

**TOSHIBA**

# Toshiba Selection Tool

## Operation Manual

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Third Edition

January, 2020

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# 1. Using the Selection Tool

## 1.1 Required operating environment

Selection Tool requires the following device configuration to operate.

<List of required operating environments>

Operating System :

Microsoft Windows 8.1 and 10

\*Windows 10, only while devices are supported.

Display resolution :

FWXGA (1366 x 768)

Components :

Microsoft .NET, Framework 4.6

Software :

Microsoft Excel 2010 / 2013 / 2015

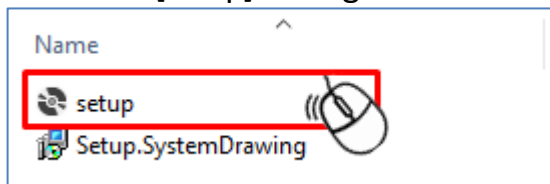
Reader or browser that can view and print PDF files.

## 1.2 Selection Tool Setup

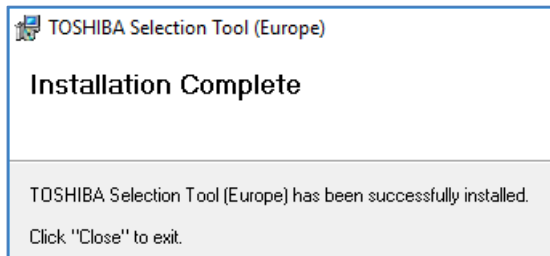
Selection Tool has to be setup on your PC in order to use it.

<New Setup>

1: Execute [setup] among the downloaded files.

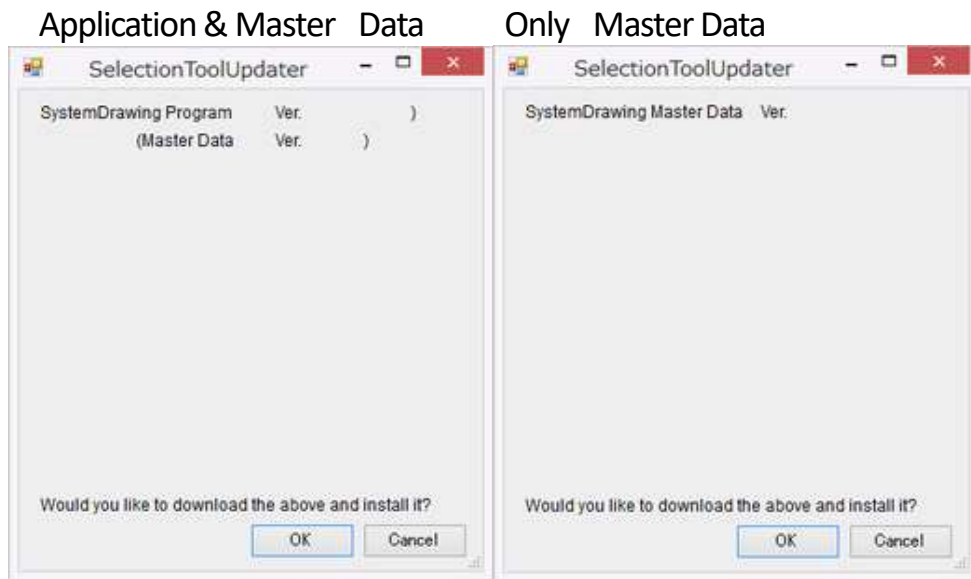


2: Follow the instructions on the screen until installation is completed.



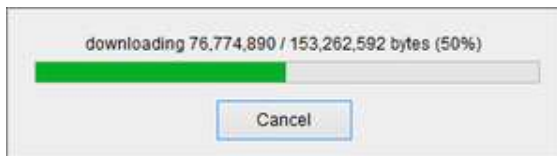
<Online Update >

1: If there is an update, the following screen appears during startup.



\* Ver. indicates the newest version.

2: Click OK to start download.



3: After download is completed, the application is updated. During the update, setup is executed. Therefore, follow the screen instructions to complete the installation, and then start the application again manually.

\* It does not start automatically after installation.



During update of Master Data only, data changes automatically.

## 1.3 User Registration

The User Registration window below appears at initial start-up or when User Entry is incomplete.

Agreement items relating to the management of private information appears at first. To agree, click the ACCEPT button.

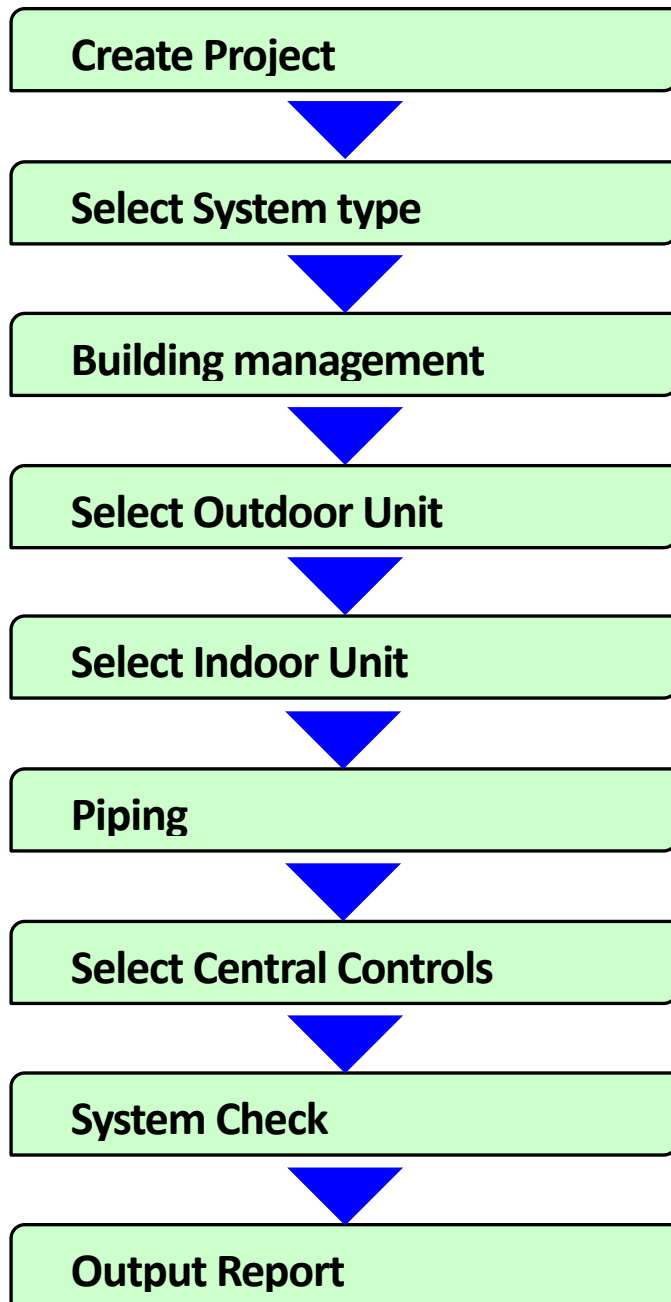
The User Registration window appears when you agree.

After confirming that you are connected to the Internet, enter the information listed below and click the "Send" button.

\* Set up proxy if necessary.

The image shows two overlapping windows from a software application. The top window is titled "User Registration" and contains a form with the following fields: Company Name, First Name, Last Name, Email Address, Confirm Email Address, Add1, Add2, Add3, Town / City, State / Province / County / Region, ZIP / Post Code, Country (a dropdown menu), and Tel No. There are four buttons at the bottom: "< Back", "Proxy Options", "Send", and "Close". A red arrow points from the "Proxy Options" button to the "Proxy Server Setting" window below it. The "Proxy Server Setting" window has two radio buttons: "Don't use Proxy." and "Use Proxy." (which is selected). Below these is a red instruction: "Please set cash off for <URL> on Proxy Server Setting." There are two more radio buttons: "use IE Proxy option value" and "manual" (which is selected). The "manual" section contains fields for "Address:" (with "localhost" entered), "Port:" (with "8080" entered), "Proxy Server IP Address" (with "XXXXXXXXXX" entered), a "User Authorize" checkbox, "UserID:" field, and "Password:" field. At the bottom are "OK" and "Cancel" buttons.

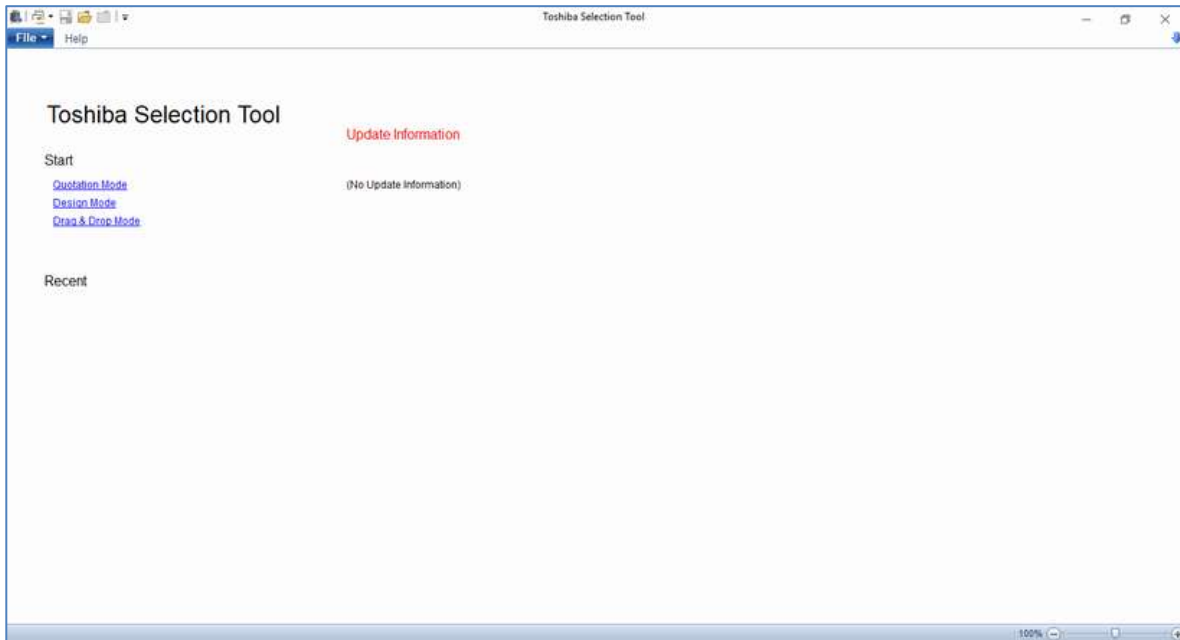
## 1.4 Design Process Chart



## 1.5 Mode Start page

When Selection Tool mode is started, the Selection Tool Start Page appears.

Operations performed from the Start Page include starting new projects or opening saved project files.



<List of Start page functions>

Start :

Starts a project. (Select Modes)

Recent :

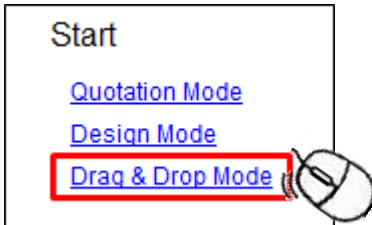
Displays a history of the 10 most recently opened files.

Update Information :

Displays all release information.

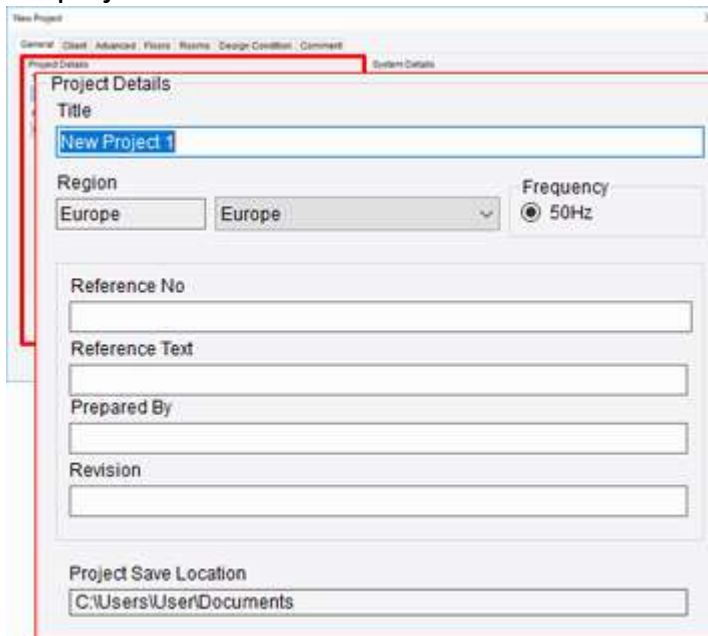
## 2. Starting a Project (Drag & Drop Mode)

In this mode, you can freely select the outdoor unit, indoor unit and joints by mouse or keyboard and input pipes.



### 2.1 Create Project

This sets project information.

A screenshot of a 'New Project' dialog box. The dialog has a title bar 'New Project' and a close button. It contains several fields and controls: 'Title' (text box with 'New Project 1'), 'Region' (two dropdown menus, both set to 'Europe'), 'Frequency' (radio button selected for '50Hz'), 'Reference No' (text box), 'Reference Text' (text box), 'Prepared By' (text box), 'Revision' (text box), and 'Project Save Location' (text box with 'C:\Users\User\Documents'). A red rectangular box highlights the 'Project Details' section, which includes the Title, Region, Frequency, Reference No, Reference Text, Prepared By, and Revision fields.

Title :

Enter the project name.

Region :

Select the Region to be used.

\* The options differ per regional version.

Frequency :

Select the frequency.

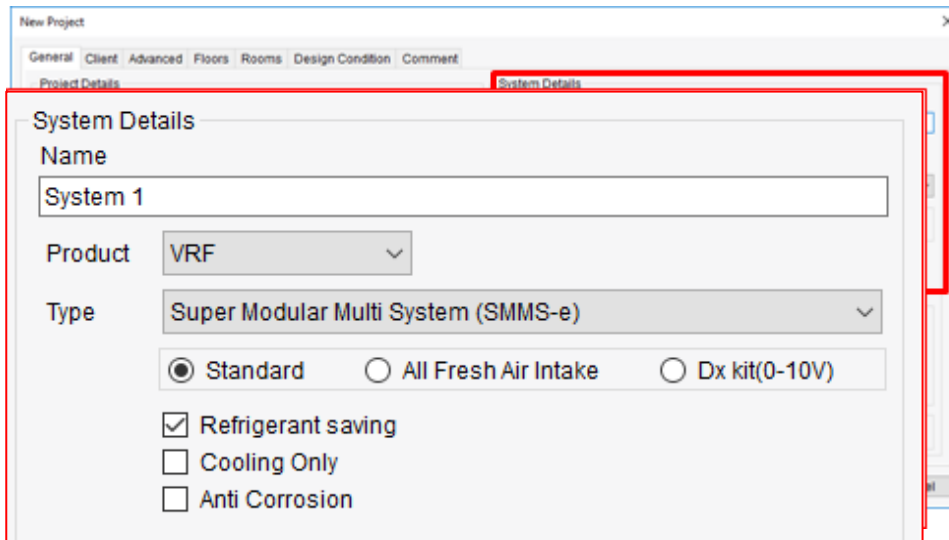
\* This may not have to be selected depending on the region.

For other fields, enter if necessary.



## 2.2 Select System type

Enter the system information.



Name :

Enter the system name.

Product :

Selects a product (VRF, LC, Single Split and Multi Splits).

Type :

Selects the system's outdoor unit type.

\*Standard / Dx Kit (DDC) / All Fresh Air Intake :

Specifies the type of selected system

\*Refrigerant saving :

Click to specify "Stand alone" models.

\*Cooling Only :

Click to specify "Cooling Only" models.

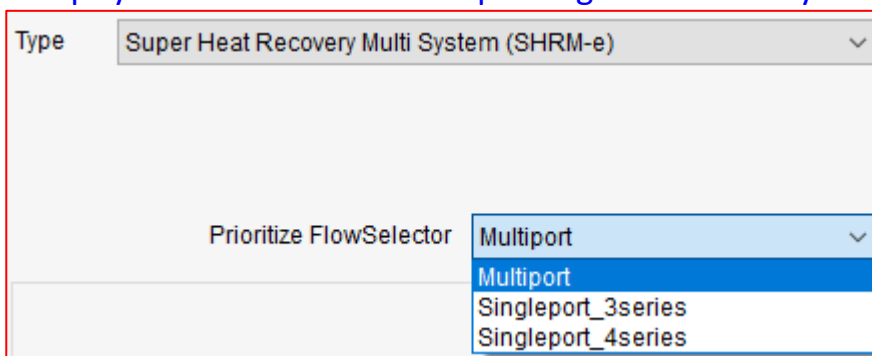
\*Anti Corrosion :

Click to specify "Anti Corrosion" models.

\*Prioritize Flow Selector :

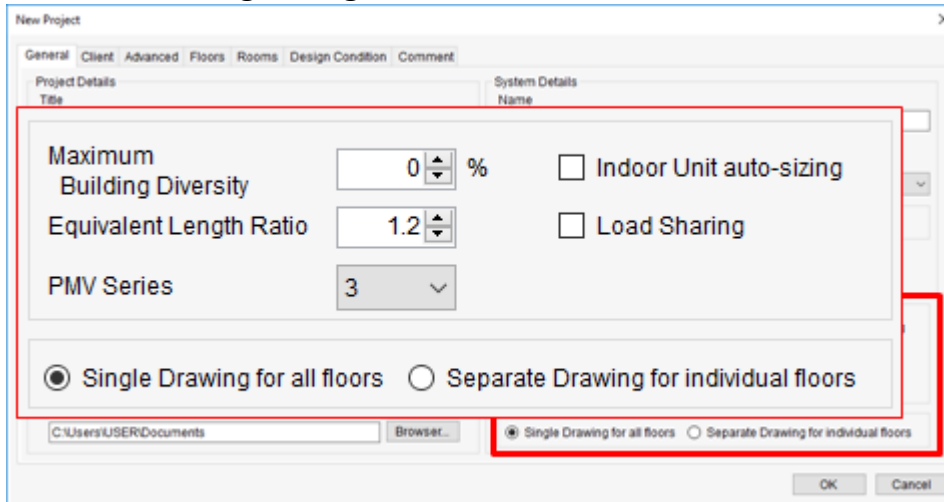
Selects the Flow Selector to be prioritized by the auto piping.

\* Displayed when there is a corresponding Model in the system.



## 2.3 Building management

Enter the Building managements.



**Maximum Building Diversity :**

Sets the maximum capacity ratio needed for the whole building.

**Equivalent Length Ratio :**

Sets the equivalent length ratio of the pipe.

**PMV Series :**

Selects the PMV kit series.

\* Enabled when there is a corresponding Model in the system.

**Indoor unit auto-sizing :**

Check to automatically set the size of the indoor unit.

**Load Sharing :**

Check to share the load of all indoor units in the system.

Select a display method if Floor or Room is set.

General		Client	Advanced	Floors	Rooms	Design Condition	Comment
Floor	Elevation(m)						
Floor-Roof	0.00						
Floor-3F	-2.00						
Floor-2F	-5.00						
Floor-1F	-8.00						

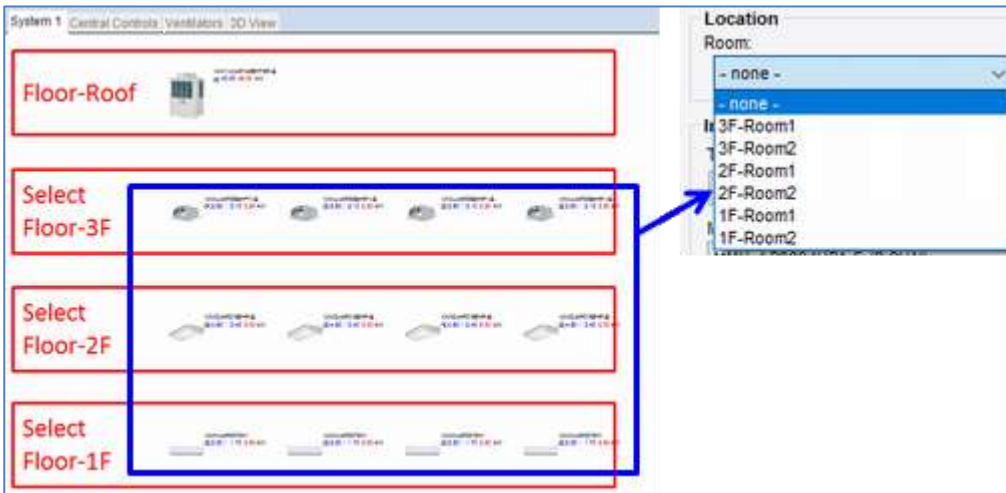
General		Floors	Rooms	Design Condition	System Note								
Room	Floor	Cooling			Heating	Room Dimensions		Room Load(kW)					
		DB(°C)	WB(°C)	RH(%)	DB(°C)	Area(m2)	Volume(m3)	Cooling	Sensible	Heating	ROT		
3F-Room1	Floor-3F	27.0	19.0	47	20.0	90.00	270.00	10.80	8.10	9.90	☑		
3F-Room2	Floor-3F	27.0	19.0	47	20.0	100.00	300.00	12.00	9.00	11.00	☑		
2F-Room1	Floor-2F	27.0	19.0	47	20.0	90.00	270.00	10.80	8.10	9.90	☑		
2F-Room2	Floor-2F	27.0	19.0	47	20.0	100.00	300.00	12.00	9.00	11.00	☑		
1F-Room1	Floor-1F	27.0	19.0	47	20.0	90.00	270.00	10.80	8.10	9.90	☑		
1F-Room2	Floor-1F	27.0	19.0	47	20.0	100.00	300.00	12.00	9.00	11.00	☑		

Single Drawing for all floors

Display the Floor settings collectively.

For the indoor unit, you can select all floors.

An image of setting

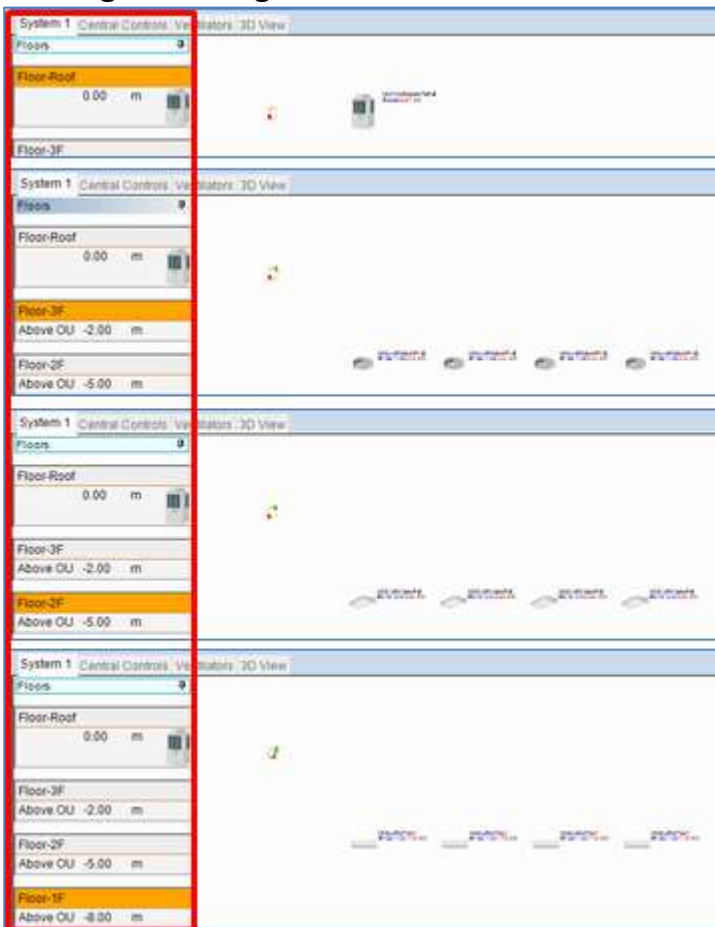


Separate Drawing for individual floors

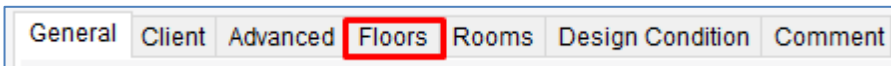
Floor appears in split view, with selections appearing in the left pane.

For the indoor unit, arranged floors are fixed.

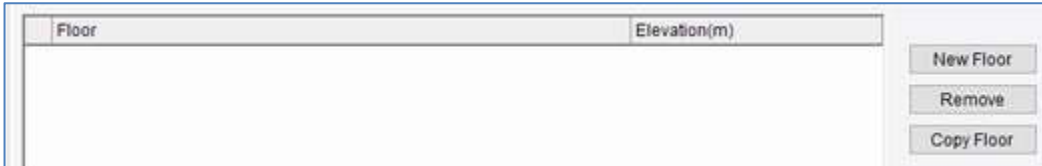
An image of setting



### 2.3.1 Floor



This defines the floors in the system.



