	Totally Integrated Automation Portal		
--	---	--	--

PLC_1 [CPU 1214C DC/DC/DC]

PLC_1									
Project information									
_	PLC_1		Author		huuda				
Comment			Slot		1				
Rack	0								
Catalog information									
	CPU 1214C DC/DC/DC		er SC bc pu ex mi nic I/C I-c cu co		Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on-board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; PROFINET IO controller, I-device, transport protocol TCP/IP, secure Open User Communication, S7 communication, Web server, OPC UA: Server DA				
Article number	6ES7 214-1AG40-0XB0		Firmware v	Firmware version V4.5					
	False								
Connection resources\									
	Station resources - Re- served - Maximum	Station reso served - Cor		Station res namic - Co		Module resources - PLC_1 [CPU 1214C DC/DC/DC] - Configured			
Maximum number of resources:	-	34		34		68			
	Maximum	Configured		Configured		Configured			
PG communication:	4	-		-		-			
HMI communication:	12	1		0		1			
S7 communication:	8	0		0		0			
Open user communication:	8	0		0		0			
Web communication:	2	-		-		-			
OPC UA client/server communication:	0	-	-			-			
Other communication:	-	-		0		0			
Total resources used:		1		0		1			
Available resources:		33		34		67			
Overview of addresses	\Overview of addresses\0	Overview of a	addresses						
Inputs	True		Outputs		True				
Address gaps	False		Slot		True				

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Automat	ion	Por	tal

Туре	Addr. from	Addr. to	Module	PIP	Device name	Device number	Size	Master / IO system	Rack	Slot
	0	1	DI 14/DQ 10_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	11
0	0	1	DI 14/DQ 10_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	1 1
	64	67	AI 2_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 2
	1000	1003	HSC_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 16
	1004	1007	HSC_2	Automatic update		-	4 Bytes	-	0	1 17
	1008	1011	HSC_3	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 18
	1012	1015	HSC_4	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 19
	1016	1019	HSC_5	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 20
	1020	1023	HSC_6	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 21
)	1000	1001	Pulse_1	Automatic update		-	2 Bytes	-	0	1 32
O	1002	1003	Pulse_2	Automatic update		-	2 Bytes	-	0	1 33
)	1004	1005	Pulse_3	Automatic update		-	2 Bytes	-	0	1 34
O	1006	1007	Pulse_4	Automatic update		-	2 Bytes	-	0	1 35

|--|

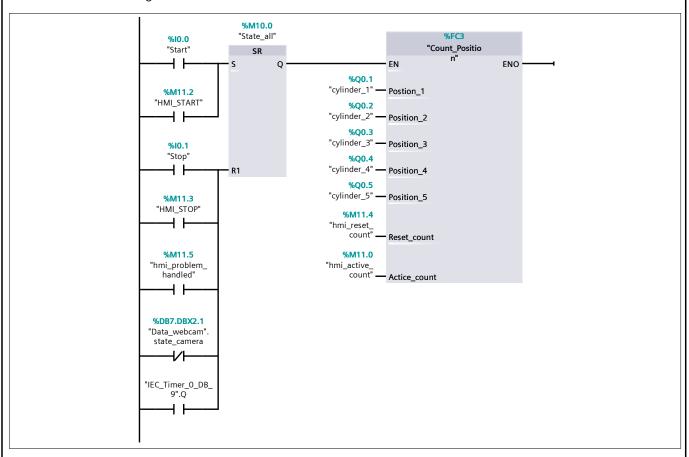
Main [OB1]

Main Properties									
General									
Name	Main	Number	1	Туре	OB				
Language	LAD	Numbering	Automatic						
Information									
Title	"Main Program Sweep (Cycle)"	Author		Comment					
Family		Version	0.1	User-defined ID					

