AHU Selection Software

[Operation Instructions]

V1.1

Gree Electric Appliances, Inc. of Zhuhai

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1. Usage Scope

1.1 Applicable AHU

This software is applicable to all Gree air handling units.

1.2 Other Required Software

The output of this software is the PDF documents. Therefore, this software should be used with Adobe Reader and Microsoft Office.

1.3 Supported Operation Systems

Windows XP, Windows 7, Windows 8

2 Brief Introduction
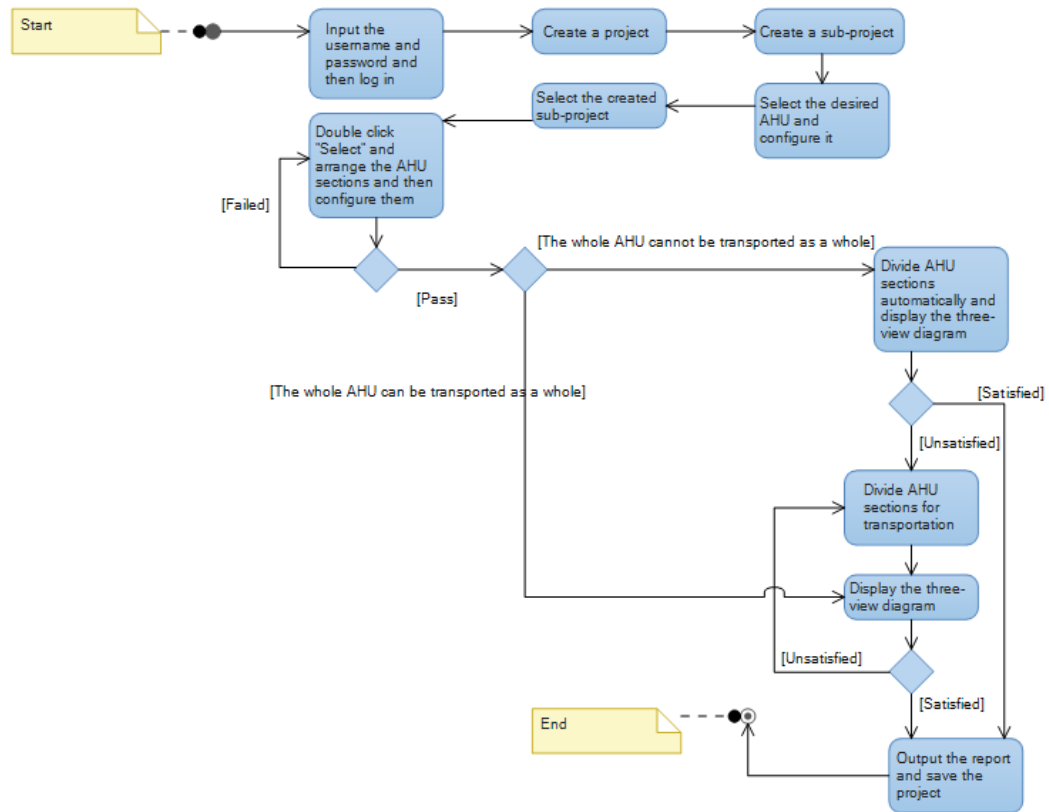
2.1 Basic Steps for Model Selection

Figure 1 Model Selection Flowchart
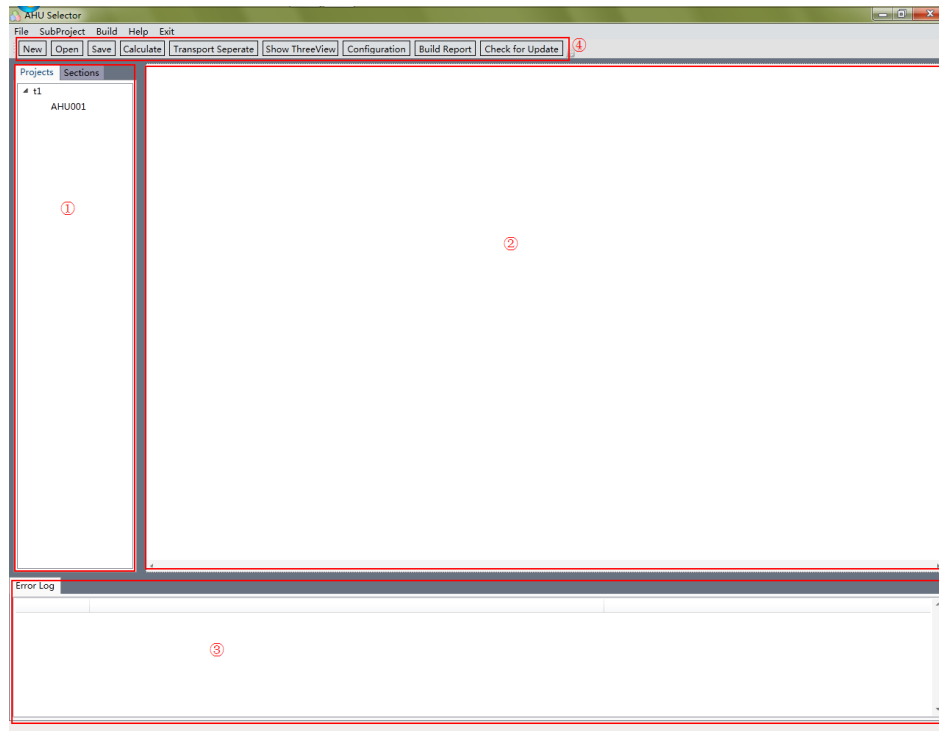
2.2 Pages and Menus

2.2.1 Homepage

Figure 2 Homepage

① The project contains all sub-projects. By single clicking, they can be switched over.