**New Floor** Add a floor to the end of the list.

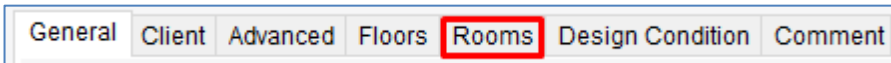
**Floor** : Enter the floor name.

**Elevation** : Enter the relative elevation seen from the Outdoor Unit .

**Remove** Deletes the selected floor.

Floor	Elevation(m)
Roof top	0.00
3rd floor	-2.00
2nd floor	-5.00
1st floor	-8.00

### 2.3.2 Room



This defines the rooms in the system.

Room	Floor	Cooling			Heating	Room Dimensions		Room Load(kW)				
		DB(°C)	WB(°C)	RH(%)	DB(°C)	Area(m2)	Volume(m3)	Cooling	Sensible	Heating	ROT	

**New** Adds a room to the end of the list.

Room	Floor	Cooling			Heating	Room Dimensions		Room Load(kW)			
		DB(°C)	WB(°C)	RH(%)	DB(°C)	Area(m2)	Volume(m3)	Cooling	Sensible	Heating	ROT
		27.0	19.0	47	20.0			0.00	0.00	0.00	<input type="checkbox"/>

**Room** : Enter the room name.

**Floor** : Select the floor registered with the Floor tab.

**Cooling** : Sets the temperature and relative humidity when cooling.

**Heating** : Sets the temperature when heating.

Room Dimensions : Enter the area and volume as room information.

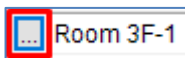
\* This is used for the simple load calculation when the ROT is checked.

Room Load : Enter the cooling/sensible/heating room load.

Check the ROT checkbox to automatically calculate it based on the area.

\* The value can be changed even after the automatic calculation.

Room	Floor	Cooling			Heating	Room Dimensions		Room Load(kW)			
		DB(°C)	WB(°C)	RH(%)	DB(°C)	Area(m2)	Volume(m3)	Cooling	Sensible	Heating	ROT
Room 3F-1	3rd floor	27.0	19.0	47	20.0	100.00	300.00	12.00	9.00	11.00	<input checked="" type="checkbox"/>
Room 3F-2	3rd floor	27.0	19.0	47	20.0	100.00	300.00	12.00	9.00	11.00	<input checked="" type="checkbox"/>
Room 2F-1	2nd floor	27.0	19.0	47	20.0	120.00	360.00	14.40	10.80	13.20	<input checked="" type="checkbox"/>
Room 2F-2	2nd floor	27.0	19.0	47	20.0	80.00	240.00	9.60	7.20	8.80	<input checked="" type="checkbox"/>
Room 1F-1	1st floor	27.0	19.0	47	20.0	150.00	450.00	18.00	13.50	16.50	<input checked="" type="checkbox"/>
Room 1F-2	1st floor	27.0	19.0	47	20.0	50.00	150.00	6.00	4.50	5.50	<input checked="" type="checkbox"/>



Click the Room buttons in the left field to display advanced settings.

Room : Room 3F-1

Exclude from Limit Density

Reason for Limit Density exclusion :

**R.O.T. values must be entered in kW/m2**

Room R.O.T. Cooling :

Room R.O.T. Sensible :

Room R.O.T. Heating :

Close

Exclude from Limit Density :

Check the checkbox to exclude from limit density.

Reason for Limit Density exclusion :

Describe the reason to exclude from limit density.

R.O.T values must be entered in kW/m2 :

Set the load coefficients for the area when the R.O.T field is checked.

Cooling/Sensible/Heating can each be set.

\* Only enabled in the room checked in the R.O.T field.

## 2.4 Design Conditions

This sets the system temperature conditions.

The screenshot shows a software interface with a tabbed menu at the top: General, Client, Advanced, Floors, Rooms, Design Condition (highlighted in red), and Comment. Below the tabs is a 'Temperature Settings' window. It is divided into three sections: Internals, Outdoors, and All Fresh Air Intake : Outside Air Supply. Each section contains input fields for Cooling Dry Bulb, Cooling Wet Bulb, Cooling Relative Humidity, and Heating Dry Bulb, with values in degrees Celsius or percent. At the bottom of the window are three buttons: 'Select from temperature', 'Reset to Defaults', and 'Edit Profile'.

Section	Parameter	Value	Unit
Internals	Cooling Dry Bulb	27.0	°C
	Cooling Wet Bulb	19.0	°C
	Cooling Relative Humidity	47	%
	Heating DryBulb	20.0	°C
Outdoors	Cooling Dry Bulb	35.0	°C
	Heating Wet Bulb	6.0	°C
All Fresh Air Intake : Outside Air Supply	Cooling Wet Bulb	28.0	°C
	Heating Dry Bulb	0.0	°C

Internals: Indoor temperature conditions

Sets the Cooling Dry Bulb, Wet Bulb, and Cooling Relative Humidity.

\* Relative Humidity is automatically calculated by DB and WB.

Outdoors : Outdoor temperature conditions

Sets the Cooling Dry Bulb and Heating Wet Bulb.

All Fresh Air Intake : Outside Air Supply

Sets the Cooling Wet Bulb and Heating Dry Bulb.

Select from temperature

Open the Temperature Profiles window. and select Profile.

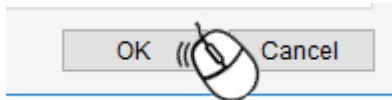
Edit Profile

Open the Profile Setting window.

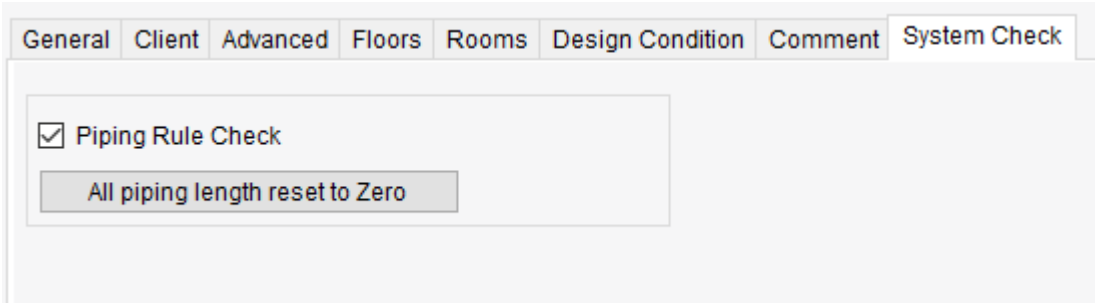
Reset to Defaults

Reset the default values set in Application Setting.

Click [OK] to Main Screen.



## 2.5 System check



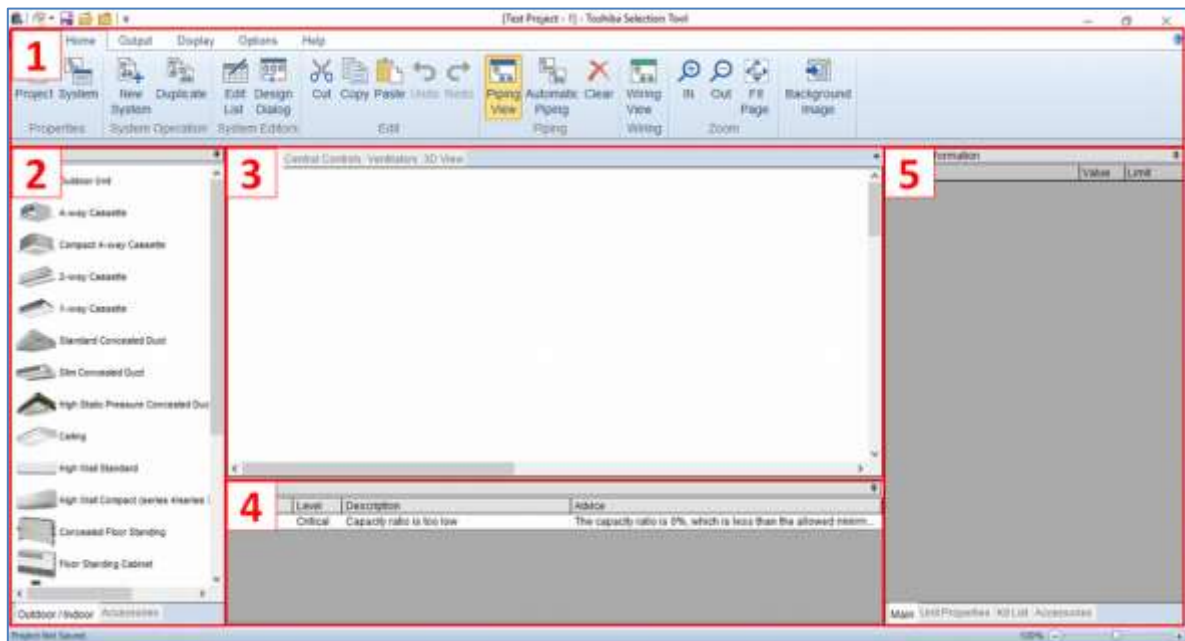
Piping Rule check

Unclick to unable Piping rule check in system information.

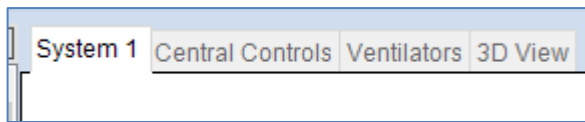
All piping length reset to Zero

Click to button to reset piping length entered in all system.

## 2.6 Main Screen



- 1) Ribbon icon :  
The ribbon icon display section.
- 2) Toolbox window :  
A window to select the diagram to be created.
- 3) System diagram :  
A window to create system diagrams.  
tab for changing the system display.



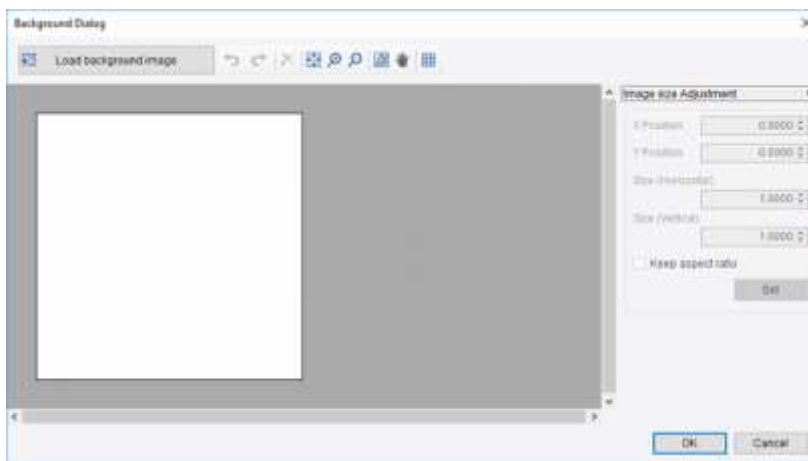
\* The menu is not displayed when the “Central Controls” and “Ventilators” and "3D View" tab is open. The tab cannot be added.


- 4) Error List :  
A window to display errors relating to the created system.
- 5) System Information :  
A window to display errors and details relating to the created system.

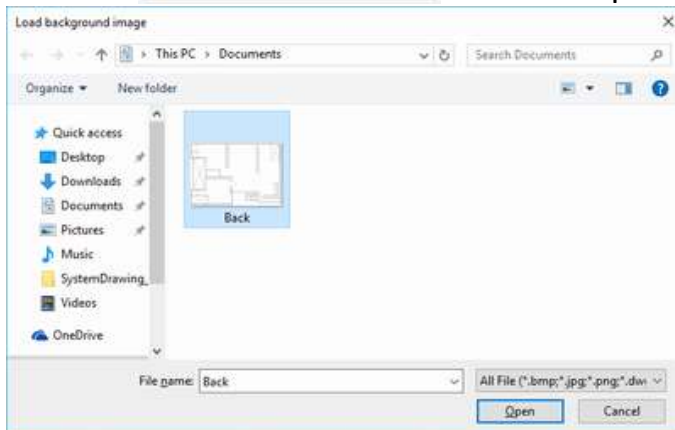
### 2.6.1 Background Image



Specify the background image of the system diagram.

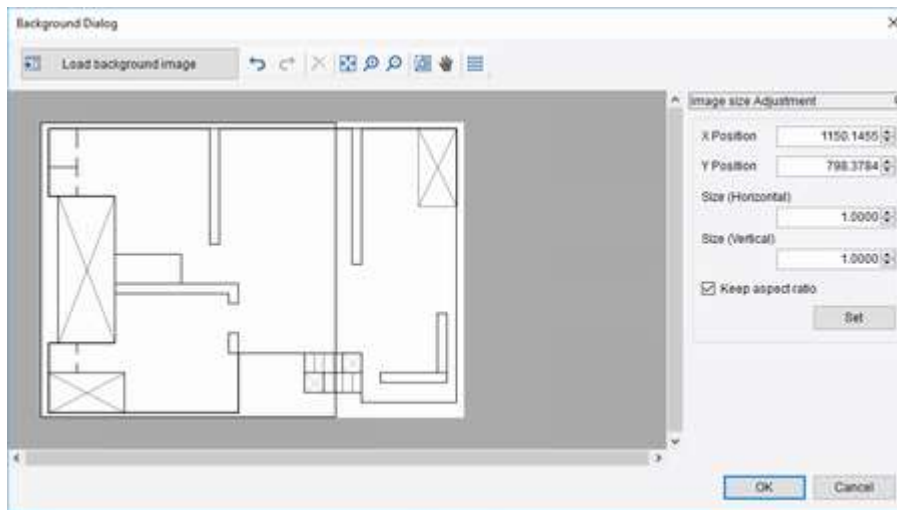


Use  button to specify a background image to load.

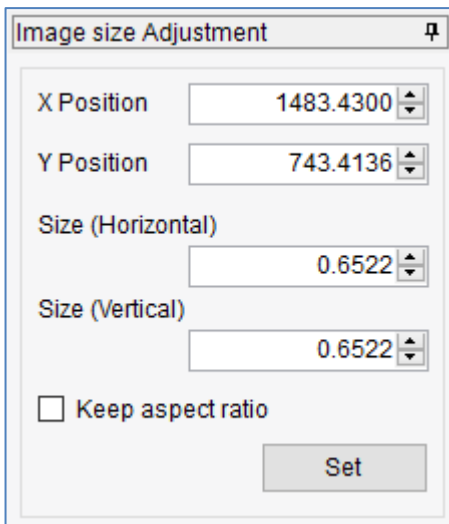


When the preview appears, adjust the image size and location.





- Undo, Redo :  
Undo or redo the edit.
- Delete :  
Delete the selected image.
- FitPage :  
Display the whole screen.
- ZoomIn, ZoomOut :  
Scale the display.
- ZoomWindow :  
Zoom the selection.
- Grab :  
Move the whole screen.
- GridLine:  
Display the grid line.



X Position / Y Position :

Specify the display coordinate.

Size (Horizontal) / (Vertical) :

Specify the magnification.

Keep aspect ratio :

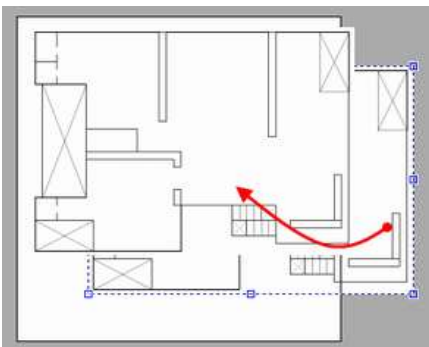
Keep the aspect ratio.

Set Button :

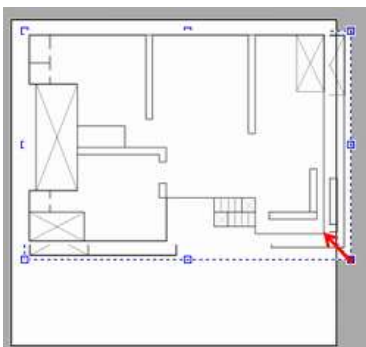
Update the preview.

You can also use the mouse to perform adjustment.

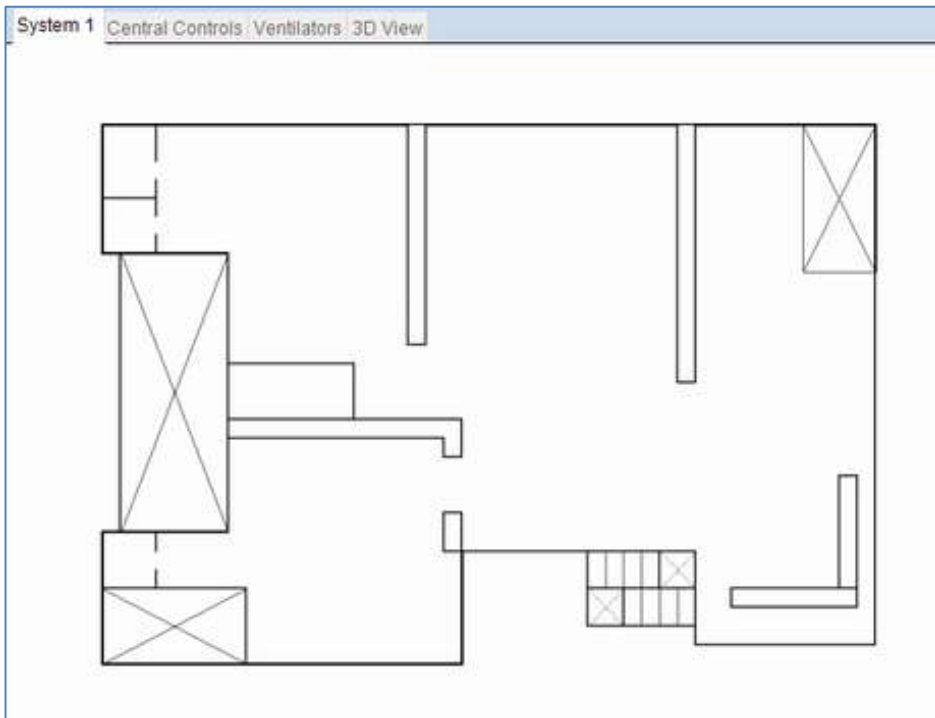
Move



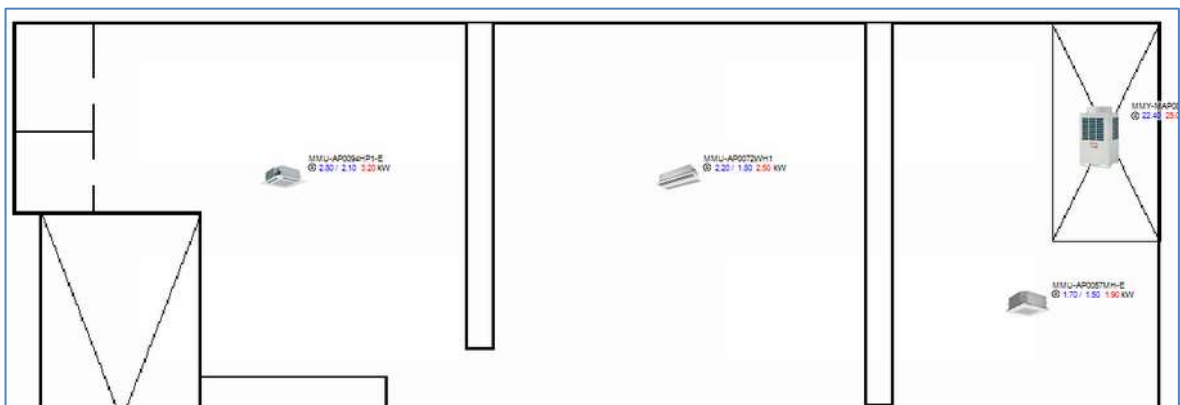
Resize



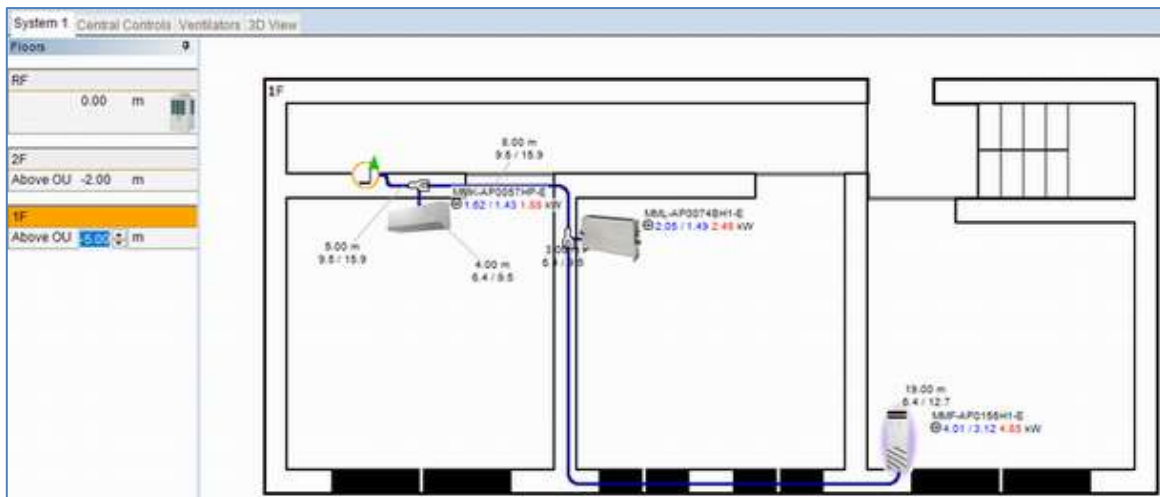
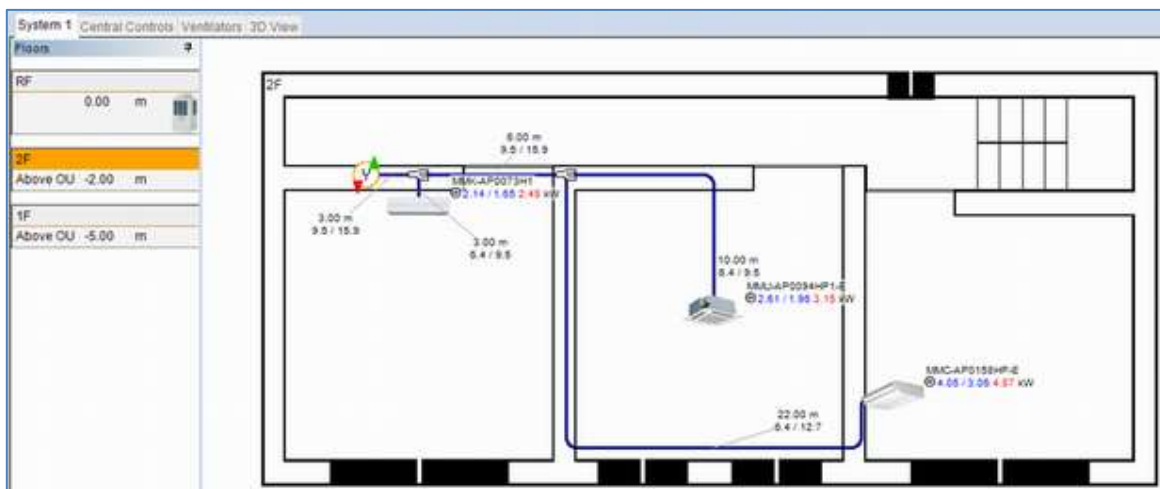
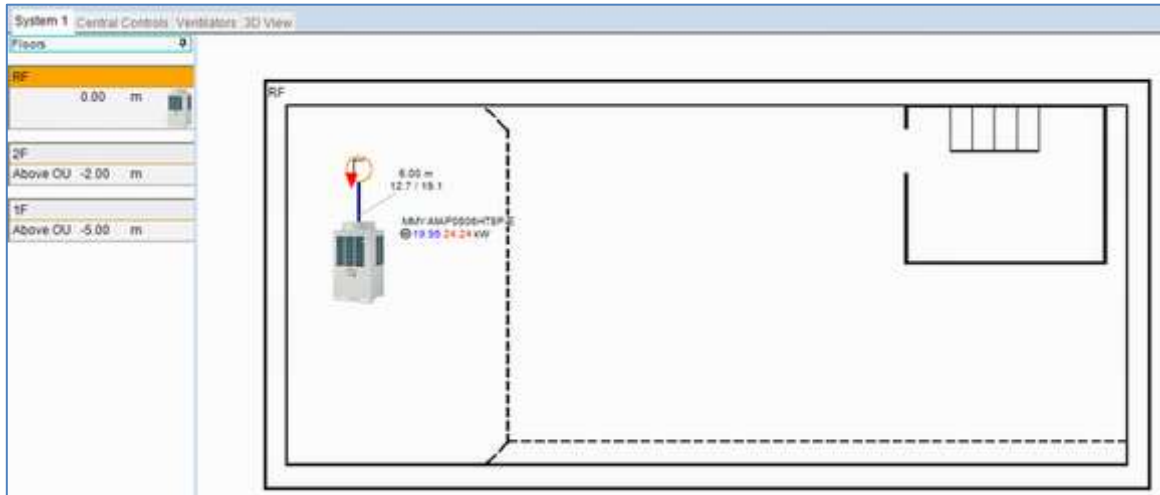
Click OK to display it as a background image of the system.