Name	Data type	Default value
Тетр		
Constant		

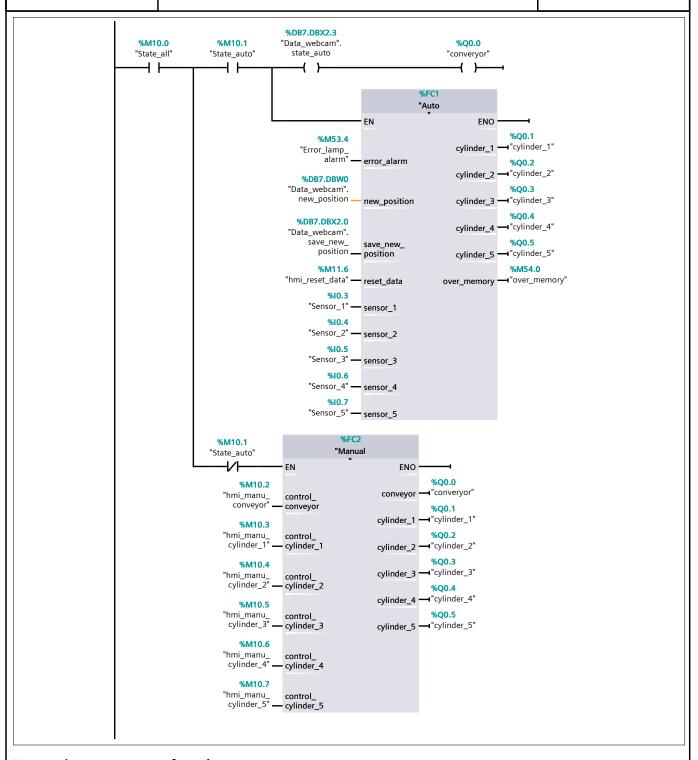
Network 1: ON/OFF System

Bat tat toan bo he thong



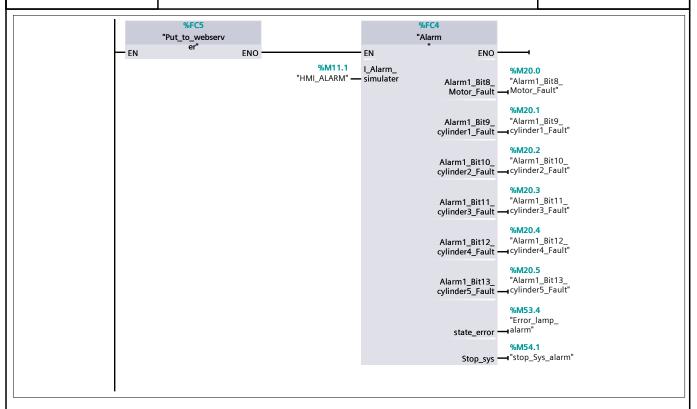
Network 2: Select mode

Chon che do chay



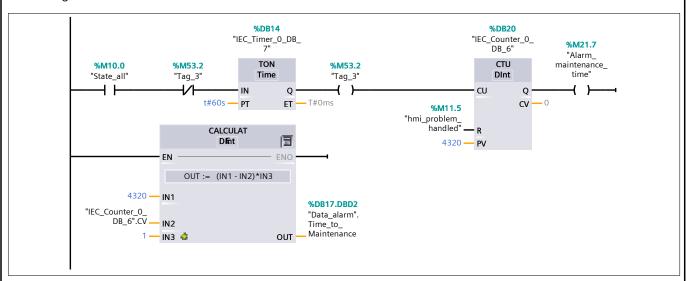
Network 3: connect to function

ket noi cac function con lai



Network 4: calculater time to maintenance

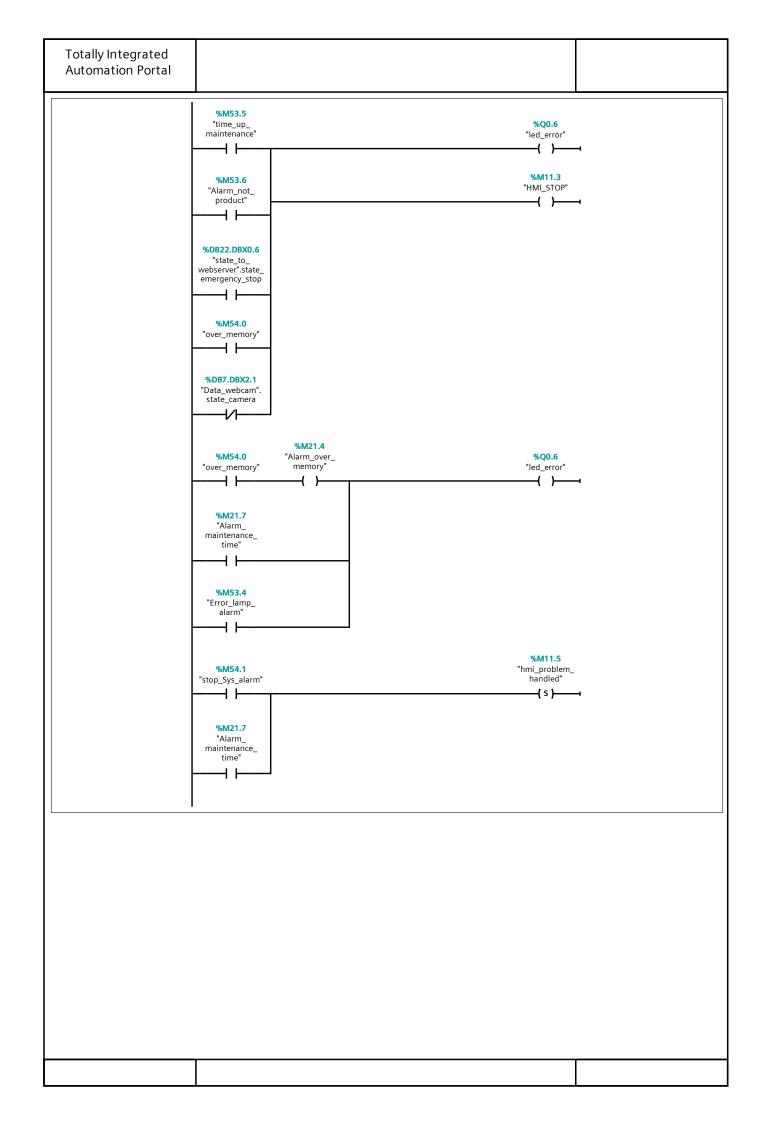
tinh thoi gian bao tri



Network 5: Auto off system if not product in 300s

tu dong tat khi o che do auto trong 300s

Totally Integrated Automation Portal **%DB21**"IEC_Timer_0_DB_ 9" TONR %M10.0 %M10.1 Time "State_all" "State_auto" ET — T#0ms **%M10.0** "State_all" **-**//|-T#300s — PT **%I0.2**"Sensor_Detech" +%M53.5 "IEC_Timer_0_DB_ "IEC_Timer_0_DB_ 9".ET 9".ET "time_up_ maintenance" Time > 7 Time T#200s t#215s Network 6: Alarm lamp den canh bao



Array_threading [DB1]

Array_threading Properties									
General									
Name	Array_threading	Number	1	Туре	DB				
Language	DB	Numbering	Automatic						
Information									
Title		Author		Comment					
Family		Version	0.1	User-defined					
				ID					

ame	Data type	Start value	Retain
▼ Static			
array_threading_1	Array[020] of Int		False
array_threading_2	Array[020] of Int		False
array_threading_3	Array[020] of Int		False
array_threading_4	Array[020] of Int		False
array_threading_5	Array[020] of Int		False
last_run_1	Bool	false	False
last_run_2	Bool	false	False
last_run_3	Bool	false	False
last_run_4	Bool	false	False
last_run_5	Bool	false	False

Auto [FC1]

Auto Properties									
General									
Name	Auto	Number	1	Туре	FC				
Language	LAD	Numbering	Automatic						
Information									
Title		Author		Comment					
Family		Version	0.1	User-defined ID					

	Data type	Default value
Input		
error_alarm	Bool	
new_position	Int	
save_new_position	Bool	
reset_data	Bool	
sensor_1	Bool	
sensor_2	Bool	
sensor_3	Bool	
sensor_4	Bool	
sensor_5	Bool	
Output		
cylinder_1	Bool	
cylinder_2	Bool	
cylinder_3	Bool	
cylinder_4	Bool	
cylinder_5	Bool	
over_memory	Bool	
InOut		
Temp		
loop_element	Int	
last_child_array_1	Int	
last_child_array_2	Int	
last_child_array_3	Int	
last_child_array_4	Int	
last_child_array_5	Int	
trigger_sensor_1	Bool	
trigger_sensor_2	Bool	
trigger_sensor_3	Bool	
trigger_sensor_4	Bool	
trigger_sensor_5	Bool	
Constant		
Return		
Auto	Void	

Network 1: Program main

chuong trinh dieu khien

```
0003 // ======
0004 IF #save new position = FALSE THEN
        "Data webcam".last save new position := FALSE;
0006 END IF;
0007
0008 IF #sensor 1 = FALSE THEN
0009
         "Data webcam".last state sensor 1 := FALSE;
0010 END IF;
0011
0012 IF #sensor 2 = FALSE THEN
        "Data webcam".last state sensor 2 := FALSE;
0014 END_IF;
0015
0016 IF #sensor 3 = FALSE THEN
0017
        "Data webcam".last state sensor 3 := FALSE;
0018 END IF;
0019
0020 IF #sensor 4 = FALSE THEN
0021
         "Data webcam".last state sensor 4 := FALSE;
0022 END IF;
0023
0024 IF #sensor_5 = FALSE THEN
0025
         "Data_webcam".last_state_sensor_5 := FALSE;
0026 END_IF;
0027
0028 // ============
0029 // Xử lý khi có sản phẩm mới
0030 // ===========
0031 IF (#save new position = TRUE) AND ("Data webcam".last save new posi-
     tion = FALSE) AND (#error alarm = False) THEN
0032
        "Data_webcam".last_save_new_position := TRUE;
0033
0034
         // Tìm vị trí cuối cùng của mỗi mảng
0035
        #last_child_array_1 := -1;
        #last_child_array_2 := -1;
0036
        #last child array 3 := -1;
0037
0038
        #last_child_array_4 := -1;
        #last child array 5 := -1;
0039
0040
0041
        FOR #loop element := 0 TO 20 DO
0042
             IF ("Array_threading".array_threading_1[#loop_element] = 1) OR ("Ar-
     ray_threading".array_threading_1[#loop_element] = 2) THEN
0043
                 #last_child_array_1 := #loop_element;
0044
             END IF;
0045
             IF ("Array threading".array threading 2[#loop element] = 1) OR ("Ar-
     ray threading".array threading 2[#loop element] = 2) THEN
0046
                 #last child array 2 := #loop element;
0047
             END IF;
             IF ("Array threading".array threading 3[#loop element] = 1) OR ("Ar-
0048
     ray threading".array threading 3[#loop element] = 2) THEN
                 #last_child_array_3 := #loop element;
0049
0050
             END IF;
0051
             IF ("Array_threading".array_threading_4[#loop_element] = 1) OR ("Ar-
     ray threading".array threading 4[#loop element] = 2) THEN
0052
                 #last_child_array_4 := #loop_element;
0053
             END IF;
0054
             IF ("Array threading".array threading 5[#loop element] = 1) OR ("Ar-
     ray_threading".array_threading_5[#loop_element] = 2) THEN
                 #last_child_array_5 := #loop_element;
0055
```

```
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```

```
0056
             END IF;
0057
         END FOR;
0058
         // Gán vị trí mới (tránh tràn mảng)
0059
0060
         CASE #new position OF
0061
             1:
                 IF #last child array 1 < 20 THEN
0062
                     "Array threading".array threading 1[#last child ar-
0063
     ray_1 + 1] := 1;
0064
                 END IF;
0065
0066
             2:
0067
                 IF #last_child_array_1 < 20 AND #last_child_array_2 < 20 THEN</pre>
                     "Array threading".array threading 1[#last child ar-
0068
     ray 1 + 1] := 2;
0069
                     "Array threading".array threading 2[#last child ar-
     ray 2 + 1] := 1;
0070
                 END IF;
0071
0072
             3:
                 IF #last child array 1 < 20 AND #last child ar-
0073
     ray_2 < 20 AND #last_child_array_3 < 20 THEN</pre>
0074
                      "Array_threading".array_threading_1[#last_child_ar-
     ray_1 + 1] := 2;
0075
                      "Array threading".array threading 2[#last child ar-
     ray [2 + 1] := 2;
0076
                      "Array threading".array threading 3[#last child ar-
     ray 3 + 1] := 1;
0077
                 END IF;
0078
             4:
0079
                 IF #last child array 1 < 20 AND #last child array 2 < 20 AND
0800
0081
                      #last child array 3 < 20 AND #last child array 4 < 20 THEN
0082
                      "Array_threading".array_threading_1[#last_child_ar-
     ray 1 + 1] := 2;
                     "Array threading".array threading_2[#last_child_ar-
0083
     ray 2 + 1] := 2;
0084
                      "Array threading".array threading 3[#last child ar-
     ray [3 + 1] := 2;
0085
                     "Array threading".array_threading_4[#last_child_ar-
     ray_4 + 1] := 1;
0086
                 END IF;
0087
8800
             5:
0089
                 IF #last child array 1 < 20 AND #last child array 2 < 20 AND
0090
                     \#last child array 3 < 20 AND \#last child array 4 < 20 AND
                      #last child array 5 < 20 THEN
0091
                     "Array threading".array threading 1[#last child ar-
0092
     ray_1 + 1] := 2;
                     "Array_threading".array_threading_2[#last_child_ar-
0093
     ray_2 + 1] := 2;
                     "Array threading".array_threading_3[#last_child_ar-
0094
     ray_3 + 1] := 2;
0095
                     "Array threading".array_threading_4[#last_child_ar-
     ray_4 + 1] := 2;
0096
                      "Array threading".array threading 5[#last child ar-
     ray_5 + 1] := 1;
0097
                 END IF;
0098
```

