

This manual includes the basic use of FC Central. 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.

Warranty Period

- This product was made with strict quality control and examination procedures of our company. Criteria of compensation on the repair or replacement of the product follow the 'consumer damage compensation regulations' from Fair Trade Commission.
- Warranty period of this product is regulated to be 1 year. However, accessory warranty period is six months.
- In case of breakdown during the normal usage, service center of our company will repair for free during the warranty period.
In case of the issues on the device during the warranty period, please notify our company of the model name, manufacturing number, purchasing date and breakdown of the device.

Caution
Federal law restricts this device to sale by or on the order of a physician

Notes
The product does not have shelf life. Its expected use life is 6.5 years. After 6.5 years, though the product still works normally, it is recommended to have it checked by Bionet.

Contact Bionet

If you have any questions or comments relating to our products or purchasing, please contact the telephone numbers or E-mail below. You can talk to our sales people. Bionet always welcomes your enquiries. Please contact us.

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※ In the event of a malfunction or failure, contact Service Dept. Of Bionet Co., Ltd. along with the model name, serial number, date of purchase and explanation of failure.

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- FC1400 is a trademark of Bionet.
- Fetal XP is a trademark of Bionet.
- FC Central is a trademark of Bionet.
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- 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.
- For Wi-Fi Module, use the product provided by our company.
- For Central System, use the product provided by our company or the one with recommended specification.

REVISION HISTORY

Revision No.	Date	Contents	Page
1.0		- Create New	All
		-	
1.7	2022.03.29	<ol style="list-style-type: none"> 1. FC Central II -> FC Central (Excluding file route) 2. FC Reviewer II -> FC Reviewer 3. Change of the company's representative number 	All
1.8	2022.10.28	<ol style="list-style-type: none"> 1. 2p picture change 2. Fetal XP -> Fetal XP 3. Delete factory address 4. Modify 13p outline / add purpose of use and prohibited items 5. 11p Usage Precautions and Warnings added 6. Addition of marks marked on 16p products 7. 7p product configuration change 8. Modified 20p wired/wireless LAN environment 9. Modify patient information search screen 10. Modification of patient information registration screen 11. Deletion of Broker system contents 12. Delete FC Central Menu Tree 13. 116p administrator permission setting change 	All
1.81	2023.05.25	<ol style="list-style-type: none"> 1. LOGO Change 	All

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CHECKPOINTS BEFORE US

Warranty Period

- This product is manufactured and passed through strict quality control and through inspection.
- Main System Warranty period is 1 year, and accessory warranty period is 6 months.
- Other than the product of our company, the product provided by cooperative company is under the service policy and warranty period of the corporate company.
- 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.

Warning, Caution, Note

For special emphasis on agreement, terms are defined as listed below in user's manual. Users should operate the equipment according to all the warnings and cautions.

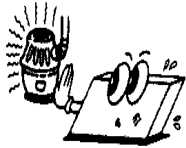
Warning
To inform that it may cause serious injury or death to the patient, property damage, material losses against the "warning" sign

Caution
To inform that it may cause no harm in life but lead to injury against the "caution" sign

Note
To inform that it is not dangerous but important "note" sign for proper installation, operation, and maintenance of the equipment.

General Precaution on Environment

Do not keep or operate the equipment in the environment listed below.

	<p>Avoid placing in an area exposed to moist. Do not touch the equipment with wet hand.</p>		<p>Avoid exposure to direct sunlight</p>
	<p>Avoid placing in an area where there is a high variation of temperature. Operating temperature ranges from 10(C to 40(C. Operating humidity ranges from 30% to 85%.</p>		<p>Avoid in the vicinity of Electric heater.</p>
	<p>Avoid placing in an area where there is an excessive humidity rises or ventilation problem.</p>		<p>Avoid placing in an area where there is an excessive shock or vibration.</p>
	<p>Avoid placing in an area where chemicals are stored or where there is danger of gas leakage.</p>		<p>Avoid being inserted dust and especially metal material into the equipment</p>
	<p>Do not disjoint or disassemble the equipment. We take no responsibility for it.</p>		<p>Power off when the equipment is not fully installed. Otherwise, equipment could be damaged.</p>

Outline

The FC Central is a software production who runs on PC station with Microsoft Windows operating system. The FC Central by connecting one central station with some bedside fetal/maternal monitors, carries out centralized monitoring management for maximum 16 beds. It can monitor a pregnant woman during the whole parturition process, and all the monitoring information can be recorded, saved and printed, and alarm when the parameter exceeds the user defined limit. At the same time, the old records can be searched conveniently and quickly. Also, it can be possible to be connected with PC the use of wi-fi, UART and LAN.

Intended Use

The FC Central program is intended for use by healthcare professionals for the centralized monitoring and management of maternal and fetal vital signs in healthcare facilities.

Contraindications

None

Specification

Functions	Description
Monitoring units (max : 16 units)	Serial: 1~8 units Lan: 1~16 units
Supported Device Model	FC700, FC1400 , Fetal XP
Network	Wired : Serial, LAN Wireless : Wireless LAN
View Mode	1, 2, 4, 8 and 16 Channel View Mode
Data Storage	Max 72 hours
Alarm	Sound and Display
Communication type	Bidirectional communication with patient monitor
Reviewer	Parameter Trend, 10sec Wave
Print and Report	Parameter Trend

Precautions & Warnings for Use

Warning

For the equipment other than FC Central System, please refer to the manual provided and make sure to be informed of relevant details. This document explains the details related to FC Central.

Warning

FC Central is intended to run on a dedicated PC. Bionet cannot be held responsible for resulting data corruption, misrepresentation, loss, or any other failing of the system if unauthorized software is installed.

Warning

The audio alarm system should not be relied upon in isolation for alarm indication. Inadequate alarm volume or silenced alarms may endanger patient safety. The most reliable way of patient monitoring is to keep the patient under close surveillance. In order to avoid affecting the patient monitoring or delaying the diagnosis and treatment, it is not recommended to use the system Audio Off function.








Warning

FC Central System uses fixed IP band. When using Router or firewall, Wi-Fi, the connection status, and monitoring function cannot be guaranteed if the relevant AP has a lack of security, or the network system is operated with DHCP. In this case, let the technician for medical equipment or the administrator make a security setting for the relevant device and separate the network area used by the device from other devices.

Caution

In hospitals, doctors and patients are exposed to the danger of uncontrollable electric currents. These electric currents are generated by potential differences between the equipment and conductive objects that may come into contact with the equipment. Please make sure that the auxiliary equipment connected to the equipment to solve this problem satisfies EN60601-1-1:1996.

Safety Symbols

Symbols	Description	Symbols	Description
	CAUTION: Precautions to prevent a minor accident or damage to property		This way up: For the duration of shipping/ delivery, the carton should face upright
	Fragile: Handle with care		Keep Dry
	Indicates that the product is in compliance with all relevant European Directives and under surveillance by Notified Body 0123		Use no hooks: Absolutely no hand hooks should be attached to pull the parcel
	The package can and should be recycled		

Product Component

Main features of the product



FC Central Program is software produced by Bionet, and it is used as fetal monitor, providing 16 fetal monitors maximum. For Maternal version, it provides not only fetal monitoring but also monitoring mother's condition. Also, it provides a variety of functions other than monitoring, such as saving files and images, and review functions such as measurement data.

Program composition

FC Central Program is consisted of three programs. They are, FC Central, which implements server function and FC Reviewer, which can analyze and make a judgment on measurement data.

Warning
When using Central System which is not provided by our company and the accessory that is not standardized, the system performance cannot be guaranteed. In this case, Central System may not function properly. Please use the system we have provided and the recommended product. For accessories that are not standardized, they can be a reason for signal distortion or noise. Make sure to use genuine accessory provided by us.

Hardware Preference

Type	Central system	Description
Common		FC Central Software CD
Common use		USB Lock Key

Caution

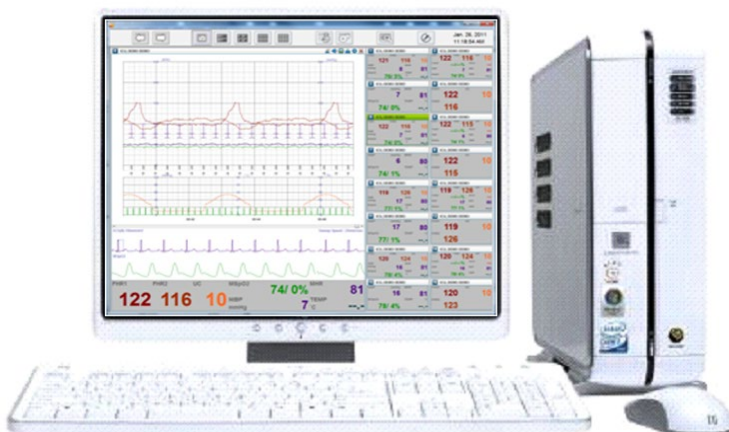
For product composition, the components may be different according to the direction of construction for FC Central System. According to Wired Environment LAN and wireless Wi-Fi environment, components may vary as mentioned. Final composition of the product should be purchased and constructed from the list above, according to the system construction.

System Requirement

Installation is available for FC Central CD or USB memory.

The minimum requirements of installation of FC Central are as below.

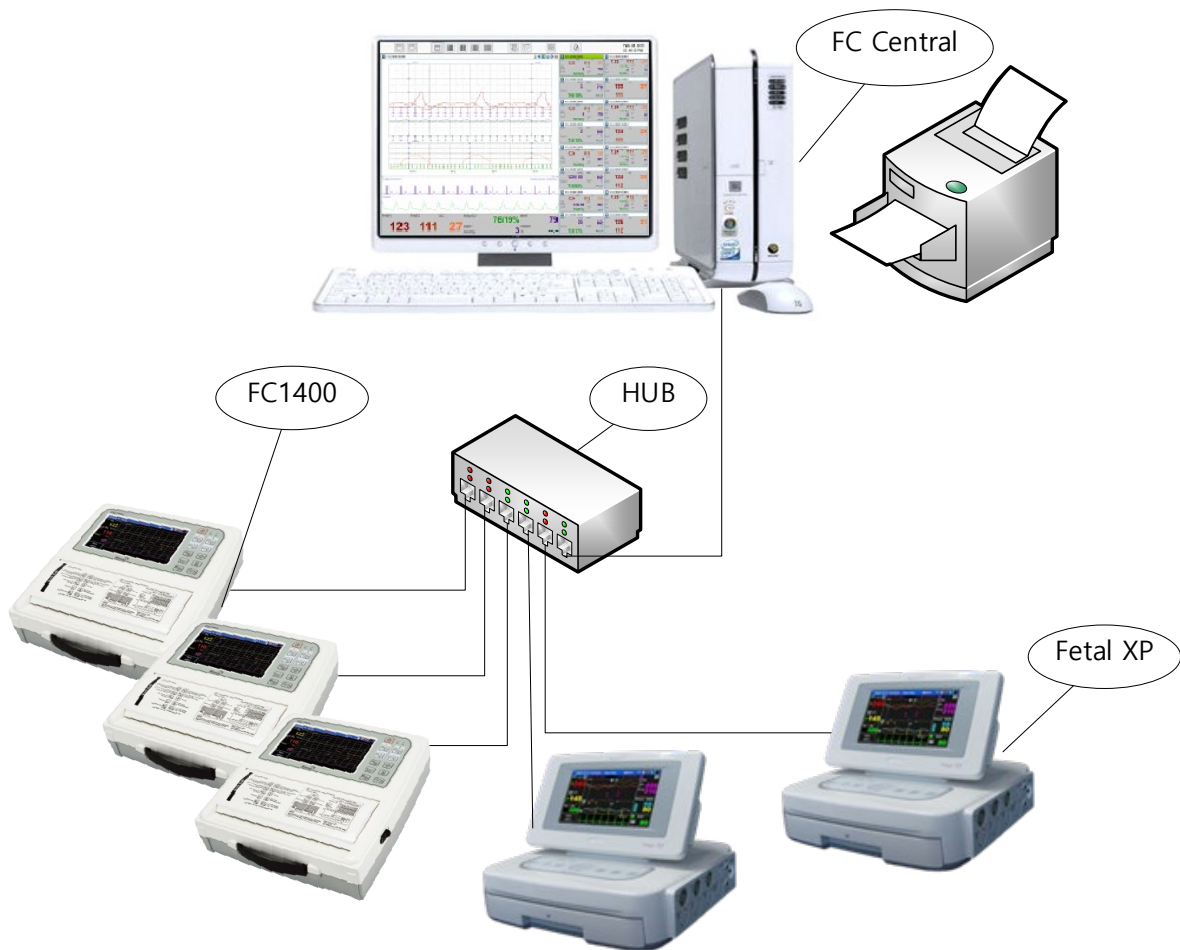
	Minimum Requirement	Recommended Requirement
OS	Windows XP	Windows 7
CPU	Core2Duo 1.86GHz	Core2Duo 3.0 GHz more
RAM	2GB	4GB or more
Monitor	19 inches	24 inches or more
Graph Card (VGA Card)	VGA RAM 256 MB 1280 x 1024	VGA RAM 512MB or more 1920 x 1080
CD-ROM drive	24X	48X
HDD	320 GB	1TB more
LAN Speed	10Mbps	100Mbps
USB Port	3	3 or more



System Preference

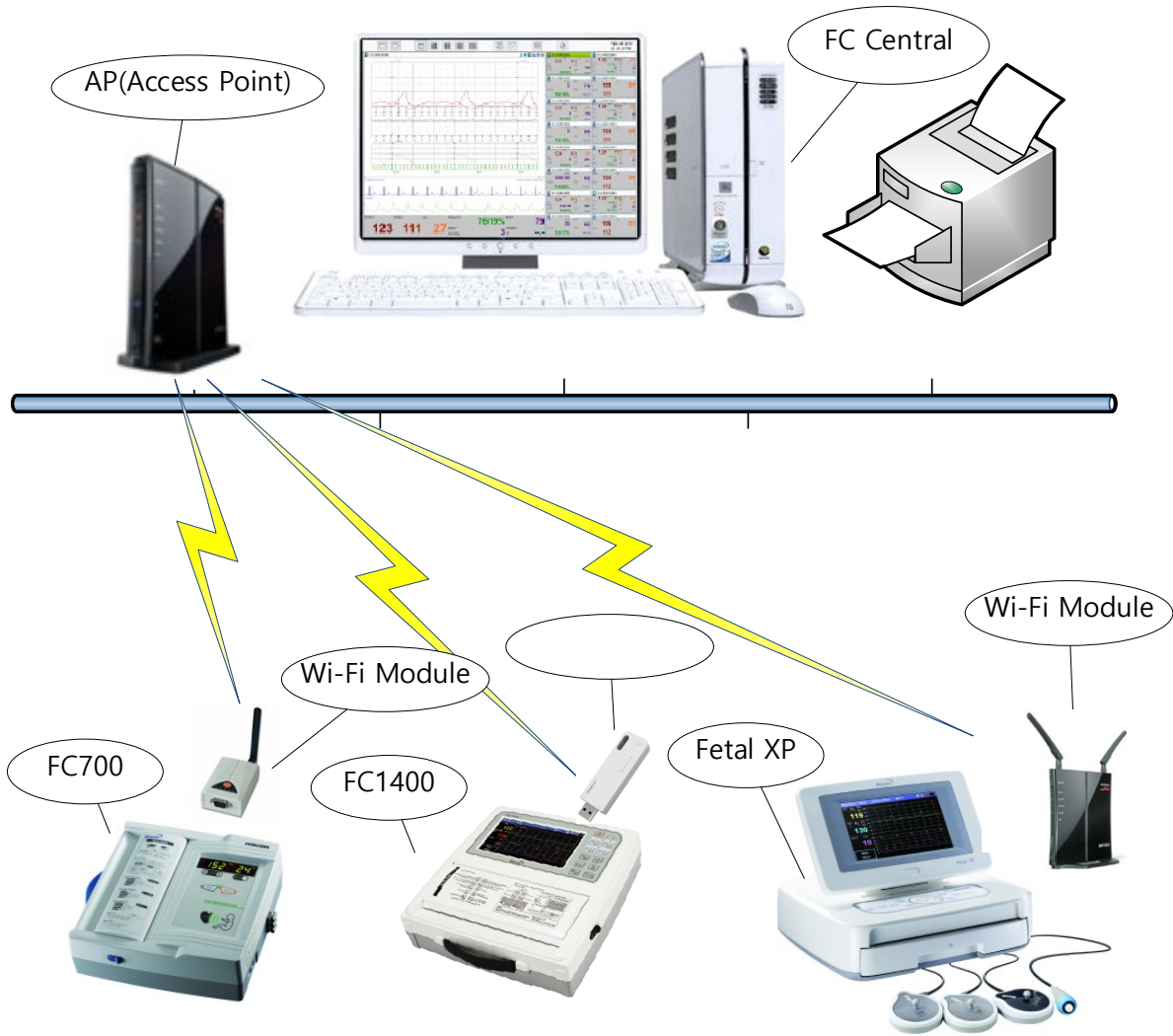
Wired Environment(LAN)

For Wired Environment LAN, it is supported only in Fetal XP and FC1400 equipment. For FC700 and old FC1400, Wired LAN is not supported.




Wireless Environment (Wi-fi)

For wireless LAN Environment, FC700, FC1400 and Fetal XP are all supported.



Hardware Preference for Wireless

Type	Central system	Description
Common		Access Point (AP)
Fetal XP FC1400		Wireless Network USB Adaptor
FC700		Serial to WLAN Converter
FC700		Serial to WLAN Converter Power Supply Wired Environment
FC700		Serial to WLAN Converter Bracket * 2 screws required (BWH 3X12 Tapping Screw)
FC700		Serial To WLAN Adaptor * Setup for Serial to WLAN converter
FC700		Serial Cable * Setup for Serial to WLAN converter

Installation

1. Installation of FC Central

1.1 Installation

2. Uninstallation of FC Central

2.1 Uninstallation

3. Execute / Close FC Central

3.1 Execute FC Central Program

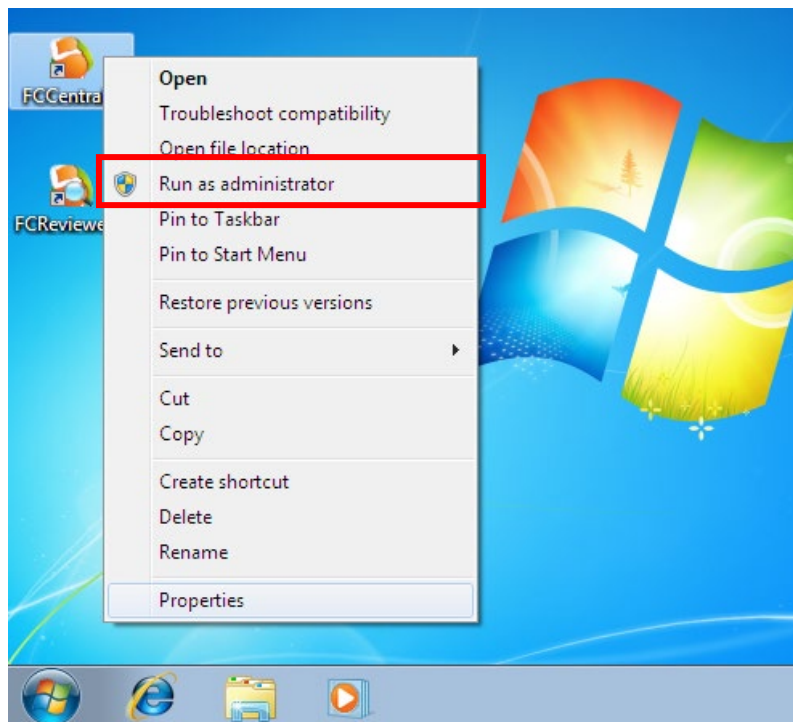
3.2 Close FC Central Program



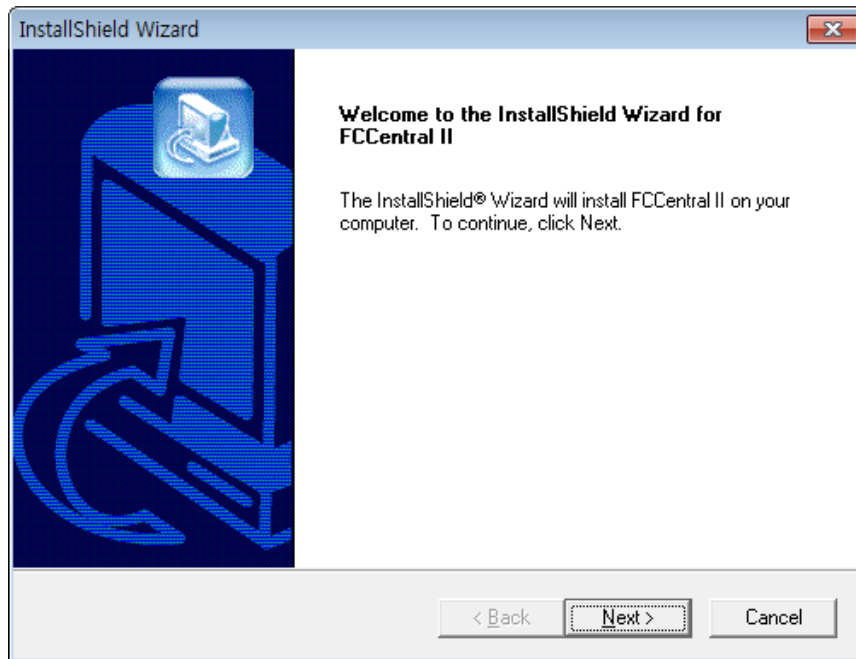
1. Installation of FC Central

1.1. Installation

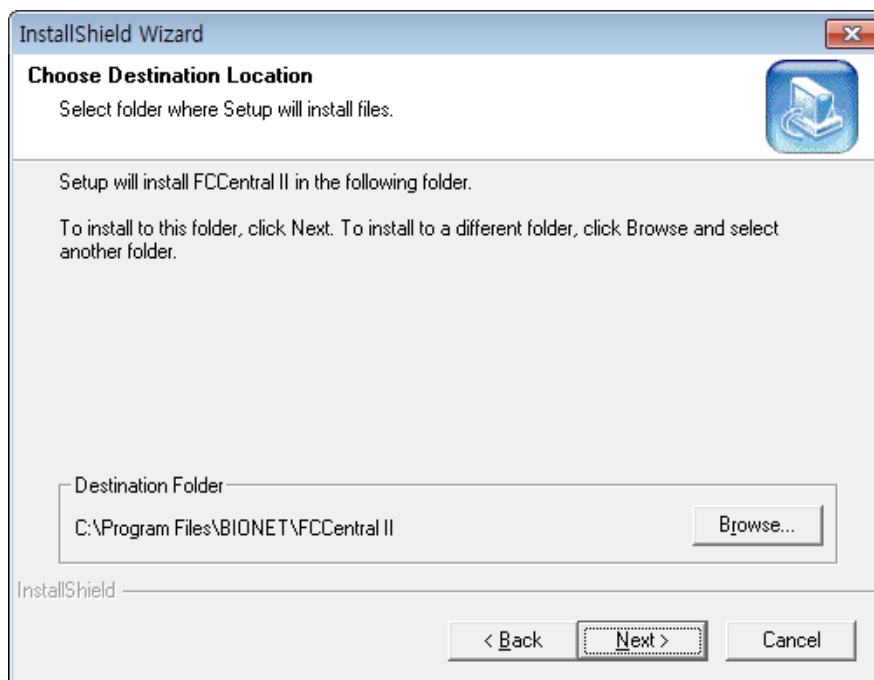
- 1) If you were using FC Central, you should back up measurement data and DB data files which manage the data in order to secure the safety of data. After that, start the installation
- 2) The folder where DB files managing the measurement data are located is in “C:\Program Files(x86)\BIONET\FC Central II”. Find “FC Central.mdb” here in this folder or in the subfolder and back it up.
- 3) For patient measurement data, it is in the folder designated in user settings. Check the relevant location and back up the folder where data is saved. This backup files and DB files can be placed back to their relevant location, after reinstallation.
- 4) Insert FC Central Installation CD to the CD Drive.
- 5) Open CD-ROM drive and run FC Central Install file
- 6) **You should use the management mode when you install or operate the software in Windows 7.**



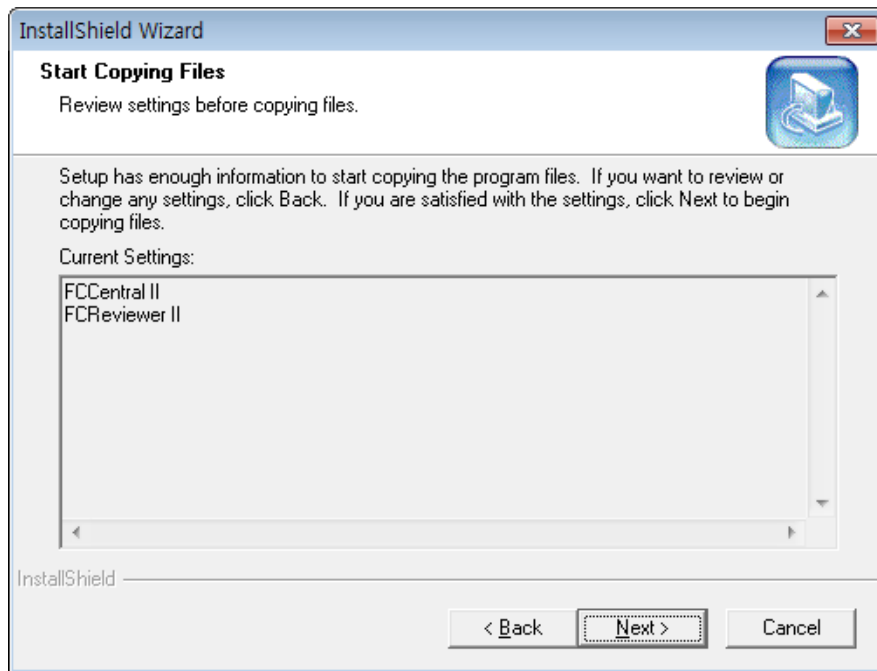
- 7) If window-browser pops up as follows, click “Next”



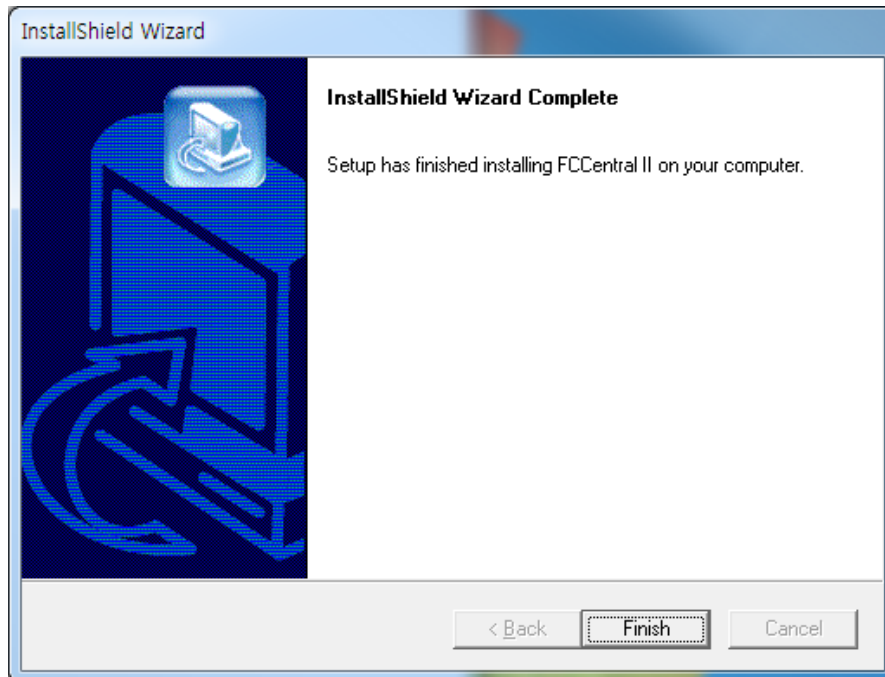
- 8) Select 'folder' where you want to install FC Central. If you want to install the program to another folder, click "Browse" and select folder.