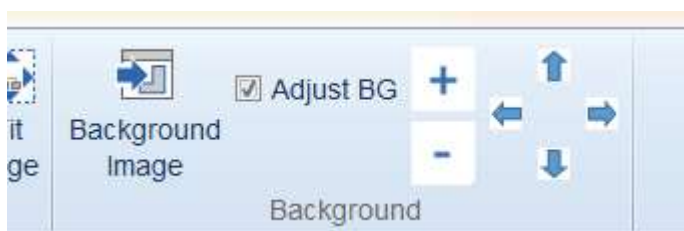
Components can be arranged according to the background image.



In the Floor split view, you can load a background image for each floor.

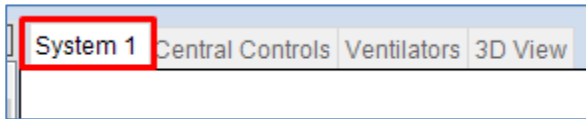


In ribbon, click specify adjustment menu to change the size and position.

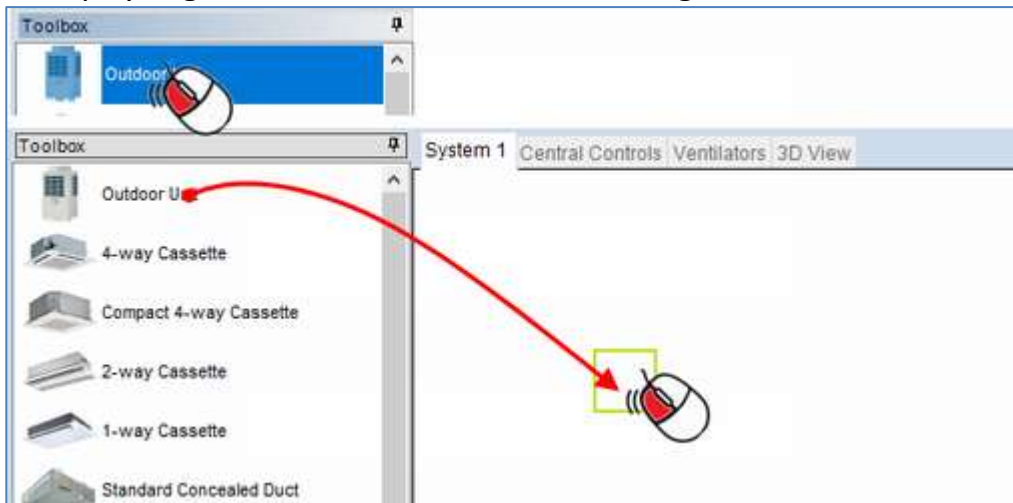


## 2.7 Select Outdoor Unit

Select System Tab.



1. Select an outdoor unit from the toolbox window and drag and drop it at the desired place.  
Displays a green frame in the location to arrange the outdoor unit.



2. The outdoor unit is arranged in the dropped location.



\* The outdoor unit cannot be arranged in locations where there is already other equipment. Also, multiple outdoor units cannot be placed in the same system.

## 2.7.1 Outdoor unit Property

Outdoor units can be set from this window.

Outdoor Unit Property

Type : Super Modular Multi System (SMMS-e)

MMY-MAP0806HT8P-E  Standard  High Efficiency

Autosize 100 %

Outdoor Unit Name

MMY-MAP0806HT8P-E

**Unit Details**

Accessories

Header	
Slot 1	<none>
Slot 2	<none>
Slot 3	<none>
Slot 4	<none>
Slot 5	<none>

Capacity Information

Rated Cooling	22.40 kW
Rated Heating	25.00 kW
Corrected Cooling	22.40 kW
Corrected Heating	25.00 kW
Required Cooling	0.00 kW
Required Heating	0.00 kW

View Sales Data

Electrical Information Summary 3N AC+Earth 380-415V 50Hz

OK Cancel

Type :

The type of the selected outdoor unit is displayed.

Combo box under type display :

Select the outdoor unit's model number.

Standard / High Efficiency :

Filters the outdoor unit type options into Selected only.

Outdoor Unit Name :

Enter the name of the outdoor unit.

Auto Size :

Check this to automatically select outdoor units according to capacity calculation results.

The capacity ratio can be specified in the right input field.

Accessories - Slot1 to Slot5 :

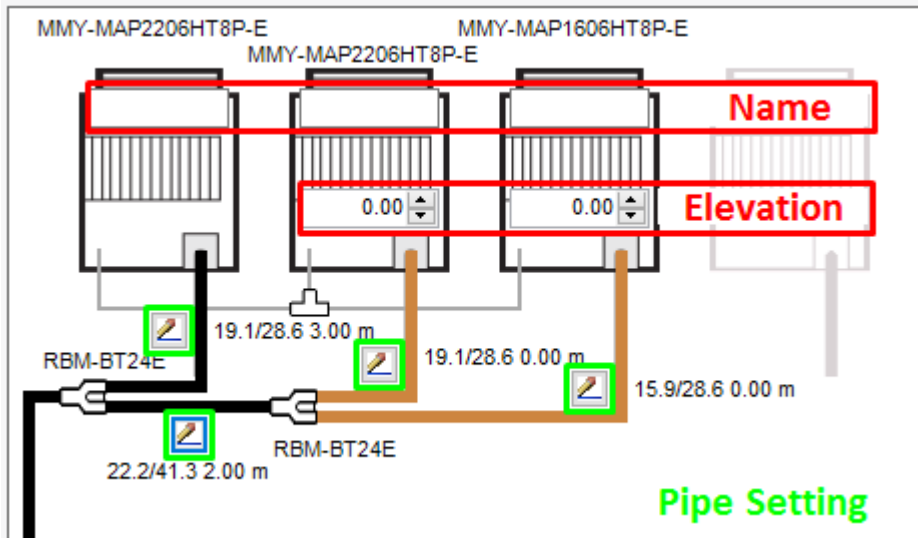
Select an option to connect to slot of the outdoor unit.

\* When combining multiple units,

a tab is generated per Header/Follower and accessories can be set for each.

Unit Details :

Displays an image of outdoor units relating to the selected model.



Name :

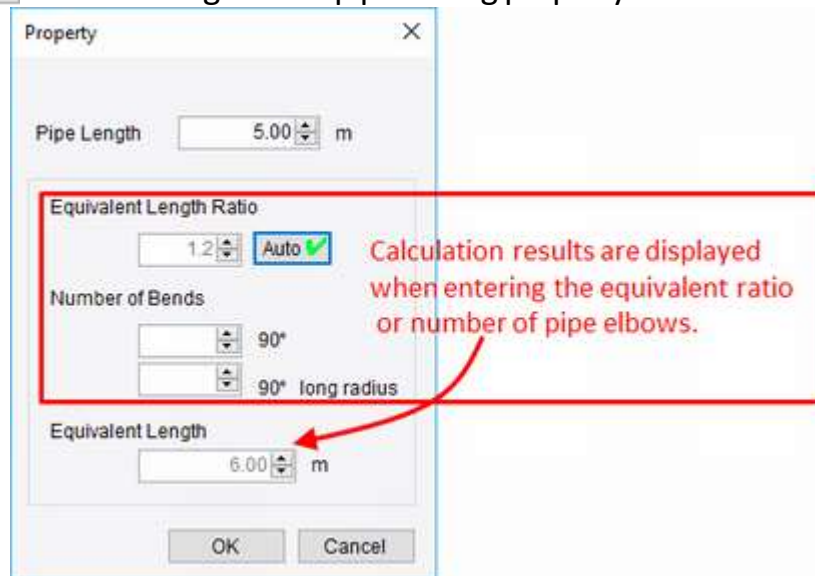
The names of outdoor units can be entered individually.

Elevation :

The elevation from the header outdoor unit (on the left) can be entered.

Pipe Setting :

 Click to change to the pipe setting property window.



Pipe Length :

Enter the real length of the pipe.

Equivalent Length Ratio :

Enter the equivalent length ratio.

Number of Bends :

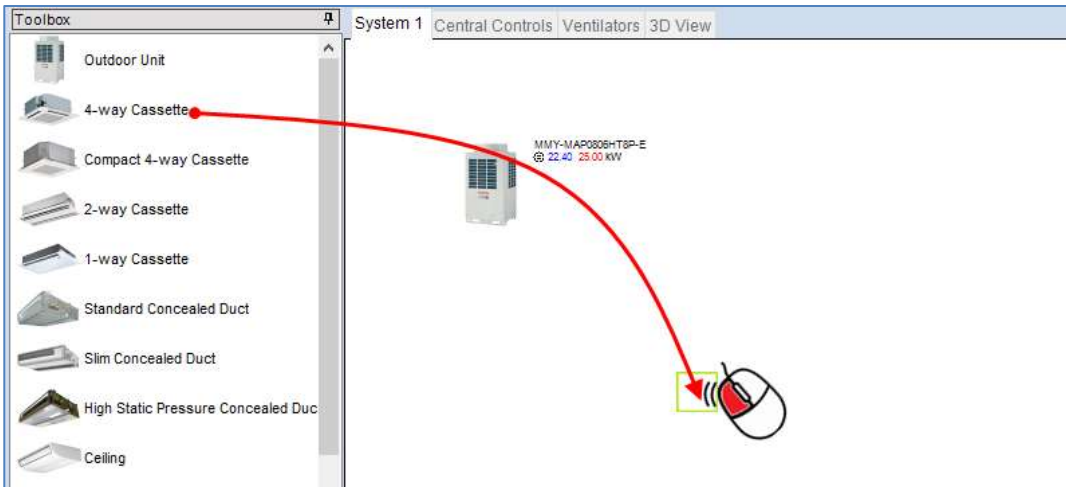
Enter the number of pipe elbows. (standard and long-radius elbows)

Equivalent Length

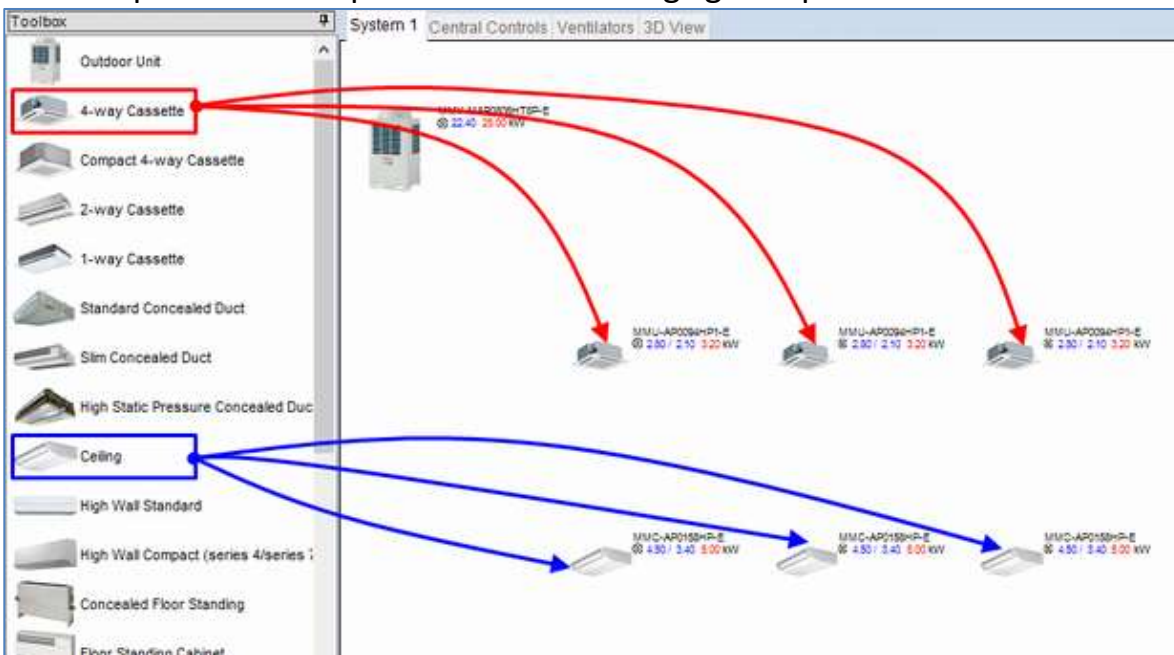
Directly enter the equivalent length of the pipe.

## 2.8 Select Indoor Unit

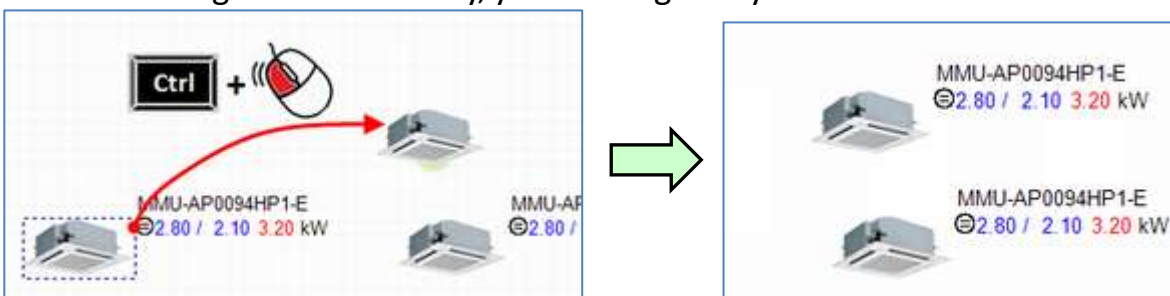
1. Select the indoor unit you want to arrange from the toolbox window, and drag and drop it at the desired place.



2. Drag and drop the indoor unit you want to arrange in the workspace at the block. and Repeat the above procedure when arranging multiple units.



3. While holding down the Ctrl key, you can drag to any desired location.





## 2.8.1 Indoor Unit Property

Indoor units can be set from this window.

Setting of Indoor Units (Manual Sizing) X

**Location**  
Room: - none - Rooms...

**Indoor Unit**  
Type: 4-way Cassette  
Model: MMU-AP0094HP1-E (2.8kW)  
Name:  Fan Speed: High ...

**Required Capacity**  
Require Cooling: 0.0 kW  
Require Sensible: 0.0 kW  
Require Heating: 0.0 kW

**Design Conditions**  
Cooling DB: 27.0 °C  
Cooling WB: 19.0 °C  
Relative Humidity: 47 %  
Heating DB: 20.0 °C

**Capacity Information**


Capacity Code	1
Rated Cooling	2.800 kW
Rated Sensible	2.100 kW
Rated Heating	3.200 kW
<hr/>	
Cooling Capability	2.800 kW
Sensible Capability	2.100 kW
Heating Capability	3.200 kW
<hr/>	
Corrected Cooling	2.800 kW
Corrected Sensible	2.100 kW
Corrected Heating	3.200 kW

**Controls**  
 Individual  Header  Follower  
Header Remote: - none -  
 Schedule Timer: ...  
Follower Remote: - none -

**Pipe Length**  
 m  
Pipe Equivalent Length  
Equivalent Length Ratio: Auto  
or Number of Bends: 90°  
Long radius:   
or Equivalent Length:  m

**Options**  
Accessories...  

Model	Description	Qty
-------	-------------	-----

  
Rotation angle (+:Right, -:Left) 0 ° Default

**PMV kit**  
 Connect  
Elevation (relative to Indoor Unit) 0.00 m  
Pipe length (from Indoor Unit) 0.00 m

**Ceiling Panel**  
Panel Model: RBC-U31PGP(W)-E  
Elevation (relative to Outdoor unit) Above Outdoor Unit 0.00 m

OK Cancel

### Location :

Selects the room to install the indoor unit.

Uses the temperature setting of the selected room.

### Indoor Unit :

Selects the type.

Selects the model number.

Sets the name of the indoor unit.

Selects the fan speed.

### Controls :

Selects for the individual air conditioners or header / Follower unit for the indoor unit group setting.

Enter the new group name for the header unit.

Selects the group name for the follower unit.

Selects the remote control header unit.

Selects the remote control follower unit.

PMV Kit :

Sets whether to connect PMV Kit.

Sets the installation location of the PMV kit relative to the indoor unit.

Sets the pipe length of the PMV kit from the indoor unit.

Design condition :

Sets each temperature condition.

Required Capacity

Sets the required capacity.

\*This is applied when a room is selected and cannot be edited.

Pipe Length :

Sets the Connected Pipe Length and Equivalent Length.

\* This cannot be set when pipes are not connected.

Ceiling Panel :

Selects the ceiling panel.

This cannot be selected when equipment is not necessary.

Elevation :

Sets the location of indoor units relative to outdoor units.

Options :

Accessories to be set to indoor units can be selected in the Indoor Unit Accessories window.

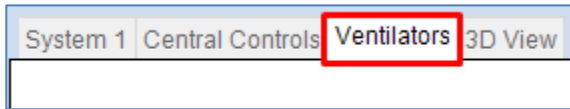
Model	Description	Notes	Use With	Qty
<b>ControlAccessories</b>				
<input type="checkbox"/> TCB-PX100-PE	Optional Enclosure of the Window Switch			
<input type="checkbox"/> TCB-PX20MUE	Optional Enclosure of the Window Switch ...			
<b>GeneralAccessories</b>				
<input type="checkbox"/> TCB-SP1602UE	Spacer for height adjustment	Height: 50mm		1
<input type="checkbox"/> TCB-GFC1602UE	Fresh Air Chamber		TCB-GB1602UE	1
<input type="checkbox"/> TCB-GB1602UE	Fresh Air Inlet Box	Fresh Air Intake Ratio: Up t...		1
<input type="checkbox"/> TCB-BC1602UE	Air discharge direction kit	6 direction patterns		1
<input type="checkbox"/> TCB-FF101URE2	Auxiliary fresh air flange	Fresh Air Intake Ratio: Up t...		1
<input type="checkbox"/> RBC-CBK15FE	FS Unit Extension cable	For FS unit 3 series		1

Rotation Angle :

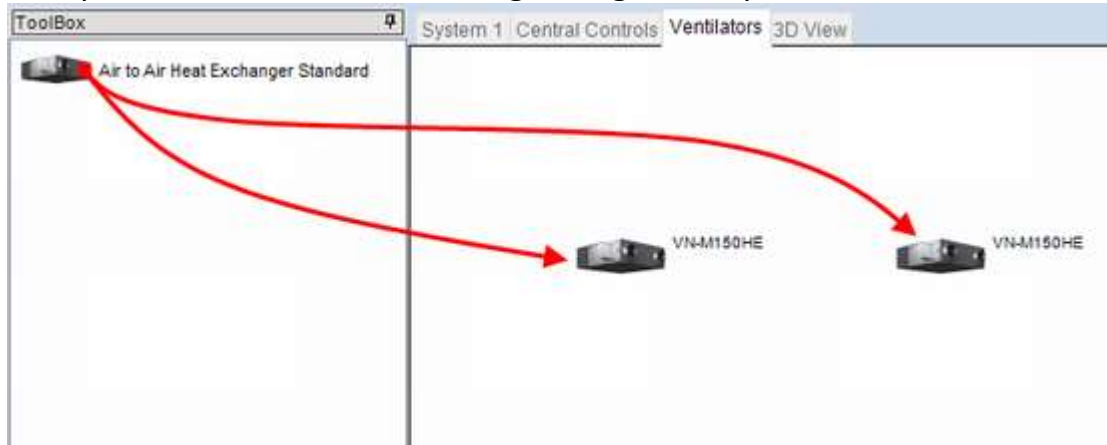
Sets the Unit image Rotate Angle.

## 2.8.2 Air to Air Heat Exchanger

Select Ventilators Tab.



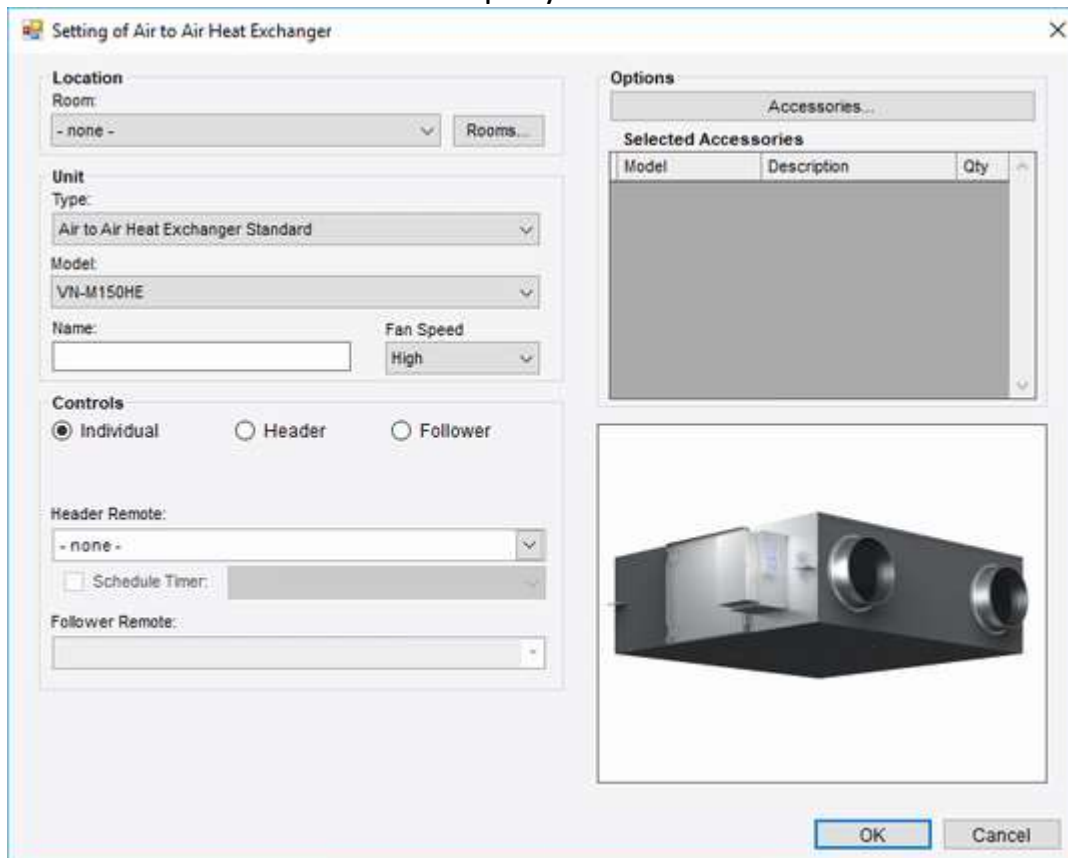
1. To paste an Air to Air Heat Exchanger, drag and drop it from the toolbox on the right.



Air to Air Heat Exchanger property

Air to Air Heat Exchangers can be set from this window.

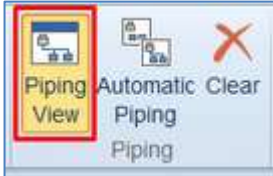
\* Reference the Indoor Unit Property.



## 2.9 Piping

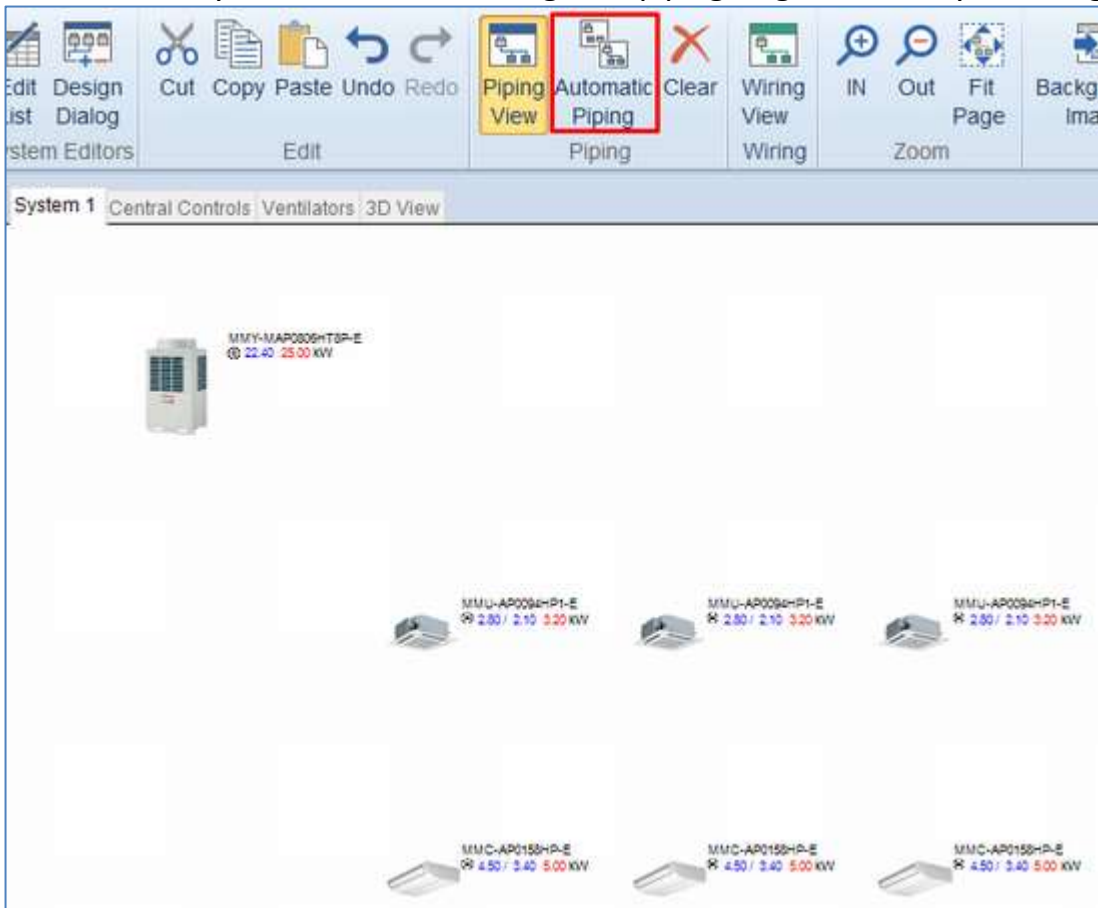
This creates a refrigerant piping diagram after arranging indoor units and outdoor units. A refrigerant piping diagram is created while displaying the diagram.

