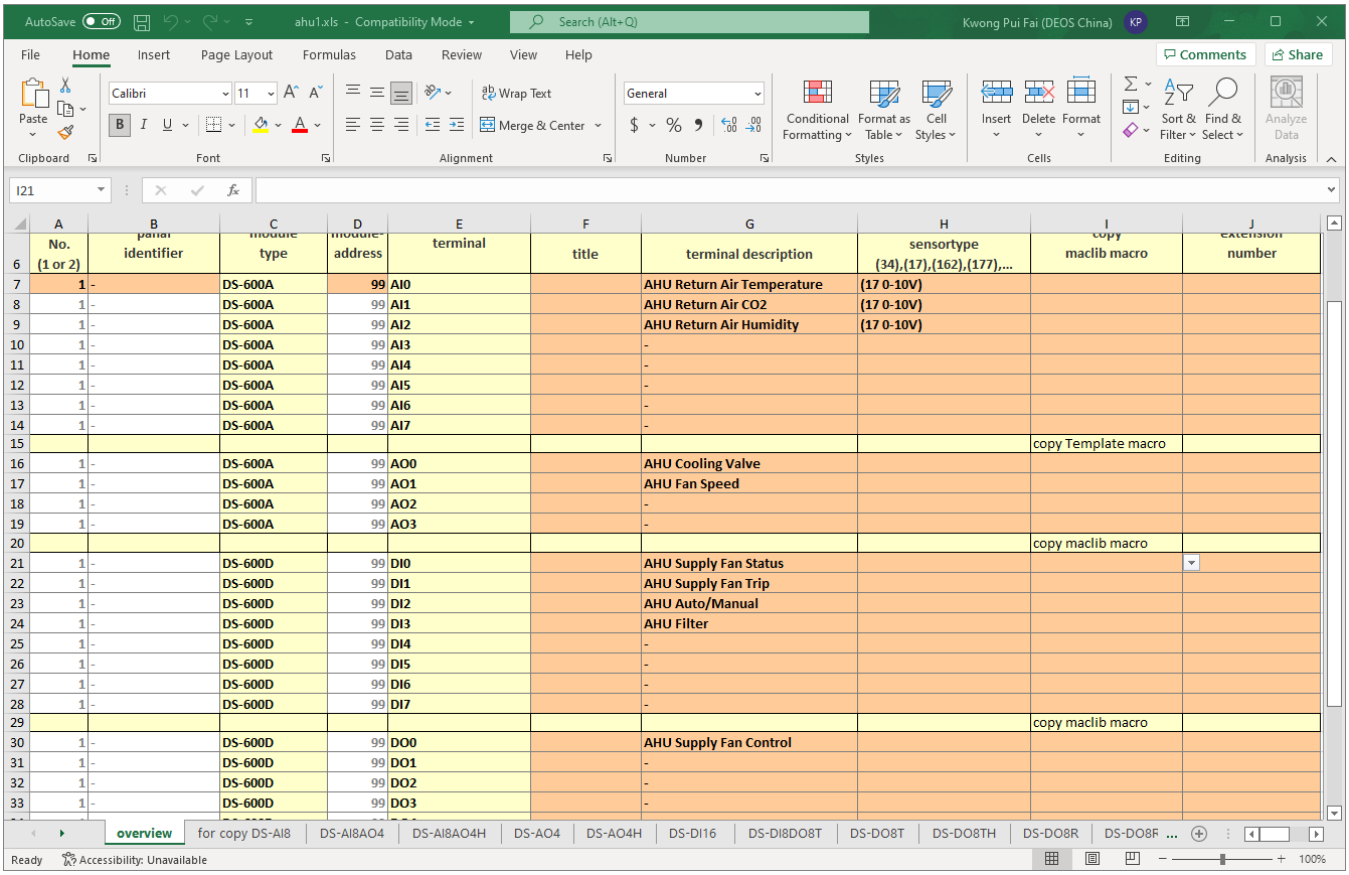
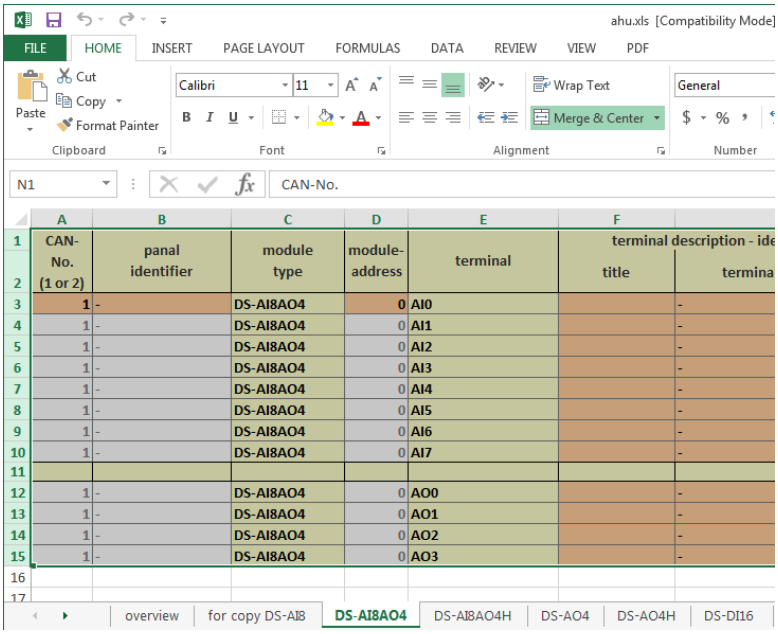
TT221103 - OFXL - Create IO Points

