

# Universidade Estadual de Campinas

# FACULDADE DE ENGENHARIA MECÂNICA

# ES726 - Laboratório de Sistemas Pneumáticos e Hidráulicos

# Projeto Final Partiu bar - Parte IV - A Terra e o Tempo

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# 1 Descrição Técnica do Processo

Este relatório consiste na descrição da solução encontrada para o problema da maturação e filtragem da produção de cerveja. O processo começa após a fermentação da cerveja verde que é mandada para tanques de maturação como o da figura 1 (válvula  $V_{cv}$  e  $timer_1$ ). No tanque a cerveja verde permanece entre 1h e 3h ( $timer_2$ ) com controle constante de sua temperatura, esta necessitando estar em  $0^{\circ}C$ , ou no máximo entre -5 e  $5^{\circ}C$ . Este controle de temperatura deve ser feito com base no acionamento do fluido refrigerante ( $V_{fr}$ ) e em um sensor de temperatura ( $S_t$ ).



Figura 1: Tanque de maturação da cerveja verde.

Passado este tempo e com sucesso do controle de temperatura a cerveja verde torna-se cerveja madura e é despeja na próxima etapa (válvula  $V_{cm}$ ). A etapa consiste em passar por um filtro com terra diatomácea (válvula  $V_{td}$ ), que retira partículas desagradáveis à cerveja, como o mostrado na figura 2.

O resíduo do filtro deve ser descartado após o uso, o seu descarte é feito pela acionamento de uma válvula  $(V_r)$  que dependerá de um sensor  $(S_{bf})$ .

Tanto a válvula de despejo da cerveja maturada quanto a da terra diatomácea dependem do sensor de volume do tanque de maturação  $(S_{bm})$ .

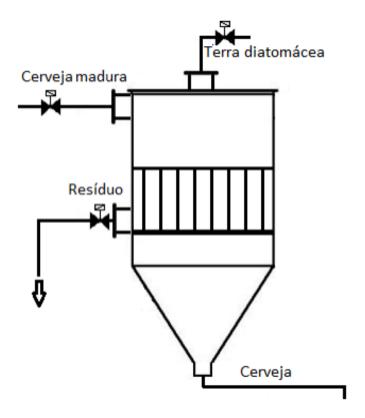


Figura 2: Filtro da cerveja maturada

Após a filtragem a cerveja é então destinada à próxima etapa da sua fabricação, sendo esta não descrita por este trabalho.

# 2 Análise do Projeto

Para a primeira etapa do projeto nós acrescentamos um sensor de nível baixo no taque do maturador, afim de verificar que este está de fato vazio antes de preenchê-lo com cerveja verde. Como não existe perigo de que muita cerveja verde seja fornecida para o tanque (uma vez que a quantidade disponível é limitada pelo tamanho do tanque anterior no processo), o procedimento é controlado através de um timer, estimamos que 10 minutos seja tempo mais que suficiente para preencher o tanque. Deixamos então a cerveja maturar por 2 horas, controlando a sua temperatura através de sensores.

Enquanto o tanque está sendo preenchido e durante o processo de maturação da cerveja, podemos realizar de maneira paralela a liberação dos resíduos do filtro, contanto que não exista mais cerveja maturada para ser filtrada, verificamos isso através de um sensor colocado um pouco abaixo do nível do filtro. Abrimos a válvula para liberação dos resíduos e a deixamos aberta até que a cerveja no maturador acabe de maturar, como a maturação é um processo lento, teremos tempo de sobra para esvaziar o filtro.

Uma vez maturada, a cerveja segue para o a filtração onde receberá terra diatomácea. O controle da proporção entre cerveja e terra diatomácea se dá pela configuração manual das válvulas de liberação de ambas e não será abordada pelo programa.

A figura 3 mostra um diagrama grafcet da nossa implementação do processo.

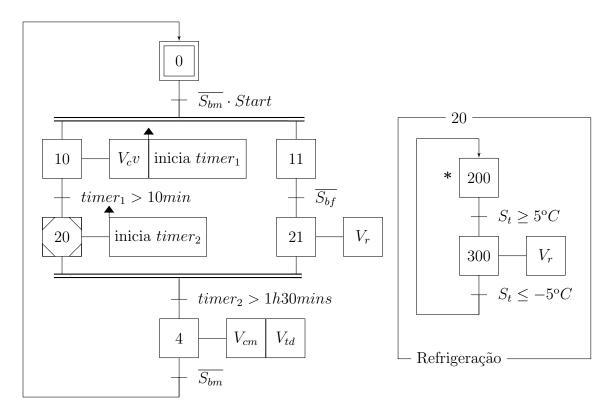


Figura 3: Diagrama grafcet do projeto

### 2.1 Modo Automático

O modo automático consiste na ciclagem automática entre os estados do sistema. Este é o modo padrão de operação do sistema e não necessita de um funcionário presente para fazer as transições. Quando o sistema está na posição home e no modo automático, este aguarda que seja pressionada a chave Iniciar para começar sua execução. Caso este esteja no modo homming e seja transferido para o automático, ele continuará seu ciclo normalmente até que volte para home e então aguardará o botão Iniciar para entrar no modo automático. A implementação de tal lógica pode ser vista na seção 4 nas redes 2 a 4.

## 2.2 Modo Homming

O modo Homming, ao contrário do modo Automático, faz com o que o sistema pause entre os ciclos de operação. A transição entre a posição "home" e a próxima somente ocorrerá quando o botão "Iniciar" da IHM for apertado. Um ciclo de homming só termina quando o sistema atinge sua posição inicial ("home"), sendo que a transição entre o modo Homming e o modo Automático somente será efetuada quando o sistema se encontrar nesta posição. O modo Homming é útil durante a configuração inicial do sistema e a etapa de testes/validação. Sua implementação pode ser vista na seção 4 nas redes 2 a 4.

### 2.3 Modo Passo a Passo

O modo passo a passo facilita a depuração e teste do sistema, introduzindo a necessidade a atuação humana para a transição entre estados. Com todas as condições de transição verificadas o processo apenas mudará de estado caso um botão na IHM (Passo) seja apertado manualmente. Caso as condições de transição não sejam obedecidas e o operador pressionar o botão na IHM nada acontecerá.

Sua utilidade é comprovada durante os testes, já que o processo pode ser totalmente controlado pelo engenheiro de qualidade, testando todas as transições e funcionalidade das entradas (sensores e timers) do sistema. A implementação do modo passo a passo pode ser vista na seção 4 nas redes 5 a 9.

# 2.4 Parada de emergência

## 2.5 Alarmes e tratamentos de Erros

# 2.6 IHM



Figura 4: IHM do sistema

Os detalhes da implementação da IHM podem ser vistas no apêndice A

# 3 Tabela de designação

Tabela 1: Tabela de Input.

Entrada	Utilidade	Posição
$S_{bm}$	sensor de volume baixo no tanque de maturação	%I1.0
$S_t$	sensor de temperatura no tanque de maturação	%MD1
$S_{bf}$	sensor de volume baixo do filtro	%I1.1

Tabela 2: Tabela de Output.