Click the “Piping View” icon in the ribbon to display the refrigerant piping diagram.

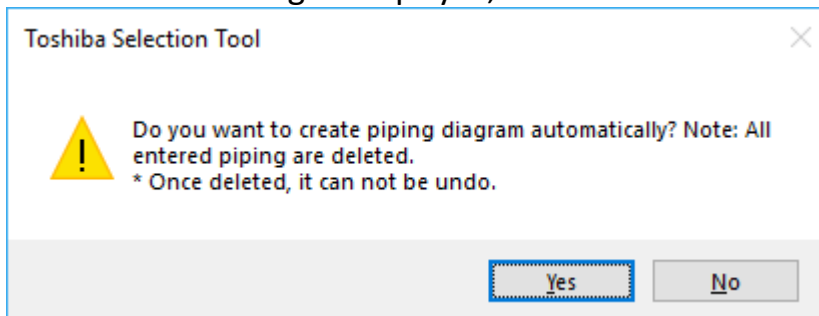


### 2.9.1 Automatic Piping

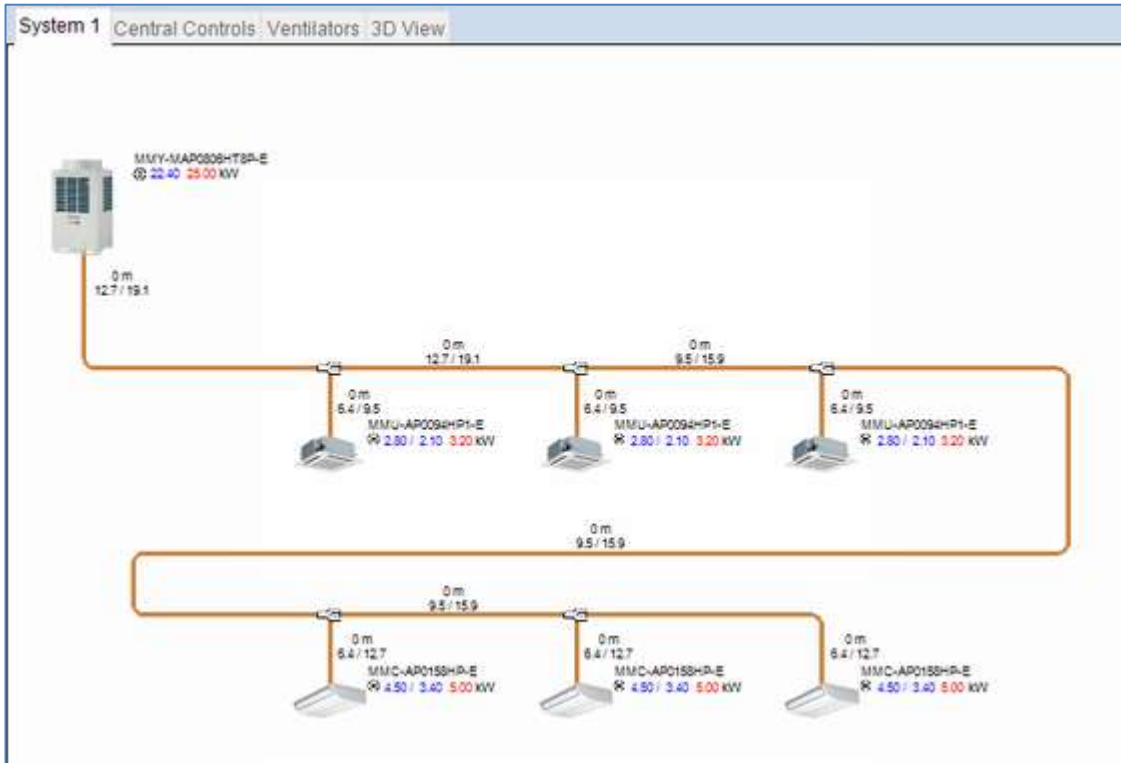
Click the “Automatic Piping” property icon in the ribbon to automatically create a standard refrigerant piping diagram in the system diagram.



Confirmation message is displayed, so click “Yes”.



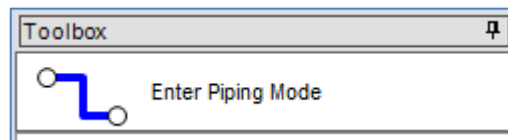
Refrigerant piping diagram is automatically created.



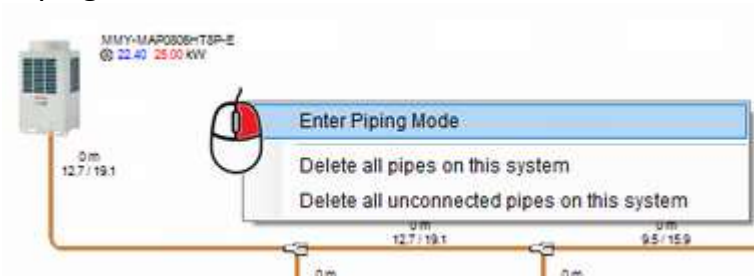
## 2.9.2 Manual Piping

Refrigerant piping can be drawn out freely by executing the following procedure.

Open the accessories tab in the toolbox and click "Enter Piping Mode". It then switches to Piping mode, and the mouse pointer changes as shown in the system diagram.



Or, right-click anywhere with no component on the system diagram and select "Enter Piping Mode".



Change the Mouse pointer in Piping mode



- 1) After switching to Piping mode, click the refrigerant piping as the start point. In this case, an outdoor unit is the start point and leads to an indoor unit, but it can be started from anywhere in the system diagram.



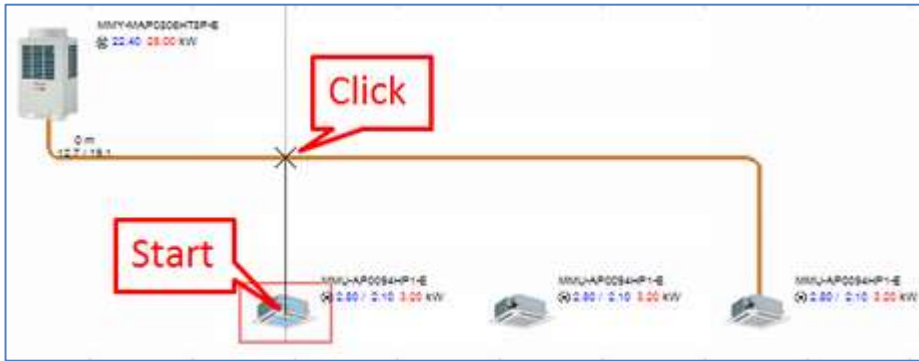
- 2) Moving the mouse to the indoor unit displays a preview of the piping from the outdoor unit to the indoor unit.



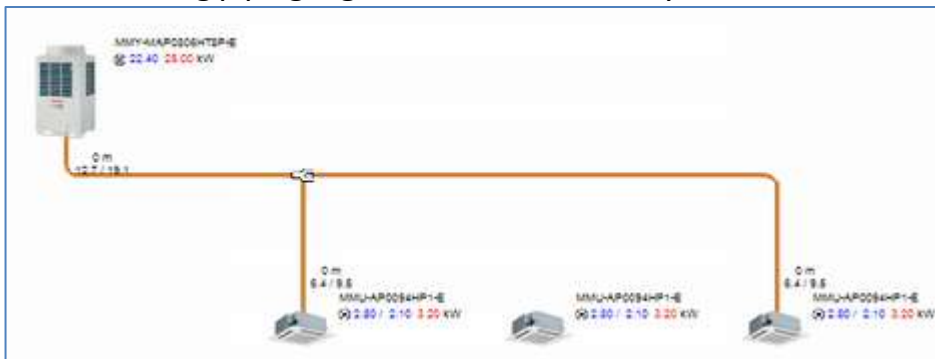
- 3) Click the indoor unit to install the piping from the outdoor unit to the indoor unit.



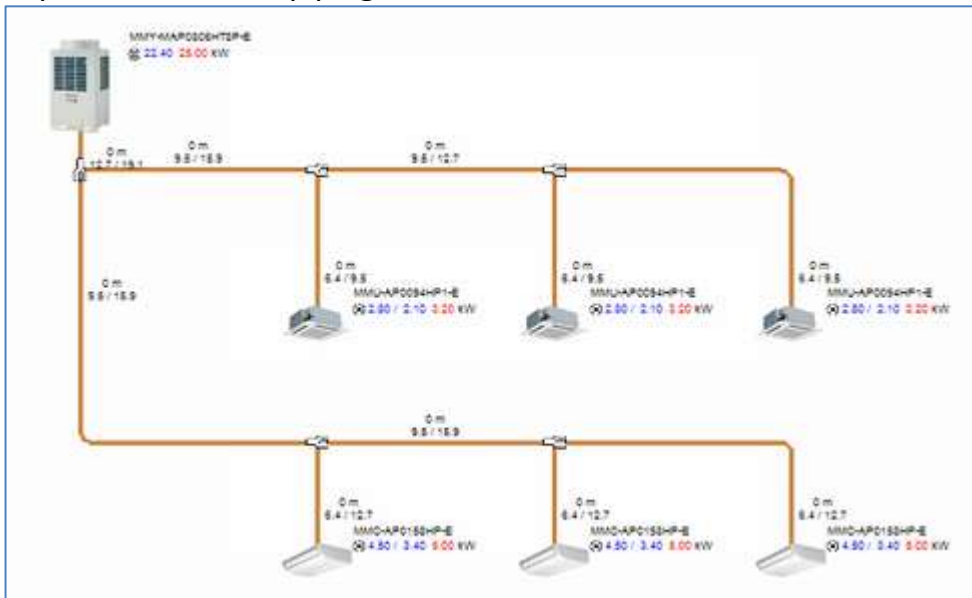
4) Connect piping to each indoor unit as well.



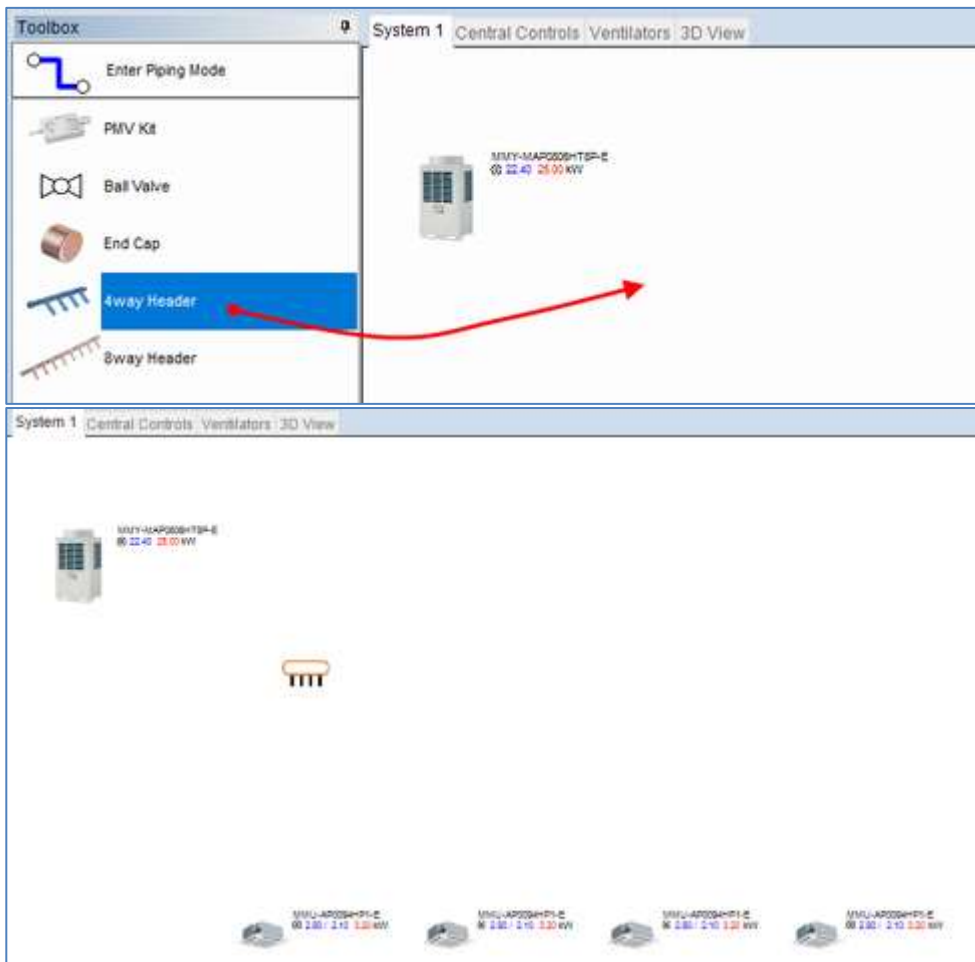
\* A branching piping is generated automatically.



Repeat and connect piping to all indoor units.

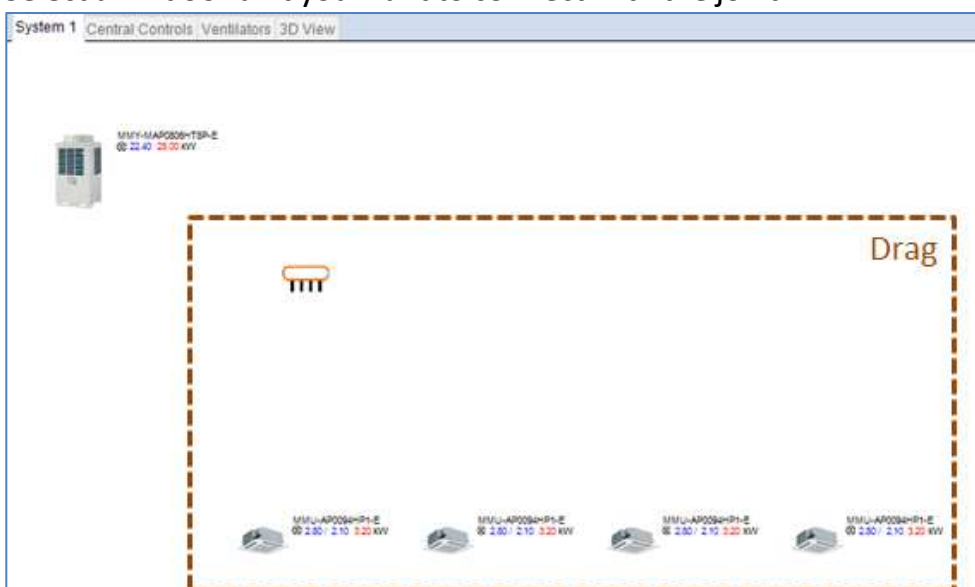


If you have arranged Header Joint or Multi Flow Selector, you can also select the indoor unit to connect for automatic piping setup.



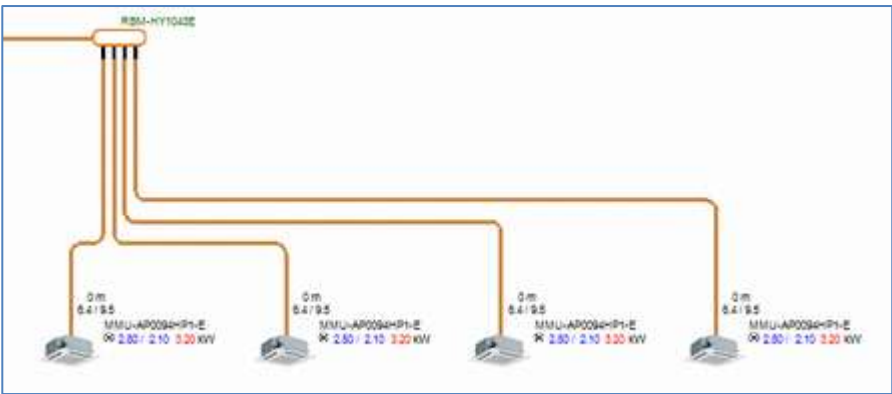
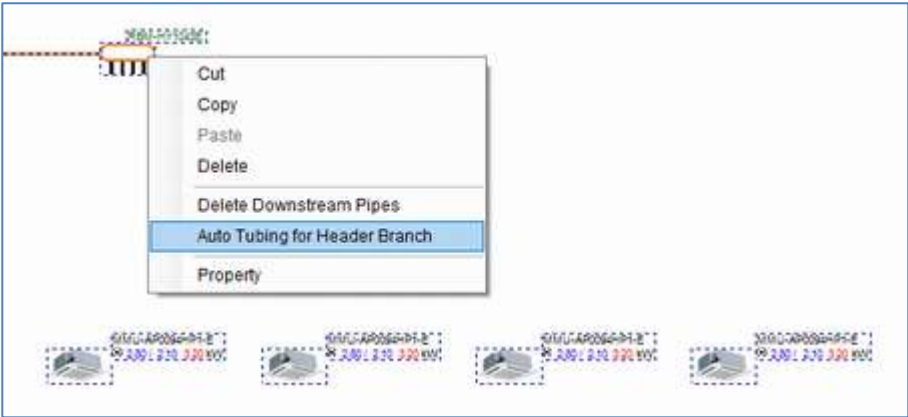
\* Connect piping manually from the outdoor unit to Header Joint (or Multi Flow Selector).

Select an indoor unit you want to connect with the joint.

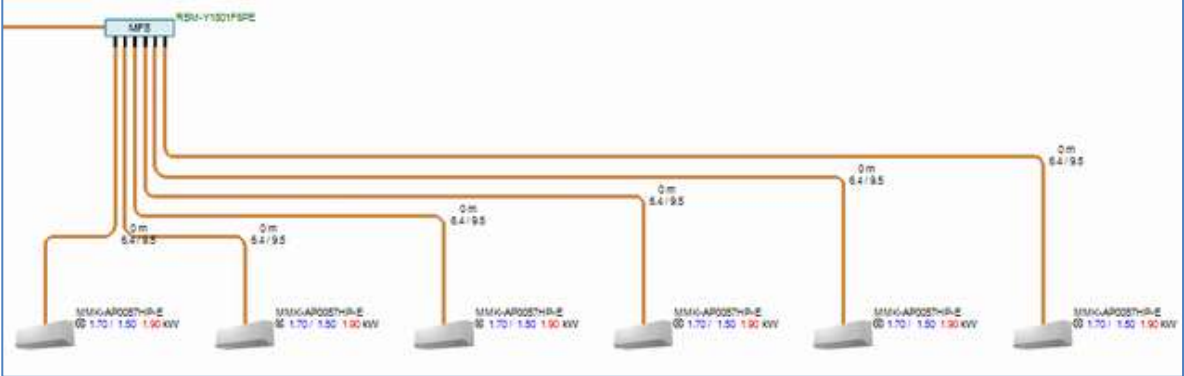
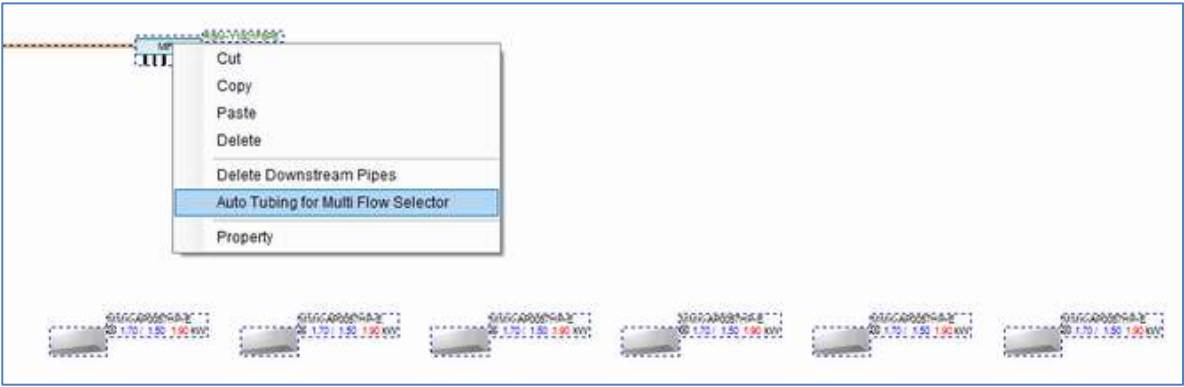




With it still selected, click “Auto Tubing for Header Branch” from the context menu to generate piping.

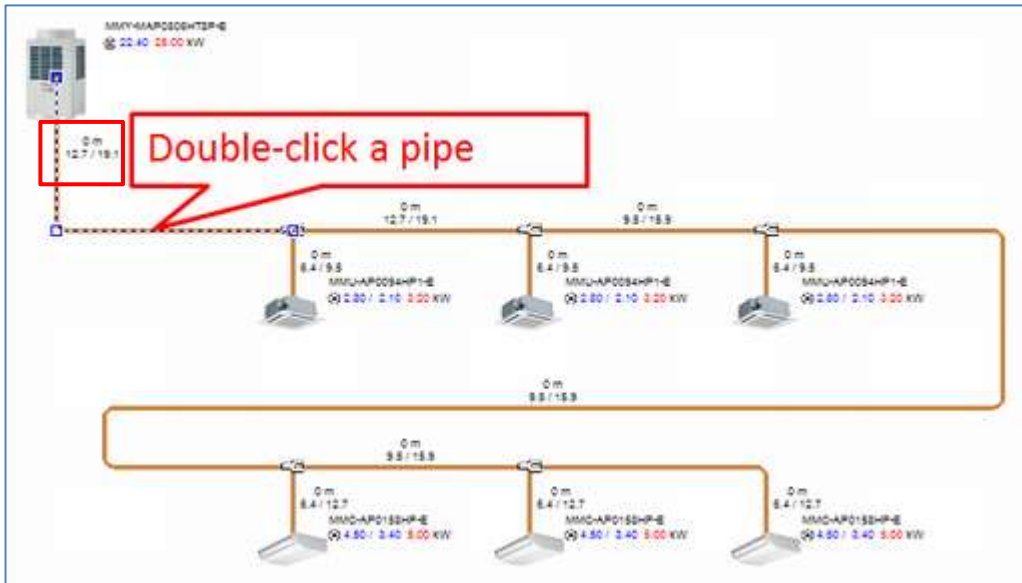


The same applies to Multi Flow Selector.



### 2.9.3 Entering pipe length

The length of a pipe can be set by double-clicking the arranged pipe or pipe information.