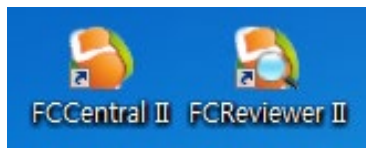
- 9) Install the relevant program in the folder which is set above. Click "Next" button.



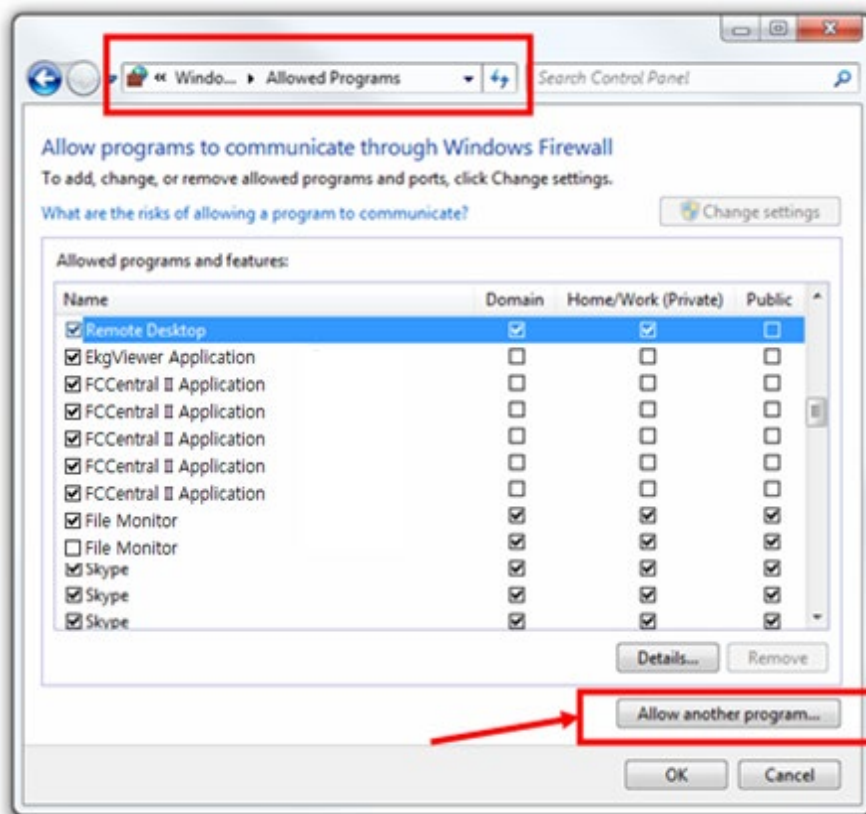
10) If installation is completed, click "Finish".



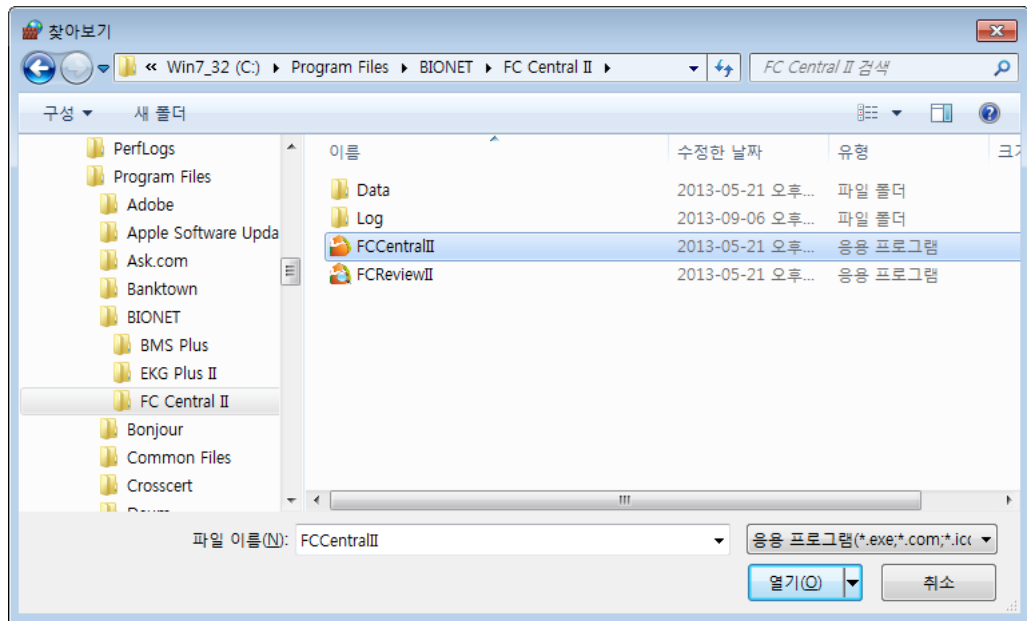
11) If installation is successful, you may see the "FC Central" and "FC Reviewer" icon.



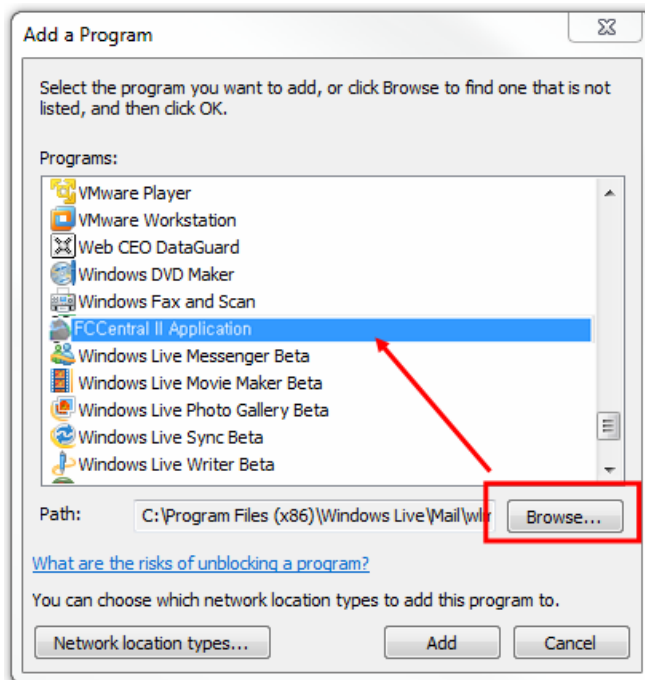
- 12) After finishing the installation, access right should be given in order to make network communication work in Windows. You can register the program to be allowed in Windows Firewall.
- 13) Enter "System and security in Control Panel.
- 14) Select "Windows Firewall in system and security.
- 15)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



- 17) In 'Allow other programs' dialogue, select 'search'
- 18) Move to the folder "C:\Program Files\BIONET\FC Central II" where program is located, and select "FC Central"



19) Select the program and click “add”



20) If “FC Central 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.

21) Register installed program in allowed program list. If you have backup files before installation, copy it to the same folder and use the system.

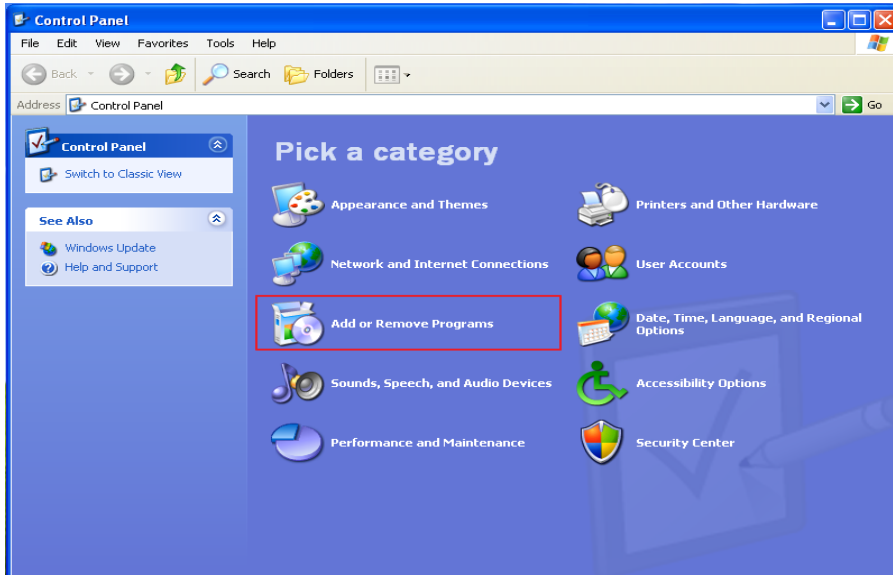
Caution

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

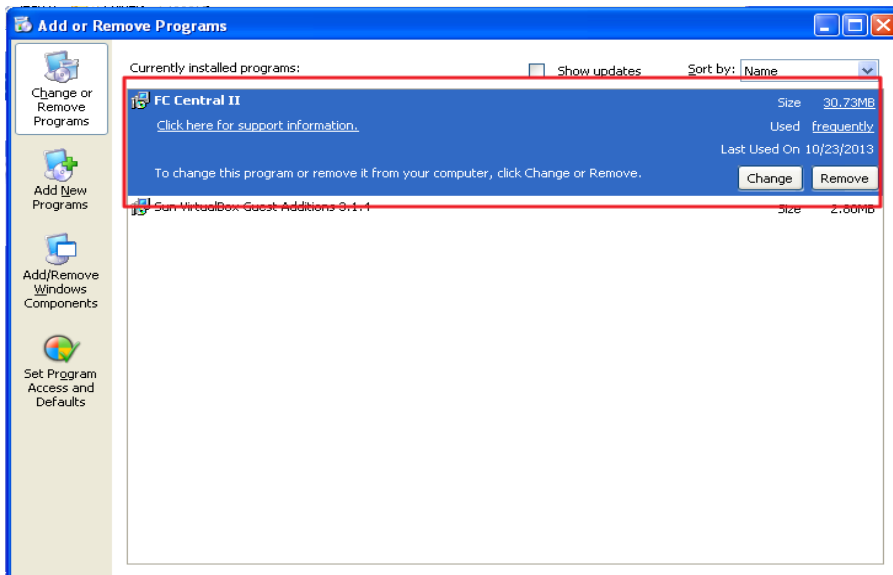
2. Uninstallation of FC Central

2.1. Uninstallation

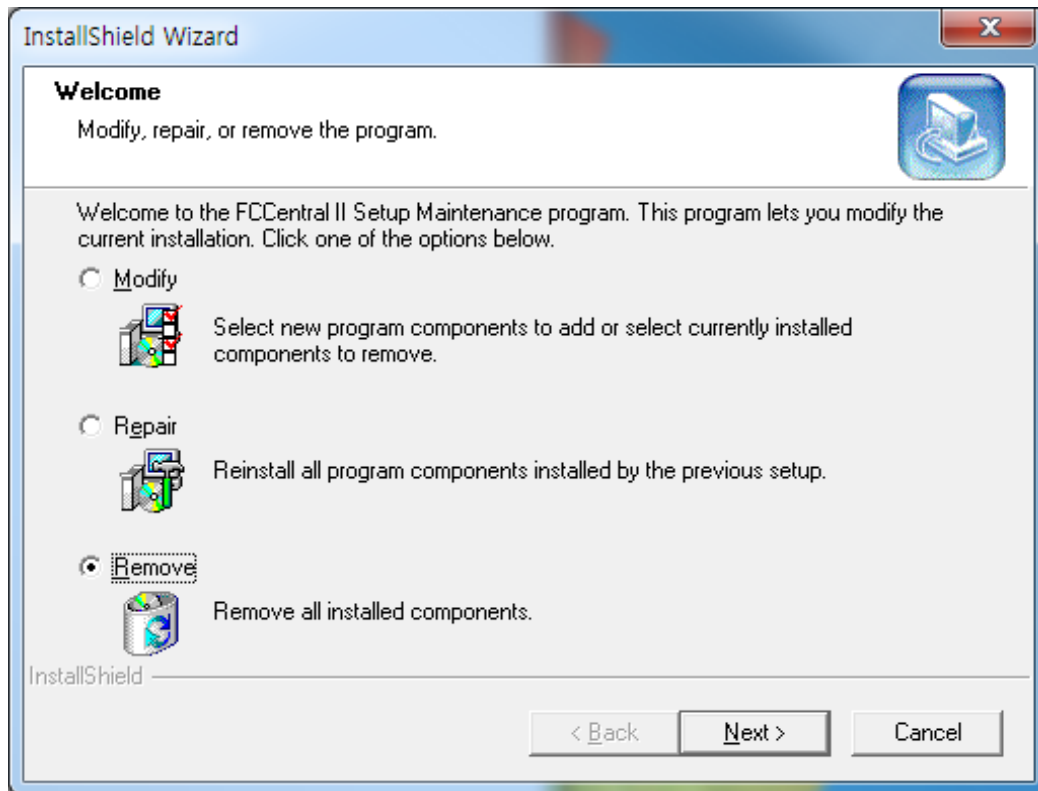
1) Move to Start->Control Panel->Program addition/deletion



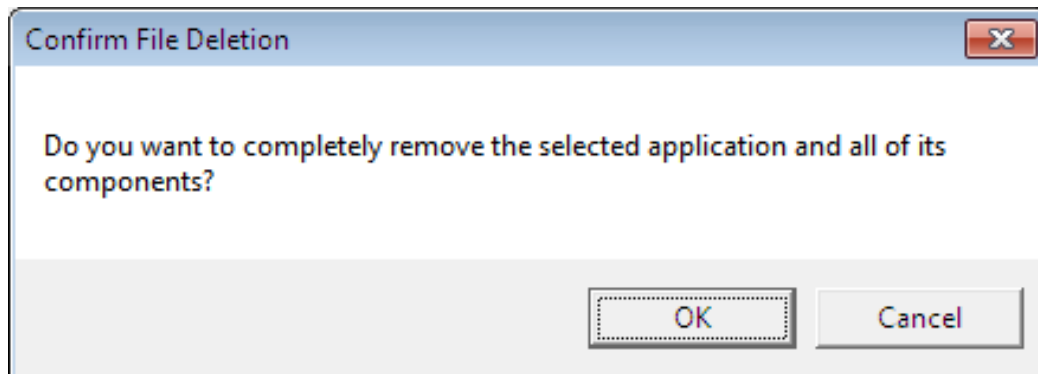
2) Then, select "FC central".



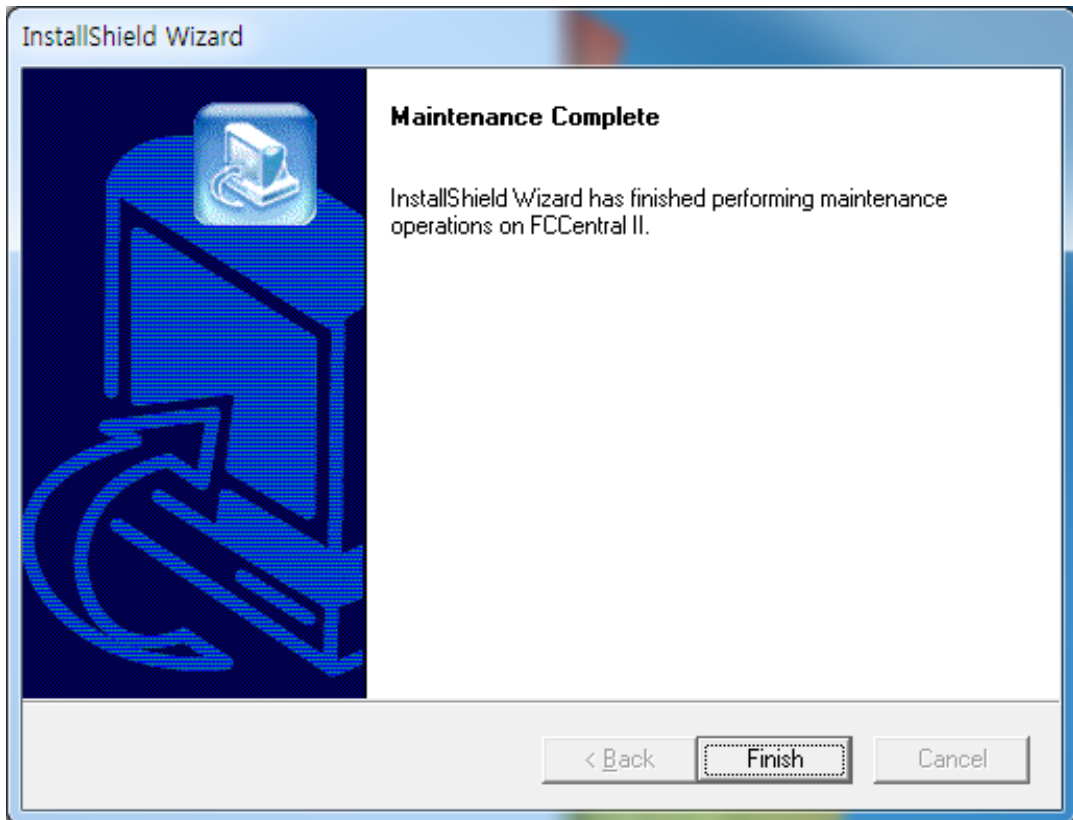
3) Then, select "Remove" from "install Shield Wizard".



4) Click "OK" to delete program completely.



5) Click "Finish".

**Caution**

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

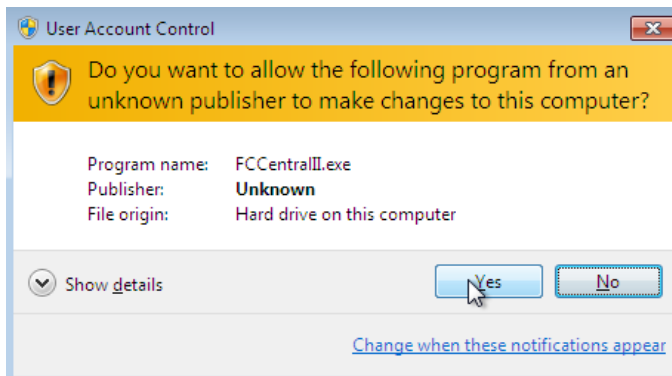
3. Execute / Close FC Central

3.1. Execute FC central

- 1) Double-click “FC Central” Icon on Desktop.



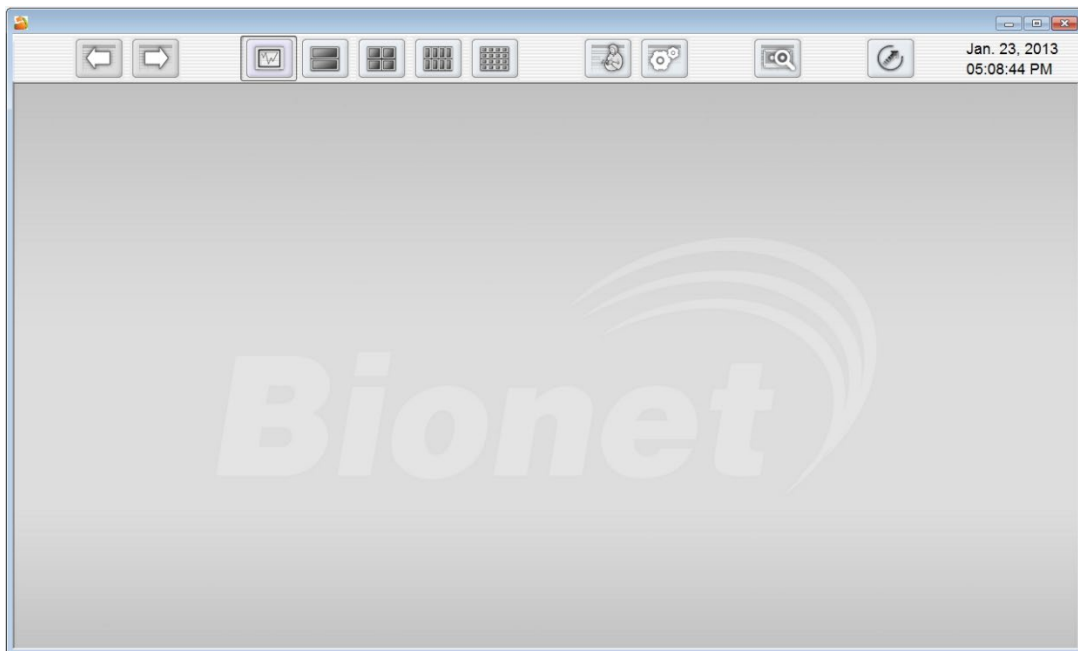
- 2) When starting the program for the first time, the dialogue below might appear due to the authority problem. Click “Yes”, or “Confirm”



- 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) This is basic design of FC Central.



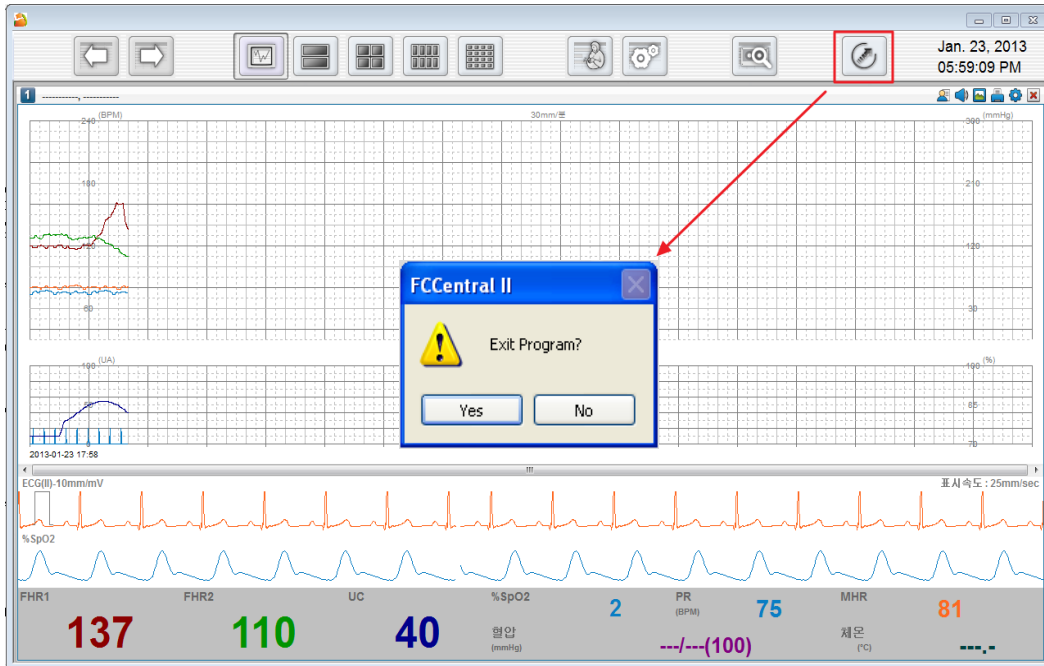
Note

FC Central provides two types of connecting method, Fetal Monitor, and LAN & Serial. Make a setting for FC Central and Fetal 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 FC Central and Fetal 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.

