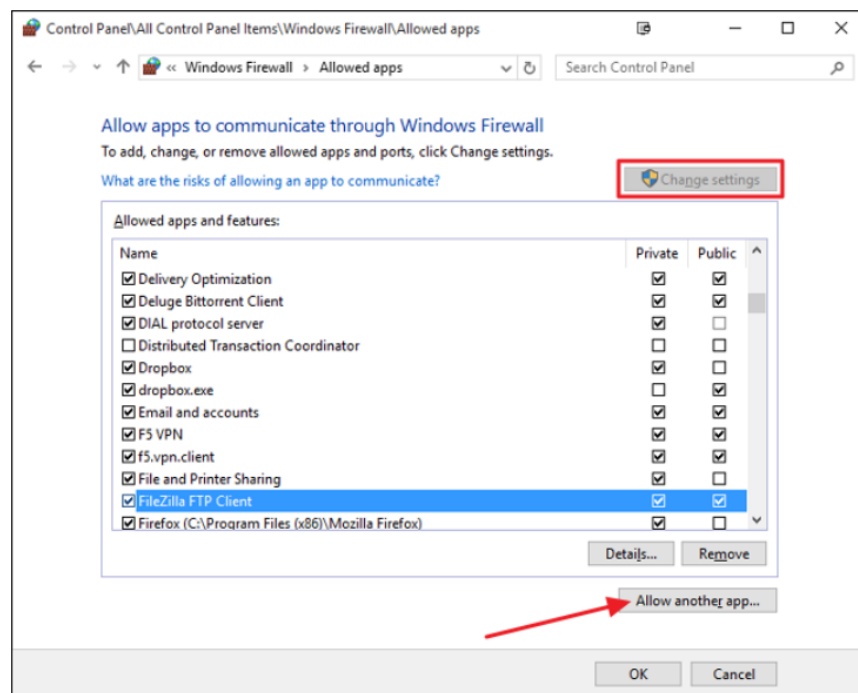


(12) If installation is completed, click "Finish".

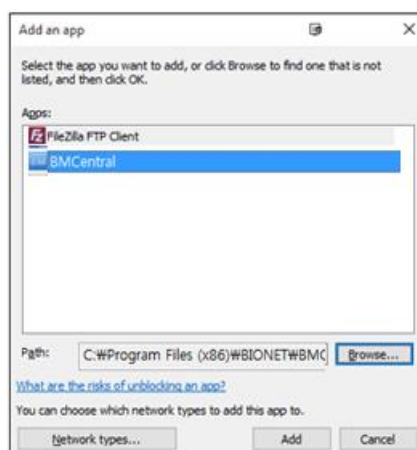
(13) If installation is successful, you may see the "BM Central Pro" and "BM Review" Icon.



- (14) After finishing the installation, access right should be given in order to make network communication work in Windows 7 and Windows 8. You can register the program to be allowed in Windows Firewall.
- (15) Enter "System and security" in Control Panel.
- (16) Select "Windows Firewall" in system and security.
- (17) Select "Allowed programs" in Windows Firewall.
- (18) Click "Allow other programs" in allowed programs.



- (19) In 'Add an app' dialogue, select 'Browse'.
- (20) Move to "C:\Users\User\AppData\Roaming\BIONET\BMCentral" folder where the program exists and select "BMCentral".
- (21) Select the program and click "add"



- (22) If "BMCentral Application" is on the allowed program list, it is properly registered. If it is not properly registered, wave may not be seen even if the program is executed and equipment is interlocked.
- (23) Register installed program in allowed program list. If you have backup files before installation, copy it to the same folder and use the system.

Caution

Please check for the remaining space, for the data generated while executing the program. While executing BM Central Pro program, measured data and image saving process for interlocking with EMR will occur. In "preference", "system" of BM Central Pro program, select the hard disk folder which has a sufficient amount of remaining space.

All connections, including PC peripherals and USB Key Lock, should be checked periodically. It should also be used in places where power supply is smooth and stable.

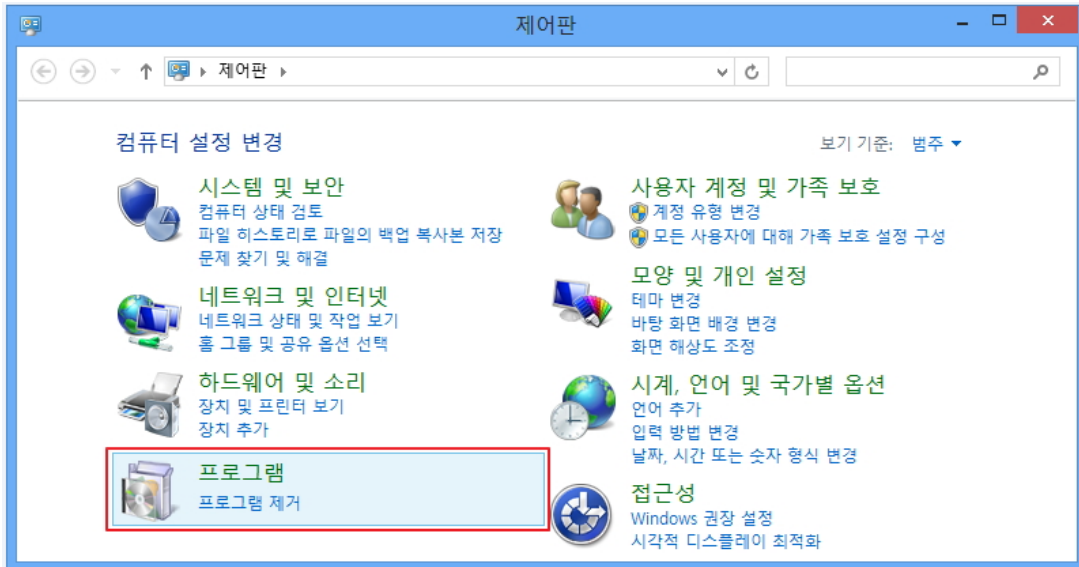
When Audio Pause or Audio Off mode is enabled, audible alarms may not occur on the Patient Monitoring Unit or the Patient Central Pro Monitoring Unit.

If you enable screen locking, you need to manage your password thoroughly. Patient information may be leaked in case of an external leak, and if the password is lost, system initialization is lost.

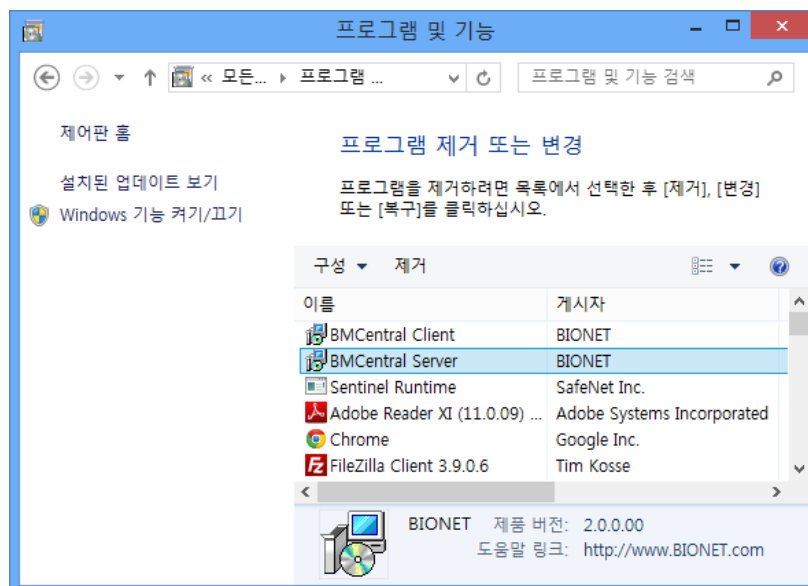
5. Uninstallation of BM Central Pro

5.1. How to uninstall in a Windows 10 environment

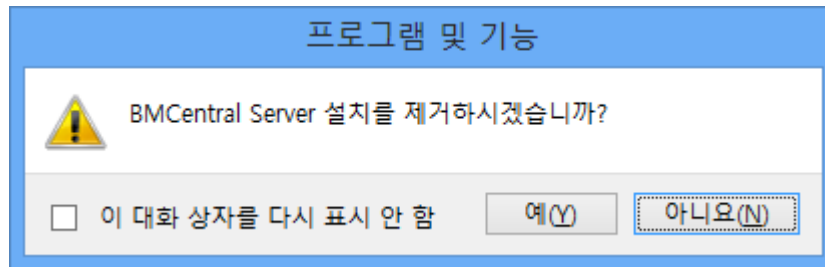
- (1) Move to Start->Control Panel->"Program addition/deletion" or "Program and Features"



- (2) Then, select "BM Central Pro Server". Click "Remove/Modify" or "Uninstall" button.



(3) Click "OK" or "Yes" to delete program.



Warning

Disinfect and decontaminate PC equipment to prevent infection before disposal. Patient information must also be deleted, and disk formatting must be performed after deletion.

Caution

Measured data and images saved for interlocking with EMR, which are occurred while executing BM Central Pro program, are not deleted. Decide whether you are going to use the data and remove it manually.

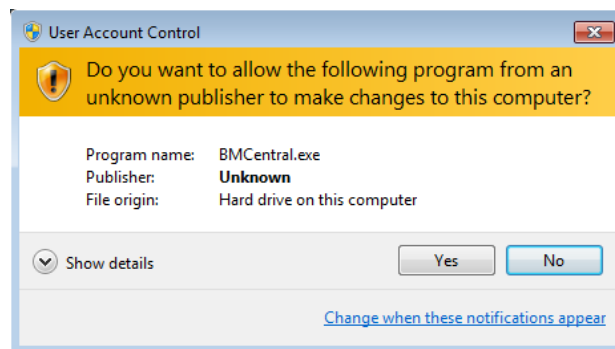
6. Execute / Close BM Central Pro

6.1. Execute BM Central Pro

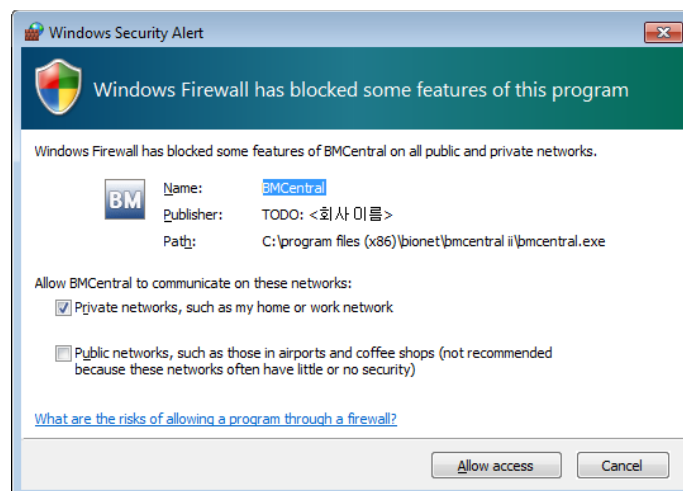
- (1) Double-click "BM Central Pro Server" Icon on Desktop.



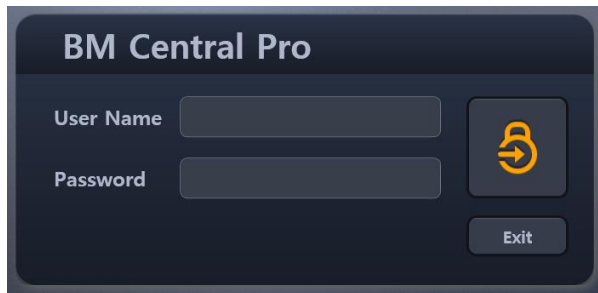
- (2) When starting the program for the first time, the dialogue below might appear due to the authority problem. Click "Yes", or "Confirm"



- (3) When starting the program for the first time, the dialogue might appear with a message that blocks some features in the firewall for security purposes. Click "Allow access" button to acquire the authority.



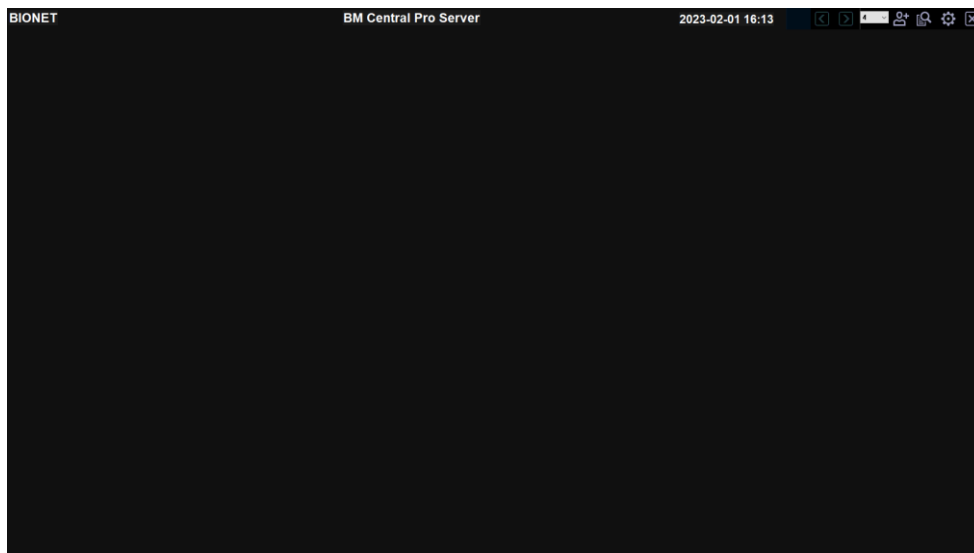
- (4) Run the program, a login window will appear as follows.