Atuador	Utilidade	Posição
$V_{cv}$	acionamento da válvula da cerveja verde	%Q6.3
$V_{cm}$	acionamento da válvula da cerveja maturada	%Q6.2
$V_{fr}$	acionamento da válvula de fluido refrigerante	%Q7.0
$V_{td}$	acionamento da válvula de terra diatomácea	%Q7.1
$V_r$	acionamento da válvula de descarte	%Q7.2

Tabela 3: Tabela de Temporizadores.

Nome	Utilidade	Posição
$timer_1$	temporizador de entrada da cerveja verde	%M5.5
$timer_2$	temporizador da maturação da cerveja verde	%M5.6

A tabela completa de variáveis do sistema pode ser vista no apêndice A

# 4 Implementação do sistema

Implementamos o sistema em ladder seguindo o grafcet apresentado na figura 3 e todas as considerações feitas na seção 2, para facilitar as demonstrações e o processo de depuração, nós diminuímos o tempo de enchimento do tanque para 5 segundos e o tempo de maturação da cerveja para 25 segundos. A implementação completa pode ser vista a seguir.

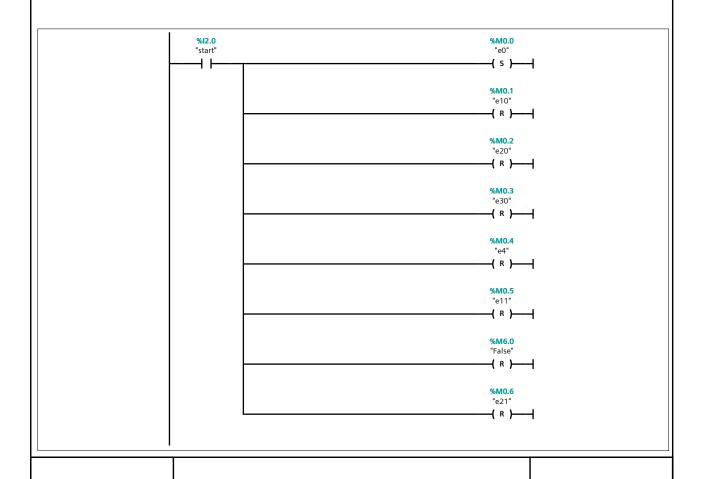
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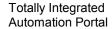
# Main

Main Properties						
General						
Name	Main	Number	1	T	ype	OB
Language	LAD					
Information	Information					
Title	"Main Program Sweep (Cycle)"	Author		C	comment	
Family		Version	0.1	U	Iser-defined D	

Name	Data type	Offset	Comment
<b>▼</b> Temp			
OB1_EV_CLASS	Byte		Bits 0-3 = 1 (Coming event), Bits 4-7 = 1 (Event class 1)
OB1_SCAN_1	Byte		1 (Cold restart scan 1 of OB 1), 3 (Scan 2-n of OB 1)
OB1_PRIORITY	Byte		Priority of OB Execution
OB1_OB_NUMBR	Byte		1 (Organization block 1, OB1)
OB1_RESERVED_1	Byte		Reserved for system
OB1_RESERVED_2	Byte		Reserved for system
OB1_PREV_CYCLE	Int		Cycle time of previous OB1 scan (milliseconds)
OB1_MIN_CYCLE	Int		Minimum cycle time of OB1 (milliseconds)
OB1_MAX_CYCLE	Int		Maximum cycle time of OB1 (milliseconds)
OB1_DATE_TIME	Date_And_Time		Date and time OB1 started

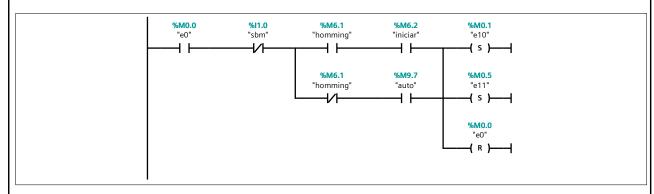
## Network 1: Start





Symbol	Address	Туре	Comment	
"e0"	%M0.0	Bool	Estado 0	
"start"	%I2.0	Bool	Inicia o sistema	
"e10"	%M0.1	Bool	Estado 1.0	
"e20"	%M0.2	Bool	Estado 2.0	
"e30"	%M0.3	Bool	Estado 3.0	
"e4"	%M0.4	Bool	Estado 4	
"e11"	%M0.5	Bool	Estado 1.1	
"False"	%M6.0	Bool	Variavel auxiliar = 0	
"e21"	%M0.6	Bool	Estado 2.1	

### Network 2: Transicoes e0



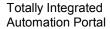
Symbol	Address	Type	Comment
"e0"	%M0.0	Bool	Estado 0
"iniciar"	%M6.2	Bool	Botao iniciar
"e10"	%M0.1	Bool	Estado 1.0
"sbm"	%I1.0	Bool	Sensor de nivel baixo maturador
"e11"	%M0.5	Bool	Estado 1.1
"homming"	%M6.1	Bool	Modo homming
"auto"	%M9.7	Bool	Modo automatico

### Network 3: Inicia modo automatico

Symbol	Address	Туре	Comment
"e0"	%M0.0	Bool	Estado 0
"iniciar"	%M6.2	Bool	Botao iniciar
"homming"	%M6.1	Bool	Modo homming
"auto"	%M9.7	Bool	Modo automatico

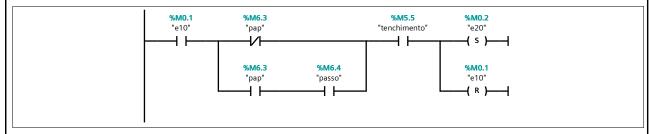
## Network 4: Inicia modo homming

```
%M6.1 %M9.7 "auto" ( R ) — |
```



Symbol	Address	Туре	Comment
"homming"	%M6.1	Bool	Modo homming
"auto"	%M9.7	Bool	Modo automatico

### Network 5: Transicao e10



Symbol	Address	Туре	Comment
"e10"	%M0.1	Bool	Estado 1.0
"e20"	%M0.2	Bool	Estado 2.0
"pap"	%M6.3	Bool	Modo passo a passo
"passo"	%M6.4	Bool	Botao de passo
"tenchimento"	%M5.5	Bool	Tempo de enchimento atingido

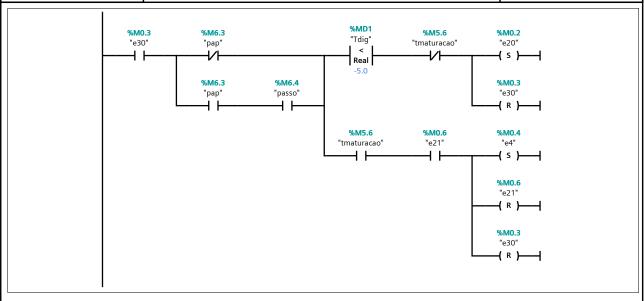
### Network 6: Transicao e20

```
%MD1
%M0.2 "e20"
                    %M6.3
                                                                                %M5.6
                                                                                                    %M0.3
                                                            "Tdig"
| >= |
| Real
                    "pap"
                                                                             "tmaturacao"
                                                                                                     "e30"
                                                                                                     (s)
                    %M6.3 "pap"
                                        %M6.4
                                                                                                    %M0.2 "e20"
                                       "passo"
                      1  
                                         +
                                                                                                     (R)
                                                                                %M0.6 "e21"
                                                                                                    %M0.4 "e4"
                                                            %M5.6
                                                         "tmaturacao"
                                                                                  4 F
                                                                                                     (s)——
                                                                                                    %M0.6 "e21"
                                                                                                     (R)
                                                                                                    %M0.2
                                                                                                     "e20"
                                                                                                     (R)-
```