3.2. Close FC Central

1) If you want to close FC Central 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 FC Central program, it is recommended that you should close the data of real-time measurement for the patient. Data being measured might be deleted.

How to use

1. Basic functions of the program

1.1. Client Window Structure

1.2. Client & Parameter Window Structure

1.3. Operation of Main Menu

1.4. Channel layout and display

1.5. Client Window Structure

2. How to use Program

2.1 Patient Manager

2.2 Preference

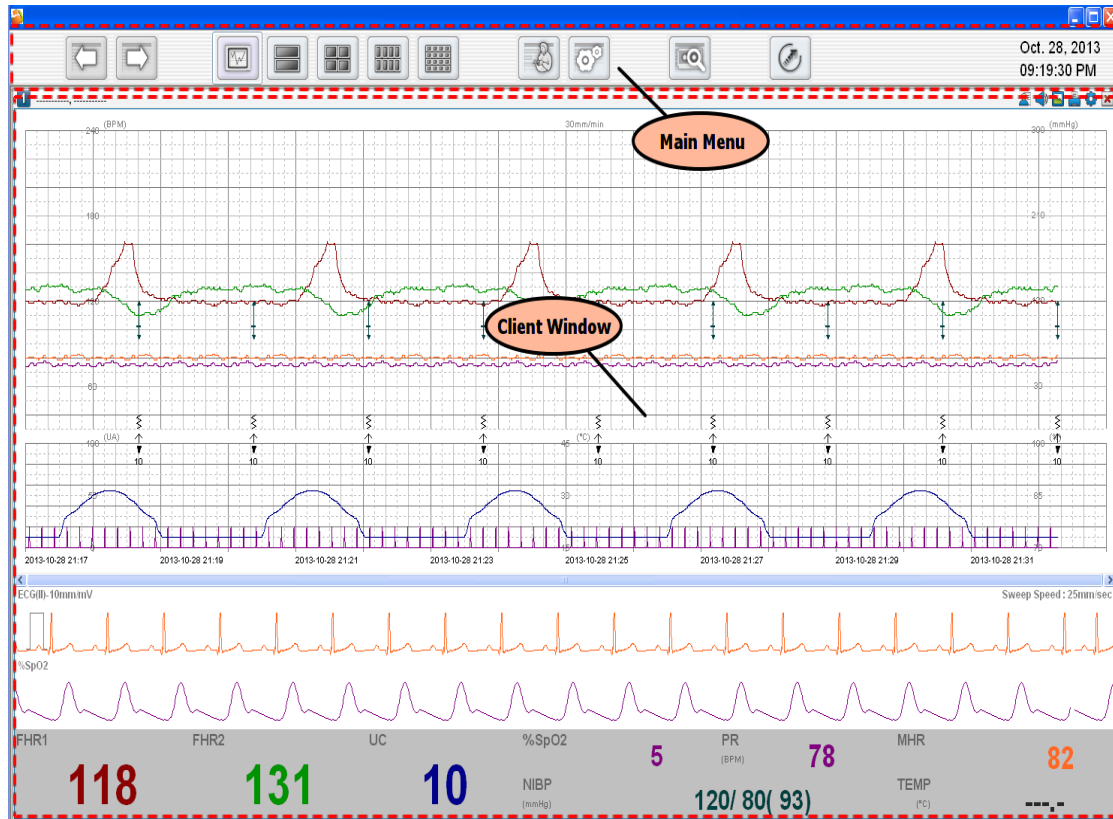
2.3 How to use Client Window

2.4 Parameter Trend Screen structure & how to use

1. Basic functions of the program

1.1. Client Window Structure

Basic Design of FC Central



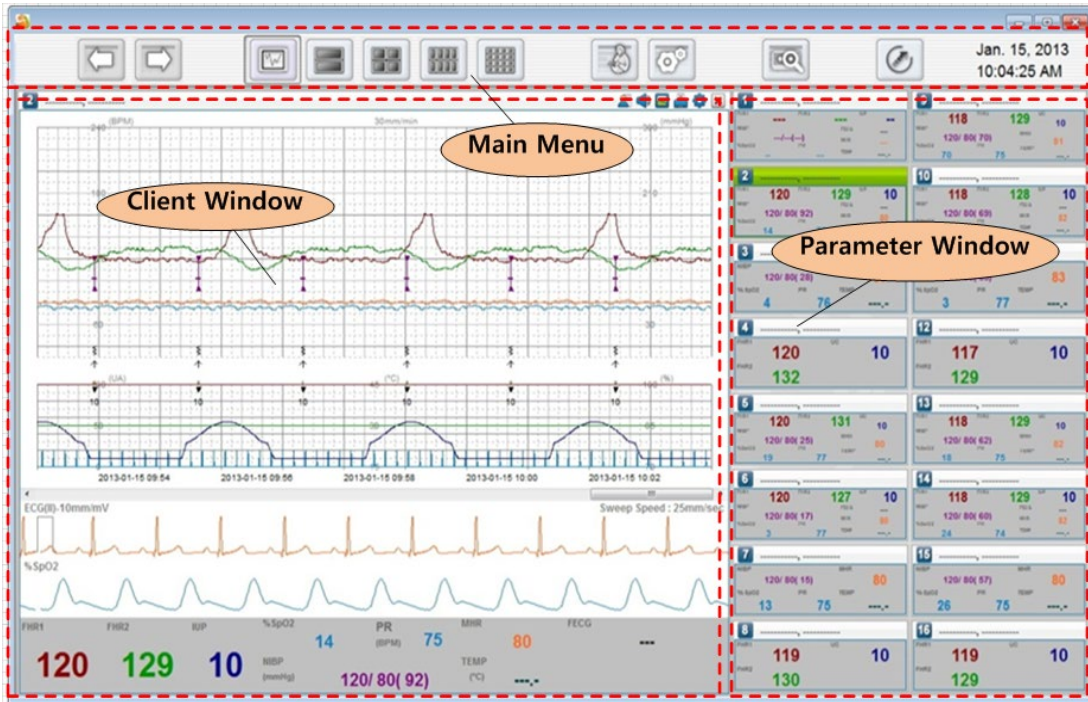
Main Menu

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 fetal monitor is connected to FC Central. One client window displays one fetal 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

1.2. Client & Parameter Window Structure Layout and Display

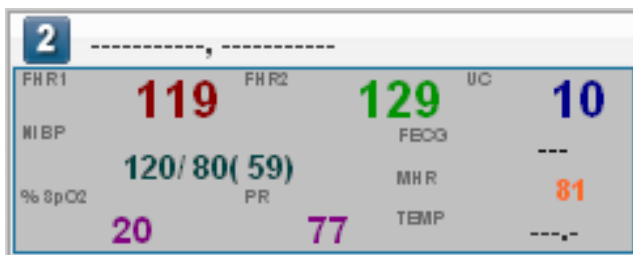


Main Menu & Client Window

This indicates the window presented when the connection between the menu of FC Central and Fetal Monitor is set. For details, refer to “1.1 Client Window structure”

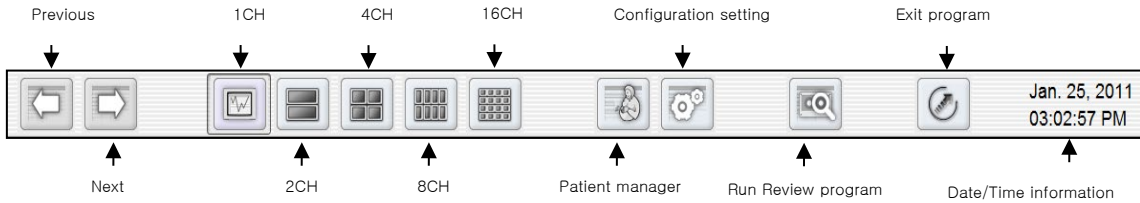
Parameter Window.

When FC Central and Fetal Monitor equipment is connected more than one in 1Ch window structure, Parameter Window will be presented as many as the number of connected equipment, providing the function that can monitor connected equipment. When you double-click each parameter window, relevant window will be opened in Client Window and details can be seen.



1.3. Operation of Main Menu

Names of Menu



Previous / Next



When more than 2 of equipment are connected in Client Window, it provides the function that shows you the window indicating each device. In the case of 1ch window, it gives a function of switching to the window of next equipment. In 2ch window, more than 2 devices should be connected to use the function. That is, the first window shows the screen of two devices, and the next window shows the other two. It is the same in 4ch and 8ch.

1, 2, 4, 8, 16 Channel window



To select number of clients (patient monitor) on screen

Patient Manager



To register "patient information".

Preference Setting



To set up the environment of system.

Run "Review Program"



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

Main View of FC Central can store data which is an hour after the measurement time and can analyze the status of the patient. When you saved the measurement data, the data before 1 hour can be analyzed by opening the saved data through Review Program.

Exit



To quit the program.

Date/Time Information



To show the present date and time.

1.4. Channel layout and display

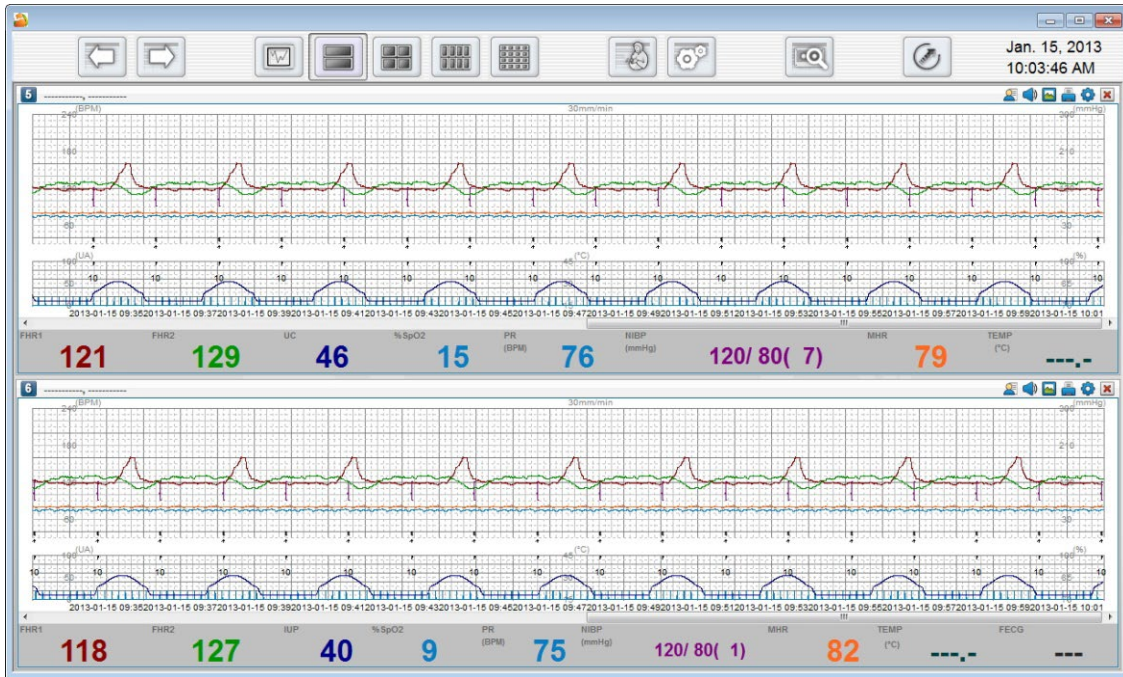
1 CH

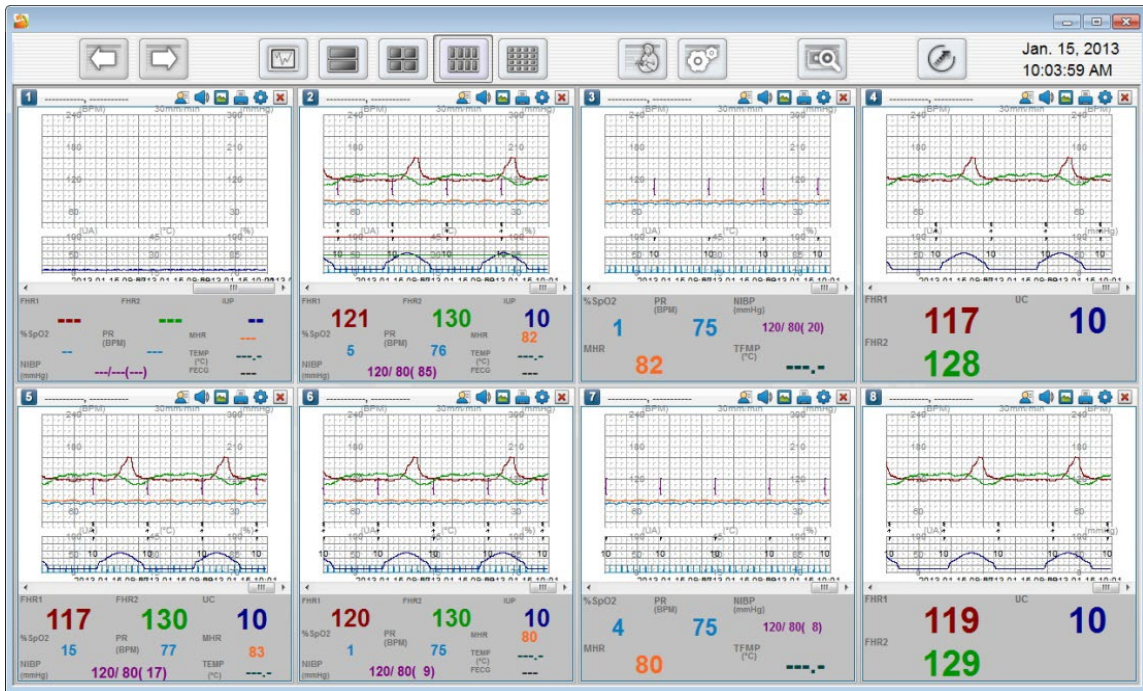
The 1-channel view displays up to 16 monitors simultaneously. To check the details (parameter, waveform, and parameter trend) of one of the monitors, select the client window of the monitor by double-clicking



2, 4, 8 CH

The 2-channel, 4-channel, and 8-channel views display 2, 4, and 8 monitors, respectively. The information displayed includes the parameter and parameter trend but excludes the waveform

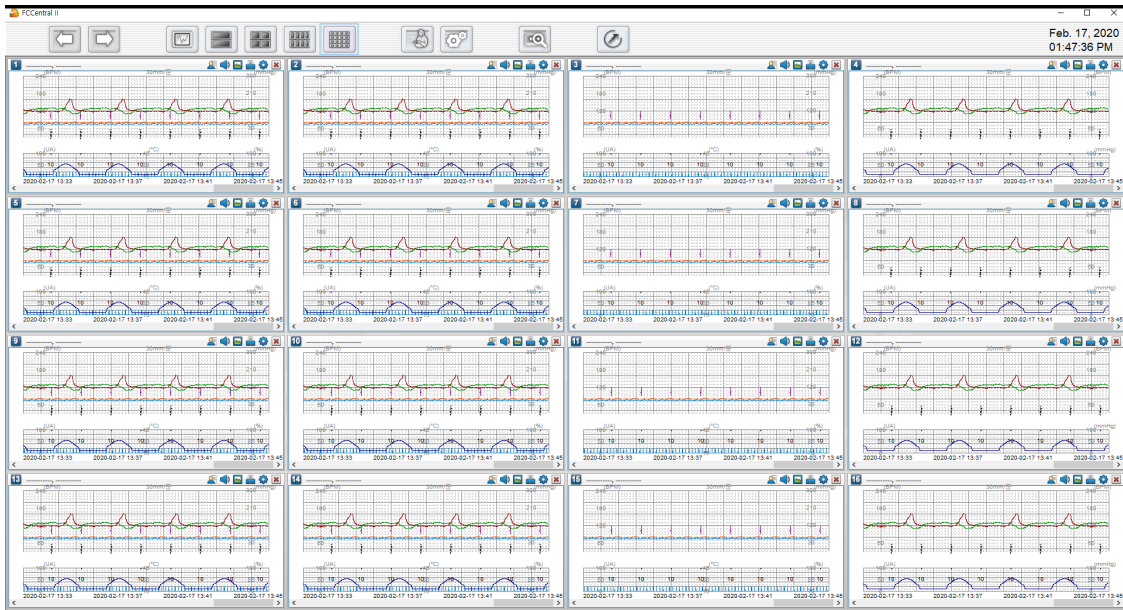




16 CH 

According to the setting of “16ch View” in the basic tab of the environment setting, the 16-channel display method configures the screen by outputting mainly parameter values in the case of text or outputting only the trend in the case of graphic. It displays parameter value information or trend information for all 16 connected devices.





Previous / Next



The Previous and Next buttons appear only when the number of fetal monitors connected to FC Central 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.



Device Number: 1~4

Device Number: 5~8

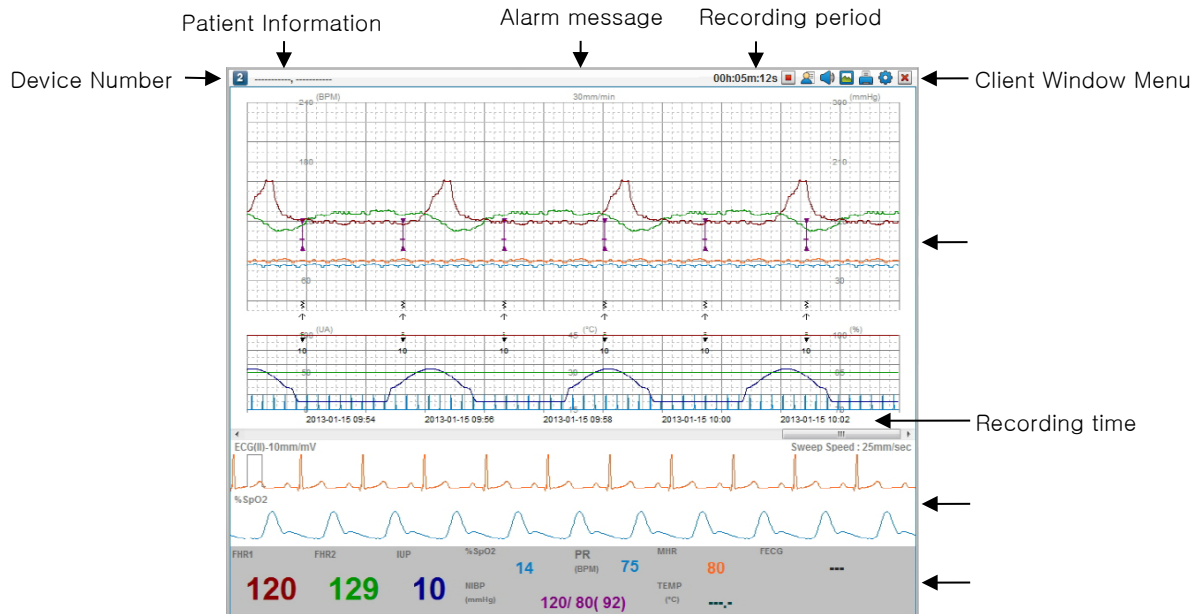
[Example: 8 monitors connected in 4-CH display]

1.5. Client Window Structure

Basic structure of Client Window

Client Window is formed one by one, when equipment is connected to FC Central. The basic structure of connected window is divided into 4 parts. They are the caption bar area which


indicates equipment number, patient information, alarm message and Client menu, the area indicating the parameter trend as graphs, the wave graph area which indicates ECG and SpO2, and the parameter area which shows the figures of parameter.



Device Number

In the upper part of Client Window, “Device Number” is presented on the top left side of the image below. Device Number is an equipment number (or patient’s Bed information) set in the Fetal Monitor. For equipment number, use 1~16 so that it is identical with Bed number. If the equipment number is not set or out of the range, it is indicated as question mark. (?)

Patient information

On the top of Client Window, “Patient information” is presented on the top left side of the image below. When it is connected for the first time, patient information is presented as underlined blanks (-----, -----), as indicated in the first image. Set the patient information and connect through Admit () button, then the patient information will be indicated.

Alarm Message

The alarm message is indicated after receiving the message from Fetal Monitor. It helps us to check the current status of patients as well as equipment.

Record Time

When saving connected data of Client Window, it records the time it is saved, that is the elapsed time.

Client Window Menu

It is the set of menus used in Client Window. It provides various functions such as connection between equipment and patient, sound volume, image saving, printing, and Client Window preferences.

Parameter Trend

The parameter data received from Fetal Monitor is indicated as graphs and symbols in real time.

Measured Time

It indicates the measured time of parameter data received from Fetal Monitor.

Graph

The data of ECG and SpO2 received from Fetal Monitor is indicated as graphs in real time.

Parameter

The parameter data received from Fetal Monitor is indicated as figures in real time.

2. How to use program

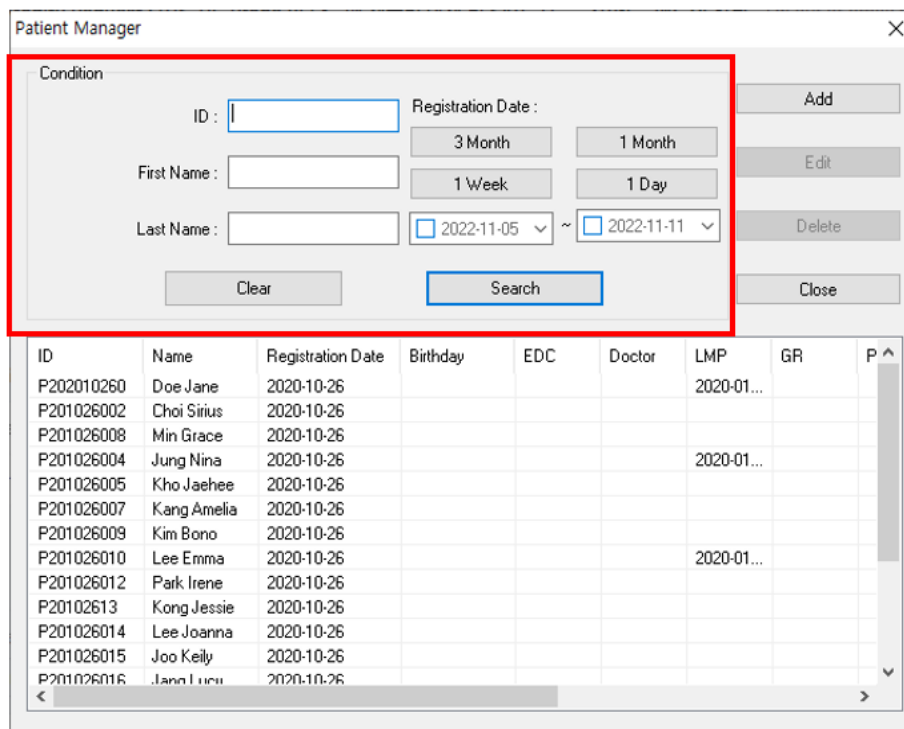
2.1. Patient Manager

Patient Manager structure

When you click “Patient Manager” icon on the Main Menu, a relevant dialogue will appear. The dialogue for Patient Manager is consisted of searching and releasing conditions for existing patients in order to manage patients, registering new patients, modifying patient information, and deleting patient information.

Search Condition

The search condition fields include the registered patient’s ID, name, or registration date and you can search the registered patients using them. (Click the “Clear” button to clear all search conditions.).