```
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```

```
0099
             6:
0100
                 IF #last child array 1 < 20 AND #last child array 2 < 20 AND
                     \#last child array 3 < 20 AND \#last child array 4 < 20 AND
0101
                     #last child array 5 < 20 THEN
0102
0103
                     "Array threading".array threading 1[#last child ar-
     ray 1 + 1] := 2;
                     "Array threading".array_threading_2[#last_child_ar-
0104
     ray_2 + 1] := 2;
0105
                     "Array threading".array threading 3[#last child ar-
     ray_3 + 1] := 2;
                     "Array threading".array threading_4[#last_child_ar-
0106
     ray_4 + 1] := 2;
0107
                     "Array_threading".array_threading_5[#last_child_ar-
     ray_5 + 1] := 2;
0108
                END IF;
0109
        END CASE;
0110 END IF;
0112 // Báo tràn bộ nhớ phân loại
0113 IF #last child array 1 = 20 OR #last child array 2 = 20 OR
         #last_child_array_3 = 20 OR #last child array 4 = 20 OR
0114
         #last_child_array_5 = 20 THEN
0115
0116
         #over memory := TRUE;
0117 END_IF;
0118
0119 // =============
0120 // Xử lý từng cảm biến khi phát hiện sản phẩm
0121 // ===============
0122 // ==== SENSOR 1 ====
0123 IF (#sensor_1 = TRUE) AND (#sensor_1 <> "Data_webcam".last_state_sen-
     sor 1) AND "Array threading".last run 1 = FALSE THEN
0124
        // Set trigger cho TOF
0125
0126
         IF "Array_threading".array_threading_1[0] = 1 THEN
             #trigger_sensor 1 := TRUE;
0127
        END IF;
0128
0129
0130
        FOR #loop element := 0 TO 19 DO
0131
             "Array threading".array threading 1[#loop element] := "Array thread-
     ing".array threading 1[#loop element + 1];
0132
         END FOR;
0133
         "Array threading".array threading 1[20] := 0;
0134
         "Data webcam".last_state_sensor_1 := TRUE;
0135 END IF;
0136
0137 // ==== SENSOR 2 ====
0138 IF (#sensor 2 = TRUE) AND (#sensor 2 <> "Data webcam".last state sen-
     sor 2) AND "Array threading".last run 2 = FALSE THEN
0139
         IF "Array threading".array threading 2[0] = 1 THEN
0140
             #trigger sensor 2 := TRUE;
0141
         END IF;
0142
0143
         FOR #loop element := 0 TO 19 DO
0144
             "Array threading".array threading 2[#loop element] := "Array thread-
     ing".array_threading_2[#loop_element + 1];
0145
         END FOR;
         "Array threading".array threading 2[20] := 0;
0146
         "Data webcam".last state sensor 2 := TRUE;
0147
0148 END IF;
```

```
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```

```
0149
0150 // ==== SENSOR 3 ====
0151 IF (#sensor 3 = TRUE) AND (#sensor 3 <> "Data webcam".last state sen-
     sor_3) AND "Array_threading".last run 3 = FALSE THEN
0152
         IF "Array threading".array threading 3[0] = 1 THEN
             #trigger_sensor 3 := TRUE;
0153
0154
         END IF;
0155
0156
        FOR #loop element := 0 TO 19 DO
0157
             "Array threading".array threading 3[#loop element] := "Array thread-
     ing".array_threading_3[#loop_element + 1];
0158
        END FOR;
         "Array_threading".array_threading_3[20] := 0;
0159
0160
         "Data webcam".last state sensor 3 := TRUE;
0161 END IF;
0162
0163 // ==== SENSOR 4 ====
0164 IF (#sensor 4 = TRUE) AND (#sensor 4 <> "Data webcam".last state sen-
     sor 4) AND "Array threading".last run 4 = FALSE THEN
         IF "Array_threading".array_threading_4[0] = 1 THEN
0165
0166
             #trigger sensor 4 := TRUE;
0167
        END_IF;
0168
0169
        FOR #loop element := 0 TO 19 DO
0170
             "Array threading".array threading 4[#loop element] := "Array thread-
     ing".array_threading_4[#loop_element + 1];
0171
        END FOR;
         "Array_threading".array_threading_4[20] := 0;
0172
0173
         "Data webcam".last state sensor 4 := TRUE;
0174 END IF;
0175
0176 // ==== SENSOR 5 ====
0177 IF (#sensor 5 = TRUE) AND (#sensor 5 <> "Data webcam".last state sen-
     sor_5) AND "Array_threading".last_run_5 = FALSE THEN
0178
         IF "Array threading".array_threading_5[0] = 1 THEN
             #trigger sensor 5 := TRUE;
0179
0180
        END_IF;
0181
0182
         FOR #loop element := 0 TO 19 DO
0183
             "Array threading".array threading 5[#loop element] := "Array thread-
     ing".array_threading_5[#loop_element + 1];
0184
         END FOR;
0185
         "Array threading".array threading 5[20] := 0;
0186
         "Data_webcam".last_state_sensor_5 := TRUE;
0187 END IF;
0188
0189 // ====== TIMER ON DELAY ======
0190 "IEC Timer 0 DB".TOF(IN:=#trigger sensor 1,PT:=T#3s);
0191 "IEC Timer 0 DB 1".TOF(IN:=#trigger sensor 2,PT:=T#3s);
0192 "IEC Timer 0 DB 2".TOF(IN :=#trigger sensor 3,PT := T#3s);
         _Timer_O_DB_3".TOF(IN :=#trigger_sensor_4,PT:=T#3s);
0193 "IEC
0194 "IEC_Timer_0_DB_4".TOF(IN:=#trigger_sensor_5,PT:=T#3s);
0195
0196 IF ("IEC Timer 0 DB".ET >= T#1s) AND ("IEC Timer 0 DB".ET < T#2s) THEN
        #cylinder_1 := TRUE;
0198 ELSE
         #cylinder 1 := FALSE;
0199
0200 END IF;
0201
```