When running for the first time, you can log in without a user/password, and after user registration, you must enter your user information to log in.

(Refer to 8.3 Configuration / Administration Tab, User registration is required for security.)

- (5) This is basic design of BM Central Pro.



Warning

If the connection between the BM Central Pro and the patient monitor is lost, it is handled in accordance with the hospital's network management policy, and if it is not resolved, contact your administrator to resolve the problem.

If the program fails to run due to a license error, verify that the USB Lock Key is properly installed and recognized.

If you re-run the BM Central Pro due to a PC error or power failure, check the system settings for this device.

In the event of a system failure, patient data may be lost. According to hospital policy, patient information must be sent to the hospital server or backed up.

Always check that the alarm settings are appropriate for each patient before starting monitoring. Alarm values should be set appropriately according to changes in patient status.

The alarm setting value should not use extreme limit values that the alarm system does not operate.

Note

BM Central Pro provides two types of connecting method, Patient Monitor, and LAN & WIFI. Make a setting for BM Central Pro and Patient Monitor by referring to the manual. If the preference is properly set, the connection will be automatically made and Client Window will be formed.

When BM Central Pro and Patient Monitor are connected, you can monitor the patient data in real time. When you want to save data, set the patient information and you should admit it.

The user cannot arbitrarily change the arrangement or view order of the displayed parameters.

Even if the alarm sound is enabled, the sound may not come out if the PC status is set to silent. Pay attention to your PC settings.

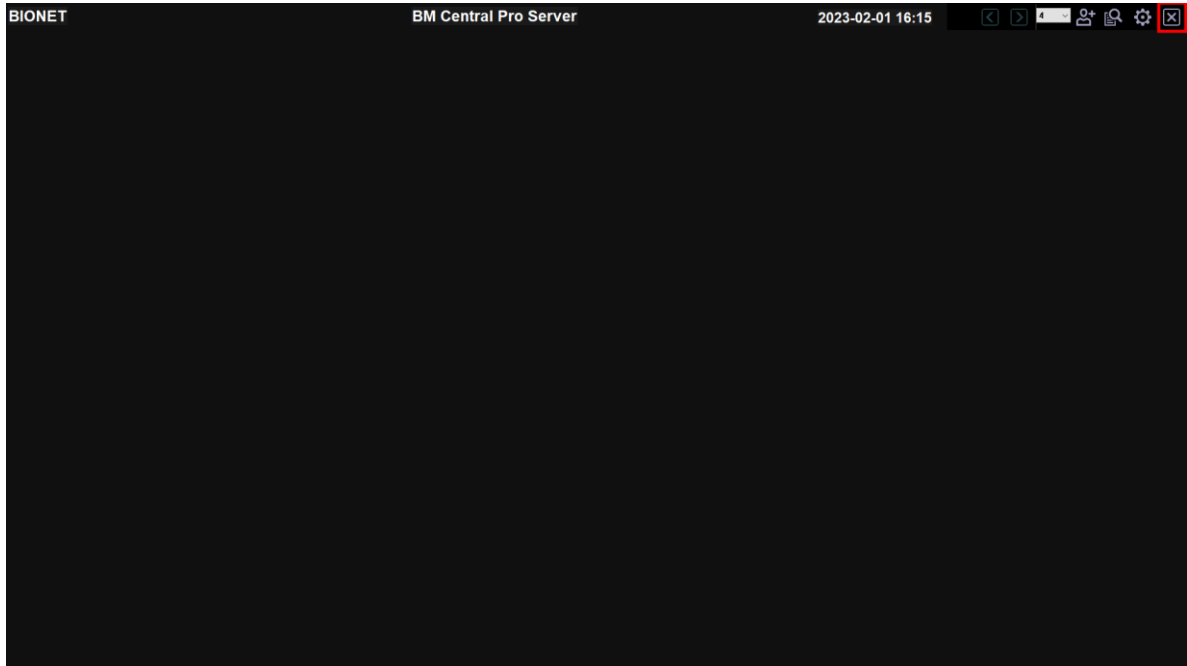
Depending on the screen view mode, the client window can be resized, waveforms and measurements hidden, and can be viewed through clicks.

Before starting the output, make sure that the printer is on and that it is functioning properly with paper and toner.

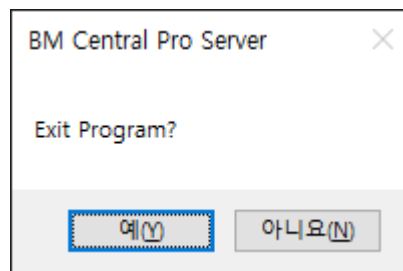
Printer settings are not handled separately. For printer operation and printer errors, contact the accompanying documentation or system administrator.

6.2. Close BM Central Pro

(1) If you want to close BM Central Pro program, click the close button indicated below.



(2) When the dialogue for closing the program appears, click "Yes(Y)" button.



(3) Program is then closed.

Caution

Before closing BM Central Pro program, it is recommended that you should close the data of real-time measurement for the patient. Data being measured might be deleted.

Chapter 3. How to use

7. Basic functions of the program

7.1 BM Central Pro Structure

7.2 Main Menu

7.3 Client Window

8. How to use a program

8.1 Channel layout and channel screen movement

8.2 To manage patient information

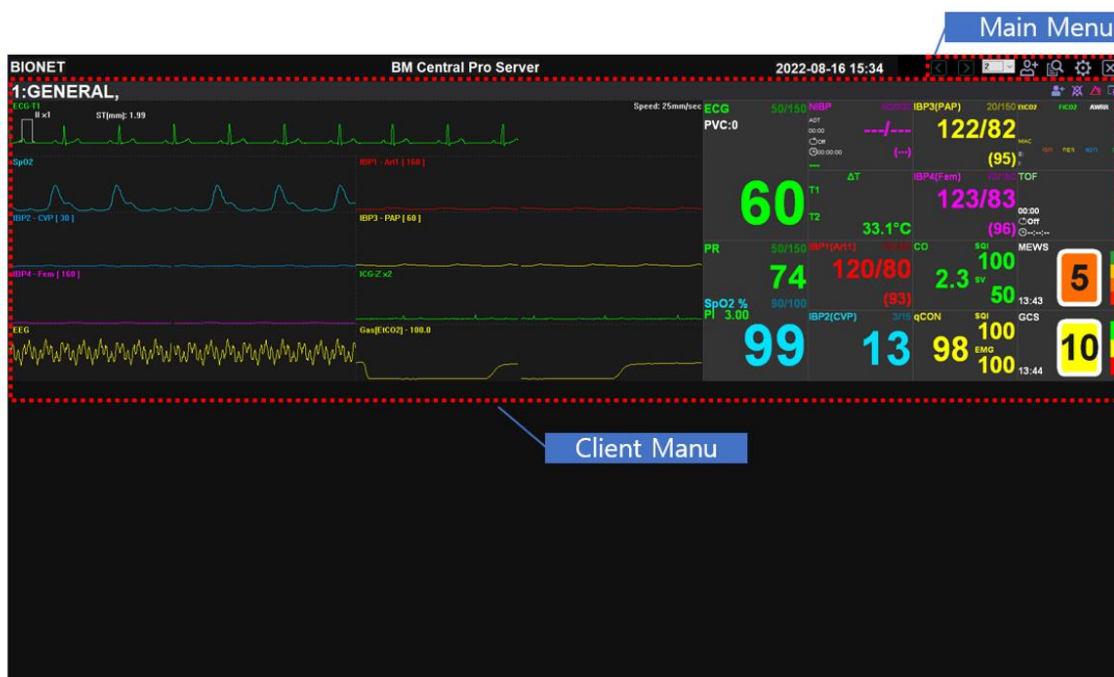
8.3 Preference Setting

8.4 Client Window Menu

7. Basic functions of the program

7.1. BM Central Pro Structure

Basic Design of BM Central Pro



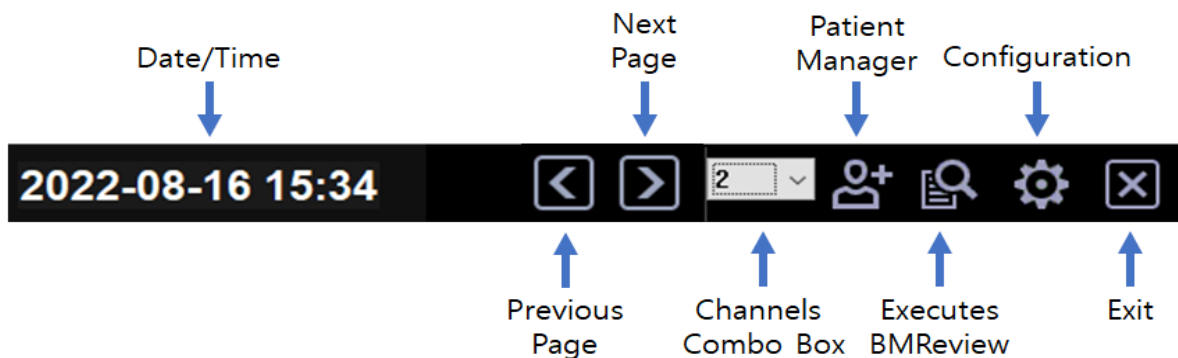
Main Menu

The main menu consists of Patient Manager, User Manager, Channel Display for connected clients, Client Window Setting, and Run "Review Program".

Client Window

The client window automatically opens when the patient monitor is connected to BM Central Pro. One client window displays one patient monitor. You can check the monitor's parameter and waveform in real time, remotely control the monitor settings, and print the information in real time. Client Window is displayed by dividing the area into 2Ch ~ 32Ch (2Ch, 4Ch, 6Ch, 8Ch, 10Ch, 12Ch, 16Ch, 32Ch) screens according to the number of connected devices.

7.2. Main Menu



Previous / Next Page

Provides the function to move to the next/previous screen when multiple devices are connected more than can be displayed on the monitor. (The button is disabled when it can no longer be moved.)

2 ~ 32 Channels

To select number of clients(patient monitor) on screen.

Patient Manager

To register "patient information".

Configuration

To set up the environment of system.

Executes BMReview

To call up and open the saved file regarding patient information.

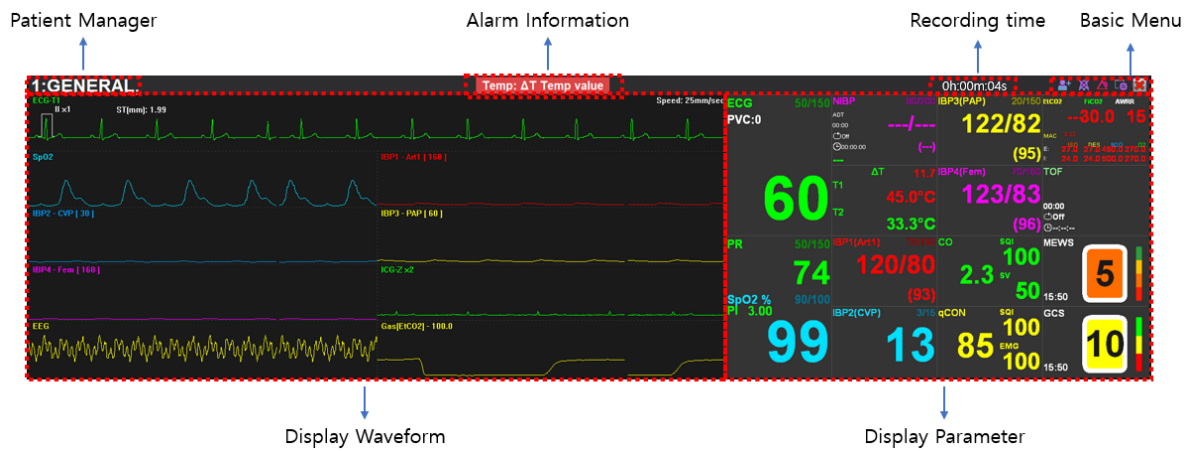
Exit

To quit the program.

Date/Time

To show the present date/time.

7.3. Client Window



Client Information


To show patient information from client(patient monitor).
 (Message format : "Bed number: Unit name, Patient name")

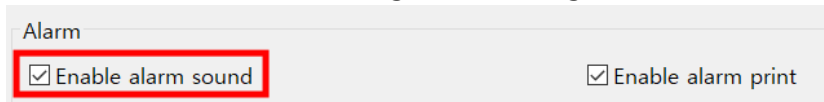
Alarm Alert

When an alarm occurs, it is expressed in three ways depending on the setting.

- Display
 Alarm Information is displayed on the top bar of the Client Window, and it is classified by color as shown below, and the corresponding numerical value blinks on the screen.

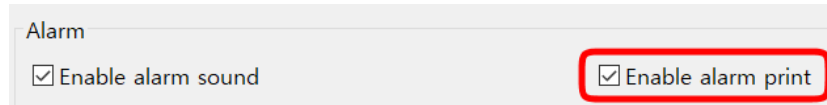


- Sound
 A sound alarm is generated through the speaker when an alarm occurs, regardless of the alarm level, when the setting of the set client is activated ().
 If it is not activated in the configuration settings, no sound is heard.



- Print
 A print alarm is output when a printer is connected.

If it is not activated in the configuration setting, it is not output.



Recording Time

To show how long the patient information is being saved.

Basic Menu



: To Admit/Discharge patient information from each patient monitor.



: Recording function is not being used. Click this button, Recording will start.
(However, the recording icon is shown only when it is committed.)



: Recording function is being used.
(Click this button, recording will stop.)



