Haier Project Express

Multi-Language Version 5.1.X

Thank you for using Haier Project Express software.
This manual contains notes of correct use of the software.
Be sure to read this manual carefully before using.
Keep this manual at hand for easy reference.

Transcendent
Overall
Professional
Training
To Trainer
Haier
CAC Training Center

CONTENTS

Haier 1
Introduction 4
1.1 Software Statement 4
1.2 Introduction of the software 4
How to Use this Software 6
2.1 Run the software 6
2.2 Work interface 6
2.2.1 Title bar 7
2.2.2 Menu bar 7
2.3 Before start the new project 7
2.3.1 Config the software 8
2.4 Project information 12
2.5 Adding room information 13
2.6 Adding indoor units 16
2.7 Adding outdoor units 18
2.8 Piping Diagram 21
2.9 Wiring 28
2.10 Central Control Diagram 30
2.11 Report 32
2.12 Input (import) & Output (export) with Excel 33

Introduction

1.1 Software Statement

This software is special for Haier Commercial Air Conditioning Company. It's mainly for projects of air conditioning designing assistants and bid demonstration.

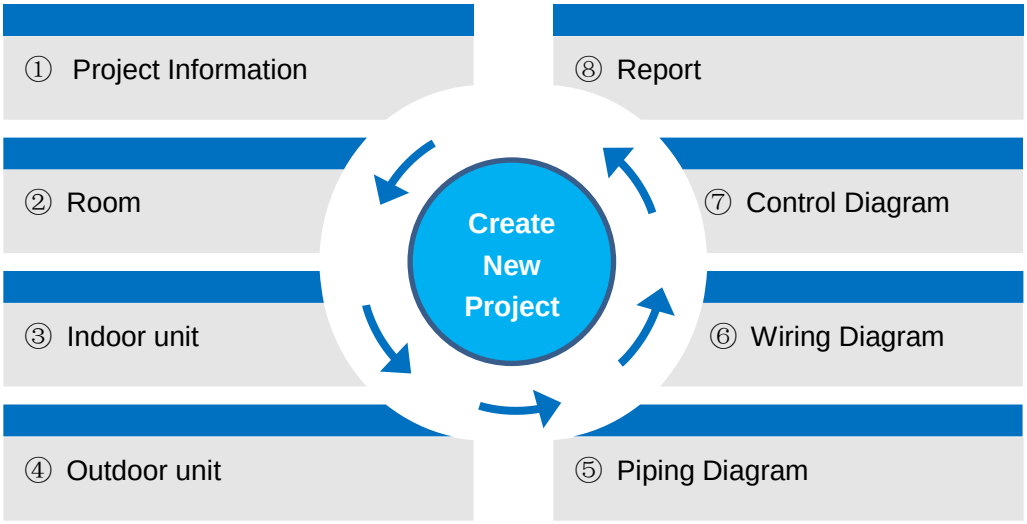
1.2 Introduction of the software

This software supports Multi-languages makes project designing and air conditioning selection easily.

You can do the following things with this software:

1, To create a project model and input the general information.
2, To select the indoor unit and outdoor unit and match them together.
3, To draw piping diagram and wiring diagram for each system.
4, To draw a diagram of central control, or to draw a diagram of BMS control.
5, After finishing your project, you can either save your project as a project-file (.hir) or make report files (.rtf, .pdf, excel or DXF file).
6, This software can automatically generate statistic report of all kinds of materials.

Steps to create a new project as follows:



(1) Input project information—
To create a new project, you should set some parameters of your project before your selection.

(2) Add rooms --- If necessary, you can input the data of room here, such as name, type, area, unit load, designed load and indoor units, etc. Or you can skip this step and input the name of room directly when you select indoor units.

(3) Add indoor units --- to select the models of indoor units being used in

the project. And you can also set controller, indoor temperature, and drop with outdoor units at the same time.

(4) Add outdoor units --- to choose the models of outdoor units being used in the project, to set the connections of indoor units and outdoor units and to set the max capacity combination between indoor and outdoor units.

(5) Draw piping diagrams --- to draw the corresponding piping diagrams for each system. It can also choose the branch pipes, gas/liquid pipes and gather pipes automatically. If it is necessary, you can input the length of all kinds of pipes and compute the corrected capacity;

(6) Draw wiring diagrams --- to draw the corresponding wiring diagrams for outdoor units respectively. You can also set the model of indoor unit's controller (including wired control, wireless control and group control) and input the length of all kinds of cables.

(7) Draw a central control diagram--- to draw a central-controller diagram or a BMS control diagram for current project

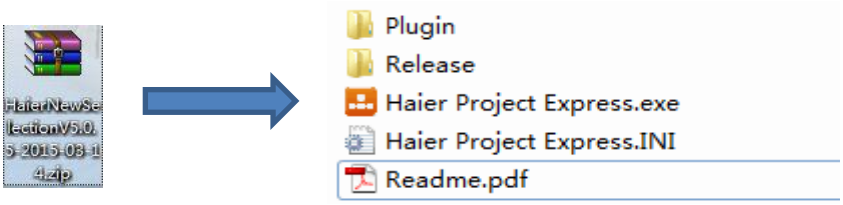
(8) Generate reports --- you can choose the contents of reports based on your needs, then the system can compute and output all kinds of reports forms.

You can skip step1-2-3-4, into **piping diagram directly,** the selection of IDU, ODU and Room are **all included in this step**.

How to Use this Software

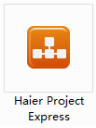
2.1 Run the software

This software is a free install version. You can download it from the Haier B to B Website.
Once the software has been downloaded in your computer, double-click the file to extract the software.

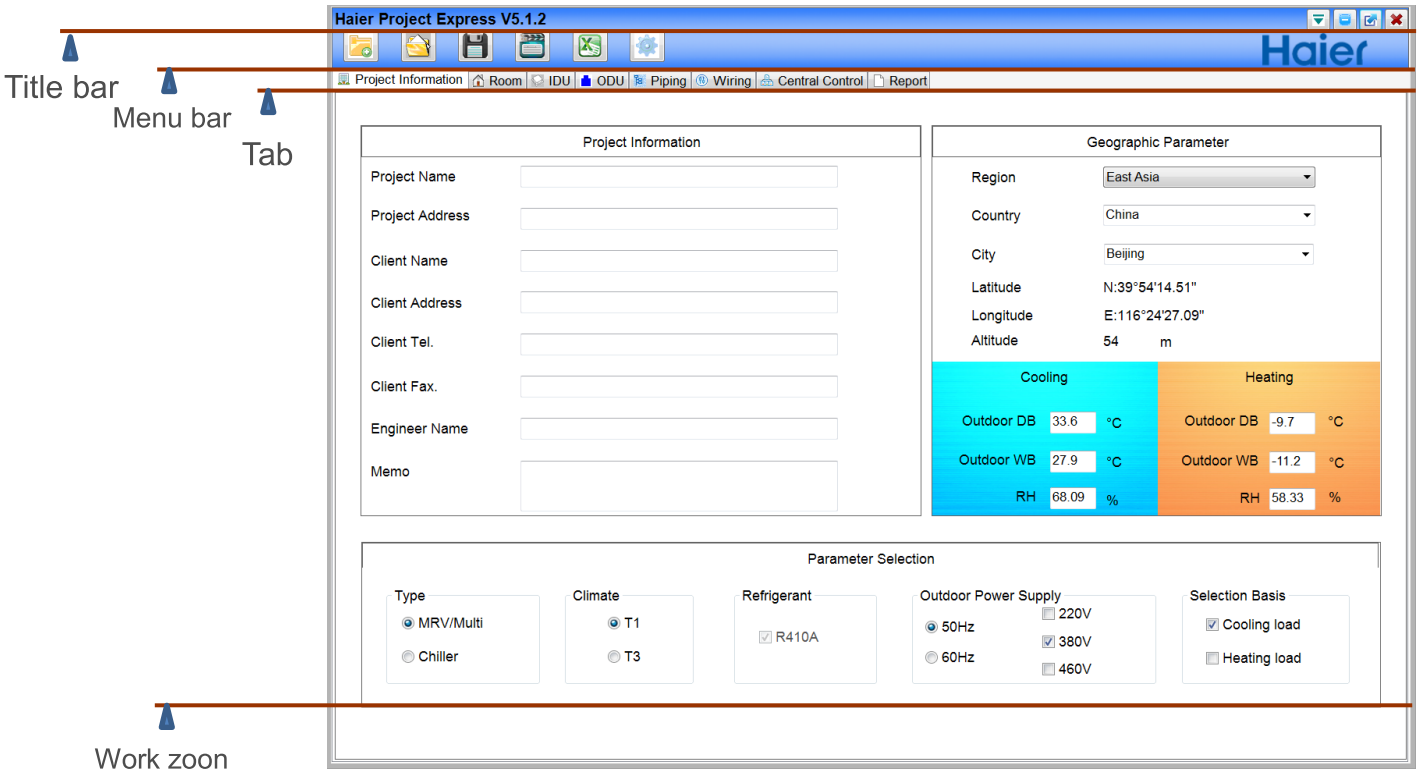


- Plugin --- necessary framework for this Selection Software
  (You may need to install framework by yourself when this software fails to install it automatically. And you can find it in this folder.)
- “release”--- executable program folder
- “Haier Project Express.exe”--- click it to start the software
- “Readme.pdf”---this document, Operation Manual for this software

2.2 Work interface

Double click 

, you will be into this work interface.

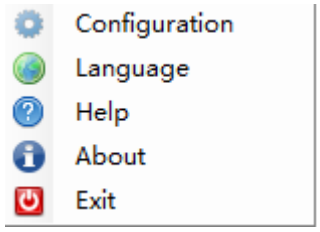


2.2.1 Title bar

It is located on the top of the interface. It shows the current software's name and version.

There are four buttons on the right of title bar

Open the main menu:



- "Configuration" --- set unit, prices (input & output), name prefix and other (the storage path of the project report, you can set a new path or use the path provided by the system to save your project.)
- Language—adjust language
- "Help" --- open this operation manual
- "About" --- related information about the version of this software
- Exit—close this software

Minimize window

Maximize window

Close this window

2.2.2 Menu bar

Create a new project

Open an existing project

Save current project

Save current project as another name or path

Input or output project information by Excel file.

The same as Title Bar configuration.

Add one by another window

Copy the selected data

Cancel or reset

Sort all the equipment

Delete the selected data

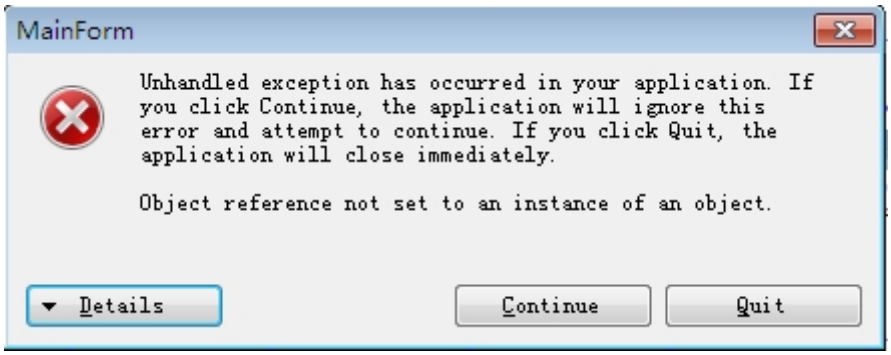
This software is characterized by the usual function buttons in the Menu Bar. They are arranged differently in quantity and order in different tab interfaces. What's more, when you put your mouse on the button, it will suggest you the main functions of the present interface.

2.3 Before start the new project

➢ You are strongly recommended to config this software before first running. You can

set language, equipment price, unit and default project saving path.

- You need to restart the software again to update the program data after configuration.
- **When there is an error in the software as follow, don't save the project**. Just close the software and reload the last saved project and try another way, if you can not solve the problem please contact Haier for help(catch screen, and send it with project file to Haier).



2.3.1 Config the software

2.3.1.1 Set language

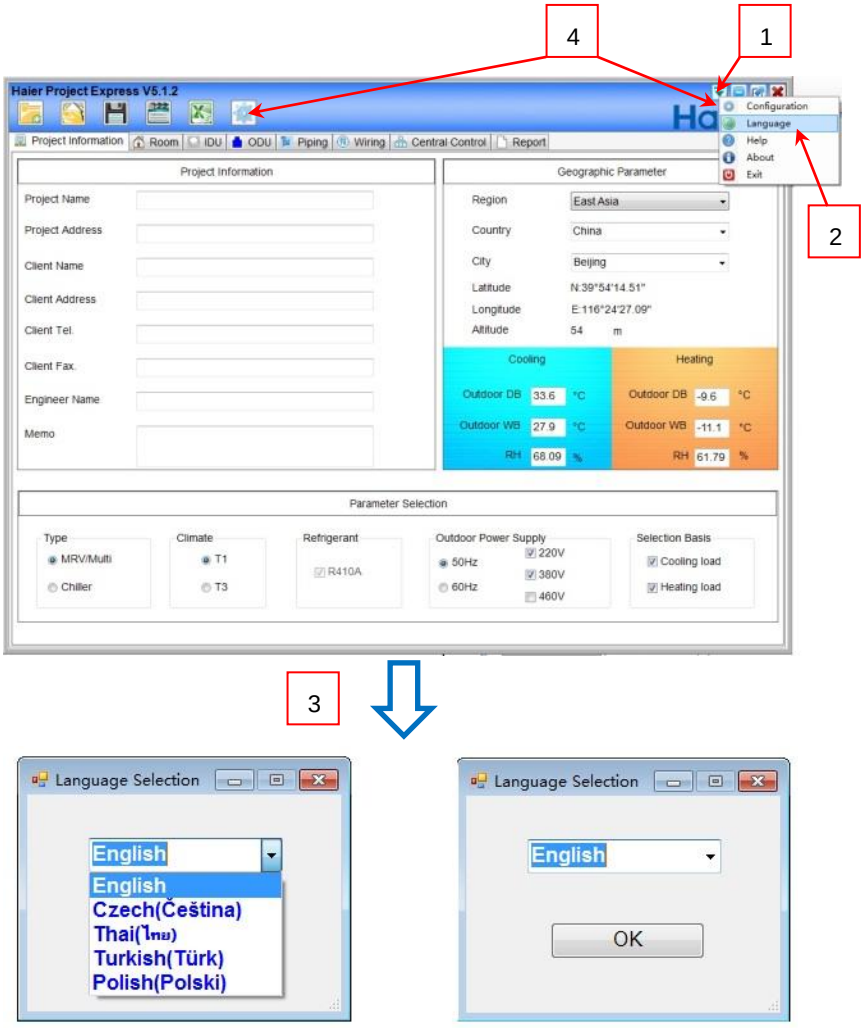
1 Main menu

⇩

2 Languages

⇩

3 Set languages

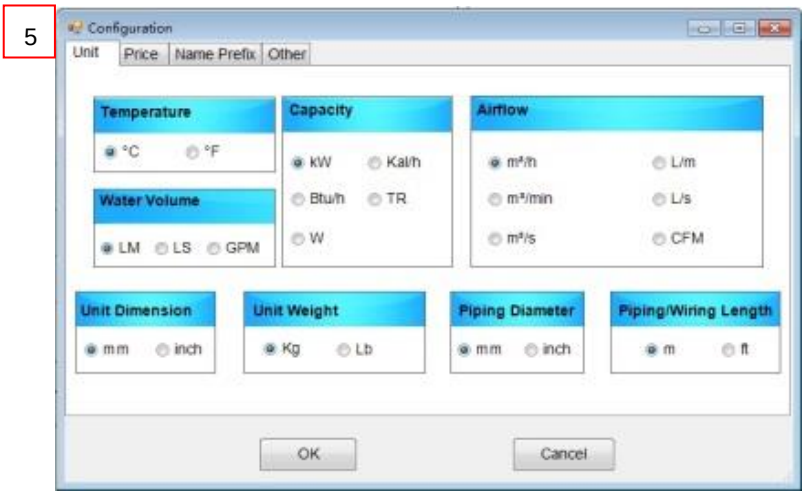


2.3.1.2 Configuration Preset units

1 Main menu

4 Configurations

5 Preset units



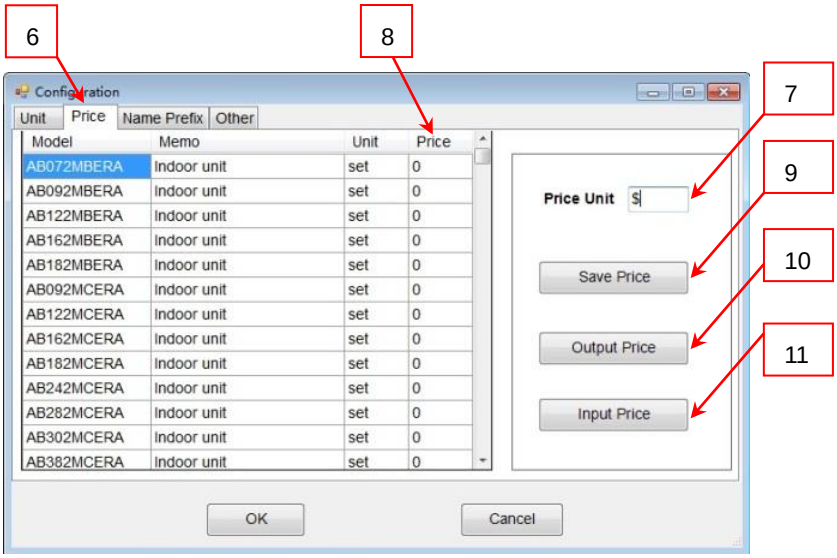
Input the equipment price

6 Price

7 Input the price unit

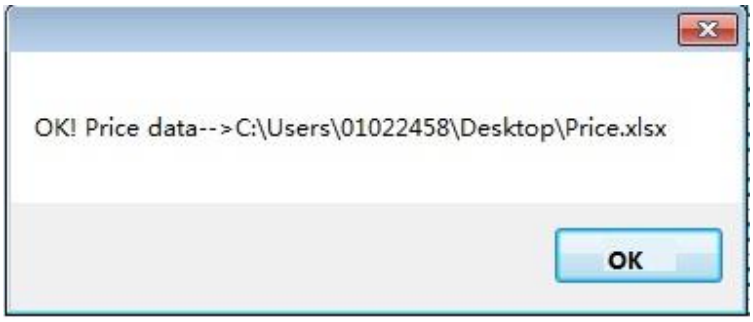
8 Input the price here

9 Save Price



10 Output the price

You will get an Excel files. You can modify the price in this Excel files and then input it to the software.