② This area is used to display all that have been selected AHU sections.

③ Error information will be displayed in this area, through which the user can get known their mistakes.

④ It is the presto toolbar, including tools of "Create", "Open", "Save", "Calculate", "Divide", "Display", "Config", "Report", "Update".

2.2.2 Function and Operation of Each Tool at the Presto Toolbar

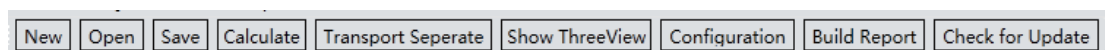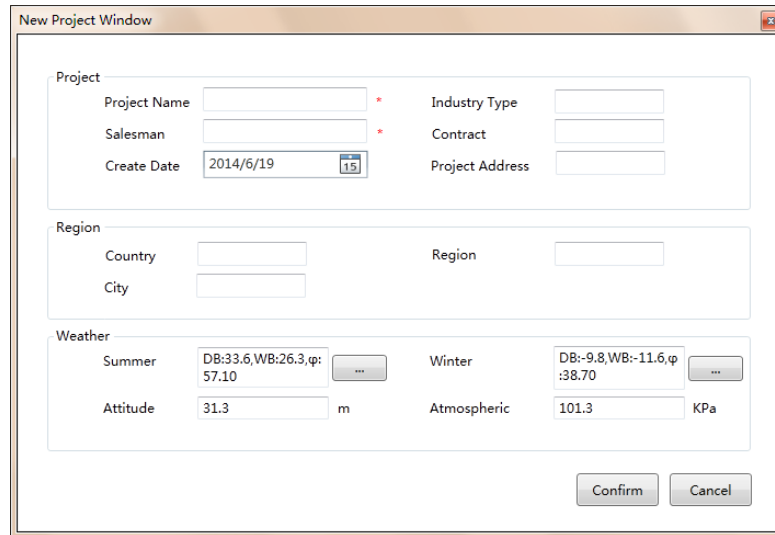"④" in Figure 2 is the presto toolbar. Its enlarged diagram is as shown below.

Figure 1 Presto Toolbar

2.2.2.1 Create NewProject

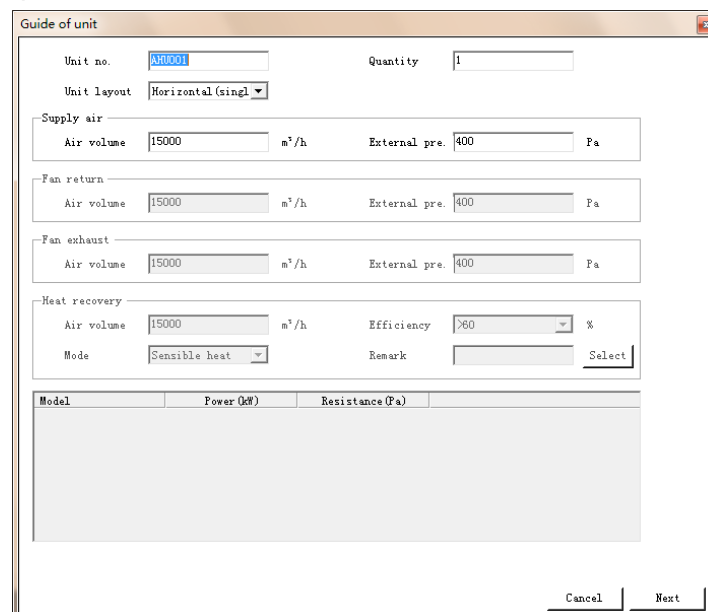On the homepage, click "**New**", then a window will pop up, as shown below.

Figure 2 Create a Project

When all information in Figure 4 is completed, click "**Confirm**", and then a wizard window will pop up, as shown below.

Figure 5 AHU Wizard

At this point, by clicking or **Cancel** the AHU wizard will exit; by completing options of the wizard and clicking **Next**, the AHU selection will continue as shown below.
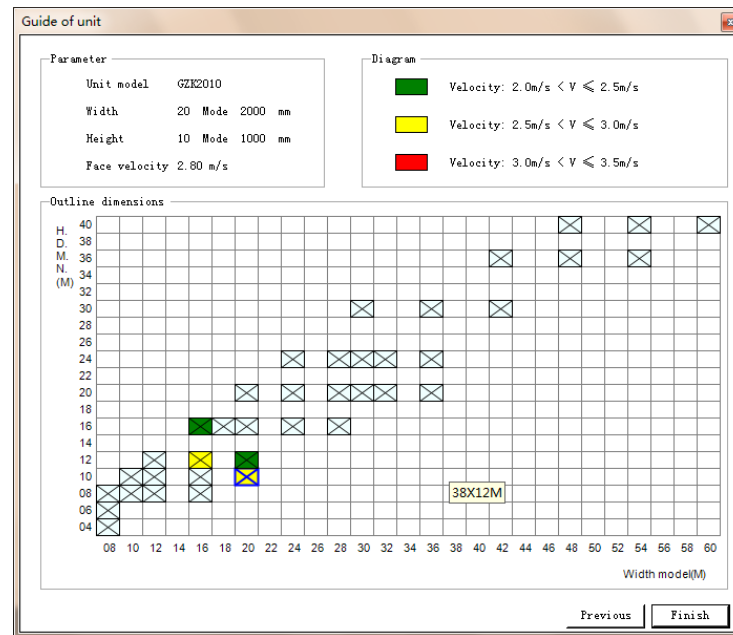
Figure 3 AHU Wizard

Here , three height modulus are available, , , and .

After selection, click "**Finish**" and then another window will pop up, as shown below, which is used for AHU configuration.