: Alarm sound is "ON". Click this button, alarm sound function will be deactivated.



: Alarm sound is "OFF". Click this button, alarm sound function will be activated.



: Indicates that the alarm of the patient monitoring device is currently activated.
Click to disable the alarm sound or alarm.



: Indicates that the alarm sound of the patient monitor is currently disabled.
Click to activate the alarm.
(Setting->General1->Alarm Mode-> Audio Paused)



: Indicates that the alarm of the patient monitor is currently disabled.
Click to activate the alarm.
(Setting->General1->Alarm Mode-> Alarm Paused)



: To set up the client environment.



: To close the client window

(If the connection with the patient monitor is lost, it is displayed.)

Display Waveform

Displays the waveform received from the Patient Monitor.

(For 4ch or higher, you can view the corresponding waveform by double-clicking the parameter with the mouse.)

Display Parameter

Displays parameters received from Patient Monitor.

(When an alarm occurs, the corresponding parameter blinks in red)

Time & Patient Status




: Displays spindle information and time.

The time information is retrieved and conveyed from the time settings configured on the spindle monitoring device.

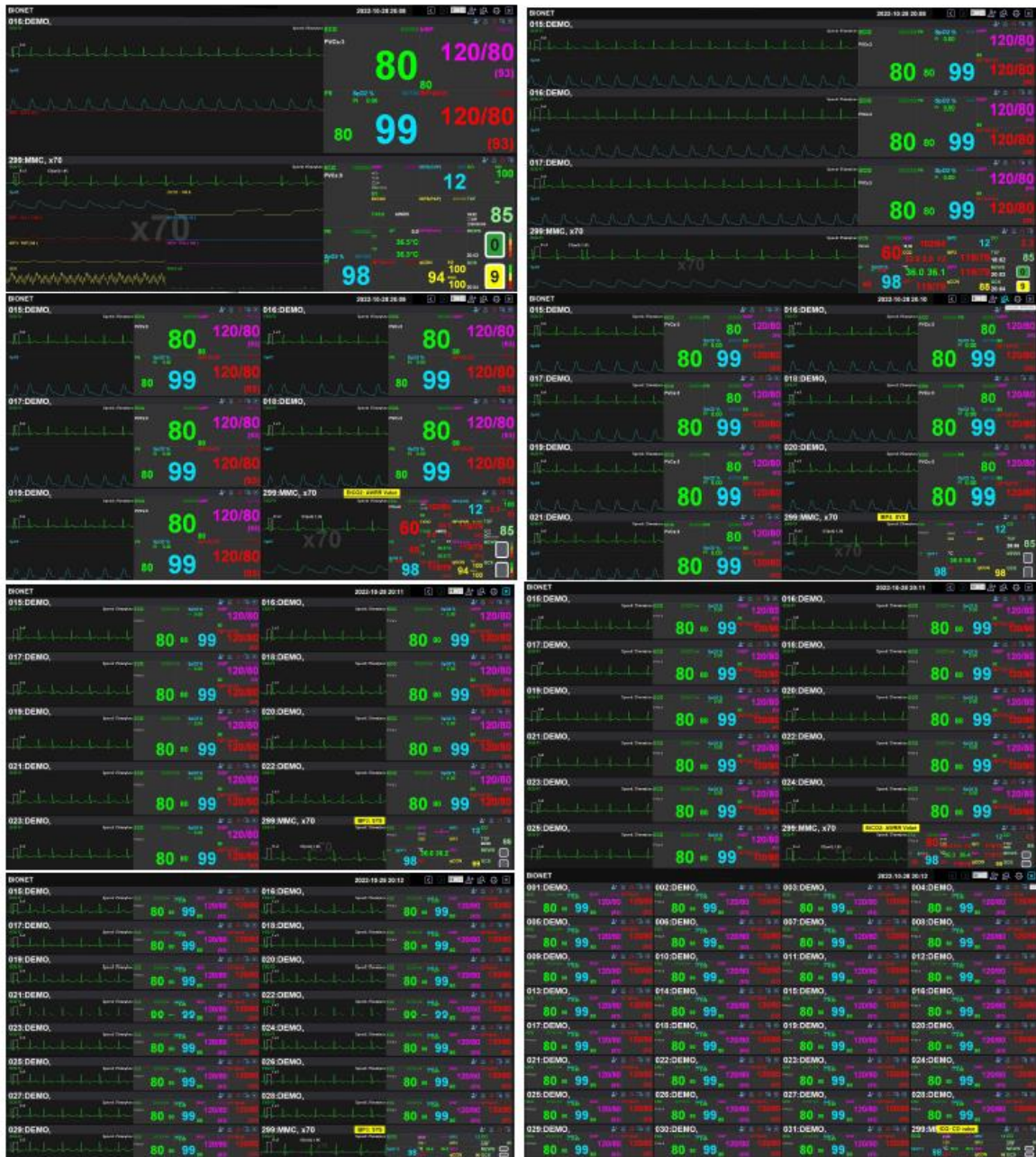
(The time information is automatically synchronized and will not be displayed if the time function is not activated on the bed.)

8. How to use a program

8.1. Channel layout and channel screen movement

The display of the screen according to the channel is divided into normal mode and zoom mode. Normal mode consists of one Client Window per connected equipment; Enlarge mode has a maximum of two Client Window per connected equipment. For zoom mode, displays all parameters and waveforms. To change the channel, click the "2 to 32 Channels()" combo button in the "Main Menu. You can switch between zoom mode and normal mode by double-clicking the caption portion of the Client Window that you want to switch to.

Normal Mode (2, 4, 6, 8, 10, 12, 16, 32 Channels)



Enlarge Mode (4 ~ 16 Channels)



Previous Page / Next Page

The "Previous and Next buttons" (◀ ▶) appear only when the number of patient monitors connected to BM Central Pro exceeds the number of available client windows. By clicking these buttons, you can check the information of the monitors that are not displayed on the client window.



[Example : 8 monitors connected in 4-CH display]

To register new patient information

- (1) Click "Patient Manager" of "Main Menu".
- (2) If you click the "Add New" button with the mouse, the "Add Patient" window appears.
- (3) Enter patient information in the "Add Patient" window.
- (4) If you finish registration of patient information, click "O.K".

To change the patient information

- (1) Click "Patient Manager" of "Main Menu".
- (2) Find a specific patient information.
- (3) Click "patient information" on the list.
- (4) If you click the "Modify" button with the mouse, the "Modify Patient" window appears.
- (5) Change patient information in the "Modify Patient" window.
- (6) Click "OK" button to save.

To delete patient information

- (1) Click "Patient Manager" of "Main Menu".
- (2) Input the specific patient information in conditions.
- (3) Click "patient information on the list.
- (4) Click "Delete" button as follows.

8.3. Preference Setting

And if you set the environment, use "Configuration" () in the Main Menu.

If you use "Configuration" you can use the system information check, set the basic layout for the client window, set the alarm sound on/off, and set the unit and HL7 service.

Environment settings are largely divided into "General1, General2" setting tabs for general settings, "System" setting tabs for major system information settings, and "Administration" tab for managing user accounts.

Setting

General 1 | General 2 | System | Administration

Unit

ST: Blood Pressure: Height:

Temperature: EtCO2 Pressure: Weight:

Gas Pressure:

Display

Save last display mode Enable Position Fix

Large letter name Vertical alignment

Alarm

Enable alarm sound Enable alarm print

Lead fault Cable Off Alarm Mode:

Disable alarm on discharge:

Default Client Setting

Alarm Sound

Enable Disable

4Ch/8Ch Sub Graph 16Ch Main Graph

General1 Tab

➤ **Unit**

This performs the function of setting the pressure, temperature, height, and weight, which will be displayed on the screen.

➤ **Display**

Save the last selected channel value, set the arrangement method of the Client Window to be displayed on the screen, and perform the function of patient information display setting.

➤ **Alarm**

It performs the function of powering the alarm sound on/off and sets the option for automatic print in case of alarm. When it powers off the alarm sound, there is no sound, even if the alarm sound icon of the client window is activated.

➤ **Default Client Setting**

This designates the display basic value for the waveforms and parameters that will be displayed in the client window.

General2 Tab

➤ **Connection Setting**

To determine the disconnection when the Patient Monitor is abnormally disconnected It performs the function of automatically closing the client window when time designation and disconnection occur.

➤ **Monitor Display Setting**

This provides the selection of the monitor on which the user wants to display BM Central Pro S/W. It supports dual monitors.

➤ **Screen Auto-Lock**

This provides a screen lock function to prevent general users from changing programs arbitrarily. The lock function has a one-time lock and cycle lock. The cycle lock function locks the screen if there is no movement of the keyboard or mouse for a duration the user designates. The initial code can be changed to one that the user wants.

➤ **HL7 Setting**

It performs the function of changing the setting for exporting the HL7 message.

System Tab

➤ **Enable Database Auto Delete**

This performs the function of automatic deletion of the database and files out of a range the user designates.

➤ **Auto Recording**

Automatically starts/stops recording.

When Enable Auto Recording at Monitor On/Off is used, it automatically starts/stops recording.

(At this time, Admit is performed automatically, so the patient ID is registered in the form of "Unknown_" + "Bed Number".)

➤ **System Setting**

This designates the path to save data or changes languages.

Display Unit Change (General1)

- (1) Select unit and change.
- (2) Click "OK" button

Display Layout Change (General1)

- (1) Check the "Enable Position Fix" item to fix the location of the client window with a bed number, and check "Vertical Alignment" if you want a vertical alignment of the client window.
(When the "Enable Position Fix" function is used, the range of "Bed Number" should be fixed as 1~64.)
- (2) Click "OK" button
(To release the function, remove check mark and click "OK")

Setting of Multi Monitor (General2)

This function sets one or more monitors.

- (1) Select the monitor you want to use. (The "X" symbol means "deactivated.")
- (2) Check the "Window Mode" item when you want to use window mode.
- (3) Click "OK" button

Setting of Screen Locking Function (General2)

The screen locking function locks the screen automatically if there is no input by the keyboard or mouse for a certain amount of time.

- (1) Check "Screen Auto-Lock."
(If you click on the "Lock" button without checking "Screen Auto-Lock," it functions in a one-time lock mode.)
- (2) Select the locking cycle at the "Period" item.
(If there is no input by the keyboard or mouse, the screen is locked for the designated period.)
- (3) Click "OK" button
(To release the function, remove check mark and click "OK")

Setting of Code for Screen Locking Function (General2)

- (1) Click on the "Password" button.
- (2) Once the "Change Password" dialog box is displayed, input the existing code and then input the new code two times and click on the "OK" button. Then the code change is completed.
(The BM Central Pro initial code has no characters.)

Setting of Sound Function in Case of Alarm (General1)

This provides an alarm sound on/off in case of alarm.

It also provides the function of powering the lead fault on/off and cable off alarm.

- (1) Check the "Enable alarm Sound."
And check "Lead Fault" and "Cable Off" items as necessary.
- (2) Click "OK" button
(To release the function, remove check mark and click "OK")

Setting of Automatic Printing Function in Case of Alarm (General1)

In case of alarm, it automatically prints the information on the waveforms and parameters for 10 seconds in total, with 5 seconds each before and after the alarm occurrence.

- (1) Check "Enable alarm print"
- (2) Click "OK" button
(To release the function, remove check mark and click "OK")

Alarm disable setting when patient discharge (General1)

- (1) Select desired operation from "Disable alarm on discharge" item.
 - None: Activates both Alarm sound and Alarm display
 - Alarm Sound: Disable only the Alarm sound
 - All : Disable both Alarm sound and Alarm display
- (2) Click the "Ok" button with the mouse to save the environment settings.

Setting the automatic deletion of saved data (System)

It automatically deletes the data and database information that's past a certain period.

- (1) Check "Enable Database Auto Delete".
- (2) Select number of month of "Maximum" options.
(For example: if you select "1 Month", all data will be deleted except for 1 month before from now.)
- (3) Click "OK" button
(To release the function, remove check mark and click "OK")

Setting of Automatic Recording Function on Equipment On/Off (System)

When powering equipment on/off, This is used to start/stop the recording without the admit process. Because the admit process is omitted, the patient's ID for saved study information is stored in the form of "Unknown_BedNumber."

A specific patient's ID can be changed by using the "File Modify" function in BM Review after saving. Note that the function is performed only when a bed number is input in the equipment.

- (1) Check "Enable Auto Recording at Monitor On/Off."
(After the function is applied, the recording start/stop button becomes disabled.)
- (2) Click "OK" button
(To release the function, remove check mark and click "OK")

Enable Auto Recording at Admit, This function is used when BM Central Pro wants to start recording automatically when performing an admission.

(It doesn't work when the equipment is advertised and only runs when the BM Central Pro is advertised.)

After saving, BM Review can use the File Modify function to change to a specific patient ID.

- (1) Check the "Enable Auto Recording at Admit" item.
- (2) Click the "Ok" button with your mouse to save your preferences.
(If you uncheck the item, the function is disabled)

Setting of Client Window Automatic Shutdown (General2)

If a certain amount of time passes after an abnormal disconnection, it shuts down the client window automatically.

- (1) Check the "Close client window when disconnected" item.
- (2) Set the disconnection-detecting time in the "Waiting for" item.
- (3) Click "OK" button

Setting of HL7 Export Function (General2)

This sends out data in the HL7 format to an external EMR server on a cycle.

- (1) Input the "Server IP" and "Port" of the EMR server and select the ACK message confirmation function for data export cycle with "Check ACK" in "Export Interval."
- (2) Click on the "Start" button.
(If you click on "Stop," the function is cancelled.)