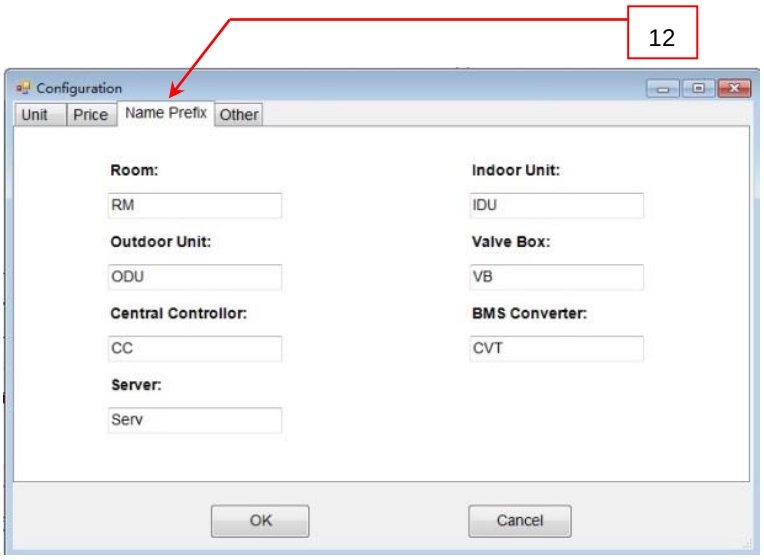


11 Input Price

Input price table to the software

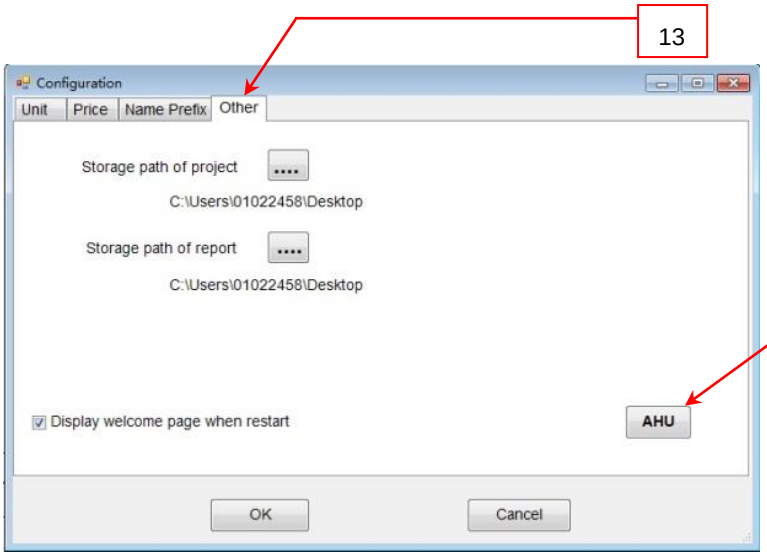
Set Prefix name

12 Name Prefix



13 Other

Preset project storage path



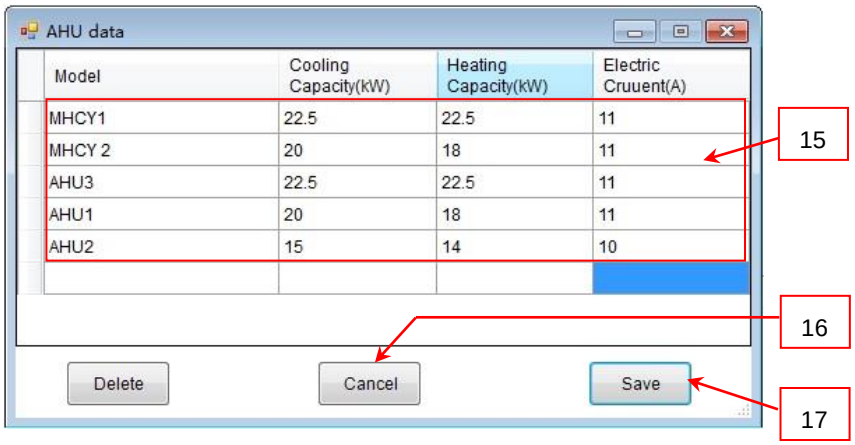
14 AHU

Input the basic information of the AHU equipment and save them for piping diagram and IDU selection.

15 Input AHU paremeter

16 Cancel data update

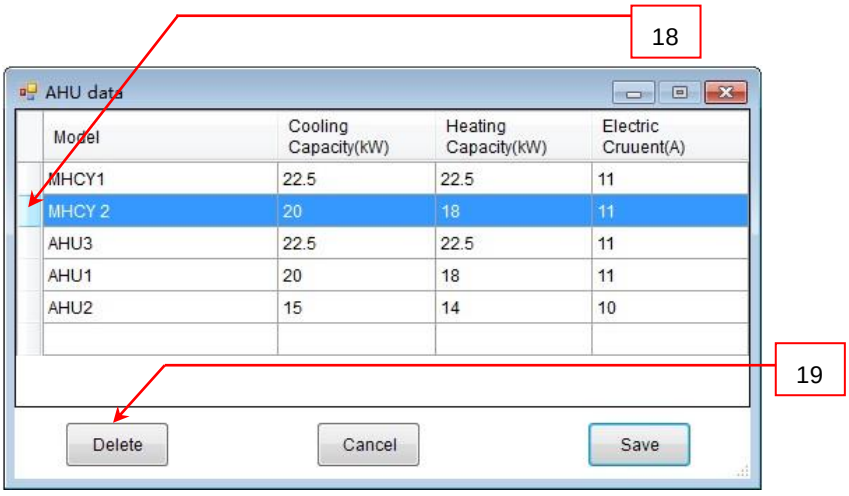
17 Save the data update



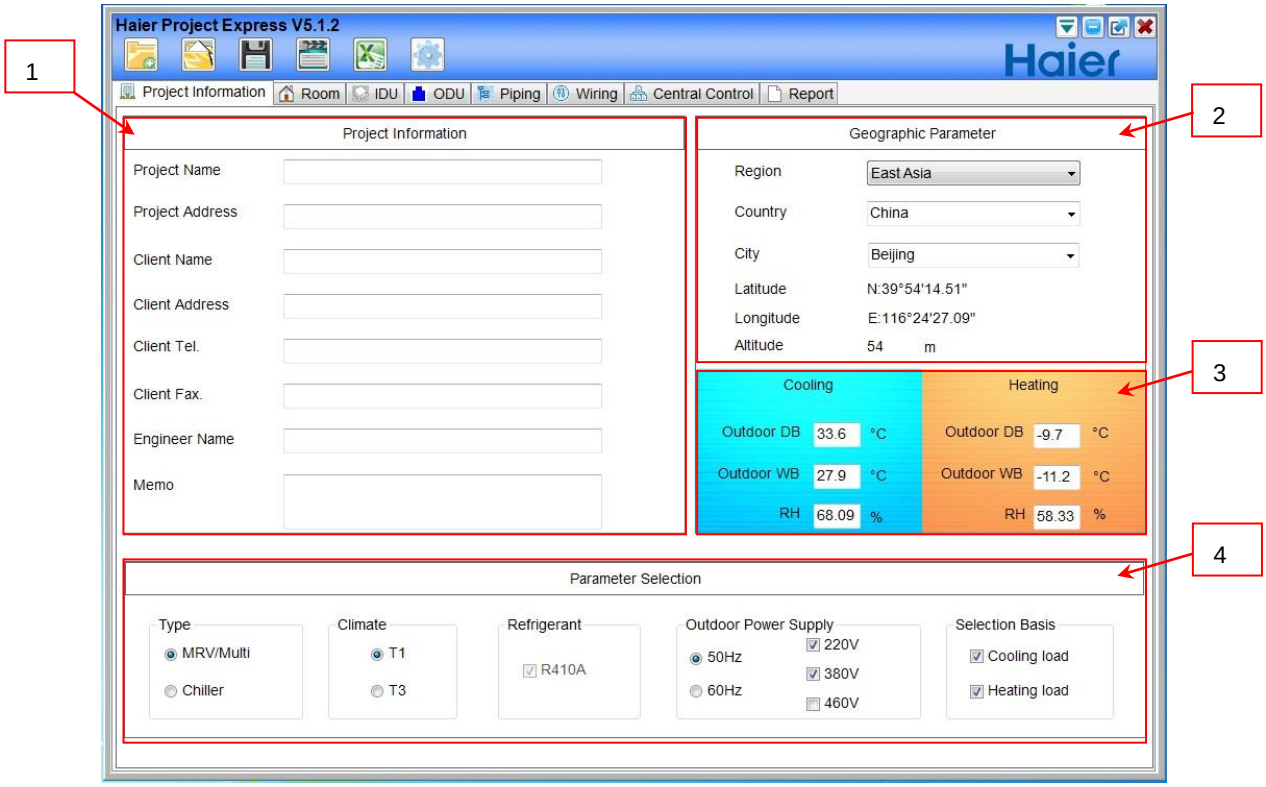
Delete AHU information

18 Click here to select AHU device

19 Delete the selected data



2.4 Project information



1 Project Information

Input the General Information project

2 Geographic Parameter

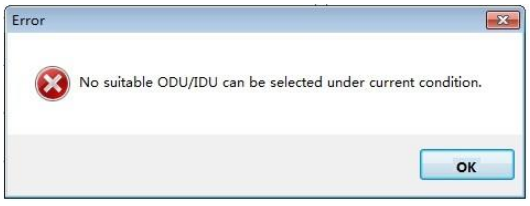
According to your project to choose or input the country & city

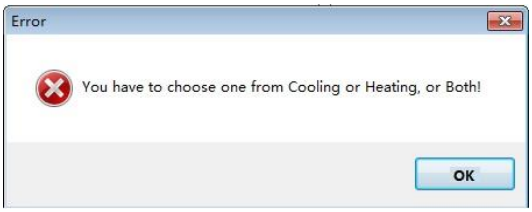
3 Working Condition

You can change it as you need. This value will be used to calculate corrected capacity.

4 Parameter Selection

The selection of indoor and outdoor units of this software will be based on your set project information. If you input the incorrect parameters, it will show the error hint as below.





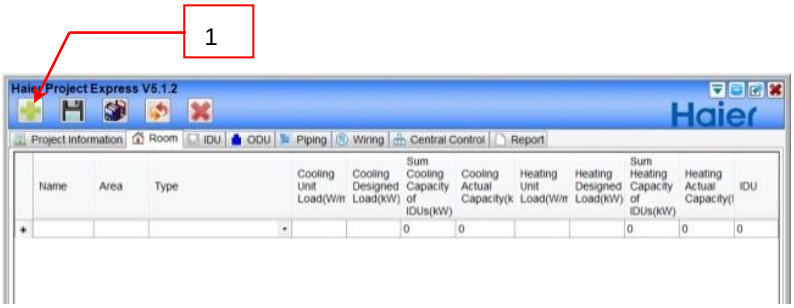
2.5 Adding room information

Clicking Room tag, enter room interface.

Highly flexible functions make it easier to create a room in the new version. The necessary data in the present project are listed in the table as shown in the following operating interface, the same as IDU, ODU, Piping, Wiring and Central Control.

1 Add new room

Open the detail of room interface to input room's data, or you can input room's data directly in the table.



2 Room name

Default name is prefix name+ No.

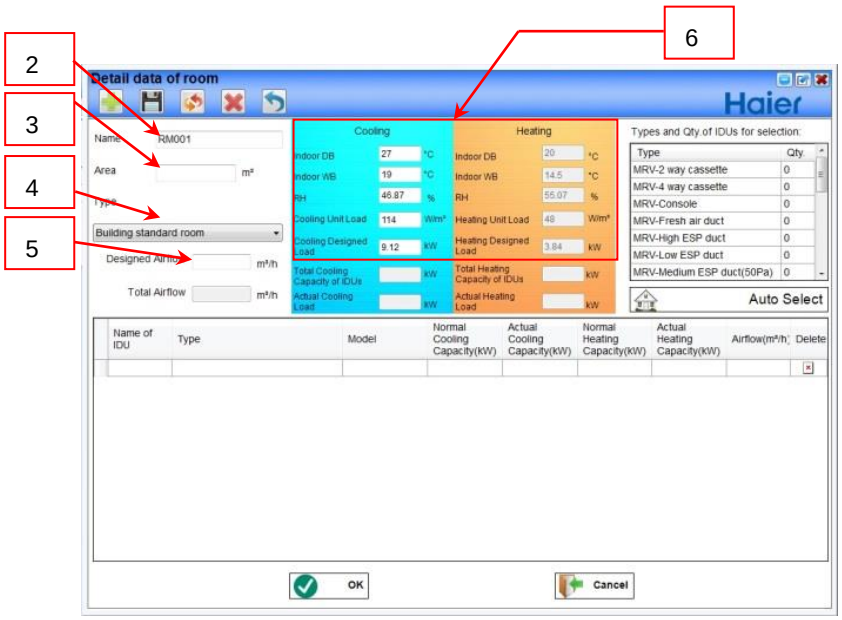
3 Input room areas

4 Choose room type

5 Input designed airflow

6 Set room parameter

It is can be modified according to the project. Default value just for designer reference.



7 Select indoor units

Clicking “Qty.” column, the suggested number will be shown. This is based on designed load. You can also change the qty to meet project needs.

8 Auto Select

Auto select suitable indoor units for current room, you can edit them (Name, Type, Model) manually in the list.

9 Save room data

After saving data you keep in this interface and you can input another room data.

10 Cancel all updating

Return to the last saved data.