Figure 7 AHU Configuration

When all parameters have been completed, click "**OK**", which indicates "**Confirm**" has been finished.

2.2.2.2 Open

By clicking "**Open**", the created projected can be accessed to and a dialogue box will pop up.
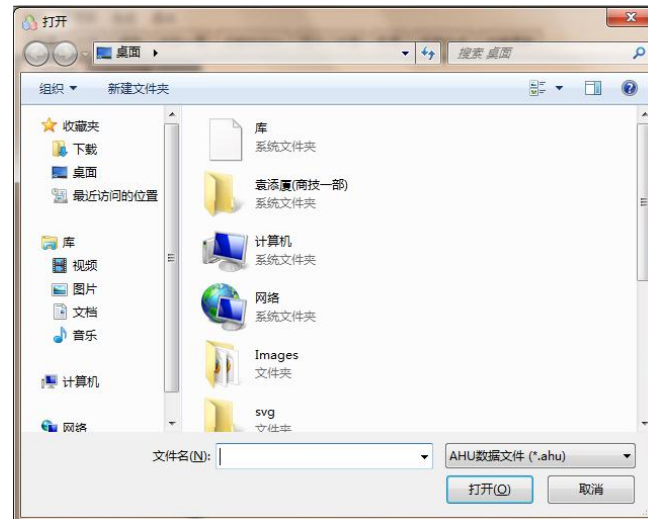

Figure 8 Open a Project

Note: only .ahu documents are accessible and will be displayed.
The selected .ahu document can be accessed by clicking "**Open**".

2.2.2.3 Save

By clicking "**Save**", a dialog window will pop up and the opened project will be saved.
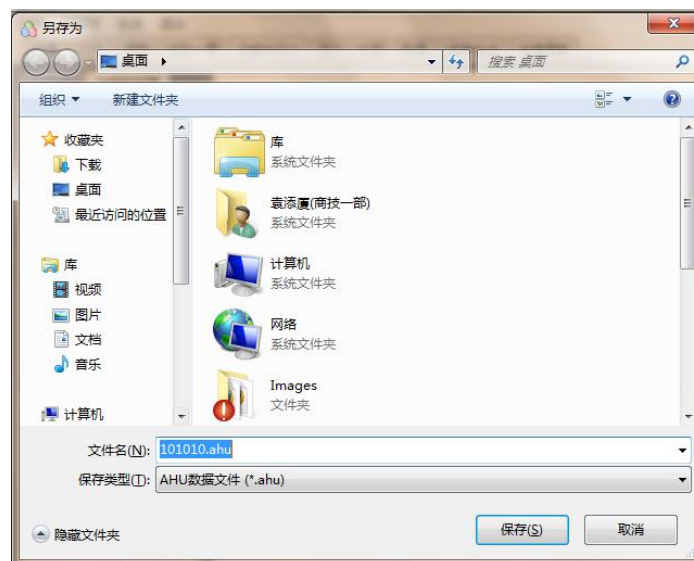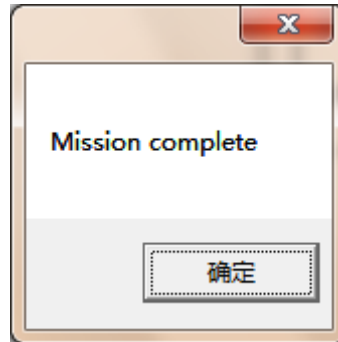

Figure 9 Save a Project

Note: only .ahu documents are accessible and will be displayed.

After that, complete the desired document name and then click "**Save**" to save this document to the local hard disc.

Once saving is successful, a dialog window will pop up, as shown below.

The stated above is the entire "Save" process.

2.2.2.4 Calculate

After arranging AHU section, click "**Calculate**" and this software will verify the arrangement logic and calculate the main properties of each section, like weight, length and resistance etc.

By clicking "**Calculate**", a dialog box will pop up. In this case, it indicates the software is calculating all arranged section. During this time, it would be better not to take any operation.
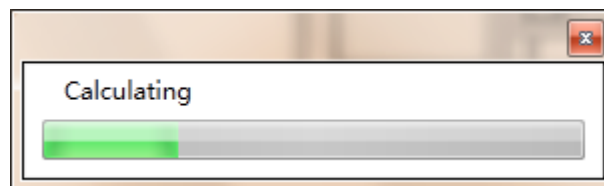
There are usually two cases in calculation.

When verifying the arrangement logic, if the arrangement does not agree with the logic, an error window will pop up, as shown below.
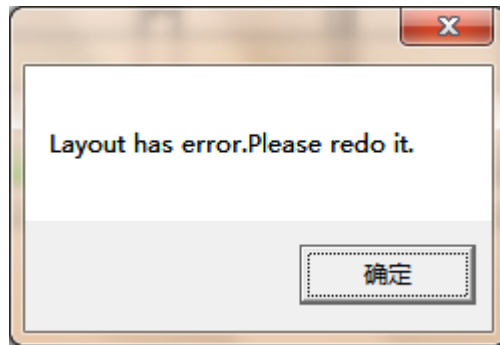
2.2.2.5 Transport Seperate

Through the three-version diagram, if the division of sections for transport is unsatisfied, then division can be done again.

Firstly, double click the subproject at ①, as shown below.
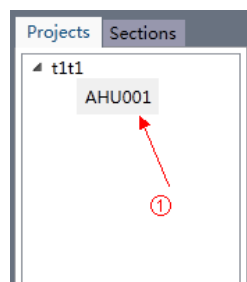
After double click, a parameter window will pop up, then find the parameter of "**Transport**" as shown in the figure below.
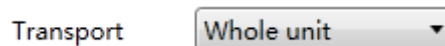
There are totally three transport forms: Whole unit, Sections, Parts components.

