Energy_Drink_V15.1 / ENERGY_DRINK_PROC [CPU 314C-2 PN/DP] / Program blocks / 04-OPERATOR MANAGE-MENT

OP_RECIPE_SELCT [FC12]

OP_RECIPE_SELCT Properties							
General							
Name	OP_RECIPE_SELCT	**Number**	12	**Type**	FC	**Language**	SCL
Numbering	Automatic						
Information							
Title		**Author**		**Comment**		**Family**	
Version	0.1	**User-defined ID**					

OP_RECIPE_SELCT				
Name	**Data type**	**Offset**	**Default value**	**Comment**
Input				
Output				
InOut				
Temp				
Constant				
▼ Return				
OP_RECIPE_SELCT	Void			

```
0001 (*
0002 *File: FC Operator Recipe Selection
0003 * Author: Jaime Calvente Mieres
0004 * Date: 19-05-2022
0005 * Description: This FC will be used to control a valve. Depending on
0006  the users input, the valve could act as Single actuation,
0007  Double actuation or Proportional mode.
0008 *)
0009
0010 // RECIPE MANAGEMENT CALL
0011 "RECIPE_MANAGEMENT"();
0012
0013 (*********************** SET RECIPE SELECTION MANAGEMENT *********************************)
0014 REGION SET RECIPE SELECTION
0015
0016   // IF SYSTEM IS ACTIVE WAIT FOR THE OPERATOR TO CHOOSE THE RECIPE BY HMI OR CONTOL PANEL "MANUAL"
0017   IF "Var_System_DB".System_Generic.System_Act THEN
0018
0019     // IF NOT RECIPE ACTIVE
0020     "Var_System_DB".System_Generic.No_Process := NOT "RECIPE_1_DB".Recipe1.Recipe_Act AND
0021     NOT "RECIPE_2_DB".Recipe2.Recipe_Act AND
0022     NOT "RECIPE_3_DB".Recipe3.Recipe_Act AND
0023     NOT "TEST_RECIPE_DB".Test.Recipe_Act;
0024
0025     (*This Nested If statements will be executed only if the System is
0026  Active and there is NO bacth in process, checking the variable
0027  "No_Process" and the Operator selection (switches or HMI).*)
0028
0029     REGION RECIPE SELECTION
0030
0031       // IF NOT ACTIVE PROCESS
0032       IF "Var_System_DB".System_Generic.No_Process THEN
0033
0034         // IF RECIPE NUMBER 1 => SET "RECIPE_1_DB"
0035         IF "Recipe_1" OR "HMI_VAR".Recipe_Selection[1] THEN
0036           "RECIPE_1_DB".Recipe1.Recipe_Act := TRUE;
0037         ELSIF "Recipe_2" OR "Recipe_3" THEN
0038           "RECIPE_1_DB".Recipe1.Recipe_Act := FALSE;
0039         END_IF;
0040
0041
0042         // IF RECIPE NUMBER 2 => SET "RECIPE_2_DB"
0043         IF "Recipe_2" OR "HMI_VAR".Recipe_Selection[2] THEN
0044           "RECIPE_2_DB".Recipe2.Recipe_Act := TRUE;
0045         ELSIF "Recipe_1" OR "Recipe_3" THEN
0046           "RECIPE_2_DB".Recipe2.Recipe_Act := FALSE;
0047         END_IF;
0048
0049         // IF RECIPE NUMBER 3 => SET "RECIPE_3_DB"
0050         IF "Recipe_3" OR "HMI_VAR".Recipe_Selection[3] THEN
0051           "RECIPE_3_DB".Recipe3.Recipe_Act := TRUE;
0052         ELSIF "Recipe_1" OR "Recipe_2" THEN
0053           "RECIPE_3_DB".Recipe3.Recipe_Act := FALSE;
0054         END_IF;
0055
0056         // TEST RECIPE
0057         IF "HMI_VAR".Recipe_Selection[4] THEN
0058           "TEST_RECIPE_DB".Test.Recipe_Act := TRUE;
0059         ELSIF "Recipe_1" OR "Recipe_2" OR "Recipe_3" THEN
0060           "TEST_RECIPE_DB".Test.Recipe_Act := FALSE;
0061         END_IF;
0062       END_IF;
0063
```