11 Delete room data

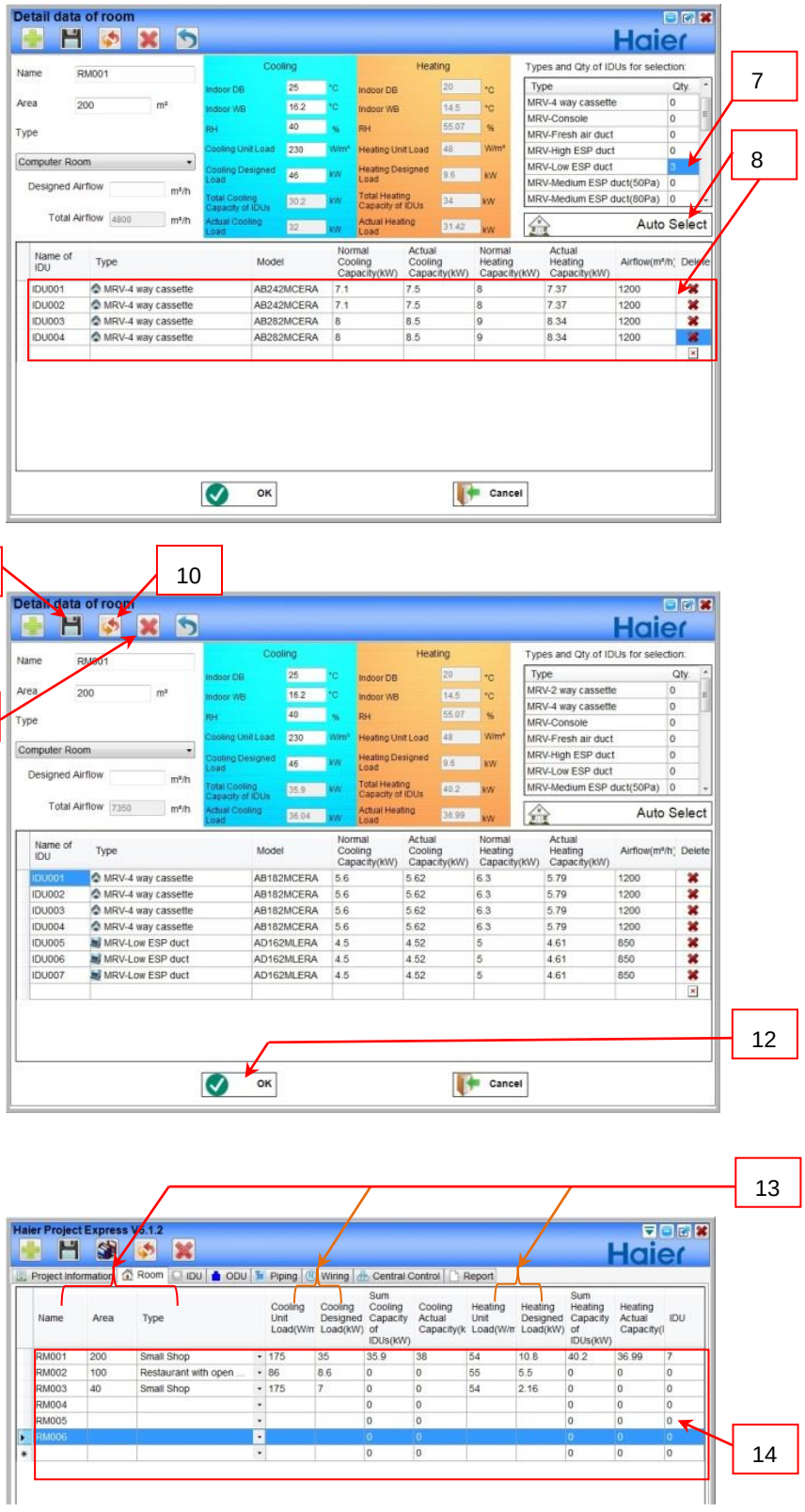
12 Save data

Save data and Come back to the room interface.

13 New ways to add room

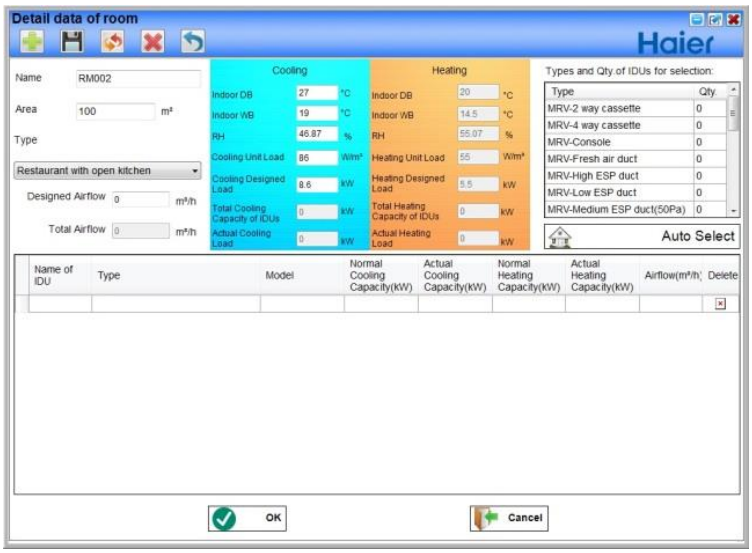
Clicking the column of “Name” in the table to create a new room, input the area and choose the type of room from the drop-down box.

The other properties will be given default value, but you can also change them. (Unit load, Designed load, etc.)



14 Select indoor units

Double click any cell of the table, entry the “Detail data of room” interface to select indoor units or change the room initial data as above.



15 Check indoor Info of room

There will show the sum value of indoor data in this room

16 Select room data

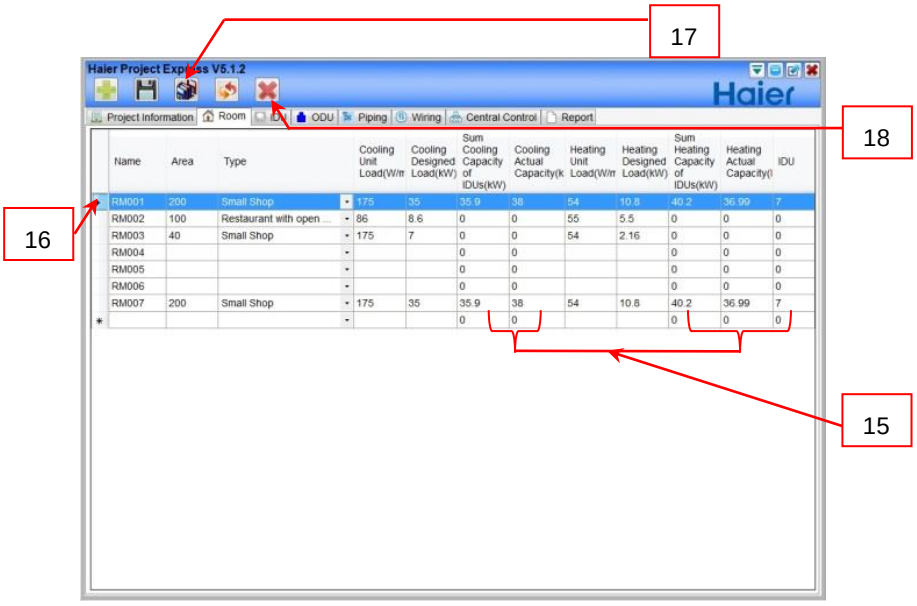
Clicking there to select a room for next operation(copy, delete).

17 Copy the room data

Copy the selected rooms and generate new rooms with all the previous input data.

18 Delete the room data

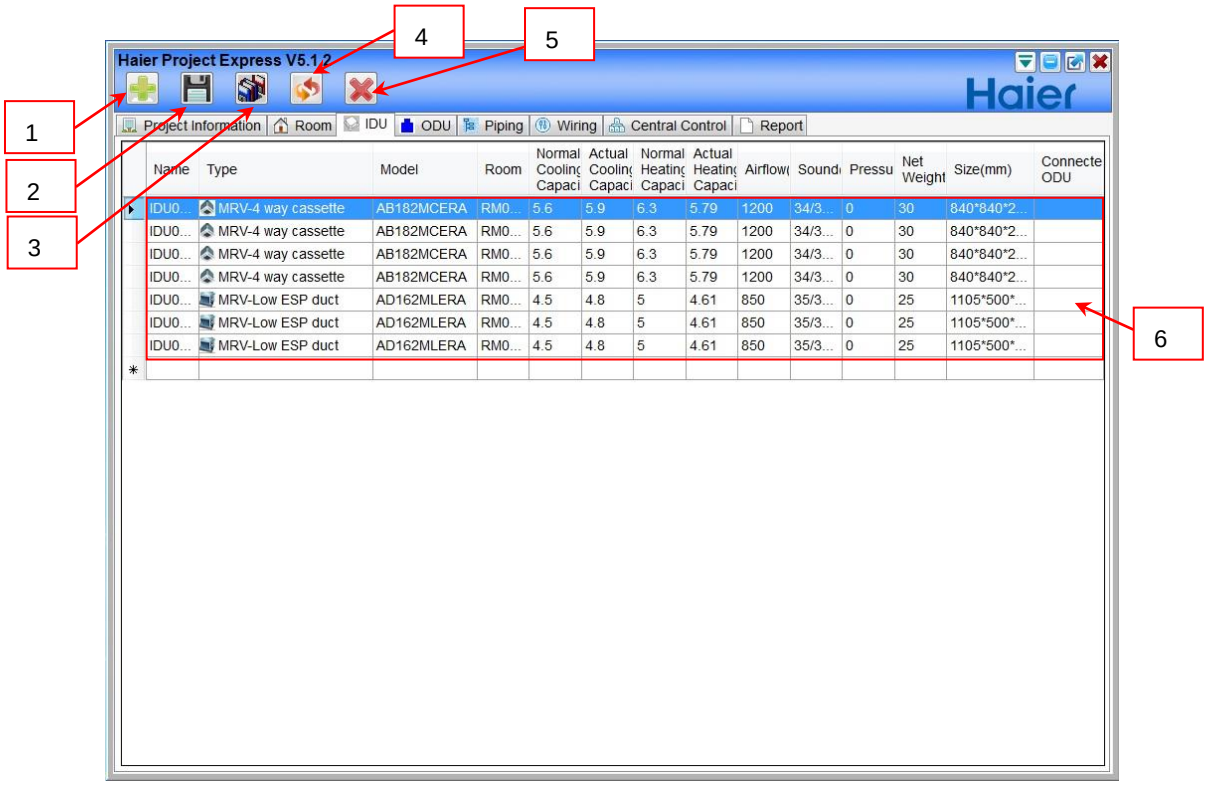
Delete the selected room.



2.6 Adding indoor units

Clicking IDU tag, enter indoor units interface.

All added indoor unit's information is listed in the work zoon table. You can input & edit the indoor unit's data here



1 Add new indoor unit

Open the detail of room interface to add a new indoor unit's data.

2 Save current IDU data

After changing any data in the working zoon, you need to save it into the project file.

3 Copy the IDU data

Copy the selected indoor unit and generate a new one with all the previous input data.

4 Cancel all updating

Return to the last saved data

5 Delete the IDU data

Delete the selected indoor unit's data.

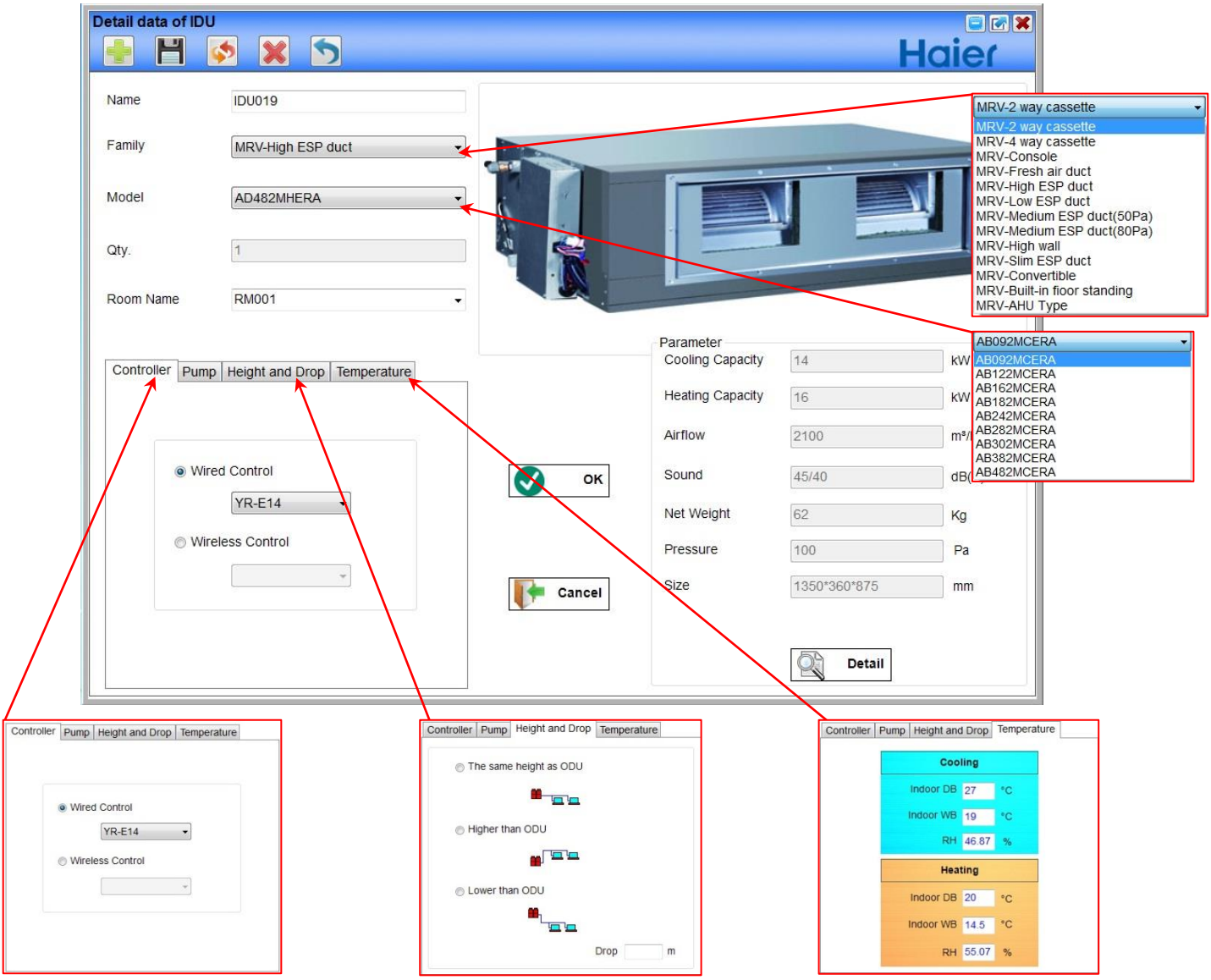
6 View & Edit indoor units

Double click any cell of the work zoon table, entry the "Detail data of IDU" interface to select indoor units or change the indoor unit's initial data.

Detail data of IDU interface.

You can modify family, model, Controller, Drop with ODU and temperature etc.

You can rename or reset room's name here or in the table of IDU interface mentioned above.



You can click detail button to check the selected indoor unit's parameter.

And then click to save the data

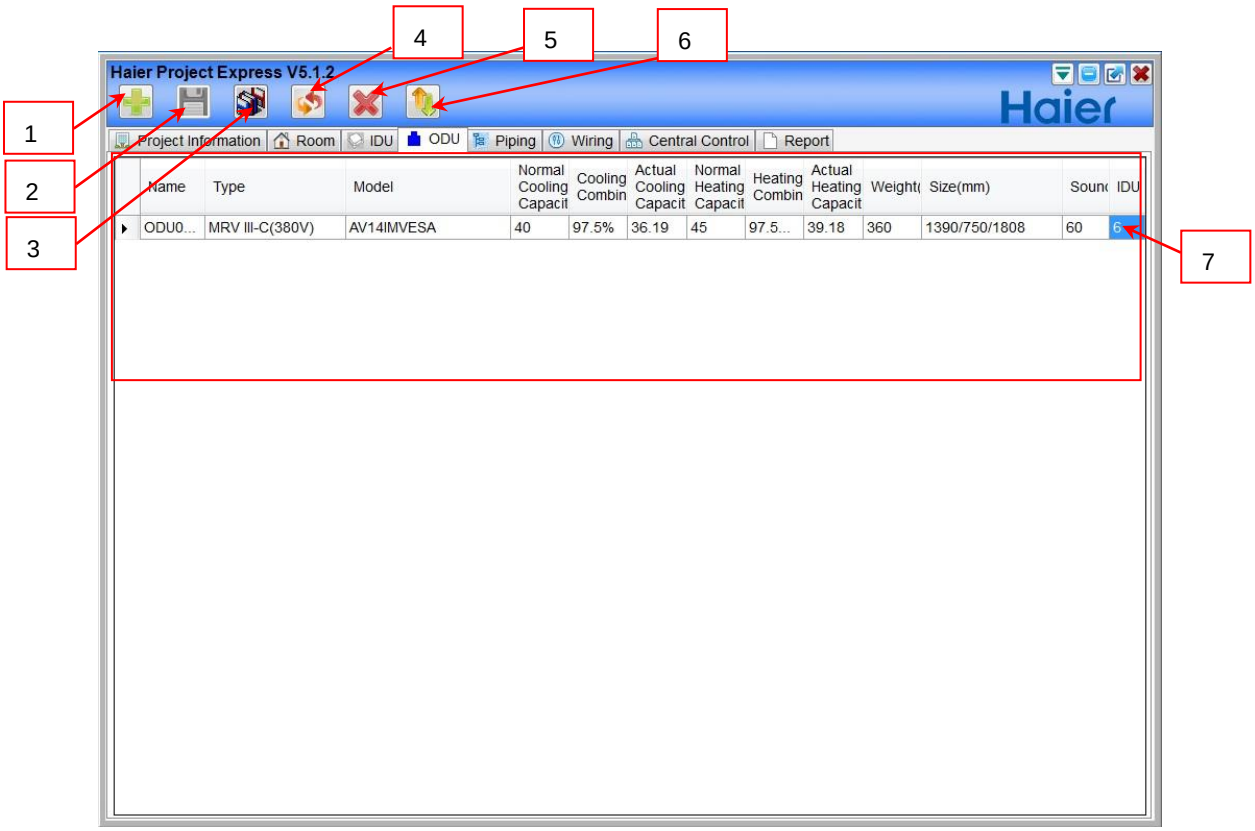
If you finish the indoor selection click to close this window and return to the indoor units interface

2.7 Adding outdoor units

Clicking ODUs tag, enter outdoor units interface.