After adjustment, click "**Transport Seperate**" and the outline boarder of the arranged sections will turn to red, as shown below.

By clicking the middle section, there will be a bold red line between the left section and the middle section, which means the left section will be transported separately, and the middle and the right ones will be transported together.
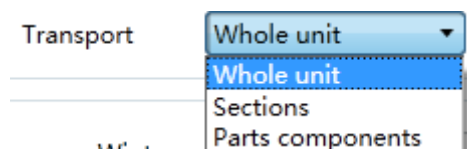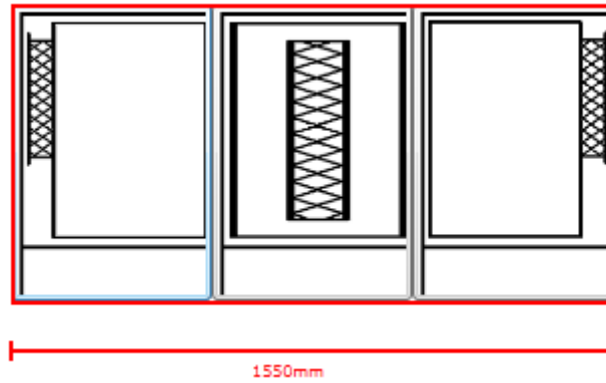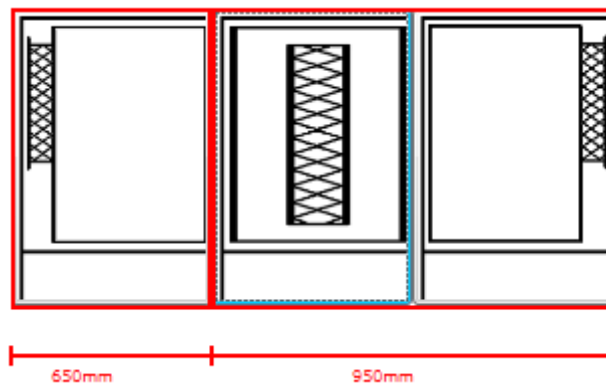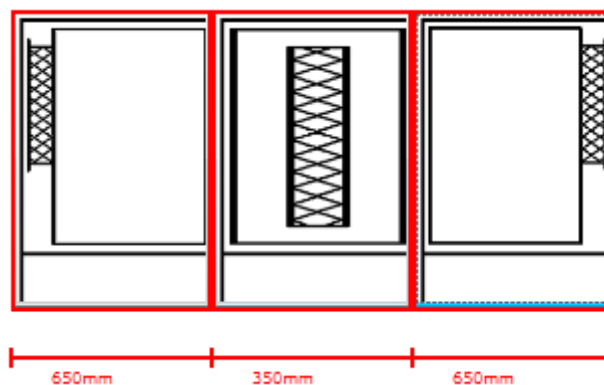

If the middle and the right section also should be transported separately, click the right section and then there will also be a bolt red line between them to divide them.


At the "**Transport Seperate**" state, many functions are unavailable. If these functions are necessary, click "**Design**" at the presto toolbar to switch over states.

However, when switching back to "Divide", selection calculation will be performed again, which aims to verify if there is any mistake for the division (such as, the divided sections are too long, or other problems).

2.2.2.6 Show Three View

By clicking "Show Three View", the latest three-view diagram will be redisplayed, as shown below.
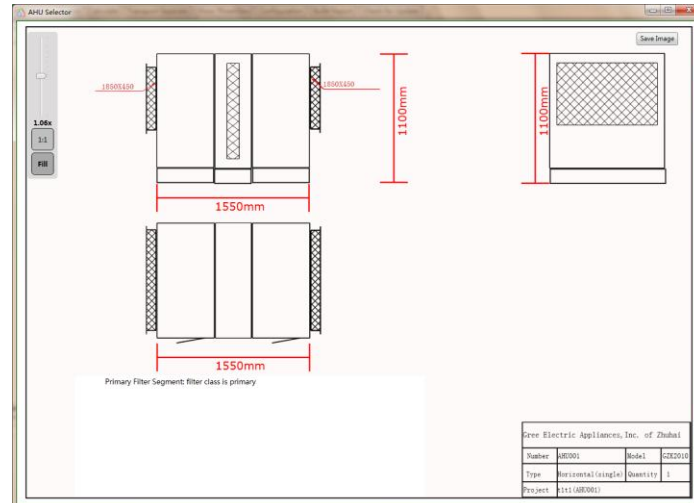
2.2.2.7 Configuration

When there is a need to swtich over laguanges between Chinese (中文) and English, or there is a need for automatic update, click "**Configuration**" at the presto toolbar and then a dialog window will pop up, as shown below.
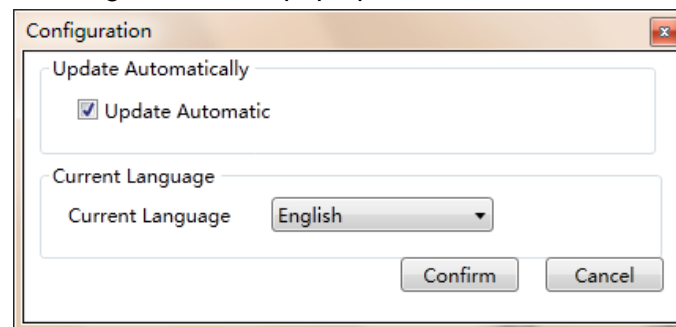
Through this pop-up window, it is able to realize automatic update when this software is activated, or switch languages between Chinese and English.

