



# Recipe function



Website: <http://www.we-con.com.cn/en>

Technical Support: [liux@we-con.com.cn](mailto:liux@we-con.com.cn)

Skype: "fcwkkj" or "Jason.chen842"

Phone: 86-591-87868869

QQ Group: 465230233

Technical forum: <http://wecon.freeforums.net/>



# 1. General

PI Series HMI has Recipe function, Recipe function keeps data in the HMI, used to download the data from HMI to designated device addresses, or upload the data from device addresses to HMI.

The maximum number of group in recipe is 1000, and the maximum number of member in each group is 1500.

Recipe function divides into simple mode and advanced mode. Advanced mode can support multiple recipe files, but simple model can only support one recipe file.

And it can support import recipe file (.rcp2 and .csv are supported) and export recipe file (.rcp2 file is supported).

## 2. Simple recipe settings

This chapter introduces how to set simple recipe.

### Operation Procedure

- 1) Select [Recipe] in [Project] menu to open the setting window as figure 1 shows.

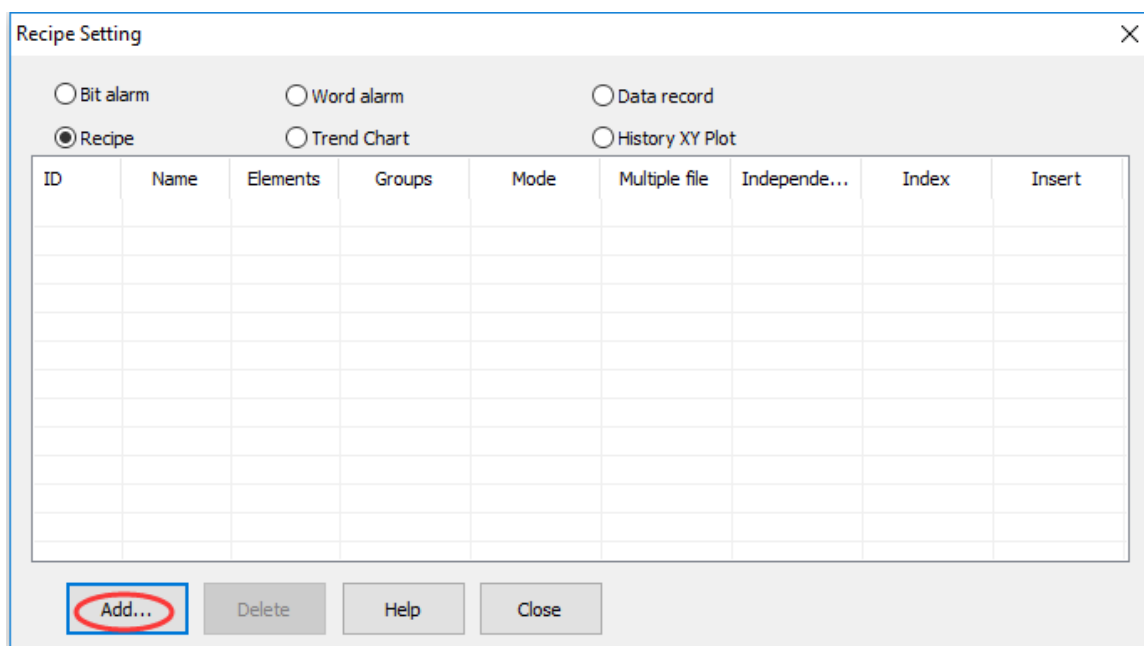
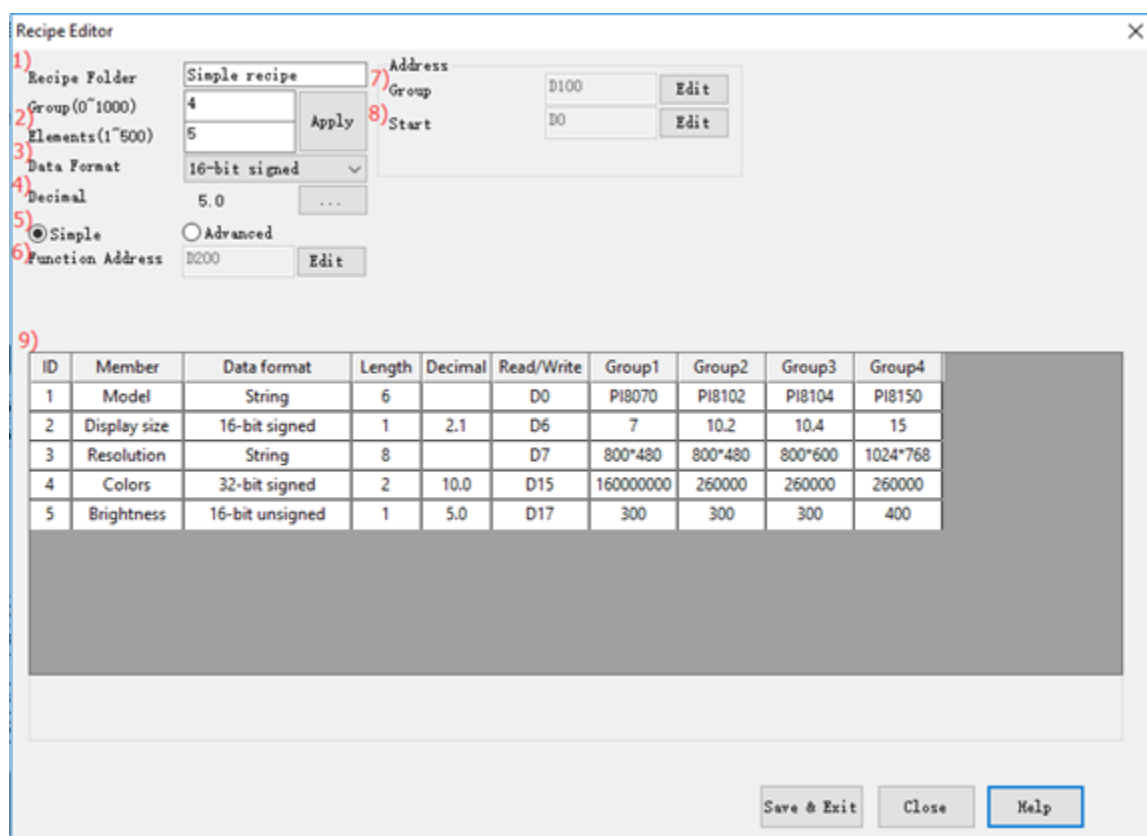


Figure 1

2) Click [Add] to edit one recipe, the editing information as figure 2 shows.