All added outdoor unit's information is listed in the work zoon table. You can only view the outdoor unit's data here.

But you can click to open detail data of ODU interface to add/view/edit a new outdoor unit's data.



1 Add new outdoor unit

Open the detail data of ODU interface to add a new outdoor unit's data.

2 Save current ODU data

3 Copy the ODU data

Copy the selected ODUs to generate new ODUs with all the previous input data.

4 Cancel all updating

Return to the last saved data.

5 Delete the ODU data

Delete the selected outdoor unit's data.

6 Recode indoor unit

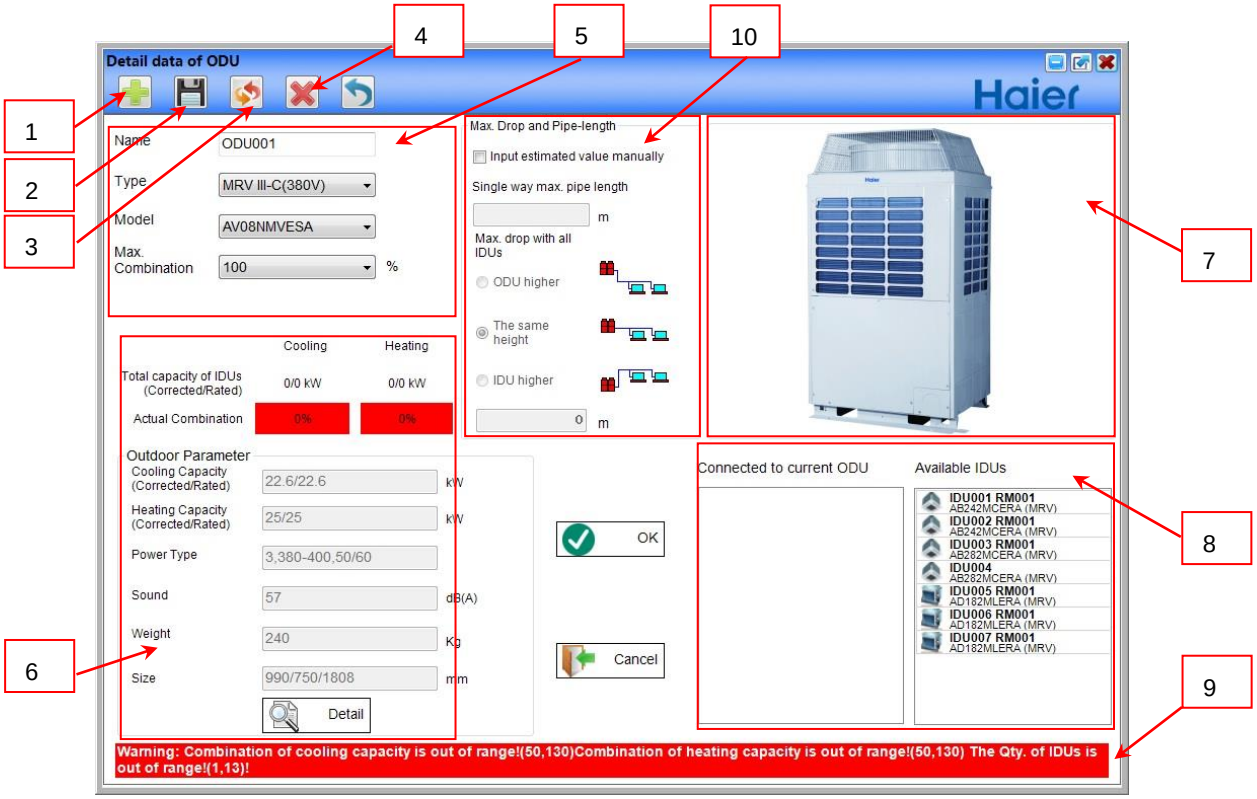
Sort all the indoor units according to every outdoor system and recode them.

7 Check the selected outdoor unit

Double click any cell of the work zoon table, entry the "Detail data of ODU" interface to select outdoor units or change the outdoor unit's initial data.

Detail data of ODU interface.

You can modify name, type, model, max Drop with IDU etc.



1 Add new outdoor unit

Add a new outdoor unit's data.

2 Save current ODU data

3 Cancel all updating

Return to the last saved data

4 Delete current ODU data

Delete the current outdoor unit's data.

5 Basic outdoor information

You can name and select outdoor series and change the combination ratio between IDU and ODU in here.

6 Detail of selected outdoor unit

You can click " Detail " to check more information about outdoor units.

7 Outdoor unit's photo

There will show the selected outdoor picture.

8 Indoor unit list areas

After set the basic ODU information the available IDUs are listed in here. Drag IDU from "Available IDUs" to "Connected to current ODU", the suitable ODU will be shown in the page automatically based on the value of Max Combination.

9 Prompt bar

There will show the errors detail.

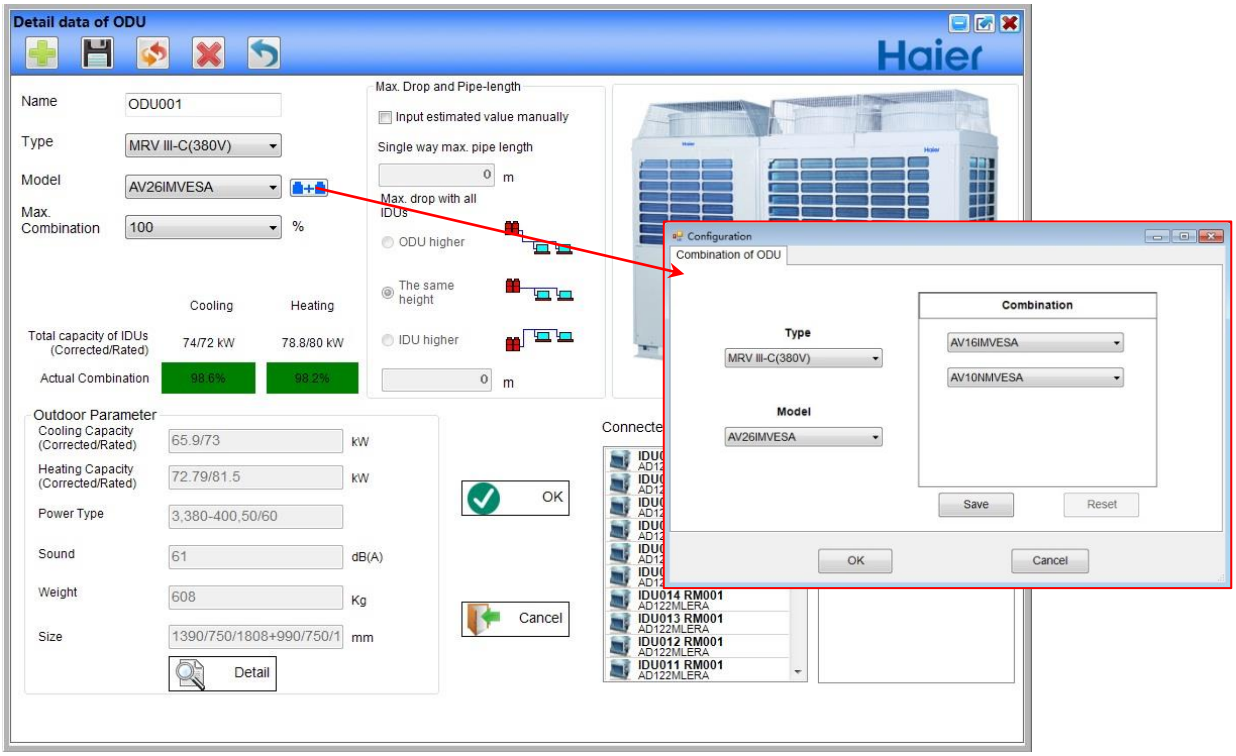
You can find the error position which is marked by red background on the interface.

10 Max Drop and Pipe Length

Tick here. Input estimated value manually

And then you can input estimated value here if you don't want to use the exact pipe length in piping diagram.

These values will be used to calculate corrected capacity, ignoring the actual pipe length in piping diagram.



If you have selected combination outdoor unit, you will see the button which allows you to change the combination of current outdoor unit.

For example, click and change the combination of "AV16IMVESA & AV10IMVESA" to" AV14IMVESA & AV12IMVESA".

Click OK to save and go on doing the next ODU selection.

2.8 Piping Diagram

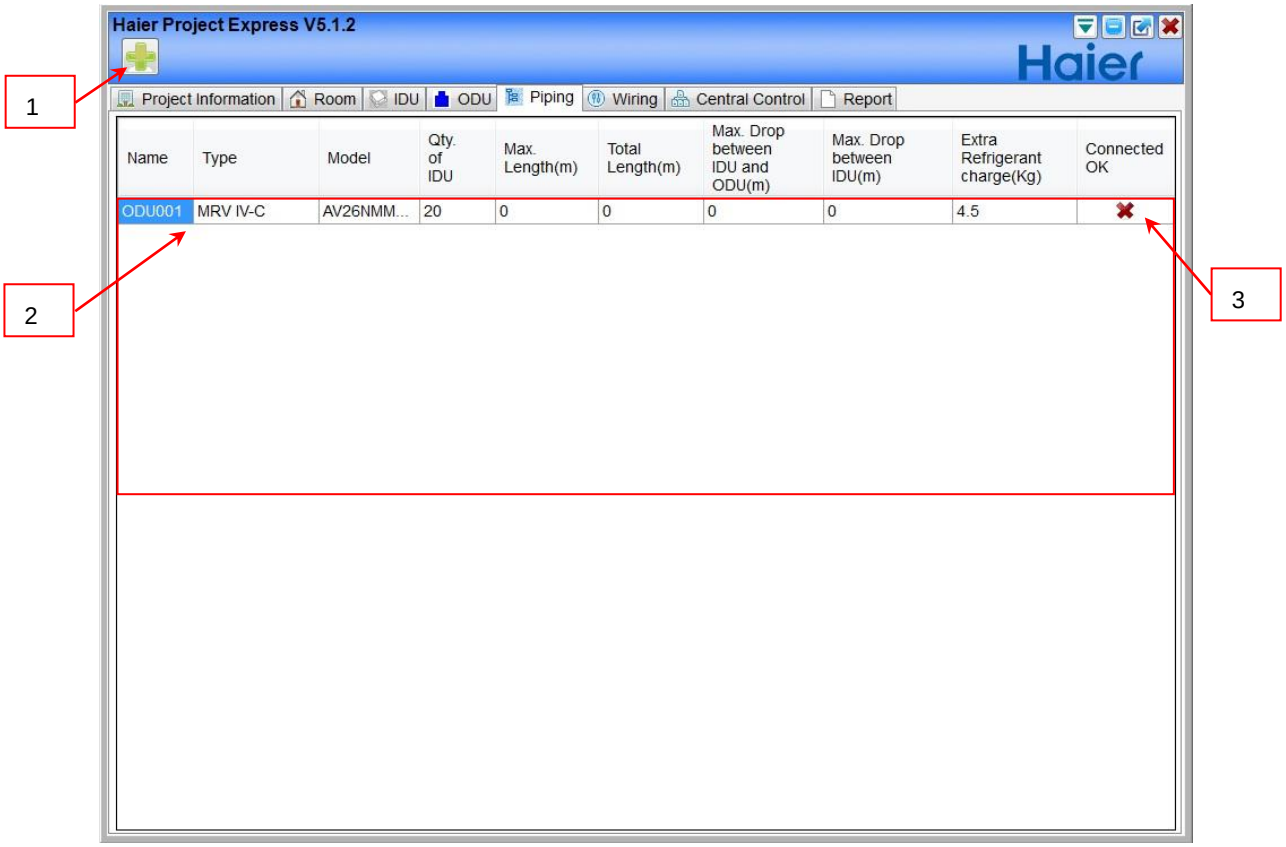
Clicking Piping tag, enter piping-diagram list interface.

There are two methods to add a piping-diagram.

(1), When you complete the connection of IDUs and ODUs, there will show the outdoor system information in the work zoon. Double clicking the “ODU001” row, enter piping-diagram interface to do the piping work.

(2), The second way is to click , enter new piping-diagram interface directly.

You can do the piping work together with model selection and matching of the indoor and outdoor units.

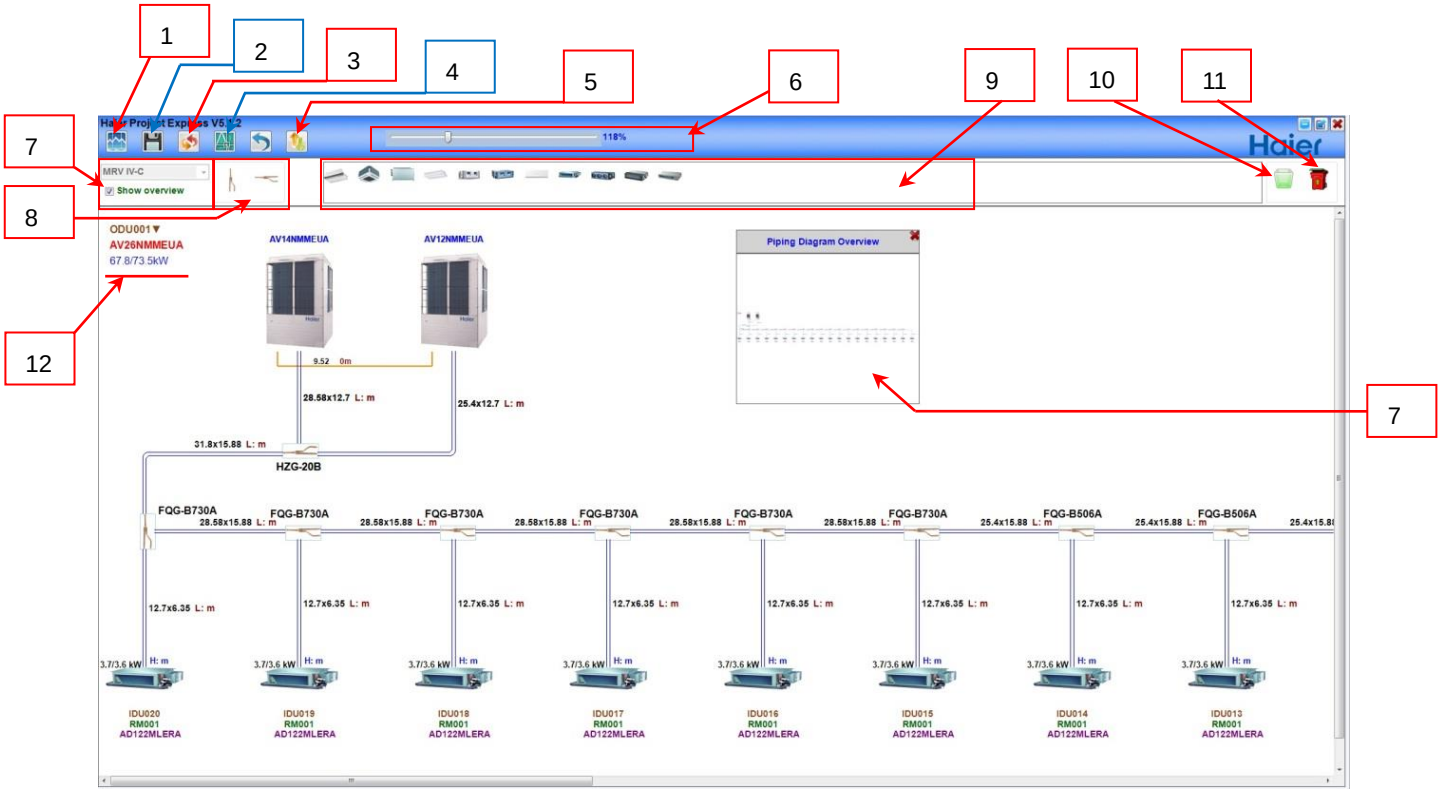


1 Add new piping-diagram directly.

2 Work zoon show the piping work list

3 Show the status of piping work: OK Not OK

Detail data of piping-diagram interface.