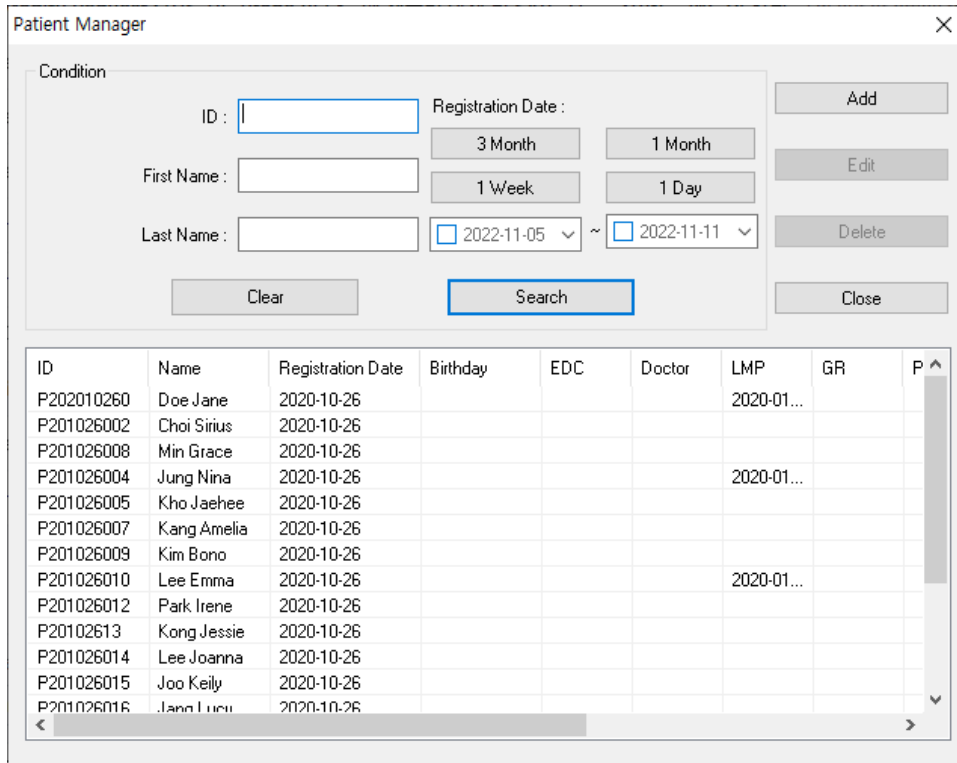


ID	Name	Registration Date	Birthday	EDC	Doctor	LMP	GR	P
P202010260	Doe Jane	2020-10-26				2020-01...		
P201026002	Choi Sirius	2020-10-26						
P201026008	Min Grace	2020-10-26						
P201026004	Jung Nina	2020-10-26				2020-01...		
P201026005	Kho Jaehee	2020-10-26						
P201026007	Kang Amelia	2020-10-26						
P201026009	Kim Bono	2020-10-26						
P201026010	Lee Emma	2020-10-26				2020-01...		
P201026012	Park Irene	2020-10-26						
P20102613	Kong Jessie	2020-10-26						
P201026014	Lee Joanna	2020-10-26						
P201026015	Joo Kelly	2020-10-26						
P201026016	Jang Lucy	2020-10-26						

Registering patients

It is used for registering new patient information and managing patients by interlocking with equipment. Registered information is activated when the patient is called to the hospital and the

measured information is gathered together and managed. You can register patient information by clicking “Add” in the “Patient Manager” dialogue.



ID	Name	Registration Date	Birthday	EDC	Doctor	LMP	GR	P
P202010260	Doe Jane	2020-10-26				2020-01...		
P201026002	Choi Sirius	2020-10-26						
P201026008	Min Grace	2020-10-26						
P201026004	Jung Nina	2020-10-26				2020-01...		
P201026005	Kho Jaehee	2020-10-26						
P201026007	Kang Amelia	2020-10-26						
P201026009	Kim Bono	2020-10-26						
P201026010	Lee Emma	2020-10-26				2020-01...		
P201026012	Park Irene	2020-10-26						
P20102613	Kong Jessie	2020-10-26						
P201026014	Lee Joanna	2020-10-26						
P201026015	Joo Keily	2020-10-26						
P201026016	Jang Lucy	2020-10-26						

If you click add button, “Add patient information” dialogue will appear as indicated in the image below. You can insert patient’s ID, name, gender, birthday, menstruation date, the number of pregnancies, the number of childbirth, height, and weight. ID and name are compulsory, so they must be inserted. Then, click “save” button to register patient information.

The 'Add Patient Information' dialog box contains the following fields and controls:

- ID:
- First Name:
- Last Name:
- Doctor:
- Registration Date:
- Comment:
- Birthdate: (calendar icon)
- LMP: (calendar icon)
- EDC: (calendar icon)
- GA: week day
- GR:
- PA:
- Height: cm
- Weight: kg
- Edit Date:

Buttons: Save, Cancel

Modifying patient information

Select the patient you want to modify the patient information in the Patient Manager and click the Edit button.

The 'Patient Manager' dialog box features a search section and a patient list table.

Search Section:

- Condition:
- ID:
- Registration Date: ~
- First Name:
- Last Name:
- Filters: 3 Month, 1 Month, 1 Week, 1 Day
- Buttons: Add, Edit, Delete, Close, Clear, Search

Patient List Table:

ID	Name	Registration Date	Birthdate	EDC	Doctor	LMP	GR	P
P202010260	Doe Jane	2020-10-26				2020-01...		
P201026002	Choi Sirius	2020-10-26						
P201026008	Min Grace	2020-10-26						
P201026004	Jung Nina	2020-10-26				2020-01...		
P201026005	Kho Jaehee	2020-10-26						
P201026007	Kang Amelia	2020-10-26						
P201026009	Kim Bono	2020-10-26						
P201026010	Lee Emma	2020-10-26				2020-01...		
P201026012	Park Irene	2020-10-26						
P20102613	Kong Jessie	2020-10-26						
P201026014	Lee Joanna	2020-10-26						
P201026015	Joo Kelly	2020-10-26						
P201026016	Jang Lucy	2020-10-26						

In "Modify patient information" dialogue, select what you want to modify and apply addition or

change. But the ID cannot be modified. Click “save” button and apply the modification.

Deleting a registered patient

It deletes the information in the patient information list when there is unnecessary information or a need to delete it. You can select which patient you want to delete and click “delete”. It will delete all of the patient information. Deleted patient information cannot be restored, so be careful in deleting it.

ID	Name	Registration Date	Birthday	EDC	Doctor	LMP	GR	P
P202010260	Doe Jane	2020-10-26				2020-01...		
P201026002	Choi Sirius	2020-10-26						
P201026008	Min Grace	2020-10-26						
P201026004	Jung Nina	2020-10-26				2020-01...		
P201026005	Kho Jaehee	2020-10-26						
P201026007	Kang Amelia	2020-10-26						
P201026009	Kim Bono	2020-10-26						
P201026010	Lee Emma	2020-10-26				2020-01...		
P201026012	Park Irene	2020-10-26						
P20102613	Kong Jessie	2020-10-26						
P201026014	Lee Joanna	2020-10-26						
P201026015	Joo Kelly	2020-10-26						
P201026016	Jann Lucy	2020-10-26						

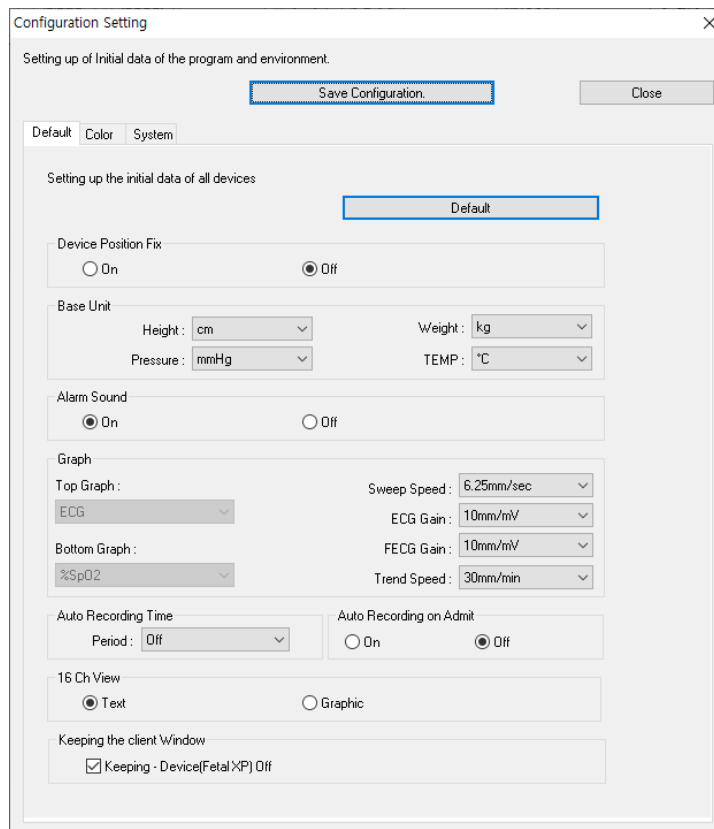
2.2. Preference setting

Preference setting

Preference setting consists of default, color, and system.

Default Tab

It is the function where you can set basic units (height, weight, pressure, temperature) used in the program, alarm sound, how to indicate graphs, and printed area.



- Fixing the location of equipment: It is a function that fixes the printed area from number 1 to 16, for 16 equipment connected to the Central system. Generally, this function is not used quite often and since it follows the normally connected order. In order to use this function, you have to set a BED number for each device, and then you can have a proper operation.
- Basic units setting: It sets up the basic units of height, weight, pressure, and temperature that are used by each country.
- Alarm sound: It is a function that controls Alarm sound that rings out according to the status of patient as well as equipment. It is used when the Alarm sound function for the whole system is not used.
- Graph printing control: It controls the location and type of Wave graphs for ECG,

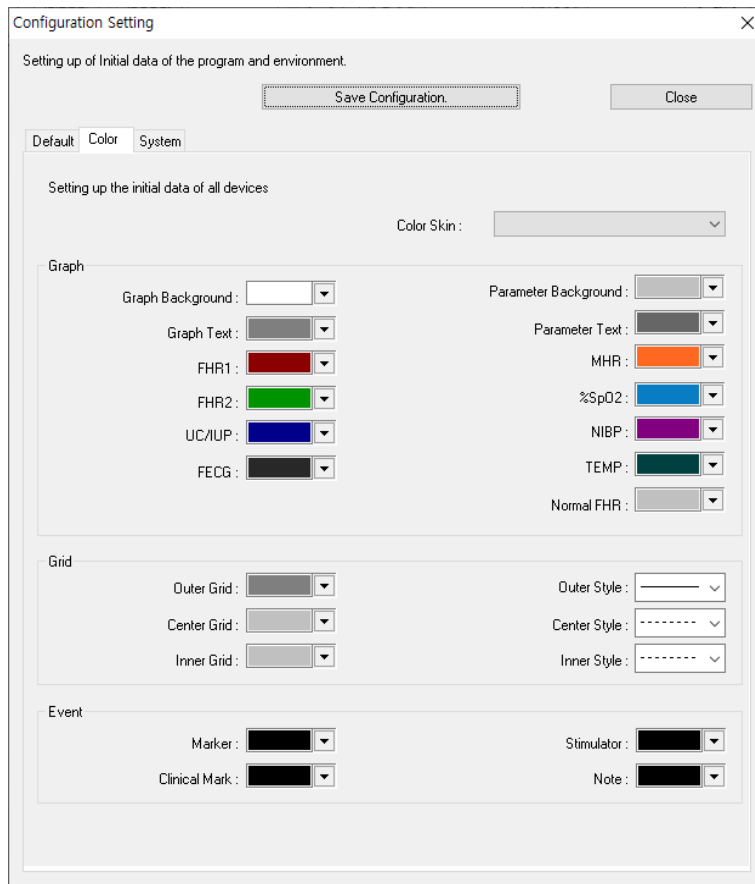
FECG, SpO2. General location is set in this function, but if it is interlocked with equipment, the window of each patient will be changed according to the measured data from the equipment.

- Automatic recording: If you want to save measured data of patients, the basic function registers the patient information in Central system patient management dialogue and you have to select Admit patient information icon, select the patient, and click “Admit” button. Then you have to click save button in order to save. Automatic recording function allows you to save the information by clicking Admit patient information icon in patient measurement data window, selecting the patient, and clicking “Admit” again.
- 16 Ch view: When using a large size monitor, select to view the trend graph rather than the current state. When selecting as Text, only the current status value is displayed, and when selecting as Graphic, the trend is output.
- Measurement window maintenance: Other than FC700, Fetal XP and FC1400 are designed to share the signal for window management with Central. If you close Fetal XP or FC1400, Central closes the window of the relevant equipment. If you want to maintain the measurement window even if you stop the equipment, this option can be used. If you check on it, it would not close but maintain the window.

If you click “Save changes” button after setting each area, relevant settings will be applied.

Color Tab

Specify the color for display including parameter and waveform screen.



- Color Skin: This function allows you to set all the color settings applied in graphs, grid, and events. For user-defined mode, there are “basic colors” and “paper colors”. For basic colors, it provides the color for basic window appeared first on the screen, and for paper colors, it provides an identical color with the paper color printed from the equipment.
- Graph: It provides you to set each color for parameter, wave and background that are indicated on the Client Window.
- Grid: It sets up the shape and color of grid that is indicated on the Client Window
- Event: It sets up the color of marker and stimulator that are indicated on the Client Window.

If you click “Save changes” button after setting each area, relevant settings will be applied.

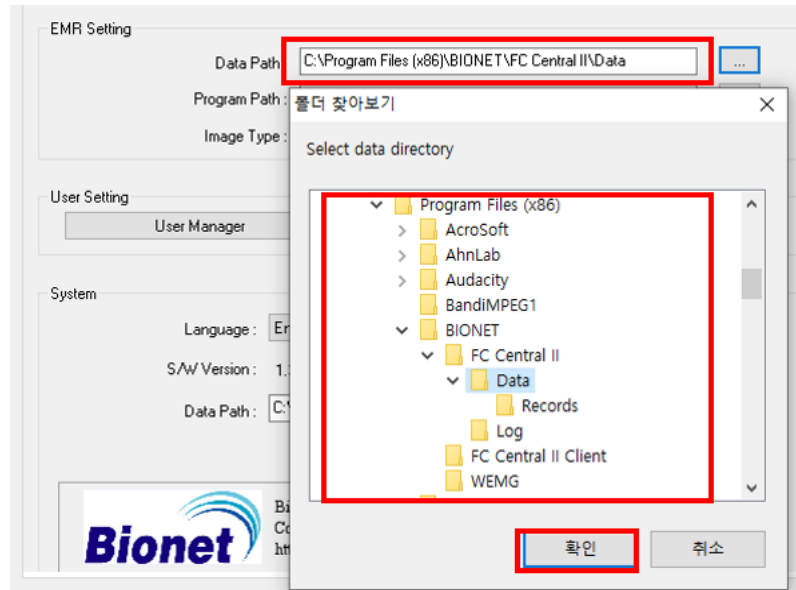
System Tab

Specify the system information including COM port, EMR options, language, and data

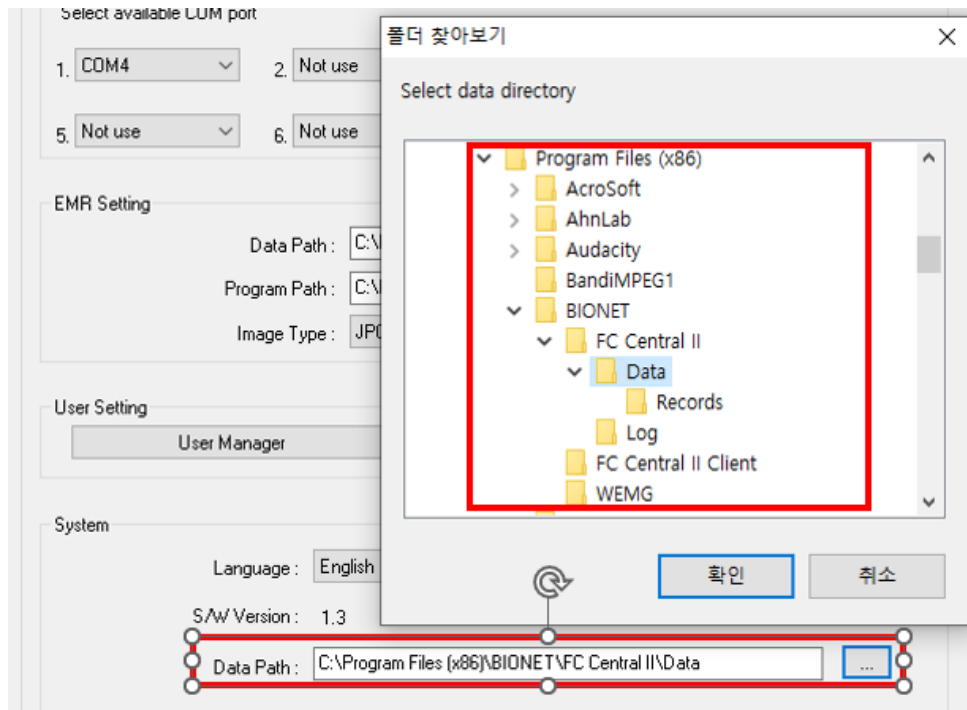
storage path.



- 1) Serial setting: If the connection method of FC Central and Fetal Monitor is Serial, select relevant COM Port. For Serial, it only provides support for 8 devices. If you click “Save changes” button after setting each area, relevant settings will be applied.
- 2) EMR setting: It sets up the data path interlocked with EMR, path for executing the program, and the type of image. When you save images in Client Window, a Main program in FC Central, and in Review Program, they are saved here. Please select the data path where there is a sufficient amount of remaining space in the hard disk.
- 3) If you click “Save changes” button after setting each area, relevant settings will be applied.



- 4) User setting: It provides a function for adding and editing the user information (doctor, nurse) used in the program. <Details on the next page>
- 5) System: It sets up where the data measured in the program and patient information DB are to be saved. When the dialogue appears as indicated on the image below, select the folder in the hard disk where there is an enough space.
 Data path sets up the folder that patient information and data are saved. If this Setting is changed, FC Central program cannot get the patient information and data files. Please set up "Data path" only once at the time that FC Central is installed. If this setting will be changed, please copy all data in the old folder into new folder



System group provides a function for setting languages presented in the Program UI. Select your language in the “Language”. For the languages not provided, the additional work will be needed.

The settings of System group will be applied after restarting the program.

Caution

While operating FC Central program, saving images for measured data and interlocking with EMR will occur. In the “System” of “preference” in FC Central 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.

User Setting

“User setting”, one of the items in the system tab, provides a function for adding and editing the user information (doctor, nurse) used in the program.

- 1) Search condition: It provides a function for searching for registered users with ID and name. Insert the relevant information and click “search”, then the result will be presented on the list below. If you click “Release condition”, it will be initialized to the default.

The 'User Manager' dialog box features a 'Condition' section with three input fields: 'ID', 'Name', and 'Level'. The 'Level' field is a dropdown menu currently set to 'All'. Below these fields are 'Clear' and 'Search' buttons. To the right of the 'Condition' section are four buttons: 'Add', 'Edit', 'Delete', and 'Close'. The 'Add' button is highlighted with a blue border. Below the buttons is a table with the following columns: ID, Name, Level, and Registration Date. The table is currently empty.

2) Register user(addition): Click "Add" in the dialogue.

This is the same 'User Manager' dialog box as above, but the 'Add' button is now highlighted with a red border. The 'Condition' section and the table below remain the same.

Insert the information you want to add. The ID cannot be modified, so be careful in

inserting it. Then, click “Save” button.

If you are asked to add user information, click “Yes”

You can see that the user information is added on the list.

The screenshot shows the 'User Manager' application window. It features a search form with the following fields and controls:

- Condition section with input fields for ID, Name, and a dropdown for Level (set to 'All').
- Buttons: Add (highlighted in blue), Edit, Delete, Clear, Search, and Close.
- A table with the following data:

ID	Name	Level	Registration Date
BIONET	BIO	Nurse	2022-11-11

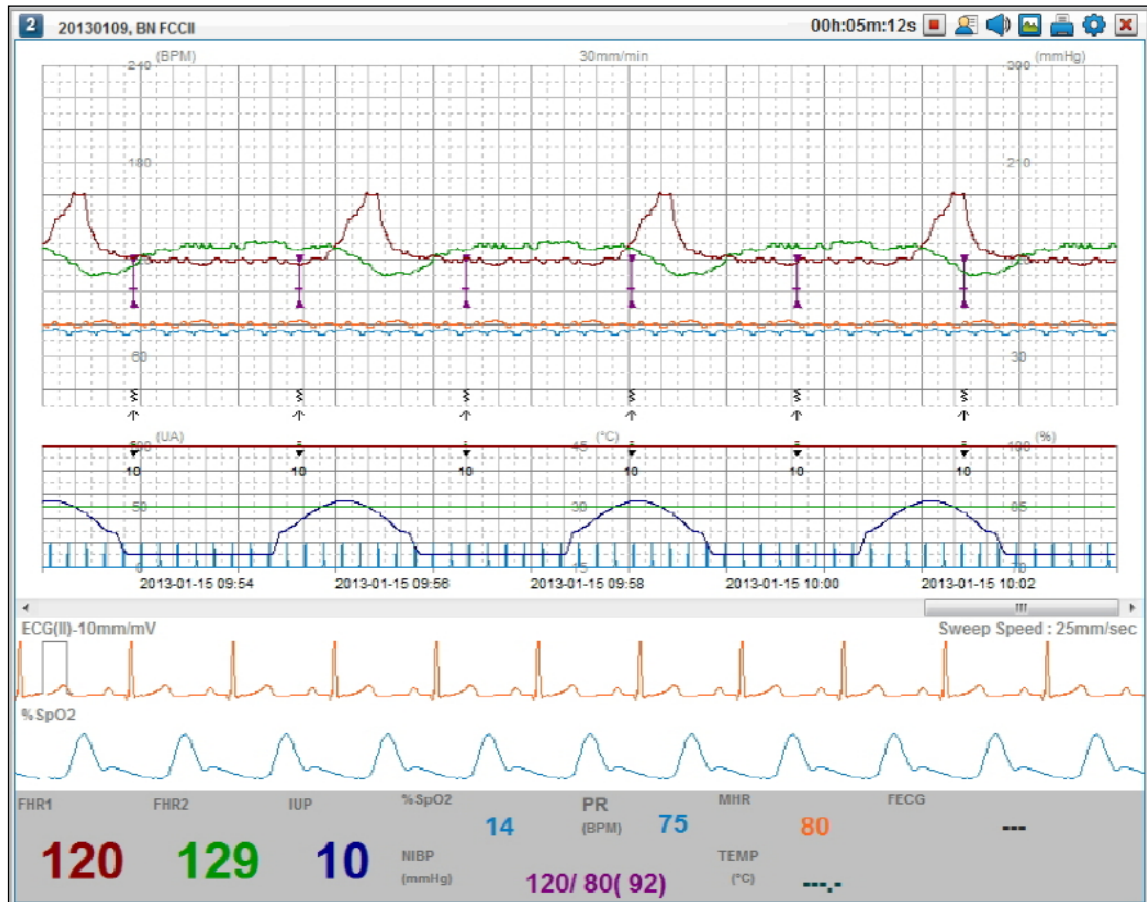
- 3) Modifying & deleting User information: It provides a function for modifying or deleting registered user information. As indicated in the image below, select the user and click “modify” or “delete”. But, when you modify, the ID cannot be changed.

This screenshot shows the 'User Manager' application window with the 'Edit' button highlighted in red. The search form and table are identical to the previous screenshot.


ID	Name	Level	Registration Date
BIONET	BIO	Nurse	2022-11-11

2.3. How to use Client Window

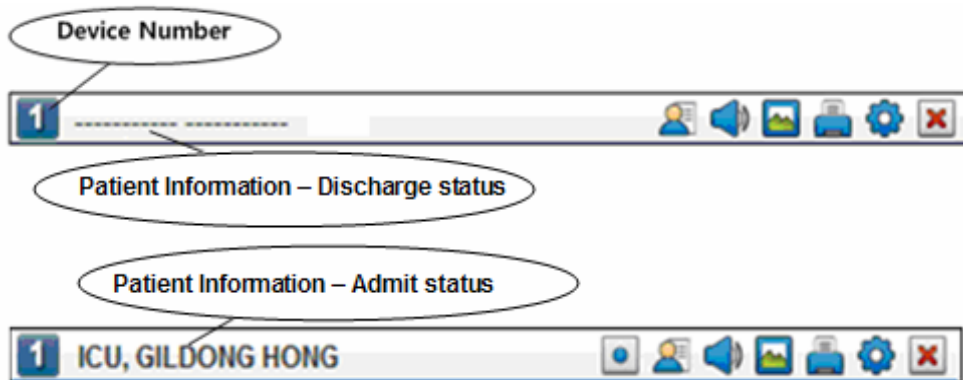
Client Window



Device Number & Patient Information

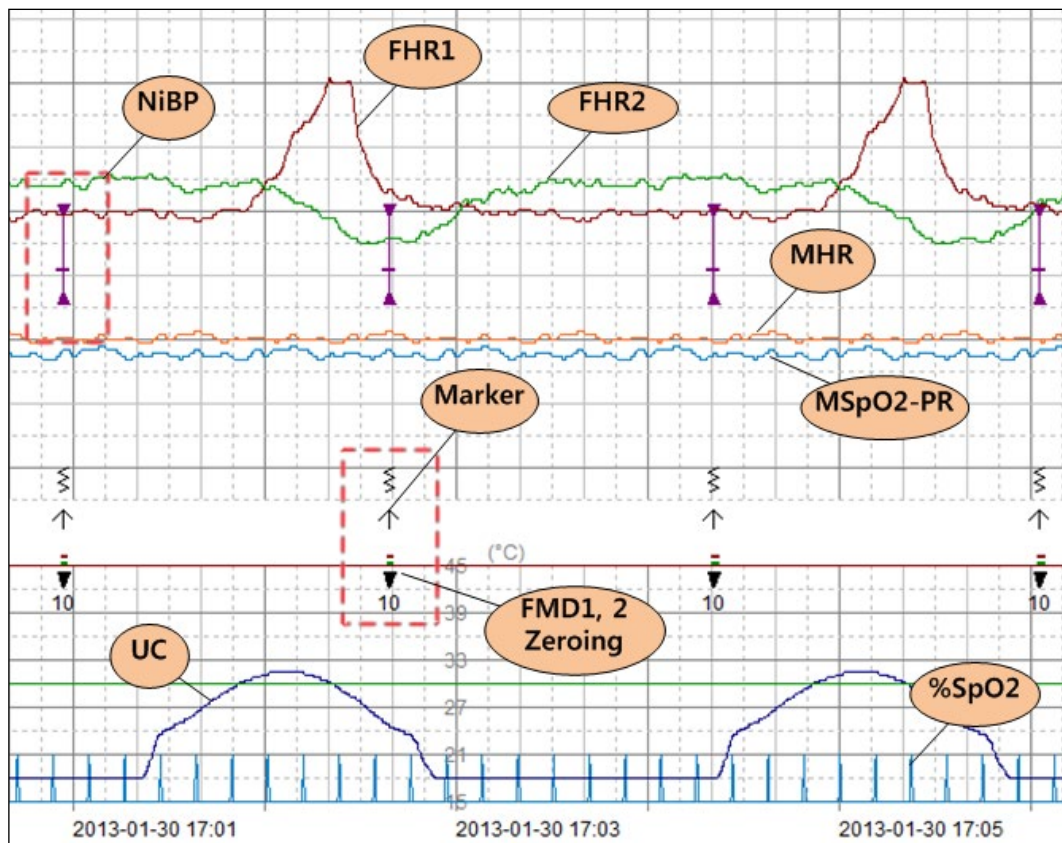
In the upper part of Client Window, “Device Number” is presented on the top left side of the image below. Device Number is an equipment number (or patient’s Bed information) set in the Fetal Monitor. For equipment number, use 1~16 (**1** ~ **16**) so that it is identical with Bed number. If the equipment number is not set or out of the range, it is indicated as question mark. (**?**) When it is connected for the first time, patient information is presented as underlined blanks (-----), as indicated in the first image. Set the patient information and connect through Admit () button, then the patient information will be indicated.