Symbol	Address	Туре	Comment
"e20"	%M0.2	Bool	Estado 2.0
"e30"	%M0.3	Bool	Estado 3.0
"Tdig"	%MD1	Real	Temperatura do maturador
"e4"	%M0.4	Bool	Estado 4
"pap"	%M6.3	Bool	Modo passo a passo
"passo"	%M6.4	Bool	Botao de passo
"e21"	%M0.6	Bool	Estado 2.1
"tmaturacao"	%M5.6	Bool	Tempo de maturacao atingido
5.0	5.0	LReal	

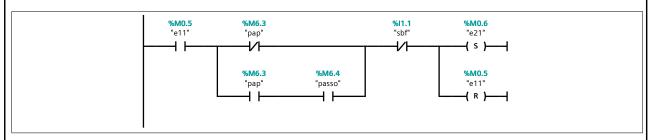
### Network 7: Transicao e30

### Totally Integrated Automation Portal



Symbol	Address	Type	Comment
"e20"	%M0.2	Bool	Estado 2.0
"e30"	%M0.3	Bool	Estado 3.0
"Tdig"	%MD1	Real	Temperatura do maturador
"e4"	%M0.4	Bool	Estado 4
"pap"	%M6.3	Bool	Modo passo a passo
"passo"	%M6.4	Bool	Botao de passo
"e21"	%M0.6	Bool	Estado 2.1
"tmaturacao"	%M5.6	Bool	Tempo de maturacao atingido
-5.0	-5.0	LReal	

### Network 8: Transicao e11



Symbol	Address	Туре	Comment
"sbf"	%I1.1	Bool	Sensor de nivel baixo filtro
"e11"	%M0.5	Bool	Estado 1.1
"pap"	%M6.3	Bool	Modo passo a passo
"passo"	%M6.4	Bool	Botao de passo
"e21"	%M0.6	Bool	Estado 2.1

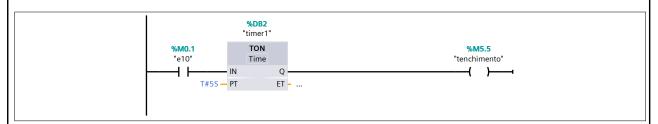
### Network 9: Transicao e4

#### 

Symbol	Address	Туре	Comment
"e0"	%M0.0	Bool	Estado 0
"sbm"	%I1.0	Bool	Sensor de nivel baixo maturador
"e4"	%M0.4	Bool	Estado 4
"pap"	%M6.3	Bool	Modo passo a passo
"passo"	%M6.4	Bool	Botao de passo

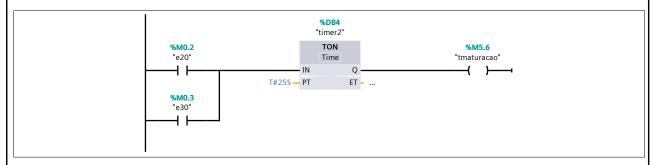
### **Network 10: Timer Enchimento**

**Totally Integrated** 



Symbol "e10"	Address	Туре	Comment
"e10"	%M0.1	Bool	Estado 1.0
"timer1"	%DB2	Block_SFB	
T#5S	T#5S	Time	
"tenchimento"	%M5.5	Bool	Tempo de enchimento atingido

### **Network 11: Timer Maturacao**



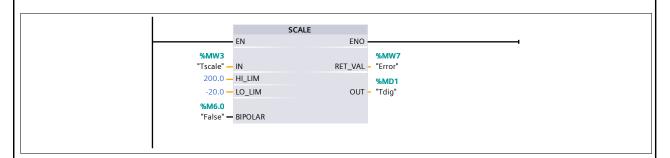
Symbol	Address	Туре	Comment
"e20"	%M0.2	Bool	Estado 2.0
"e30"	%M0.3	Bool	Estado 3.0
"tmaturacao"	%M5.6	Bool	Tempo de maturacao atingido
"timer2"	%DB4	Block_SFB	
T#25S	T#25S	Time	

## Network 12: Conversor Temperatura Analogica



Symbol	Address	Туре	Comment
"Tscale"	%MW3	Int	Sinal de temperatura digital
"T.P":P	%IW448:P	Int	Sinal de temperatura

## Network 13: Scala temperatura



Symbol	Address	Туре	Comment
"Tdig"	%MD1	Real	Temperatura do maturador
Symbol "Tdig" "Tscale"	%MW3	Int	Sinal de temperatura digital
200.0	200.0	LReal	
"False"	%M6.0	Bool	Variavel auxiliar = 0
"Error"	%MW7	Word	Variavel auxiliar
-20.0	-20.0	LReal	

### Network 14: Saidas vcv

Symbol	Address	Туре	Comment
"e10"	%M0.1	Bool	Estado 1.0
"vcv"	%Q6.3	Bool	Valvula cerveja verde

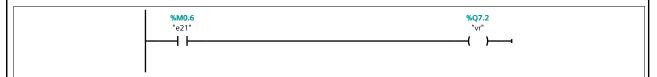
### Network 15: Saidas vfr



Symbol	Address	Туре	Comment
"e30"	%M0.3	Bool	Estado 3.0
"vfr"	%Q7.0	Bool	Valvula fluido refrigerante



### Network 16: Saidas vr



Symbol	Address	Туре	Comment
"e21"	%M0.6	Bool	Estado 2.1
"vr"	%Q7.2	Bool	Valvula de residuos

### Network 17: Saidas vcm e vtd

```
%M0.4

"e4"

"vcm"

%Q7.1

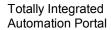
"vtd"

( )
```

Symbol	Address	Туре	Comment
"e4"	%M0.4	Bool	Estado 4
"vcm"	%Q6.2	Bool	Valvula cerveja maturada
"vtd"	%Q7.1	Bool	Valvula de terra diatomacea

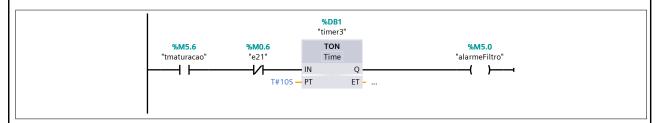
### Network 18: Alarme

	Symbol	Address	Туре	Comment	
	"Tdig"	%MD1	Real	Temperatura do maturador	
L					



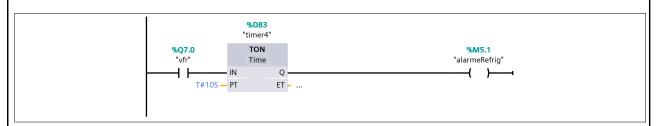
Symbol	Address	Туре	Comment
"alarmeFiltro"	%M5.0	Bool	Alarme por tempo do filtro
"alarmeRefrig"	%M5.1	Bool	Alarme por tempo do Refrigerante
"alarmeCond"	%M5.4	Bool	Condicao de alarme
-10.0	-10.0	LReal	
30.0	30.0	LReal	
"alarmeMat"	%M5.7	Bool	Alarme por tempo do maturador