1. We can use MS Excel to create the IO points and then import it into OPEN FXL. It is the most efficient way to create IO points for your controller. You can also manually select the IO modules macro in OPEN FXL to create the IO points.
2. You can use the “ahu1.xls” file from the training, as an example. In this example, we’ve already added the IO modules for the OPEN 600. You can use the “terminal description” as the point name (like below). For AI points, you need to select the sensor type, e.g. 0-10V, PT1000, etc.



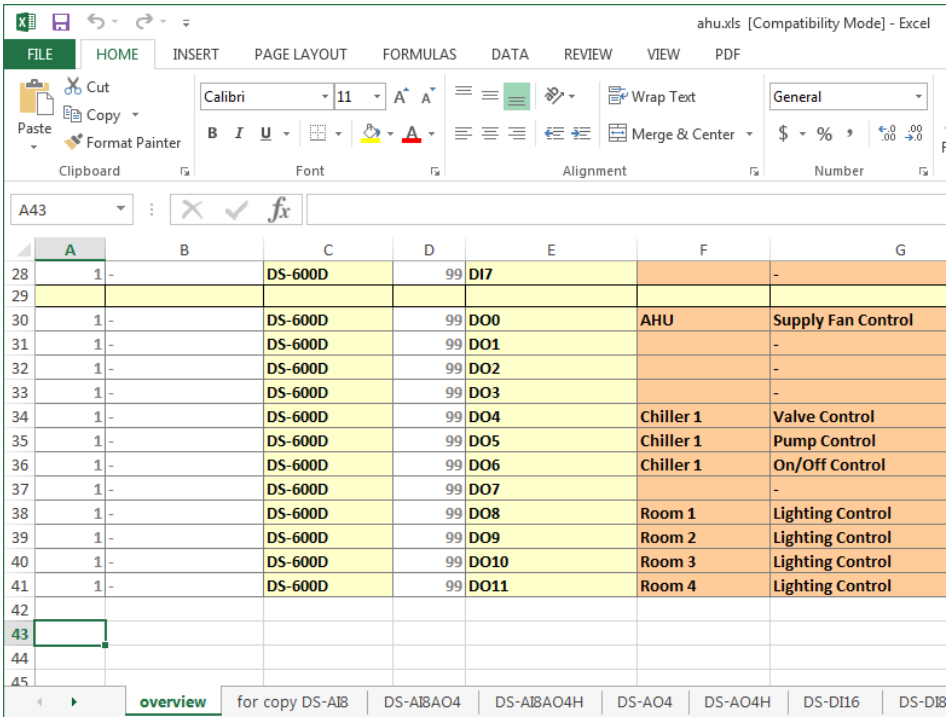
	A	B	C	D	E	F	G	H	I	J
6	No. (1 or 2)	panal identifier	module type	module-address	terminal	title	terminal description	sensortype (34),(17),(162),(177),...	copy maclib macro	extension number
7	1	-	DS-600A	99	AI0		AHU Return Air Temperature	(17 0-10V)		
8	1	-	DS-600A	99	AI1		AHU Return Air CO2	(17 0-10V)		
9	1	-	DS-600A	99	AI2		AHU Return Air Humidity	(17 0-10V)		
10	1	-	DS-600A	99	AI3		-			
11	1	-	DS-600A	99	AI4		-			
12	1	-	DS-600A	99	AI5		-			
13	1	-	DS-600A	99	AI6		-			
14	1	-	DS-600A	99	AI7		-			
15									copy Template macro	
16	1	-	DS-600A	99	AO0		AHU Cooling Valve			
17	1	-	DS-600A	99	AO1		AHU Fan Speed			
18	1	-	DS-600A	99	AO2		-			
19	1	-	DS-600A	99	AO3		-			
20									copy maclib macro	
21	1	-	DS-600D	99	DI0		AHU Supply Fan Status			
22	1	-	DS-600D	99	DI1		AHU Supply Fan Trip			
23	1	-	DS-600D	99	DI2		AHU Auto/Manual			
24	1	-	DS-600D	99	DI3		AHU Filter			
25	1	-	DS-600D	99	DI4		-			
26	1	-	DS-600D	99	DI5		-			
27	1	-	DS-600D	99	DI6		-			
28	1	-	DS-600D	99	DI7		-			
29									copy maclib macro	
30	1	-	DS-600D	99	DO0		AHU Supply Fan Control			
31	1	-	DS-600D	99	DO1		-			
32	1	-	DS-600D	99	DO2		-			
33	1	-	DS-600D	99	DO3		-			

3. Do not change any cell that are not in orange color. After finished, save it and go to Step 8
4. If you have additional modules, you can select the corresponding TAB below, select all the ROWS (the whole rows, not just the cells), and use CTRL-C to copy it.