- ① **Recipe Name:** Give Recipe folder name (It can be used, when setting Recipe display object);
- ② Set the groups' initial number of recipe, and the members' initial number of each group, and then click "Setting", these settings will be saved. User can add more groups, but can't add more members when HMI is running.
- ③ **Data Format:** There are some formats can be supported in Recipe, like 16-bit BCD, 16-bit signed, 16-bit unsigned, 32-bit BCD, 32-bit signed, 32-bit unsigned, 32-bit floating and string. If each member requires different formats, please set it one by one in form;



The screenshot shows the 'Recipe Editor' window with the following settings:

- Recipe Folder: Simple recipe
- Group(0~1000): 4
- Elements(1~500): 5
- Data Format: 16-bit signed
- Decimal: 5.0
- Mode: Simple (selected), Advanced (unselected)
- Function Address: B200
- Address Group: D100
- Start: D0

Below the settings is a table with 10 columns: ID, Member, Data format, Length, Decimal, Read/Write, Group1, Group2, Group3, Group4. The table contains 5 rows of data:

ID	Member	Data format	Length	Decimal	Read/Write	Group1	Group2	Group3	Group4
1	Model	String	6		D0	PI8070	PI8102	PI8104	PI8150
2	Display size	16-bit signed	1	2.1	D6	7	10.2	10.4	15
3	Resolution	String	8		D7	800*480	800*480	800*600	1024*768
4	Colors	32-bit signed	2	10.0	D15	160000000	260000	260000	260000
5	Brightness	16-bit unsigned	1	5.0	D17	300	300	300	400

At the bottom of the window are buttons for 'Save & Exit', 'Close', and 'Help'.

Figure 2

- ④ **Decimal:** Each data format has differently defined, please click "..." for details;
- ⑤ **Mode:** Users could select Simple or Advanced mode;
- ⑥ **Function address:** All the operations for recipe is by this address
  - =0 No operation;
  - =1 Read data from recipe;
  - =2 Insert a new group or write data to exist group;
  - =4 Inserted (only advanced mode);
  - =8 Delete;
  - =16 Delete and Sequence;

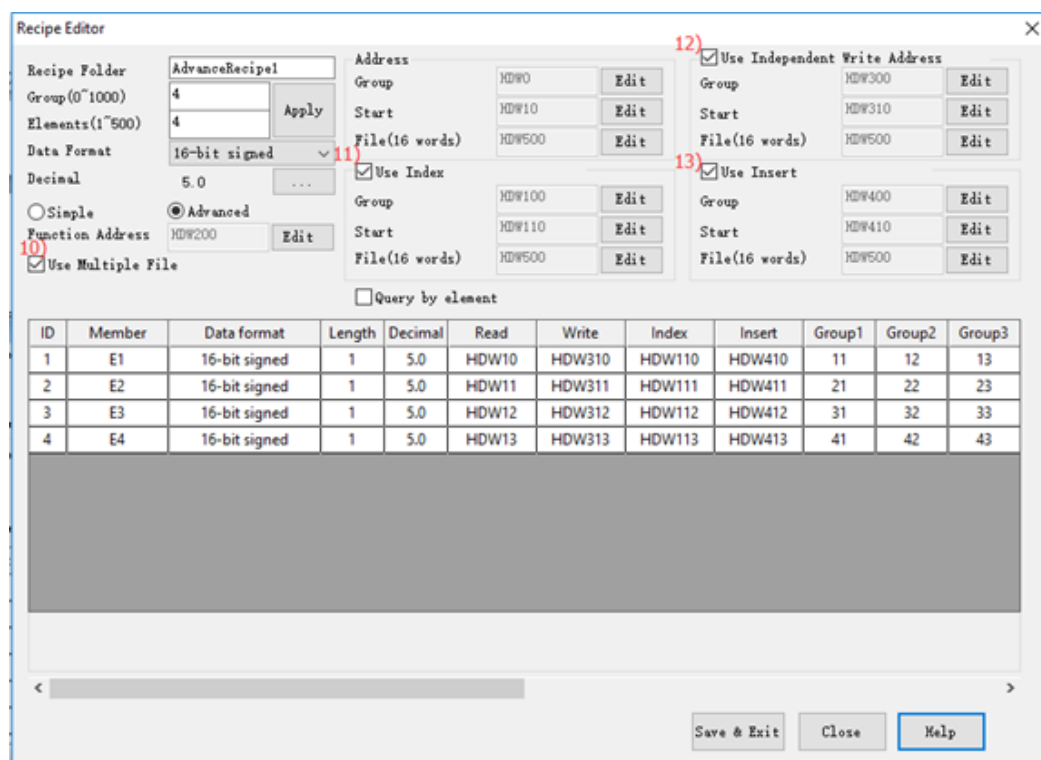
- ⑦ **Group:** This address is for selecting group number;
- ⑧ **Start:** This is starting address is for reading and writing in recipe, PStudio will automatically assigns addresses for each members;
- ⑨ **Recipe list:** It shows detailed information about recipe; users could set each member in here

## 3. Advanced recipe settings

This chapter introduces how to set advanced recipe basic on simple recipe.