### Network 19: Timer alarme filtro



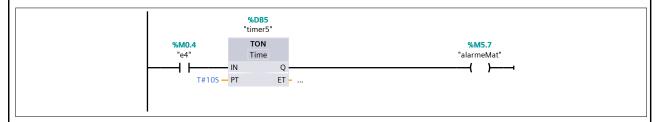
Symbol	Address	Туре	Comment
"timer3"	%DB1	Block_SFB	
"alarmeFiltro"	%M5.0	Bool	Alarme por tempo do filtro
T#10S	T#10S	Time	
"e21"	%M0.6	Bool	Estado 2.1
"tmaturacao"	%M5.6	Bool	Tempo de maturacao atingido

## Network 20: Timer alarme refrigerador

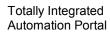


Symbol	Address	Туре	Comment
"vfr"	%Q7.0	Bool	Valvula fluido refrigerante
"timer4"	%DB3	Block_SFB	
"alarmeRefrig"	%M5.1	Bool	Alarme por tempo do Refrigerante
T#10S	T#10S	Time	

### **Network 21: Timer alarme Maturacao**

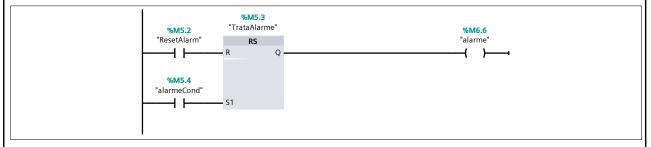


Symbol	Address	Туре	Comment
"e4"	%M0.4	Bool	Estado 4
T#10S	T#10S	Time	
"timer5"	%DB5	Block_SFB	
	•	:	



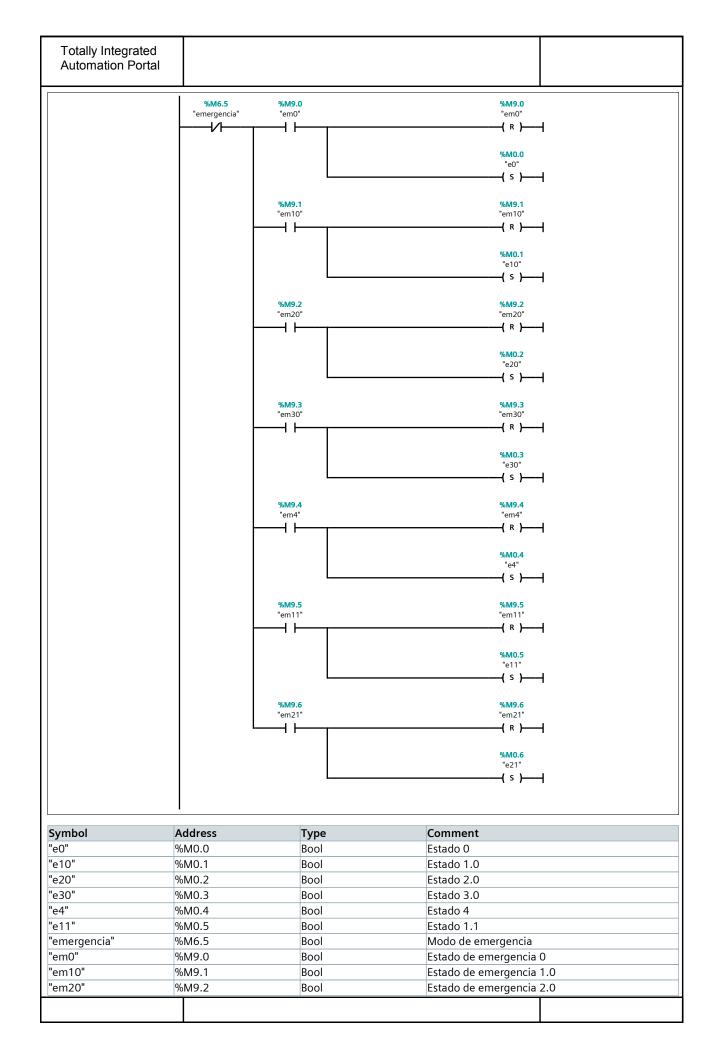
Symbol	Address	Туре	Comment
"alarmeMat"	%M5.7	Bool	Alarme por tempo do maturador

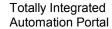
# Network 22: Flipflop Alarme



Symbol	Address	Туре	Comment
"alarme"	%M6.6	Bool	Estado de Alarme
"ResetAlarm"	%M5.2	Bool	Reseta alarme
"TrataAlarme"	%M5.3	Bool	
"alarmeCond"	%M5.4	Bool	Condicao de alarme

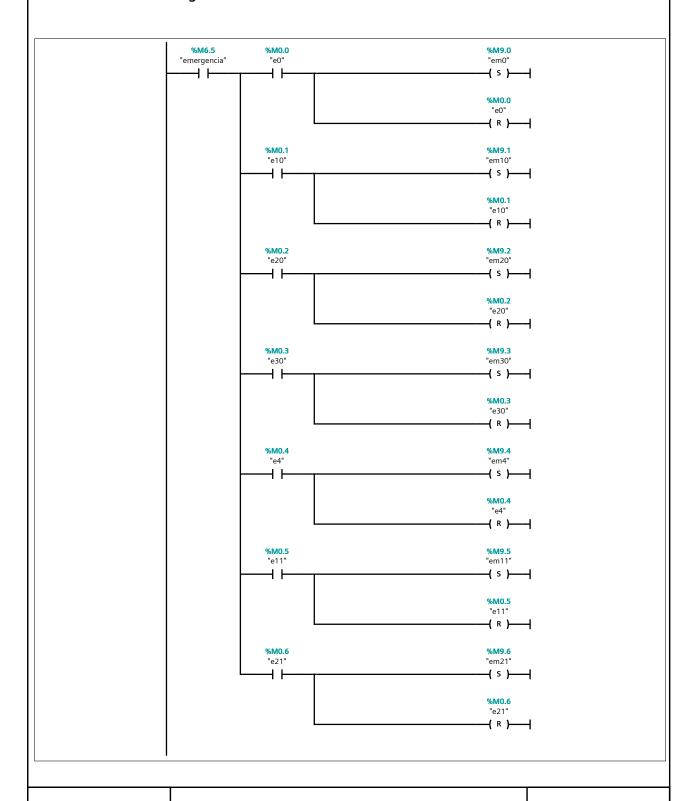
# Network 23: Reseta Emergencia





Symbol	Address	Туре	Comment
Symbol "em30"	%M9.3	Bool	Estado de emergencia 3.0
"em4"	%M9.4	Bool	Estado de emergencia 4
"em11"	%M9.5	Bool	Estado de emergencia 1.1
"e21"	%M0.6	Bool	Estado 2.1
"em21"	%M9.6	Bool	Estado de emergencia 2.1