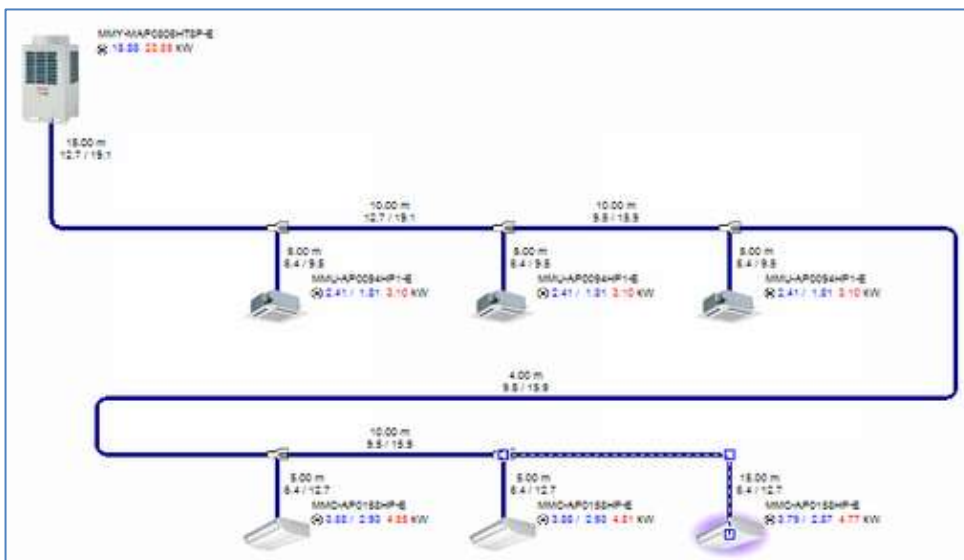


The pipe length input box is displayed. -> Enter the pipe length



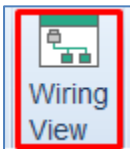
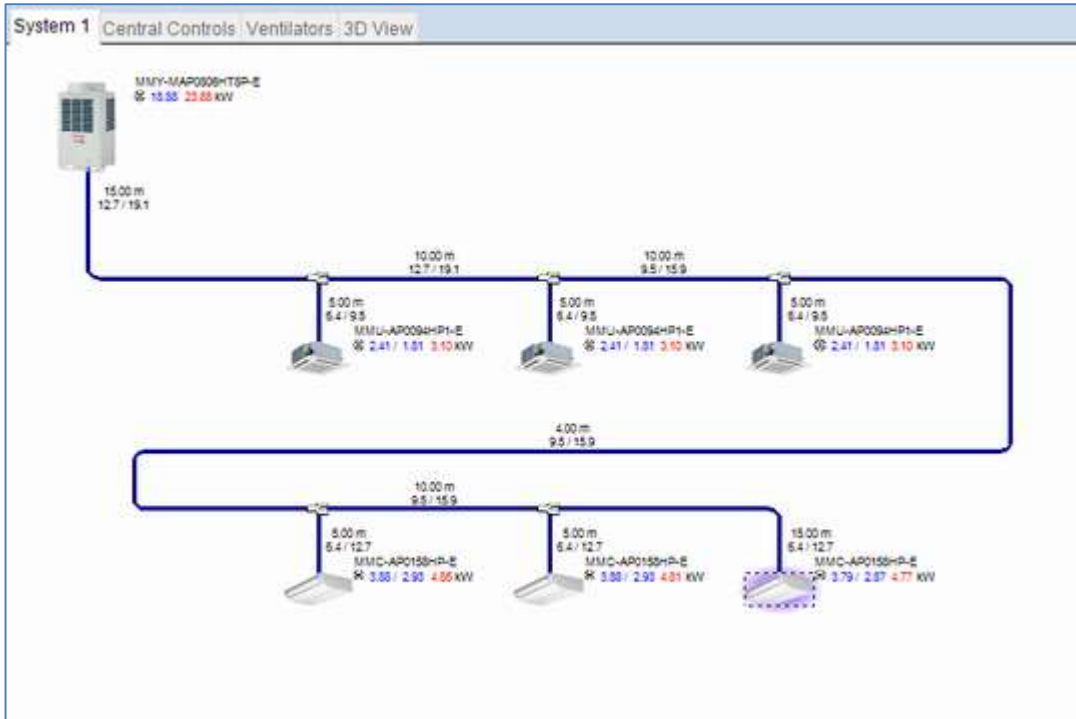
The entered pipe length is displayed in the system diagram, and the pipe color changes from brown to blue.

Use the Enter key to move to the pipes with pipe length not yet entered, and then enter all of them.

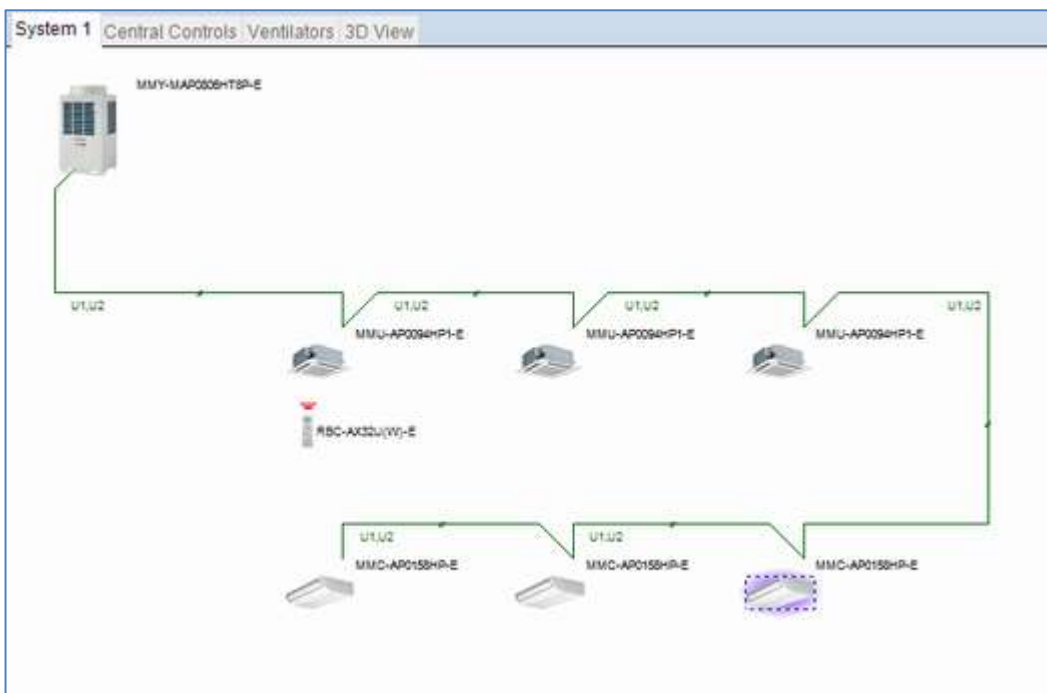


## 2.10 Wiring

Arrange the indoor and outdoor units (and piping)



Use the Wiring View button in the Home tab to display the operation wiring diagram in the system diagram.



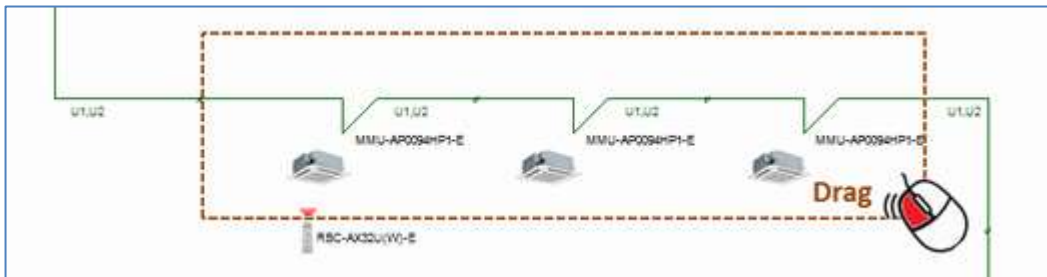
## 2.10.1 Indoor Unit Grouping

Sets the controls for the group.

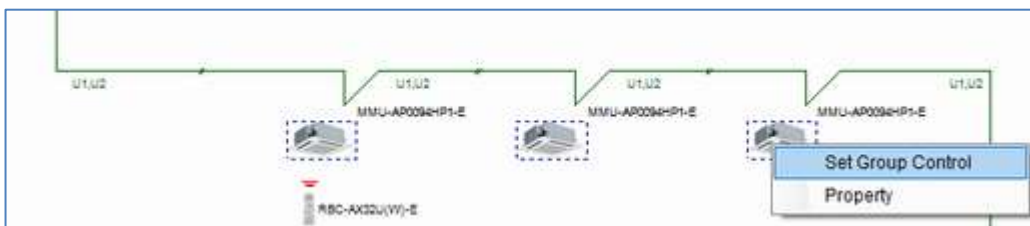
When Wiring view

Drag the indoor unit for group setting to select it.

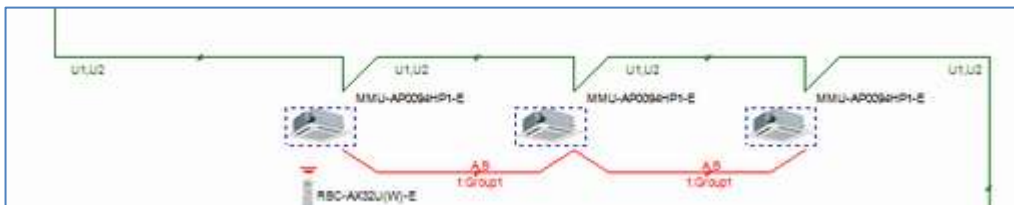
\* Also, while holding down the Shift or Ctrl key, you can also click to select it.



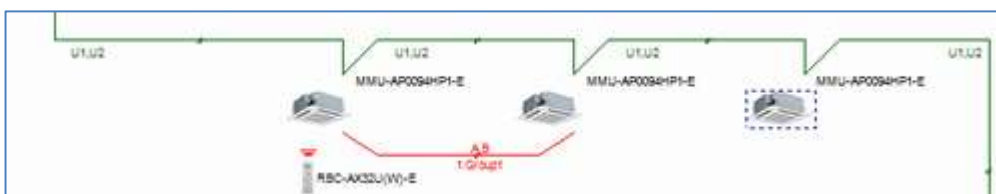
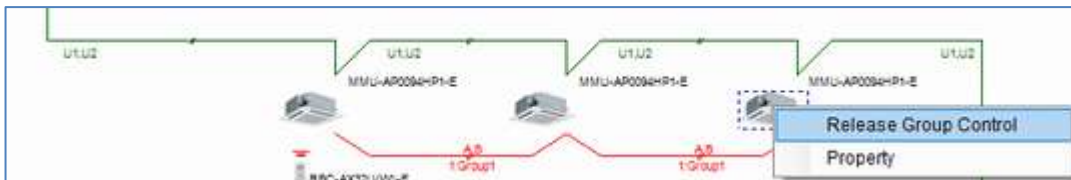
Right-click the selected indoor units. From the context menu, click "Set Group Control".



The group is set up.



To cancel, right-click and then click "Release Group Control".



When Piping view

Set up a group for each indoor unit.

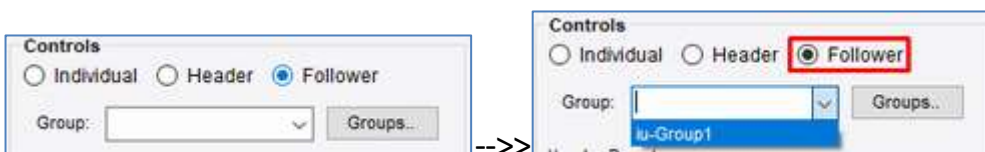
例 Example: Set **3** to header, and **1 2** to follower.



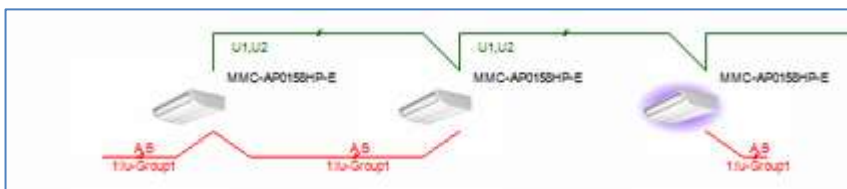
Open the property of the indoor unit to be the Header. Select Header in the Controls section, and enter a group name. **3**



Open the property of the indoor unit to be Follower. Select Follower in the Control section, and select Group. **1 2**



Switch to Wiring View and check the setting.

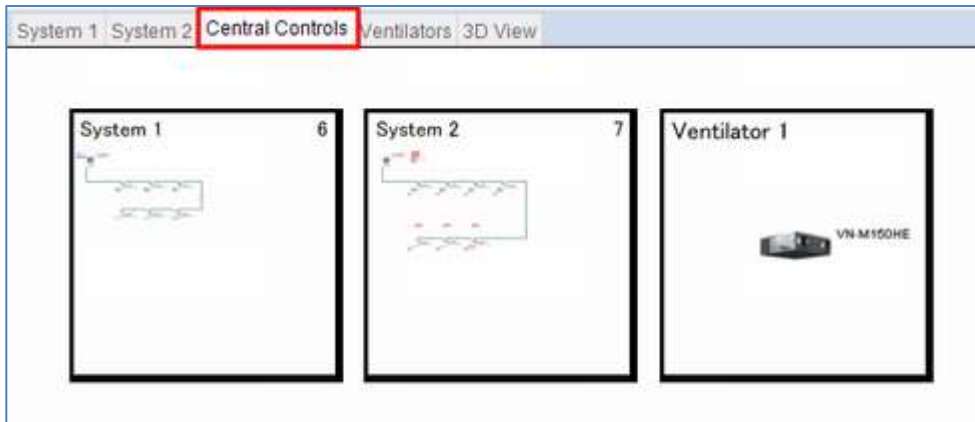


\* For Ventilator, also set up Group in the same way.

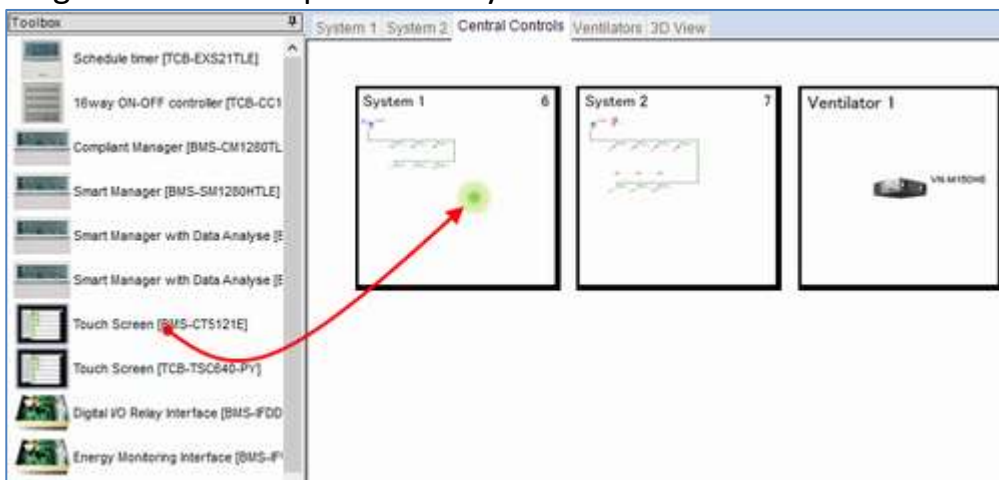
\* When Follower is selected, addable groups are displayed as choices.

## 2.11 Select Central Controls

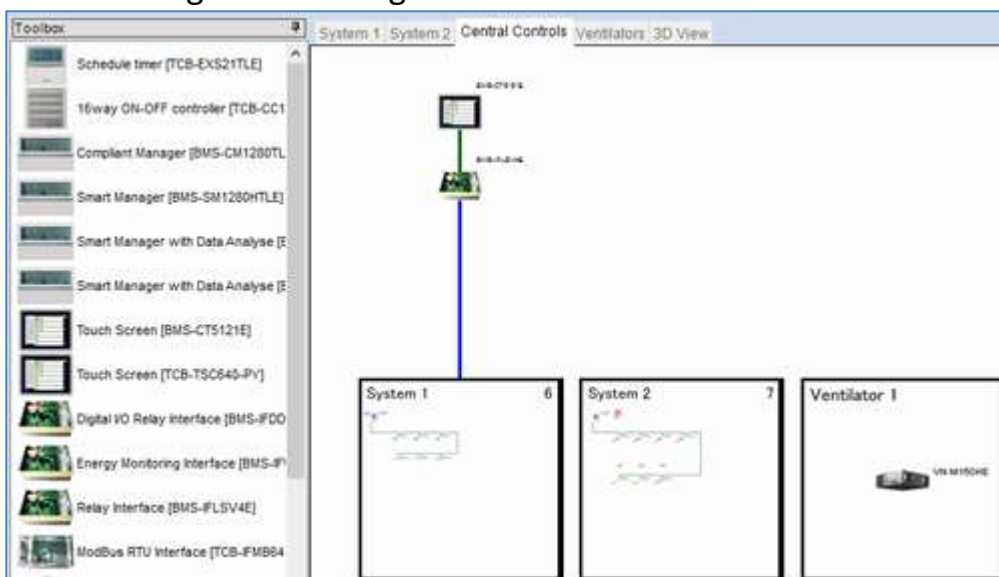
This function links controllers with created systems and Ventilators. The Select Central Controls Tab, system, and Ventilator appear as thumbnails.



Select the controller you want to paste from the toolbox. Drag it to the desired place in the system and then release the mouse cursor to drop it.

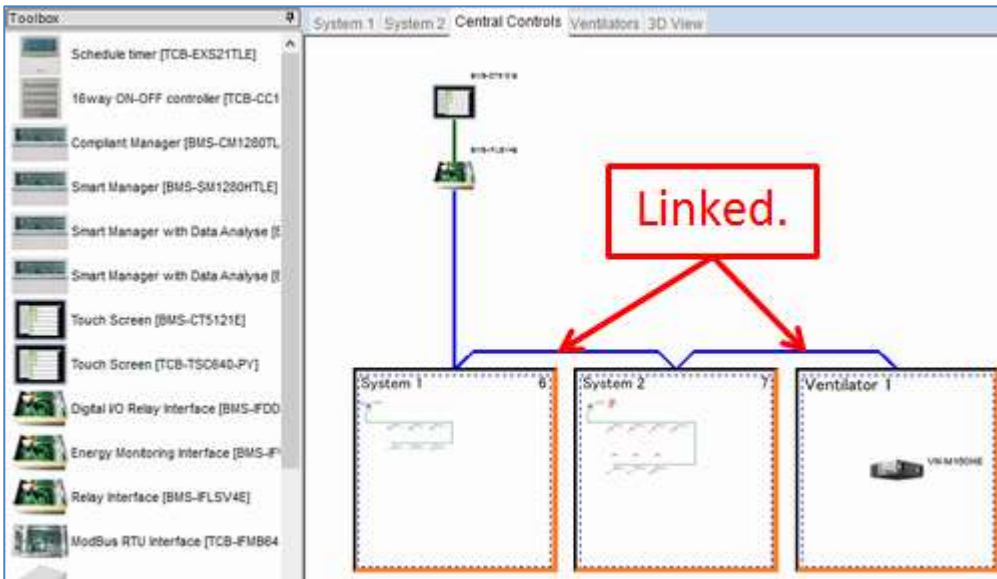
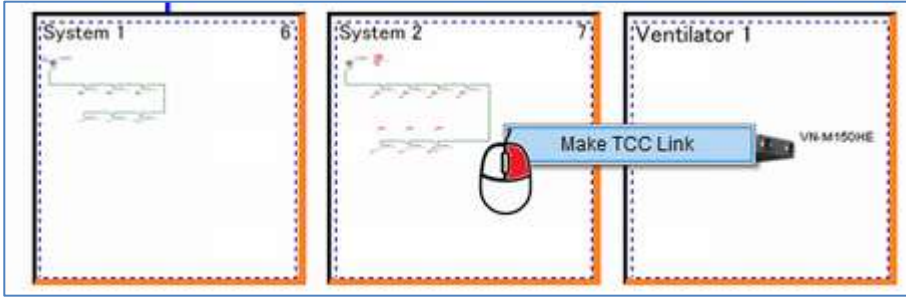


You can configure the setting.





The Select Central Controls Tab, system, and Ventilator appear as thumbnails.



### Address Setting

Right-click on the controller and press Address Setting in the displayed menu.



Set up the address.

Address setting - [Touch Screen]

No	Relay I/F Address	System Address	Indoor Unit Address	Parent Indoor Unit No.	System Name	Outdoor Unit Name	Outdoor Model Name	Indoor Unit No	Floor	Tenant	Room	Indoor Unit Name	Indoor Model Name	Central Address
1					- System 1		MMY-MAP0806HT8P-E	System 1-1	Trn01			MMU-AP0094HP1-E		1
2					- System 1		MMY-MAP0806HT8P-E	System 1-2	Trn01			MMU-AP0094HP1-E		2
3					- System 1		MMY-MAP0806HT8P-E	System 1-3	Trn01			MMU-AP0094HP1-E		3
4					- System 1		MMY-MAP0806HT8P-E	System 1-4	Trn01			MMC-AP0158HP-E		4
5					- System 1		MMY-MAP0806HT8P-E	System 1-5	Trn01			MMC-AP0158HP-E		5
6					- System 1		MMY-MAP0806HT8P-E	System 1-6	Trn01			MMC-AP0158HP-E		6
7					- System 2		MMY-MAP0806FT8P-E	System 2-1	Trn02			MMU-AP0094HP1-E		7
8					- System 2		MMY-MAP0806FT8P-E	System 2-2	Trn02			MMU-AP0094HP1-E		8
9					- System 2		MMY-MAP0806FT8P-E	System 2-3	Trn02			MMU-AP0094HP1-E		9
10					- System 2		MMY-MAP0806FT8P-E	System 2-4	Trn02			MMC-AP0158HP-E		10
11					- System 2		MMY-MAP0806FT8P-E	System 2-5	Trn02			MMC-AP0158HP-E		11
12					- System 2		MMY-MAP0806FT8P-E	System 2-6	Trn02			MMC-AP0158HP-E		12
13					- System 2		MMY-MAP0806FT8P-E	System 2-7	Trn02			MMU-AP0094HP1-E		13
14		31			- Ventilators			Ventilators-1	Vent.			VN-M150HE		14

Automatic setting [OK] [Cancel]

## 2.12 System Check

When outdoor units and indoor units are arranged in a system diagram, all types of data are checked and those results are displayed in lists.

Items exceeding allowable values are displayed in red as errors.

If all items are rated normal, then the background color of the Total System Check line at the top will be blue. If an error item exists, that line will be having a red background.

### Normal

Property	Value	Limit
<b>Total System Check</b>		✓
Outdoor Units	1 Unit	-
Indoor Units	6 Unit	18 Unit
Outdoor Combined Rated HP	8 HP	-
Outdoor Combined Rated Cooling	22.40...	-
Outdoor Combined Rated Heating	25.00...	-
Indoor Combined Rated Cooling	21.90...	-
Indoor Combined Corrected Cooling	18.80...	-
Indoor Combined Rated Heating	24.60...	-
Indoor Combined Corrected Heating	23.73...	-
Indoor Units Combined Capacity C...	8.1	-
Outdoor Combined Capacity Code	8	-
Capacity Ratio	101.3...	50 - 135%
Total Pipe Length	89.00...	300.00 m
Farthest Piping Real Length	64.00...	170.00 m
Farthest Piping Equivalent Length	76.80...	210.00 m
Farthest Piping From 1st Indoor Br...	49.00...	-
Farthest Piping From 1st Indoor Br...	58.80...	90.00 m
Farthest Piping Between Outdoor...	0.00 m	25.00 m
Main Piping Real Length(L1)	15.00...	100.00 m
Main Piping Equivalent Length(L1e)	18.00...	120.00 m
Greatest Indoor Unit Connecting Pi...	15.00...	30.00 m
Greatest Outdoor Unit Connecting...	0.00 m	10.00 m
Greatest Piping Between Branches...	12.00...	50.00 m
Highest Outdoor Unit	0.00 m	-
Lowest Outdoor Unit	0.00 m	-

### There are some errors

Property	Value	Limit
<b>Total System Check</b>		✗
Outdoor Units	1 Unit	-
Indoor Units	6 Unit	18 Unit
Outdoor Combined Rated HP	8 HP	-
Outdoor Combined Rated Cooling	22.40...	-
Outdoor Combined Rated Heating	25.00...	-
Indoor Combined Rated Cooling	44.60...	-
Indoor Combined Corrected Cooling	22.85...	-
Indoor Combined Rated Heating	50.00...	-
Indoor Combined Corrected Heating	29.96...	-
Indoor Units Combined Capacity C...	16.4	-
Outdoor Combined Capacity Code	8	-
<b>Capacity Ratio</b>	<b>205.0...</b>	<b>50 - 135%</b>
Total Pipe Length	114.0...	300.00 m
Farthest Piping Real Length	89.00...	170.00 m
Farthest Piping Equivalent Length	106.8...	210.00 m
Farthest Piping From 1st Indoor Br...	74.00...	-
Farthest Piping From 1st Indoor Br...	88.80...	90.00 m
Farthest Piping Between Outdoor...	0.00 m	25.00 m
Main Piping Real Length(L1)	15.00...	100.00 m
Main Piping Equivalent Length(L1e)	18.00...	120.00 m
<b>Greatest Indoor Unit Connecting Pi...</b>	<b>40.00...</b>	<b>30.00 m</b>
Greatest Outdoor Unit Connecting...	0.00 m	10.00 m
Greatest Piping Between Branches...	12.00...	50.00 m
Highest Outdoor Unit	0.00 m	-
Lowest Outdoor Unit	0.00 m	-

### 2.10.1 Error List

This window displays a list of system error contents and operation advice suited to the working state.

Double-click the displayed error content to select the area causing the error.

so identify the cause and remove all errors.