Client Window Parameter



Trend Classification

For Trend classification of Client Window, it is classified as indicated in the first image. These graphs are drawn with the same colors of the parameter area in the second image.

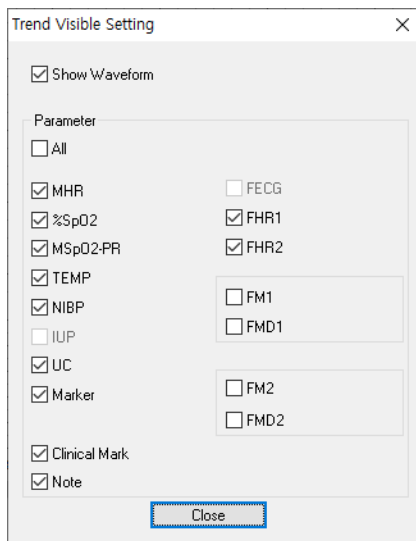


FHR1	FHR2	UC	%SpO2	PR (BPM)	MHR
119	129	10	13	75	81
NIBP (mmHg)	120/ 80(17)		TEMP (°C)	----	

View settings of Client Window Parameter trend

If you double-click parameter trend area in Client Window, the dialogue box below appears. You

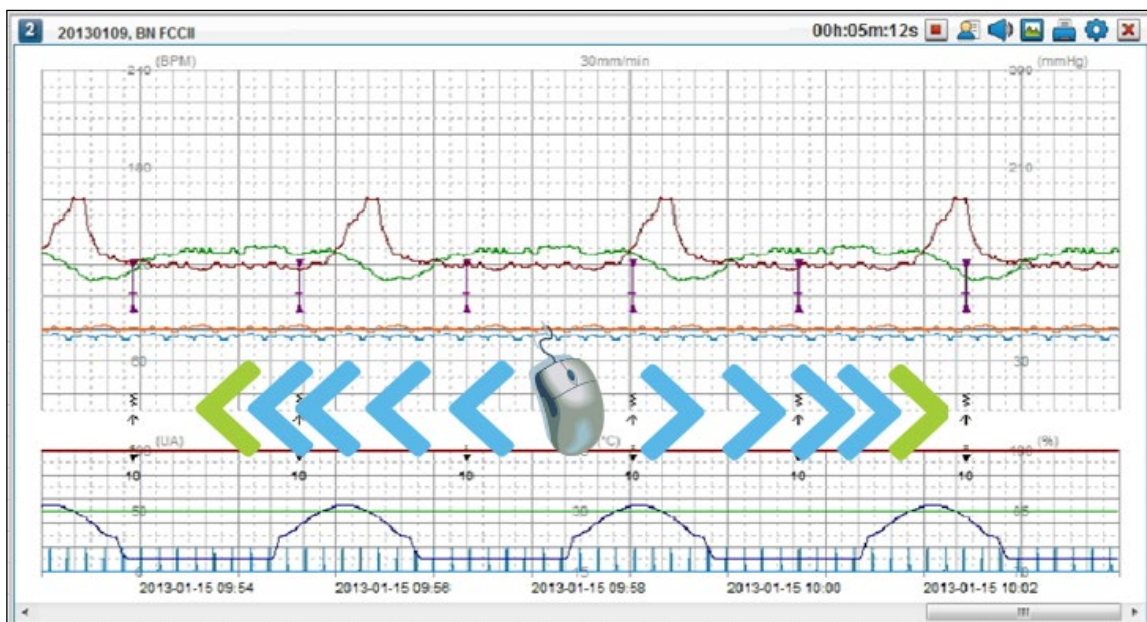
can check or remove parameters you want to see on the window.



Previous data of Client Window Parameter

If you drag Client Window area with your mouse, the screen presented in real time will stop.

You can drag and check the previous data in this situation.



The mode for checking previous data of parameter trend will be changed into a real time mode, if the user does not use it for 10 seconds.

Alarm Message










It receives the alarm occurred in Fetal Monitor, and indicates the relevant data as shown in the image below. For details, please refer to the equipment manual.



Client Window Menu configuration



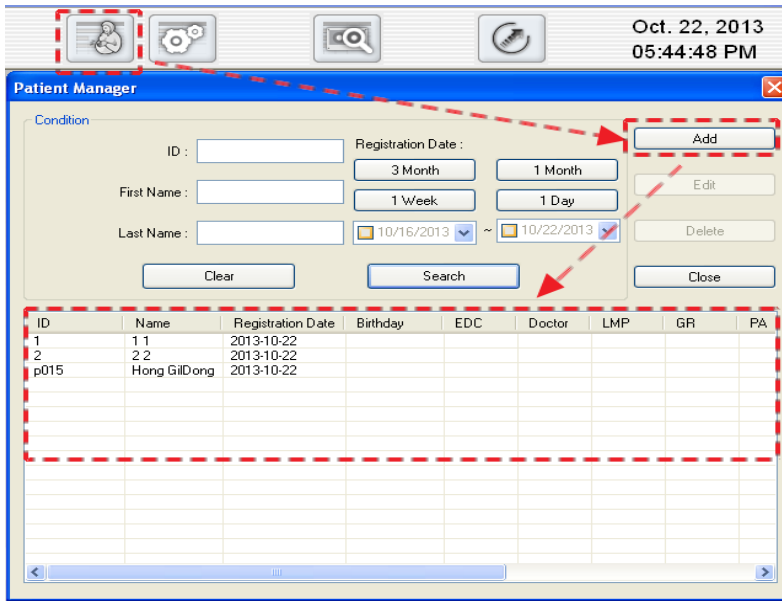
Menu of Client Window performs the functions in the following list. Details will be explained in the following. Please refer to the description below.

Icon	Description
	File saving is OFF. (Click the button to turn it ON.)
	File saving is ON. (Click the button to turn it OFF.)
	Admit/Discharge button
	Alarm is ON. (Click the button to turn it OFF.)
	Alarm is OFF. (Click the button to turn it ON.)
	Button to create image file
	Print button
	Preference setting/Synchronize button
	Exit button (Activated only when the device is disconnected)

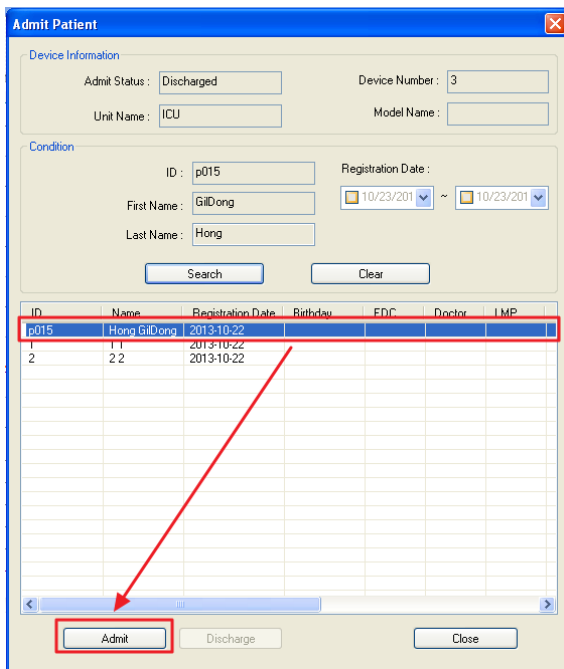
Admit Client Window Patient information



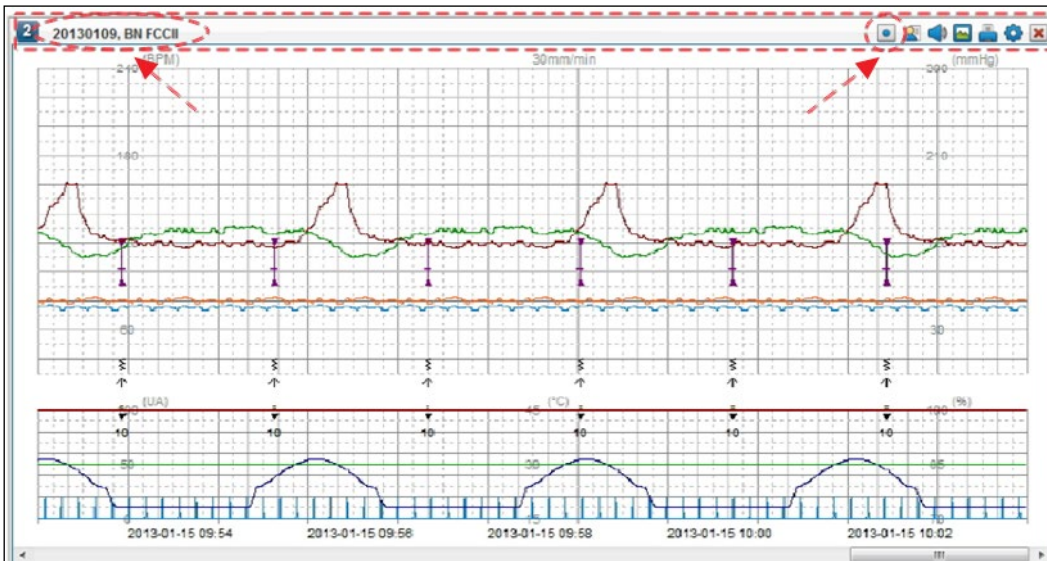
If you want to manage the data you are going to measure after the connection is made between FC Central and Fetal Monitor, you have to admit with the database. In order to make DB connection, patient information should exist in DB. If not, click "Patient information" icon as indicated in the image below, and click "add" to register patient information.



Select the patient you want to admit with real time measurement data and click “Admit” button.



Once it is admitted with the database, Client Window will be changed as the following. On the top left, the patient information will be printed, and in the Client Window menu on the top right, “save” button will be made.



Discharge Client Window Patient information

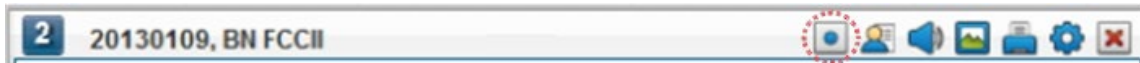
If you want to discharge the connection with real time measurement data, select the patient and click “Discharge” button. Connection with DB will be disconnected, “Save” button will disappear and only monitoring function will be performed.

ID	Name	Registration Date	Birth day	EDC	Doctor	LMP
p015	Hong GiDong	2013-10-22				
1	11	2013-10-22				
2	22	2013-10-22				

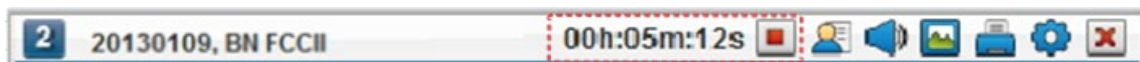
Client Window Measurement data saving On / Off

If you want to save real time measurement data of Client Window, click “Save” button, which is

marked on the image below. In order to save real time measurement data, you have to register patient information first and admit it. Once it is admitted, "Save" button will be activated.



Once you click "save" button, data will be saved and the saving time will be indicated, as shown on the image below. Next to the saving time, the save button is changed into "quit" button. If you want to stop saving, click the button. The saving will be finished and turned into the previous mode.

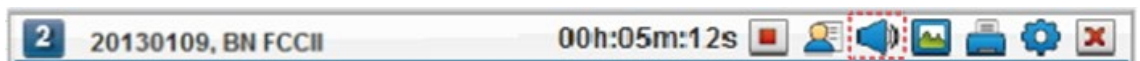


Caution

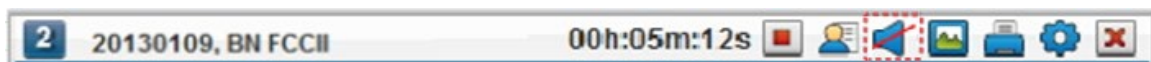
When the real time measurement data of Client Window is saved, it will be saved in the "data path" of system group. Sufficient amount of remaining space in the path is necessary. If the space is not sufficient, the data may be lost or the program may not be operated properly.

Client Window Alarm Sound On / Off

If the alarm figure is received from Fetal Monitor, the relevant data is presented on the caption bar, and FC Central rings the alarm sound. The function of turning the alarm on and off is performed by the speaker button, which is marked on the image below. If you click speaker image button, Alarm sound is turned off.

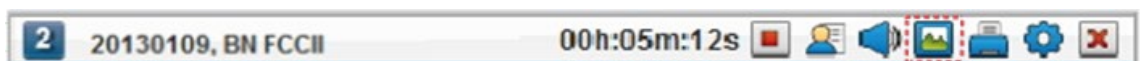


If you click the speaker button, Alarm sound is turned on.



Save Client Window Image

It provides a function for saving the measurement data of parameter and trend information on the current window, and patient information in a JPG form, and it allows you to interlock it with EMR. If you click the save button marked on the image below, the current window will be saved.



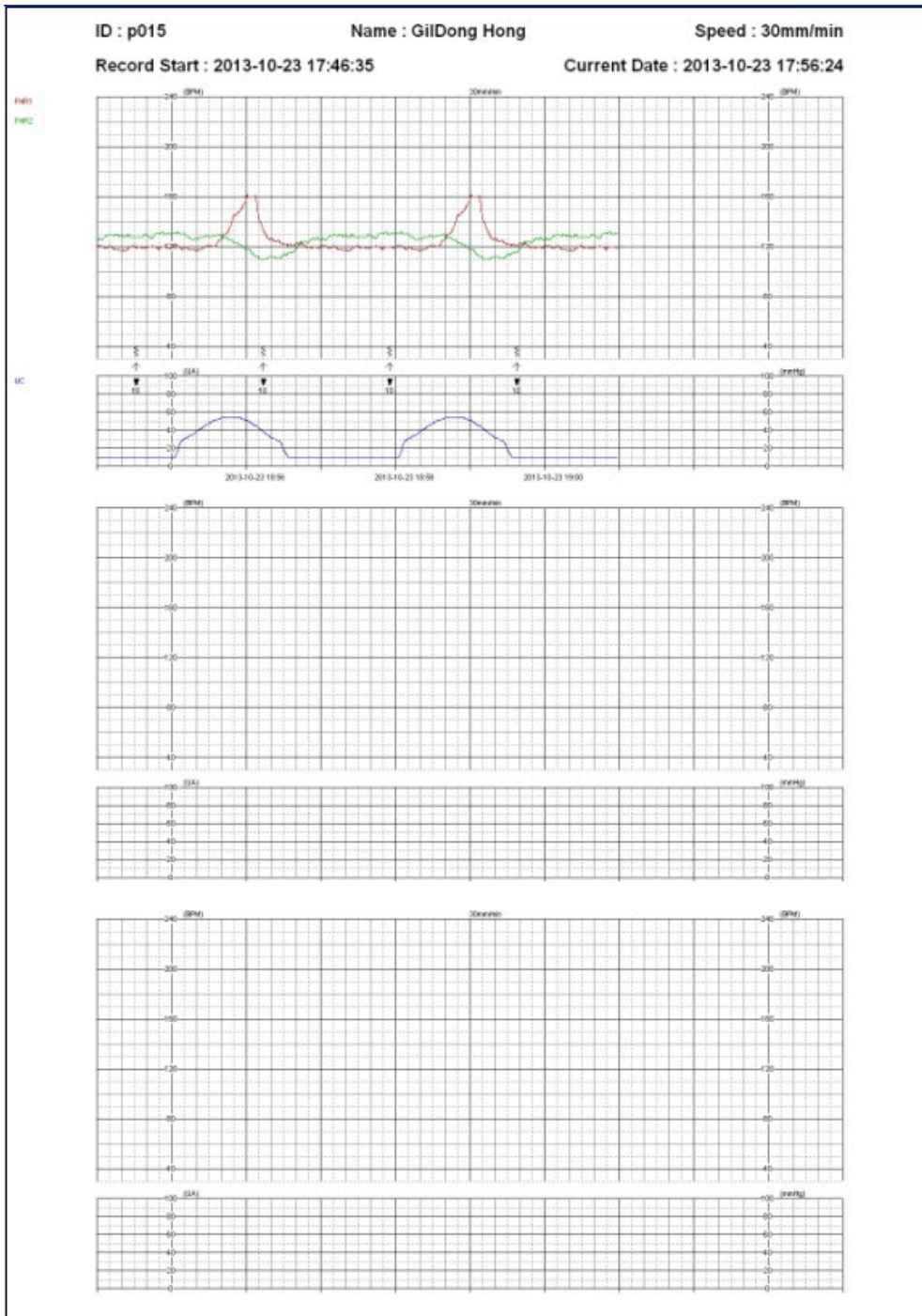
After it is saved, the dialogue indicates the path where the JPG file is saved.

The file name is formed the patient's ID and the time when it is saved.



Note

JPG image saved for interlocking with EMR is saved in the designated folder in "Preference → System → EMR settings → Data Path" EMR interlock is provided to the relevant business in a JPG form. If the storage is not enough, data may be lost, or program may cause malfunction.



< The file saved in a JPG form >

Print Client Window

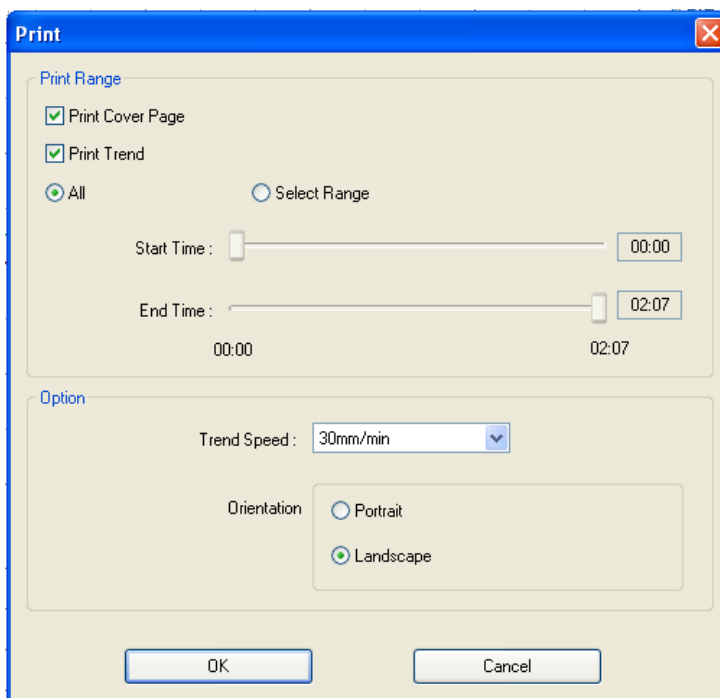
It provides a function for printing measurement data of parameter and trend information on the

current window, and patient information. If you click printer button marked on the image below, dialogue for printing will appear. According to the selected option, the current window will be printed.



Options in the printing dialogue

- Cover printing: It decides whether the cover including measurement information and patient information will be printed.
- Trend graph printing: It decides whether the parameter trend information will be printed.
- Whole: All measured data (1 hour buffering data) will be printed.
- Range setting: It allows users to set a range of printing. Printing range may be set to the minute.
- Trend speed: The speed of trend data is set, and the degree of precision and amount of data can be adjusted. The trend speed is set with 10, 20, 30mm/minute.
- Printed direction: You can choose to print either in horizontal or vertical direction.



2013-10-25, 17:52:47

Patient Information

ID	P000052
Name	JANE DOE
Birthday	
Registration Date	2013-10-25
LMP	
EDC	
GR/PA	/
GA	

Comment :

Record Information

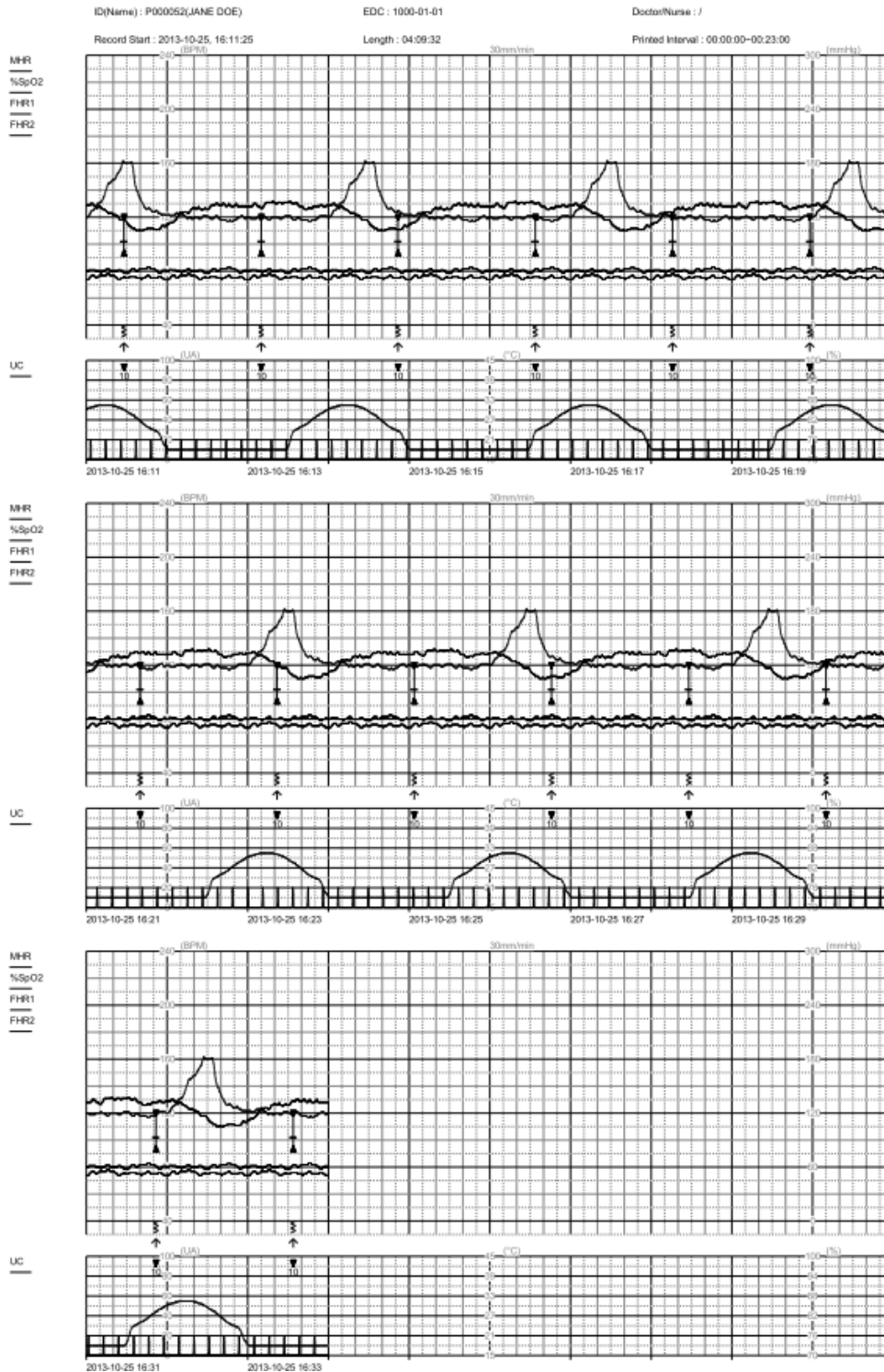
Record Start	2013-10-25, 16:11:25
Length	04:09:32
Doctor	
Nurse	
Printed Interval	00:00:00~00:23:00

Loss of signal(%) : 0.0

FCCentral II 1.1.9b3

Bionet Co., Ltd

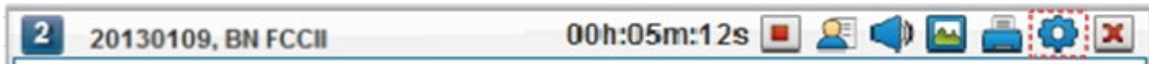
< Cover printing >



< Trend graph printing >

Client Window Preference and synchronization

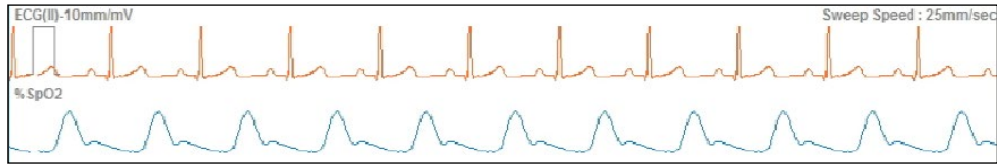
It provides a function for adjusting preference as well as synchronizing patient information, alarm information and equipment information with connected Fetal Monitor. You can use this by clicking “Client preference” icon marked on the image below.