```
0202 IF ("IEC Timer 0 DB 1".ET \geq T#1s) AND ("IEC Timer 0 DB 1".ET < T#2s) THEN
0203
         #cylinder 2 := TRUE;
0204 ELSE
         #cylinder 2 := FALSE;
0205
0206 END IF;
0207
0208 IF ("IEC Timer 0 DB 2".ET >= T#1s) AND ("IEC Timer 0 DB 2".ET < T#2s) THEN
        #cylinder 3 := TRUE;
0209
0210 ELSE
0211
         #cylinder 3 := FALSE;
0212 END_IF;
0213
0214 IF ("IEC Timer 0 DB 3".ET >= T#1s) AND ("IEC Timer 0 DB 3".ET < T#2s) THEN
        #cylinder 4 := TRUE;
0215
0216 ELSE
0217
        #cylinder 4 := FALSE;
0218 END IF;
0219
0220 IF ("IEC Timer 0 DB 4".ET >= T#1s) AND ("IEC Timer 0 DB 4".ET < T#2s) THEN
0221
        #cylinder 5 := TRUE;
0222 ELSE
0223
         #cylinder 5 := FALSE;
0224 END_IF;
0225
0226
0227 // ====== RESET DATA ======
0228 IF #reset data = TRUE THEN
0229
        FOR #loop element := 0 TO 20 DO
0230
             "Array_threading".array_threading_1[#loop_element] := 0;
0231
             "Array_threading".array_threading_2[#loop_element] := 0;
             "Array_threading".array_threading_3[#loop_element] := 0;
0232
             "Array threading".array threading 4[#loop element] := 0;
0233
0234
             "Array threading".array threading 5[#loop element] := 0;
0235
         END FOR;
0236 END IF;
0237
```

|--|

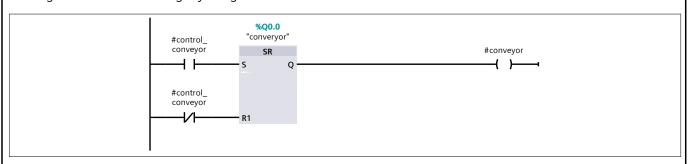
Manual [FC2]

Manual Prope	rties				
General					
Name	Manual	Number	2	Туре	FC
Language	LAD	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined	
				ID	

Name	Data type	Default value
▼ Input		
control_conveyor	Bool	
control_cylinder_1	Bool	
control_cylinder_2	Bool	
control_cylinder_3	Bool	
control_cylinder_4	Bool	
control_cylinder_5	Bool	
▼ Output		
conveyor	Bool	
cylinder_1	Bool	
cylinder_2	Bool	
cylinder_3	Bool	
cylinder_4	Bool	
cylinder_5	Bool	
InOut		
Temp		
Constant		
▼ Return		
Manual	Void	

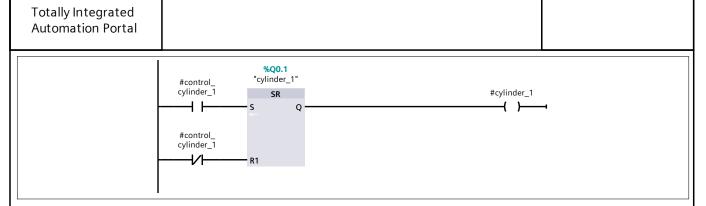
Network 1: Program manual conveyor

chuong trinh dieu khien bang tay bang tai



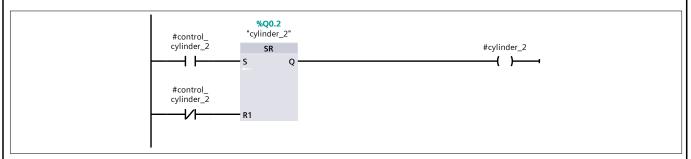
Network 2: Program manual cylinder 1

chuong trinh dieu khien bang tay xi lanh 1



Network 3: Program manual cylinder 2

chuong trinh dieu khien bang tay xi lanh 2



Network 4: Program manual cylinder 3

chuong trinh dieu khien bang tay xi lanh 3

```
#control_ "cylinder_3"
cylinder_3 SR #cylinder_3

#control_ cylinder_3

#control_ cylinder_3

R1
```

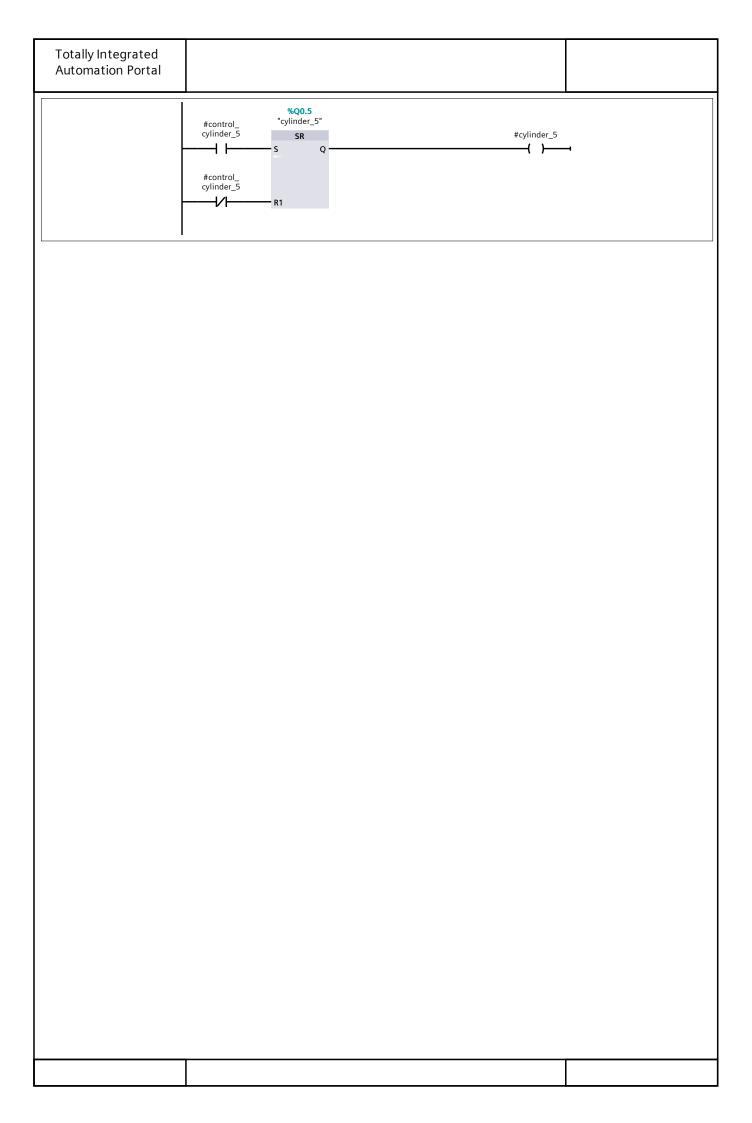
Network 5: Program manual cylinder 4

chuong trinh dieu khien bang tay xi lanh 4

```
#control_ cylinder_4 s Q #control_ cylinder_4 replinder_4 replinde
```

Network 6: Program manual cylinder 5

chuong trinh dieu khien bang tay xi lanh 5



Data_webcam [DB7]

Data_webcam	Properties				
General					
Name	Data_webcam	Number	7	Туре	DB
Language	DB	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined	
				ID	

Name	Data type	Start value	Retain
▼ Static			
new_position	Int	0	False
save_new_position	Bool	false	False
state_camera	Bool	true	False
alarm_error	Bool	false	False
state_auto	Bool	false	False
last_state_sensor_1	Bool	false	False
last_state_sensor_2	Bool	false	False
last_state_sensor_3	Bool	false	False
last_state_sensor_4	Bool	false	False
last_state_sensor_5	Bool	false	False
last_save_new_position	Bool	false	False

	CPU 1214C DC/I int_Position [DB8		Program	I DIOCKS		
	Position Properties					
General Name Language	Data_count_Position DB	Number Numbering	8 q Automati	c	Туре	DB
Information	DB	Numbering	y Automati	C.		
Title		Author			Comment	
Family		Version	0.1		User-defined ID	
Name		Dat	a type	Start val	ue	Retain
▼ Static						
Adress	_1	Rea	ı	0.0		False
Adress		Rea	I	0.0		False
Adress		Rea	ı	0.0		False
Adress		Rea	ı	0.0		False
Adress		Rea	ıl	0.0		False
Adress		Rea	ı	0.0		False

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tomation Portal	

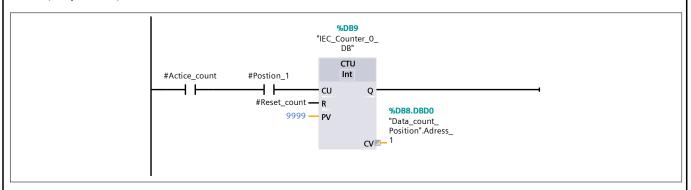
Count_Position [FC3]

Count_Positio	n Properties				
General					
Name	Count_Position	Number	3	Туре	FC
Language	LAD	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
Postion_1	Bool	
Position_2	Bool	
Position_3	Bool	
Position_4	Bool	
Position_5	Bool	
Reset_count	Bool	
Actice_count	Bool	
Output		
InOut		
Temp		
Constant		
▼ Return		
Count_Position	Void	

Network 1: Count position 1

Đếm vị trí phân loại 1



Network 2: Count position 2

Đếm vị trí phân loại 2

Totally Integrated Automation Portal #Actice_count #Position_2 CTU Int #Reset_count R 9999 PV #DB8.DBD4 "Data_count_ Position".Address_ CV - 2

Network 3: Count position 3

Đếm vị trí phân loại 3

```
#Actice_count #Position_3

#Reset_count #Position_3

CU Q

#Reset_count Position_3

CU Q

#Reset_count Position_3

CU Q

#DBB.DBD8

"Data_count_
Position".Address_

CV 3
```

Network 4: Count position 4

Đếm vị trí phân loại 4

```
#Actice_count #Position_4

#Reset_count #Position_4

U Q

#Reset_count Position_4

#Reset_count Position_4

CU Q

#DBB.DBD12

"Data_count_
Position".Address_

CV 4
```

Network 5: Count position 5

Đếm vị trí phân loại 5

```
#Actice_count #Position_5

#Reset_count — R
9999 — PV

**DB3

"IEC_Counter_0
DB_4"