2.2.2.8 Build Report

By clicking "**Build Report**", a dialog window will pop up and a desired report will be generated.
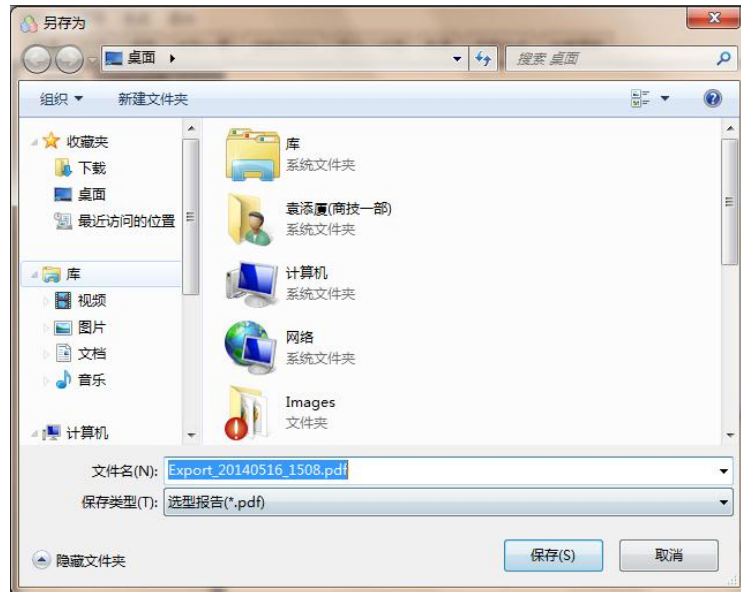
Select the desired document and click "**Save**" to save this document to the expected file directory.

Once your computer has installed Adobe Reader or other similar PDF software, this document can be opened directly, as shown below.

* System information
AHU001

Machine Attitude Window
Base Info

Unit no.	AHU001	Unit model	2010
Quantity	1	Unit type	Horizontal(single)
Unit Weight(KG)	299	Run weight(KG)	359
Power supply	380V 3N~,50Hz	Piping dir.	Right
Service light(V)	24	Power control	Terminal block
Installation	Floor-standing	Transport	Whole unit

Indoor conditions

Summer	DB:27.00,WB:19.50	Winter	DB:15.00,WB:10.80

Housing

Frame shapes	25#	Panel thick.	A-23
Outer panel	Gal. sheet(plastic)	Ental panel	Galvanized sheet

Blower

Air volume(m3/h)	15000	External pre. (Pa)	400

Access door

Direction	Right	Layout	Single

2.2.2.9 Check Update

By clicking "**Check Update**", it will automatically identify if there is a higher version, as shown below.

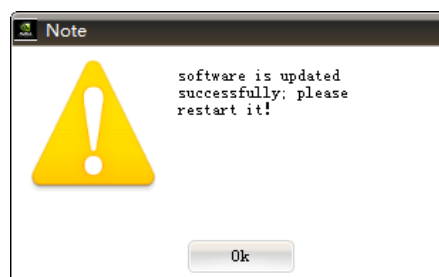Connecting to the remote update server, detect the need to
upgrade...
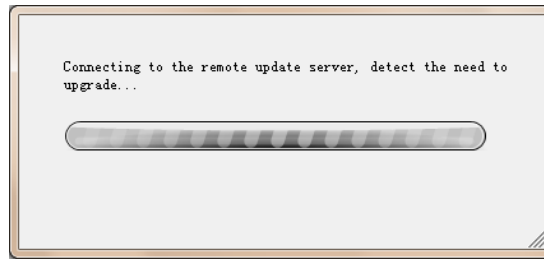
If there is a higher version, as shown in the figure below, an information window will pop up, saying "There is a higher version, update now? [Y]: Update now [N]: Update next time.

Note

it was detected the software should be updated; update or
not?【yes】:update now, 【no】:update next time.

Yes   No
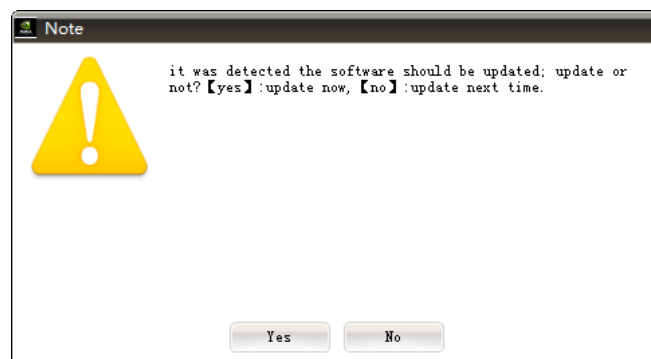
Then, the higher version will be downloaded automatically from the server and also a processing bar will occur, as shown below.

DownLoad

Update program
Files are downloading, please wait on...

It has been downloaded: 36 %
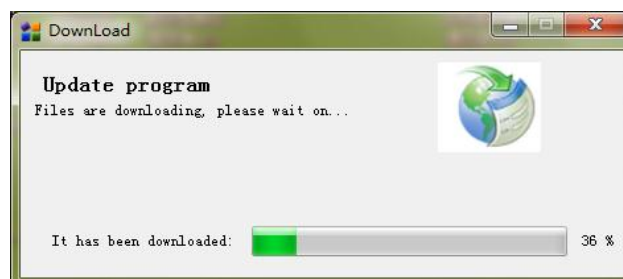
When download is finished, a window will pop up, as shown below.

Note

software is updated
successfully; please
restart it!

Ok

The software will be the latest version after restarting.

3 Operation Instructions

3.1 Brief Introduction

This chapter will take some client's project as an example to explain the operation instructions of this software.