Display Language Setting (System)

- (1) Select "Language".
- (2) Click "OK" button
- (3) The new selected language will be applied after restarting the BM Central Pro.

Data storage path setting (System)

This is a function to set the data storage path. Data Directory can only be changed by the administrator, and Data Rec. There must be no phosphorus equipment.

- (1) Insert user information
 - User name: Insert the user's ID. (English only)
 - Password: Insert the user password.
 - Retype Password: Retype the user password to confirm.

- (2) Permission and period setting
 - Role: Insert user authority.
Administration Tab can be used only by Administrator.
Physician' have general authority.
 - Validity Period: Set the expiry date of the user account.

Note
<p>Password creation rules</p> <ul style="list-style-type: none">- 10 or more characters: Combination of 2 of uppercase letters, lowercase letters, numbers, and special characters.- 8 or more characters: 3 combinations of uppercase letters, lowercase letters, numbers, and special characters

Edit User (Edit)

You can enter a new password for the user.

Delete User (Delete)


Delete the user.

8.4. Client Window Menu

Admit / Discharge

This is the function for connection/disconnection between the equipment and the information of registered patients.




- (1) Click Admit/Discharge Icon() from "client window menu".
- (2) Input "Patient Information" and click "Find" button.
(If you want to see all registered patient information, click "Clear" button, and "Find" button. Then, you may see all registered patient information as follows.)
Find patient information of which you want to admit from the list and then, select it.
- (3) Click "Admit" button.
(When you want to discharge it, click on the "Discharge" button.)


Record Start/Stop

This is the function of storing waveforms and parameters received from the equipment in the file and database.



- (1) Click Record Start Icon() from "client window menu".
(Note: Recording function is only available in "Admit condition".)



If you click on the Record Stop Icon () when you want to stop the recording, the recording stops.



<The screen that is not being recorded>




<The screen that is being recorded>

Alarm Sound On/Off

This is the alarm sound function when an alarm is received from the equipment.

- (1) Click Alarm Sound Disable Icon() from "client window menu".

(If you click on the Alarm Sound Activated State Icon () when you want to deactivate the alarm sound, the alarm sound does not occur.)




< Screen with deactivated alarm sound >



< Screen with activated alarm sound >


Client Window Close Setting

This function shuts down the client window when the connection with the equipment is lost. It is displayed on the screen only when the connection was lost.

- (1) Click Close Icon() from "client window menu".
(In the Enlarge Mode, it operates with the function of closing the Enlarge window, not shutting down.)

Display Setting

This function sets the display method of the waveforms and parameters in the client window.

- (1) Click on the Client Setting Icon () in the "Client Window Menu."
- (2) When the "Client Window" dialog box is displayed on the screen, change the information that will be displayed on the screen in the display area.
(If you click on "Default" button, it is reset to the default values.)
- (3) Press the "Patient status settings" button to edit the ICON settings window.
- (4) Click "OK" button.

Client Setting (1.4.0) [IP:192.168.50.161]

Display

Alarm Sound: Disable 4Ch/8Ch Sub Graph

Sweep Speed: 25mm/sec SpO2

ECG Trace1: II 16Ch Main Graph

ECG Trace2: III ECG TRACE1

ECG Size: 10mm/mV

ECG View: 1CH VIEW IBP1 Size: 160

RR Size: x 10 IBP2 Size: 30

EtCO2 Size: 100.0 IBP3 Size: 30

Gas Size: 13.0 % IBP4 Size: 160

ICG Size: x 2

Device Setting

Admit Info

Alarm

Monitor

User Service

NIBP Start/Stop

Patient status settings

Ok

Cancel

Patient Status

Slot 1: Pacemaker

Slot 2: User Define 2

Slot 3: User Define 3

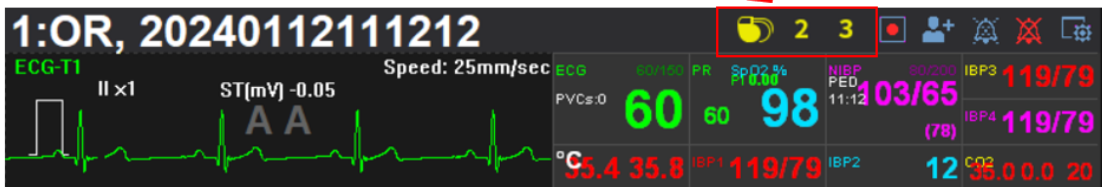
User Define 1: Allergy Alert

User Define 2: Commands are written and used directly.

User Define 3: Suspected of COVID-19

Ok Close

When Custom is selected, it will be




NIBP Start/Stop

This is the function for starting and stopping the NIBP of the equipment remotely.


(NIBP Start/Stop function only supports devices with NIBP remote control.

NIBP STAT Start/Stop function only supports Protocol version 1.3.0 and higher.)

- (1) Click Client Setting Icon() from "client window menu".
- (2) Click "NIBP Start/Stop" button.
(The handling method is a toggle type which stops the NIBP function by pressing the button during running state and starts the NIBP function by pressing the button during stop state.)

Synchronization of Equipment Settings

This function sets or checks the setting information of the equipment remotely.

- (1) Click Client Setting Icon() from "client window menu".
- (2) Once the "Client Setting" dialog box is displayed, click on the button for the information you want to change.
- (3) After changing the information, click the "Send" button in the dialog box with the mouse to complete the change.
- (4) The items that can be changed and checked for each button are as follows.
(Due to the characteristics of each equipment, some functions can be deactivated.)

A. Admit Info

- Patient ID, Name, Gender, Birthday, Age, Height, Weight

B. Alarm

- Alarm Level, Alarm Range

C. Monitor

- Parameter On/Off, Parameter Display Info.

D. User Service

- Device Type, Device Version, Unit name, Bed number, Filter

Chapter 4. BM Review

9. Execute / Close BM Review

9.1. Execute BM Review

9.2. Close BM Review

10. BM Review Program structure

10.1. BM Review Program structure

11. How to use BM Review Menu

11.1. BM Review Menu

11.2. BM Review File Control

11.3. BM Review 5 Views

11.4. BM Review Print & Preview

11.5. BM Review Preferences

9. Execute and Close BM Review

9.1. Execute BM Review

Use of BM Review

BM Review is the program for the review and analysis of patient's data measured through BM Central Pro. BM Review provides methods for analyzing the data stored in BM Central Pro in various ways for a maximum of 10 days. Also, it provides the function of printing the analyzed data according to various options.

Execute BM Review

BM Review can be executed in two ways. First is to double-click the image con on Desktop.



Second is to click "BM Review" Icon in Main Menu of BM Central Pro. You can click the icon marked on the image below.



Once the program is executed, the window below appears.

Study Id	Unit	Patient Id	Name	Gender	Age	Date Time	Di
20150507162637	P00		RYU JIN	Female		2015-05-07 16:26:37	0
20150507162619	P00		RYU JIN	Female		2015-05-07 16:26:19	0
20150507141314	P00		RYU JIN	Female		2015-05-07 14:13:14	0
20150507141213	P00		RYU JIN	Female		2015-05-07 14:12:13	0
20150507141142	P00		RYU JIN	Female		2015-05-07 14:11:42	0
20150507141126	P00		RYU JIN	Female		2015-05-07 14:11:26	0
20150507140947	P00		RYU JIN	Female		2015-05-07 14:09:47	0
20150507140926	P00		RYU JIN	Female		2015-05-07 14:09:26	0
20150507140737	P00		RYU JIN	Female		2015-05-07 14:07:37	0
20150507140639	P00		RYU JIN	Female		2015-05-07 14:06:39	0
20150507112401	P00		RYU JIN	Female		2015-05-07 11:24:01	0

9.2. Close BM Review

Close BM Review

To close BM Review program, click "Exit" icon marked on the image below, and the program will be closed.

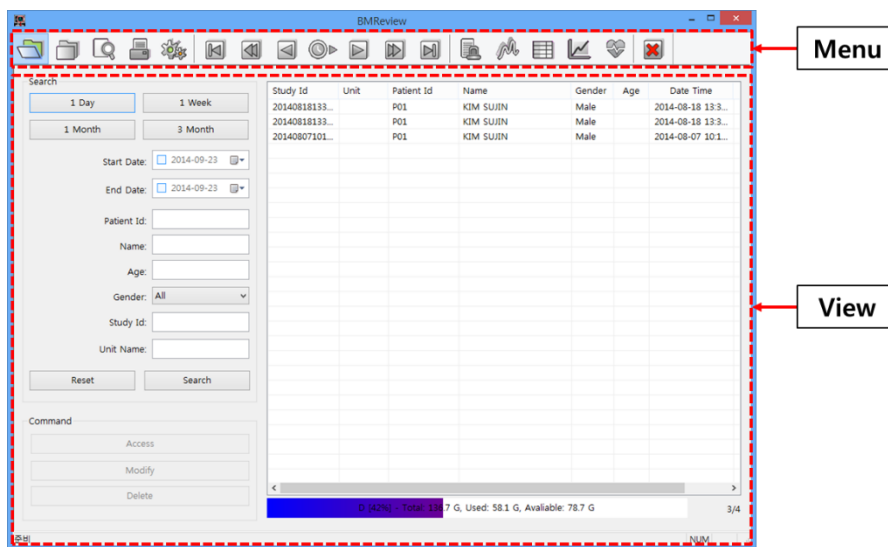


10. BM Review Program Structure

10.1. BM Review Program Structure

Review Structure

BM Review consists of 2 main parts, as indicated in the image below.



Menu

Menu is a major menu in BM Review, and it provides various functions such as file open/close, print preview, print, navigator, select view, preference, and program closing.

View

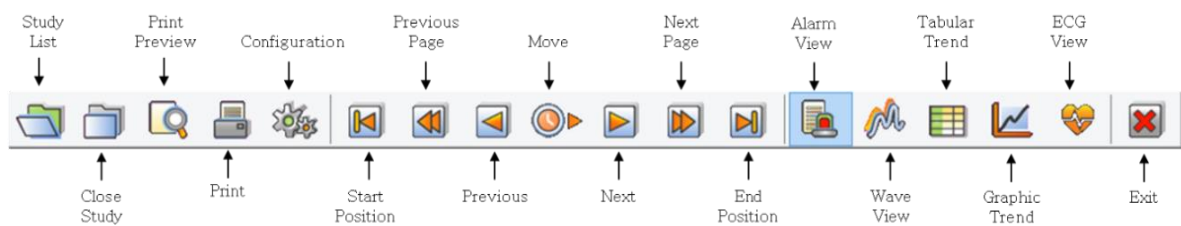
The view area is composed of 6 types (Study Search, Alarm, Wave, Tabular Trend, Graphic Trend, and ECG View).

11. How to use BM Review Menu

11.1. BM Review Menu

BM Review Menu

Main Menu is a major menu in BM Review, and it provides various functions such as file open/close, print, print preview, navigator, select view, preference, and program closing.



Study List

To call up the save list from DB.

Close Study

To close the called-up-files.

Print Preview

To check out the layout before printing out.

Print

To print out the files.

Configuration

To set up the environment of Reviewer.

Start/End Position, Previous/Next Page, Previous/Next, Move

To shift the present record data to back and forth.

Alarm View

To track alarm, graphs , parameters when alarm sounds happens.

Wave View

To track graphs, parameters.

Tabular Trend

To track parameters and alarms on the tabular trend.

Graphic Trend

To track the trend of parameters as graphs

ECG View

To track ECG waveform, HR Trend.

Exit

Quit reviewer.

11.2. BM Review File Control

BM Review File Open

This is the function for reading a file after searching for stored files.

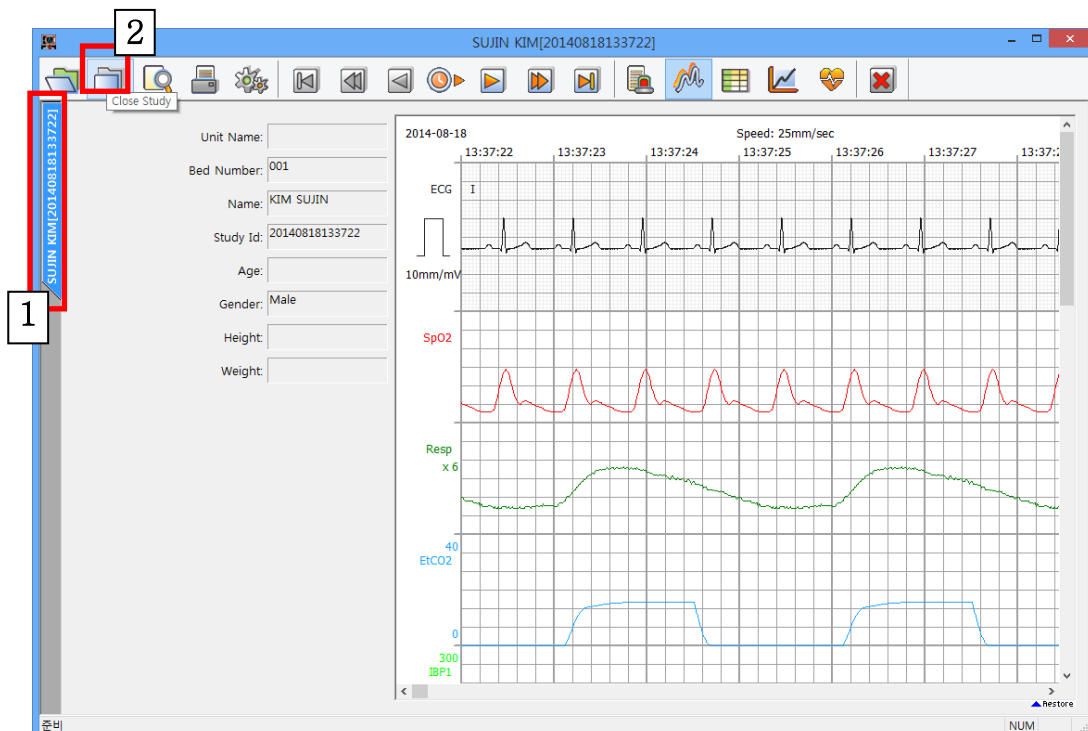
- (1) Click "Study List" button.
- (2) Search the list.
 - ※ If you want to find a specific information, input a specific information and click and click "Search" button.
 - ※ If you want to find all files, click "Reset" button and "Search" button as follows.
- (3) Find a file among the list and select the file.
- (4) Click "Access" button and open the file.