### Operation Procedure

The basic settings are the same as simple recipe, the advanced function setting as Figure 3 shows.



ID	Member	Data format	Length	Decimal	Read	Write	Index	Insert	Group1	Group2	Group3
1	E1	16-bit signed	1	5.0	HDW10	HDW310	HDW110	HDW410	11	12	13
2	E2	16-bit signed	1	5.0	HDW11	HDW311	HDW111	HDW411	21	22	23
3	E3	16-bit signed	1	5.0	HDW12	HDW312	HDW112	HDW412	31	32	33
4	E4	16-bit signed	1	5.0	HDW13	HDW313	HDW113	HDW413	41	42	43

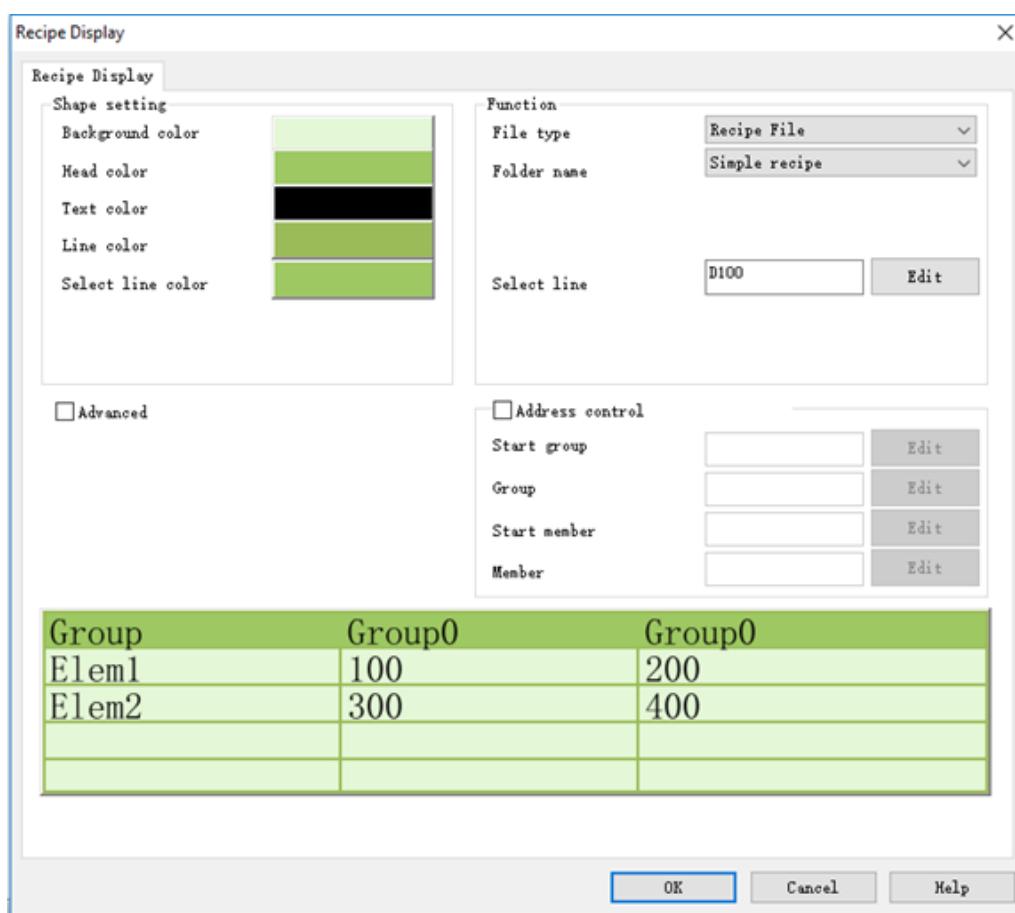
Figure 3

- ⑩ **Use multiple file:** Click it to use many recipe file, set the different function recipe name.
- ⑪ **Use Index:** If Group address value change, recipe address will display the new group recipe data. If the new recipe address data change, the corresponding group of the recipe data will change.
- ⑫ **Use independent Write address:** To use different Recipe read address and write address.

⑬ **Use insert:** To insert a recipe data and group, if the group No. had been built. It will save in this recipe group No. And the previous recipe data will save in next group No.

## 4. Recipe screen setting

This chapter introduces the recipe object setting, the setting screen as Figure 4 shows.



Group	Group0	Group0
Elem1	100	200
Elem2	300	400

Figure 4

- 1) **File Type:** This object is used to display other information, like “Recipe file”, “Operating record”, “Timeout Alert” and “Online user management”. Please select “Recipe file” for Recipe function;
- 2) **Folder Name:** Please select the Recipe Name, which is edited in “Recipe Editor”;
- 3) **Selected Line:** It shows that which line is selected in Recipe display object, it can be same as “Group” in Recipe Editor;
- 4) **Color:** For editing object’s style;
- 5) **Address Control:** Those are for display settings, to setting start group, group amount, start member, members’ amount that displayed in this object.