Note: this example is just for reference and is meaningless for actual projects.
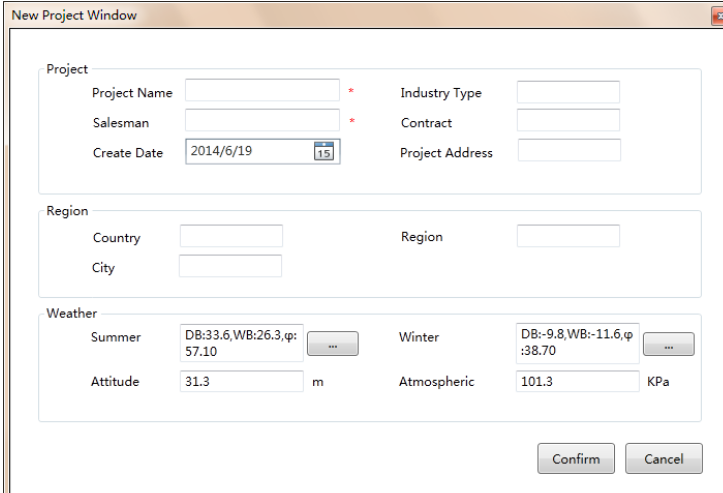
3.2 Selection Steps

3.1.1 Step 1: Log in

Prior to AHU selection, it is required to log in the software with correct username and passwords.

### 3.1.2 Step 2: Create a project

After login, go to the homepage as shown in Figure 2, and then click "**New**" to go the page shown as below.

Options marked with * are required to be completed. If it is an English system, then options "**Country**", "**Region**", "**City**", "**Altitude**" and "**Atmospheric**" should be

completed manually.

The climatic information can be confirmed through information of "**Country**", "**Region**" and "**City**". That is, after "**City**" information has been completed, click [...] and then a window for climatic information will pop up, as shown below.
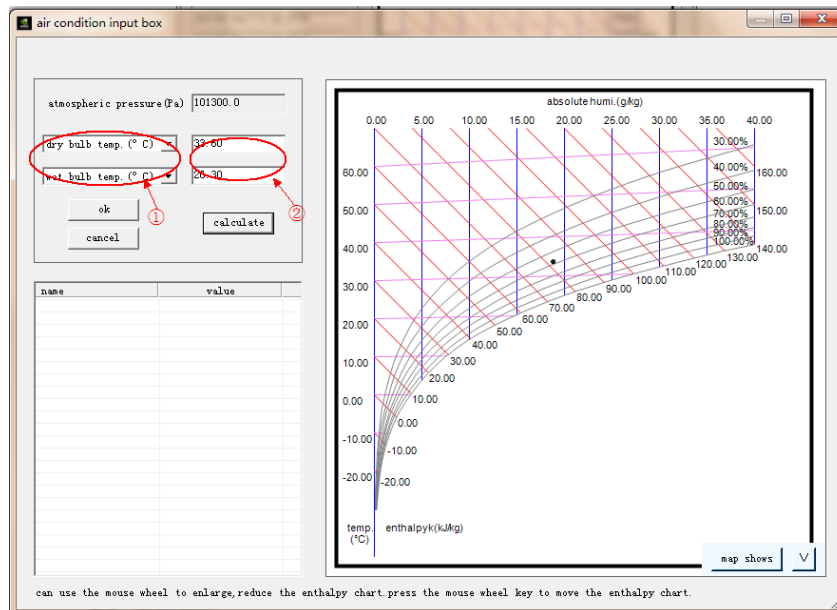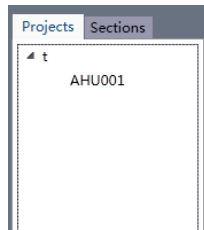

Based on climatic information derived from the "**City**" information, you should choose the type of value in ① and enter the value in ②. It is able to calculate the dry bulb temperature, wet bulb temperature, relative humidity and other parameters. After calculation, click "**OK**" to exit this window.

Then, at the "**Create a project**" window, click "**OK**" to go to the next step.

3.1.3 Step 3: Create a sub-project

After creating a project, then a widow of "**Create a sub-project**" will pop up. At this window, for the single-fan or double-fan unit, complete "**Air Volume**" and "**External Pre.**" and then go to the next step; for the heat recovery unit, complete all necessary parameters and then click "**Select**", after that, select proper fans and then go to the next step.

The next is to select proper units. The yellow, green and red boxes mean selectable units while the gray box means un-selectable units. The greens mean machine with purifying function. The yellows mean Ordinary unit, with the water baffle. The reds mean Unit with ventilation and heating functions.

3.1.4 Step 4: Configure the air handling unit

As soon as Step 4 is finished, the name of the new project and its sub-project will be displayed under the "**Projects**".

Before placing the AHU sections, double click the name of the sub-project, like AHU001 and then a window for configuration will pop up.

(1) The transport mode will determine if to divide the sections for transport.
(2) The frame material will determine the width frame
(3) click ⬚ and then a window for the psychrometric chart will pop up.

Regarding those unnecessary sub-projects, right click it and then dialog box will pop up as shown below, through which they can be deleted.
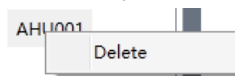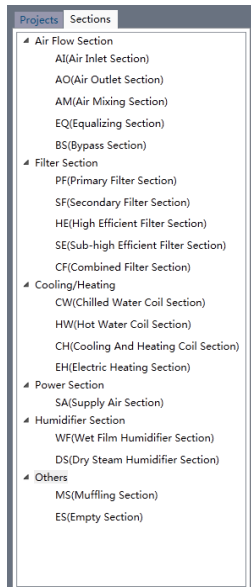

The project also can be deleted in the same way.

3.1.5 Step 5: Arrange sections

1) Click the name of the sub-project, which then will turn to blue, like AHU001. In this case, click "**View**" and AHU sections will be shown as below:

2) Double click the expected section to unfolded it, as shown below.