	A	B	C	D	E	F	
1	CAN-No. (1 or 2)	panal identifier	module type	module-address	terminal	terminal description - ide	
2						title	termina
3	1	-	DS-AI8AO4	0	AI0		-
4	1	-	DS-AI8AO4	0	AI1		-
5	1	-	DS-AI8AO4	0	AI2		-
6	1	-	DS-AI8AO4	0	AI3		-
7	1	-	DS-AI8AO4	0	AI4		-
8	1	-	DS-AI8AO4	0	AI5		-
9	1	-	DS-AI8AO4	0	AI6		-
10	1	-	DS-AI8AO4	0	AI7		-
11							
12	1	-	DS-AI8AO4	0	AO0		-
13	1	-	DS-AI8AO4	0	AO1		-
14	1	-	DS-AI8AO4	0	AO2		-
15	1	-	DS-AI8AO4	0	AO3		-
16							
17							

5. Then go back to the “Overview” TAB, go to the bottom, leave 1 blank line, and use CTRL-V to paste it.



	A	B	C	D	E	F	G
28	1	-	DS-600D	99	DI7		-
29							
30	1	-	DS-600D	99	DO0	AHU	Supply Fan Control
31	1	-	DS-600D	99	DO1		-
32	1	-	DS-600D	99	DO2		-
33	1	-	DS-600D	99	DO3		-
34	1	-	DS-600D	99	DO4	Chiller 1	Valve Control
35	1	-	DS-600D	99	DO5	Chiller 1	Pump Control
36	1	-	DS-600D	99	DO6	Chiller 1	On/Off Control
37	1	-	DS-600D	99	DO7		-
38	1	-	DS-600D	99	DO8	Room 1	Lighting Control
39	1	-	DS-600D	99	DO9	Room 2	Lighting Control
40	1	-	DS-600D	99	DO10	Room 3	Lighting Control
41	1	-	DS-600D	99	DO11	Room 4	Lighting Control
42							
43							
44							
45							

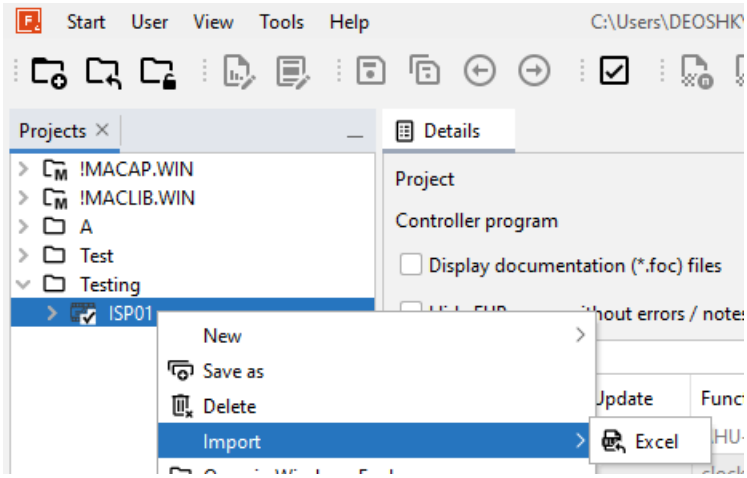
6. For all additional IO modules, you need to set the CAN IO address. This address must be the same as the address you set using the address switches on the IO module. To set this address, type the address in the “module-address” in the spreadsheet (the orange cell only). For OPEN 600, the address start must be start from 1 to 5.

43 / 44	CAN-No. (1 or 2)	panal identifier	module type	module-address	terminal	terminal title
45	1	-	DS-AI8AO4	1	AI0	
46	1	-	DS-AI8AO4	1	AI1	

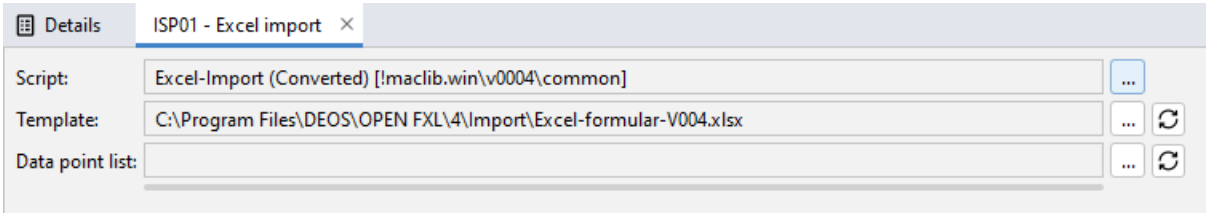
7. The finished one should look like this. You can add more IO modules below, for up to 5 modules in OPEN 600.