## Network 24: Inicia Emergencia



Totally	Integ	grated
Automa	ation	Portal

Symbol	Address	Туре	Comment
"e0"	%M0.0	Bool	Estado 0
"e10"	%M0.1	Bool	Estado 1.0
"e20"	%M0.2	Bool	Estado 2.0
"e30"	%M0.3	Bool	Estado 3.0
"e4"	%M0.4	Bool	Estado 4
"e11"	%M0.5	Bool	Estado 1.1
"emergencia"	%M6.5	Bool	Modo de emergencia
"em0"	%M9.0	Bool	Estado de emergencia 0
"em10"	%M9.1	Bool	Estado de emergencia 1.0
"em20"	%M9.2	Bool	Estado de emergencia 2.0
"em30"	%M9.3	Bool	Estado de emergencia 3.0
"em4"	%M9.4	Bool	Estado de emergencia 4
"em11"	%M9.5	Bool	Estado de emergencia 1.1
"e21"	%M0.6	Bool	Estado 2.1
"em21"	%M9.6	Bool	Estado de emergencia 2.1

# 5 Conclusões

# A Apêndices

# A.1 Tabela de Variáveis

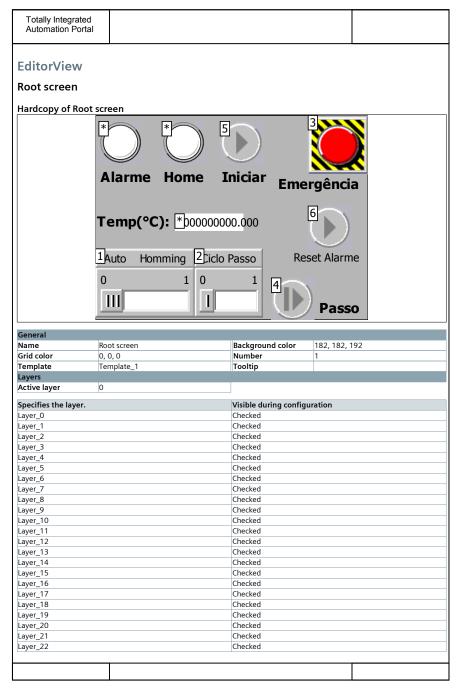
# **PLC** tags

## NONAME

Name	Data type	Address	Retain	Visible in HMI		Comment
alarme alarme	Bool	%M6.6		True	True	Estado de Alarme
alarme Cond	Bool	%M5.4		True	True	Condicao de alarme
alarme Filtro	Bool	%M5.0		True	True	Alarme por tempo do filtro
alarme Mat	Bool	%M5.7		True	True	Alarme por tempo do ma- turador
alarme Refrig	Bool	%M5.1		True	True	Alarme por tempo do Re- frigerante
auto auto	Bool	%M9.7		True	True	Modo automatico
<b>₁</b> e0	Bool	%M0.0		True	True	Estado 0
<b>₁</b> e10	Bool	%M0.1		True	True	Estado 1.0
<b>₁</b> e11	Bool	%M0.5		True	True	Estado 1.1
<b>a</b> e20	Bool	%M0.2		True	True	Estado 2.0
<b>₁</b> e21	Bool	%M0.6		True	True	Estado 2.1
<b>a</b> e30	Bool	%M0.3		True	True	Estado 3.0
<b> 1 1 1 1 1 1 1 1 1 </b>	Bool	%M0.4		True	True	Estado 4
em0	Bool	%M9.0		True	True	Estado de emergencia 0
em10	Bool	%M9.1		True	True	Estado de emergencia 1.0
- em11	Bool	%M9.5		True	True	Estado de emergencia 1.1
- em20	Bool	%M9.2		True	True	Estado de emergencia 2.0
- em21	Bool	%M9.6		True	True	Estado de emergencia 2.1
← em30	Bool	%M9.3		True	True	Estado de emergencia 3.0
∙mem4	Bool	%M9.4		True	True	Estado de emergencia 4
an emergencia	Bool	%M6.5		True	True	Modo de emergencia
€ Error	Word	%MW7		True	True	Variavel auxiliar
← False	Bool	%M6.0		True	True	Variavel auxiliar = 0
1 homming	Bool	%M6.1		True	True	Modo homming
an iniciar	Bool	%M6.2		True	True	Botao iniciar
• pap	Bool	%M6.3		True	True	Modo passo a passo
am passo	Bool	%M6.4		True	True	Botao de passo
4 ResetAlarm	Bool	%M5.2		True	True	Reseta alarme
₃sbf	Bool	%I1.1		True	True	Sensor de nivel baixo filtro
<b>₹</b> sbm	Bool	%I1.0		True	True	Sensor de nivel baixo ma- turador

	Name	Data type	Address	Retain	Visible in HMI		Comment
40	start	Bool	%I2.0		True	True	Inicia o sistema
1	T.P	Int	%IW448		True	True	Sinal de temperatura
<b>40</b>	Tdig	Real	%MD1		True	True	Temperatura do maturador
<b>40</b>	tenchimento	Bool	%M5.5		True	True	Tempo de enchimento atingido
<b>40</b>	tmaturacao	Bool	%M5.6		True	True	Tempo de maturacao atingido
<b>40</b>	TrataAlarme	Bool	%M5.3		True	True	
<b>4</b> 1	Tscale	Int	%MW3		True	True	Sinal de temperatura digi- tal
1	vcm	Bool	%Q6.2		True	True	Valvula cerveja maturada
<b>40</b>	vcv	Bool	%Q6.3		True	True	Valvula cerveja verde
1	vfr	Bool	%Q7.0		True	True	Valvula fluido refrigerante
1	vr	Bool	%Q7.2		True	True	Valvula de residuos
1	vtd	Bool	%Q7.1		True	True	Valvula de terra diatoma- cea

## A.2 Detalhes da IHM



Totally Integrated						
Automation Portal						
Specifies the layer.		Visible during configu	ration			
Layer_23		Checked				
Layer_24		Checked				
Layer_25		Checked				
Layer_26		Checked				
Layer_27		Checked				
Layer_28		Checked				
Layer_29		Checked				
Layer_30		Checked				
		Checked				
Layer_31 Checked						
Switch_1						
71	Switch					
General						
	Auto Homming	Mode	Switch			
	1	Process value				
Text OFF	0	Text ON	1			
Appearance						
	192, 192, 192	Label color	0, 0, 0			
	0, 0, 0	Inner background col- or OFF				
Inner background col- or ON	255, 255, 255	0.011				
Design						
	Checked	Focus color	0, 0, 0			
Focus width	1	rocus color	0, 0, 0			
Layout						
	Unchecked	Height	80			
p	0	Switch orientation	Left to right			
	156	Width	116			
Text						
	Tahoma, 13px	Font	Tahoma, 13px			
Horizontal alignment	Centered	Vertical alignment	Middle			
Flashing						
Flashing	None	Flash on limit viola- tion	Unchecked			
Limits						
Color for High limit violated	255, 0, 0	Color for Low limit violated	255, 255, 0			
Miscellaneous						
Tooltip		Layer	0 - Layer_0			
	Switch_1	-	. ,			
Security						
Authorization		Allow operator control	Checked			
Dynamizations\Tag cor	nnection		<u></u>			
Property name	Process value	Tag	homming			
Switch_2						
_	Switch					
General						
Label text	Ciclo Passo	Mode	Switch			
Value status ON	1	Process value				
	0	Text ON	1			
Appearance		. 5/1. 011	·			
	192, 192, 192	Label color	0, 0, 0			
Foreground color	0, 0, 0	Inner background col- or OFF				
			1			