The dialogue is consisted of “Display information”, “Patient information”, and “Alarm information” tab.

Client Window Display information

- Connecting information: It indicates the type, version, and connection method of connected equipment.
- Alarm sound: It turns the alarm sound on / off in Client Window.
- Graph: It sets up the wave selection, Gain and trend speed that are to be indicated on the graph area on the lower part of Client Window.



- Automatic recording time: It reserves the recording time and controls the saving time. It selects the time range between 5~120 minutes then it is saved until its relevant time range. This option is initialized to default after reconnection or restart.
- After clicking "Apply", changes will be applied.

Client Window Patient information

- Patient information: It presents the patient information of Client Window. For this patient information, the figures will be presented if it is connected with DB through "Admit patient information" icon. Patient information cannot be modified. It can only be changed in "Patient Manager" But, the modified items are applied after disconnecting with Client Window and reconnecting it again.
- User information: Select user information (doctor and nurse) used for saving measurement data. Please refer to "Preference → System → User preference" for registering users.

Client Setting

Display Information | **Patient Information** | Alarm Information | Device Information

Setting up the "Patient Info." of connected device

Patient Information

ID :

Last Name :

First Name :

Birthday : . .

Age :

Height : cm

Weight : kg

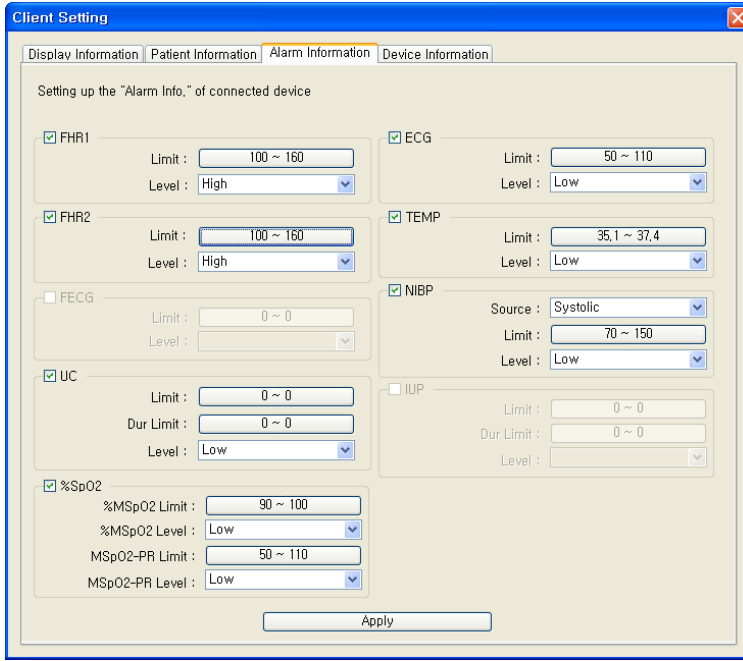
User Information

Doctor :

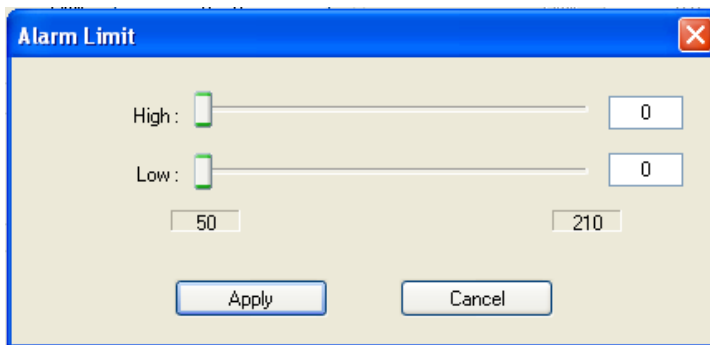
Nurse :

Client Window Alarm information

It provides a function for setting whether you are going to use the alarm for each parameter. It also sets up the range and level of the alarm. As indicated in the image below, you can check on parameters you are going to use. It activates the limit and the level which were deactivated.

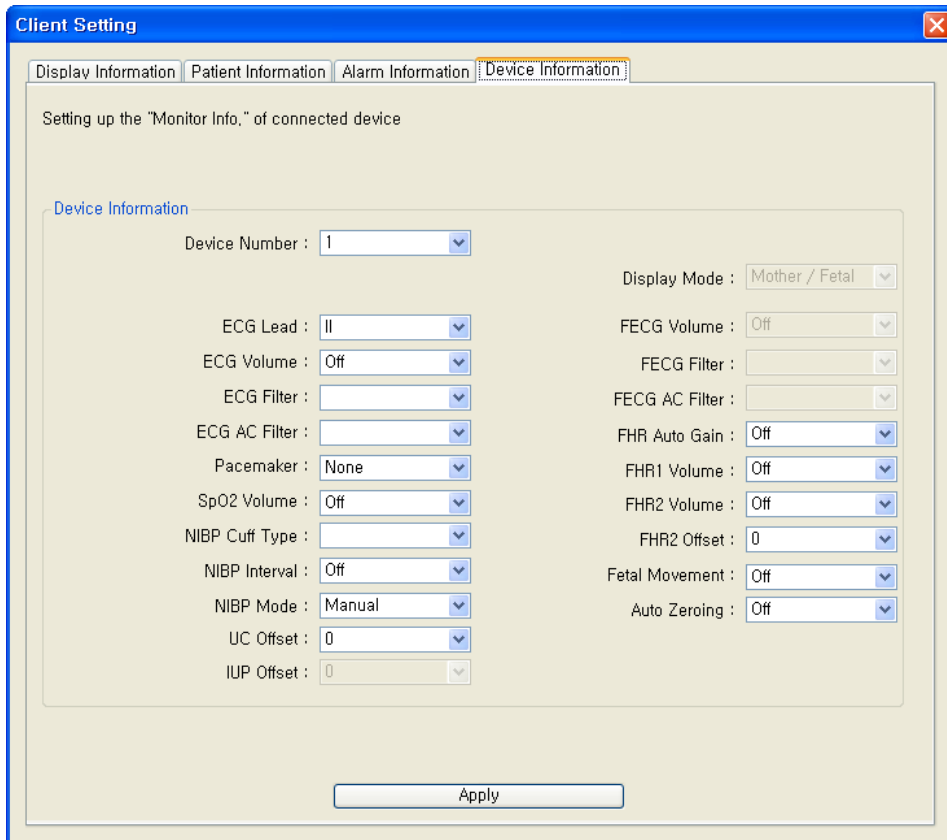


Adjust the limiting and level of the alarm, click “Apply” and the figures will be applied.



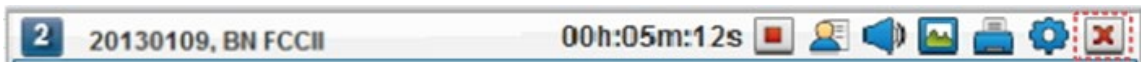
Client Window Equipment information

It provides a function for numbering equipment used for Fetal Monitor, as well as setting sound volume information, parameter filter and Gain information. Apply changes according to the patient’s status and click “Apply”, then changes will be applied.



Close Client Window

This function is used for closing connection with Fetal Monitor equipment. Equipment and FC Central automatically sets up the connection, so Fetal Monitor should be ended before this function is used. Close Fetal Monitor, and click the close button marked on the image below.



Caution

If you intend to close Client Window, Fetal Monitor equipment should be closed in advance. If you close the equipment, all the real time measurement data for patients is no longer saved. If you close equipment and Client Window, please be careful to do so.

2.4. Parameter Trend Screen structure & how to use.

Adjusting screen output of Parameter Trend

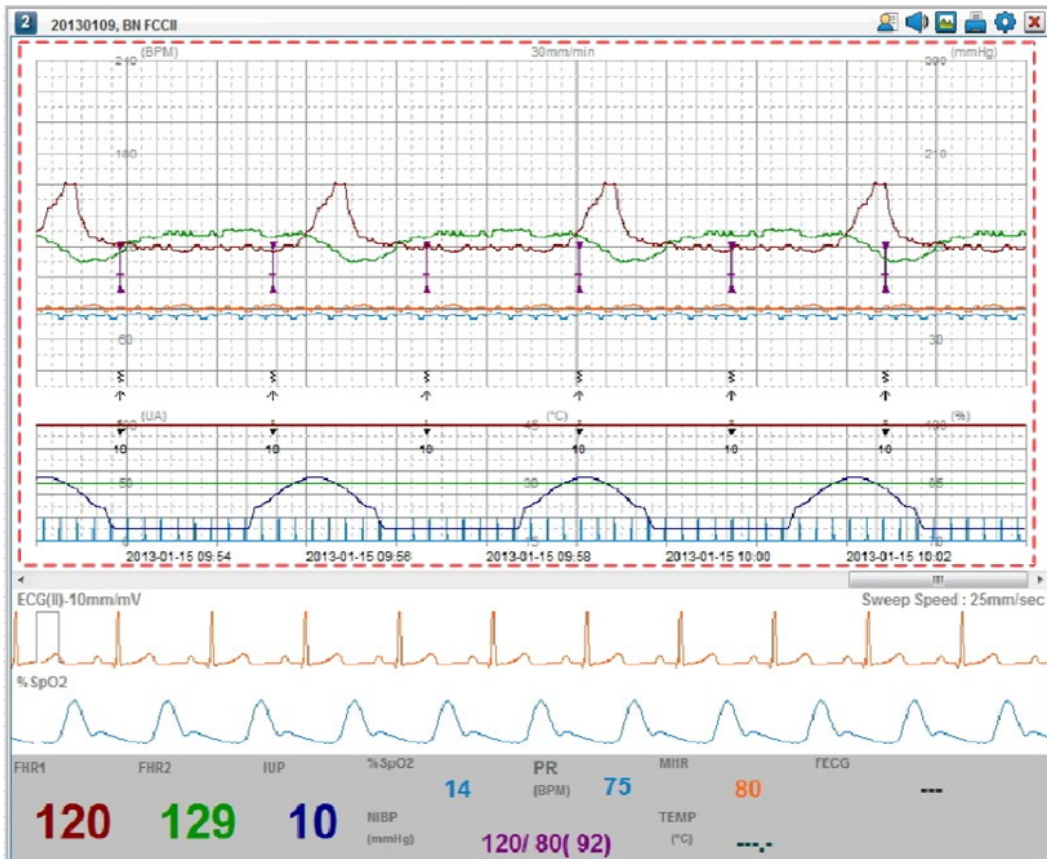
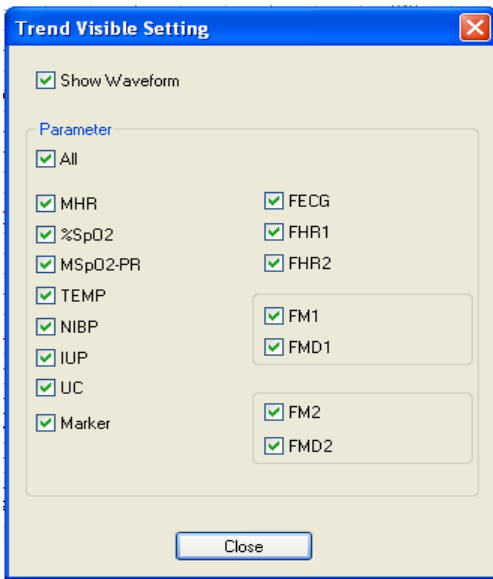
Client Window indicates many types of parameter trend. If you want to see carefully by classifying specific parameters, FC Central provides a function for limiting an indication of other parameters.

You can use this function by double-clicking parameter trend area.



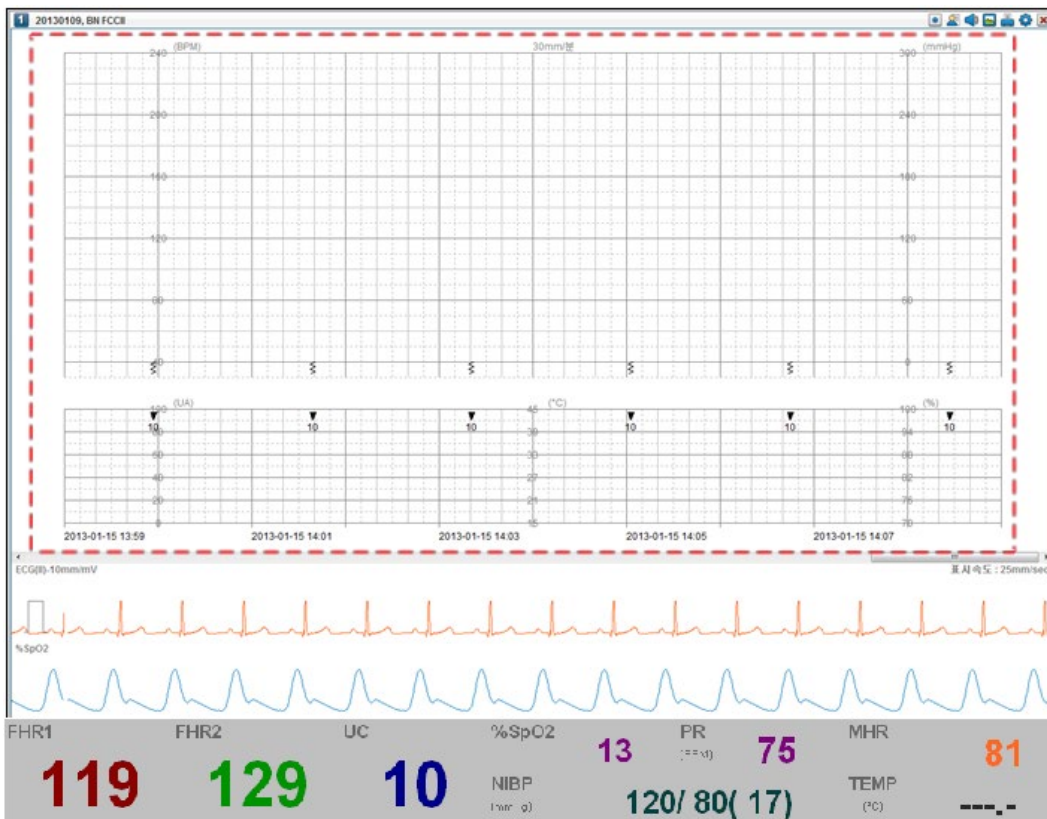
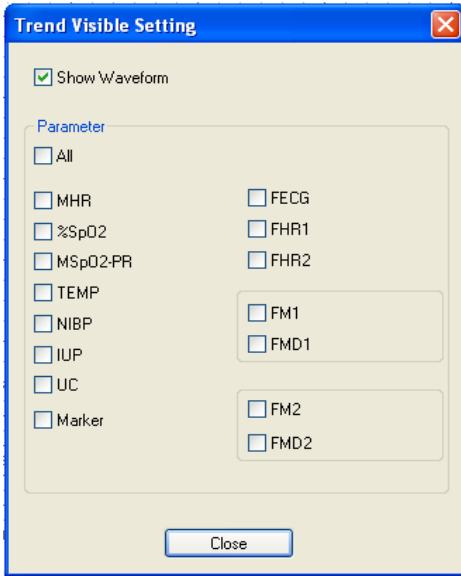
Indicating the whole Parameter Trend

When you double click on the status above, the "Trend view settings" will appear. The whole contents shown on the screen indicate that everything is checked.



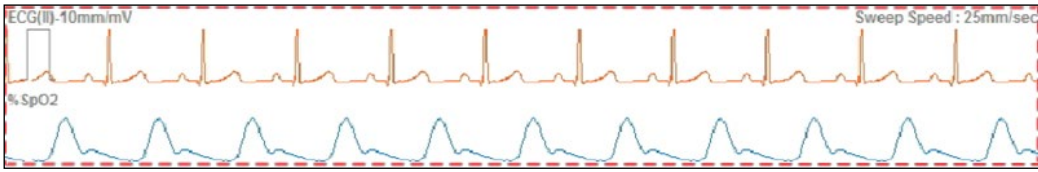
Hide the indication of Parameter Trend Data

In “Trend view settings”, remove all checked items in parameter. If you click “Everything”, all parameters will be selected and removed again. The images below indicate that selected items area applied.

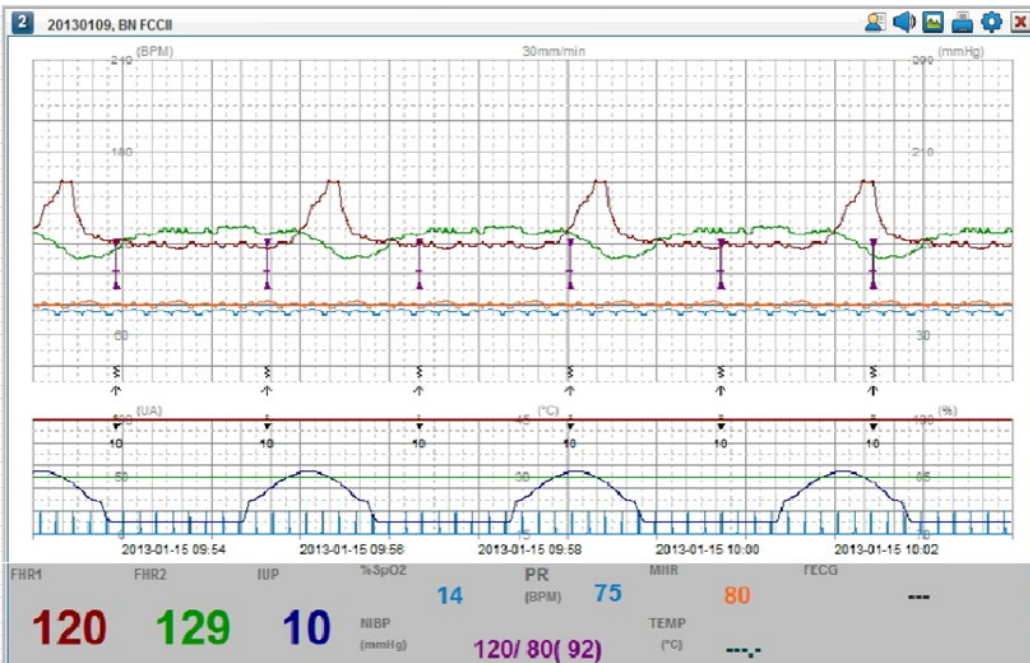
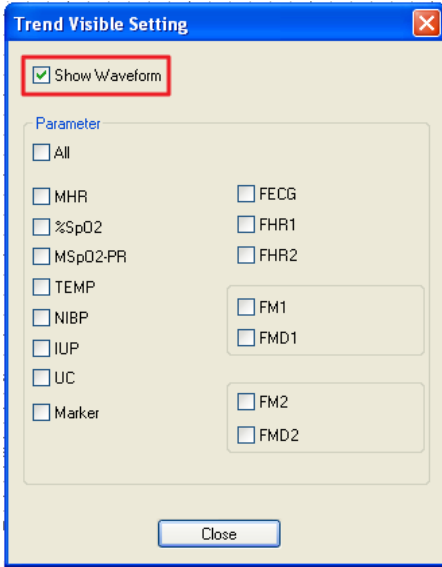


Indicating Parameter Trend wave

In FC Central Maternal version, ECG and SpO2 waves are measured and indicated.

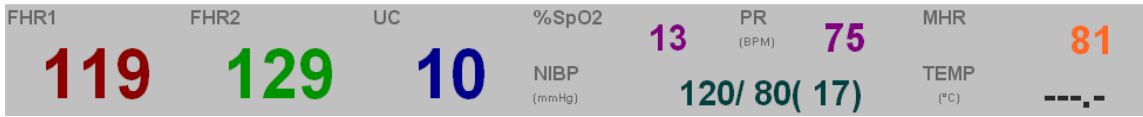


By turning on/off the “Show waves”, it provides a function for controlling what is shown in the window.



Parameter Value Screen area

This is an area where the figures of Trend wave indicated in Client Window area are actually presented. Indicate the figures of real time measurement for each parameter.

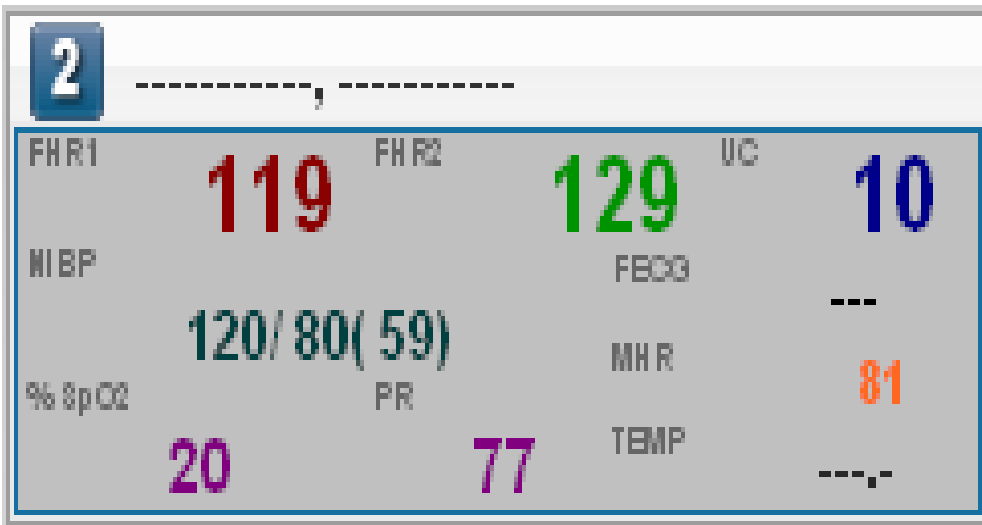


Note

The color of Parameter Value and the color of Parameter Trend graph are identical. If you want to look at the changes of relevant Parameter figure, you can refer to trend graphs of relevant color.

Client Window - Parameter Value

When more than 8 devices are connected with FC Central and if you want to have a look at the data in the Client Window at a time, 16ch Window mode should be selected. 16h window mode does not indicate waves due to the problem in presenting them, and it only indicates parameter figures.



Note

For detailed implications for Parameter Value, please refer to Fetal Monitor equipment manual. The meanings of parameter figures and trend graphs are explained in detail.

FC Reviewer

1. Execute / Close FC Reviewer

1.1 Execute FC Reviewer

1.2 Close FC Reviewer

2. FC Reviewer Program structure

2.1 FC Reviewer Program structure

3. How to use FC Reviewer Menu

3.1 FC Reviewer Menu

3.2 FC Reviewer Print preview

3.3 FC Reviewer Print

3.4 Export FC Reviewer image

3.5 FC Reviewer Preferences

3.6 Close FC Reviewer

1. Execute and Close FC Reviewer

1.1. Execute FC Reviewer

Use of FC Reviewer

FC Reviewer is a program used for reexamining and analyzing the patient data measured by FC Central. In FC Central, data of only 1 hour can be buffered and the previous status of patient may be analyzed. However, FC Reviewer provides a function for analyzing saved data in FC Central, which is measured more than an hour. Also, it can save images or print analyzed data in various options and file them in a chart.

Execute FC Reviewer

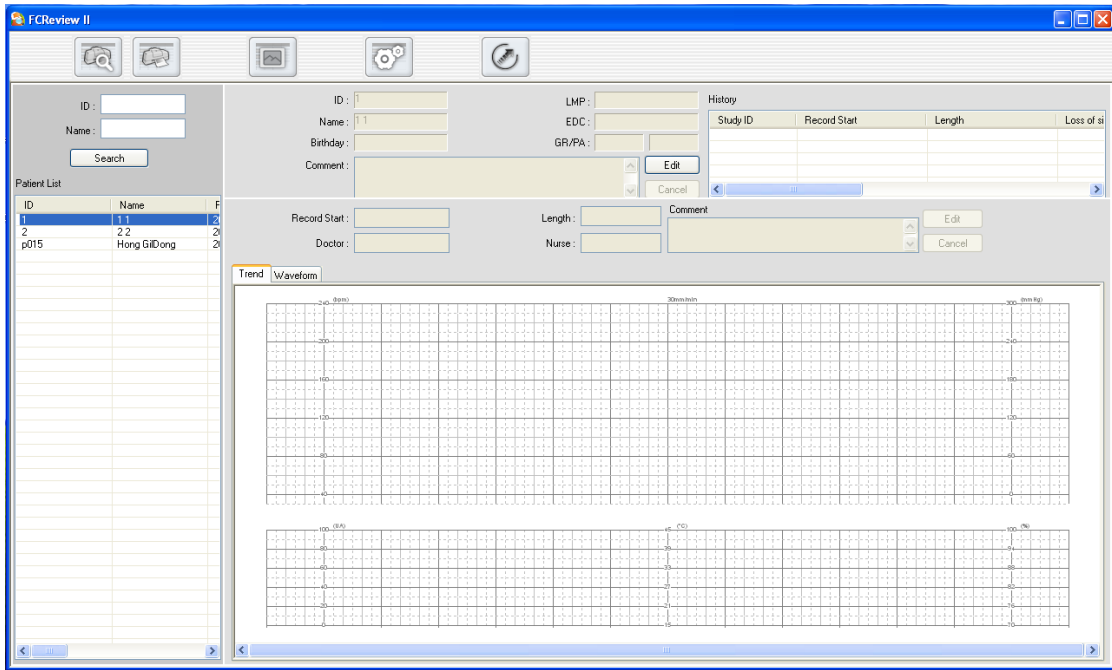
FC Reviewer can be executed in two ways. First is to double-click the image con on Desktop.