5 / 6	CAN-No. (1 or	panal identifier	module type	module-addre	terminal	terminal description - identifier e.g. AHU2\Fan Fault sensortype (34),(17),(162),(177) title	terminal description		copy maclib macro	extension number
7	1	-	DS-600A	99	AI0	AHU	Return Air Temperature	(17 0-10V)		
8	1	-	DS-600A	99	AI1	AHU	Return Air CO2	(17 0-10V)		
9	1	-	DS-600A	99	AI2	AHU	Return Air Humidity	(17 0-10V)		
10	1	-	DS-600A	99	AI3		-			
11	1	-	DS-600A	99	AI4		-			
12	1	-	DS-600A	99	AI5		-			
13	1	-	DS-600A	99	AI6		-			
14	1	-	DS-600A	99	AI7		-			
15									copy Template macro	
16	1	-	DS-600A	99	AO0	AHU	Return Air Temperature - Sim			
17	1	-	DS-600A	99	AO1	AHU	Return Air CO2 - Sim			
18	1	-	DS-600A	99	AO2	AHU	Cooling Valve			
19	1	-	DS-600A	99	AO3	AHU	Damper			
20									copy maclib macro	
21	1	-	DS-600D	99	DI0	AHU	Supply Fan Status			
22	1	-	DS-600D	99	DI1	AHU	Supply Fan Trip			
23	1	-	DS-600D	99	DI2	AHU	External Clock - Sim			
24	1	-	DS-600D	99	DI3		-			
25	1	-	DS-600D	99	DI4		-			
26	1	-	DS-600D	99	DI5		-			
27	1	-	DS-600D	99	DI6		-			
28	1	-	DS-600D	99	DI7		-			
29									copy maclib macro	
30	1	-	DS-600D	99	DO0	AHU	Supply Fan Control			
31	1	-	DS-600D	99	DO1		-			
32	1	-	DS-600D	99	DO2		-			
33	1	-	DS-600D	99	DO3		-			
34	1	-	DS-600D	99	DO4	Chiller 1	Valve Control			
35	1	-	DS-600D	99	DO5	Chiller 1	Pump Control			
36	1	-	DS-600D	99	DO6	Chiller 1	On/Off Control			
37	1	-	DS-600D	99	DO7		-			
38	1	-	DS-600D	99	DO8	Room 1	Lighting Control			
39	1	-	DS-600D	99	DO9	Room 2	Lighting Control			
40	1	-	DS-600D	99	DO10	Room 3	Lighting Control			
41	1	-	DS-600D	99	DO11	Room 4	Lighting Control			
42										
43 / 44	CAN-No. (1 or	panal identifier	module type	module-addre	terminal	terminal description - identifier e.g. AHU2\Fan Fault sensortype (34),(17),(162),(177) title	terminal description		copy maclib macro	extension number
45	1	-	DS-AI8AO4	1	AI0	FAN	Static Pressure	(17 0-10V)		
46	1	-	DS-AI8AO4	1	AI1		-			
47	1	-	DS-AI8AO4	1	AI2		-			
48	1	-	DS-AI8AO4	1	AI3		-			
49	1	-	DS-AI8AO4	1	AI4		-			
50	1	-	DS-AI8AO4	1	AI5		-			
51	1	-	DS-AI8AO4	1	AI6		-			
52	1	-	DS-AI8AO4	1	AI7		-			
53									copy Template macro	
54	1	-	DS-AI8AO4	1	AO0	FAN	VSD			
55	1	-	DS-AI8AO4	1	AO1		-			
56	1	-	DS-AI8AO4	1	AO2		-			
57	1	-	DS-AI8AO4	1	AO3		-			