## 5. Simple recipe operation

### 5.1 Read from Recipe

#### Operation Procedure

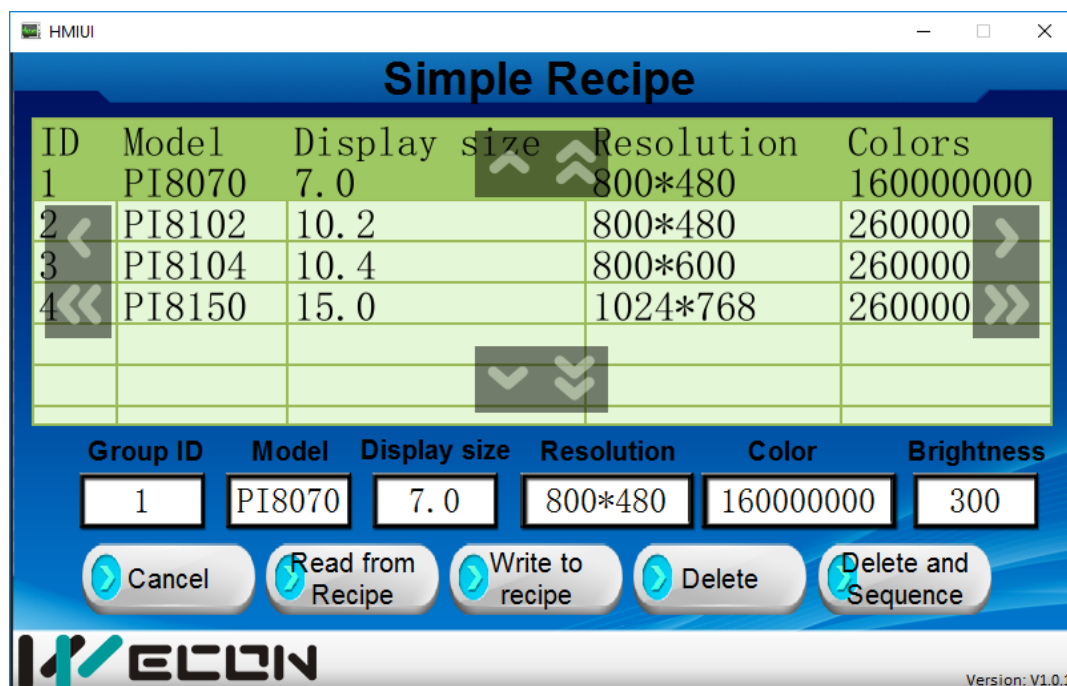


Figure 5

- 1) After compiling, please check project by “off-line”, you will get project windows as figure 5 shows, it displays simple recipe information;
- 2) Click recipe in object or input Group ID in numeric display/input object.
- 3) Click “Read from recipe”, the information of recipe will display in corresponding addresses.

### 5.2 Write to Recipe

#### Operation procedure

- 1) Select Group ID firstly;
- 2) Input the members’ information in each addresses;
- 3) Click “Write to recipe”, if the group is existing the members’ information will be changed, if there are no groups, it will create a new group automatically, as figure 6 shows.