System	Level	Description	Advice
System 1	Alert	Pipe length is zero (x2)	Please enter a length.
System 1	Critical	Indoor Unit Required Cooling(1)	Indoor Unit has Corrected Cooling of 6.08 kW witch is less tha...
System 1	Critical	Capacity Ratio is too High	The Capacity Ratio is 205 %, which exceeds the allowed maxi...
System 1	Critical	Indoor unit connecting piping	The Maximum real length of indoor unit connecting piping is 3...
System 2	Critical	No Controllers	No local Remote & no central Remote

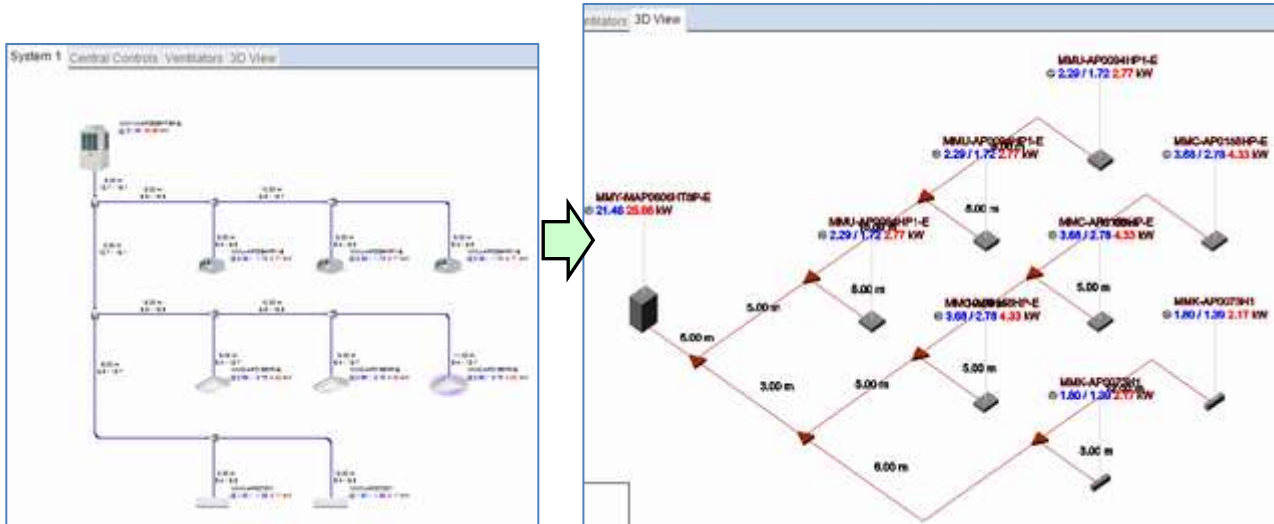


## 2.13 3D View

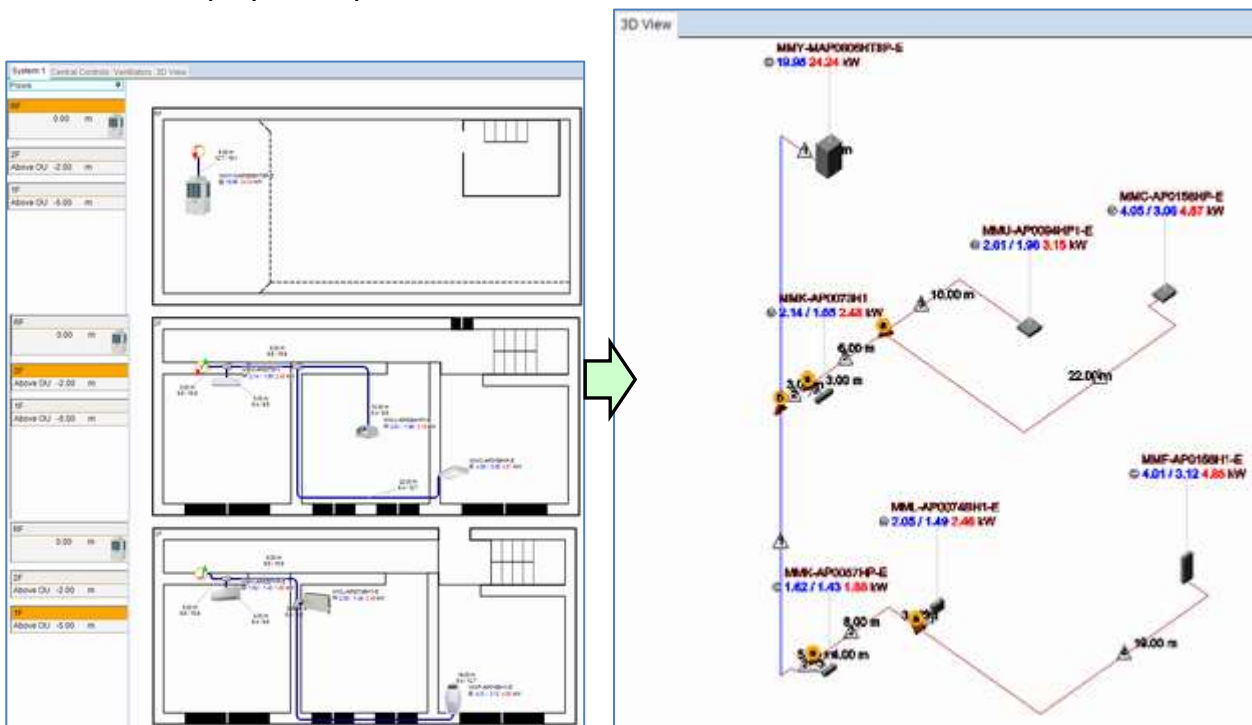
System 1 Central Controls Ventilators **3D View**

Display the system diagram in 3D view.

If no floor is set or floors are displayed collectively

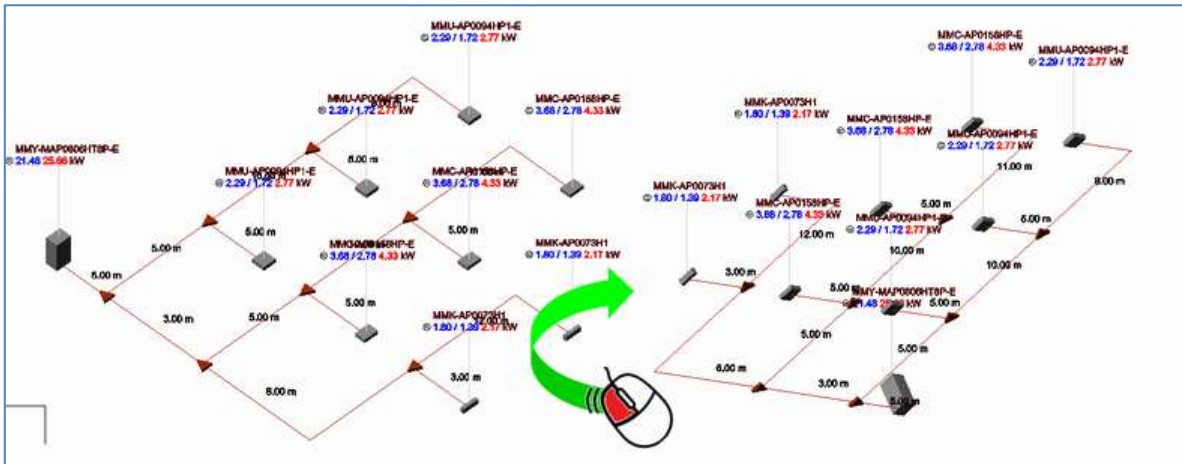


If floors are displayed in split view

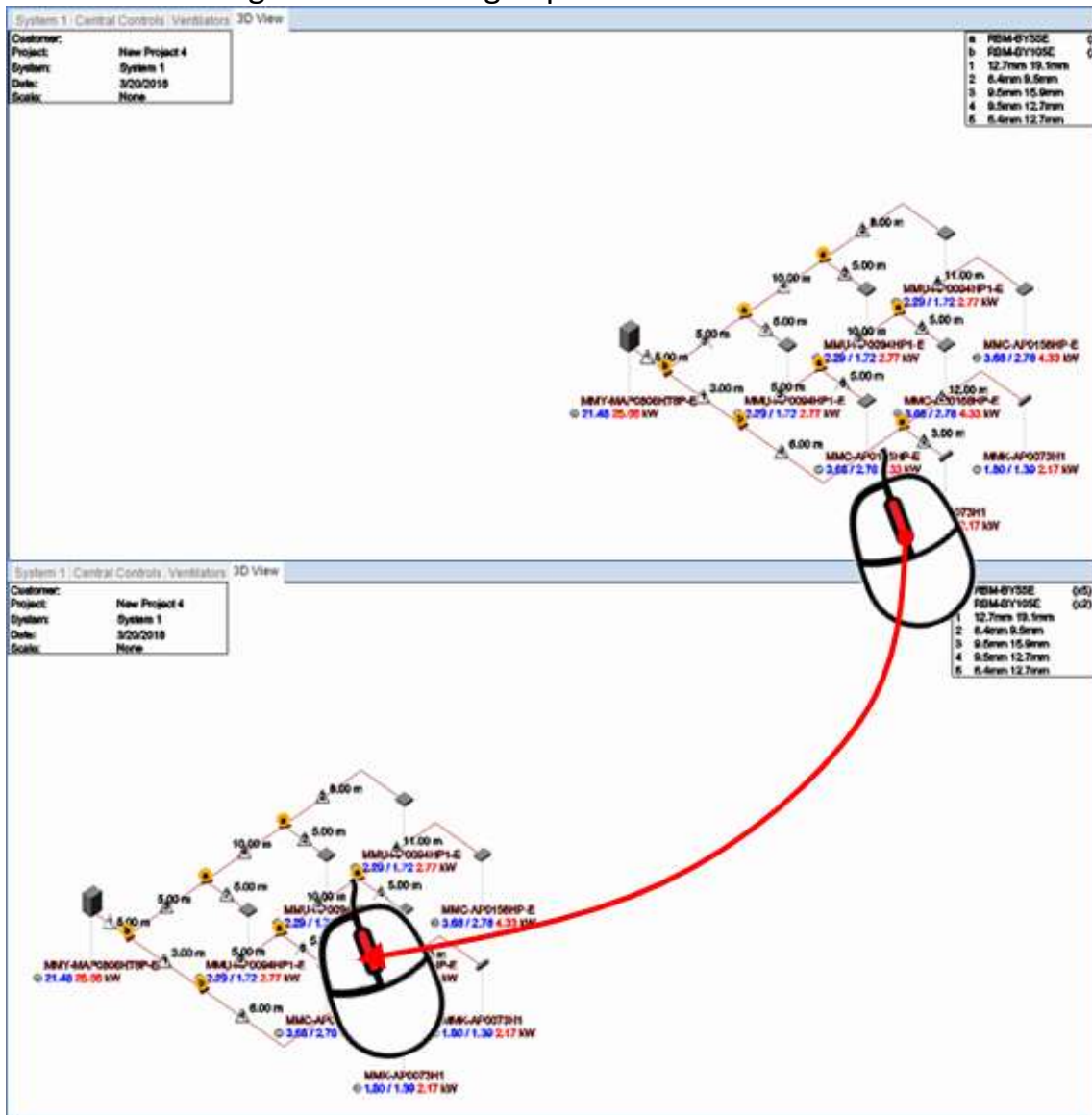


With 3D view, the following operations are possible, using the mouse.

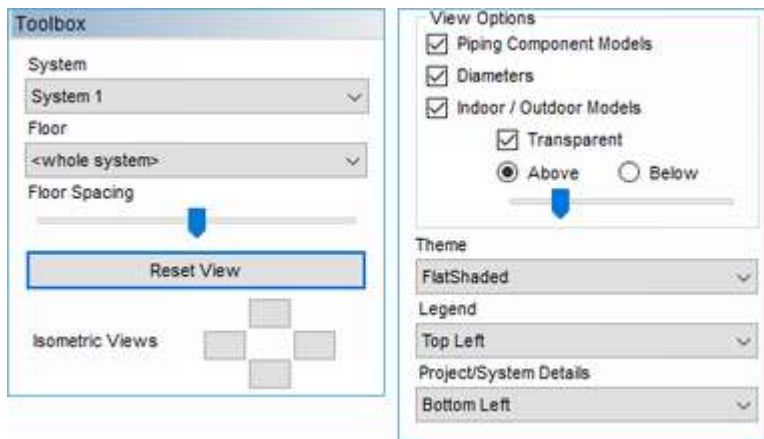
Left Button Drag : It can rotate freely.



Wheel Button Drag : Move entire group



## Toolbox



Systems : Select the System.

Floor : Display only the selected floor. *\*If floors are displayed in split view*

Floor Spacing : Adjust the height of the floor. *\*If floors are displayed in split view*

Reset View : Reset the display to its default state.

Isometric Views : Switch the viewpoint using the four buttons on the right.

View Options


Piping Component Models : Display the fitting mark *(\*1)* .

Diameters : Display the pipe diameter mark *(\*1)* .

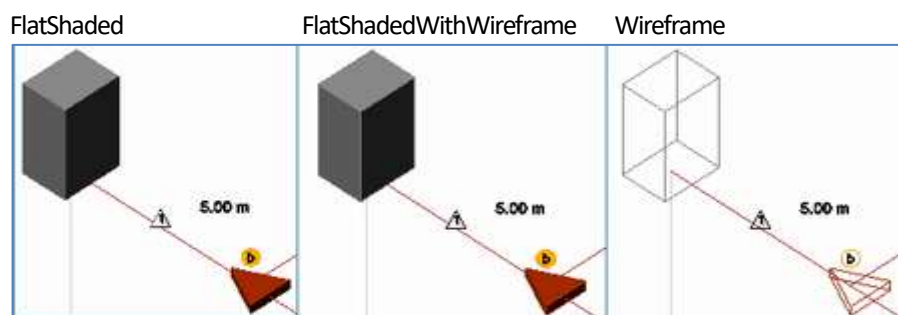
Indoor / Outdoor Models : Display Model Name of the indoor unit and the outdoor unit.

Transparent : Display Model Name and Capacity transparently.

Above / Below : Change the display position of Model Name and Capacity.

Use  to adjust the distance to the component.

Theme : Selects a theme.



Legend : Select the display position of Legend.

Project /System Details : Select the display position of Project/System Details.

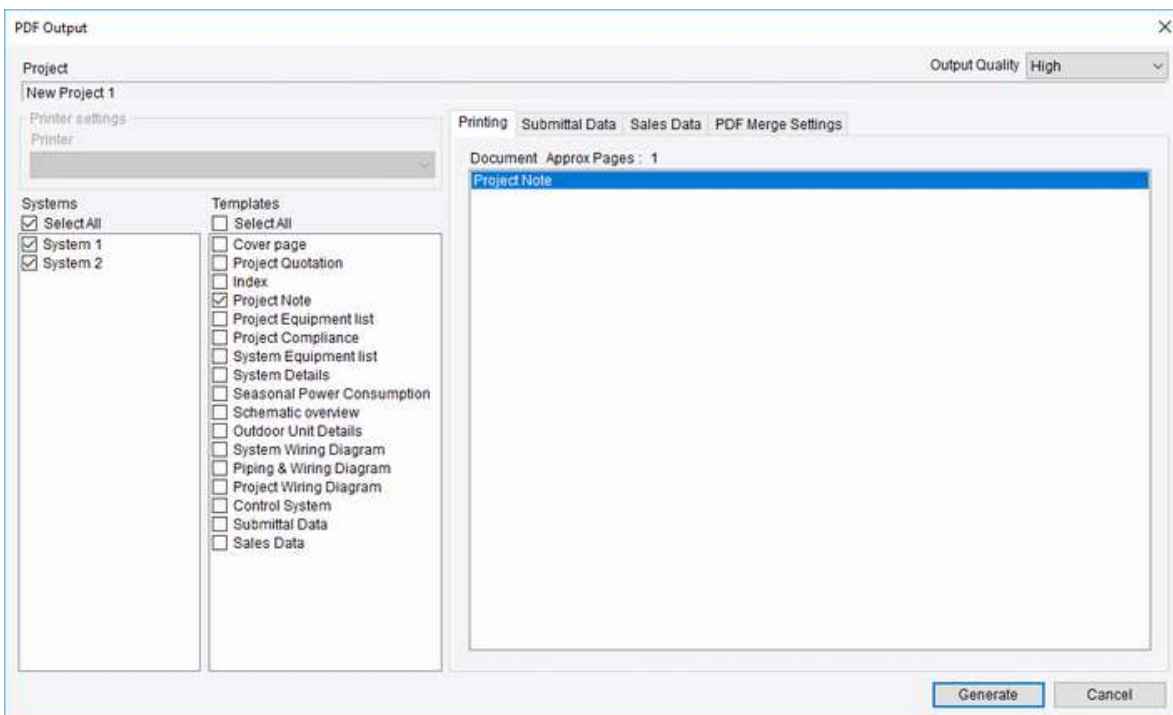
*\*1* Aggregate character or number in Legend

<b>a</b>	<b>RBM-BY55E</b>	<b>(x5)</b>
<b>b</b>	<b>RBM-BY105E</b>	<b>(x2)</b>
<b>1</b>	<b>12.7mm 19.1mm</b>	
<b>2</b>	<b>6.4mm 9.5mm</b>	
<b>3</b>	<b>9.5mm 15.9mm</b>	
<b>4</b>	<b>9.5mm 12.7mm</b>	
<b>5</b>	<b>6.4mm 12.7mm</b>	

## 2.14 Output Report

### 2.14.1 Print / Excel Output / PDF Output

This dialog box is displayed by pressing the Excel Output button in the icon ribbon.



Printer :

Selects the printer to output data.

Templates :

Selects the print items to be output.

Printing :

Displays the print items to be output.

Submittal Data :

Displays the submittal data.

Sales Data :

Displays the sales data.

PDF Merge Settings :

Adds a PDF document and merges it with the finally output PDF file.

**Generate**

A message confirming whether to print with the specified printer is displayed.

## 2.14.2 AutoCAD Export

AutoCAD Export

Step 1 - Select which system to export

This System (All floors)

Entire Project

System Name	System Type
System 1	Super Modular Multi System (SMMS-e)
System 2	Super Heat Recovery Multi System (SHRM-e)
Ventilators	

Step 2 - Select which drawing to export

Diagram

Piping

Wiring

Piping + Wiring

Schematic

Step 3 - Select export location/file names

Save to folder: C:\Users\TCC\Documents

Filename Prefix: New Project 1

Type of export data: DXF (AutoCAD R14)

Filename	System	Floor	Page No	Done
New Project 1_System 2_Drawing.dxf	System 2		1	<input type="checkbox"/>

Step 4 - Generate DXF exports

Generate AutoCAD DXF Export

Close

Step 1-Select which system to export :

Selects the Export Items.

Step 2 –Select which drawing to export :

Diagram

Select either the piping system only/wiring only or both.

Schematic

Piping system as drawn in piping view

Step 3 – Select export location/file names :

Set the Export Conditions.

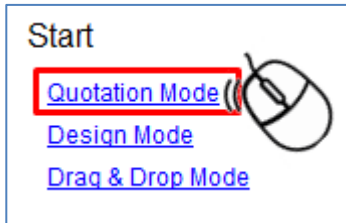
Generate AutoCAD DWG Export

Executes DXF (or DWG) files.

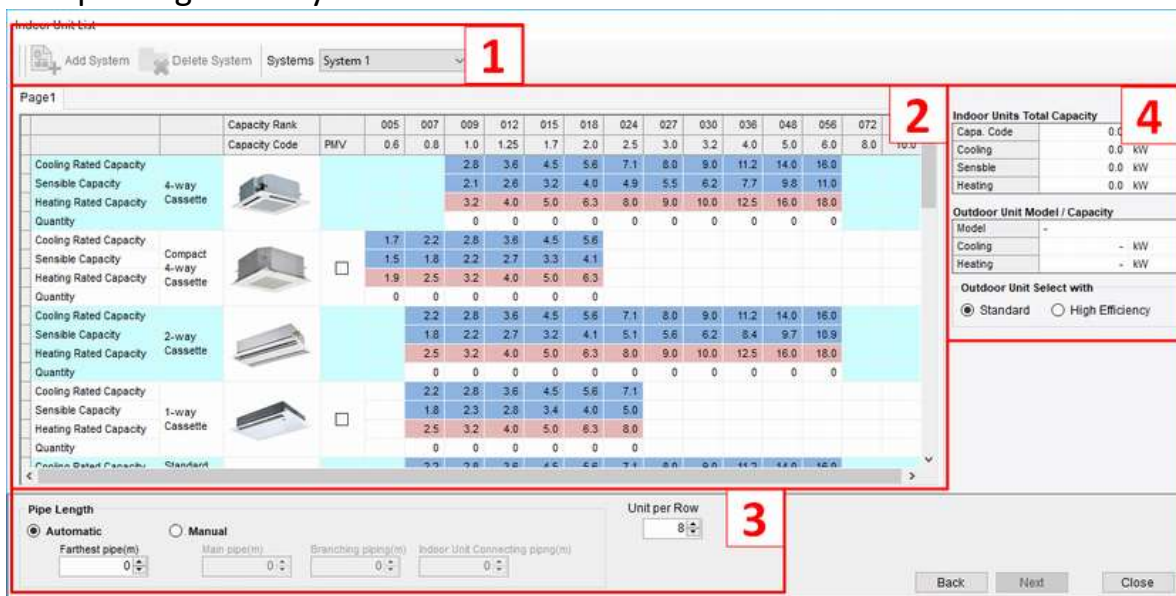
# 3. Quotation Mode

This mode automatically creates a system diagram simply by specifying the outdoor unit type and number of indoor units.

Depending on the type and number of indoor units, outdoor units with the appropriate capacity are automatically selected, and piping/wiring is carried out.




1. When starting a project in Quotation Mode, the New Project window is displayed. Set the necessary items and click the “OK” button.
2. Display the Indoor Unit List window. Indoor units displayed in the list will switch to indoor units that can be selected depending on the system.



- 1) Add, delete, or select a system.
- 2) Enter the number of indoor units in the system.
- 3) Set the pipe length and the number of indoor units per row.
- 4) Display information on the selected outdoor unit.



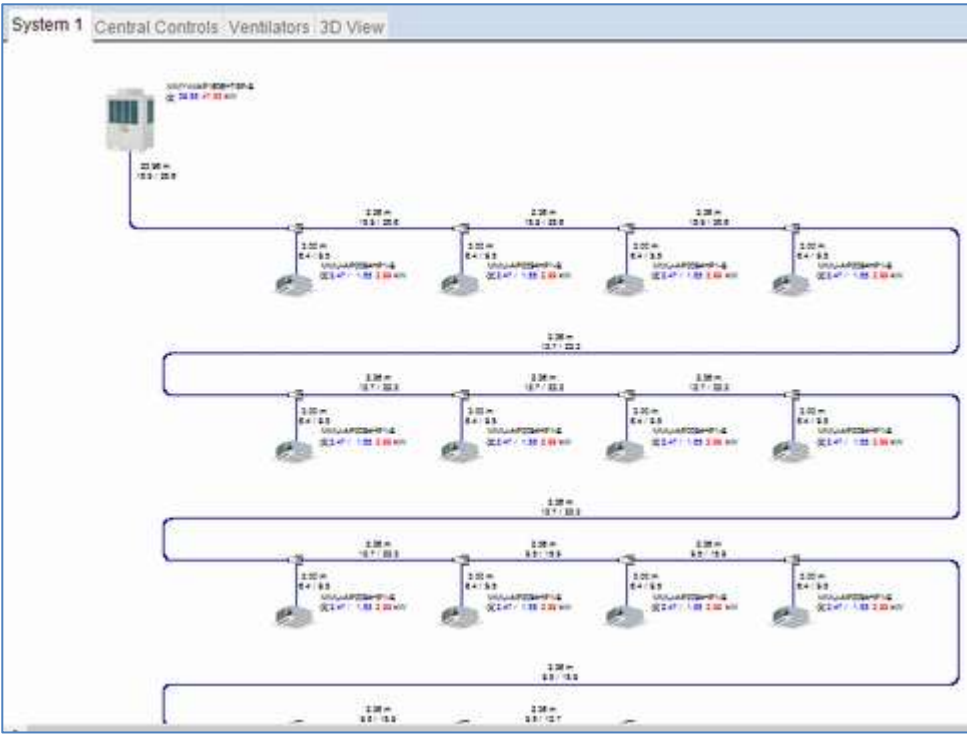
Enter the necessary items and click Next to generate a system diagram. You can specify the selection conditions.

Capacity Code	PMV	0.6	0.8	1.0
				2.8
				2.1
				3.2
				16

**Pipe Length**  
 Automatic  
 Farthest pipe(m)

**Unit per Row**

**Next**



The subsequent operation is the same as Drag & Drop Mode.