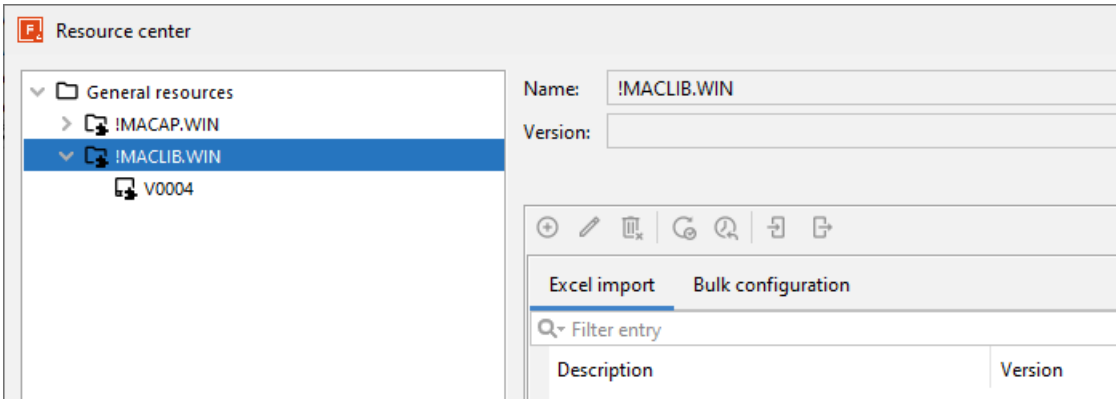
8. Start OPEN FXL 4, click on your controller, right click, click “Import”, “Excel”.



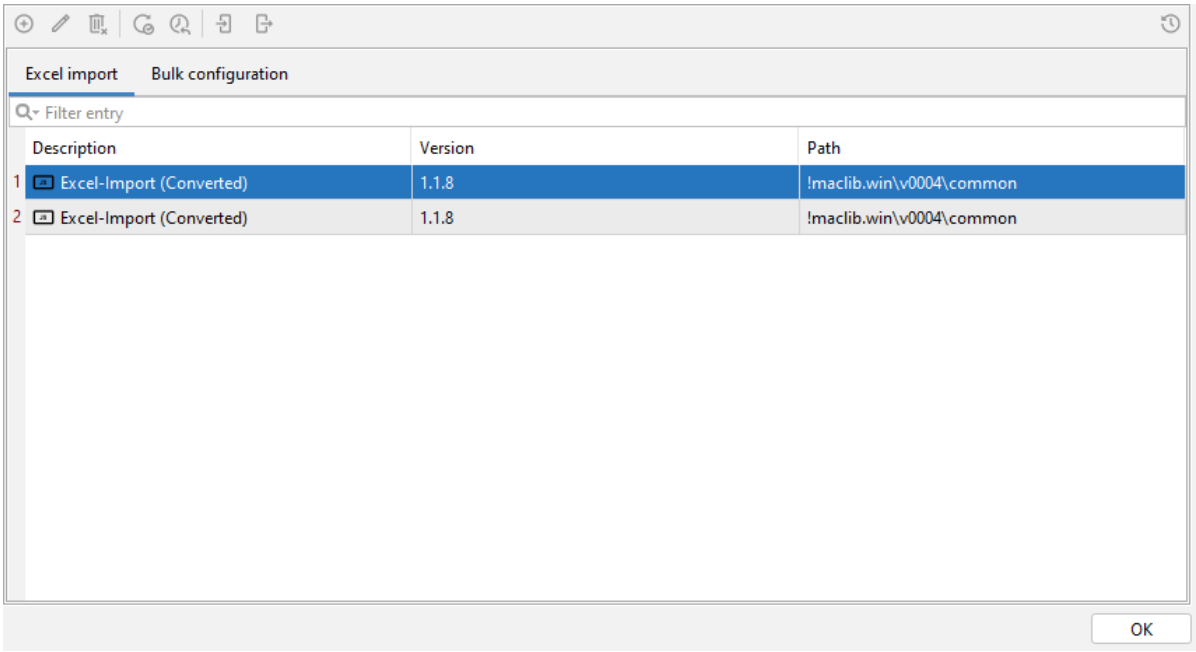
9. Click the “…” button next to “Script” to select the script for the Excel import



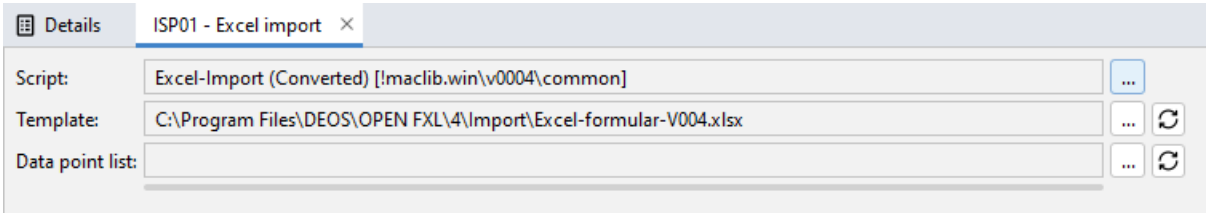
10. Double click on ”!MACLIB.WIN” to open it, and click on “V0004”.