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0064        END_REGION
0065
0066        (*This Nested IF statement will set the Variable "Recipe_Num" TO
0067    a value according TO the specific DB number needed in order TO
0068    access the parameters OF the chosen Recipe.*)
0069
0070        REGION RECIPE NUMBER FOR DB SELECTION
0071
0072            // IF "RECIPE_1_DB" => "Recipe_Num" = 10
0073            IF "RECIPE_1_DB".Recipe1.Recipe_Act THEN
0074                "Recipe_Num" := 10;
0075            END_IF;
0076
0077            // IF "RECIPE_2_DB" => RECIPE_NUM = 11
0078            IF "RECIPE_2_DB".Recipe2.Recipe_Act THEN
0079                "Recipe_Num" := 11;
0080            END_IF;
0081
0082            // IF "RECIPE_3_DB" => "Recipe_Num" = 12
0083            IF "RECIPE_3_DB".Recipe3.Recipe_Act THEN
0084                "Recipe_Num" := 12;
0085            END_IF;
0086
0087            // IF "RECIPE_TEST" => "Recipe_Num" = 13
0088            IF "TEST_RECIPE_DB".Test.Recipe_Act THEN
0089                "Recipe_Num" := 13;
0090            END_IF;
0091
0092        END_REGION
0093
0094    // IF SYSTEM IS NOT ACTIVE => NOT RECIPE WILL BE SELECTED RETURNING THE VALUE OF "0"
0095    ELSE
0096        "RECIPE_1_DB".Recipe1.Recipe_Act := FALSE;
0097        "RECIPE_2_DB".Recipe2.Recipe_Act := FALSE;
0098        "RECIPE_3_DB".Recipe3.Recipe_Act := FALSE;
0099        "TEST_RECIPE_DB".Test.Recipe_Act := FALSE;
0100        "Recipe_Num" := 0;
0101        "Var_System_DB".System_Generic.Man_Start_Process := FALSE;
0102        "HMI_VAR".Start_Process := FALSE;
0103
0104    END_IF;
0105
0106 END_REGION
0107
0108 (*********************** RESET RECIPE SELECTION MANAGEMENT ***********************)
0109 REGION  RESET RECIPE SELECTION
0110
0111    // IF RESET BUTTON OR HMI RESET => RESET RECIPE SELCTION
0112    IF "Reset_Button" OR "HMI_VAR".Reset_Selection THEN
0113        "RECIPE_1_DB".Recipe1.Recipe_Act := FALSE;
0114        "RECIPE_2_DB".Recipe2.Recipe_Act := FALSE;
0115        "RECIPE_3_DB".Recipe3.Recipe_Act := FALSE;
0116        "TEST_RECIPE_DB".Test.Recipe_Act := FALSE;
0117        "Recipe_Num" := 0;
0118    END_IF;
0119
0120 END_REGION
0121
0122 (*********************** RECIPE CONFIRMARTION MANAGEMENT ***********************)
0123 REGION RECIPE SELECTION CONFIRMATION
0124
0125    // IF ENTER SELECTION IS PRESSED => START PROCESS
0126    IF "Var_System_DB".System_Generic.Enter_Selection THEN
0127        "Var_System_DB".System_Generic.Man_Start_Process := true;
0128    END_IF;
0129
0130    // IF ENTER SELECTION IS PRESSED => START PROCESS
0131    IF "HMI_VAR".Enter_Selection THEN
0132        "HMI_VAR".Start_Process := TRUE;
0133    END_IF;
0134
0135
0136 END_REGION
0137
0138
0139
0140
0141
```

Symbol	Address	Type	Comment
"HMI_VAR".Enter_Selection	%DB20.DBX34.3	Bool	
"HMI_VAR".Recipe_Selection[1]		Bool	Diferent types of recipes
"HMI_VAR".Recipe_Selection[2]		Bool	Diferent types of recipes
"HMI_VAR".Recipe_Selection[3]		Bool	Diferent types of recipes
"HMI_VAR".Recipe_Selection[4]		Bool	Diferent types of recipes
"HMI_VAR".Reset_Selection	%DB20.DBX34.5	Bool	
"HMI_VAR".Start_Process	%DB20.DBX34.4	Bool	
"Recipe_1"	%E138.1	Bool	Recipe 1 Switch

Symbol	Address	Type	Comment
"RECIPE_1_DB".Recipe1.Recipe_Act	%DB10.DBX0.0	Bool	
"Recipe_2"	%E138.2	Bool	Recipe 2 Switch
"RECIPE_2_DB".Recipe2.Recipe_Act	%DB11.DBX0.0	Bool	
"Recipe_3"	%E138.3	Bool	Recipe 3 Switch
"RECIPE_3_DB".Recipe3.Recipe_Act	%DB12.DBX0.0	Bool	
"Recipe_Num"	%MW50	Word	
"Reset_Button"	%E0.4	Bool	
"TEST_RECIPE_DB".Test.Recipe_Act	%DB13.DBX0.0	Bool	
"Var_System_DB".System_Generic.Enter_Selection	%DB1.DBX12.4	Bool	
"Var_System_DB".System_Generic.Man_Start_Process	%DB1.DBX12.6	Bool	
"Var_System_DB".System_Generic.No_Process	%DB1.DBX13.3	Bool	
"Var_System_DB".System_Generic.System_Act	%DB1.DBX13.0	Bool	System Active