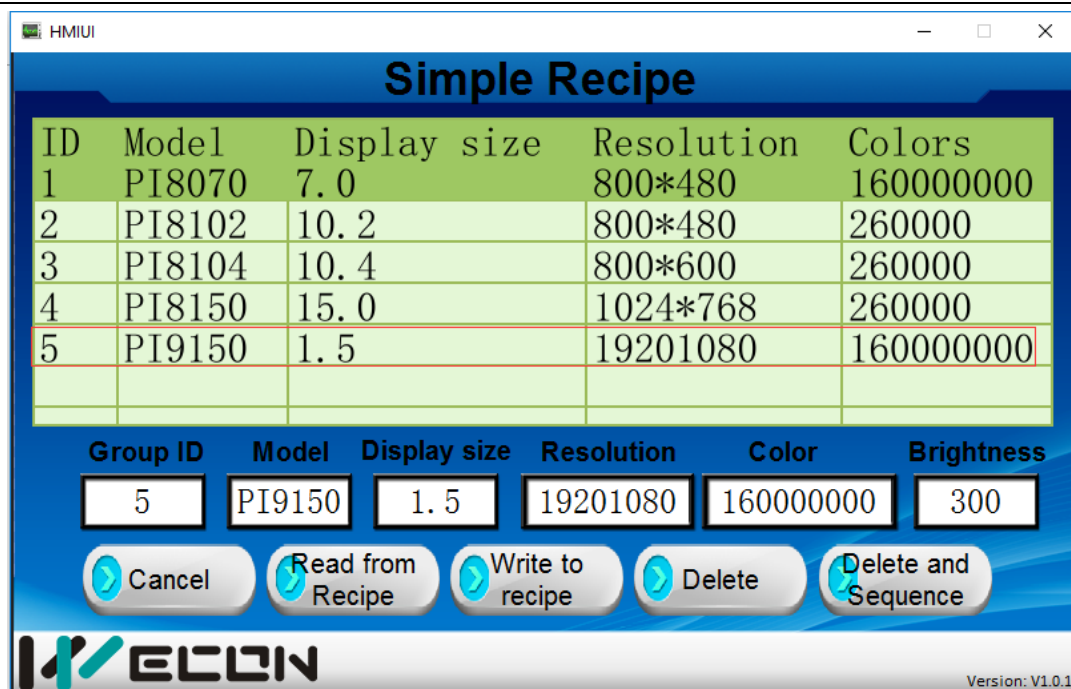


Figure 6

## 5.3 Delete

### Operation procedure

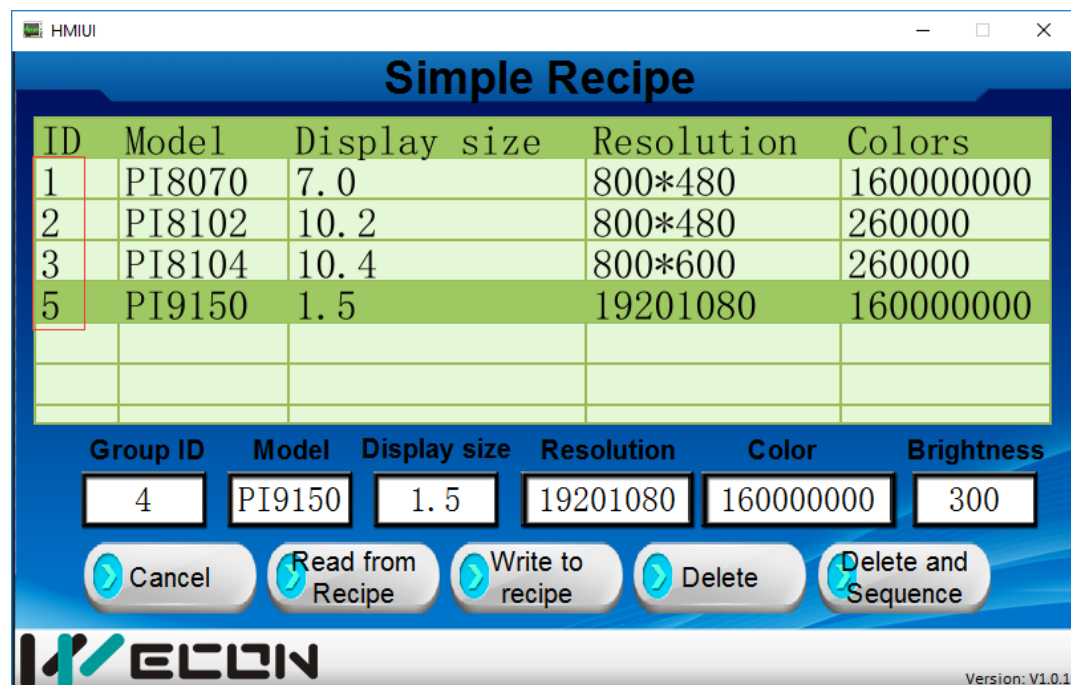


Figure 7

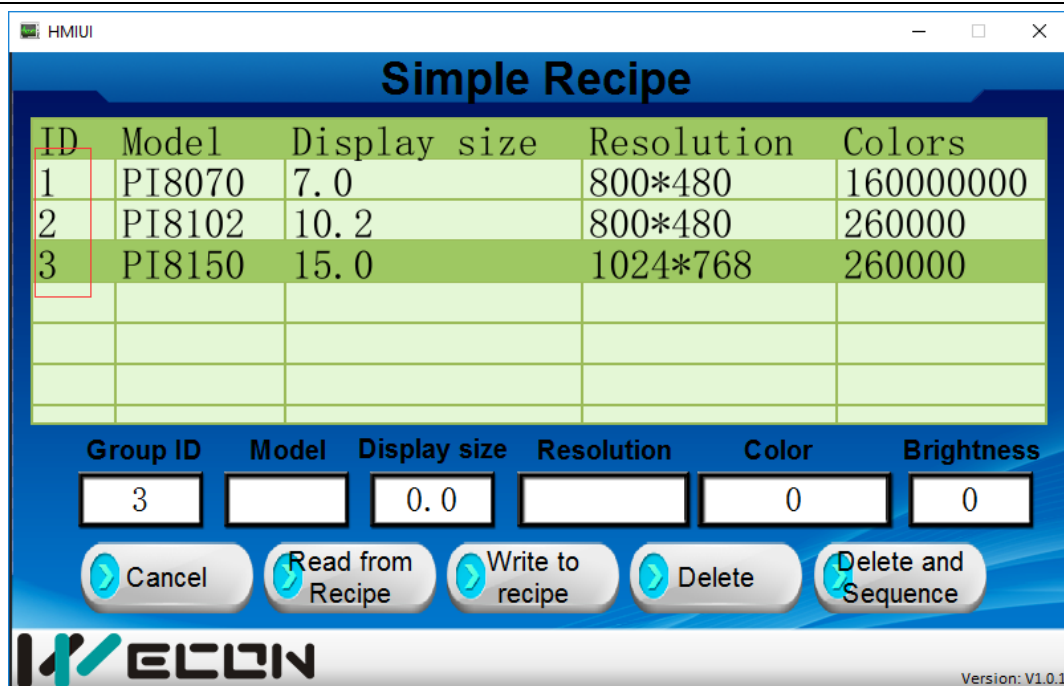


Figure 8

- 1) Select Group ID;
- 2) Click "Delete", it only deletes corresponding group, doesn't rearrange the ID number as figure 7 shows;
- 3) Click "Delete and sequence", it will delete corresponding group and rearrange ID number as figure 8 shows.

## 6. Advanced recipe operation

### 6.1 Recipe select

In PI HMI, it can support multiple recipe files in one project, so users can enter the recipe name to select recipe file.

### 6.2 Read from Recipe

#### Operation procedure

- 1) Enter group ID firstly;
- 2) Enter the members' information in each addresses;



- 3) Click “Read from recipe”, the information of recipe will display in corresponding addresses, as figure 9 shows.