CTU
Int

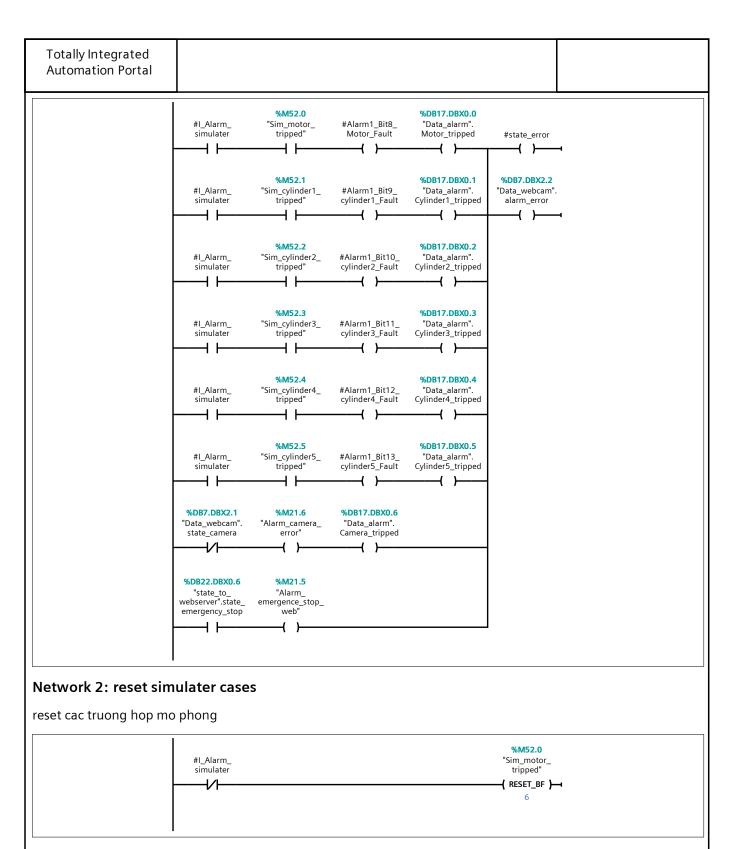
CU
Q

**DB8.DBD16
"Data_count_
Position".Adress_
CV
5
```

Totally Int Automatio					
PLC_1 [0 Alarm [Fo		OC/DC/DC] / P	rogram blo	cks	
- Alarm Prope	rties				
General					
Name	Alarm	Number	4	Туре	FC
Language	LAD	Numbering	Automatic		
Information					_
Title		Author		Comment	
Family		Version	0.1	User-defined ID	
Name			Data type	Default value	
✓ Input					
I_Alarr	n_simulater		Bool		
Output					
Alarm1	I_Bit8_Motor_Fault		Bool		
	I_Bit9_cylinder1_Fau	lt	Bool		
	I_Bit10_cylinder2_Fa		Bool		
	 1_Bit11_cylinder3_Fa		Bool		
	 1_Bit12_cylinder4_Fa		Bool		
	 I_Bit13_cylinder5_Fa		Bool		
state_e			Bool		
Stop_s	ys		Bool		
InOut					
▼ Temp					
			Int		
count	1		Int		
loop_e	element				
	lement				
loop_e	lement				

Network 1: Alarm program

chuong trinh alarm



Network 3: troubleshoot system

Xử lí sự cố

```
0001 IF
         (#Alarm1 Bit9 cylinder1 Fault = FALSE) AND
0002
         (#Alarm1_Bit10_cylinder2_Fault = FALSE) AND
0003
         (#Alarm1_Bit11_cylinder3_Fault = FALSE) AND
0004
         (#Alarm1 Bit12 cylinder4 Fault = FALSE) AND
0005
         (#Alarm1 Bit13 cylinder5 Fault = FALSE) THEN
         "Array_threading".last_run_1 := FALSE;
0006
0007
         "Array_threading".last_run_2 := FALSE;
         "Array_threading".last_run_3 := FALSE;
0008
0009
         "Array_threading".last_run_4 := FALSE;
```

```
Totally Integrated
Automation Portal
```

```
0010
         "Array threading".last run 5 := FALSE;
0011 ELSE
       IF "Array threading".array threading 1[0] = 0 AND "Array threading".ar-
0012
     ray threading 2[0] = 0 AND
0013
             "Array threading".array threading 3[0] = 0 AND "Array threading".ar-
     ray\_threading 4[0] = 0 AND
0014
            "Array threading".array threading 5[0] = 0 THEN
0015
             #Stop sys := True;
0016 END_IF;
0017 END IF;
0018
0019 // Kiểm tra motor lỗi
0020 IF #Alarm1 Bit8 Motor Fault = TRUE THEN
        #Stop sys := TRUE;
0021
0022
         // Kiểm tra xi lanh 1
0023 ELSIF #Alarm1 Bit9 cylinder1 Fault = TRUE THEN
0024 IF "Array threading".array threading 1[0] = 1 THEN
            "Array threading".last run 1 := True;
0026
       END IF;
0027
0028
      IF "Array_threading".last_run_1 = TRUE AND "Sensor 1" = TRUE THEN
0029
             #Stop sys := True;
0030
        END IF;
0031 // Kiểm tra xi lanh 2
0032 ELSIF #Alarm1 Bit10 cylinder2 Fault = TRUE THEN
0033 IF "Array threading".array threading 2[0] = 1 THEN
0034
             "Array threading".last run 2 := True;
0035
        END IF;
0036
0037
         IF "Array threading".last run 2 = TRUE AND "Sensor 2" = TRUE THEN
0038
            #Stop sys := True;
0039
       END IF;
0040 // Kiểm tra xi lanh 3
0041 ELSIF #Alarm1_Bit11_cylinder3_Fault = TRUE THEN
0042
        IF "Array threading".array threading 3[0] = 1 THEN
0043
             "Array threading".last run 3 := True;
0044
        END IF;
0045
       IF "Array threading".last run 3 = TRUE AND "Sensor 3" = TRUE THEN
0046
0047
            #Stop sys := True;
0048
       END IF;
0049 // Kiểm tra xi lanh 4
0050 ELSIF #Alarm1 Bit12 cylinder4 Fault = TRUE THEN
0051
         IF "Array_threading".array_threading_4[0] = 1 THEN
0052
             "Array threading".last run 4 := True;
0053
        END IF;
0054
         IF "Array threading".last run 4 = TRUE AND "Sensor 4" = TRUE THEN
0055
0056
             #Stop sys := True;
0057
     END IF;
0058 // Kiểm tra xi lanh 5
0059 ELSIF #Alarm1 Bit13 cylinder5 Fault = TRUE THEN
0060
       IF "Array_threading".array_threading_5[0] = 1 THEN
             "Array threading".last_run_5 := True;
0061
0062
        END_IF;
0063
         IF "Array threading".last run 5 = TRUE AND "Sensor 5" = TRUE THEN
0064
0065
             #Stop sys := True;
0066
         END IF;
```

Totally Integrated Automation Portal	
0067 END_IF;	
0068 0069	

Automatio	cegrated on Portal	C/DC/DC] / P	rograj	m hlocks		
	rm [DB17]	CIDCIDC] I I	rograi	II BIOCKS		
Data_alarm General	Properties					
Name	Data_alarm	Number	17		Туре	DB
Language	DB	Numbering	Automa	ntic	71	
Information		"				
Title		Author			Comment	
Family		Version	0.1		User-defined ID	
Name		Data	type	Start va	lue	Retain
▼ Static						
Motor	_tripped	Bool		false		False
Cylind	er1_tripped	Bool		false		False
Cylind	er2_tripped	Bool		false		False
Cylind	er3_tripped	Bool		false		False
Cylind	er4_tripped	Bool		false		False
Cylind	er5_tripped	Bool		false		False
Camer	ra_tripped	Bool		false		False
carrier	to_Maintenance	DInt		0		False

|--|

state_to_webserver [DB22]

state_to_web	server Properties				
General					
Name	state_to_webserver	Number	22	Туре	DB
Language	DB	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined ID	

lame	Data type	Start value	Retain
▼ Static			
state_sensor_1	Bool	false	False
state_sensor_2	Bool	false	False
state_sensor_3	Bool	false	False
state_sensor_4	Bool	false	False
state_sensor_5	Bool	false	False
state_sensor_detech	Bool	false	False
state_emergency_stop	Bool	false	False
state_cylinder_1	Int	0	False
state_cylinder_2	Int	0	False
state_cylinder_3	Int	0	False
state_cylinder_4	Int	0	False
state_cylinder_5	Int	0	False
state_motor	Int	0	False
state_auto	Int	0	False

Put_to_webserver [FC5]

Put_to_webse	erver Properties				
General					
Name	Put_to_webserver	Number	5	Туре	FC
Language	LAD	Numbering	Automatic		
Information					
Title		Author		Comment	
Family		Version	0.1	User-defined	
				ID	

Name	Data type	Default value	
Input			
Output			
InOut			
Temp			
Constant			
▼ Return			
Put_to_webserver	Void		

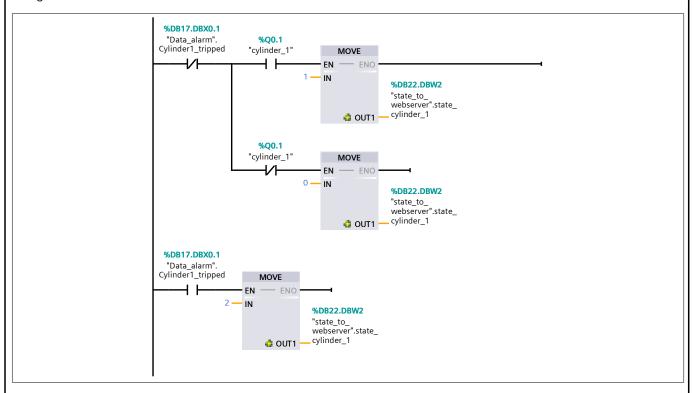
Network 1: state sensor

trang thai cam bien

