

RASWIN Module SRS

Input + Safety PLC + Output

Previous knowledge requirements

SRS Module

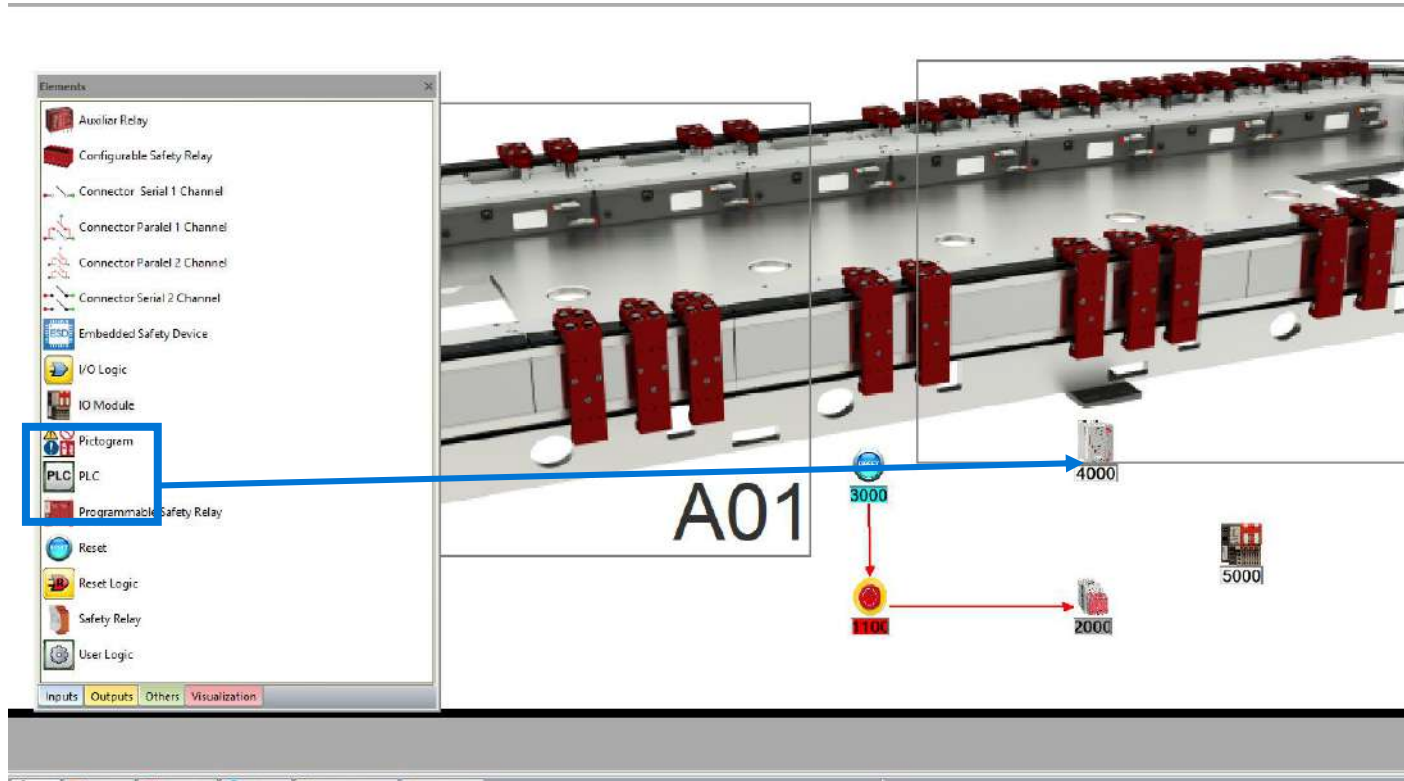
1_SRS Input_Output



Previous knowledge requirements

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



1. Select “Others” on the Element Pane.
2. Safety PLC
3. Drag and drop

Step 3: Add a Safety PLC

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

PLC Information

Matrix Code: 4000

User Code:

Description:

Manufacturer:

Reference: Accessories

Location:

Call time (ms): 0 Max. Scan Cycle Time: 0

Access Point: 02 - Acces Point 2

Label color: Exclude from Matrix

Manufacturer's parameters:

Input parameters:

Parameter N°	Description
--------------	-------------

Output parameters:

Parameter N°	Description
--------------	-------------

Connected elements:

Inputs Logic Outputs

I/O Modules Validation configuration

Parameter Mapping Cancel Ok

1. Complete the following information:

Description
Manufacturer
Reference
Location

2. Click on Database, click on open and select database PLC's

PLC parameters selection from database

From database

Manufacturer:

Input parameters:

Parameter	Description
-----------	-------------

Output parameters:

Parameter	Description
-----------	-------------

Ok

Organizar Nueva carpeta

Nombre: Fecha de modifica... Tipo Tamaño

14/06/2015 15:32 Microsoft Access ... 500 KB

Nombre: Database files (*.mdb)

Abrir Cancelar

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

PLC Information

Matrix Code: 4000

User Code:

Description: Safety PLC

Manufacturer: Rockwell

Reference: xxxxxxxx

Location:

Call time (ms): 20 Max. Scan Cycle Time: 40

Access Point: 02 - Access Point 2

Label color: Exclude from Matrix

Manufacturer's parameters:

Input parameters:

Parameter N°	Description
Param 1	RPI (REQUESTED PACKET INTERVAL) 6 to...
Param 2	INPUT DELAY TIME OFF -> ON 0 to 126 m...
Param 3	INPUT DELAY TIME ON -> OFF 0 to 126 m...
Param 4	SAFETY INPUT ERROR LATCH TIME 0 to 6...

Output parameters:

Parameter N°	Description
Param 1	RPI (REQUESTED PACKET INTERVAL) (ms)...
Param 2	TEST OUTPUT IDLE STATE 1: Clear Off 2:...
Param 3	OUTPUT ERROR LATCH TIME 0 to 65530 ...
Param 4	OUTPUT POINT MODE 1: Safety 2: Safet...
Param 5	POINT OPERATION TYPE 1: Single chann...

Connected elements: Inputs Logic Outputs

I/O Modules Validation configuration

Parameter Mapping Cancel Ok

3. Click in inputs. Select Inputs controlled by PLC and OK

4. Click in outputs. Select Outputs and ok.

Step 4: Fill Safety PLC information

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



1. Double Click in Estop 1100.
2. Click in PLC config and fill the information.

Element information:

Matrix Code: 1100 1100 - 1199

User Code: PBE-1

Description: Central EStop

Manufacturer: Rocwell Automation

Reference: XXX-XXXXX

Location: Operator Station 2

Access Point: <Not assigned>

Label color: ■ Exclude from Matrix PLC

Auto reset: PLC

Validations and configuration:

PLC Configuration Validation configuration

Additional Information

Edit links Cancel Ok

PLC Parameters

Connect element to PLC: 4000 -

Parameter	Value
RPI (REQUESTED PACKET INTERVAL) 6 to 500 ms	250
INPUT DELAY TIME OFF -> ON 0 to 126 ms (in increments of 6ms)	126
INPUT DELAY TIME ON -> OFF 0 to 126 ms (in increments of 6ms)	126
SAFETY INPUT ERROR LATCH TIME 0 to 65530ms (in increments of 10ms)	5000
SAFETY INPUT TEST SOURCE EXT: Externat T?: Internal	T?
INPUT POINT MODE 1: Safety Test Pulse 2: Safety 3:Standard	2
INPUT POINT OPERATION TYPE S: Single E: Dual-channel equivalent C: Dual-chann...	E
DISCREPANCY TIME (ms) 10 to 30000	250

Feedback Parameters:

Parameter	Value
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Copy from: Copy To...

Import info from other element

Export info to other element

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



1. Double Click in Contactor.
2. Click in PLC config and fill the information.

Element information:

Matrix Code: 2000 2000 - 2049

User Code: KA1

Description: Auxiliar contactor 1

Manufacturer: Rocwell Automation

Reference: XXX-XXXXX Accessories

Location: Electric Case

Access Point: <Not assigned>

Label color: Exclude from Matrix PLC

Validations and configuration

PLC Configuration Validation configuration

Additional Information Additional Feedback Information

Edit links Cancel Ok

PLC Parameters

Connect element to PLC: 4000 -

Parameter	Value
RPI (REQUESTED PACKET INTERVAL) (ms) 6 to 500	40
TEST OUTPUT IDLE STATE 1: Clear Off 2: Keep output data	1
OUTPUT ERROR LATCH TIME 0 to 65530 ms (in increments of 10 ...	5000
OUTPUT POINT MODE 1: Safety 2: Safety pulse test	2
POINT OPERATION TYPE 1: Single channel 2: Dual channel	1

Feedback Parameters:

Parameter	Value
RPI (REQUESTED PACKET INTERVAL) 6 to 500 ms	40
INPUT DELAY TIME OFF -> ON 0 to 126 ms (in increments of 6ms)	100
INPUT DELAY TIME ON -> OFF 0 to 126 ms (in increments of 6ms)	100
SAFETY INPUT ERROR LATCH TIME 0 to 65530ms (in increments o...	5000
SAFETY INPUT TEST SOURCE EXT: External ??; Internal	T?
INPUT POINT MODE 1: Safety Test Pulse 2: Safety 3:Standard	2
INPUT POINT OPERATION TYPE S: Single E: Dual-channel equival...	S
DISCREPANCY TIME (ms) 10 to 30000	250