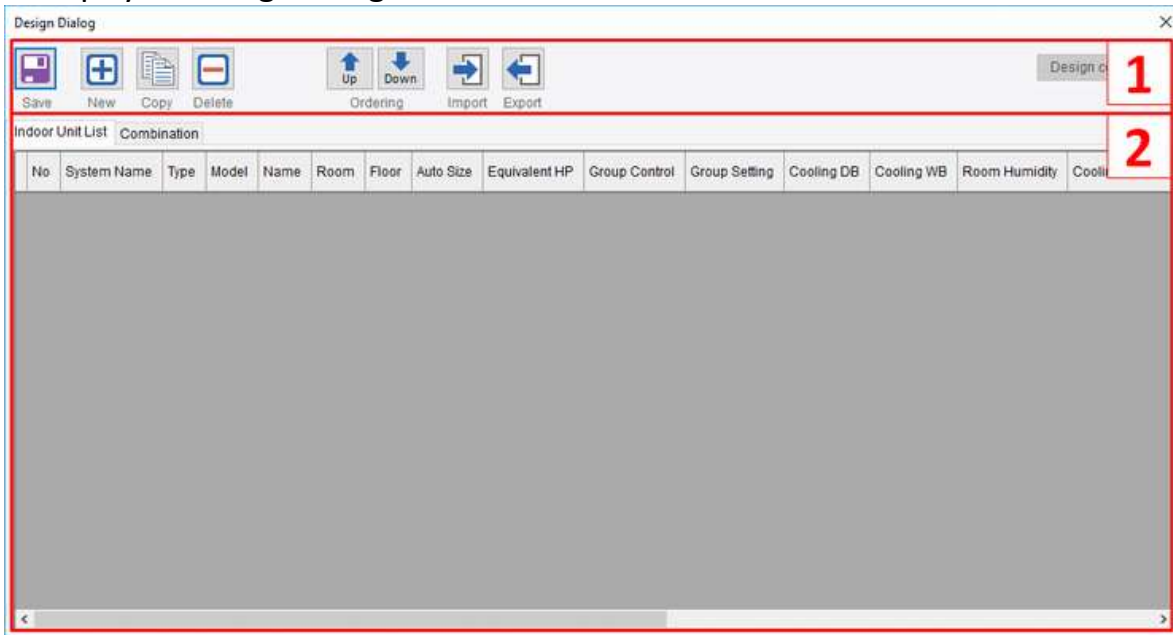
## 4. Design Mode

This mode creates multiple system diagrams simultaneously by pre-registering and combining all indoor units and outdoor units used in multiple systems.



1. When starting a project in Design Mode, the New Project window is displayed. Set the necessary items and click the “OK” button.

2. Display the Design dialog window.



1) Save, add component/system, copy, delete, sort, import/export menu

2) Registered component list view

Indoor Unit List tab :

Manage a list of indoor units not belonging to the system yet.

Combination Tab :

Add outdoor units and register indoor units to be combined.



1) Click the “New” button.

The Indoor Unit Property window is displayed, so after selecting the indoor unit type, edit other items if required and click the “OK” button.

Setting of Indoor Units (Manual Setting)

Location  
Room: [none] Rooms

Indoor Unit  
Type: 4-way Cassette  
Model: MMU-AP0184HP1-E (5.0kW)  
Name: Indoor-1 Fan Speed: High

Required Capacity  
Require Cooling: 0.0 kW  
Require Sensible: 0.0 kW  
Require Heating: 0.0 kW

Design Conditions  
Cooling DB: 27.0 °C  
Cooling WB: 19.0 °C  
Relative Humidity: 47 %  
Heating DB: 20.0 °C

Capacity Information  
Capacity Code: 2  
Rated Cooling: 5.000 kW  
Rated Sensible: 4.000 kW  
Rated Heating: 6.300 kW  
Cooling Capability: 3.000 kW  
Sensible Capability: 3.000 kW  
Heating Capability: 3.000 kW  
Corrected Cooling: 3.000 kW  
Corrected Sensible: 2.000 kW  
Corrected Heating: 3.000 kW

Controls  
 Individual  Header  Follower  
Header Remote: [none]  
Schedule Timer: [none]  
Follower Remote: [none]

PMV list  
 Connect  
Elevation (relative to Indoor Unit): 0.00 m  
Pipe length (From Indoor Unit): 0.00 m

Pipe Length  
Pipe Length: 0.00 m  
Pipe Equivalent Length  
Equivalent Length Ratio: Auto  1.25  
or Number of Bends: 90°  
Long radius: [none]  
or Equivalent Length: 0.00 m

Ceiling Panel  
Panel Model: RBC-U31PGR(W)-E  
Elevation (relative to Outdoor unit) Above Outdoor Unit: 0.00 m

Options  
Accessories  
Model Description Qty  
[none]  
Rotation angle (+Right, -Left): 0° Default

OK Cancel

2) The indoor units earlier selected in the Design Dialog window are displayed.  
Add the necessary number of units.

Design Dialog

Save New Copy Delete Up Down Import Export Design condition

Indoor Unit List Combination

No	System Name	Type	Model	Name	Room	Floor	Auto Size	Equivalent HP	Group Control	Group Setting	Cooling DB	Cooling WB	Room I
1		4-way Cassette	MMU-AP0184HP1-E	Indoor-1			<input type="checkbox"/>	2		Individual	27.0	19.0	

Design Dialog

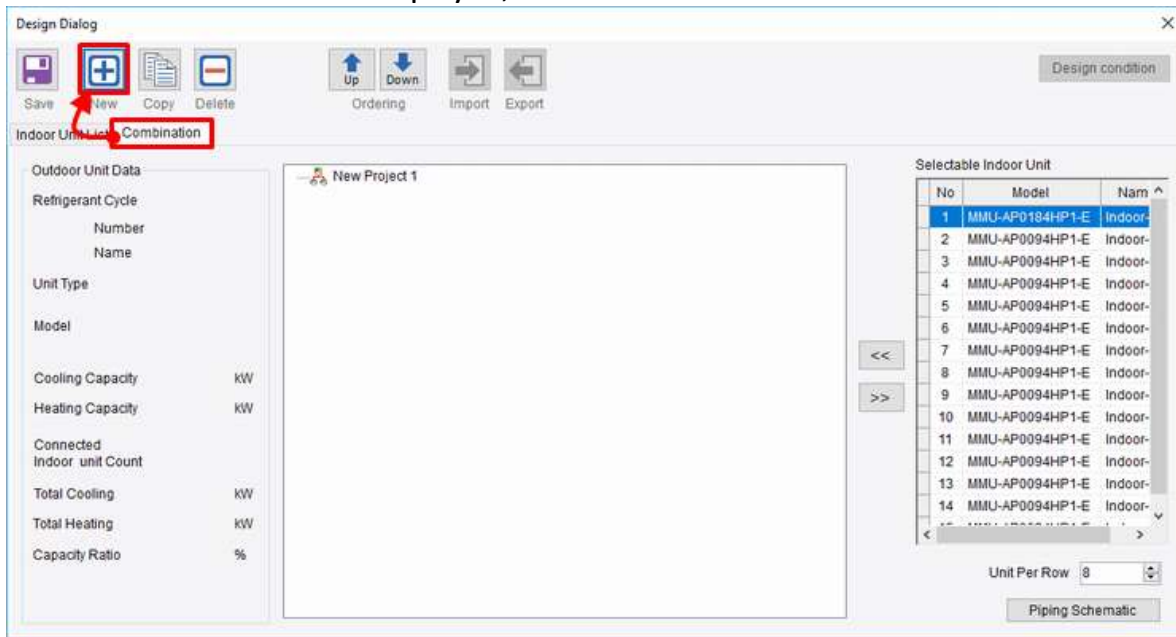
Save New Copy Delete Up Down Import Export Design condition

Indoor Unit List Combination

No	System Name	Type	Model	Name	Room	Floor	Auto Size	Equivalent HP	Group Control	Group Setting	Cooling DB	Cooling WB	Room I
1		4-way Cassette	MMU-AP0184HP1-E	Indoor-1			<input type="checkbox"/>	2		Individual	27.0	19.0	
2		4-way Cassette	MMU-AP0094HP1-E	Indoor-2			<input type="checkbox"/>	1		Individual	27.0	19.0	
3		4-way Cassette	MMU-AP0094HP1-E	Indoor-3			<input type="checkbox"/>	1		Individual	27.0	19.0	
4		4-way Cassette	MMU-AP0094HP1-E	Indoor-4			<input type="checkbox"/>	1		Individual	27.0	19.0	
5		4-way Cassette	MMU-AP0094HP1-E	Indoor-5			<input type="checkbox"/>	1		Individual	27.0	19.0	
6		4-way Cassette	MMU-AP0094HP1-E	Indoor-6			<input type="checkbox"/>	1		Individual	27.0	19.0	
7		4-way Cassette	MMU-AP0094HP1-E	Indoor-7			<input type="checkbox"/>	1		Individual	27.0	19.0	
8		4-way Cassette	MMU-AP0094HP1-E	Indoor-8			<input type="checkbox"/>	1		Individual	27.0	19.0	
9		4-way Cassette	MMU-AP0094HP1-E	Indoor-9			<input type="checkbox"/>	1		Individual	27.0	19.0	
10		4-way Cassette	MMU-AP0094HP1-E	Indoor-10			<input type="checkbox"/>	1		Individual	27.0	19.0	
11		4-way Cassette	MMU-AP0094HP1-E	Indoor-11			<input type="checkbox"/>	1		Individual	27.0	19.0	
12		4-way Cassette	MMU-AP0094HP1-E	Indoor-12			<input type="checkbox"/>	1		Individual	27.0	19.0	
13		4-way Cassette	MMU-AP0094HP1-E	Indoor-13			<input type="checkbox"/>	1		Individual	27.0	19.0	
14		4-way Cassette	MMU-AP0094HP1-E	Indoor-14			<input type="checkbox"/>	1		Individual	27.0	19.0	
15		4-way Cassette	MMU-AP0094HP1-E	Indoor-15			<input checked="" type="checkbox"/>	1		Individual	27.0	19.0	

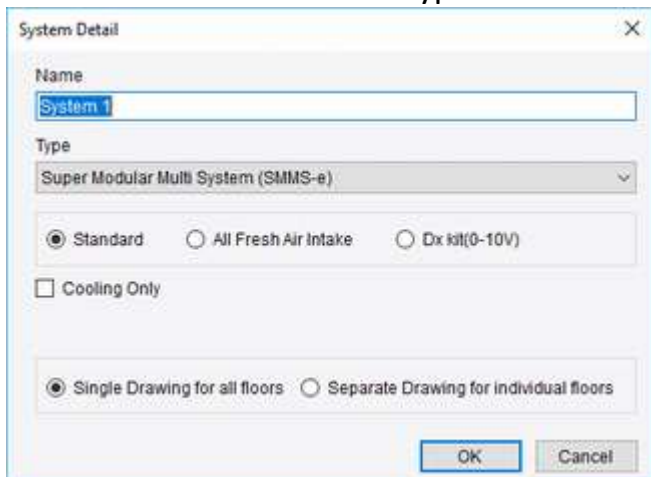
3) click the Combination tab,

The Combination tab is displayed, so click the “New” button.



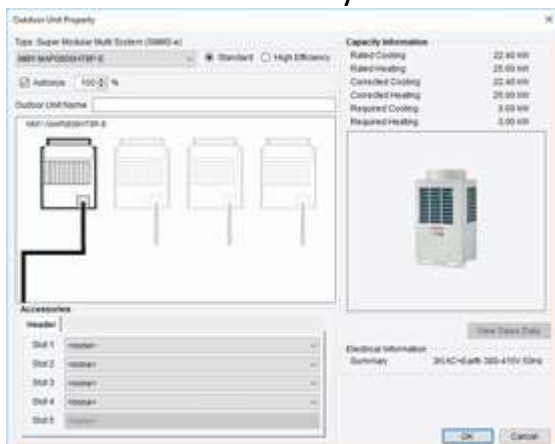
4) The System Detail window is displayed,

so select the outdoor unit type and click the “OK” button.

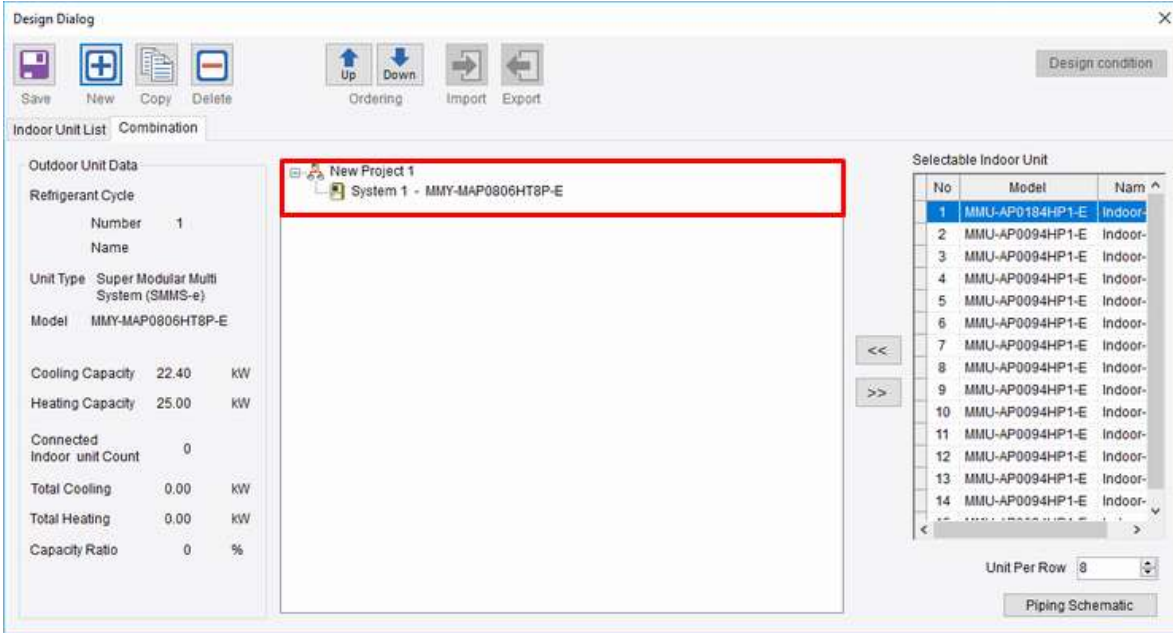


5) The Outdoor Unit Property window is displayed,

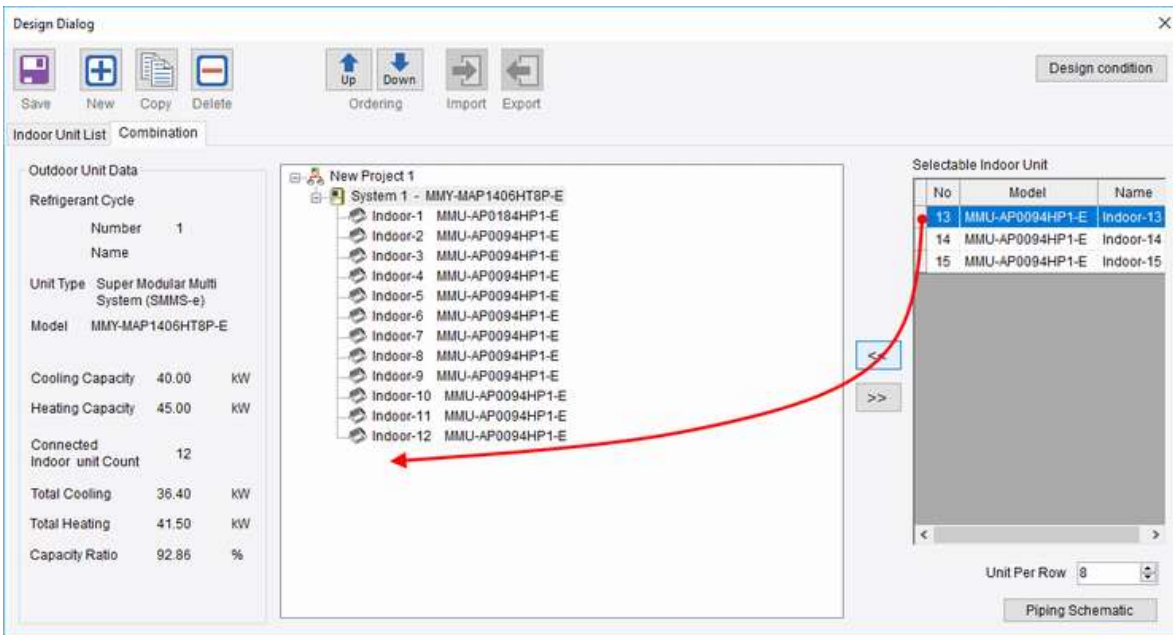
so enter the necessary items and click the “OK” button.



6) The outdoor units earlier selected in the Design Dialog window are displayed.

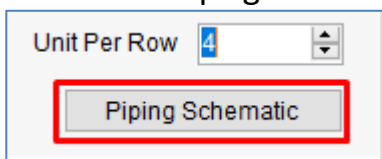


7) While the outdoor unit is selected, click the “<<” button and link the indoor unit to the outdoor unit.

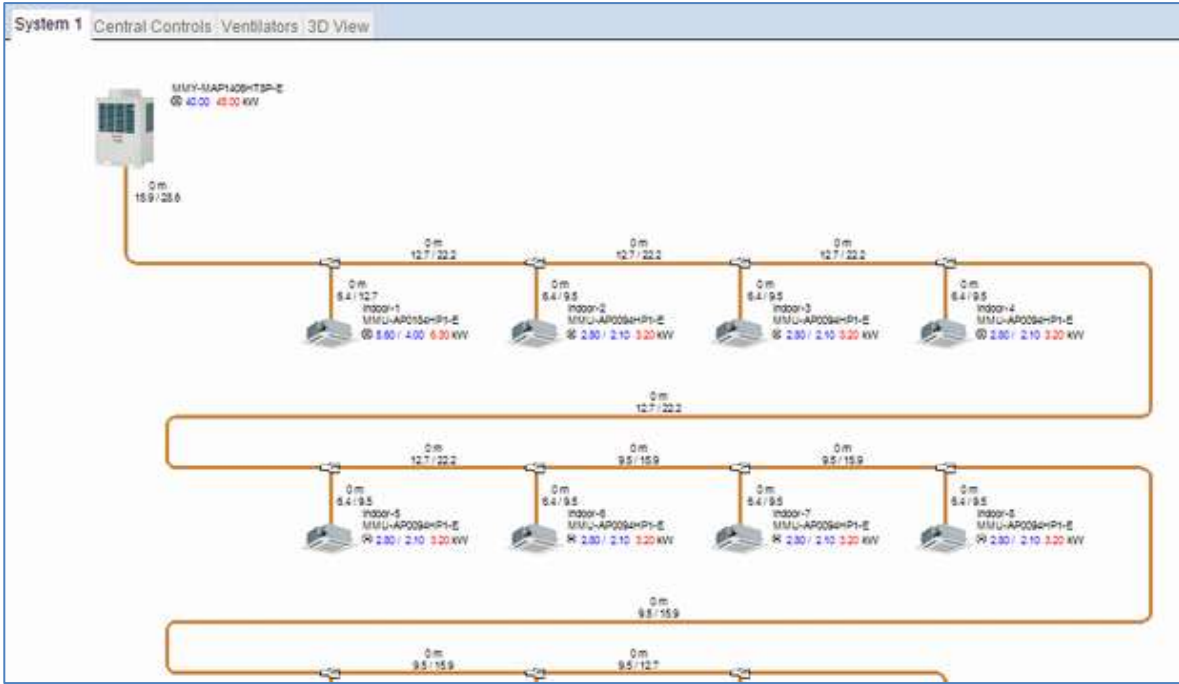


Repeat to combine the number of necessary indoor units.

8) When the indoor and outdoor units are linked, click the “Piping Schematic” button.



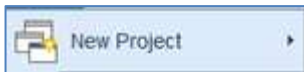
Changes to the Selection Tool Main Screen Window and it is then operated in Drag & Drop mode.



The subsequent operation is the same as Drag & Drop Mode.

# 5. Menus

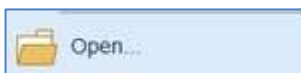
## 5.1 File Menu



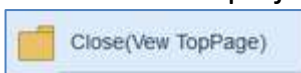
Starts a new project. (Each mode)



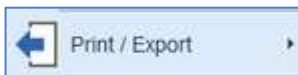
Saves the current project. / Renames and saves an existing project file.



Loads a project file.



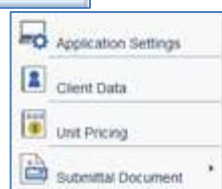
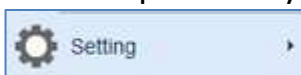
Closes the current project and displays the Selection Tool start page.



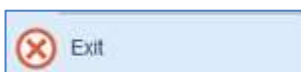
Prints a project or displays a menu to export it to a different format.



Opens the System Import window to select the file to be imported.



Sets the Selection Tool's operating environment, client data or unit pricing.



Closes the Selection Tool.

## 5.2 Ribbon Menus

### 5.2.1 Home



#### Properties

Project : Opens the Project Property window.

System : Opens the System Property window.

#### System Operation

New System : Adds a new system to the current project by Drag & Drop mode.

Duplicate : Adds a system with the same content as the selected system.

#### System Editors

Edit List : Opens the Edit List window.

Design Dialog : Opens the Design Dialog window.

#### Edit

Cut : Cuts arranged indoor units and pipes. (Shortcut s: Ctrl + X)

Copy : Copies arranged indoor units and pipes. (Shortcut s: Ctrl + C)

Paste : Pastes cut or copied data. (Shortcut s: Ctrl + Y)

Undo : Undoes the previous operation. (Shortcut s: Ctrl + Z)

Redo : Returns to the status before the Undo operation. (Shortcut s: Ctrl + Y)

#### Piping

Piping View: This mode displays the refrigerant piping.

Automatic Piping : Connects piping automatically.

Clear : Clears all piping and accessories in the system diagram.

#### Wiring

Wiring View : This mode displays the operation wiring.

#### Zoom

IN / Out : Zoom-in / out view of the system diagram.

Fit Page : Adjusts the size so that the whole diagram can be viewed.

#### Back ground Image

Load a background image.

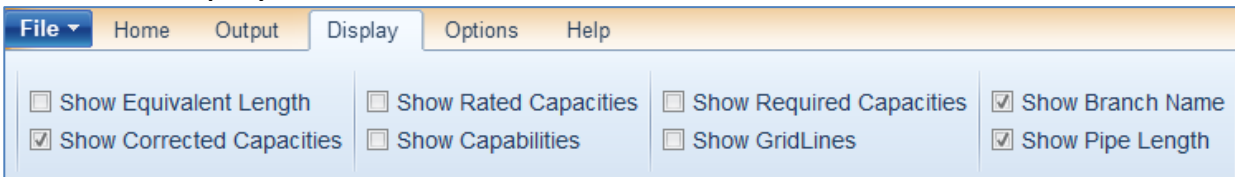


## 5.2.2 Output



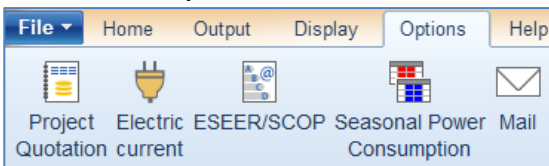
- Print : Opens the Print Window.
- Excel Output : Opens the Output Window.
- PDF Output : Opens the Output Window.
- AutoCAD Export : Opens the Export Window.

## 5.2.3 Display



Select the information to display on the screen.

## 5.2.4 Options



- Project Quotation : Opens the Project Quotation Window.
- Electric Current : Opens the Electrical Information Window.
- ESEER / SCOP : Opens the ESEER / SCOP Setting Window.
- Seasonal Power Consumption: Opens the Seasonal Power Consumption Window.
- Mail: Opens the Mail Window

## 5.2.5 Help



- Manual : Displays the manual in a PDF file.
- About : Confirm your system version.

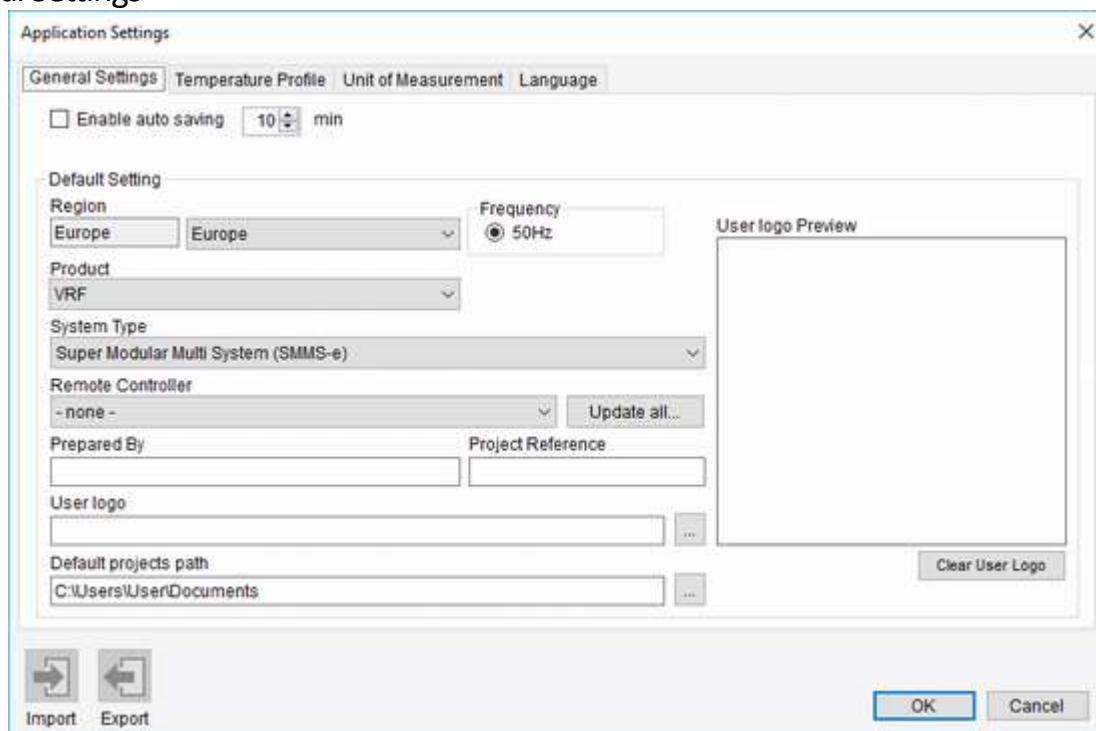
# 6. Settings

## 6.1 Application Settings



This sets all Selection Tool options.