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



Once the program is executed, the window below appears.



1.2. Close FC Reviewer

Close FC Reviewer

To close FC Reviewer program, click “Close” icon marked on the image below, and the program will be closed.

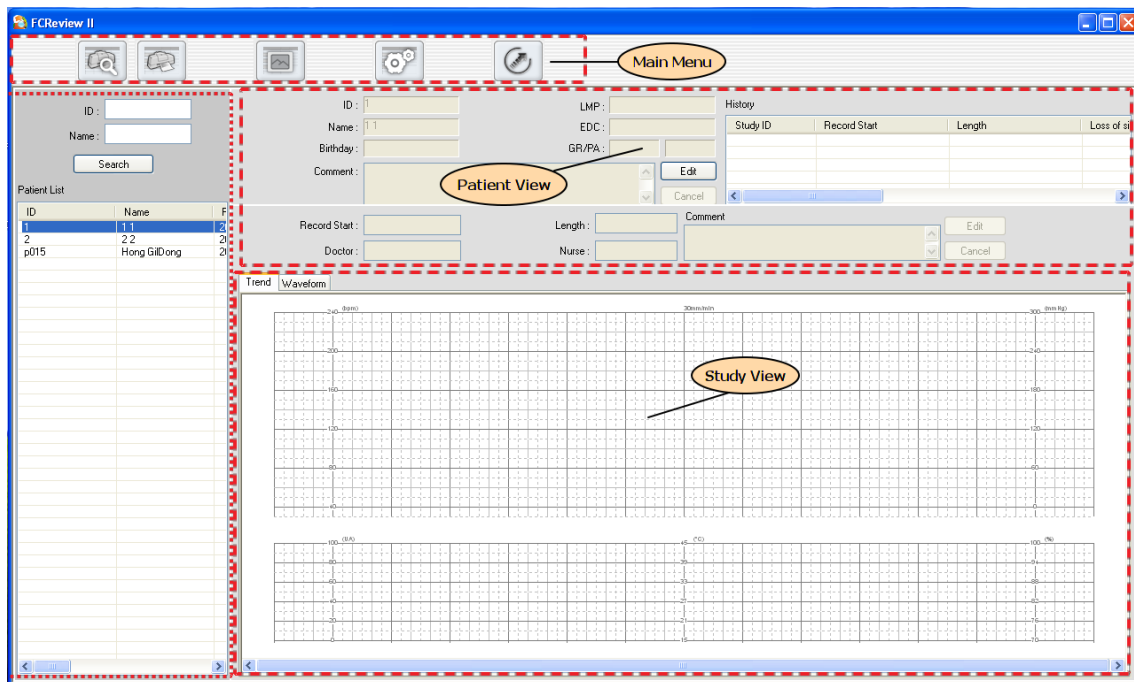


2. FC Reviewer Program Structure

2.1. FC Reviewer Program Structure

FC Reviewer Structure

FC Reviewer consists of 4 main parts, as indicated in the image below.

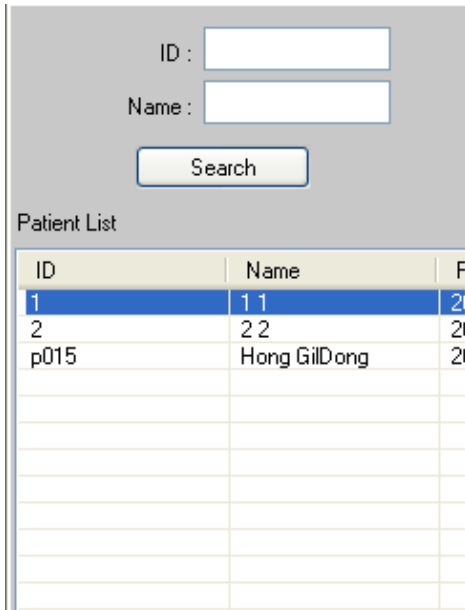


Main Menu

Main Menu is a major menu in FC Reviewer, and it provides various functions such as print preview, image export, preference, and program closing.

Search View

It presents the database list of patients saved by FC Central. You can search for the patient by inserting ID and name into the space indicated in the image below and clicking "Search" button.



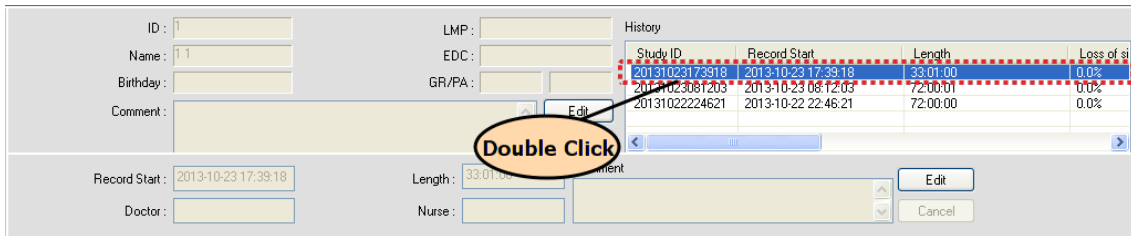
In Search View list, if you select the patient and double-click, Patient information and History information will appear on "Patient View", which is located on the right side of the image below.



Patient View

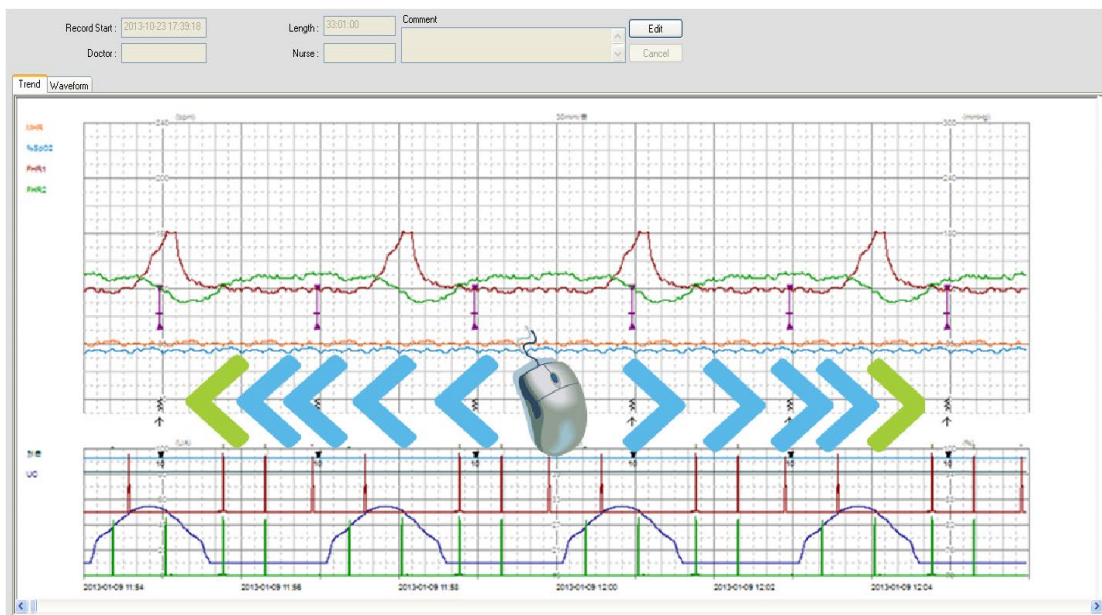
It is an area where the database information for the patient selected in Search View is presented. It indicates patient's ID, name, birthday, last menstruation date, birth due date, and the number of

pregnancies. If there is a need for modifying the information, you can make some changes and click the “Modify” button to apply. If you want to know the measured result for the patient, double-click the list of designated date in the History list indicated on the image below. Selected list will show its trend data and wave information in Study View area below.

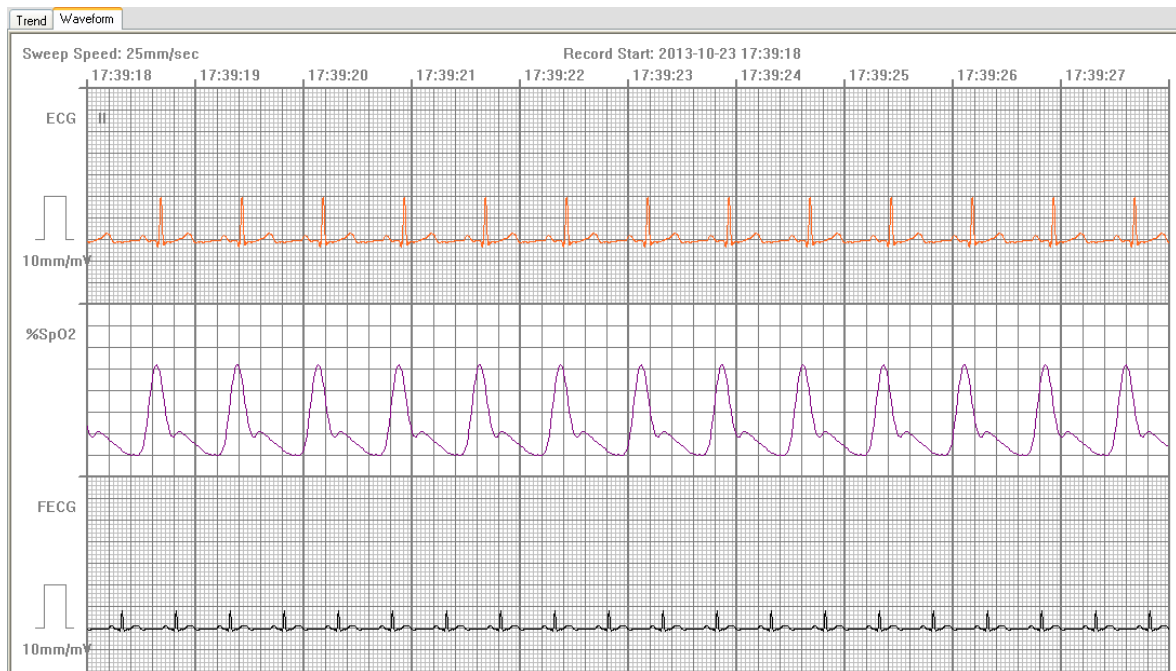


Study View

Study View indicates the record time for selected items in the History list of Patient View, as well as the information of doctor and nurse. If necessary, it also provides a function for taking a memo and the trend data information and wave information will be indicated below. If you drag from left to right while left-clicking the mouse in Trend information, it allows you to move from previous data to present data, providing a function for you to analyze.



The image below is about the wave information. It indicates ECG and SpO2.

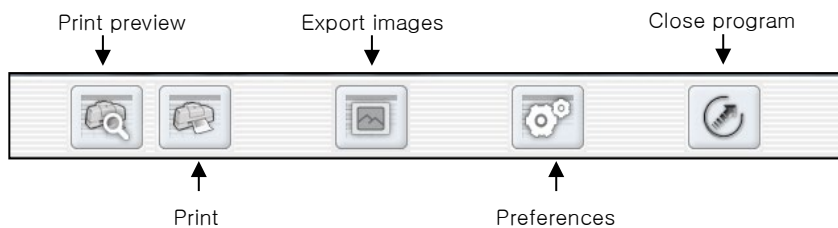


3. How to use FC Reviewer Menu

3.1. FC Reviewer Menu

Menu of FC Reviewer

Main Menu is a major menu in FC Reviewer, and it provides various functions such as print preview, image export, preference, and program closing.



Print preview



It provides a function for previewing various conditions on printing and setting options on them.

Print



It provides a function for setting various options on printing and printing documents.

Export images



It provides a function for turning Study information into images and exporting them in a JPG form, according to the selected options.

Preference



It makes a setting for system preference. You can set various options such as view settings, language, options and colors for waves of measured data and saving folder for measured data.

Close FC Reviewer



It closes the FC Reviewer program.

3.2. FC Reviewer Print preview

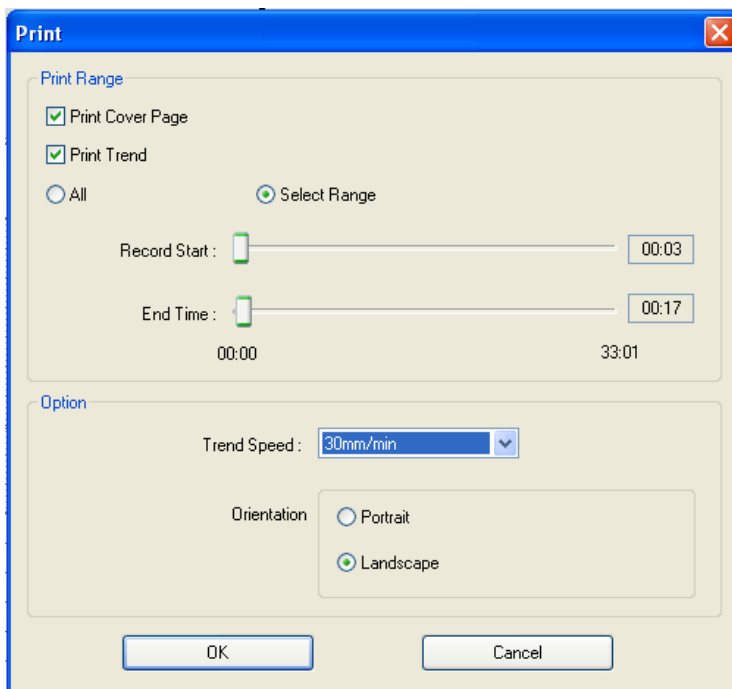
FC Reviewer Preview settings



It provides a function for previewing measurement data of parameter and trend information on the current window, and patient information. If you click “print 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.



Options in the printing dialogue

- Cover printing: It decides whether the cover including measurement information and patient information will be printed.
- Trend graph printing: It decides whether the parameter trend information will be printed.
- Whole: All loaded data of the patient will be printed.
- Range setting: It allows users to set a range of printing. Printing range may be set to the minute.
- Trend speed: The speed of trend data is set, and the degree of precision and amount of data can be adjusted. The trend speed is set with 10, 20, 30mm/minute.
- Printed direction: You can choose to print either in horizontal or vertical direction.

FC Reviewer Preview result

The image below is an indication when the printing direction is set as horizontal. The cover page is printed first and the pages related with Trend will be printed in the next pages. For vertical direction, only the printing direction is different and the printed content is the same. In the following section, there is a sample of vertical printing. Please refer to the relevant part.

2013-10-25, 18:01:39

Patient Information

ID	Name	Birthday	Registration Date	LMP	EDC	GR/PA	GA
P000052	JANE DOE		2013-10-25			/	

Comment:

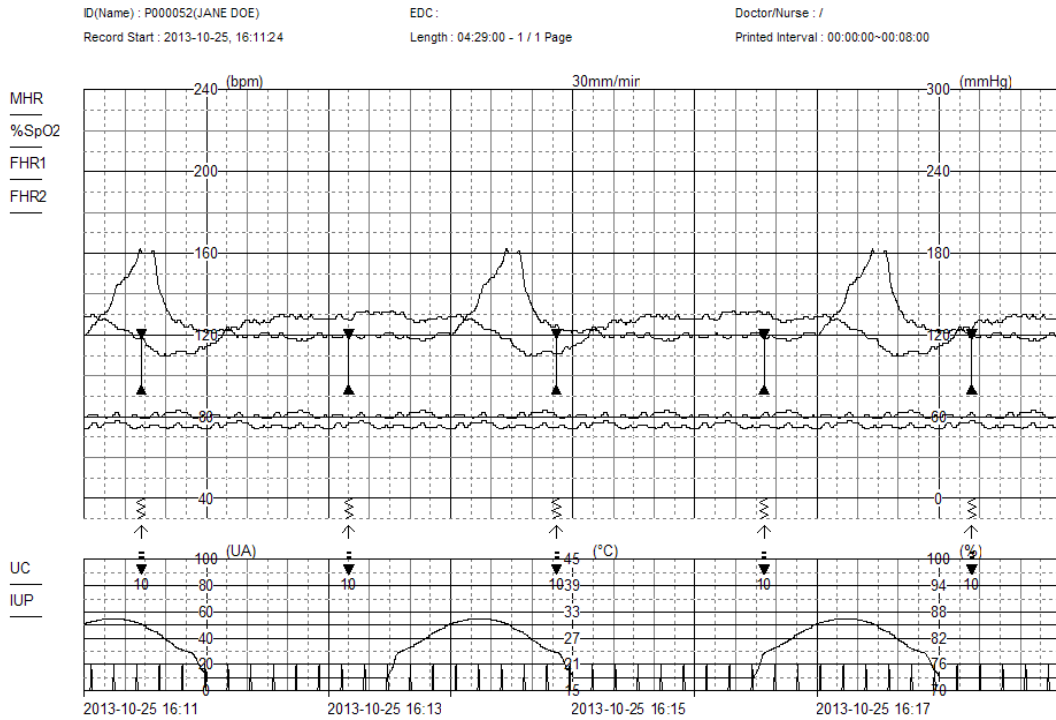
Record Information

Record Start	Length	Doctor	Nurse	Printed Interval
2013-10-25, 18:11:24	04:29:00			00:00:00~00:08:00

Loss of signal(%) : 0.0

FCentral II 1.1.9b3
Bionet Co., Ltd

< Cover printing >



< Trend graph printing >

3.3. Print FC Reviewer

FC Reviewer Print settings

It provides a function for printing measurement data of parameter and trend information on the current window, and patient information. If you click printer button marked on the image below, dialogue for printing will appear. According to the selected option, the current window will be printed.

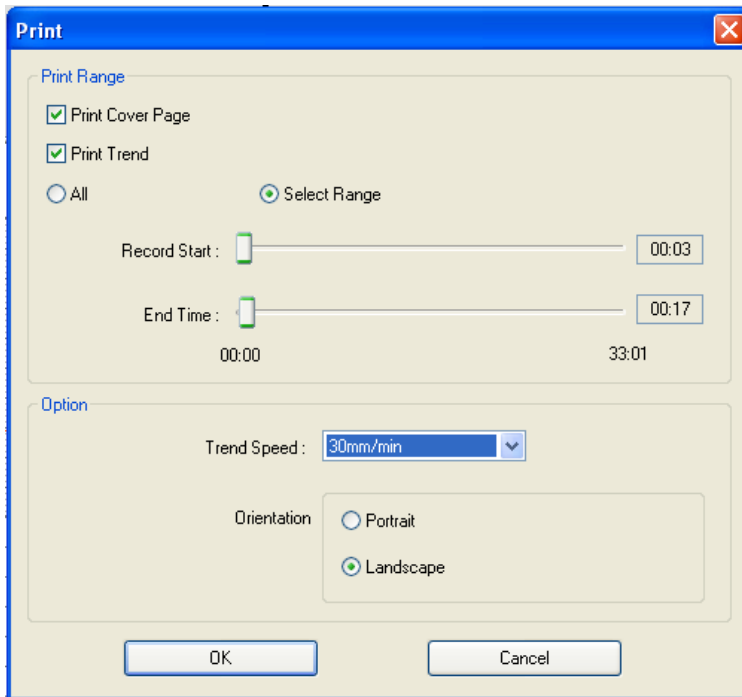


Options in the printing dialogue

- Cover printing: It decides whether the cover including measurement information and

patient information will be printed.

- Trend graph printing: It decides whether the parameter trend information will be printed.
- Whole: All loaded data of the patient will be printed.
- Range setting: It allows users to set a range of printing. Printing range may be set to the minute.
- Trend speed: The speed of trend data is set, and the degree of precision and amount of data can be adjusted. The trend speed is set with 10, 20, 30mm/minute.
- Printed direction: You can choose to print either in horizontal or vertical direction.



FC Reviewer Print result

The image below is an indication when the printing direction is set as vertical. The cover page is printed first and the pages related with Trend will be printed in the next pages. For horizontal direction, only the printing direction is different and the printed content is the same. In the above section, there is a sample of horizontal printing. Please refer to the relevant part.

2013-10-25, 18:03:20

Patient Information

ID	P000052
Name	JANE DOE
Birthday	
Registration Date	2013-10-25
LMP	
EDC	
GR/PA	/
GA	

Comment :

Record Information

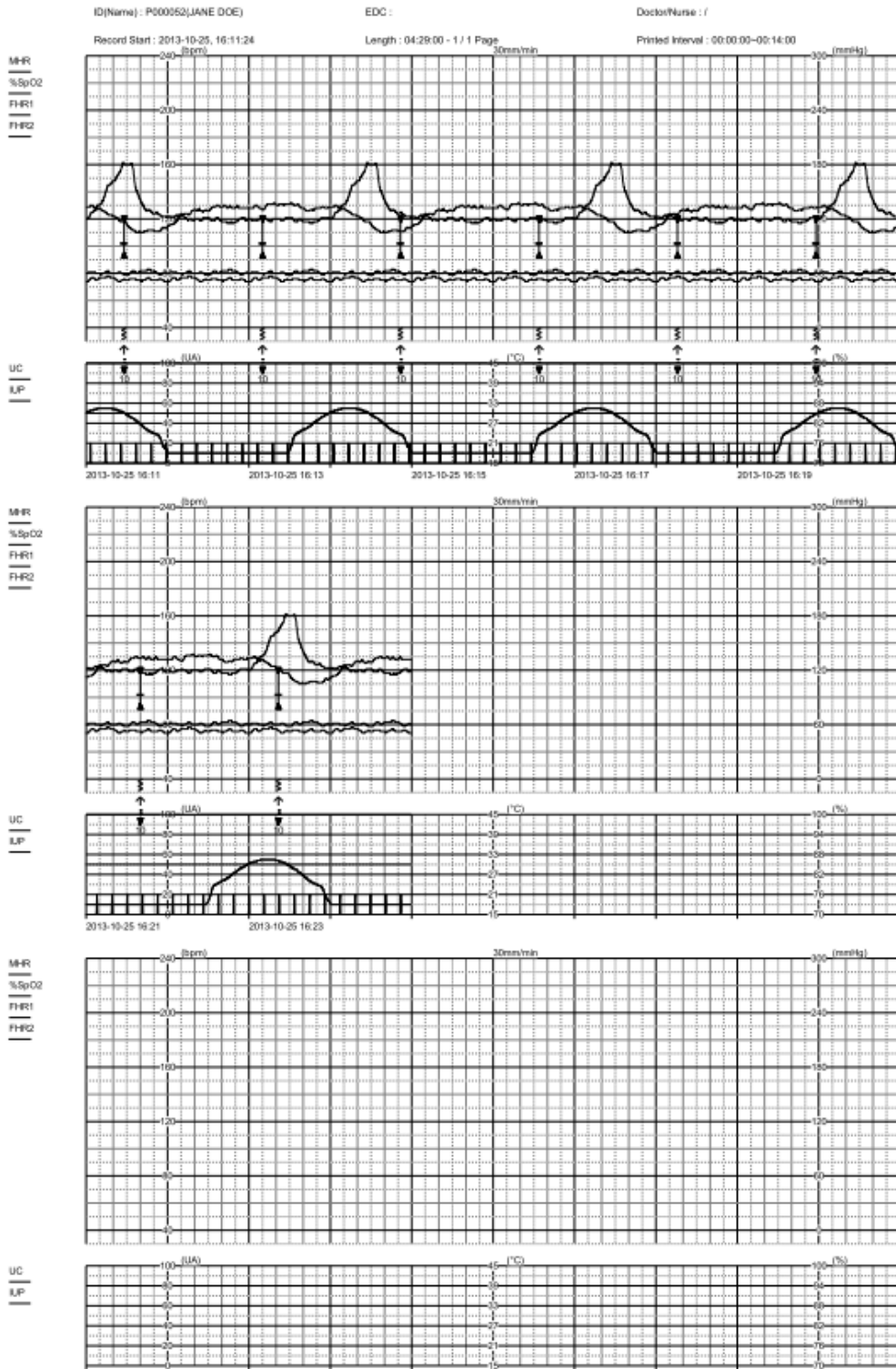
Record Start	2013-10-25, 16:11:24
Length	04:29:00
Doctor	
Nurse	
Printed Interval	00:00:00~00:14:00

Loss of signal(%) : 0.0

FCCentral II 1.1.9b3

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< Cover printing >



< Trend graph printing >



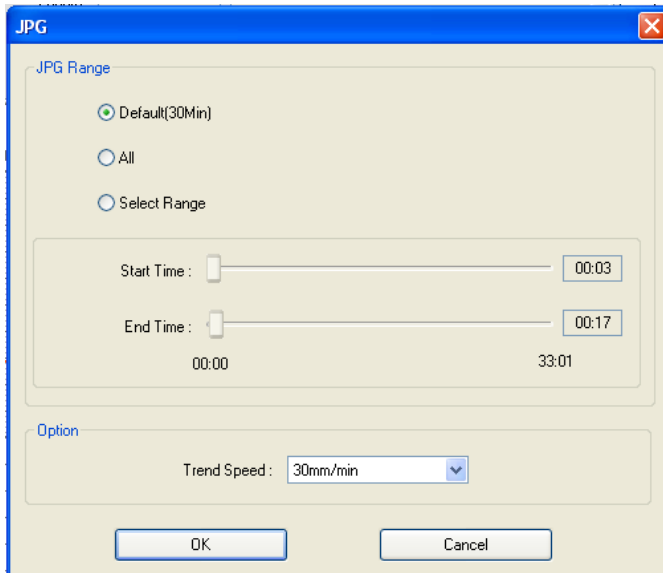
3.4. Export FC Reviewer image

FC Reviewer image

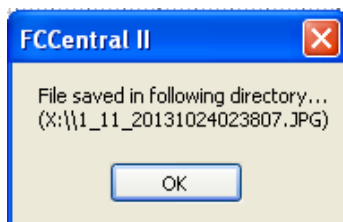
This provides a function for saving measurement data of parameter and trend information on the current window, and patient information in a JPG form, and interlocking with EMR. If you click “Save image” button marked on the image below, dialogue on JPG image saving will appear.