## 6.3 Write to Recipe

### Operation procedure

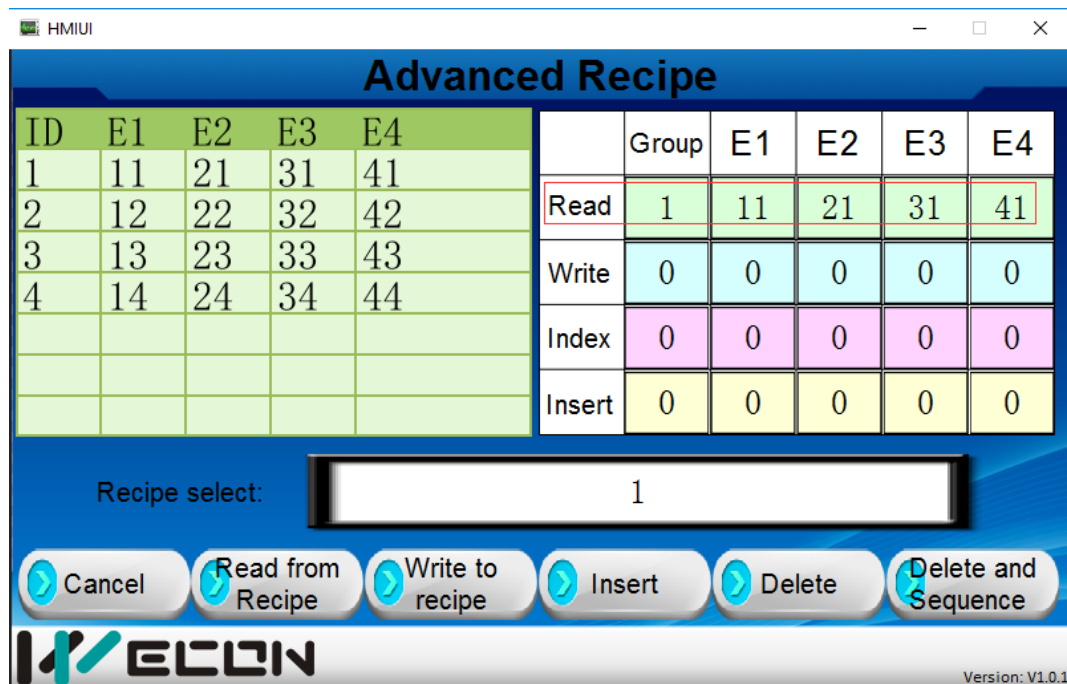


Figure 9

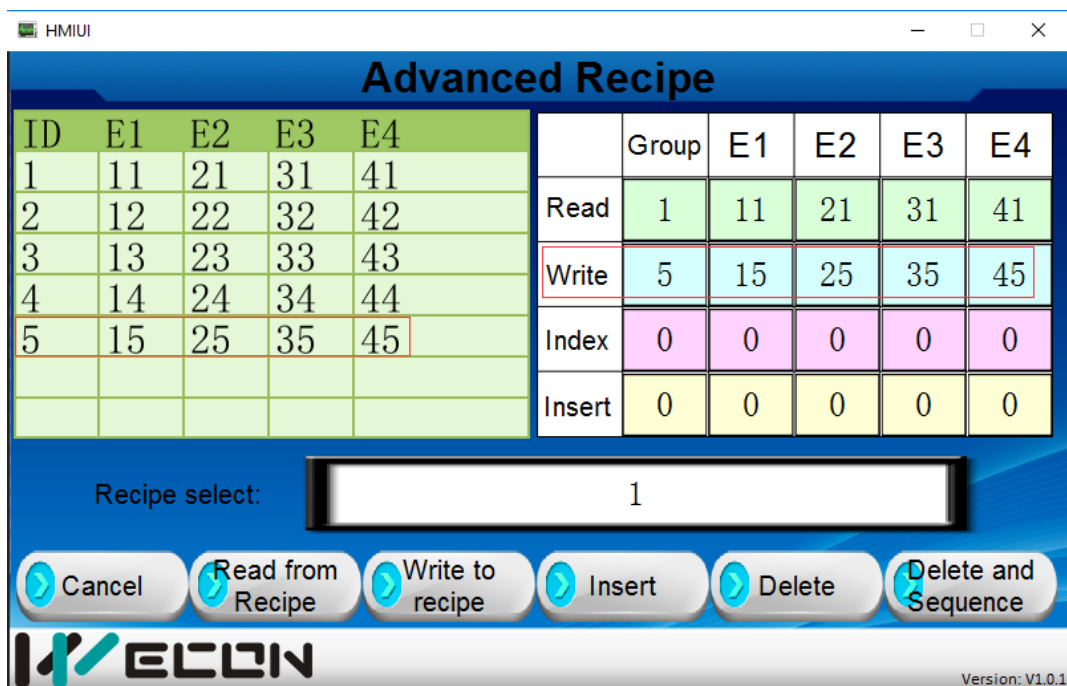


Figure 10

- 1) Select Group ID firstly;
- 2) Enter the members' information in each addresses;
- 3) Click "Write to recipe", if the group is existing the members' information will be changed, if there are no groups, it will create a new group automatically, as figure 10 shows.

## 6.4 Insert

### Operation procedure

- 1) Enter group number;
- 2) Enter members;
- 3) Click "Insert" button, it will insert to corresponding group and rearrange ID number as figure 12 shows.