1 Checking Piping work

Check current piping diagram.

2 Save current Piping data

3 Reset Piping

Reset current piping diagram

4 Export DXF file

Generate DXF file of current piping diagram

5 Recode indoor unit

Sort all the indoor units according to this piping work and recode them.

6 Zoom in & out

"Ctrl+ Middle mouse button" can achieve the same function.

7 Show current Piping Diagram overview

Tick "show overview" will show the Piping Diagram Overview.

If the current Piping diagram is so large or complicated, it cannot be shown in the interface completely then you can see the full diagram in the overview.

8 Piping branch

9 Indoor unit list

10 Temporary Save

11 Delete Area

12 Show the outdoor information

Name, model, corrected/rated capacity.

Mouse Action

Click left button

Click right button

Double click left button

Hold left button and move

Let’s do a piping work to explain how this software works.

1 IDU20

Click equipment in the work zoon to select this equipment

2 Shift + IDU18

Select IDU20, IDU19, IDU18 three indoor units as a group.

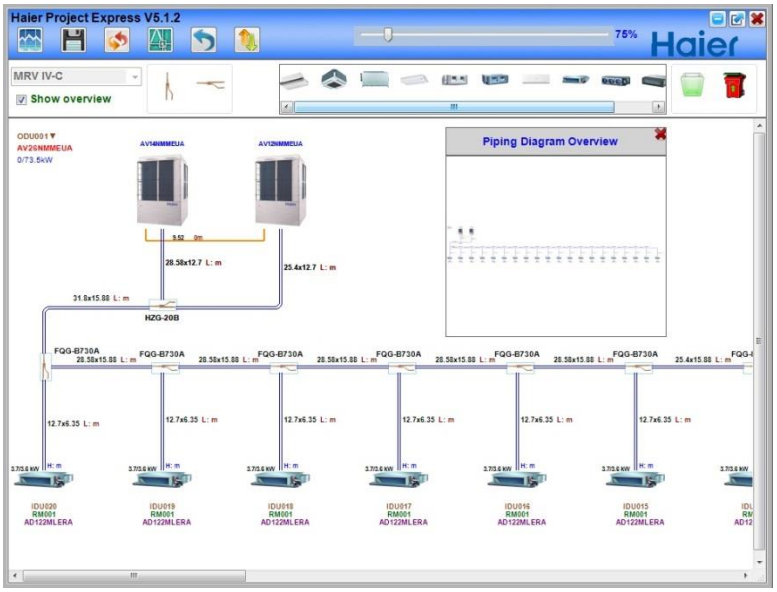
3 selected indoor group

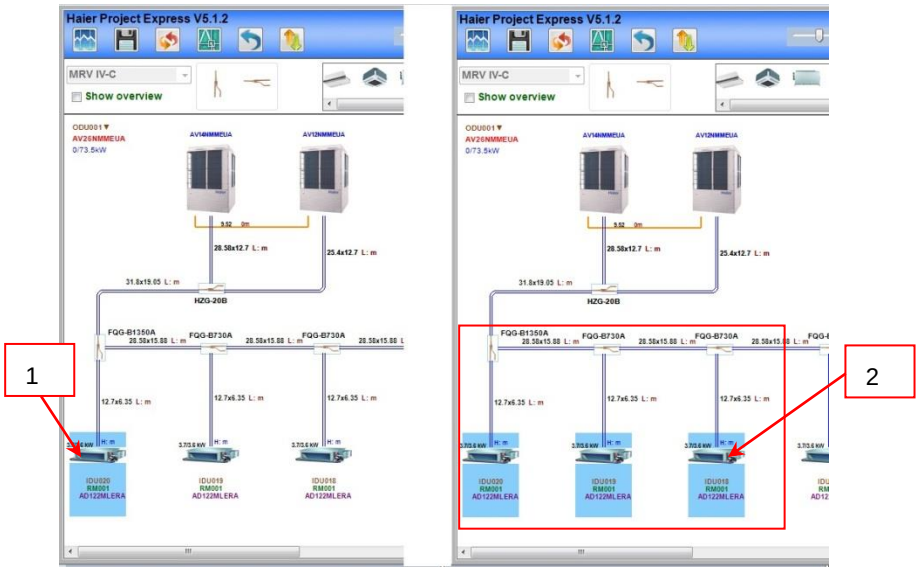
There will show menu item

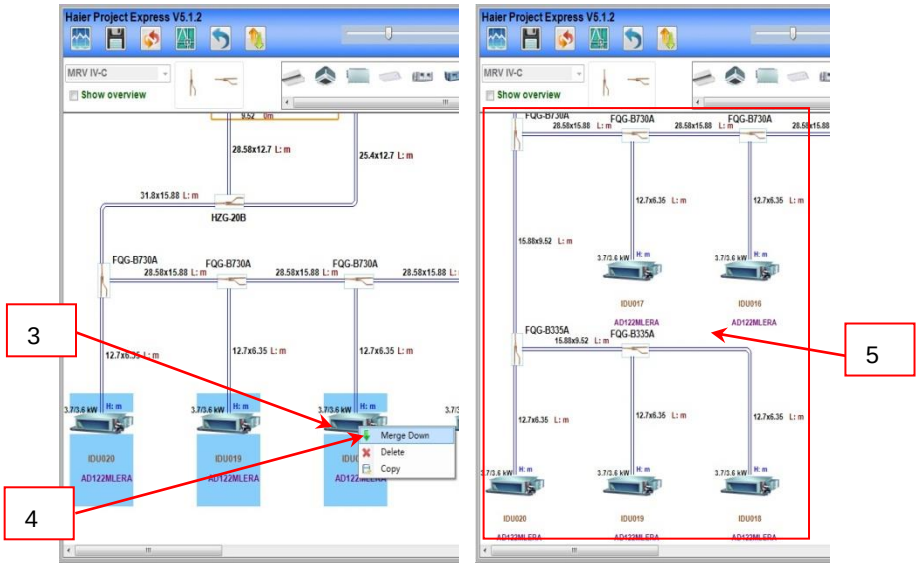
4 Merge Down

5 Show the piping change

Using “ “ to connect selected indoor group with original piping system







Use the same way to connect the pipe as show in Piping Diagram Overview

6 Branch

Select all the indoor units which connected to this branch

7 Branch and move to

Put all indoor units to temporary save areas

8 " " and move to

Add a " " branch.

9 " " and move to

Add a " " branch.

10 " " and move to

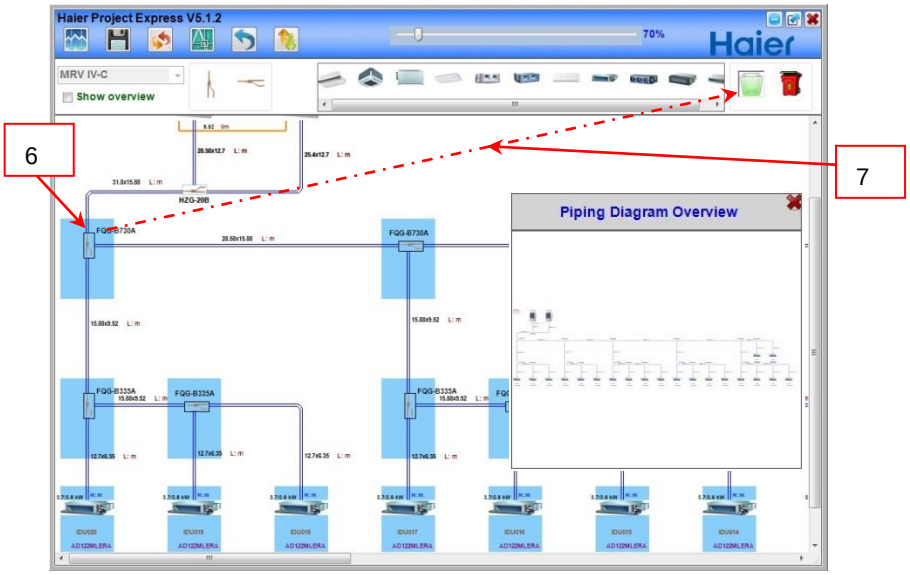
Put all indoor units from temporary save areas to work zoon.

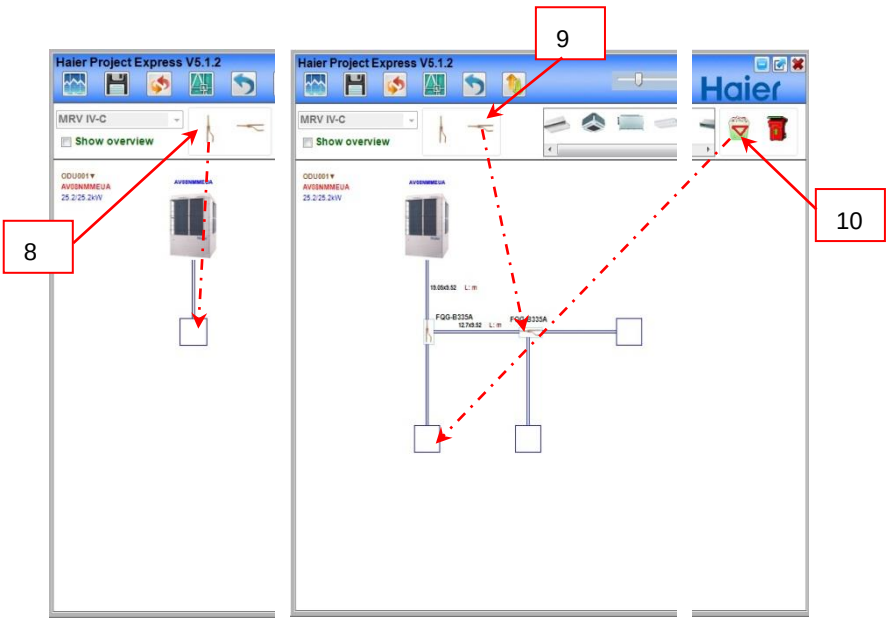
11 Branch

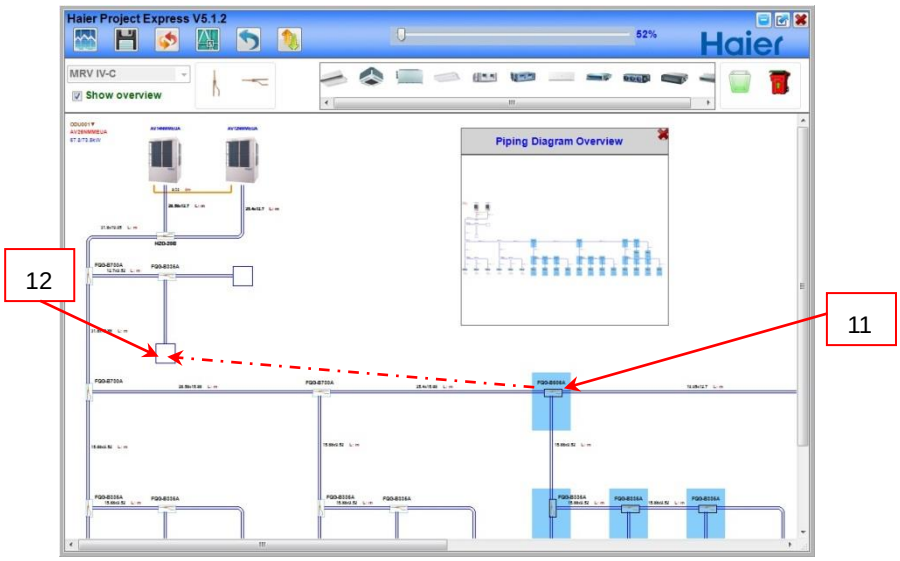
Click branch to select all indoor units that connect to this branch.

12 branch and move to

Put selected indoor units to specific location.







13 selected

Delete

Through the right-click menu to delete position.

14 Double click

“Detail data of IDU” interface will popup. You can select indoor unit.

15 branch and move to

Put selected indoor units to specific location.

16 and move to

Dragging one IDU, branch or position to trash to delete it.

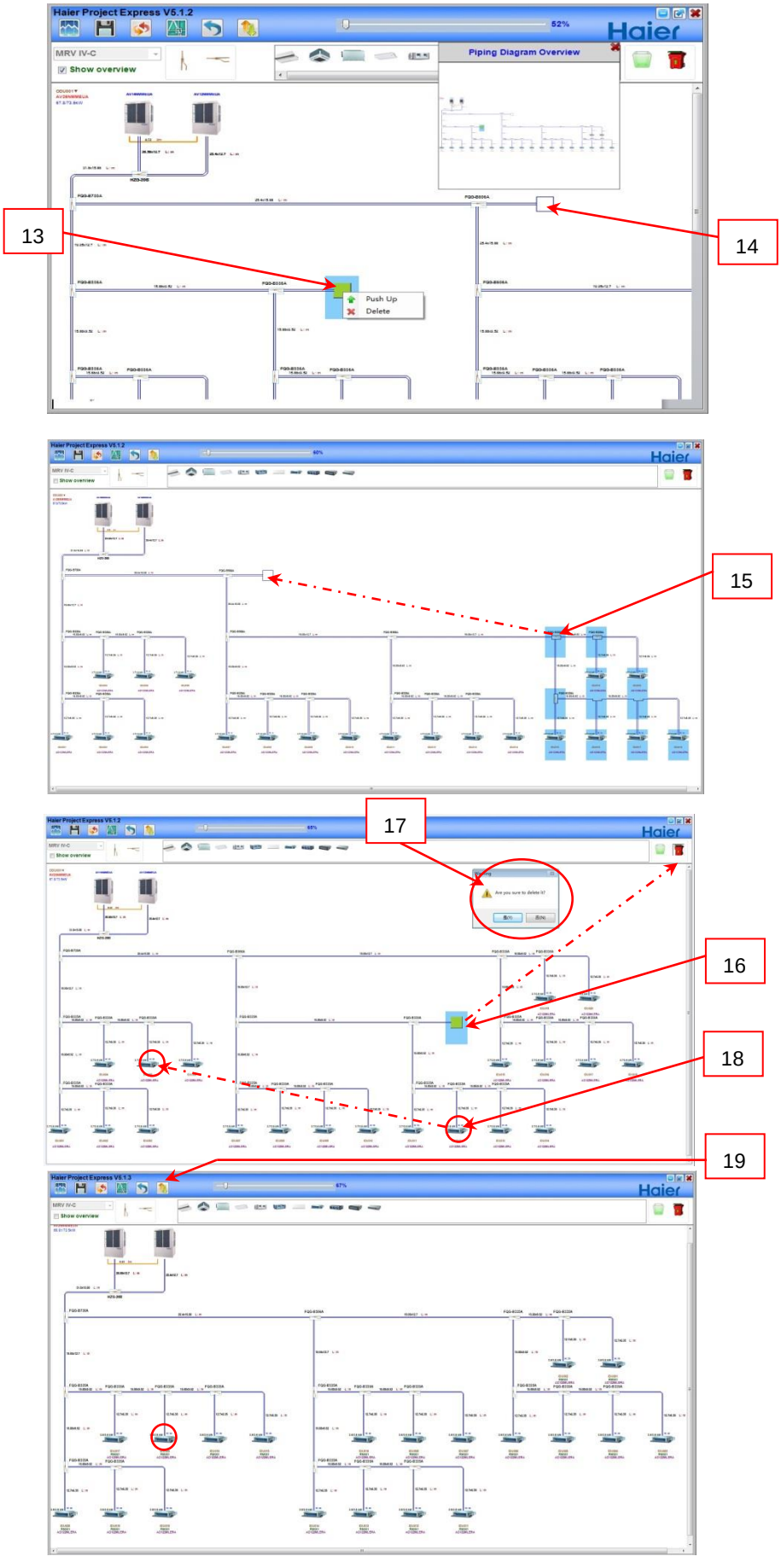
17 Popup confirm tooltip

18 IDU9 and move to IDU16

Insert the IDU9 before the IDU16 position.

19 Recode IDU

Sort all the indoor units according to outdoor system piping work and recode them.



20 “H: m” input drop data

“-” IDU lower than ODU
“+” IDU higher than ODU

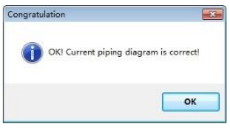
21 pipe to input length

There have different allowable pipe length and drop according to different outdoor system.

22 check pipe error

You will see following hint

Work OK.



Length error

Drop error

If you use MRV III-RC system, you need to add valve box in piping work.

23 VB and move there

Drag VB to the pipe above an IDU or a branch pipe.