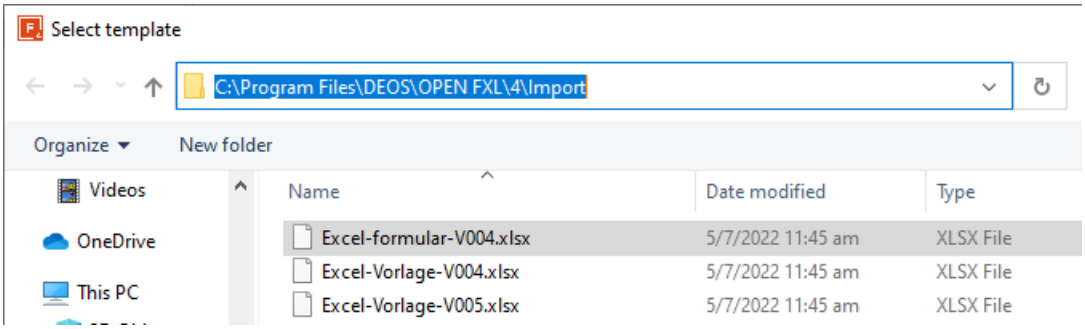
11. Select “Excel-Import (Converted)” and click OK.



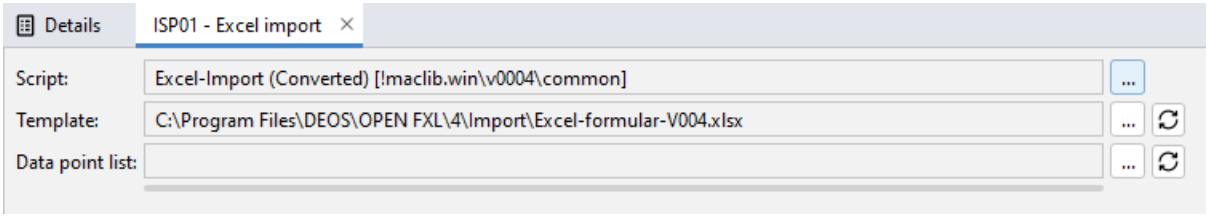
12. Now click the “…” button next to “Template” to select the Excel import template.



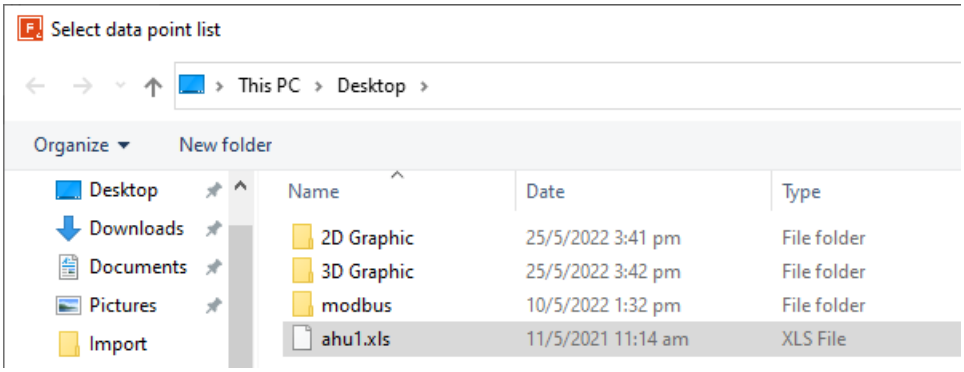
13. The templates are located at “C:\Program Files\DEOS\OPEN FXL\4\Import”. Select “Excel-formular-V004.xlsx” and click “Open”.



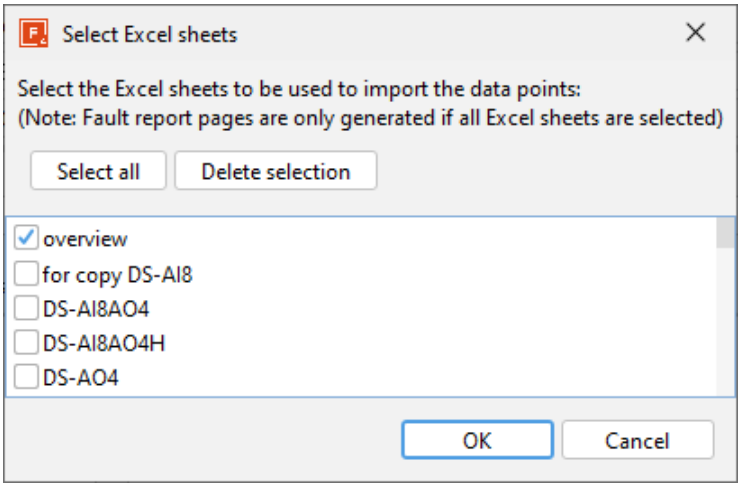
14. Finally click the “…” button next to “Date point list” to select the “ahu1.xls” file.