3) Double click one among the unfolded sections, like AI(Air Inlet Section) , which then will turn to blue, like AI(Air Inlet Section). At the same time, there will be one more section occurring at the right of the screen.


4) Left click the section picture and then draw it to the expected place and then release the cursor, as shown below.
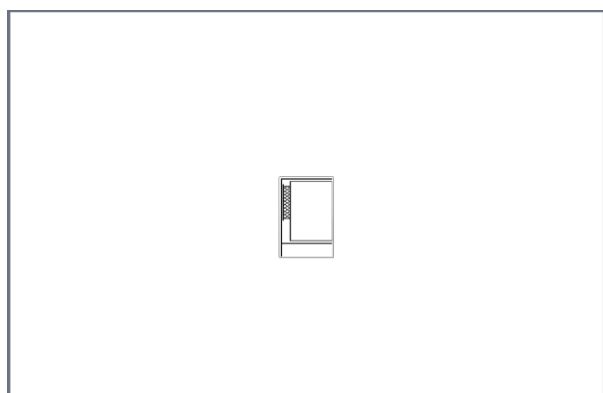

5) Repeat 3), put the section where you want and then it will be displayed at the left upper side of the screen, as shown below.
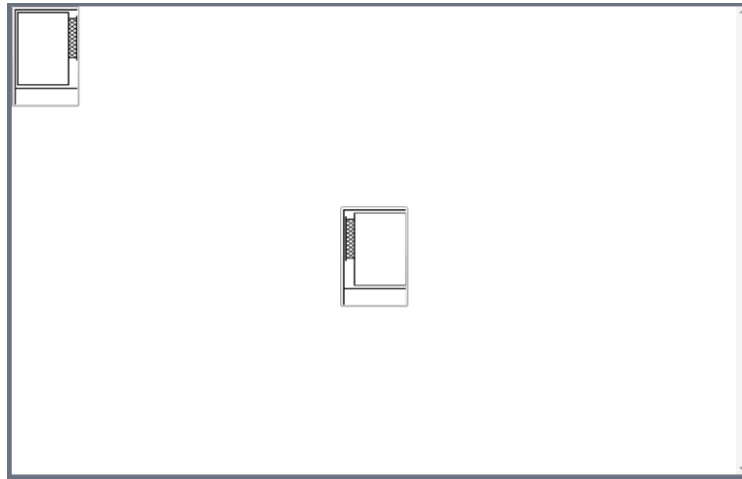
6），Repeat 4), put the AHU section to the desired place and then release the cursor. At the second when the cursor is released, the section will be placed or inserted to any desired place, as shown below.
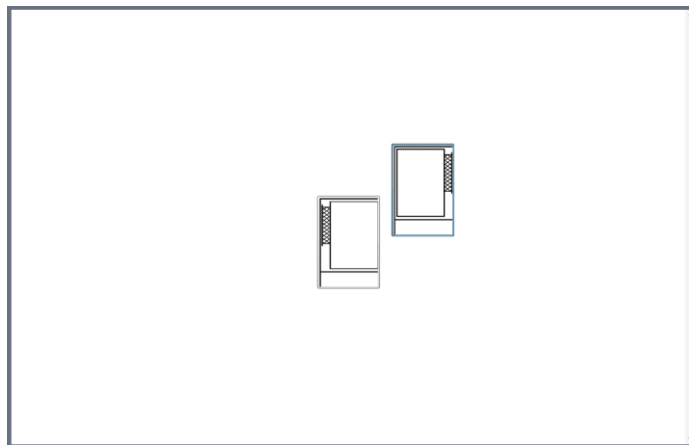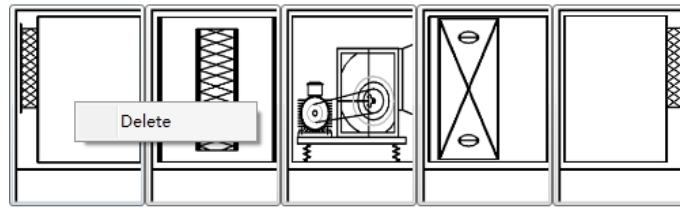

When the section is released where as shown above, then it will be arranged as shown below.
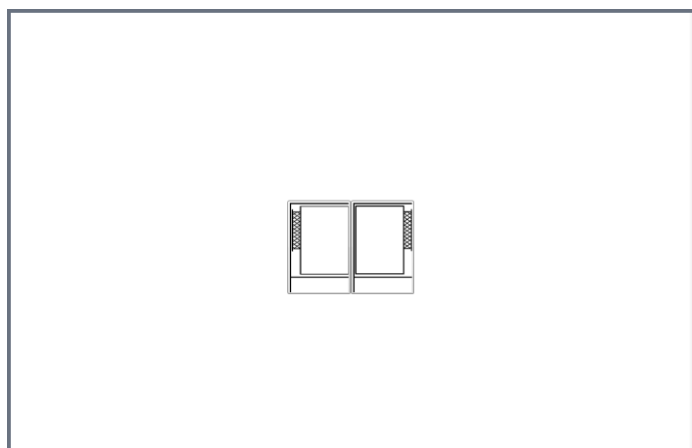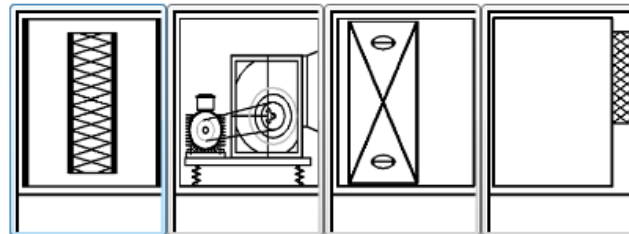

Then repeat 3) and 4) again and again. After all desired sections are arranged, take calculation continuously.