## 6.5 Index

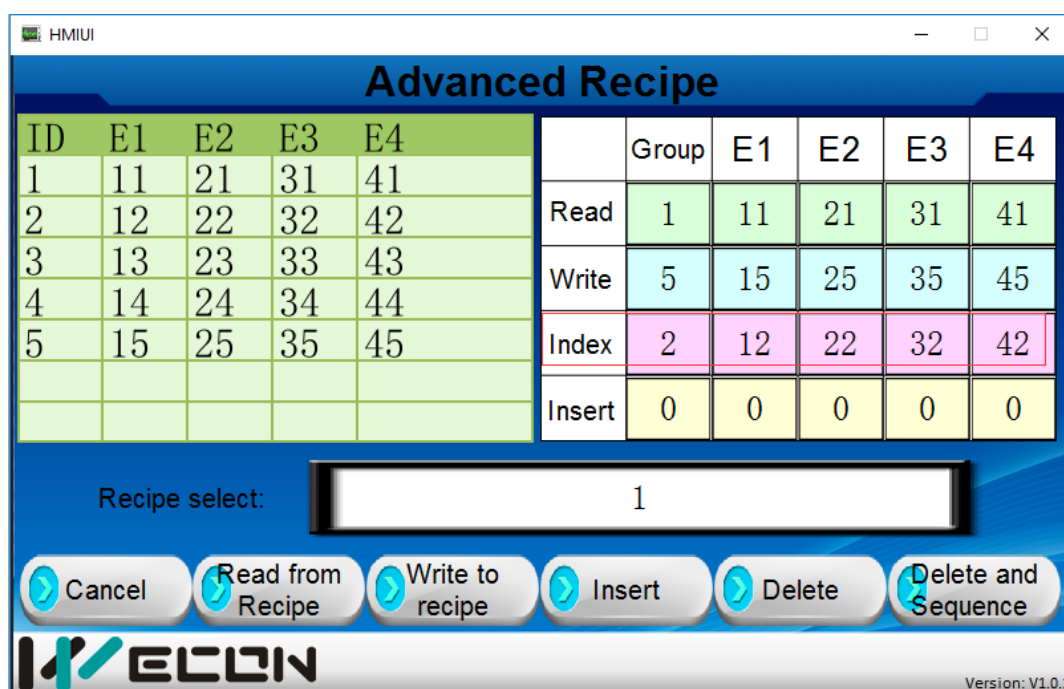


Figure 11

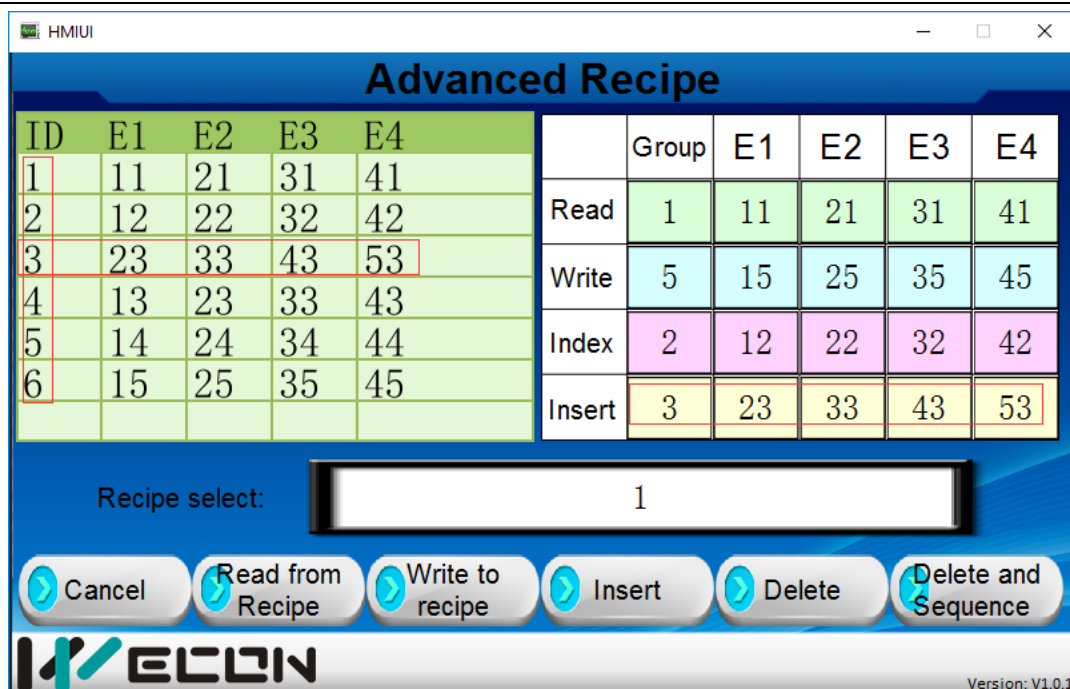


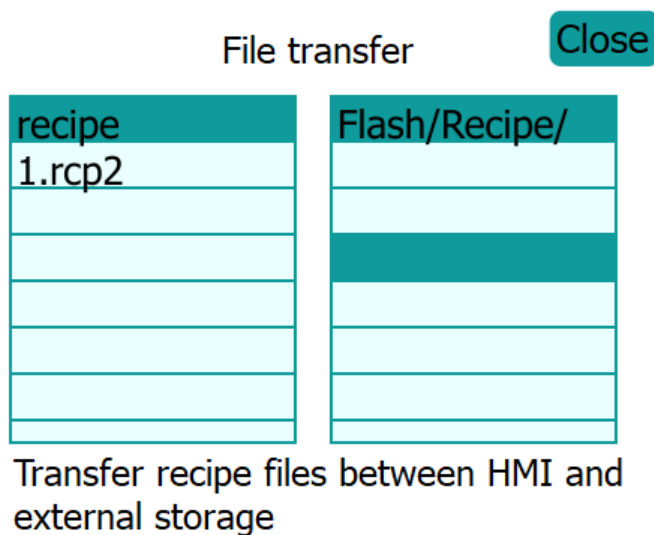
Figure 12

## 7. Transfer recipe files

This chapter will introduce how to transfer recipe file between HMI and external storage;

There is [File list] object, it can display all recipe files in HMI system, and it can also display all the files in the specified folder. And this object supports copy, paste and delete operations.

### Operation procedure



- 1) Select recipe file in object (left one);
- 2) Double click object (Left one), it will display operation buttons (Copy, Paste, Delete);



- 3) Click copy button;
- 4) Double click object (Right one) to display operation buttons;
- 5) Click paste button;

## 8. Import CSV file for recipe

This is a new feature of the recipe. With this function, users can import the recipe files of the LEVI series directly into the PI series.

### 8.1 Setting address

- 1) HSW1050-HSW1065: For CSV file name;
- 2) HSW1066: For CSV file types, there are three types for CSV as below
  - =0: For user-defined csv file (all data in custom csv file is valid)

	A	B	C	D
1	200	-300	Username1	123.4
2	201	-299	Username2	124.4
3	202	-298	Username3	125.4
4	203	-297	Username4	126.4
5	204	-296	Username5	127.4
6	205	-295	Username6	128.4
7	206	-294	Username7	129.4
8				

- =1: Normal recipe file on LEVI series (data in first line is invalid)

	A	B	C	D	E	F
1	0	0	555			
2	200	-300	Username1	123.4		
3	201	-299	Username2	124.4		
4	202	-298	Username3	125.4		
5	203	-297	Username4	126.4		
6	204	-296	Username5	127.4		
7	205	-295	Username6	128.4		
8	206	-294	Username7	129.4		
9						
10						
11						

- =2: Special recipe file on LEVI series

	A	B	C	D	E	F
1	0	0	555	1		
2	number	value	name	result		
3	200	-300	Username1	123.4		
4	201	-299	Username2	124.4		
5	202	-298	Username3	125.4		
6	203	-297	Username4	126.4		
7	204	-296	Username5	127.4		
8	205	-295	Username6	128.4		
9	206	-294	Username7	129.4		
10						
11						