24 this pipe

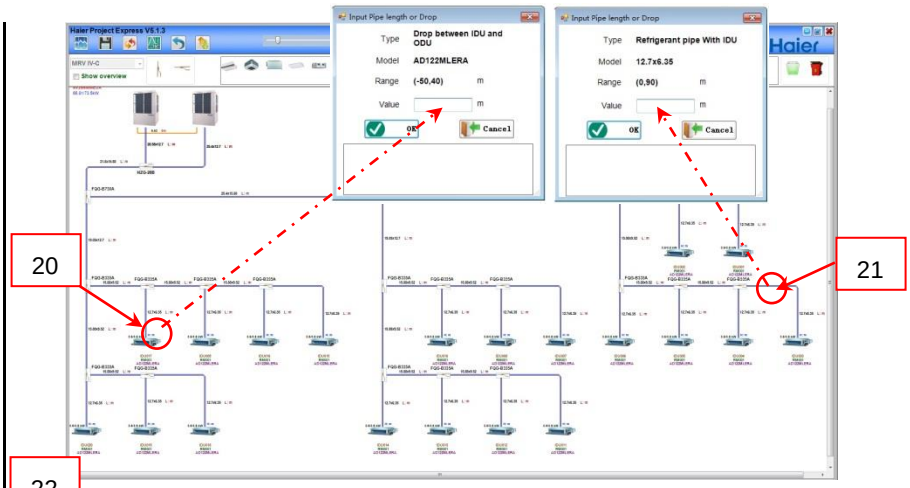
25 this pipe

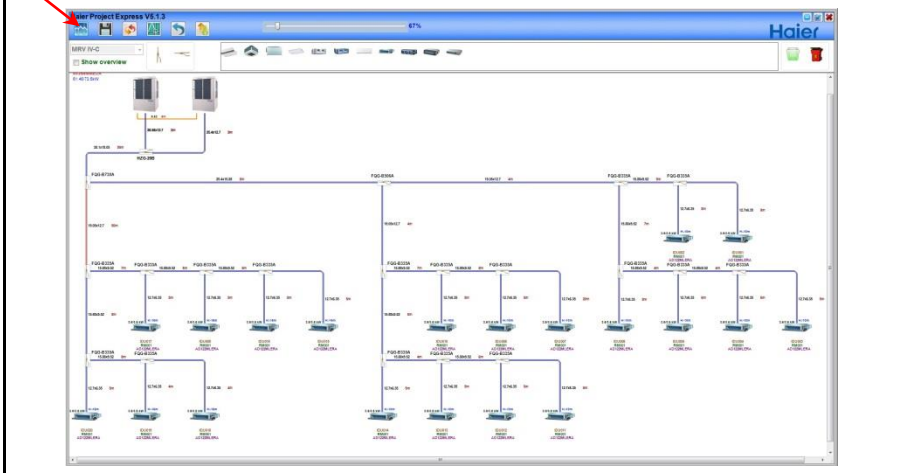
If you put VB in wrong place a window will popup to warn you.

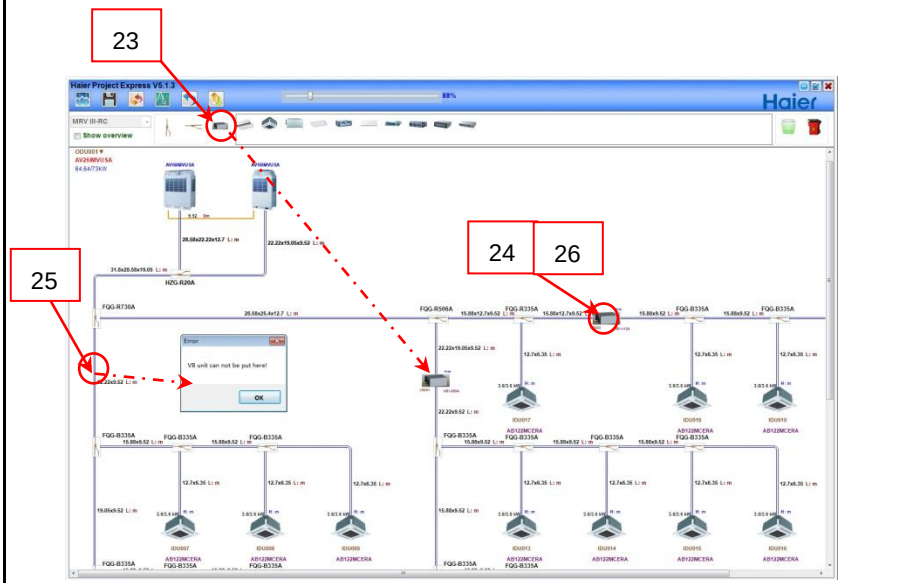
26 VB

Delete the Valve Box.
You also can drag VB to to delete it.

27 save it







The Second Drawing Mode:

This is a more direct way to draw piping diagram without selecting IDUs and ODUs.

1 open new pipe work

2 Select system

3 ,

Dragging branch and makes it possible to draw an outline of piping diagram.

4 IDU to the work zoon

Dragging IDU to blank position(dotted line) will show the “Detail data of IDU” you can choose the suitable one.

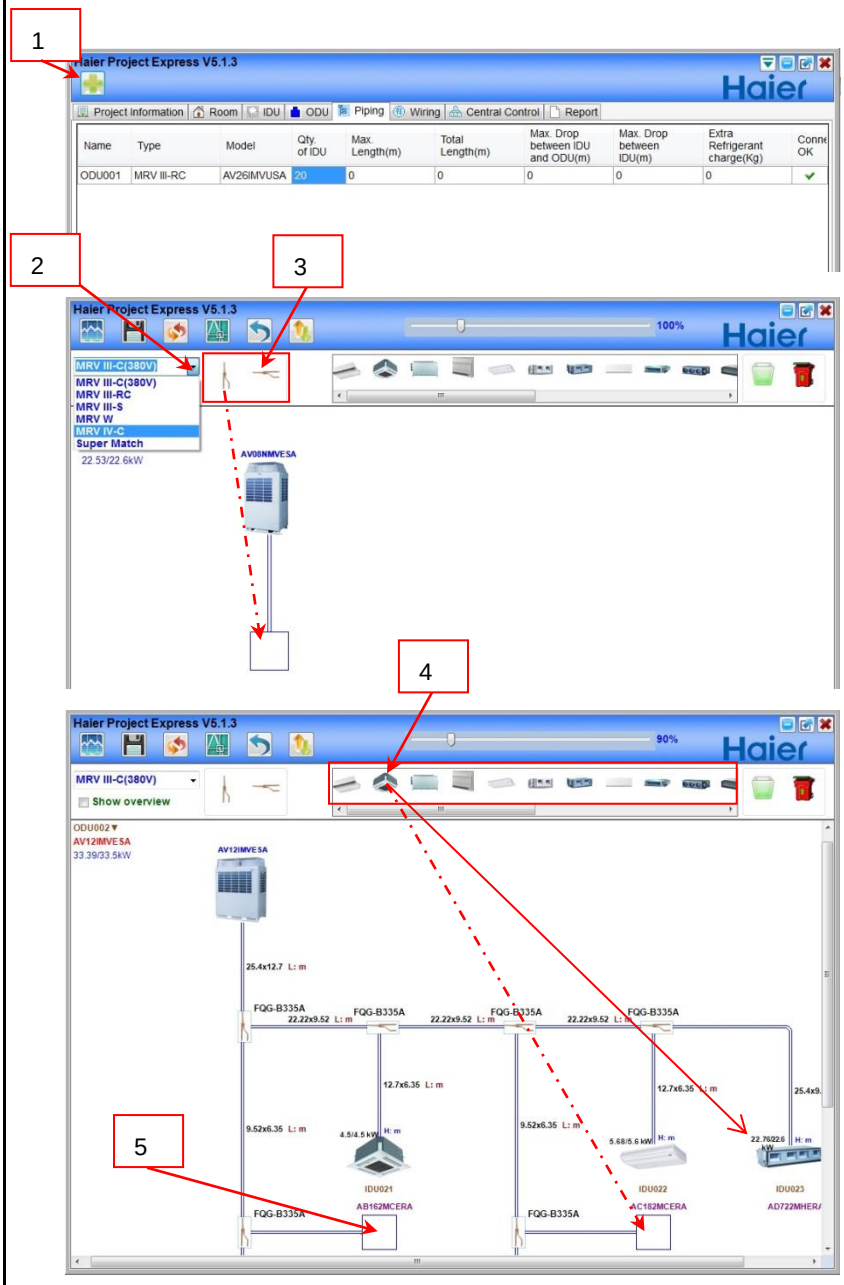
Or you can drag an IDU from indoor unit list to an exist indoor unit(solid line) in work zoon to insert before it.

5 Double click

“Detail data of IDU” interface will popup. You can also select indoor unit.

Repeat this procedure till you complete drawing. (You can input the data of the Room at the same time)

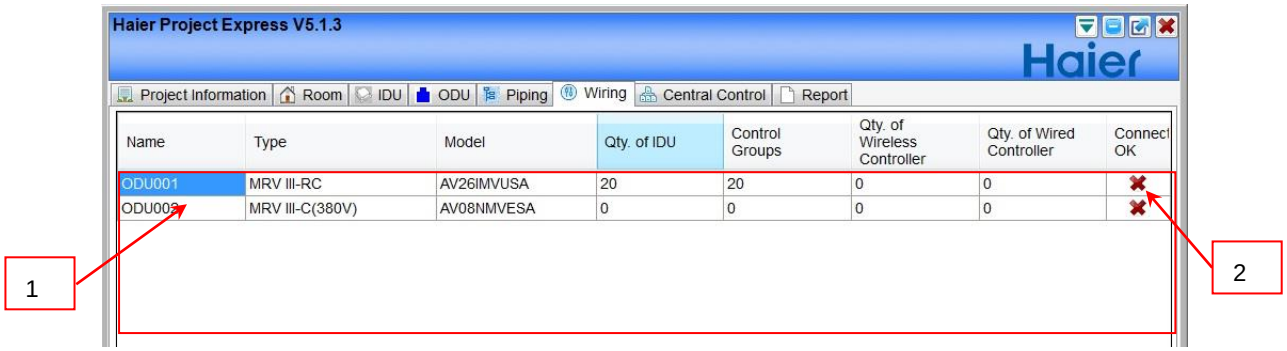
The selection of ODU varies with the increasing of IDUs and the changes of the IDU types automatically.



All the functions in the first drawing mode perform well in the second mode, for example exchange the position of the IDUs, insert, dragging, change the connection, delete, save etc.

2.9 Wiring

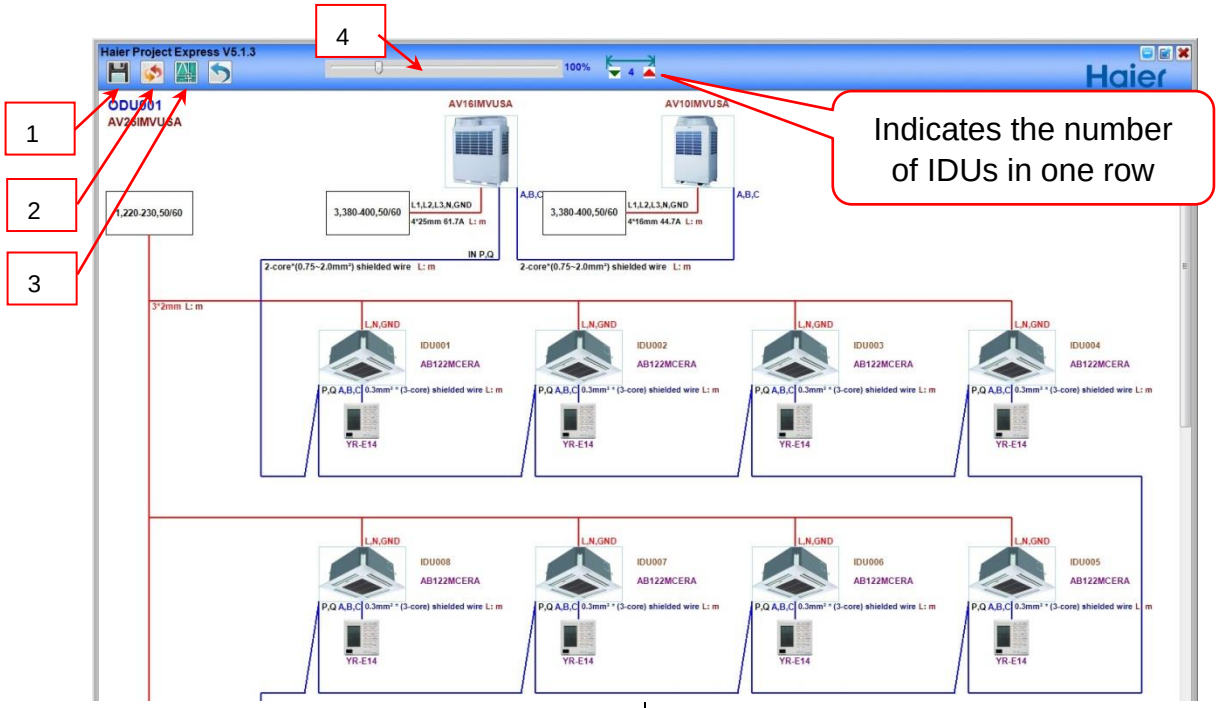
Clicking Wiring tag, enter wiring-diagram list interface. Please draw piping diagram first before you try to draw wiring diagram.



1 Work zoon show the wiring work list

2 Show the status of wiring work: OK Not OK

There are no in this interface, this means wiring can't be drawn without selecting IDUs & ODUs. You can open the wiring diagram related to corresponding ODU by double-clicking the row in the table.



1 Save current wiring data

2 Reset wiring

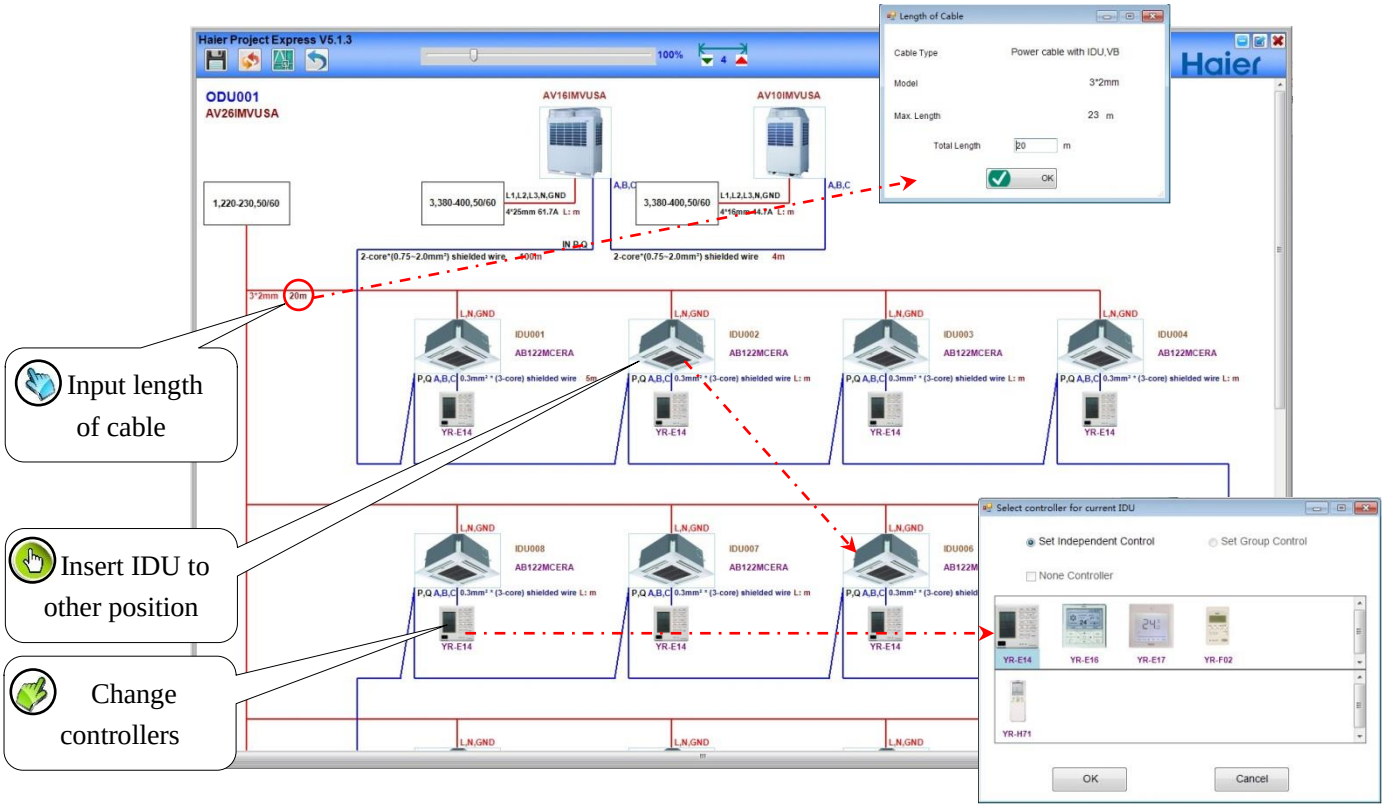
Reset current piping diagram

3 Export DXF file

Generate DXF file of current wiring diagram

4 Zoom in & out

"Ctrl+ Middle mouse button" can achieve the same function.