(If you also double-click the left button on Study data, the file will open.)

BM Review Close File

This is the function for closing the open files.

- (1) Select the file of which you want to close as below.
- (2) Click "Close Study" button.



BM Review Change file information

This is the function for changing the information in a selected file (Patient's information).

- (1) Select the file of which you want to modify as below.
- (2) Click "Modify" button.
- (3) "When the "Modify Study Information" dialog box is displayed, click on the "..." button.
- (4) When the "Select Patient" dialog box is displayed, select the patient information you want to change after searching.
- (5) Complete the patient selection by clicking on the "OK" button.
- (6) When the "Modify Study Information" dialog box is displayed, complete the change by clicking on the "OK" button.

BM Review File Delete

This is the function for deleting the selected file's information.

- (1) Select the file of which you want to delete as below.
- (2) Click "Delete" button.
(Note: once you delete file, you can not open that file any more.)

11.3. BM Review 5 Views

Alarm View

This is the view that is easily used when the stored data are mainly analyzed by alarm. The screen is composed of alarm, waveform, and parameter information.

- (1) Click "Alarm view" button.

The screenshot displays the Bionet software interface for patient monitoring. The window title is "FF LL[20150512090716]". The toolbar at the top contains various icons, with the "Alarm view" button (a red square icon) highlighted by a red box and labeled with a callout "1".

On the left side, there is a patient information panel with the following details:

- Unit Name: [Empty]
- Bed Number: 001
- Name: LL FF
- Study Id: 20150512090716
- Age: [Empty]
- Gender: Male
- Height: [Empty]
- Weight: [Empty]

The main area is divided into three sections:

- Alarm Grid:** A grid showing alarm states for parameters (ECG, SpO2, NIBP, ETCO2, IBP1, IBP2) over time (09:07 to 09:32). A red box highlights the grid, and a callout "A" points to it. The grid shows various alarm states: High (red), Medium (orange), Message (green), Normal (white), and Normal (grey).
- Waveform:** A real-time ECG waveform display showing the heart rate and rhythm. The speed is set to 25mm/sec. The time range is from 09:07:16 to 09:07:20.
- Parameter Table:** A table showing vital signs and other parameters over time. The time range is from 09:08:06 to 09:08:06.

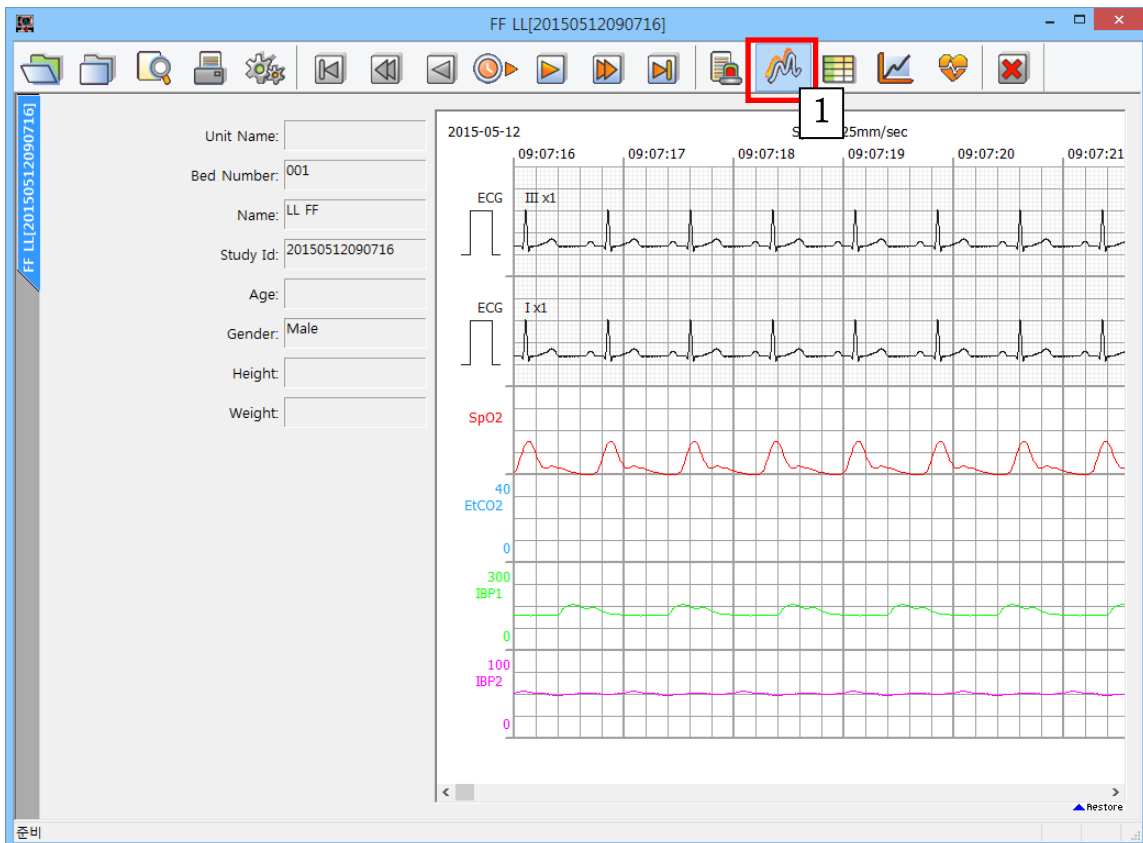
					09:08:06				09:08:06
ECG	HR	80	80	80	80	80	80	80	80
SpO2	%	99	99	99	99	99	99	99	99
	R	80	80	80	80	80	80	80	80
NIBP	S	-	-	-	-	124	-	-	-
	M	-	-	-	-	97	-	-	-
	D	-	-	-	-	45	-	-	-

- A. It can show alarm state of each parameter. Click "red square", then you can track and shift the alarm state every minute. (Please see above figure.)

Wave View

This is the view that is easily used when the stored data are mainly analyzed by waveform. The screen is composed of only waveform information.

- (1) Click "Wave view" button.



Tabular Trend View

This is the view that is easily used when the stored data are mainly analyzed by parameter. The screen is composed of parameter and alarm information in a table form.

(1) Click "Tabular Trend" button.

The screenshot shows the 'Tabular Trend View' interface. The window title is 'FF LL[20150512090716]'. The interface includes a toolbar with various icons, a patient information panel on the left, and a large data table. A red box labeled '1' highlights the 'Tabular Trend' button in the toolbar. Another red box labeled 'A' highlights the 'Time Period' dropdown menu, which is currently set to '1 sec'.

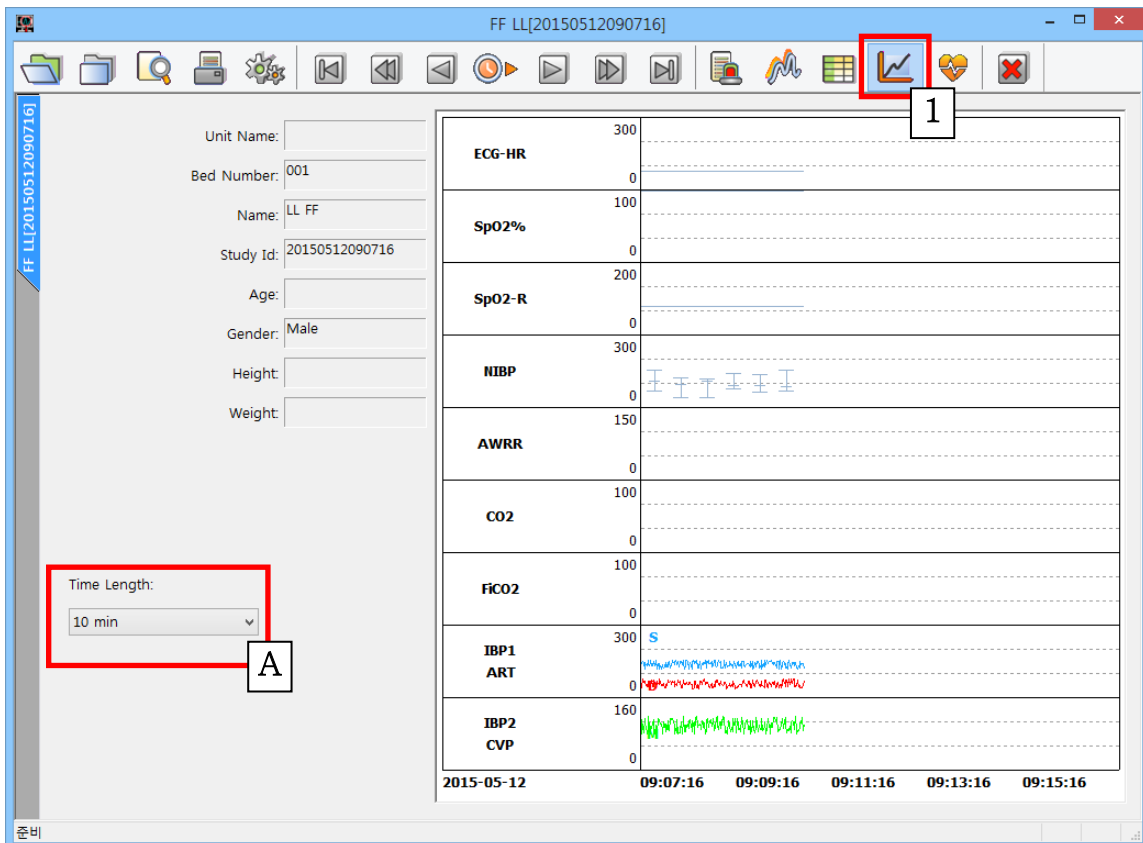
Time	ECG	SpO2			NIBP				O2			IBP1 [ART]			
		%	R	S	M	D	AWRR	CO2	FICO2	S	M	D			
2015-05-12															
09:07:16	80	99	80	-	-	-	-	-	-	-	128	92	41		
09:07:17	80	99	80	-	-	-	-	-	-	-	142	89	47		
09:07:18	80	99	80	-	-	-	-	-	-	-	146	82	43		
09:07:19	80	99	80	-	-	-	-	-	-	-	153	80	79		
09:07:20	80	99	80	-	-	-	-	-	-	-	147	113	70		
09:07:21	80	99	80	-	-	-	-	-	-	-	120	92	60		
09:07:22	80	99	80	-	-	-	-	-	-	-	148	117	70		
09:07:23	80	99	80	-	-	-	-	-	-	-	138	89	51		
09:07:24	80	99	80	-	-	-	-	-	-	-	136	83	47		
09:07:25	80	99	80	-	-	-	-	-	-	-	155	112	71		
09:07:26	80	99	80	-	-	-	-	-	-	-	144	108	50		
09:07:27	80	99	80	-	-	-	-	-	-	-	134	112	40		
09:07:28	80	99	80	-	-	-	-	-	-	-	141	100	48		
09:07:29	80	99	80	-	-	-	-	-	-	-	157	94	53		
09:07:30	80	99	80	-	-	-	-	-	-	-	132	92	77		
09:07:31	80	99	80	-	-	-	-	-	-	-	134	87	47		
09:07:32	80	99	80	-	-	-	-	-	-	-	151	114	75		
09:07:33	80	99	80	-	-	-	-	-	-	-	151	95	57		
09:07:34	80	99	80	155	111	70	-	-	-	-	135	111	40		
09:07:35	80	99	80	-	-	-	-	-	-	-	156	90	50		
09:07:36	80	99	80	-	-	-	-	-	-	-	121	100	55		
09:07:37	80	99	80	-	-	-	-	-	-	-	132	83	72		
09:07:38	80	99	80	-	-	-	-	-	-	-	145	85	63		
09:07:39	80	99	80	-	-	-	-	-	-	-	121	112	56		
09:07:40	80	99	80	-	-	-	-	-	-	-	142	91	79		
09:07:41	80	99	80	-	-	-	-	-	-	-	122	115	64		

A. If you click "Time Period", you can change the time interval.

Graphic Trend View

This is the view that is easily used when the stored data are mainly analyzed by parameter. The screen is composed of parameter information in a graph form.

- (1) Click "Graphic Trend" button.