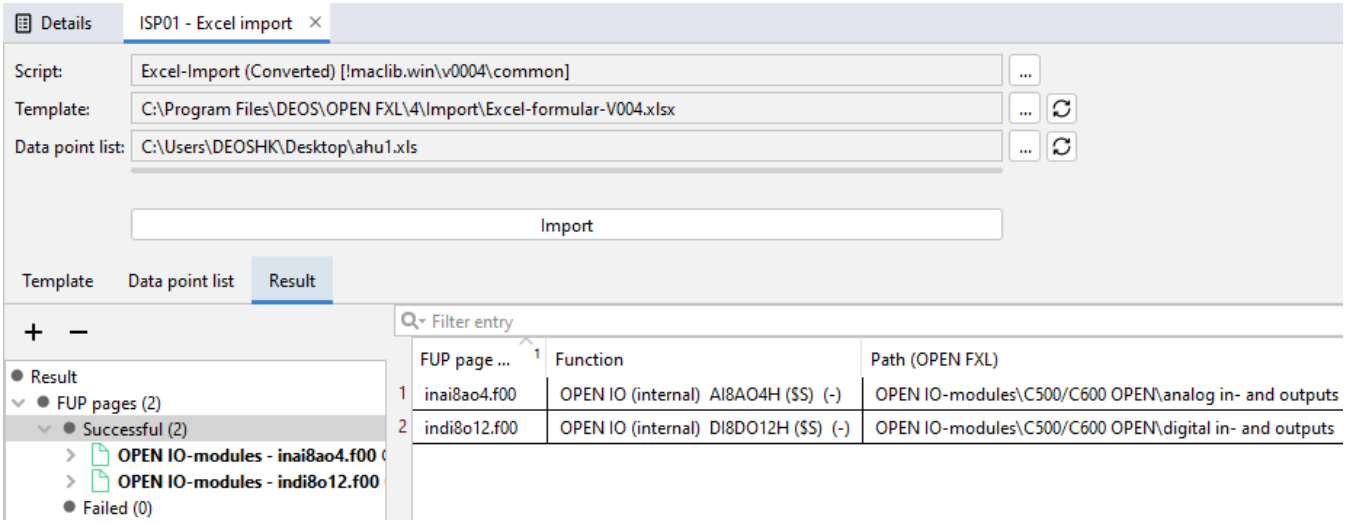
15. Locate and select the “ahu1.xls” file and click “Open”.



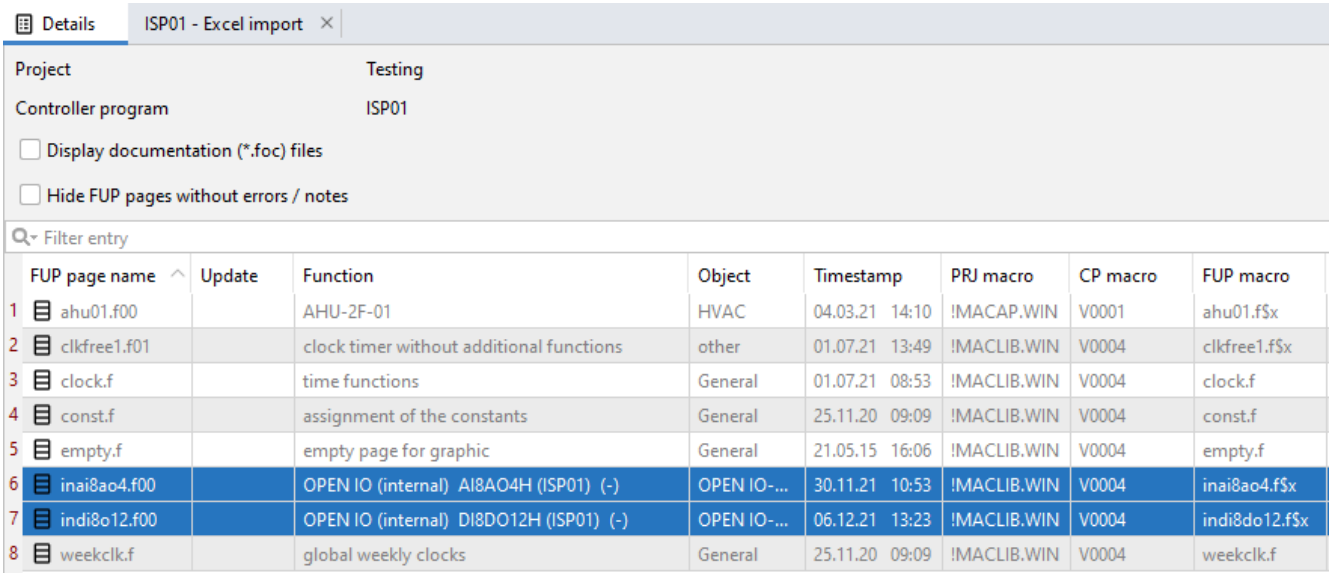
16. Select only the “Overview” sheet and click OK.