Inner background co	I- 255 255 255		
or ON	1 255, 255, 255		
Design			
3D border style	Checked	Focus color	0, 0, 0
Focus width	1		
Layout			
Fit to size	Unchecked	Height	80
X position	116	Switch orientation	Left to right
Y position	156	Width	80
Text			
Label font	Tahoma, 13px	Font	Tahoma, 13px
Horizontal alignmen	t Centered	Vertical alignment	Middle
Flashing			
Flashing	None	Flash on limit viola-	Unchecked
		tion	
Limits			
Color for High limit	255, 0, 0	Color for Low limit	255, 255, 0
violated		violated	
Miscellaneous			
Tooltip		Layer	0 - Layer_0
Name	Switch_2		
Security			
Authorization		Allow operator con-	Checked
		trol	
Dynamizations\Tag c	onnection		
Property name	Process value	Tag	pap
-	110 (: 11		
	I/O field		
General	I/O field  Decimal	Field length	13
General Display format		Field length Mode	13 Output
General Display format Format pattern	Decimal		
General Display format Format pattern Process value	Decimal	Mode	Output
General Display format Format pattern Process value Show leading zeros	Decimal s99999999999999	Mode	Output
General Display format Format pattern Process value Show leading zeros Appearance	Decimal s99999999999999	Mode Shift decimal point Background fill pat-	Output
General Display format Format pattern Process value Show leading zeros Appearance Background color	Decimal s9999999999999 Unchecked 255, 255, 255	Mode Shift decimal point  Background fill pattern	Output 0 Solid
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color	Decimal s99999999999999	Mode Shift decimal point  Background fill pattern 3D border style	Output 0 Solid Unchecked
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style	Decimal s9999999999999 Unchecked 255, 255, 255	Mode Shift decimal point  Background fill pattern	Output 0 Solid
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit	Decimal s9999999999999 Unchecked 255, 255, 255	Mode Shift decimal point  Background fill pattern 3D border style	Output 0 Solid Unchecked
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics	Decimal s9999999999999 Unchecked 255, 255, 255	Mode Shift decimal point  Background fill pattern 3D border style	Output 0 Solid Unchecked
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Unit Characteristics Hidden input	Decimal s99999999999999 Unchecked 255, 255, 255 0, 0, 0	Mode Shift decimal point  Background fill pattern 3D border style	Output 0 Solid Unchecked
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout	Decimal s99999999999999 Unchecked 255, 255, 255 0, 0, 0 None	Mode Shift decimal point  Background fill pattern 3D border style Foreground color	Output 0  Solid  Unchecked 0, 0, 0
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin	Decimal s99999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked	Mode Shift decimal point  Background fill pattern 3D border style Foreground color	Output 0  Solid Unchecked 0, 0, 0
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height	Decimal s999999999999999999999999999999999999	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position	Output 0  Solid Unchecked 0, 0, 0  Unchecked 93
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin	Decimal s999999999999999999999999999999999999	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin	Output  O  Solid  Unchecked  O, O, O  Unchecked  93  2
General Display format Format pattern Frocess value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position	Decimal s999999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked 2 20 2 2115	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position	Output 0  Solid Unchecked 0, 0, 0  Unchecked 93
General Display format Format pattern Frocess value Show leading zeros Appearance Background color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width	Decimal s999999999999999999999999999999999999	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin	Output  O  Solid  Unchecked  O, O, O  Unchecked  93  2
General Display format Format pattern Process value Show leading zeros Appearance Background color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text	Decimal s99999999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked 2 20 2 115 80	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin	Output 0  Solid Unchecked 0, 0, 0  Unchecked 93 2
General Display format Format pattern Frocess value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text Font	Decimal s999999999999999999999999999999999999	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin  Horizontal alignment	Output  O  Solid  Unchecked  O, O, O  Unchecked  93  2  2
General Display format Format pattern Frocess value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text Font Line break	Decimal s99999999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked 2 20 2 115 80	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin	Output 0  Solid Unchecked 0, 0, 0  Unchecked 93 2
General Display format Format pattern Frocess value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text Font Line break Flashing	Decimal s999999999999999999999999999999999999	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin  Horizontal alignment Vertical alignment Flash on limit viola-	Output  O  Solid  Unchecked  O, O, O  Unchecked  93  2  2
Type General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text Font Line break Flashing Flashing Limits	Decimal s999999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked 2 20 2 115 80 Tahoma, 13px Unchecked	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin  Horizontal alignment Vertical alignment	Output 0  Solid  Unchecked 0, 0, 0  Unchecked 93 2 2 2
General Display format Format pattern Process value Show leading zeros Appearance Background color Border color Line style Unit Characteristics Hidden input Layout Bottom margin Height Left margin Y position Width Text Font Line break Flashing Flashing	Decimal s999999999999999 Unchecked 255, 255, 255 0, 0, 0 None Unchecked 2 20 2 115 80 Tahoma, 13px Unchecked	Mode Shift decimal point  Background fill pattern 3D border style Foreground color  Fit to size X position Right margin Top margin  Horizontal alignment Vertical alignment Flash on limit viola-	Output 0  Solid  Unchecked 0, 0, 0  Unchecked 93 2 2 2

Miscellaneous			
Tooltip	W0.5.11.4	Layer	0 - Layer_0
Name	I/O field_1		
Security		ll a se	I
Authorization		Allow operator con- trol	Checked
Dynamizations\Tag co			l= 1:
Property name	Process value	Tag	Tdig
Text field_2			
Туре	Text field		
General			
Геxt	Temp(°C):		
Appearance			
Background color	153, 153, 192	Background fill pat- tern	Transparent
Border color	0, 0, 0	3D border style	Unchecked
Border width	1	Line style	None
Foreground color	0, 0, 0		1
Layout			
	2	Fit to size	Checked
Height	23	X position	0
Left margin	2	Right margin	2
Y position	112	Top margin	2
Width	89	' '	
Text	1		
Font	Tahoma, 16px, style=Bold	Horizontal alignment	Left
Line break	Unchecked	Orientation	Horizontal
	Тор		
Flashing	F		
	None		
Miscellaneous			
	0 - Layer_0	Name	Text field 2
Pushbutton_Emerge	•		_
Tumo	Switch		
Type General	SWITCH		
Generai Label text		Mode	Control outstanding
Value status ON		Process value	Switch with graphic
	0	Text ON	1
	0	Text ON	1
Appearance Background color	102 102 102	Label color	0, 0, 0
Foreground color	182, 182, 192 0, 0, 0	Inner background col- or OFF	
Inner background col- or ON	255, 255, 255		
Design			
3D border style	Unchecked	Focus color	0, 0, 0
Focus width	1		
Layout			
Fit to size	Unchecked	Height	68
X position	249	Switch orientation	Left to right
	0	Width	71
		"	
Text	Tahoma, 16px	Font	Tahoma, 16px
Text Label font Horizontal alignment		Font Vertical alignment	Tahoma, 16px Middle