Power cable is red which connects IDUs or ODUs. The blue is communication cable which connects ODU to its sub-units and ODU to IDUs and IDU to controllers. Clicking the cable, a new window will popup and you can input the length of the cable in it based on the suggested value.

You can change the position of IDUs to meet your needs in the Wiring Diagram by dragging one IDU directly to another one you want to exchange.

And you can also change controllers by clicking one controller with the right key of mouse to open a new window and choose one controllers and click OK.

Group-control IDUs

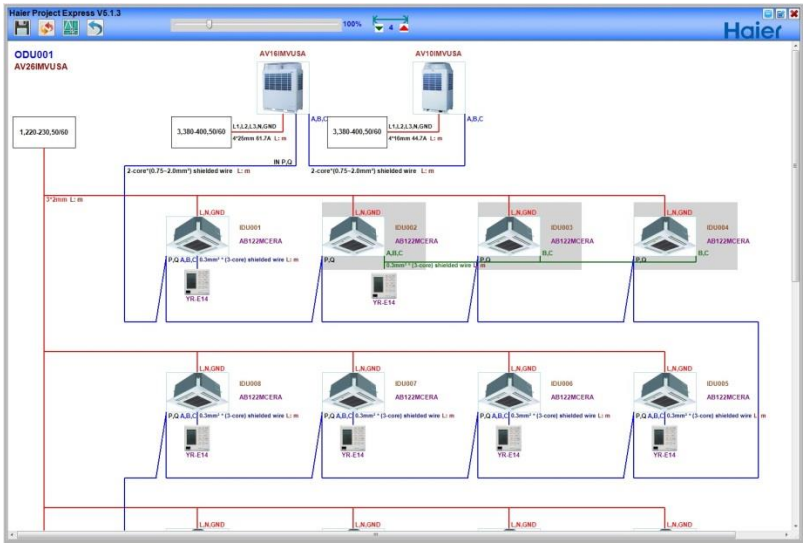
1 IDU2

2 Shift + IDU4

3 selected indoor group

These IDUs are group-controlled by green cable.

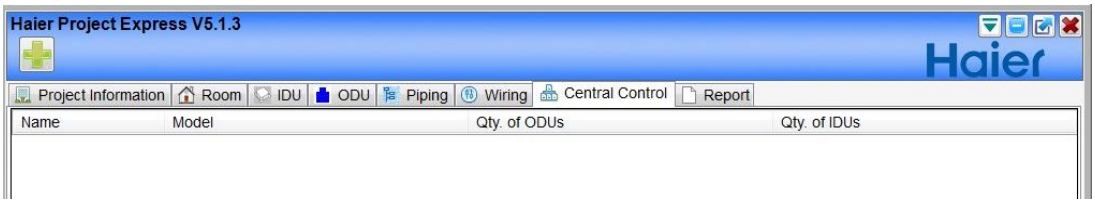
You can also delete group-control IDUs the same way as group-controlling them.



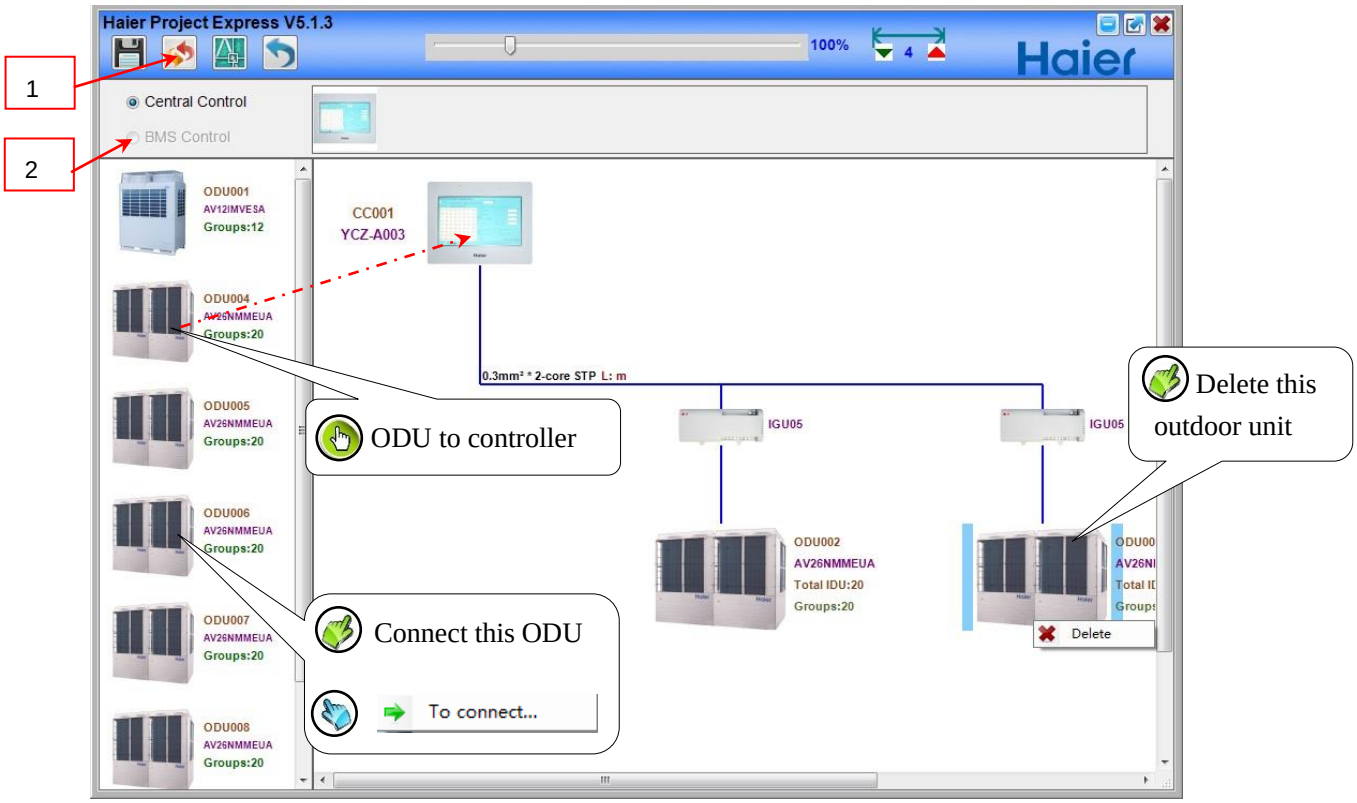
2.10 Central Control Diagram

Clicking " Central Control " to enter Central Control list interface. Please draw wiring diagram first before you try to draw central control diagram.

Clicking icon to add Central Control Diagram.



The icons of Central Control Diagram are the same as wiring diagram. There are two kinds of controlling. Central control and BMS control.

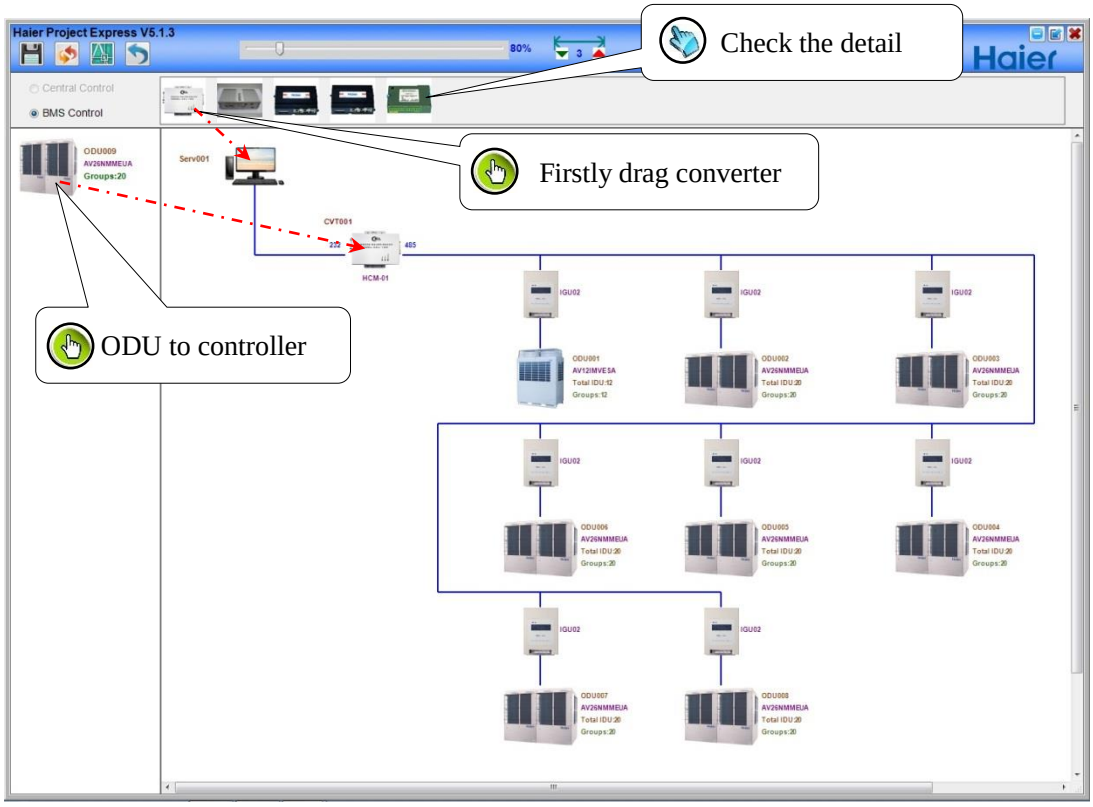


ODU can be connected to controller either by dragging it to controller directly or clicking ODU with the right key of mouse and then clicking To connect...

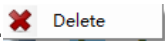
To delete outdoor from current central control group just click ODU with the right key of your mouse and click Delete

1, Reset current control diagram(also be used to switch Central/BMS control)

2, select BMS control

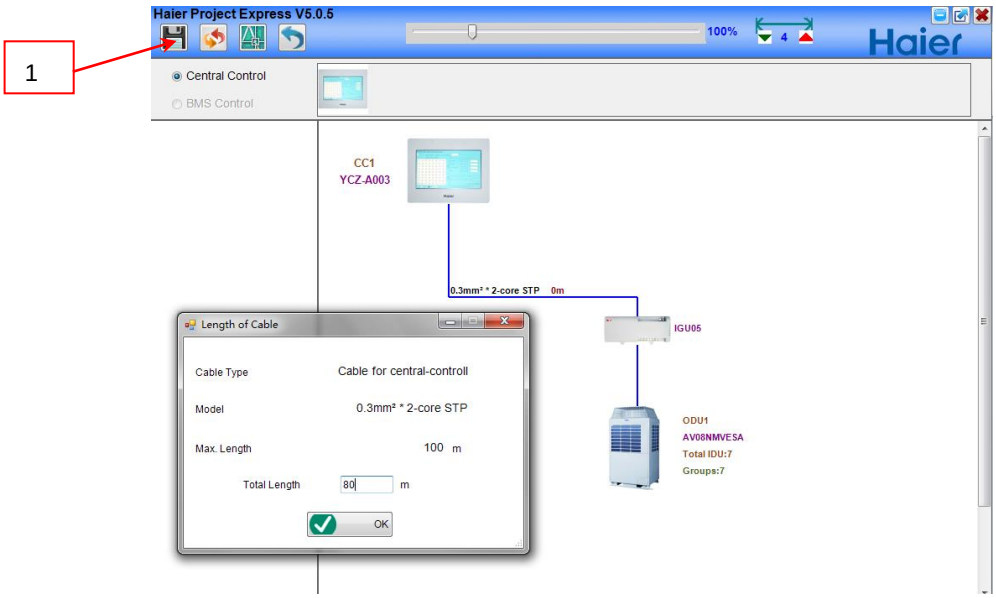


As to BMS control you have to select a converter from the listed protocol converters first by dragging it to Serv001 and then dragging ODU to the converter.

To delete just Clicking ODU with the right key of your mouse and click. 

Clicking Converter with the left key of your mouse to check its detail Data.

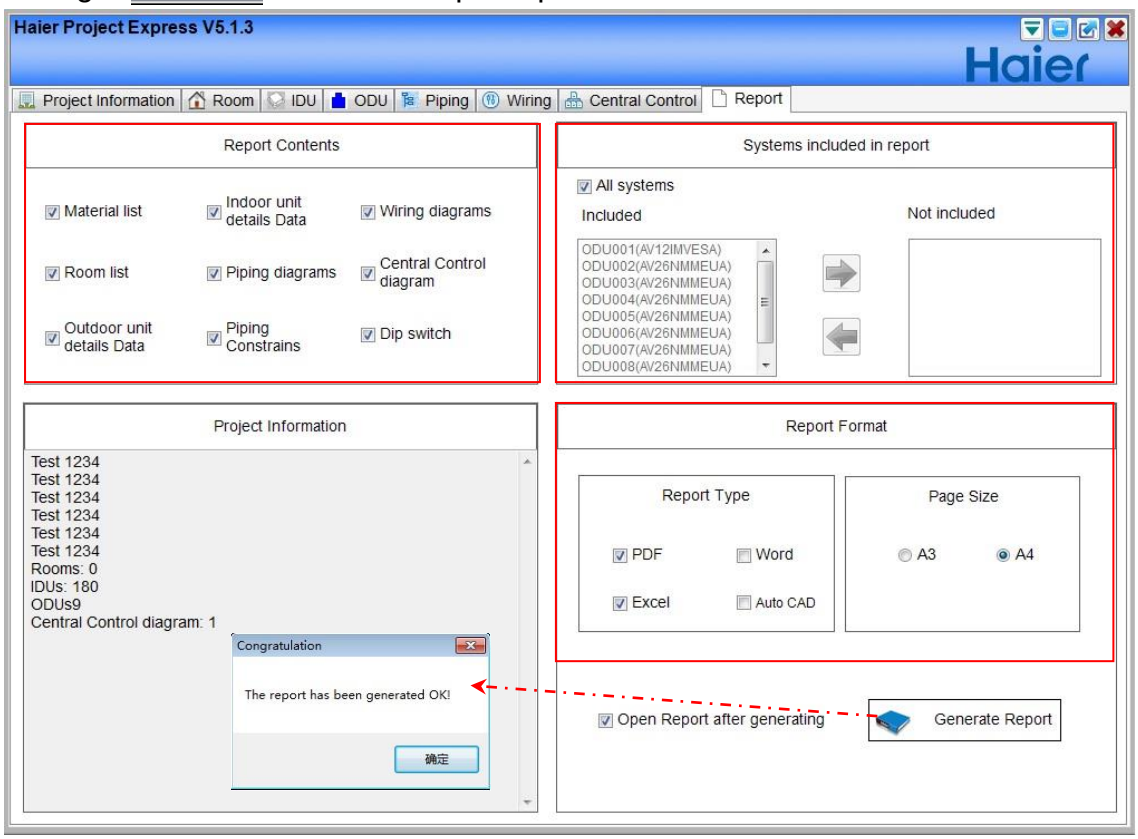
You can input the length of cable by clicking the cable in central control diagram and if you input the value longer than suggested value the Cable Diameter can be varied with your input length within the range of 600m.



1, Save current control diagram

2.11 Report

Clicking “ Report ” to enter output report interface.



You can set “Report Contents, Systems included in Report, Report Format” these three parts to meet your request and then click Generate Report to choose a saving path to save the report.

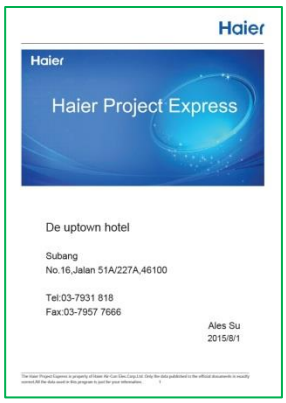
And for a short while a new window pops up, notice you report is OK.