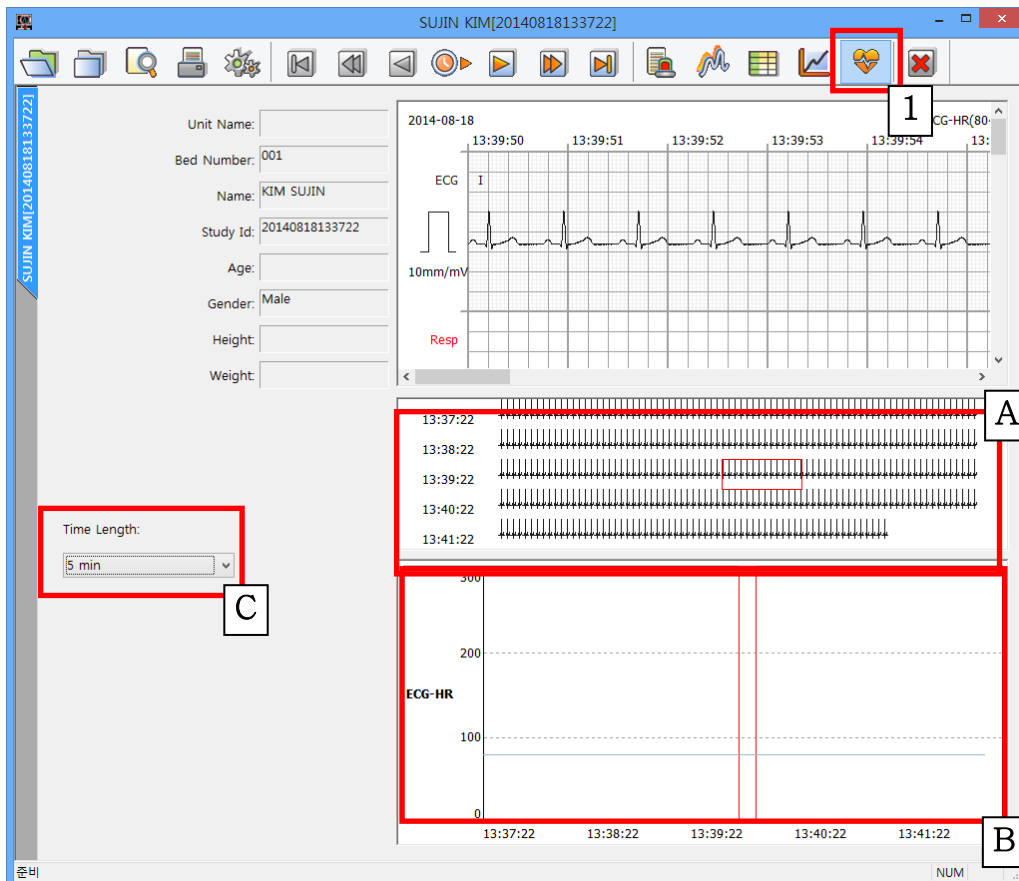


- A. If you click "Time Length", you can change time interval.

ECG View

This is the view that is easily used when the stored data are mainly analyzed by ECG. The screen is composed of waveform and HR Trend information.

- (1) Click "ECG View" button.



- You can see the waveform and HR information in the time zone you want by clicking on the ECG and HR Trend area.

(If you want to print certain section, drag the area that you want to print with mouse in 'A' box then click print button.)

- If you click "Time Length", you can change time interval.

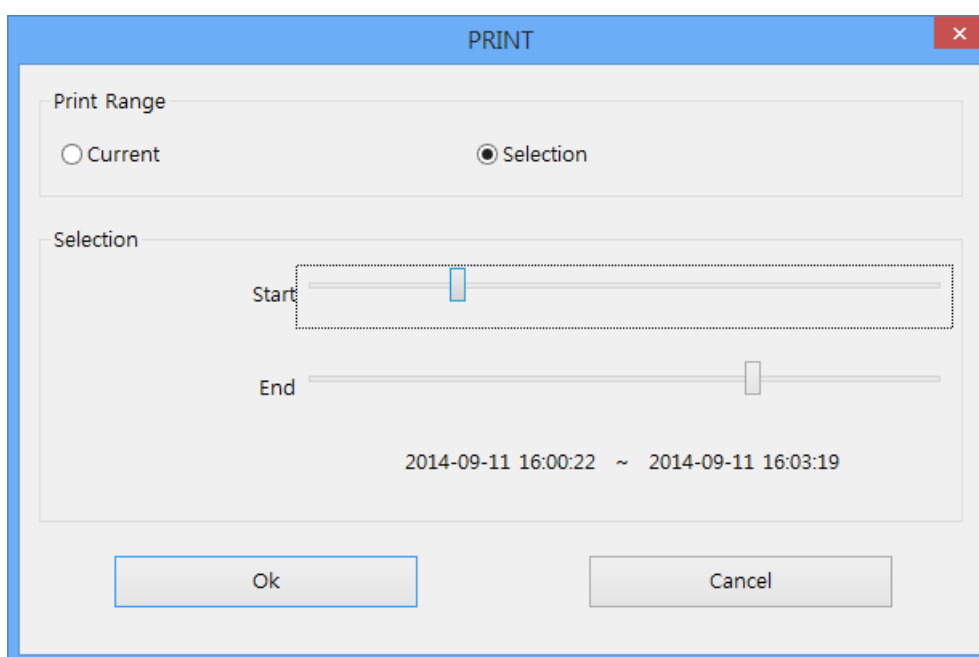
11.4. BM Review Print preview

BM Review Preview settings

It provides a function for previewing measurement data of parameter and trend information on the current window, and patient information. If you click "Preview" button marked on the image below, dialogue will appear.



The image below is a dialogue for print preview. Each option can be used as followings. (The bottom area of the selection dialog box is displayed only in "Wave View" and "Tabular Trend.")



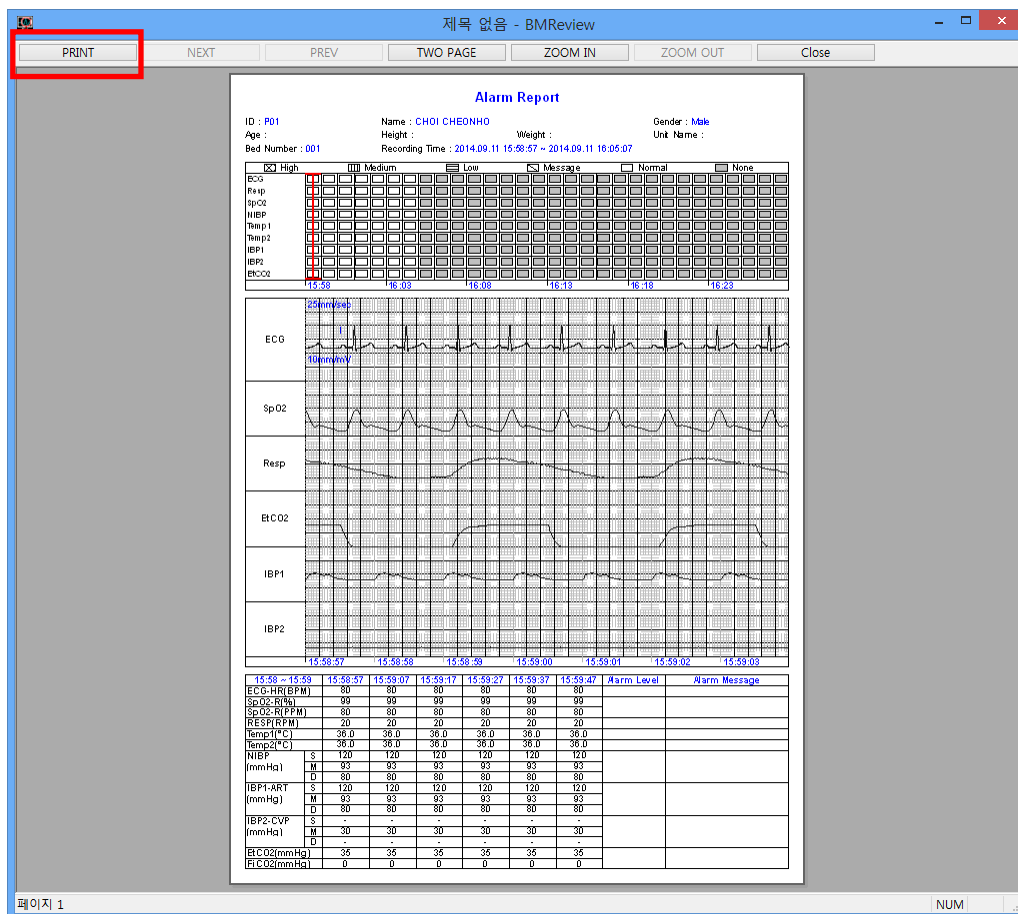
Option details of print dialog box

- Current: It shows the data area currently displayed on the screen.
- Selection: It provides the function of selecting the print range for the user. The print area can be selected by the second unit.

BM Review Preview result

The below image is the preview screen of the "Alarm View."

If you click on the "Print" button in the preview screen, you can print.



<Alarm View Preview>

BM Review Print

This provides the function of previewing the printing of the alarm, parameter, waveform, and patient's information on the current screen according to the selected option. If you click on the "Print" icon marked in the menu below, the dialog box is printed out. The setting area is the same as the preview screen.



11.5. BM Review Preference

BM Review Preference

To load the dialogue for setting screen output, color and system of BM Review, click the icon marked in the image below.



The preference dialogue for BM Review is separated into "Display" and "System Setting"

Graph Properties ✕

<p>Visible Setting</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ECG <input checked="" type="checkbox"/> SpO2 <input checked="" type="checkbox"/> NIBP <input checked="" type="checkbox"/> TEMP <input type="checkbox"/> Resp <input type="checkbox"/> EtCO2 <input checked="" type="checkbox"/> IBP1 <input checked="" type="checkbox"/> IBP2 <input checked="" type="checkbox"/> IBP3 <input checked="" type="checkbox"/> IBP4 <input checked="" type="checkbox"/> qCON <input checked="" type="checkbox"/> ICG <input checked="" type="checkbox"/> Gas <input type="checkbox"/> NMT <input type="checkbox"/> EWS <input type="checkbox"/> GCS 	<p>Display</p> <div style="text-align: right; margin-bottom: 5px;">Default</div> <p>Background: Background</p> <p>Grid: Grid</p> <p>Text: Text</p> <p>Inner: Inner</p> <p>Line Tickness: 1</p> <p>Sweep Speed: 25mm/sec</p> <p>ECG View: 1CH VIEW</p> <p>ECG Size: 10mm/mV</p> <p>ECG Trace1: II</p> <p>ECG Trace2: III</p> <p>RR Size: x 6</p> <p>EtCO2 Size: 40.0</p> <p>IBP1 Size: 300</p> <p>IBP2 Size: 300</p> <p>IBP3 Size: 300</p> <p>IBP4 Size: 300</p> <p>qCON Size: 25 µV</p> <p>ICG Size: x 2</p> <p>Gas Size: 40.0</p> <p>Color Selections:</p> <ul style="list-style-type: none"> ECG: ECG SpO2: SpO2 Resp: Resp EtCO2: EtCO2 IBP1: IBP1 IBP2: IBP2 IBP3: IBP3 IBP4: IBP4 qCON: qCON ICG: ICG Gas: Gas
<p>System Setting</p> <p>Version: Server 3.01.B01 [D20220824]</p> <p>Data Directory: C:\Users\Bionet\AppData\Roaming\BIONET\BMCentral\Data ...</p> <p>Language: English [English]</p>	

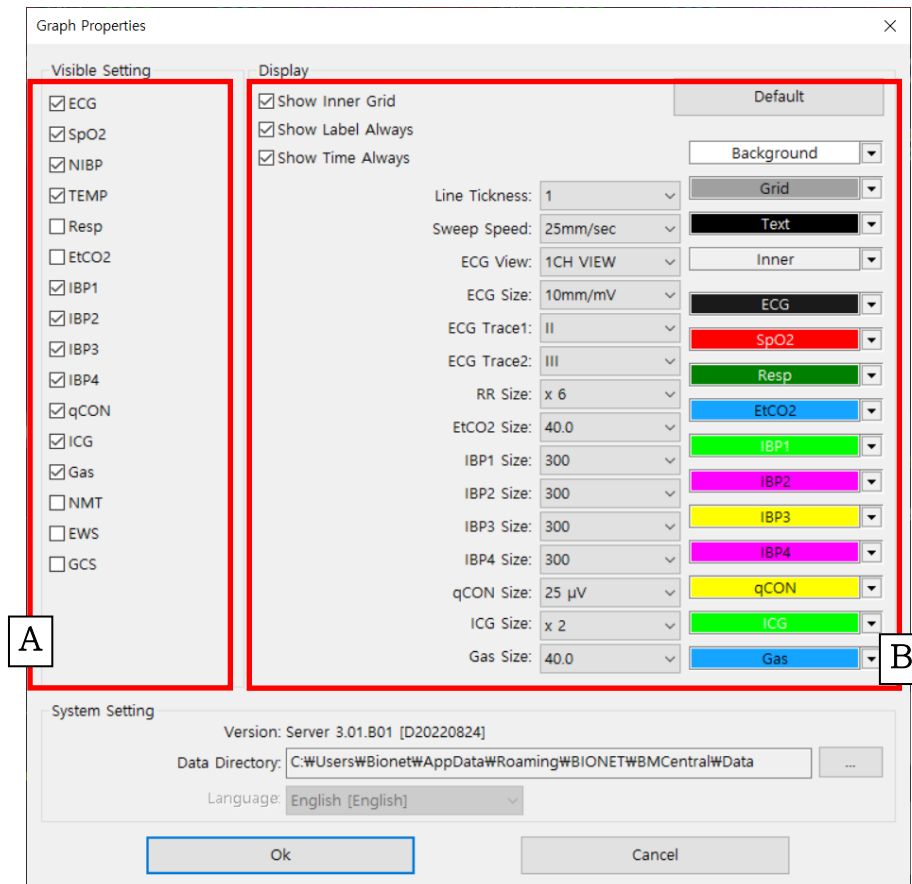
Ok
Cancel

- Display : This is the area for setting screen composition information such as size and color.
- System : This is the area for setting system composition information such as language and data path.