Flashing			
Flashing	None	Flash on limit viola- tion	Unchecked
imits			
Color for High limit	255, 0, 0	Color for Low limit	255, 255, 0
violated		violated	
Miscellaneous			
Tooltip		Layer	0 - Layer_0
Name	Pushbutton_Emergency		
Security			
Authorization		Allow operator con- trol	Checked
Dynamizations\Tag co			
Property name	Process value	Tag	emergencia
DI I. D I. D.			
PlotLight_Round_R		_	
Туре	Graphic I/O field		
General			
Bit number	0	Mode	Two states
Value status ON	1	Graphic list	
Graphic OFF	Pushbutton_Round_N_On_mono	Graphic ON	PilotLight_Round_R_On_256c
Process value	0		
Appearance			
Background color	182, 182, 192	Border color	0, 0, 0
3D border style	Unchecked	Border width	1
Line style	None	Focus color	0, 0, 0
Focus width	1	Scroll bar orientation	Vertical
Show scroll bar	No scrollbar	Transparent color	255, 0, 255
Use transparent color		•	
Layout			
Fit to size	Unchecked	Height	50
X position	4	Y position	7
Width	50		1-
Flashing			
Flashing	None	Flash on limit viola- tion	Unchecked
Limits			
Color for High limit	255, 0, 0	Color for Low limit violated	255, 255, 0
Miscellaneous		violateu	
Tooltip		Layer	0 - Layer_0
Name	PlotLight_Round_R	Layer	o Layer_o
Name Security	i lotelgite_routiu_r		
Authorization		Allow operator con- trol	Checked
Dynamizations\Tag co	nnection	,	<u> </u>
Property name	Process value	Tag	alarme
PlotLight_Round_G		7	
_	Graphic I/O field		
Туре	Graphic I/O field		
Type General		Mode	Two states
Type General Bit number	0	Mode Graphic list	Two states
Type General Bit number Value status ON	0	Graphic list	
Type General Bit number Value status ON Graphic OFF	0 1 Pushbutton_Round_N_On_mono		Two states PilotLight_Round_G_On_256c
Type General Bit number Value status ON Graphic OFF Process value	0	Graphic list	
Type General Bit number Value status ON	0 1 Pushbutton_Round_N_On_mono	Graphic list	

Line style	None	Focus color	0, 0, 0
Focus width	1	Scroll bar orientation	Vertical
Show scroll bar	No scrollbar	Transparent color	255, 0, 255
Use transparent colo		•	
Layout	-		
Fit to size	Unchecked	Height	50
X position	78	Y position	7
Width	50	i position	,
Flashing	50		
	None	Flash on limit viola-	Unchecked
Flashing	None	tion	Unchecked
Limits		uon	
Color for High limit	255, 0, 0	Color for Low limit	255, 255, 0
violated	255, 0, 0	violated	233, 233, 0
Miscellaneous		violated	
		Laver	O Laver O
Tooltip	DI III II D	Layer	0 - Layer_0
Name	PlotLight_Round_G		
Security			
Authorization		Allow operator con-	Checked
	1	trol	
Dynamizations\Tag c			
Property name	Process value	Tag	e0
FB_SlowForward_l	Round		
_	la		
Туре	Button		
General			
Bit number	0	Mode	Check back with graphic
Graphic list		Graphic OFF	FB_SlowForward_Round_Re-
			leased_256c
Graphic ON	FB_SlowForward_Round_Press-	Process value	
	ed_256c		
Text list		Text OFF	Text
Text ON	Text		
Appearance			
Background color	182, 182, 192	Foreground color	0, 0, 0
Design			
3D border style	Unchecked	Focus color	0, 0, 0
Focus width	1		0, 0, 0
Layout			
•			F.0
Fit to size	Unchecked	Height	50
X position	206	Y position	190
Width	50		
Text			
Font	Tahoma, 16px	Horizontal alignment	Centered
Vertical alignment	Middle		
vertical angimient			
Flashing	None		
Flashing Flashing	None		
Flashing Flashing Miscellaneous	None	Laver	0 - Laver 0
Flashing Flashing Miscellaneous Tooltip		Layer	0 - Layer_0
Flashing Flashing Miscellaneous Tooltip Name	None   FB_SlowForward_Round	Layer	0 - Layer_0
Flashing Flashing Miscellaneous Tooltip Name Security			
Flashing Flashing Miscellaneous Tooltip		Allow operator con-	0 - Layer_0 Checked
Flashing Flashing Miscellaneous Tooltip Name Security			
Flashing Flashing Miscellaneous Tooltip Name Security Authorization	FB_SlowForward_Round	Allow operator con-	
Flashing Flashing Miscellaneous Tooltip Name Security Authorization  Dynamizations\Even	FB_SlowForward_Round	Allow operator con-	
Flashing Flashing Miscellaneous Tooltip Name Security Authorization  Dynamizations\Even	FB_SlowForward_Round	Allow operator con-	
Flashing Flashing Miscellaneous Tooltip Name Security Authorization  Dynamizations\Even	FB_SlowForward_Round	Allow operator con-	

Totally Integrated Automation Porta			
Adomation Tota	1		
Dynamizations\Even			
Event name	Release		
Function list\ResetBi			
Tag	passo		
FB_Right_Round			
Туре	Button		
General			
Bit number	0	Mode	Graphic
Graphic list		Graphic OFF	FB_Right_Round_Released_25
Graphic ON	FB_Right_Round_Pressed_256c	Process value	
Text list		Text OFF	Text
Text ON	Text		
Appearance			
Background color	182, 182, 192	Foreground color	0, 0, 0
Design			
3D border style	Unchecked	Focus color	0, 0, 0
Focus width	1		
Layout			
Fit to size	Unchecked	Height	50
X position	146	Y position	7
Width	50		
Text			
Font	Tahoma, 16px	Horizontal alignmen	t Centered
Vertical alignment	Middle		
Flashing			
Flashing	None		
Miscellaneous			
Tooltip		Layer	0 - Layer_0
Name	FB_Right_Round		
Security			
Authorization		Allow operator con-	Checked
		trol	
Dynamizations\Even			
Event name Function list\SetBit	Press		
	-1		
Tag	s1		
Dynamizations\Even Event name	Release		
Function list\ResetBi			
Tag	s1		
Text field_1			
Туре	Text field		
General			
Text	Iniciar		
Appearance			
Background color	153, 153, 192	Background fill pat- tern	Transparent
Border color	0, 0, 0	3D border style	Unchecked
Border width	1	Line style	None
Foreground color	0, 0, 0		1
	1-7-7-9		
			lat 1 1
Layout	2	Fit to size	Checked
Layout Bottom margin	2 23	Fit to size X position	Checked 146
Layout	2 23 2	Fit to size X position Right margin	Checked 146 2