The PDF file will be shown automatically if you tick the button Open Report after generating

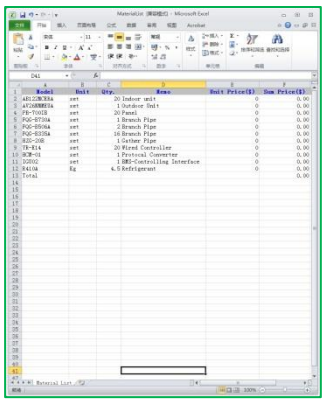
Notes

Systems included in report: If you click the button All systems , the button and are not available and all the ODUs are in “included” box.

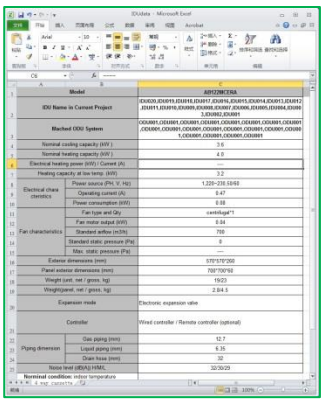
After cancelling “All system”, you can move an ODU system in “included” box to “not included” or vice versa by clicking the button or .



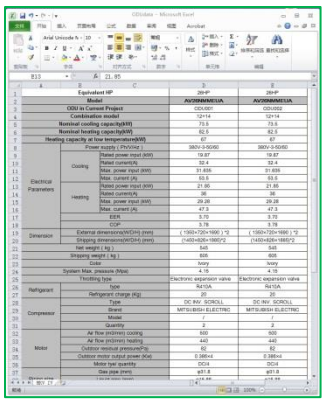
PDF



Material List

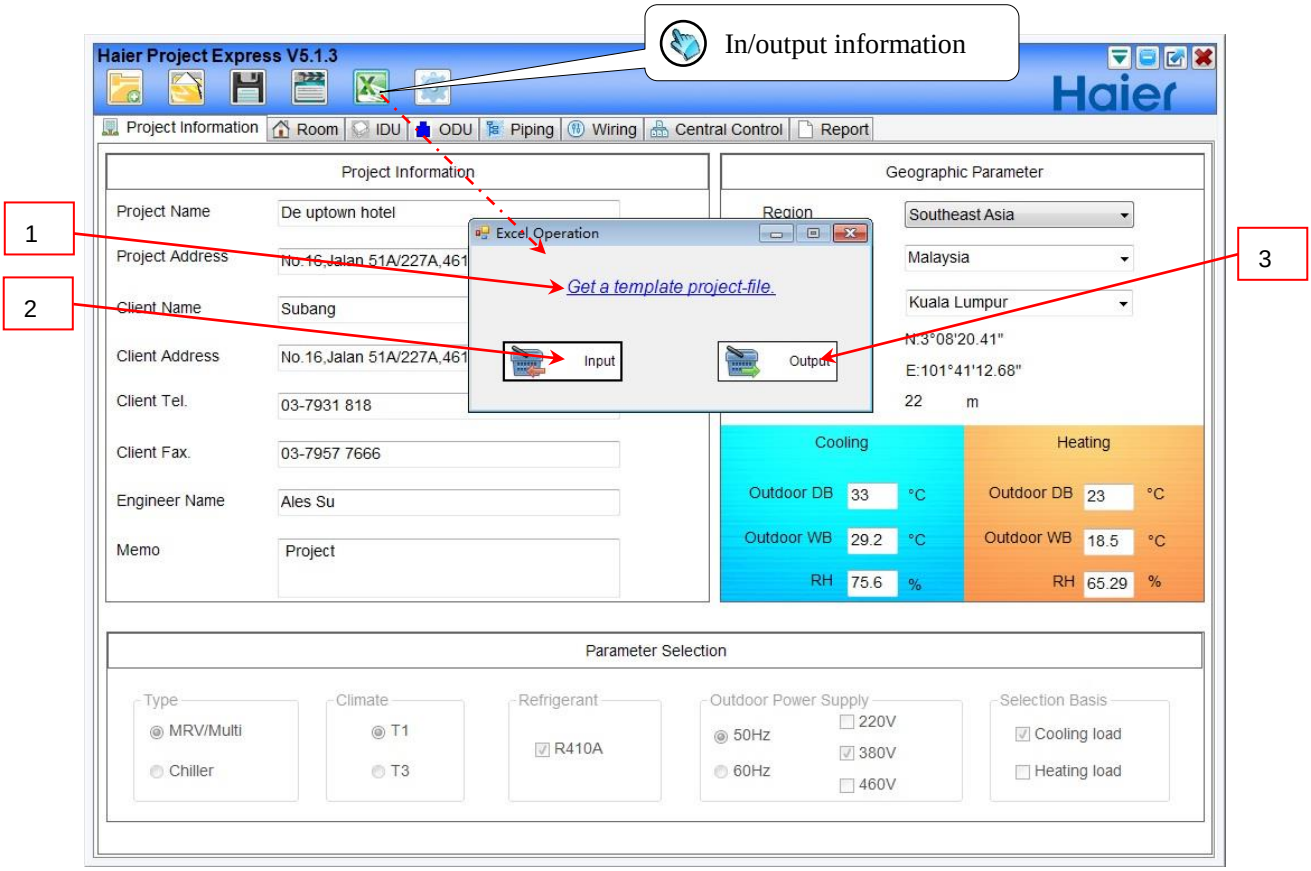


IDU Data



ODU Data

2.12 Input (import) & Output (export) with Excel



1, Get a template project-file. Get a template to fill the project information manually.

2, Input Input the project information.

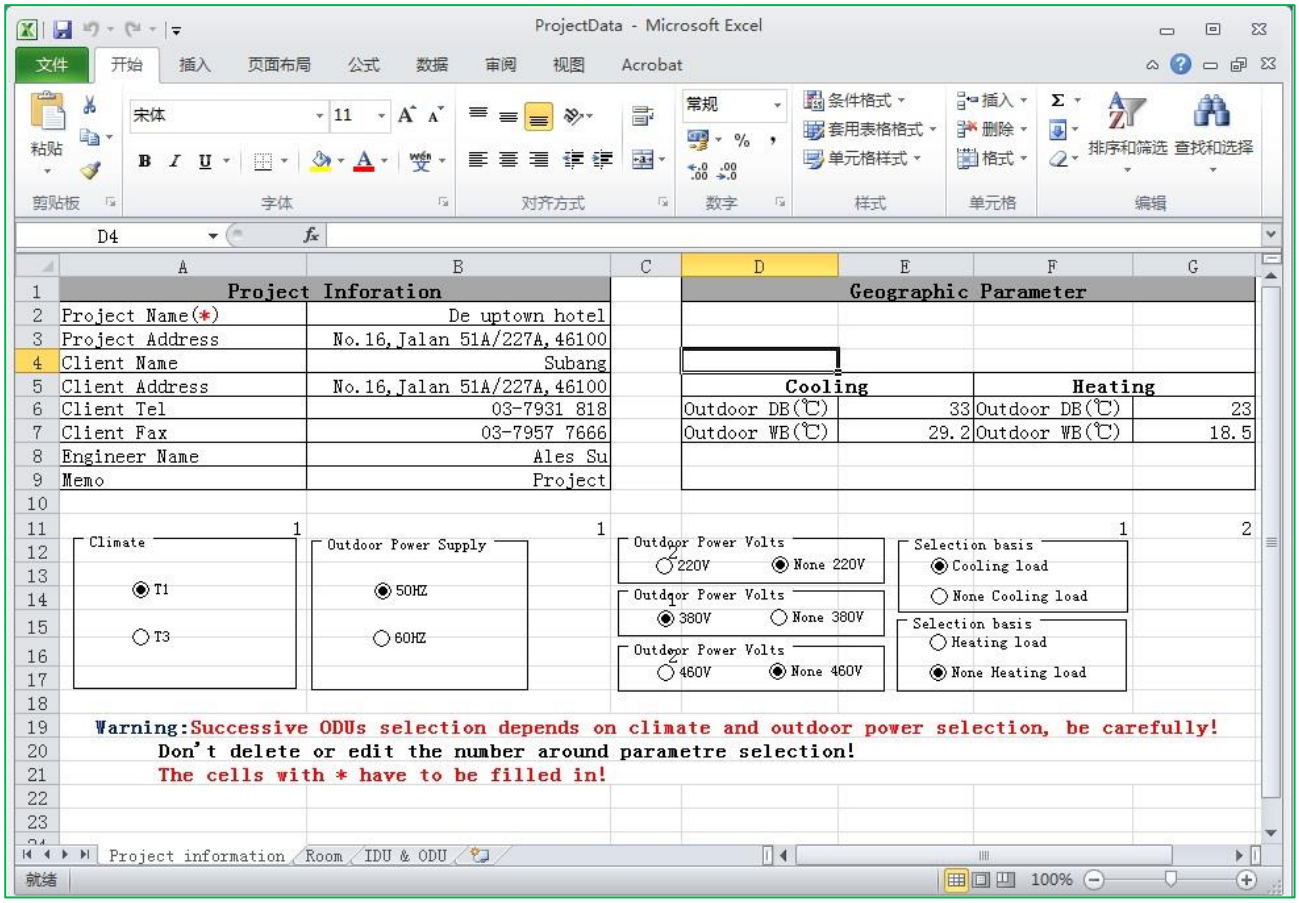
After finishing the Excel template which you got , you can input (Import) the project data without the preceding procedure of selecting Room, IDUs and ODUs step by step.

And it's more advisable for experienced clients. You have to pay close attention to the red-colored "WARNING" signs in the Excel file(template project-file).

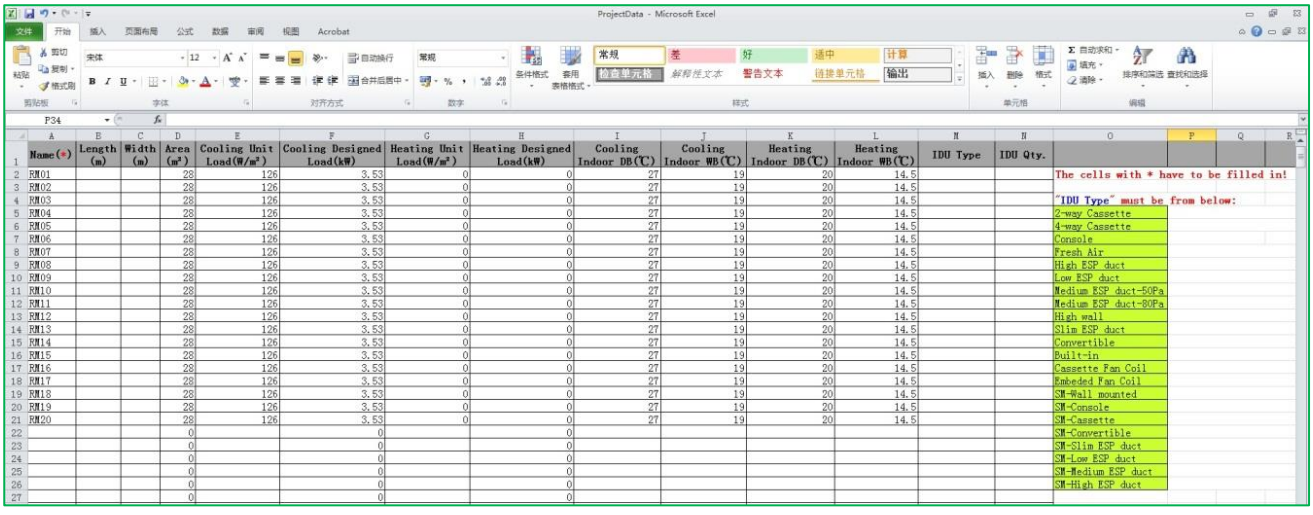
3, Output Output the project information.

When you open the Excel file, you will find three sheets.

You should fill in project information in **the first sheet**; you should pay close attention to “warning”. And you can select the items to meet your needs in it but never change the numbers in excel.



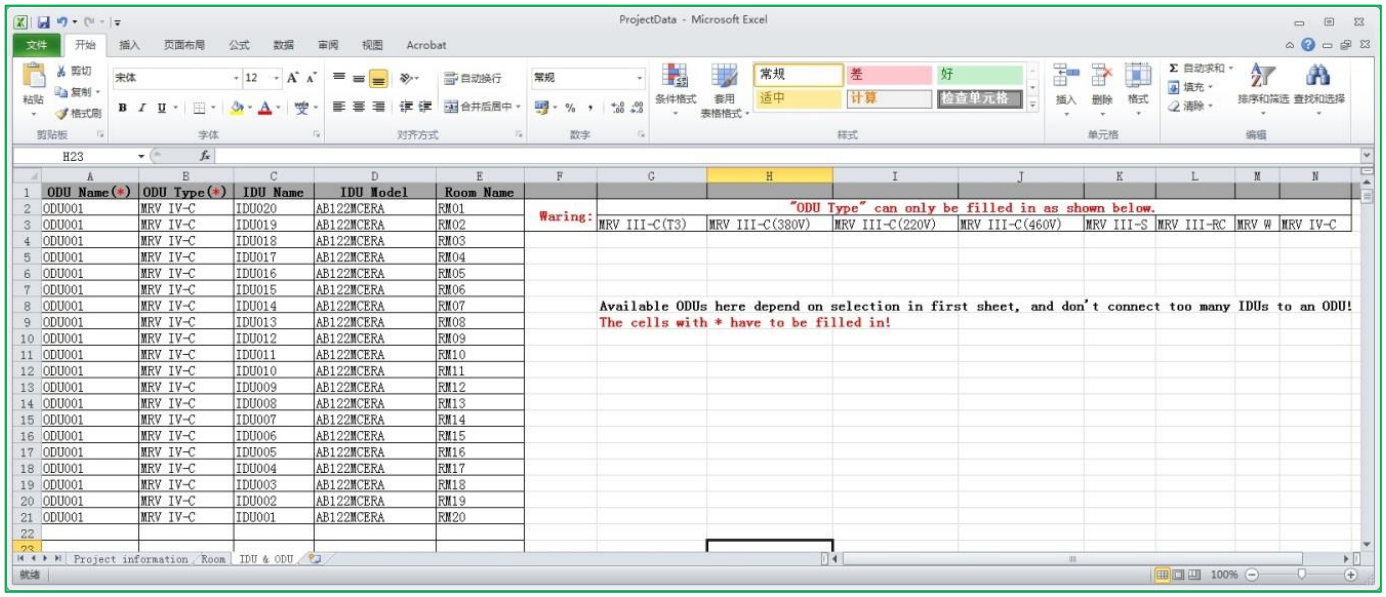
The second sheet is for you to fill in Room Data. The name of the room must be filled but others according to your preference. If you want to select suitable IDUs while input room’s data, you should input “IDU Type” by copying it from the GREEN cells and “IDU Qty.”



Connection of IDU & ODU in **the third sheet**: all the items must be filled except Room Name and you have to use listed ODU Type in the file to fill in. And you are strongly recommended to copy the listed ODU Type directly to the cell for fear of mistakes.

As to IDUs, you must fill in the correct IDU model and it makes no difference to the uppercase or lowercase.

Warning: Don't try to connect too many IDUs to one ODU, if you do so, a suitable ODU is not available and there is an error when inputting the Excel-file.



ODU Name(*)	ODU Type(*)	IDU Name	IDU Model	Room Name
ODU001	MRV IV-C	IDU020	AB122MCERA	RM01
ODU001	MRV IV-C	IDU019	AB122MCERA	RM02
ODU001	MRV IV-C	IDU018	AB122MCERA	RM03
ODU001	MRV IV-C	IDU017	AB122MCERA	RM04
ODU001	MRV IV-C	IDU016	AB122MCERA	RM05
ODU001	MRV IV-C	IDU015	AB122MCERA	RM06
ODU001	MRV IV-C	IDU014	AB122MCERA	RM07
ODU001	MRV IV-C	IDU013	AB122MCERA	RM08
ODU001	MRV IV-C	IDU012	AB122MCERA	RM09
ODU001	MRV IV-C	IDU011	AB122MCERA	RM10
ODU001	MRV IV-C	IDU010	AB122MCERA	RM11
ODU001	MRV IV-C	IDU009	AB122MCERA	RM12
ODU001	MRV IV-C	IDU008	AB122MCERA	RM13
ODU001	MRV IV-C	IDU007	AB122MCERA	RM14
ODU001	MRV IV-C	IDU006	AB122MCERA	RM15
ODU001	MRV IV-C	IDU005	AB122MCERA	RM16
ODU001	MRV IV-C	IDU004	AB122MCERA	RM17
ODU001	MRV IV-C	IDU003	AB122MCERA	RM18
ODU001	MRV IV-C	IDU002	AB122MCERA	RM19
ODU001	MRV IV-C	IDU001	AB122MCERA	RM20