Dialogue for JPG consists of “JPG conversion range” and “Option”. JPG conversion range is separated into Normal(30 min), All, Range settings. For Normal, it saves the data of 30 minutes from the current screen in the designated path. For All, all loaded patient data is saved in the path, and for Range settings, only set range is converted into a JPG form.



Once the saving is finished, the information of path where JPG file is saved is indicated in the dialogue, as shown in the image below.



File contents of FC Reviewer image



Note

JPG image saved for interlocking with EMR is saved in the designated folder in "Preference → System → EMR settings → Data Path" EMR interlock is provided to the relevant business in a JPG form. If the storage is not enough, data may be lost, or program may cause malfunction.

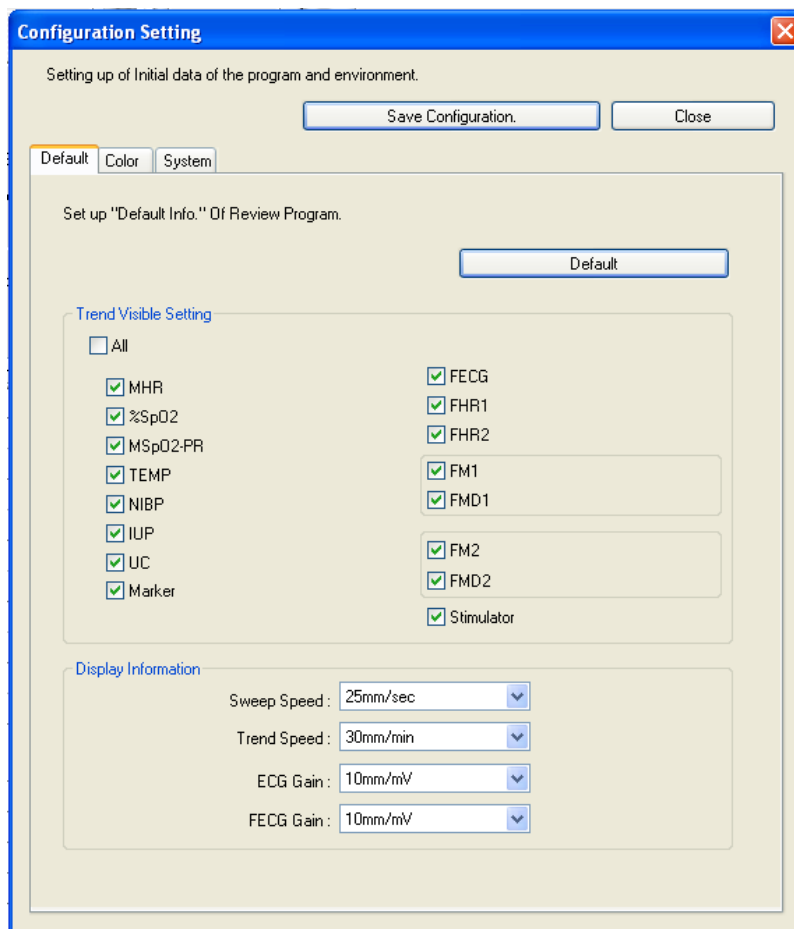
3.5. FC Reviewer Preference

FC Reviewer Preference

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



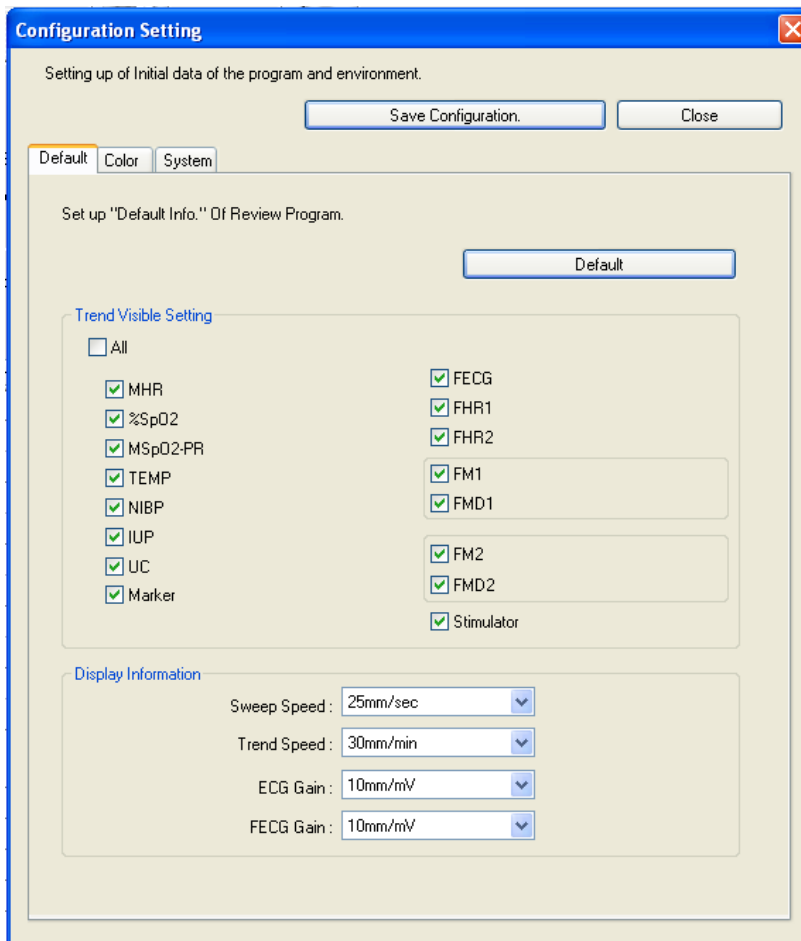
The preference dialogue for FC Reviewer is separated into “Default Tab”, “Color Tab”, and “System Tab”



- Default Tab: It sets up whether parameter trend is indicated or not, and the way of indicating the wave.
- Color Tab: It sets up the color and shape of parameter trend.
- System Tab: it sets up the saving path of EMR data and Study data.

Default Tab

It sets up the basic configuration for data processing of FC Reviewer

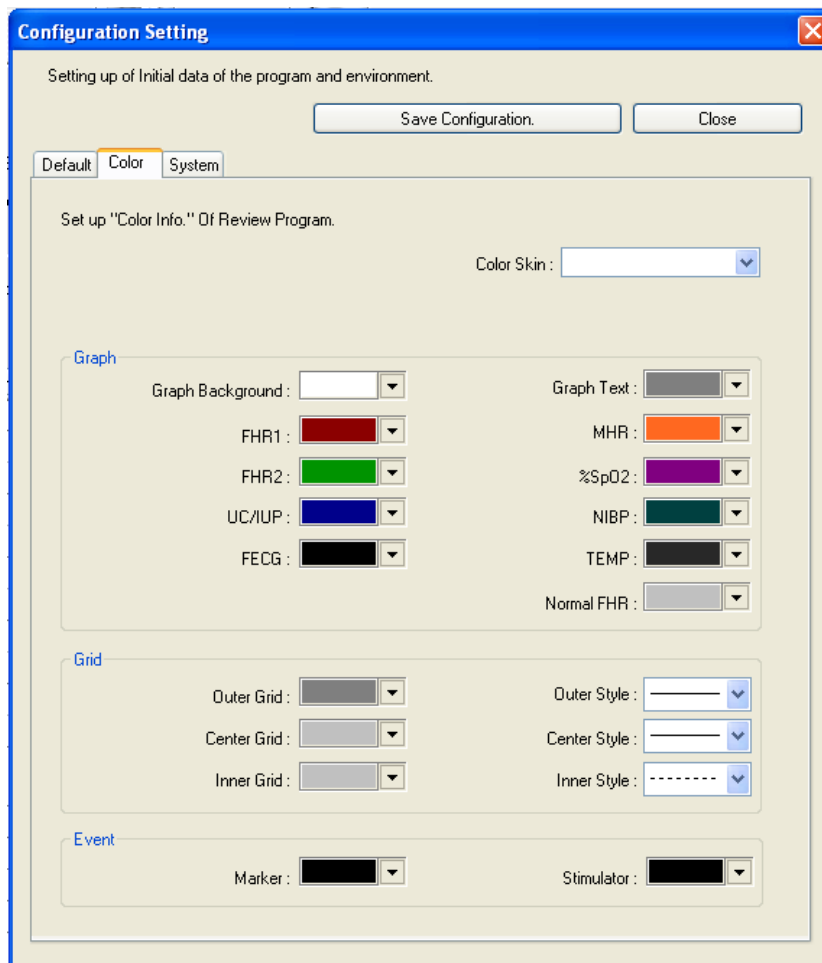


- Default figure: It sets up all figures of the program as default figure.
- Trend view setting: It sets up what you want to see in Study View. Set On/Off in designated parameter checkbox to control the output.
- Display information: It controls the indicating information (Data power density, size) of parameter trend.

After setting, click "Save changes" button and changes will be applied.

Color Tab

It is a tab where you can set colors of parameter figures and graphs, grid for papers, and events that are indicated in Client Window area.

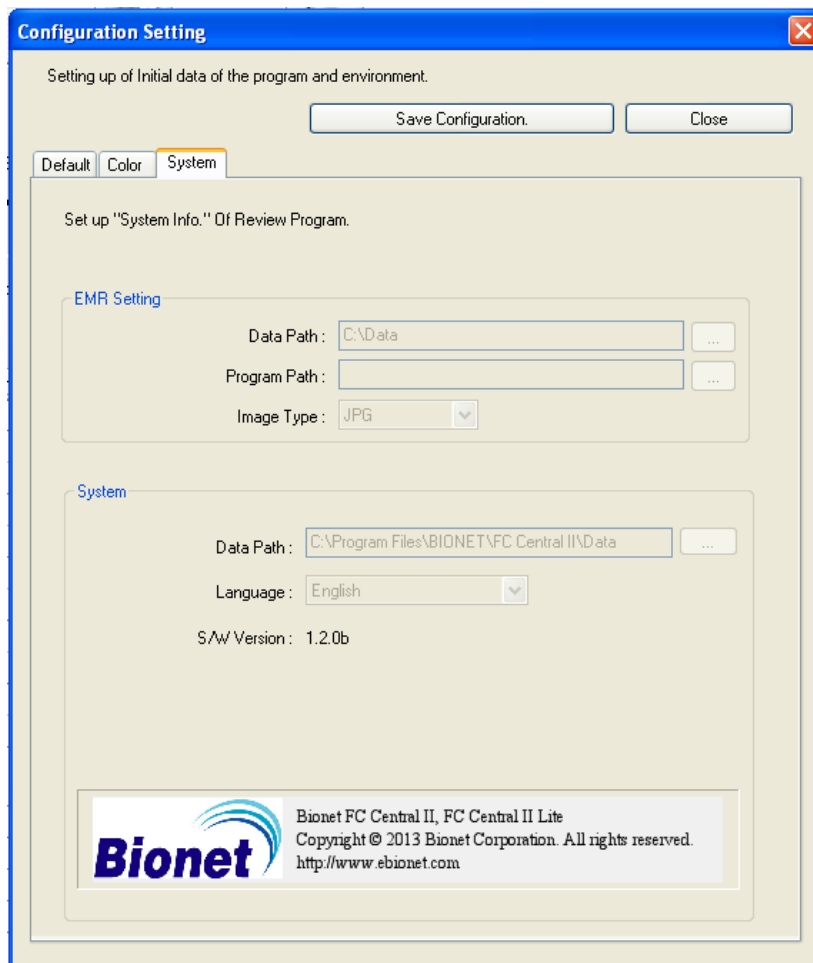


- Color Skin: This function allows you to set all the color settings applied in graphs, grid and events. For user-defined mode, there are “basic colors” and “paper colors”. For basic colors, it provides the color for basic window appeared first on the screen, and for paper colors, it provides an identical color with the paper color printed from the equipment.
- Graph: It provides you to set each color for parameter, wave and background that are indicated on the Study View.
- Grid: It sets up the shape and color of grid that is indicated on the Study View
- Event: It sets up the color of marker and stimulator that are indicated on the Study View

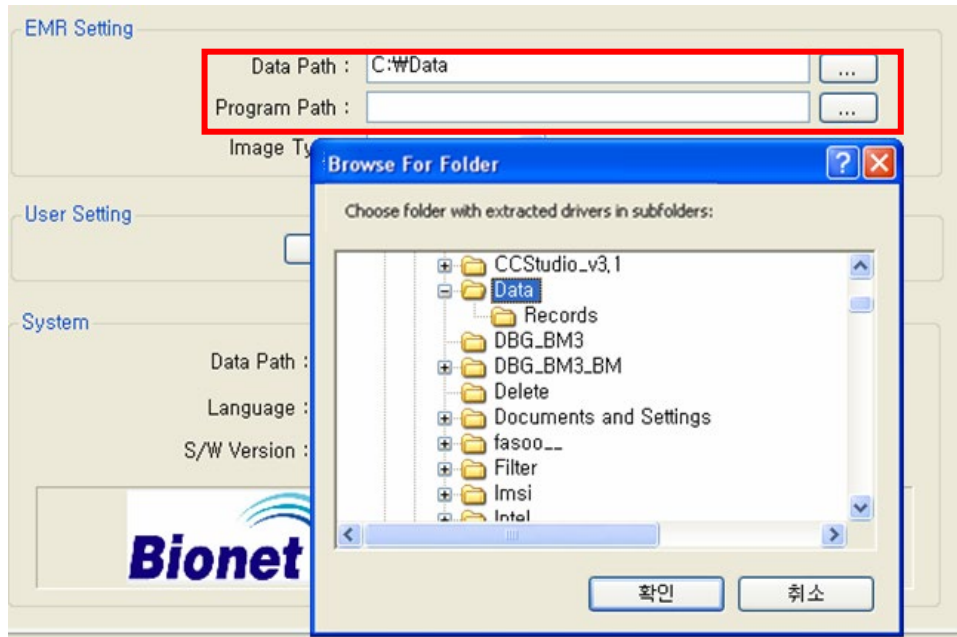
After setting, click “Save changes” button and changes will be applied.

System tab

It sets up data storage path, other programs interlocked with EMR, EMR options, user settings, and language, which are related to program system.

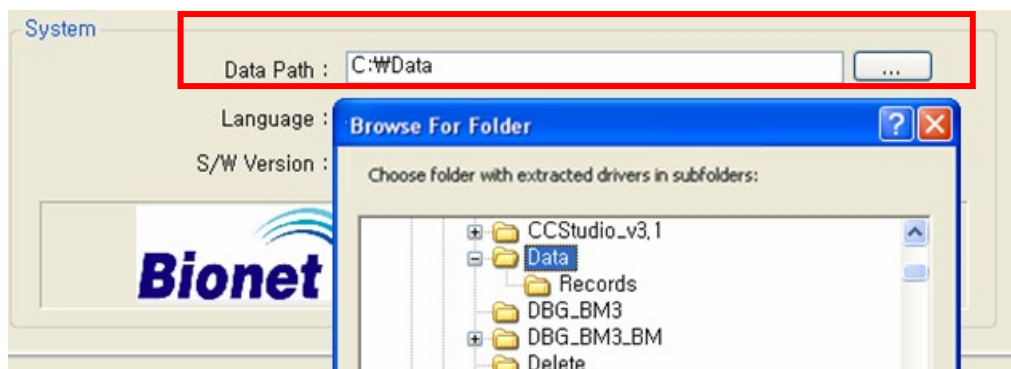


- EMR setting: It sets up the data path interlocked with EMR, path for executing the program, and the type of image. Please select the data path where there is a sufficient amount of remaining space in the hard disk.
- Data path sets up the folder that patient information and data are saved. If this Setting is changed, FC Central program cannot get the patient information and data files. Please set up "Data path" only once at the time that FC Central is installed. If this setting will be changed, please copy all data in the old folder into new folder

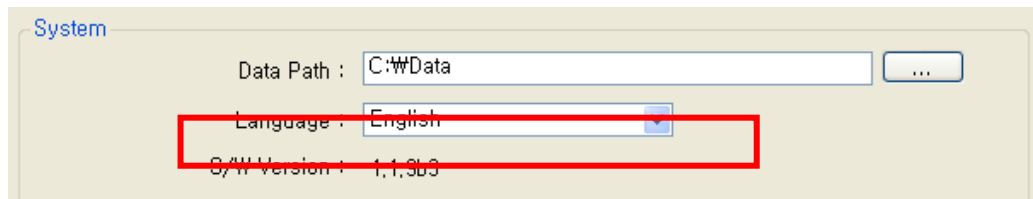


In the selected folder, images are saved when you save images in Client Window, a Main program in FC Central, and in FC Reviewer, after setting, click “Save changes” button and changes will be applied.

- System: It sets up where the data measured in the program and patient information DB are to be saved. When the dialogue appears as indicated on the image below, select the folder in the hard disk where there is an enough space.



System group provides a function for setting languages presented in the Program UI. Select your language in the “Language”. For the languages not provided, the additional work will be needed.



Changes in the System Group will be applied after closing and restarting FC Central and FC Reviewer.

Caution

While operating FC Central program, saving images for measured data and interlocking with EMR will occur. In the “System” of “preference” in FC Central 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.

3.6. Close FC Reviewer



Execute FC Reviewer

Once you click the button marked on the image below, FC Reviewer Program will end.



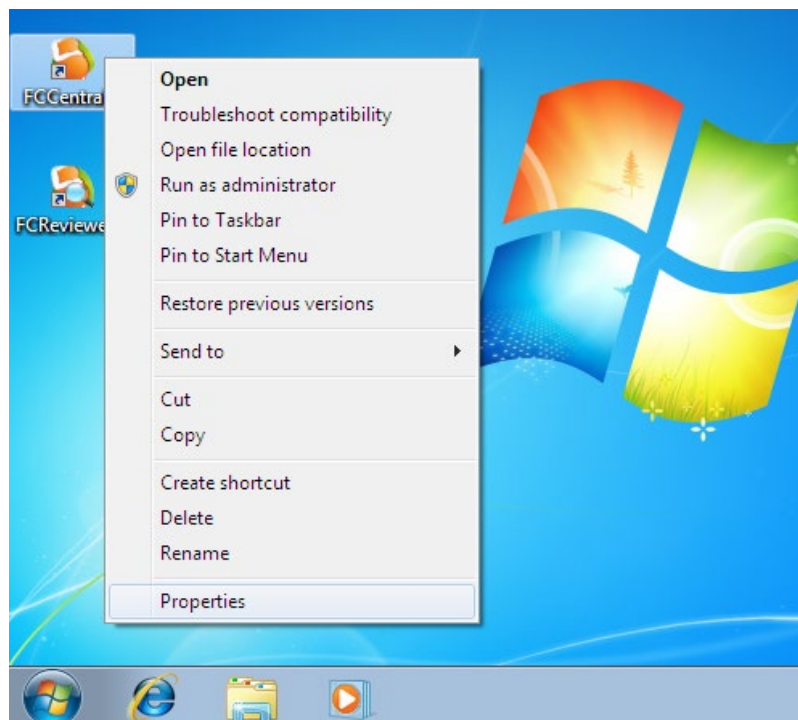
Appendix

1. Administrator authority settings in Windows 7

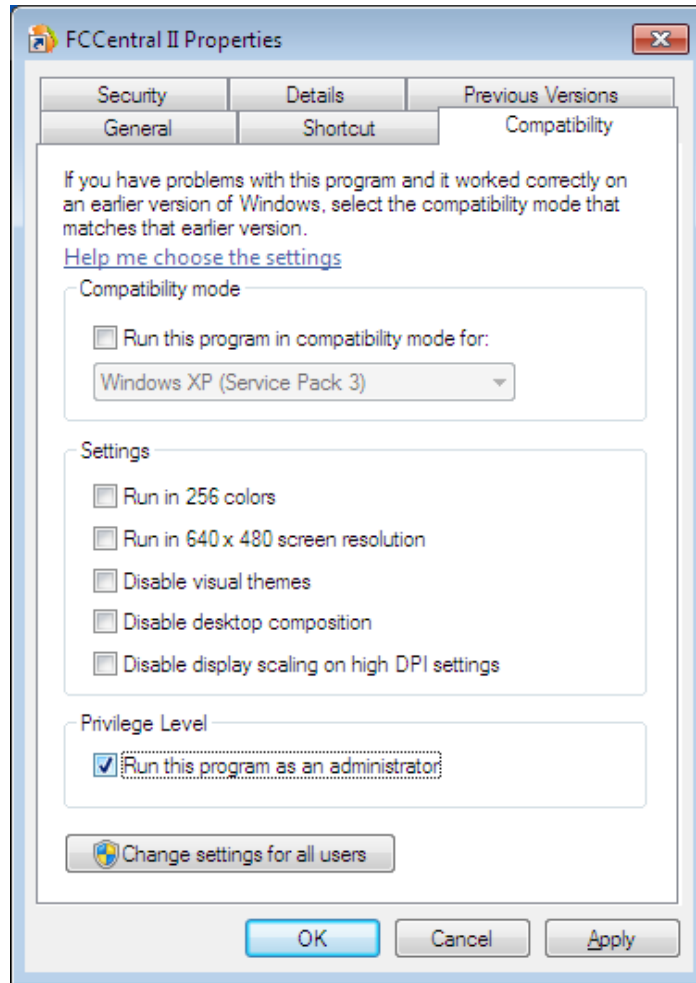
2. Q & A

1. Administrator authority settings

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.



2. Q & A

1) Things to check when the connection with FC Central Program is failed or instable.

- Check whether LAN device is connected.
- Check whether IP address and related functions are activated.
- Check fetal monitor and the version of PC S/W
- Check whether Firewall is being used.

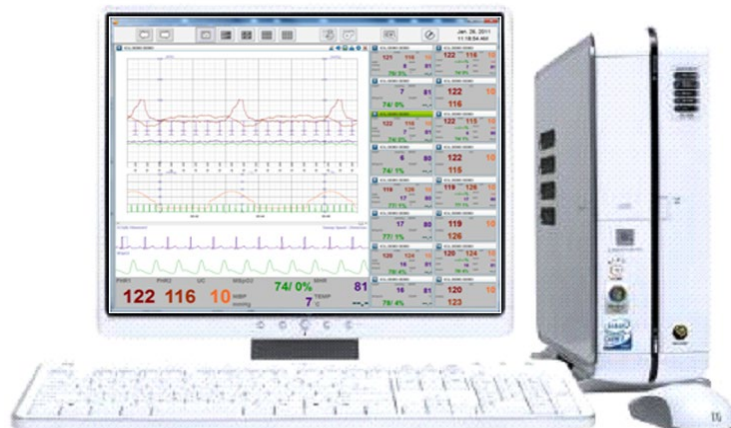
2) Things to check when the message of lacking memory occurs.

- Check whether the amount of space is sufficient.

(If the space is insufficient, delete after backup, or delete old study information to secure the space.)

3) Things to check when the save button is not seen.

- Check whether the client is in Admit status.
(If it is "Discharge", proceed the Admit process.)



Product Warranty

Product Name	Fetal Central System - Maternal		
Model Name	FC Central		
Product Permit No.			
Date of Issuing Product Permit			
Lot Number			
Warranty Period	One year from the date of purchase		
Date of Purchase	Day	Month	Year
Customer Information	Name of Hospital: Address: Name: Phone:		
Name of Seller			
Name of Manufacturer			

- ※ Thank you for purchasing **FC Central**.
- ※ This product has passed thorough quality control and strict inspection.
- ※ Compensation criteria for repair, exchange, and refund of this product are in accordance with the Fair Trade Commission Notice "Consumer Damage Compensation Regulations."



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Website: www.bionetus.com

European sales & service representative

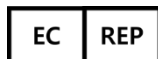
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Bionet Co., Ltd

Model Name: FC Central