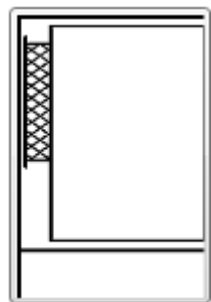For some improper sections, right click them as shown below.

Then click "**Delete**" to remove those sections, as shown below.

3.1.5 Step 6: Configure each section

Double click the section picture, as shown below.

Then, a window will pop up:
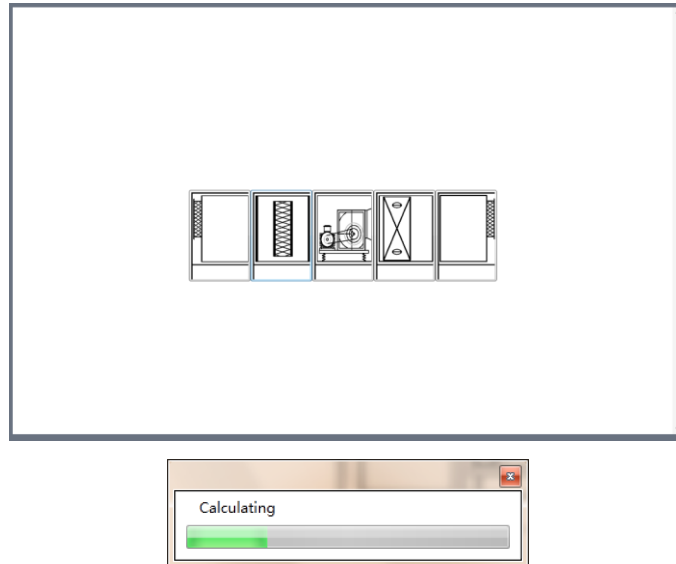

At the pop-up window, configure its relevant parameters for each AHU section, and then go to the next step.
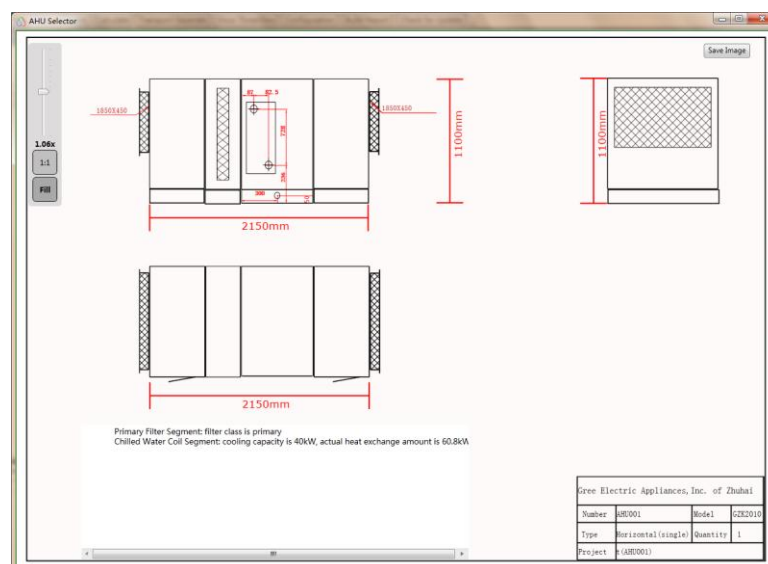
3.1.5 Step 7: Calculate

When all AHU sections are well arranged, as shown below, click "**Calculate**" and a processing bar will pop up and start the selection calculation.

3.1.5 Step 8: Display the three-version diagram

After the processing bar vanishes, the three-view diagram of the sub-project will pop up.

This three-view diagram contains information stated below:
（1）front view, side view, top view
（2）scale marks of length and height
（3）information of AHU sections at the lower left side
（4）information of the project and sub-project as well as the company
When the divided sections are unsatisfied, see Section 2.2.2.5 for how to divide

them again.

3.1.5 Step 9: Output the report

When steps above are all finished, if there is need to output a report, then click "**Report**". After the report has been output, if your computer has equipped the PFD reader, then this report can be read automatically.

3.1.5 Step 10: Save the project

If project quotation is required, this project should be saved to the local hard disc at first
Click "**Save**" and then a dialog box will pop up.
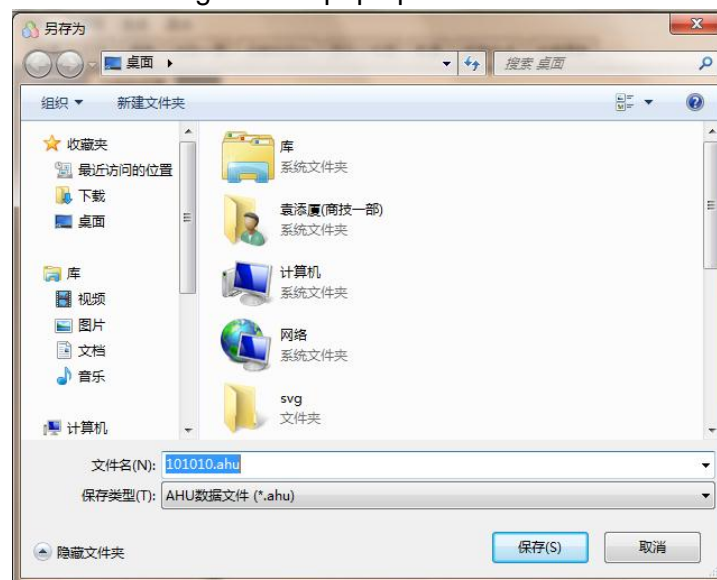
At the pop-up window, edit the document name and then click "**Save**".