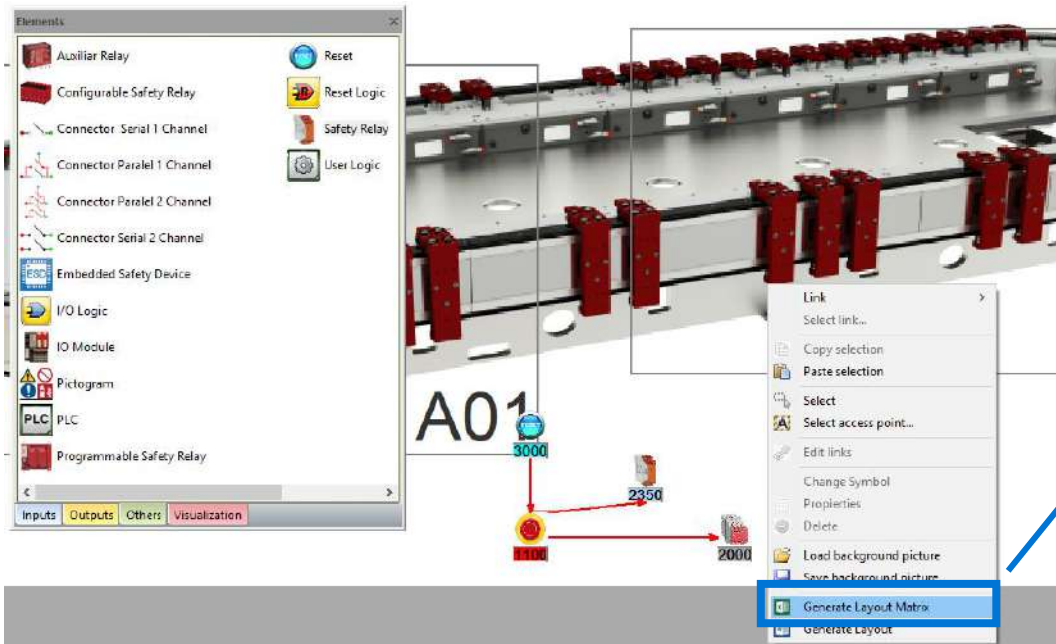
Copy from: Copy To:

Import info from other element

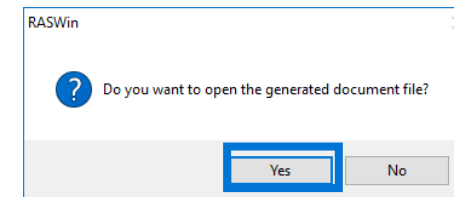
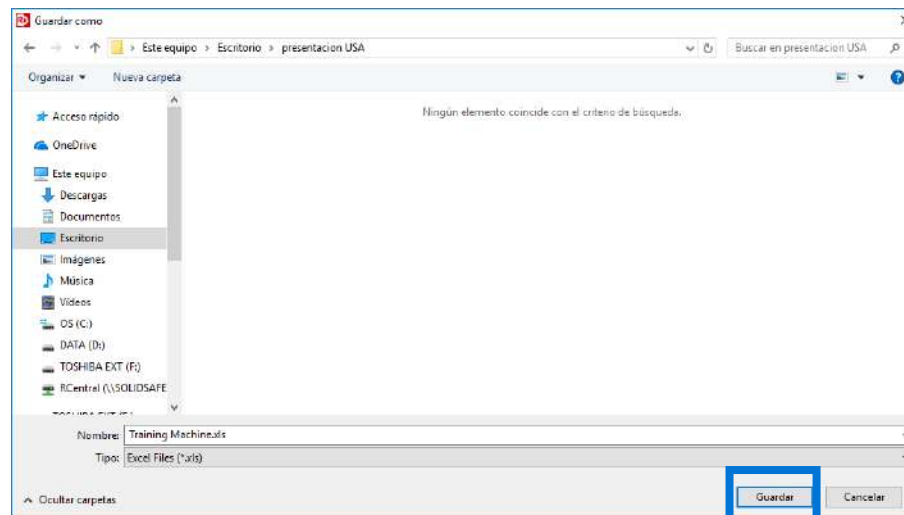
Export info to other element