### General Settings



#### Enable auto saving :

Click to enable auto saving. Also, specify the saving interval (in minutes).

#### Region :

Left Side : Fixed setting depending on the country of distribution.

This cannot be changed.

Right Side : Select the region to be used.

#### Frequency :

Select the frequency.

This may not have to be selected depending on the region.

#### Product :

The default setting is selected when creating a new project.

#### System Type :

The default setting is selected when creating a new project.

#### Remote Controller :

Set as the header when creating an indoor unit.


You can use the "Update all" button to update the remote controller of the whole system.

#### Prepared By, Prepared By, Project Reference :


Enter them if necessary.



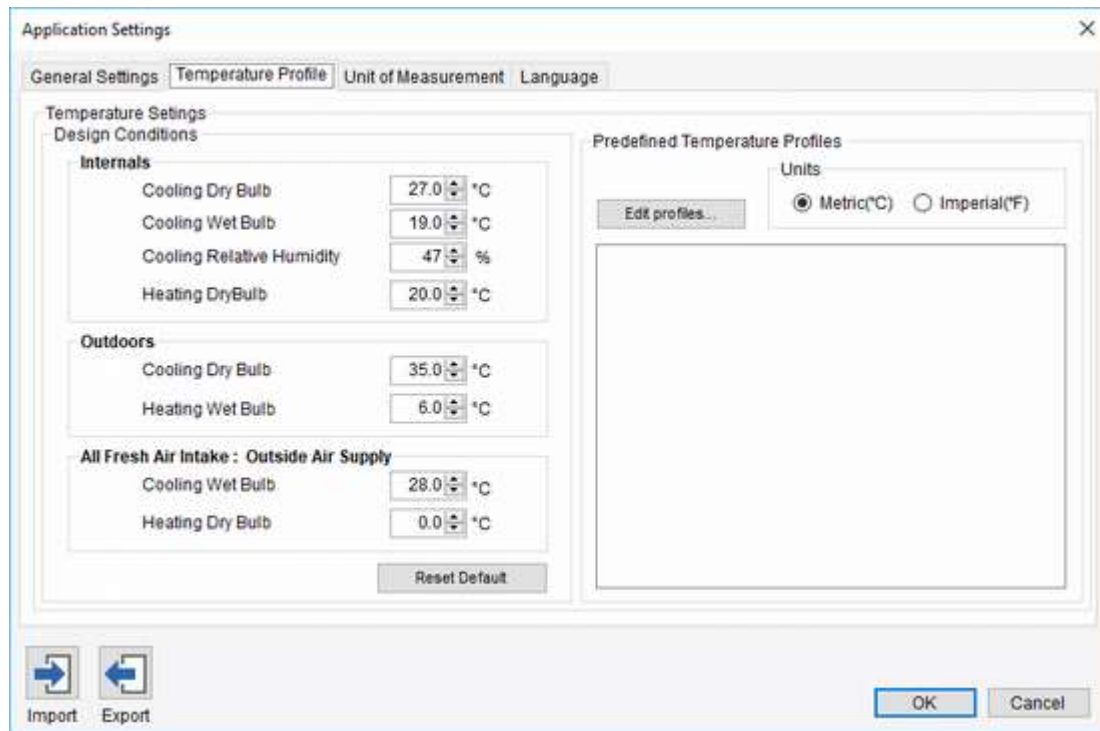
User logo :

Displays a place to save the file specified as the User logo.  
file selection window opens by clicking the  button.

Default projects path :

Specify the default project file save destination.  
folder selection window opens by clicking the  button.

## Temperature Profile



Temperature Settings :

Set the Each Temperature.

When the indoor dry bulb temperature and wet bulb temperature are entered  
in the general temperature settings,  
the relative humidity is automatically calculated.

Predefined Temperature Profiles :

Select the pre-registered Profile and apply it to the Design Conditions.

Use Metric/Imperial to filter.

You can also edit from "Edit profiles....".

Import :

Import the design condition you set up elsewhere.

Export :

Export the set design condition.

## Unit of Measurement

Unit Type	Unit	Decimals
Temperature	°C	1
Capacity	kW	2
Pipe length	m	2
Pipe Diameter	mm	1
Refrigerant Charge	kg	3
Air Flow	m <sup>3</sup> /h	0
Static Pressure	pa	0
Currency	€	2
Limit Density	kg/m <sup>3</sup>	3

This sets units such as the temperature, capacity, and length.

\*Decimals : Set the number of decimal places.

## Limit Density

General Settings	Temperature Profile	Unit of Measurement	Limit Density	Language	Auto Naming
Concentration Limit :					
Refrigerant Type R410A	0.390	kg/m <sup>3</sup>			
Refrigerant Type R32	0.061	kg/m <sup>3</sup>			
<input type="button" value="Reset to defaults"/>					

This set the concentration limits of R410A and R32 refrigerant in a room.

## Language

General Settings	Temperature Profile	Unit of Measurement	Language
Language			English
* It will be reflected after restart.			

This sets the language.

Press the drop button and select the language to be used from the drop-down list.

## Auto naming

General Settings | Temperature Profile | Unit of Measurement | Limit Density | Language | Auto Naming

Auto name IUs when creating  
Default indoor unit name  
IDU

Auto-number IUs when pasting

Auto name at Prepared by

### Auto name IUs when creating

Click enable auto naming. IDU name will added when adding indoor unit.

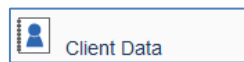
### Auto-number IUs when pasting

Click enable Auto numbering in Indoor unit.

### Auto name at Prepared by

Click enable to add name in user registration menu to "Prepared by" in a report.

## 6.2 Client Data



Register client data.

User Client Data

Save New Cancel Delete

Company Name

Company Name

Add1

Add2

Add3

Town/City

County

Post Code

Country: United Kingdom

Contact

TelNo

Email

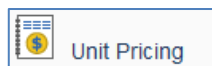
Locations/Sites

Description	Add1	Town/City	TelNo
-------------	------	-----------	-------

Import Export

Close

## 6.3 Unit Pricing



Register the prices of outdoor units, indoor units and accessories per client.

Unit Pricing X

Client  
 <default price list> Client Database

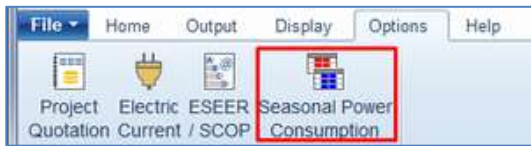
Search  Clear Reset price to default Reset ALL prices to default Zero ALL prices

Show All  
 Indoor/Outdoor Unit  
 Accessories

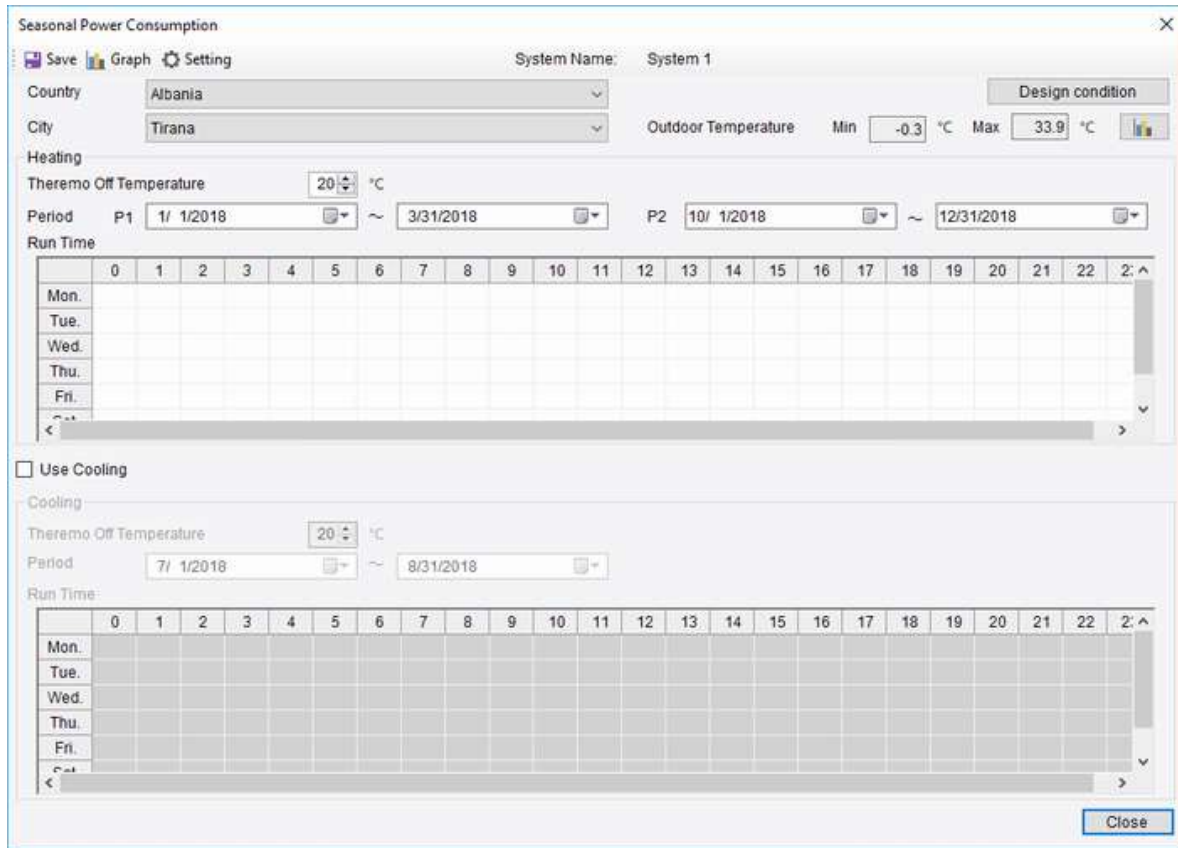
Model Number	Type	Description	Item Price ( € )
MMU-AP0094HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0094HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0124HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0124HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0154HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0154HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0184HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0184HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0244HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0244HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0274HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0274HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0304HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0304HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0354HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0354HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0484HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0484HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0554HP1-E	Indoor Unit	4-way Cassette	0.00
MMU-AP0554HP1-TR	Indoor Unit	4-way Cassette	0.00
MMU-AP0094HP-E	Indoor Unit	4-way Cassette	0.00

Client price differs from default price list

# 7. Seasonal Power Consumption



Display the power consumption window for the duration of the displayed system.



Country , City : Select the Country and city.

Design Conditions : Call the Design Condition setting of the selected system.

Outdoor Temperature : Display the outside air temperature of the selected city.

 : Display the Weather Data graph of the selected city.

## Heating

Thermo Off Temperature : Specify a temperature at which Thermo turns off.

Period : Set the heating period to P1 and P2.

Run Time : Define the heating time for each day of the week.

## Use Cooling , Cooling :

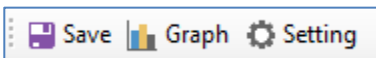
To use cooling, select it and then specify each item in the same way as heating.

\* Only one type of cooling operation period is available.

## Input example

The screenshot shows the 'Seasonal Power Consumption' window with the following settings:

- System Name:** System 1
- Country:** Finland
- City:** Vantaa
- Outdoor Temperature:** Min -14.6 °C, Max 27.0 °C
- Heating Theremo Off Temperature:** 18 °C
- Heating Period P1:** 1/ 1/2018 ~ 3/31/2018
- Heating Period P2:** 10/ 1/2018 ~ 12/31/2018
- Run Time (Heating):** A grid showing red blocks for heating operation from 9:00 to 22:00 on Monday, Tuesday, and Thursday, and from 9:00 to 18:00 on Wednesday and Friday.
- Use Cooling:** Checked
- Cooling Theremo Off Temperature:** 22 °C
- Cooling Period:** 6/15/2018 ~ 8/31/2018
- Run Time (Cooling):** A grid showing blue blocks for cooling operation from 9:00 to 22:00 on Monday, Tuesday, and Thursday, and from 9:00 to 18:00 on Wednesday and Friday.



Save : Save data.

Graph : Display graph.

Setting : Display the setting window.

## Setting

The 'Rate charge Type Setting' dialog box shows the following configuration:

- Rate charge Type Setting:** Block charge Type Setting
- Charge Type:** Two-stage Setting (selected)
- High:** 0.00
- Low:** 0.00
- Day Grid:** A grid where all cells are highlighted in yellow, indicating that the low rate applies to all hours of all days.
- Set clicked hour to:** Low (selected)

Specify the unit price and charge type of electricity.

Graph : Display each graph after computation.

\* The display will take some time.

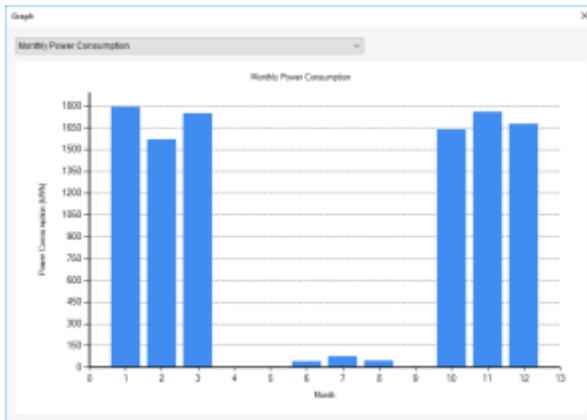
Average Daily Temperature



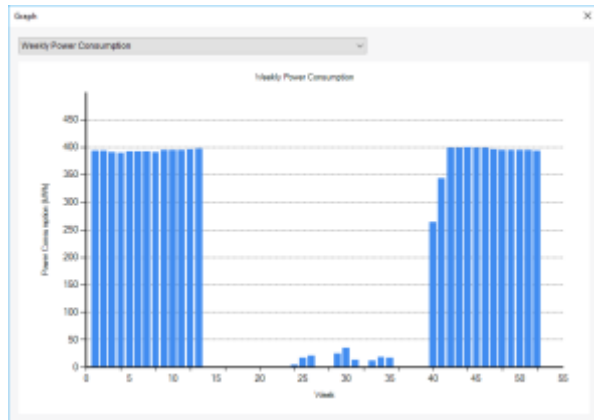
Operation Days



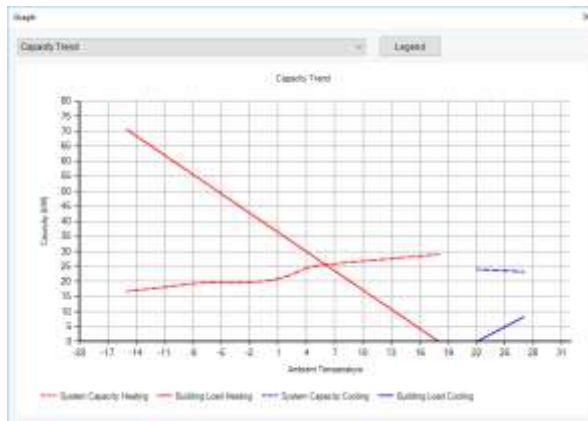
Monthly Power Consumption



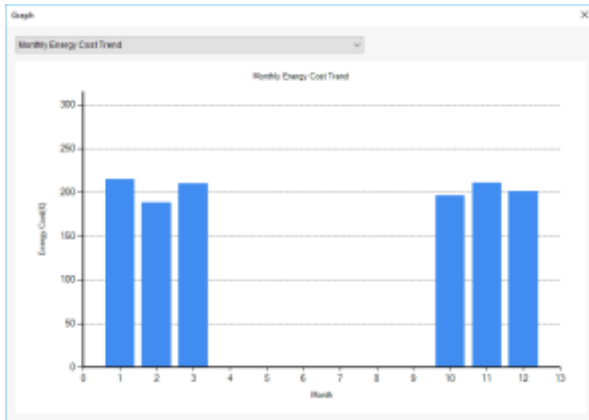
Weekly Power Consumption



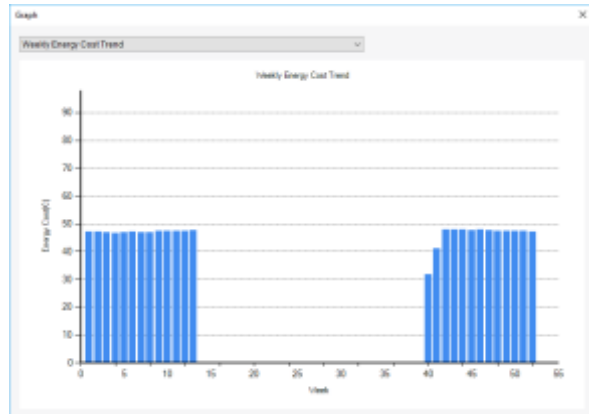
Capacity Trend



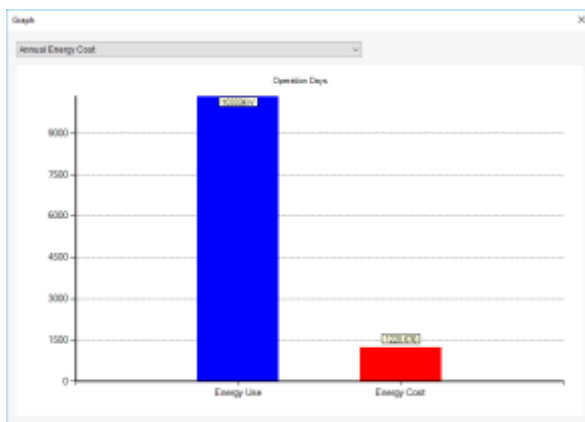
### Monthly Energy Cost Trend



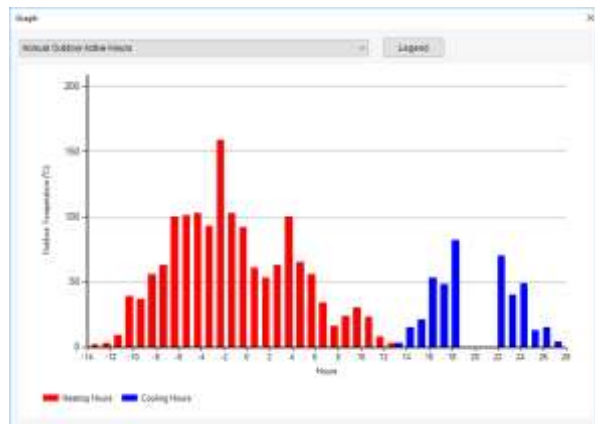
### Weekly Energy Cost Trend



### Annual Energy Cost



### Annual Outdoor Active Hours





# 8. Other features

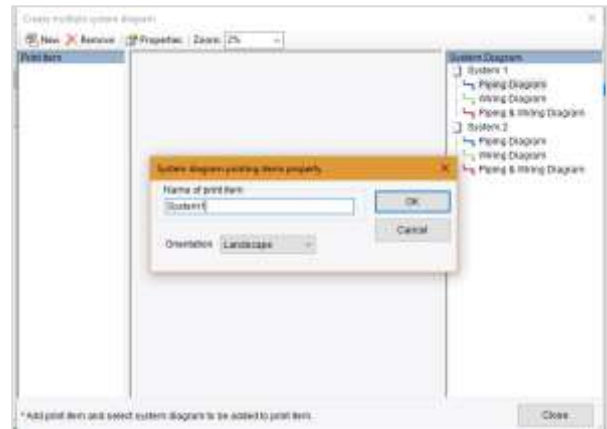
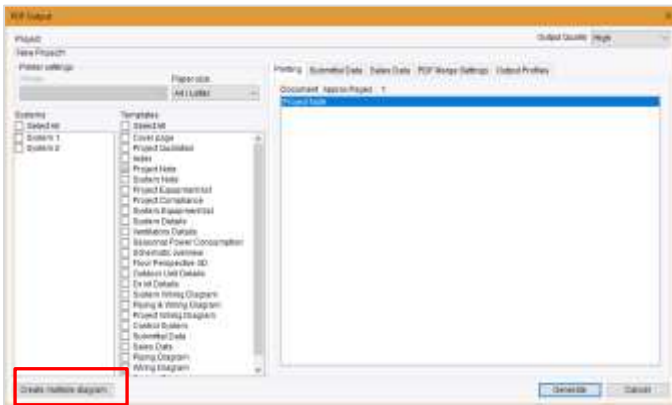
## 8.1 Report output

### 8.1.1 Multi system output

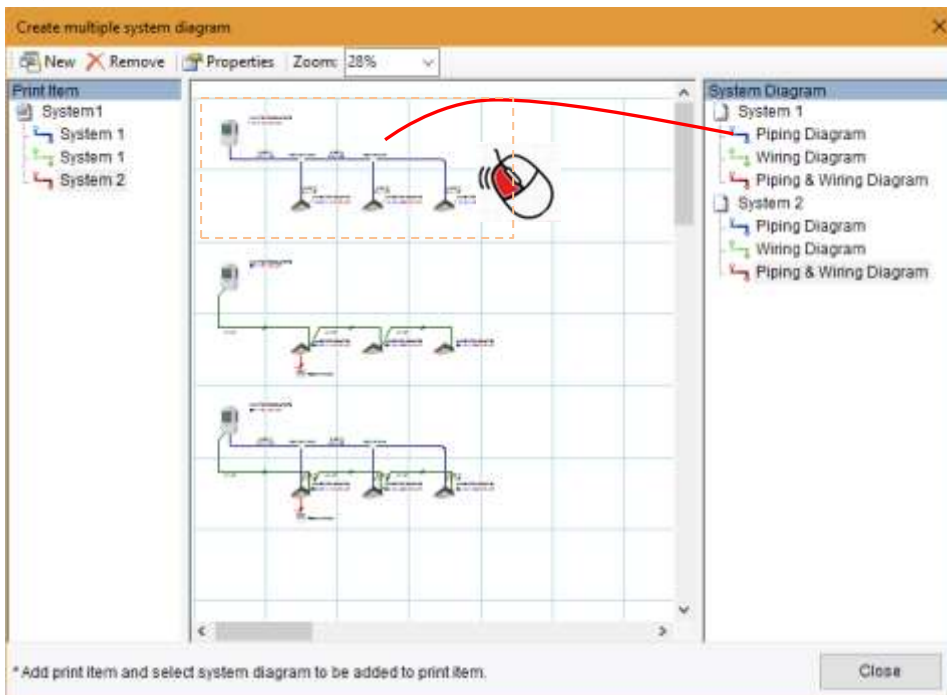
Create several drawings in one page in report output.

Click “create multiple diagram” button to open dialog.

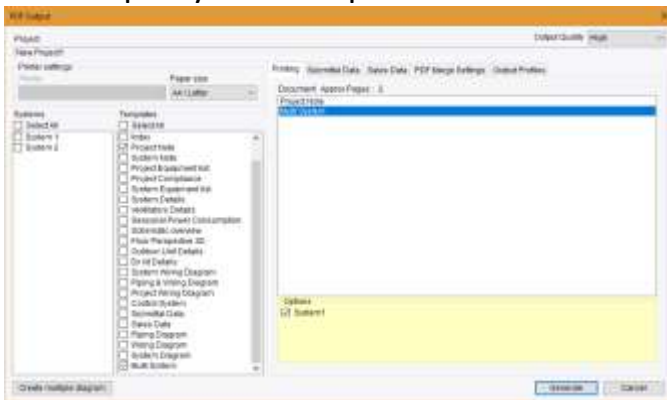
Click New to open dialog and enter name



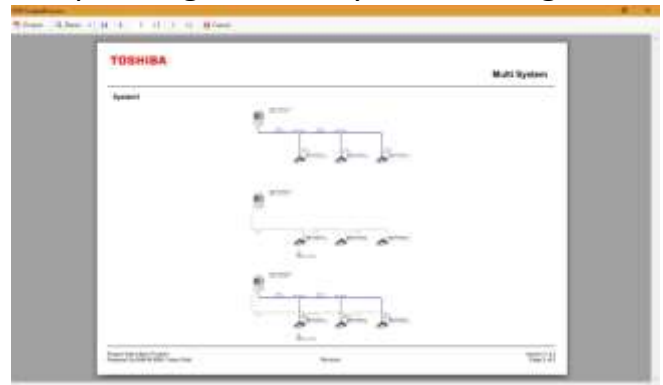
Drag and Drop a system to drop area



Click Multi system in template and  
Click output systems in option



Output image of multi system drawing



Selection Tool Mode  
Operation Manual

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3<sup>rd</sup> Edition Created in January 2020

Created by: TOSHIBA CARRIER CORPORATION