Display

This is the area for setting screen composition information such as size and color to show the data of BM Review on the screen. If you set the environment and click on the "OK" button, the setting is applied.

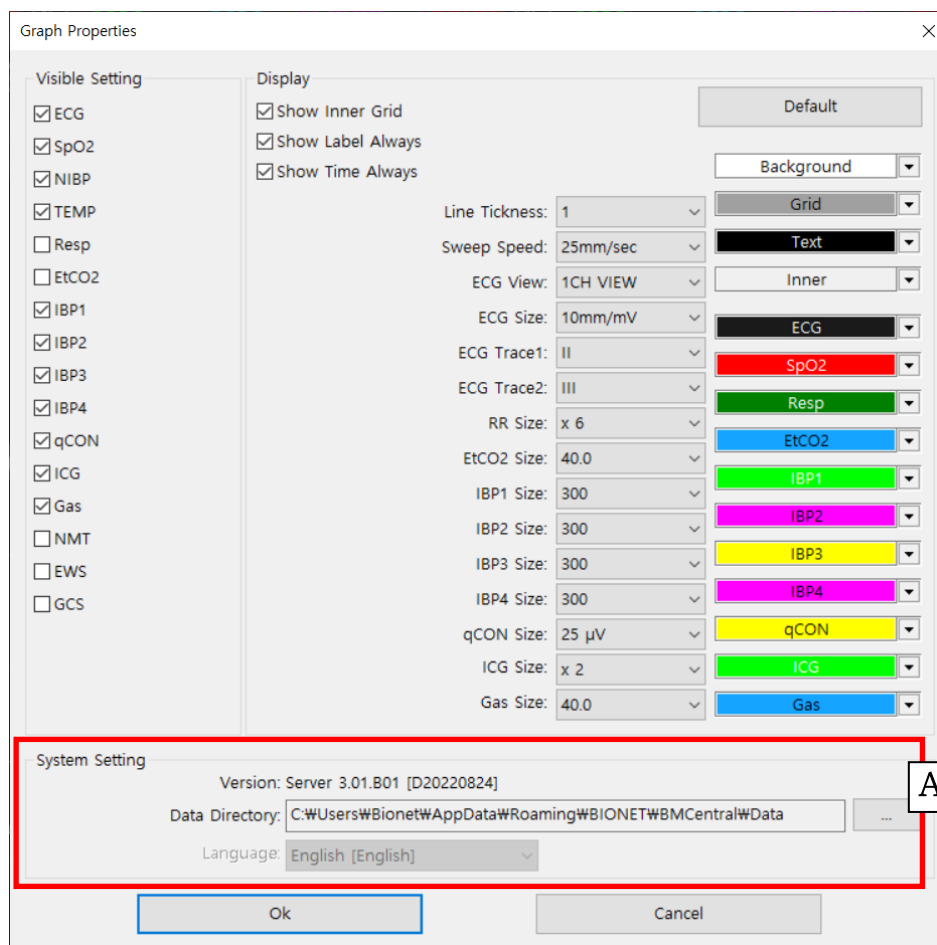
(If you click on the "Default" button, it is initialized as the default value.)



- A. It sets whether show parameter and waveform or not.
- B. It sets the inside line, label, and presence of time display , size, color, and line thickness of waveforms.

System Setting

This is the area for setting system information such as displayed language and data path. If you change the environment information and then click on the "OK" button, the setting is applied. Language change is applied only when a restart proceeds after S/W shutdown. The language change is deactivated for language synchronization when BM Central Pro S/W is operated.



A. It sets the data path and displayed language.

Caution

In the "System" of "preference" in BM Central Pro Program, please select the folder with a sufficient amount of remaining space. If the space is not sufficient, the data may be lost or the program may not be operated properly.

Chapter 5. Broker System(Optional product)

12. Broker System

12.1. What is a Broker system?

12.2. Broker System Structure

13. How to use Broker System

13.1. Installation / Uninstallation of BM Central Pro Client

13.2. How to use BM Central Pro Client

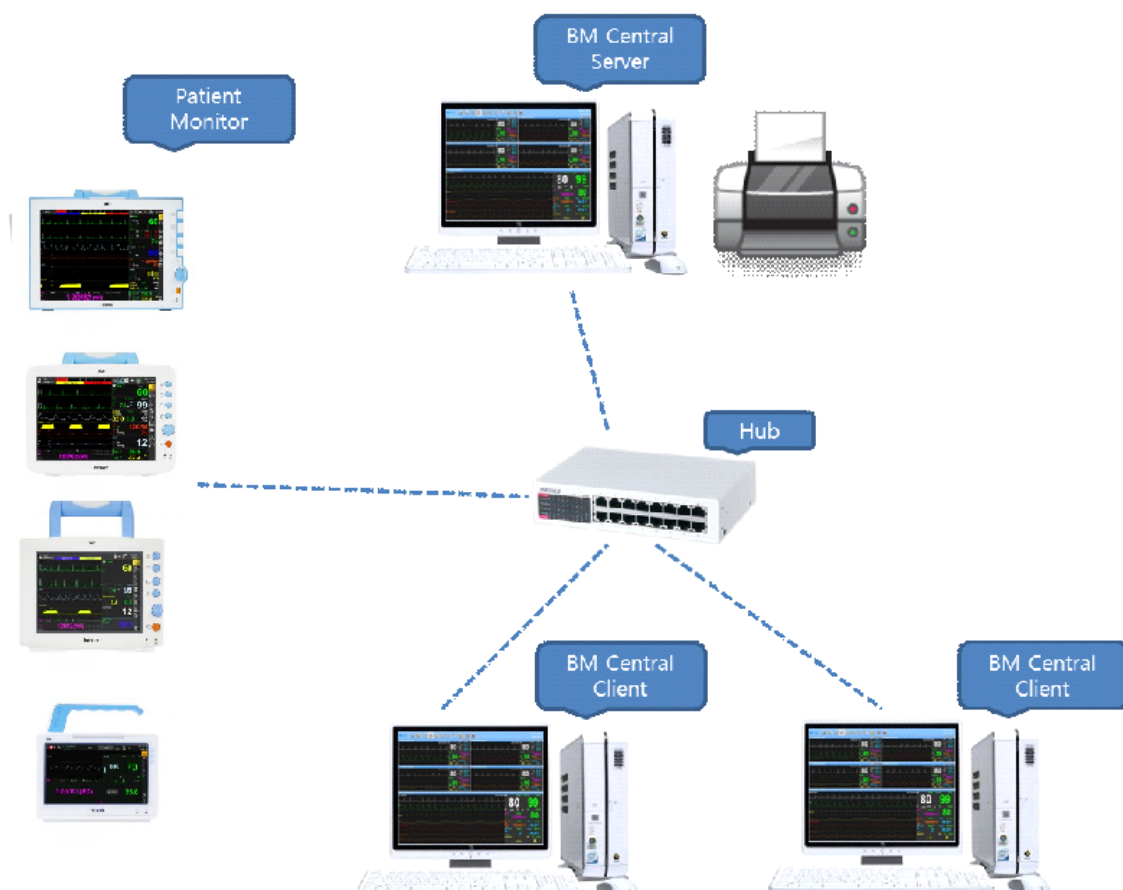
13.3. Difference between BM Central Pro Server and BM Central Pro Client

12. Broker System

12.1. What is a Broker system?

The real time measurement data of BM Central Pro can be seen in the server system, and Broker System provides a function that allows you to see them in other wards or office. This means that BM Central Pro Client program is possible to be installed and the real time measurement data can be seen, without coming into the server system in which BM Central Pro is installed. This program is an optional product.

12.2. Broker System Structure



BM Central Pro Server

It is a package with server function among BM Central Pro Programs, it provides a function to remotely monitor up to 5 types of waveform and parameter data in real time.

BM Central Pro Client

It is a package with client function among BM Central Pro Programs, and it provides a real time monitoring after connecting BM Central Pro Server with IP address. But, it only gives a receiving function from the server. Wave and Parameter is received and monitored.

13. How to use Broker System

13.1. Installation / Uninstallation of BM Central Pro Client

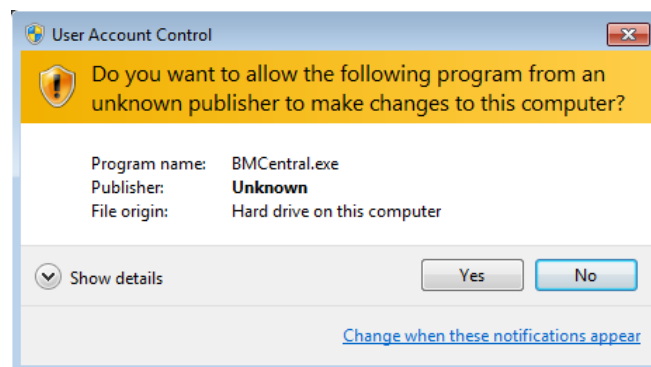
Installation and uninstallation of BM Central Pro Client is the same as that of BM Central Pro Program. Please refer to Installation and uninstallation of BM Central Pro Program.

13.2. How to use BM Central Pro Client

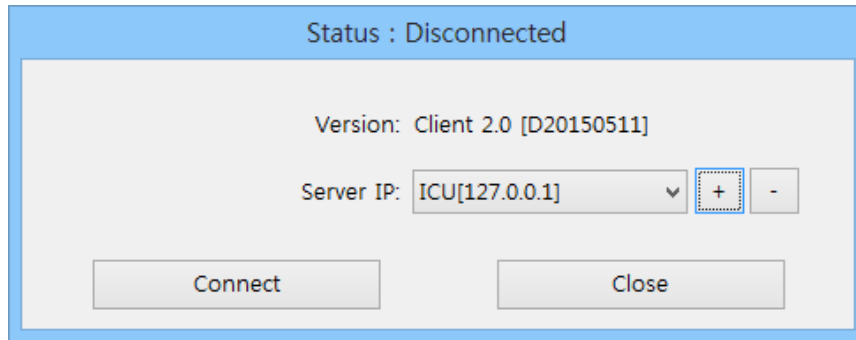
- (1) Double-click "BMCentral Pro Client" icon on the desktop, which is indicated in the image below.



- (2) When the following message appears, click "Yes" and allow the program to execute.



- Select IP address of the PC in which the server version is installed, and click "Connect" button. (You can add or delete Server Information using '+', '-' buttons)



- Insert IP address of the PC in which the server version is installed, and click "Connect" button. If it is connected successfully, you can monitor the data in BM Central Pro, as shown in the image below.



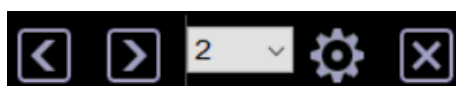
13.3. Difference between BM Central Pro Server and BM Central Pro Client

Differences in Feature Support for Main Menu

Functional difference in Main Menu: The image above is BM Central Pro Client and the image below is BM Central Pro Server. The number of icons is different.



< BM Central Pro Server Menu >

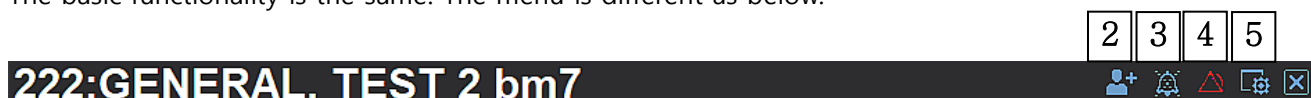


< BM Central Pro Client Menu >

- A. Window change function: It supports the windows of previous, after, 2Ch ~ 32Ch for both windows.
- B. (1) Patient Manager: As indicated in the image above, it is only supported in BM Central Pro Server. BM Central Pro Client does not support this function.
- C. (1) BM Review Execute: As indicated in the image above, it is only supported in BM Central Pro Server. BM Central Pro Client does not support this function.
- D. Configuration: As indicated in the image above, it is supported in both programs, but BM Central Pro Client only supports on Client window.

Differences in Client Window Menu Feature Support

The basic functionality is the same. The menu is different as below.



<BMCentral Pro Server Icon>



<BMCentral Pro Client Icon>

- E. (2) Admit/Discharge setting: BM Central Pro Client does not support this function.
- F. (3) Alarm setting: supported in BM Central Pro Client.

-
- G. (4) Audio setting: supported in BM Central Pro Client does not support this function.
 - H. (5) Configuration: supported in BM Central Pro Client without bidirectional communication.

Note
BM Central Pro Client does not support bidirectional communication, Admit/Discharge, Data Recording, Execute BM Review.