Y position	60	Top margin	2
Width	56		
Text			
Font	Tahoma, 16px, style=Bold	Horizontal alignment	
Line break	Unchecked	Orientation	Horizontal
Vertical alignment	Тор		
Flashing			
Flashing	None		
Miscellaneous			
Layer	0 - Layer_0	Name	Text field_1
Text field_3			
Гуре	Text field		
General			
Гехt	Home		
Appearance			
Background color	153, 153, 192	Background fill pat- tern	Transparent
Border color	0, 0, 0	3D border style	Unchecked
Border width	1	Line style	None
oreground color	0, 0, 0		
Layout			
Bottom margin	2	Fit to size	Checked
Height	23	X position	78
_eft margin	2	Right margin	2
r position	60	Top margin	2
Width	51	[15] The state of	_
Text	,		
Font	Tahoma, 16px, style=Bold	Horizontal alignment	Left
ine break	Unchecked	Orientation	Horizontal
Vertical alignment	Тор	Grientation	Horizontai
Flashing	1.06		
Flashing	None		
Miscellaneous	Hone		
Layer	0 - Layer_0	Name	Text field 3
Layer	0 - Layer_0	Ivaille	rext field_5
Text field_4			
Гуре	Text field		
General			
Text	Alarme		
Appearance			
Background color	153, 153, 192	Background fill pat- tern	Transparent
Border color	0, 0, 0	3D border style	Unchecked
Border width	1	Line style	None
Foreground color	0, 0, 0		
Layout			
Bottom margin	2	Fit to size	Checked
Height	23	X position	4
_eft margin	2	Right margin	2
Y position	60	Top margin	2
Width	63		
Геxt			
ont	Tahoma, 16px, style=Bold	Horizontal alignment	Left
Line break	Unchecked	Orientation	Horizontal
Lille bleak			

Flashing			
Flashing	None		
Miscellaneous	None		
Layer	0 - Layer_0	Name	Text field 4
-	, , , <u>, , , , , , , , , , , , , , , , </u>		
Text field_5			
Туре	Text field		
General			
Text	Passo		
Appearance			
Background color	153, 153, 192	Background fill pat- tern	Transparent
Border color	0, 0, 0	3D border style	Unchecked
Border width	1	Line style	None
Foreground color	0, 0, 0	Line style	None
Layout	0, 0, 0		
Bottom margin	2	Fit to size	Checked
Height	23	X position	260
Height Left margin	2	Right margin	2
Y position	213	Top margin	2
y position Width	51	lop margin	2
	סו		
Text	T. 16 D.II		
Font	Tahoma, 16px, style=Bold	Horizontal alignment	
Line break	Unchecked	Orientation	Horizontal
Vertical alignment	Тор		
Flashing			
Flashing	None		
Miscellaneous		ll	
Layer	0 - Layer_0	Name	Text field_5
Text field_6			
Туре	Text field		
Type General	Text field		
	Text field  Emergência		
General			
General Text		Background fill pat-	Transparent
General Text Appearance Background color	Emergência 153, 153, 192	tern	·
General Text Appearance Background color Border color	Emergência 153, 153, 192 0, 0, 0	tern 3D border style	Unchecked
General Text Appearance Background color Border color Border width	Emergência 153, 153, 192 0, 0, 0	tern	·
General Text Appearance Background color Border color Border width Foreground color	Emergência 153, 153, 192 0, 0, 0	tern 3D border style	Unchecked
General Text Appearance Background color Border color Border width Foreground color Layout	Emergência 153, 153, 192 0, 0, 0 1 0, 0, 0	tern 3D border style Line style	Unchecked None
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin	Emergência  153, 153, 192  0, 0, 0  1  0, 0, 0	tern 3D border style Line style Fit to size	Unchecked None Checked
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height	Emergência  153, 153, 192  0, 0, 0  1  0, 0, 0  2  23	tern 3D border style Line style Fit to size X position	Unchecked None Checked 212
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2	tern 3D border style Line style Fit to size X position Right margin	Unchecked None Checked 212 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68	tern 3D border style Line style Fit to size X position	Unchecked None Checked 212
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2	tern 3D border style Line style Fit to size X position Right margin	Unchecked None Checked 212 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text	Emergência  153, 153, 192  0, 0, 0  1  0, 0, 0  2  23  2  68  99	tern 3D border style Line style Fit to size X position Right margin Top margin	Unchecked None Checked 212 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font	Emergência  153, 153, 192  0, 0, 0  1  0, 0, 0  2  23  2  68  99  Tahoma, 16px, style=Bold	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment	Unchecked None Checked 212 2 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked	tern 3D border style Line style Fit to size X position Right margin Top margin	Unchecked None Checked 212 2
General Text Appearance Background color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment	Emergência  153, 153, 192  0, 0, 0  1  0, 0, 0  2  23  2  68  99  Tahoma, 16px, style=Bold	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment	Unchecked None Checked 212 2 2
General Text Appearance Background color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment Flashing	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked Top	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment	Unchecked None Checked 212 2 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment Flashing	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment	Unchecked None Checked 212 2 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment Flashing Flashing Miscellaneous	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked Top  None	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment Orientation	Unchecked None  Checked 212 2 2 Left Horizontal
General Text Appearance Background color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment Flashing Miscellaneous Layer	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked Top  None  0 - Layer_0	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment	Unchecked None Checked 212 2 2
General Text Appearance Background color Border color Border width Foreground color Layout Bottom margin Height Left margin Y position Width Text Font Line break Vertical alignment Flashing Flashing Miscellaneous	Emergência  153, 153, 192  0, 0, 0  1 0, 0, 0  2 23 2 68 99  Tahoma, 16px, style=Bold Unchecked Top  None  0 - Layer_0	tern 3D border style Line style Fit to size X position Right margin Top margin Horizontal alignment Orientation	Unchecked None  Checked 212 2 2 Left Horizontal

Totally Integrated					
Automation Porta					
General					
Bit number	0		Mode	Graphic	
Graphic list			Graphic OFF	FB_Right_R	ound_Released_256c
Graphic ON	FB_Right_Round_Presse	d_256c	Process value		
Text list			Text OFF	Text	
Text ON	Text				
Appearance					
Background color	182, 182, 192		Foreground color	0, 0, 0	
Design					
3D border style	Unchecked		Focus color	0, 0, 0	
Focus width	1				
Layout					
Fit to size	Unchecked		Height	50	
X position	249		Y position	106	
Width	50				
Text					
Font	Tahoma, 16px		Horizontal alignment	Centered	
Vertical alignment	Middle				
Flashing					
Flashing	None				
Miscellaneous					
Tooltip			Layer	0 - Layer_0	
Name	FB_Right_Round_1				
Security					
Authorization			Allow operator con-	Checked	
			trol		
Dynamizations\Event					
Event name		Release			
Function list\ResetBit		nerease			
Tag		ResetAlarm			
9		nesco narri			
Dynamizations\Event	:				
Event name		Press			
Function list\SetBit					
Tag		ResetAlarm			
Text field_7					
Tuma	Text field		1		
Туре	I ext field				
General Text	Reset Alarme				
	neset Alaime				
Appearance Background color	153, 153, 192		Background fill pat-	Transparen	+
background color	132, 132, 132		tern	rransparen	t
Border color	0, 0, 0		3D border style	Unchecked	
Border width	1		Line style	None	
Foreground color	0, 0, 0				
Layout	-, -, °				
Bottom margin	2		Fit to size	Checked	
Height	20		X position	230	
Left margin	2		Right margin	2	
Y position	156		Top margin	2	
Width	81		1	1	
Text					
Font	Tahoma, 13px		Horizontal alignment	Left	
Line break	Unchecked		Orientation	Horizontal	
Vertical alignment	Тор			ozoritai	
a.a. a.igiiiiciit	j P		J		

Totally Integrated Automation Portal			
Flashing			
Flashing Miscellaneous	lone		
Miscellaneous			
Layer	- Layer_0	Name Text field	_7
			1

# Referências

 $[1]\,$  K. Ogata,  $Engenharia\ de\ Controle\ Moderno,\ 6^a$ edição, 2011.