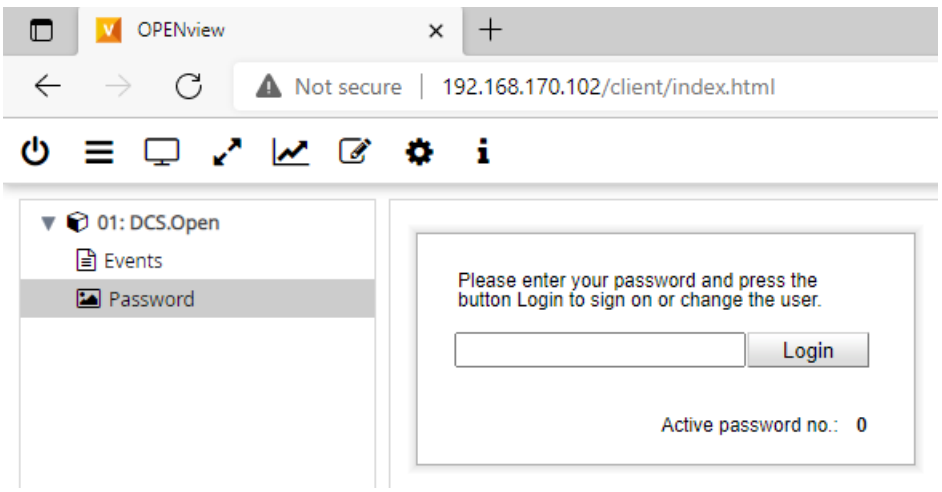
17. Now you should see the Excel file is successfully read in OPEN FXL 4. Click the “Import” button to import the IO macro automatically.



18. Click the “Details” tab, and now you should see the 2 IO macros, one for digital and one for analog points.

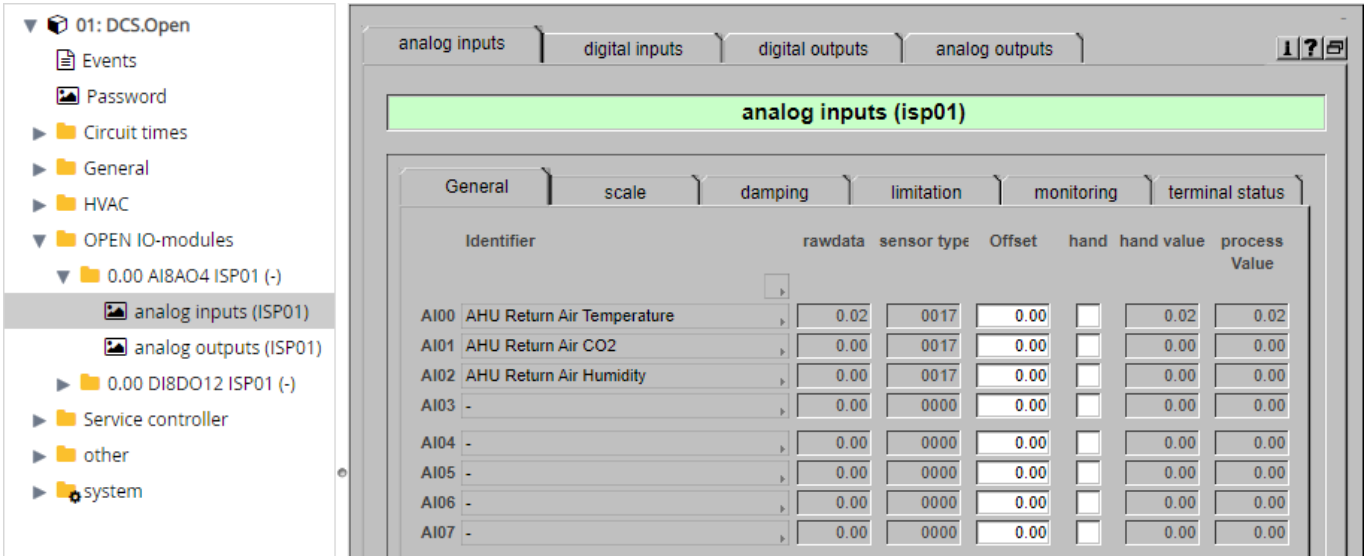


19. Create and load the program to your controller.
20. Now you can see your IO points using browser. Start Chrome, and type your controller IP. If this is a new controller, please remember to do a “Preset” .



21. Click “Password” and type in the password. Click “Login” to login the controller.

22. Click “OPEN IO modules”, “AI8AO4”, “Analog Inputs”. The analog input page looks like this. You can change the “Offset” and also the scale, min/max values, etc. For analog output, you can change the 0-10V to 2-10V, min/max values, etc.



23. Click “OPEN IO modules”, “DI8DO12”, “Digital Inputs”. The digital input page looks like this. You can change the LED color, NC/NO terminal, etc.