```
%DB22.DBX0.0
                                                                                                "state_to_
webserver".state_
sensor_1
      %10.3
   "Sensor_1"
                                                                                                  %DB22.DBX0.1
                                                                                                "state_to_
webserver".state_
sensor_2
      %10.4
   "Sensor_2"
      H F
                                                                                                       ~ }
                                                                                                  %DB22.DBX0.2
                                                                                                "state_to_
webserver".state_
      %10.5
                                                                                                     sensor_3
       4 F
                                                                                                       %DB22.DBX0.3
                                                                                                "state_to_
webserver".state_
sensor_4
      %10.6
   "Sensor_4"
                                                                                                  %DB22.DBX0.4
                                                                                                "state_to_
webserver".state_
      %10.7
                                                                                                     sensor_5
   "Sensor_5"
                                                                                                       %DB22.DBX0.5
                                                                                                "state_to_
webserver".state_
sensor_detech
      %10.2
"Sensor_Detech"
       H F
                                                                                                        <del>(</del> )-
```

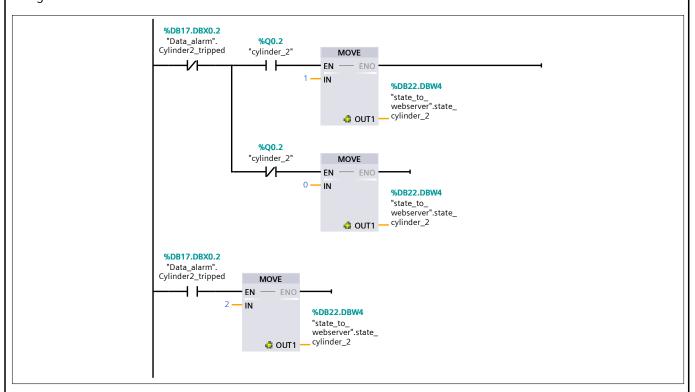
Network 2: state cylinder 1

trang thai xi lanh 1



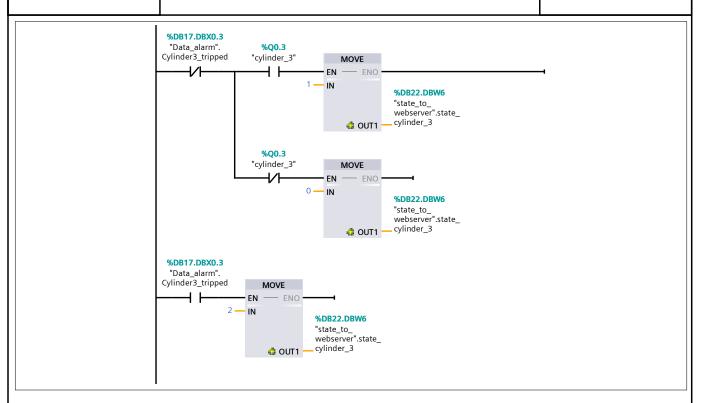
Network 3: state cylinder 2

trang thai xi lanh 2



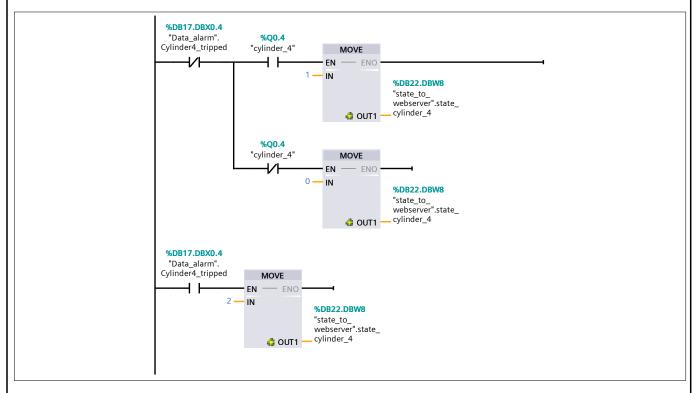
Network 4: state cylinder 3

trang thai xi lanh 3



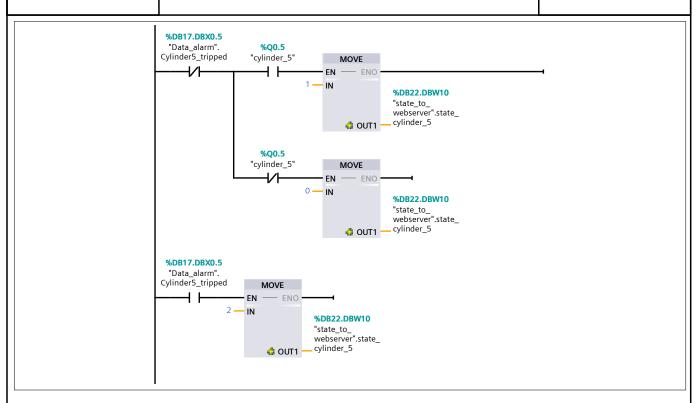
Network 5: state cylinder 4

trang thai xi lanh 4



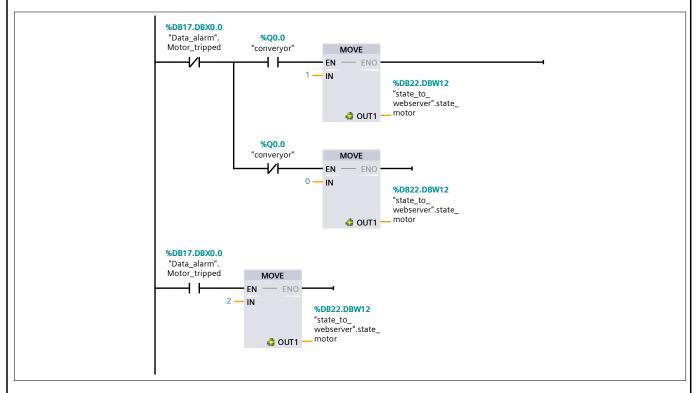
Network 6: state cylinder 5

trang thai xi lanh 5



Network 7: state motor conveyor

trang thai dong co bang tai



Network 8: state system

trang thai he thong

Totally Integrated **Automation Portal** %M10.0 "State_all" %M10.1 "State_auto" MOVE $\dashv \vdash$ $\dashv \vdash$ EN - ENO 1 — IN %DB22.DBW14 "state_to_ webserver".state_ 4 OUT1 — auto %M10.1 "State_auto" MOVE EN - ENO IN %DB22.DBW14 "state_to_ webserver".state_ %M10.0 "State_all" MOVE - EN --- ENO 0 — IN %DB22.DBW14 "state_to_ webserver".state_ auto

▼ Static CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True QD Bool false True QD True PV Int O	eneral	_O_DB Properties					
Title Author Simatic Comment User-defined CNTR ID Name Data type Start value Reta ✓ Static CD Bool false True R R R R R R R R R						Туре	DB
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Data type Start value Retail		IEC				_	CNTR
CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Int O							
CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Int O True	ıme		Data t	type	Start value	1	Retain
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R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Int O True							True
LD Bool false True QU Bool false True QD Bool false True PV Int O True							True
QU Bool false True QD Bool false True PV Int 0 True							True
QD Bool false True PV Int 0 True							
PV Int 0 True							
CV Int 0 Irrue							
	CV		Int		0		True

Number IEC_Counter_O_DB_1 Number 10	DB	Numbering Author	Automatio		Туре	DB
Author Simatic Comment User-defined CNTR ID		Author				
Note	IEC		Simatic			
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QU Bool false True QD Bool false True PV Int 0 True		Bool				True
QD Bool false True PV Int 0 True		Bool				True
PV Int 0 True						True
		Bool				
CV Int 0 True		Int		0		True
			Bool Bool Bool Bool Int	Bool Bool Bool Bool Bool Int	Bool false Bool false Bool false Bool false Bool false Bool false Int 0	Bool false Bool false Bool false Bool false Bool false Bool false Int 0

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Static		Data	cype -	Start value		INCLAIII
CU		Bool		false		True
CD		Bool		false		True
R		Bool		false		True
LD		Bool		false		True
QU		Bool		false		True
QD DV		Bool		false 0		True
PV		Int Int		0		True True
CV						
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R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Int O True	R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Int O True						
LDBoolfalseTrueQUBoolfalseTrueQDBoolfalseTruePVIntOTrue	LDBoolfalseTrueQUBoolfalseTrueQDBoolfalseTruePVInt0True						
QU Bool false True QD Bool false True PV Int 0 True	QU Bool false True QD Bool false True PV Int 0 True						
QD Bool false True PV Int 0 True	QD Bool false True PV Int 0 True						
PV Int 0 True	PV Int 0 True						
CV Int 0 True	CV Int 0 True						
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LDBoolfalseTrueQUBoolfalseTrueQDBoolfalseTruePVInt0True	LD Bool false True QU Bool false True QD Bool false True PV Int O True	LD Bool false True QU Bool false True QD Bool false True PV Int O True	CD		Bool				
QU Bool false True QD Bool false True PV Int 0 True	QU Bool false True QD Bool false True PV Int 0 True	QU Bool false True QD Bool false True PV Int 0 True							
QD Bool false True PV Int 0 True	QD Bool false True PV Int 0 True	QD Bool false True PV Int 0							
PV Int 0 True	PV Int 0 True	PV Int 0 True							
CV Int 0 True	CV Int 0 True	CV Int 0 True	PV		Int				
			CV				U		11122
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Numbering Automatic Automatic Author Simatic Comment User-defined IEC_TMR ID IEC_TMR IEC_TMR	eneral						
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	Q		ВООІ		idise		
	Q		ВООІ		Idise		
	Q		ВООІ		Idise		
	Q		ВООІ		Idise		
	Q		ВООТ		Idise		
	Q		воог		Idise		

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me Data type Start value Retain Static CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Dint O True	Ame Data type Start value Retain CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QU Bool false True QD Bool false True PV DInt O		IEC	Version			User-defined	DCNTR
CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV DInt O True	CU Bool false True CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV DInt O True	ame		Data	type	Start va		Retain
CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Dint 0 True	CD Bool false True R Bool false True LD Bool false True QU Bool false True QD Bool false True PV Dint 0 True	Static						