1 means special  
recipe file

3) HSW1067: It is for select storage for CSV file

=0: File is in the CsvFile folder of the USB flash drive;

=1: File is in the CsvFile folder of the SD card;

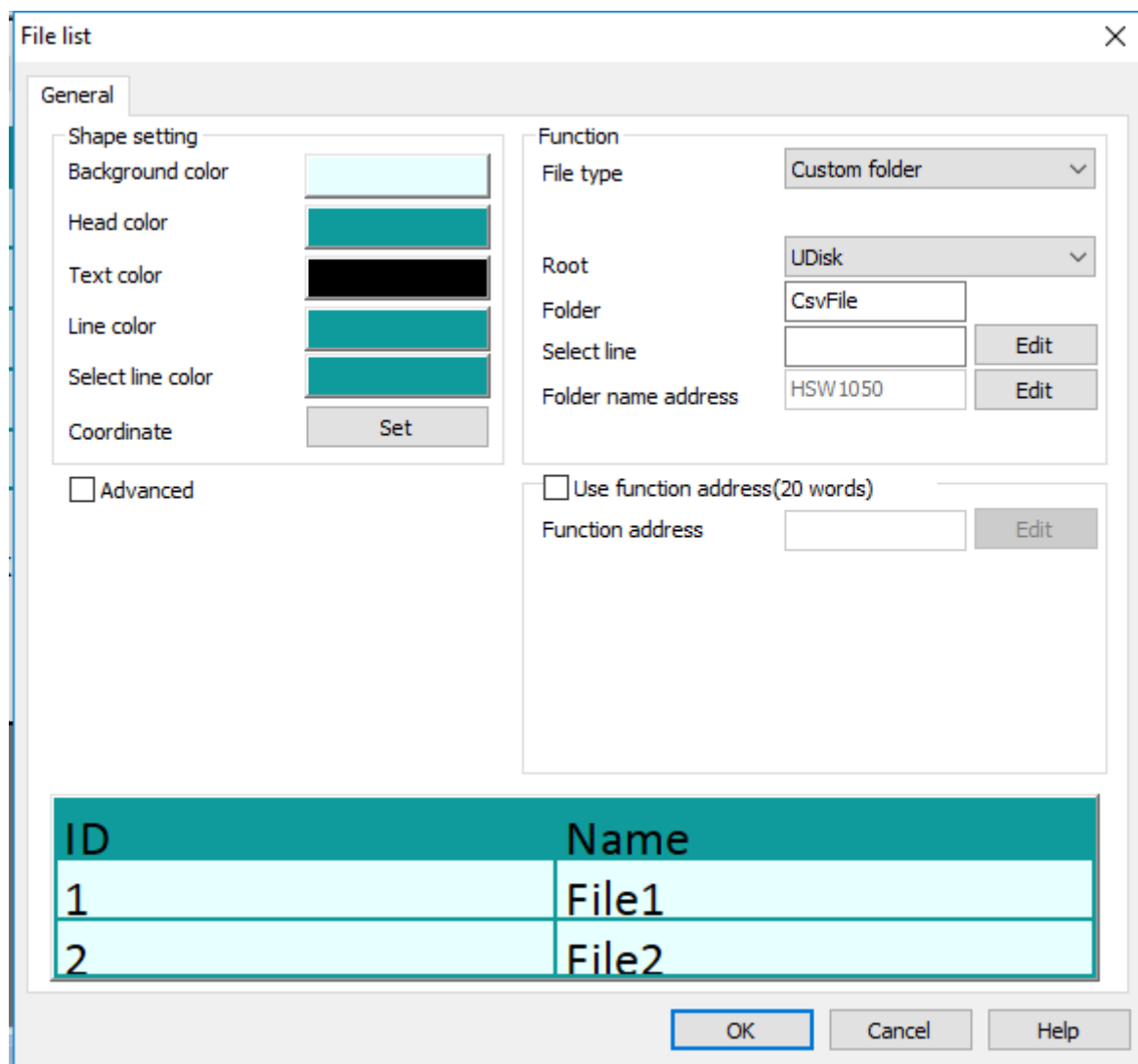
4) Function address: When the 6th bit of the function address is 1 (that is, the value of the function address is 64), the function of importing the csv file is triggered.

Recipe Editor

Recipe Folder	recipe	
Group(0~1000)	5	Apply
Elements(1~1500)	4	
Data Format	16-bit signed	
Decimal	5.0	...
<input type="radio"/> Simple <input checked="" type="radio"/> Advanced		
Function Address	HDW0	Edit
<input checked="" type="checkbox"/> Use Multiple File		

## 8.2 File list object setting

The object settings as below.



The 'File list' dialog box is shown with the 'General' tab selected. It contains two main sections: 'Shape setting' and 'Function'.

**Shape setting:**

- Background color: [Light Blue]
- Head color: [Teal]
- Text color: [Black]
- Line color: [Teal]
- Select line color: [Teal]
- Coordinate: [Set]

☐ Advanced

**Function:**

- File type: Custom folder
- Root: UDisk
- Folder: CsvFile
- Select line: [ ] [Edit]
- Folder name address: HSW1050 [Edit]

☐ Use function address(20 words)

Function address: [ ] [Edit]

ID	Name
1	File1
2	File2

Buttons: OK, Cancel, Help

### Operating procedures

- 1) Select File type as [Custom folder];
- 2) Select Root as real situation, such as UDISK;
- 3) Set folder name [CsvFile] **(The name is fixed);**
- 4) Set folder name address [HSW1050] **(The address is fixed);**

#### Note:

- 1) The number of members in the CSV need to be consistent with the HMI project settings;
- 2) Folder name need to be [CsvFile];