Chapter 6. Appendix

14. BM Central Pro Main Tree

14.1. BM Central Pro Main Menu Tree

14.2. BM Central Pro Client Window Menu Tree

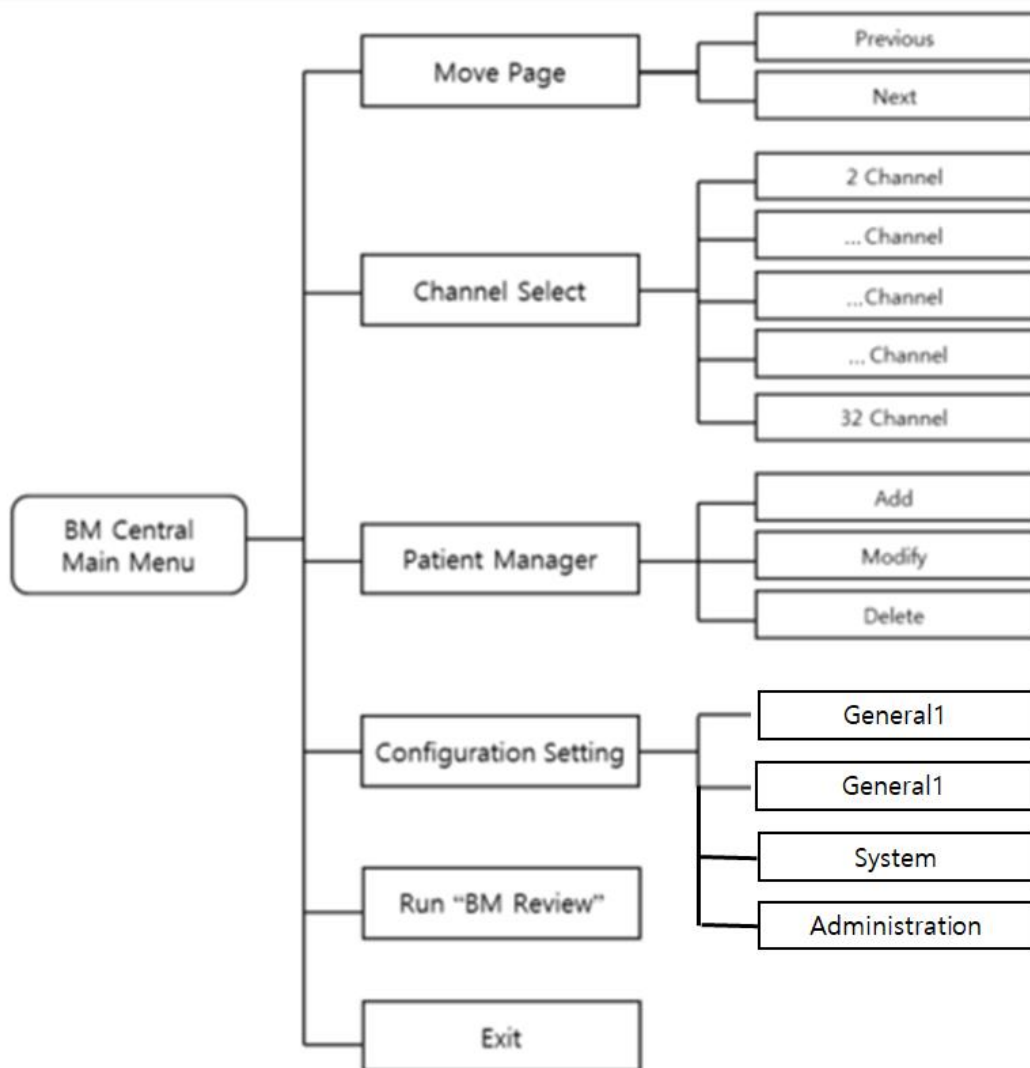
14.3. BM Review Menu Tree

15. Set Windows 10 administrator rights

16. Q & A

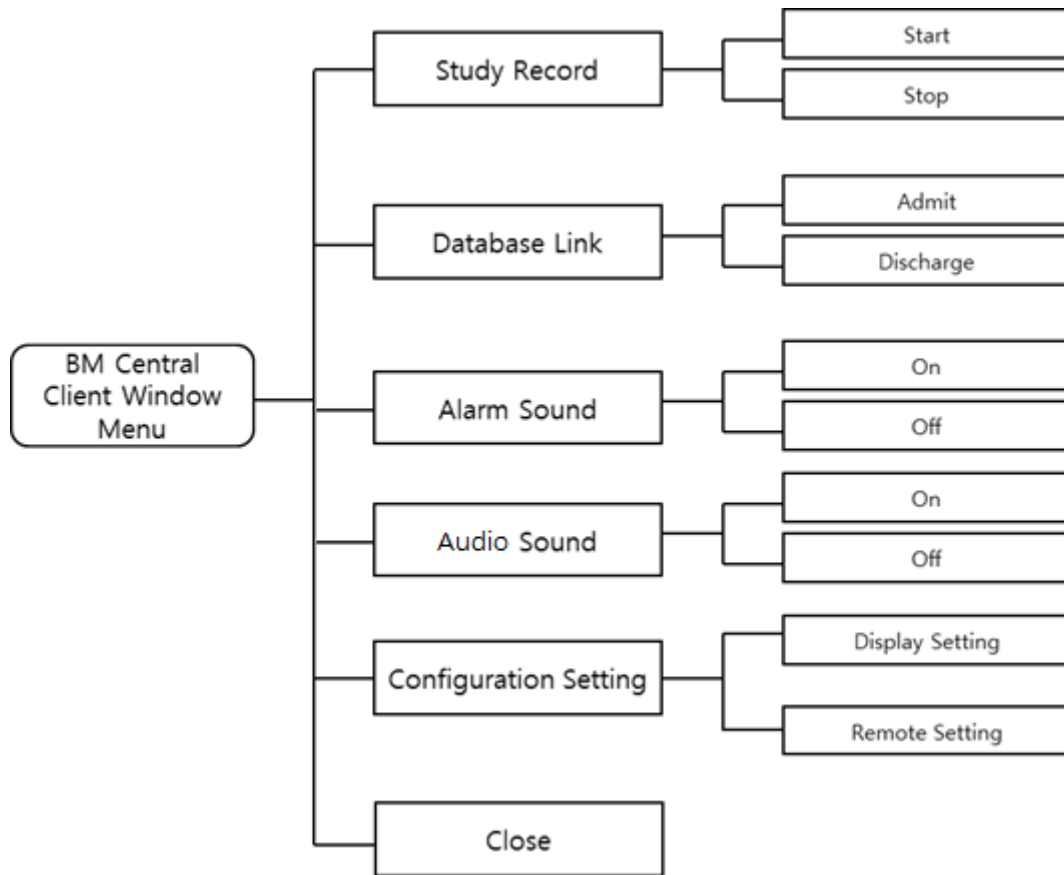
14. BM Central Pro Main Tree

14.1. BM Central Pro Main Menu Tree



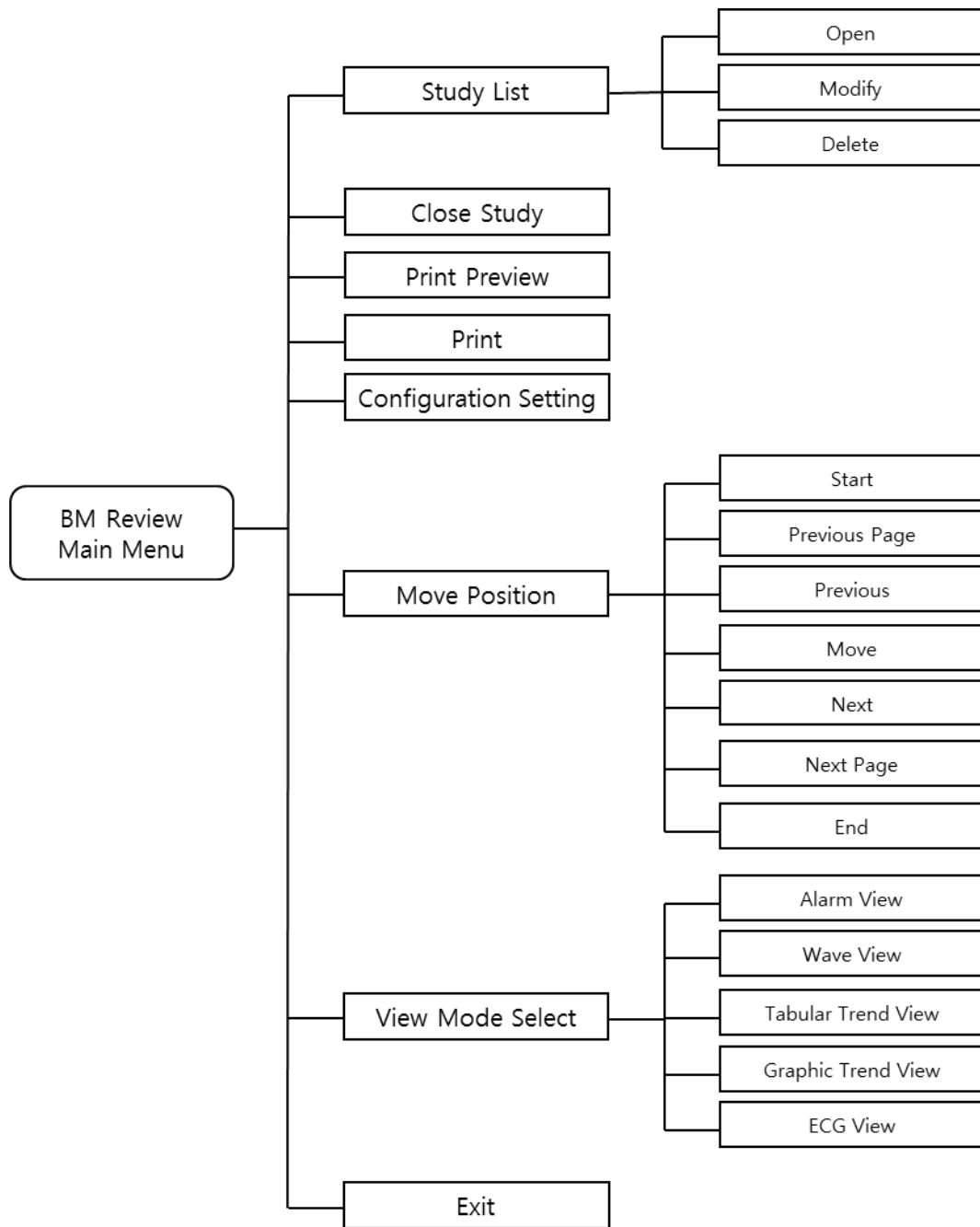
< BM Central Pro Main Menu Tree >

14.2. BM Central Pro Client Menu Tree



< BM Central Pro Client Window Menu Tree >

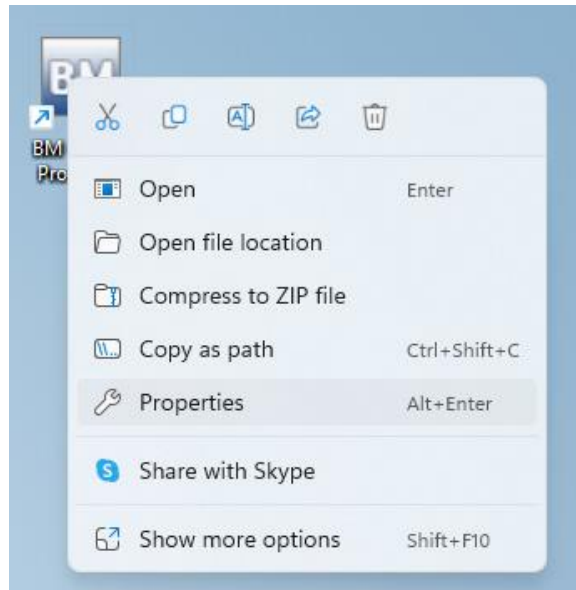
14.3. BM Review Menu Tree



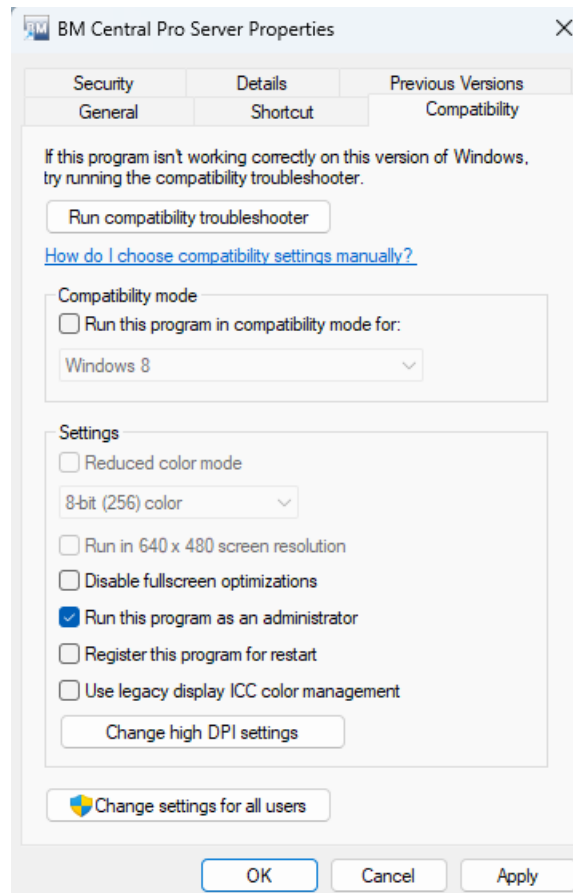
< BM Review Menu Tree >

15. Set Windows 10 administrator rights

- (1) In the desktop, place the mouse pointer on the icon which you want to change authority, right-click the icon and the pop-up menu will appear. Click "Properties" and switch to setting window.



- (2) If you can see the setting window as follows, click "Compatibility" tab, check "Run this program as an administrator" in "Privilege Level", and click "OK" button to apply changes. Then it will be executed with administrator authority when you click the icon.



16. Q & A

1) In case that connection of BM Central Pro is unstable or, failed,

- Check the IP address and related function activation status.
- Check the version of the patient monitoring device and PC S/W
- Check out "Firewall or Anti-virus software"

2) In case that error message about short memory space,

- Check if the save data space is insufficient.
(Date backup or, remove some files with "Reviewer" Or, set up the automatic data deletion.)

3) In case that recording button disappears,

- Check out whether the present client is the state of "Admit" or not.
(In the case of Discharge, proceed with the Admit process.)



Model Name: BM Central Pro

Bionet Co., Ltd

bionet