R Bool false True LD Bool false True QU Bool false True QD Bool false True PV DInt 0 True	R Bool false True LD Bool false True QU Bool false True QD Bool false True PV DInt O True							
LD Bool false True QU Bool false True QD Bool false True PV DInt 0 True	LD Bool false True QU Bool false True QD Bool false True PV DInt 0 True							
QU Bool false True QD Bool false True PV DInt 0 True	QU Bool false True QD Bool false True PV DInt 0 True							
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			false		False
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itle amily	IEC	Author Version	Simatic 1.0		Comment User-defined	IEC_TMR	
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ame ▼ Static		Data	гуре	Start valu	Je Transcription	Retai	ri -
PT		Time		T#0ms		False	
ET		Time		T#0ms		False	
IN		Bool		false		False	
Q		Bool		false		False	

IEC_Timer_0_DB_1 DB					
	Number	3		Туре	DB
DD	Numbering	Automatio			
	Author	Simatic		Comment	
IEC	Version	1.0		User-defined ID	IEC_TMR
	Data	type	Start valu	le	Retain
	Time		T#∩ms		False
	Time		T#0ms		False
	Bool		false		False
	Bool		false		False
	IEC	IEC Version Data Time Time Bool	IEC Version 1.0 Data type Time Time Bool	Data type Time T#0ms Time T#0ms Bool false	Data type Time T#0ms Time T#0ms Bool False

	me IEC_Timer_0_DB_2 Number 4 Type DB	Numbe	ering A	Automatic		Туре	DB	
Numbering Automatic Author Simatic Comment EC_TMR ID	Numbering Automatic Author Simatic Comment	Numbe						
Author Simatic Comment User-defined ID IEC_TMR IEC_TMR ID IEC_TMR	Author Simatic Comment User-defined IEC_TMR ID		· S					
Amily IEC Version 1.0 User-defined ID IEC_TMR IEC_TMR ID IEC_TMR ID IEC_TMR ID IEC_TMR ID IEC_TMR ID IEC_TMR IEC_TMR ID I	mily IEC Version 1.0 User-defined ID IEC_TMR me Data type Start value Retain Static Time T#0ms False ET Time T#0ms False IN Bool false False		· IS	imatic		Commont		
Data type Start value Retain PT Time T#0ms False ET Time T#0ms False IN Bool false False	me Data type Start value Retain Static Time T#0ms False ET Time T#0ms False IN Bool false False					User-defined	IEC_TMR	
PT Time T#0ms False ET Time T#0ms False IN Bool false False	PT Time T#0ms False ET Time T#0ms False IN Bool false False		Data typ	e	Start value			Retain
ET Time T#0ms False IN Bool false False	ET Time T#0ms False IN Bool false False							
IN Bool false False	IN Bool false False							
				Time Bool	Time Bool	Time T#0ms Bool false	Time T#0ms Bool false	Time T#0ms Bool false

nguage DB Numbering Automatic formation cle Author Simatic Comment mily IEC Version 1.0 User-defined ID IEC_TMR	EC_Timer_0_ ieneral lame	_DB_3 Properties	Muse bar	E		Type	DR
Author Simatic Comment User-defined IEC_TMR ID					<u> </u>	туре	חת
Wersion 1.0 User-defined IEC_TMR Data type Start value Retain Static PT Time T#0ms False ET Time T#0ms False IN Bool false False	formation		_{II} IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	rtatomatic			
Data type Start value Retain Static PT Time T#0ms False ET Time T#0ms False IN Bool false False	tle						
PT Time T#0ms False ET Time T#0ms False IN Bool false False	mily	IEC	Version	1.0			IEC_TMR
Static Time T#0ms False ET Time T#0ms False IN Bool false False	ame		Data	ı type	Start valu		Retair
ET Time T#0ms False IN Bool false False							
IN Bool false False							
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R Retain False False False False
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False False
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False

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC]	
Technology objec	ts	
This folder is empty.		

PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Default tag table [37]

PLC ta	ngs			
	Name	Data type	Address	Retain
- III	Tag_1	Bool	%M53.0	False
-(111)	Reset_ctu_alarm	Bool	%M53.3	False
-11	Tag_2	Bool	%M53.1	False
-11	Tag_3	Bool	%M53.2	False
411	Error_lamp_alarm	Bool	%M53.4	False
-III	time_up_maintenance	Bool	%M53.5	False
-(III)	Alarm_not_product	Bool	%M53.6	False
-(III)	Tag_4	Bool	%M100.0	False
-	Tag_5	Bool	%M100.1	False
-	over_memory	Bool	%M54.0	False
d III	stop_Sys_alarm	Bool	%M54.1	False

Totally Integrated Automation Portal				
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Default tag table [37]				
User constants				
User constants				
Name	Data type Value			

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PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Alarm [17]

PLC tags				
Data type	Address	Retain		
Word	%MW20	False		
Bool	%M20.0	False		
Bool	%M20.1	False		
Bool	%M20.2	False		
Bool	%M20.3	False		
Bool	%M20.4	False		
Bool	%M20.5	False		
Bool	%M20.6	False		
Bool	%M20.7	False		
Bool	%M21.0	False		
Bool	%M21.1	False		
Bool	%M21.2	False		
Bool	%M21.3	False		
Bool	%M21.4	False		
Bool	%M21.5	False		
Bool	%M21.6	False		
Bool	%M21.7	False		
	Word Bool Bool	Word %MW20 Bool %M20.0 Bool %M20.1 Bool %M20.2 Bool %M20.3 Bool %M20.4 Bool %M20.5 Bool %M20.6 Bool %M20.7 Bool %M21.0 Bool %M21.1 Bool %M21.2 Bool %M21.3 Bool %M21.4 Bool %M21.5 Bool %M21.5 Bool %M21.6		

Totally Integrated Automation Portal				
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Alarm [17]				
User constants				
User constants	Data trus			
Name	Data type Value			
		<u></u>		

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PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / HMI [13]

PLC tags				
	Name	Data type	Address	Retain
(III)	hmi_manu_cylinder_1	Bool	%M10.3	False
√III	hmi_manu_cylinder_2	Bool	%M10.4	False
(III)	hmi_manu_cylinder_3	Bool	%M10.5	False
€	hmi_manu_cylinder_4	Bool	%M10.6	False
- III	hmi_manu_cylinder_5	Bool	%M10.7	False
4II	hmi_active_count	Bool	%M11.0	False
-III	HMI_ALARM	Bool	%M11.1	False
Œ	hmi_manu_conveyor	Bool	%M10.2	False
=	HMI_START	Bool	%M11.2	False
(III)	HMI_STOP	Bool	%M11.3	False
-(111)	hmi_reset_count	Bool	%M11.4	False
- III	hmi_problem_handled	Bool	%M11.5	False
- III	hmi_reset_data	Bool	%M11.6	False

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / HMI [13]					
User constants					
User constants	Data tama				
Name	Data type Value				

	Bool	%10.0	False
Stop	Bool	%10.1	False

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Input_control [2]					
User constants					
User constants					
Name	Data type Value				

Totally Integrated Automation Portal		
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PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Output [7]

PLC tags				
	Name	Data type	Address	Retain
√III	cylinder_1	Bool	%Q0.1	False
-ŒI	cylinder_2	Bool	%Q0.2	False
	cylinder_3	Bool	%Q0.3	False
	cylinder_4	Bool	%Q0.4	False
4	cylinder_5	Bool	%Q0.5	False
-ŒII	converyor	Bool	%Q0.0	False
Œ	led_error	Bool	%Q0.6	False

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Output [7]					
User constants					
User constants	5				
Name	Data type Value				
<u> </u>					

Totally Integrated Automation Portal		
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PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Sensor [6]

PLC ta	PLC tags				
	Name	Data type	Address	Retain	
(III	Sensor_1	Bool	%10.3	False	
(III)	Sensor_2	Bool	%10.4	False	
€	Sensor_3	Bool	%10.5	False	
€	Sensor_4	Bool	%10.6	False	
411	Sensor_5	Bool	%10.7	False	
√III	Sensor_Detech	Bool	%10.2	False	

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Sensor [6]					
User constants					
User constants					
Name	Data type Value	!			
1					

PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Simulater [6]

PLC t	PLC tags				
	Name	Data type	Address	Retain	
₹	Sim_motor_tripped	Bool	%M52.0	False	
₹	Sim_cylinder1_tripped	Bool	%M52.1	False	
€	Sim_cylinder2_tripped	Bool	%M52.2	False	
-	Sim_cylinder3_tripped	Bool	%M52.3	False	
← Ⅲ	Sim_cylinder4_tripped	Bool	%M52.4	False	
₹Ⅲ	Sim_cylinder5_tripped	Bool	%M52.5	False	

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / Simulater [6]					
User constants					
User constants					
Name	Data type Value				

Totally Integrated Automation Portal					
PLC_1 [CPU 121	4C DC/DC/DC] / PL	C tags / State_sys	stem [2]	l	
PLC tags					
PLC tags					
Name		Data type	Address		etain
← State_all	F	Bool	%M10.0	Fa	alse
■ State_auto	E	Bool	%M10.1	Fa	alse
			-		

Totally Integrated Automation Portal					
PLC_1 [CPU 1214C DC/DC/DC] / PLC tags / State_system [2]					
User constants					
User constants					
Name	Data type Value				

Totally Integrated Automation Portal				
PLC_1 [CPU 1214C DC/DC/DC] / PLC data types				
System data types	;			
This folder is empty.				

Totally Integrated Automation Portal				
PLC 1 [CPU 121	4C DC/DC/DCl / \	Watch and force tab	les	
Force table				
Name	Address	Display format	Force value	
"Sensor_Detech":P	%I0.2:P	Bool	TRUE	

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC]	
Traces		
Name		
	7	

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC] / Traces	
Measurements		
This folder is empty.		

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC] / Traces	
Combined measur	rements	
Name		

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC] / OPC UA communication	
Server interfaces		
This folder is empty.		

Totally Integrated Automation Portal		
PLC_1 [CPU 121	4C DC/DC/DC]	
PLC alarm text list		
This folder is empty.		

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PLC_1 [CPU 1214C DC/DC/DC] / Local modules

PLC_1 [CPU 1214C DC/DC/DC]

DIC 4							
PLC_1							
Project information			l - •				
	PLC_1		Author		huuda		
Comment			Slot		1		
	0						
Catalog information							
Short designation			Description		Work memory 100 KB; 24VDC power supply with DI14 x 24VDC SINK/ SOURCE, DQ10 x 24VDC and AI2 on board; 6 high-speed counters and 4 pulse outputs on-board; signal board expands on-board I/O; up to 3 communication modules for serial communication; up to 8 signal modules for I/O expansion; PROFINET IO controller, I-device, transport protocol TCP/IP, secure Open User Communication, S7 communication, Web server, OPC UA: Server DA		
Article number	6ES7 214-1AG40-0XB0		Firmware version		V4.5		
	False				•		
Connection resources\							
	Station resources - Re-			Station resources - Dy- namic - Configured			
	served - Maximum					Module resources - PLC_1 [CPU 1214C DC/DC/DC] - Configured	
Maximum number of resources:	served - Maximum	served - Cor		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68	
sources:	served - Maximum Maximum	served - Cor		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured	
sources: PG communication:	served - Maximum Maximum 4	34 Configured		34 Configured	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured	
PG communication:	Maximum 4 12	served - Con 34 Configured -		34 Configured 0	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured -	
PG communication: HMI communication: S7 communication:	Maximum 4 12 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1	
sources: PG communication: HMI communication:	Maximum 4 12 8	served - Con 34 Configured -		34 Configured 0	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured -	
PG communication: HMI communication: S7 communication: Open user communica-	Maximum 4 12 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1	
PG communication: HMI communication: S7 communication: Open user communication:	Maximum 4 12 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1	
PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server	Maximum 4 12 8 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1	
PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server communication:	Maximum 4 12 8 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1 0	
PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server communication: Other communication:	Maximum 4 12 8 8	served - Con 34 Configured - 1 0		namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1 0 0	
sources: PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server communication: Other communication: Total resources used: Available resources:	Maximum 4 12 8 8	served - Con 34 Configured - 1 0 1 1 33	nfigured	namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1 0 0 1	
sources: PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server communication: Other communication: Total resources used: Available resources: Overview of addresses	Maximum 4 12 8 8 0	served - Con 34 Configured - 1 0 1 1 33	nfigured	namic - Co	onfigured	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1 0 0 1	
PG communication: HMI communication: S7 communication: Open user communication: Web communication: OPC UA client/server communication: Other communication: Total resources used: Available resources: Overview of addresses	Maximum 4 12 8 8 2 0	served - Con 34 Configured - 1 0 1 1 33	addresses	namic - Co	enfigured de la configure de la configura de l	PLC_1 [CPU 1214C DC/DC/DC] - Configured 68 Configured - 1 0 0 1	

Totally In	teg	rate	ed
Automat	ion	Por	tal

Туре	Addr. from	Addr. to	Module	PIP	Device name	Device number	Size	Master / IO system	Rack	Slot
	0	1	DI 14/DQ 10_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	2 Bytes	-	0	11
0	0	1	DI 14/DQ 10_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	_	2 Bytes	-	0	1 1
	64	67	AI 2_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 2
	1000	1003	HSC_1	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 16
	1004	1007	HSC_2	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 17
	1008	1011	HSC_3	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 18
	1012	1015	HSC_4	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 19
	1016	1019	HSC_5	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 20
	1020	1023	HSC_6	Automatic update	PLC_1 [CPU 1214C DC/DC/DC]	-	4 Bytes	-	0	1 21
)	1000	1001	Pulse_1	Automatic update		-	2 Bytes	-	0	1 32
O	1002	1003	Pulse_2	Automatic update		-	2 Bytes	-	0	1 33
)	1004	1005	Pulse_3	Automatic update		-	2 Bytes	-	0	1 34
O	1006	1007	Pulse_4	Automatic update		-	2 Bytes	-	0	1 35