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

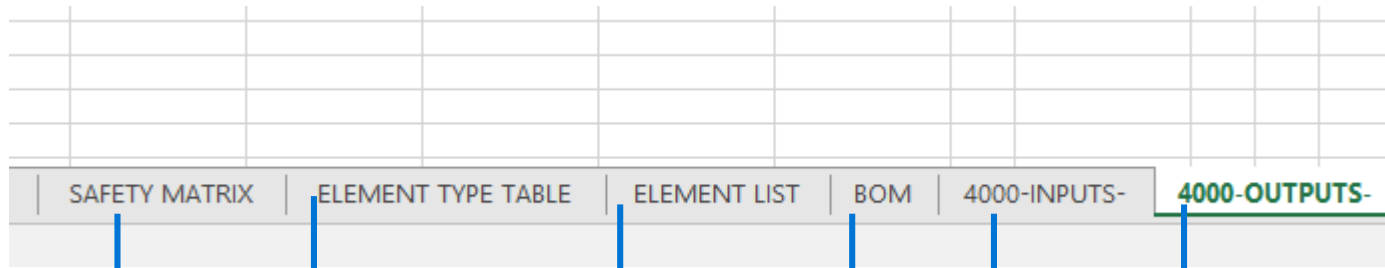


1. Right click anywhere on the layout.
2. Select *“Generate Layout Matrix”*.
3. Save the Matrix.
4. And click *“Yes”*, to open the Safety Matrix.

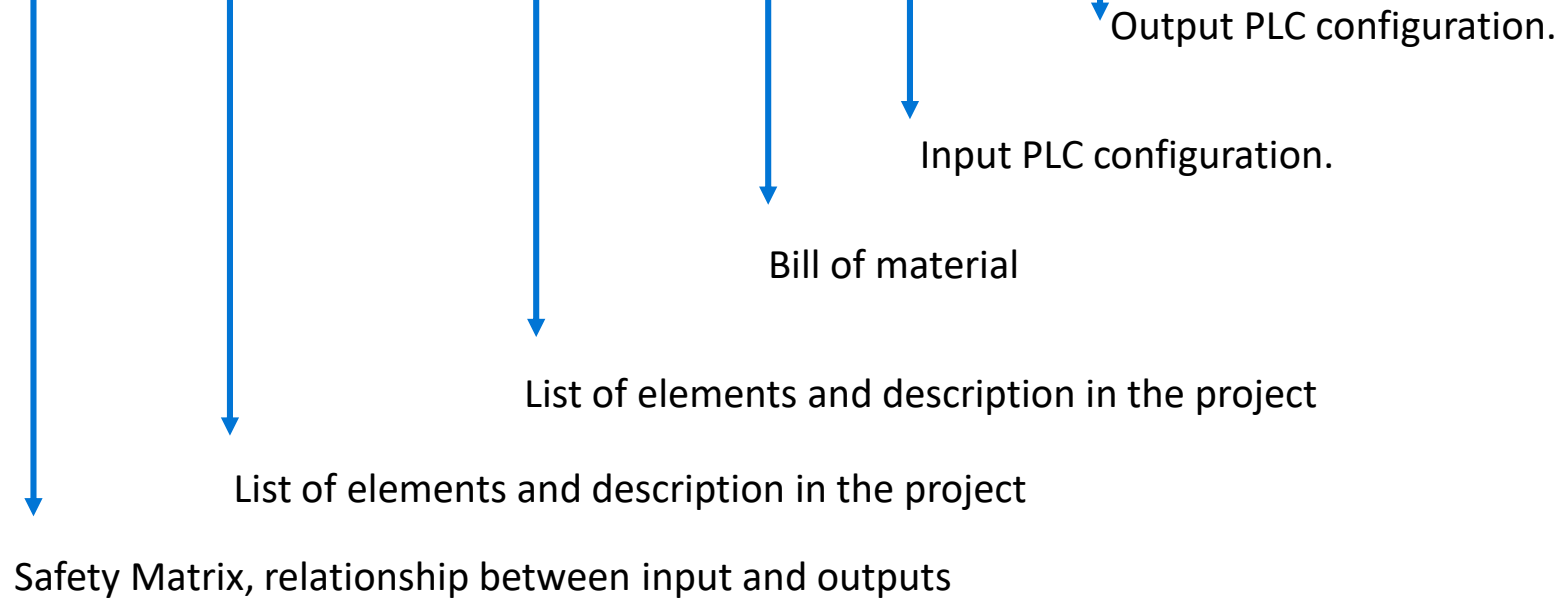


How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



Excel file tabs with Safety PLC



Step 5: Safety Matrix

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

Once the file is opened, the following safety matrix will appear .

SAFETY MATRIX					
CODE	INPUT ELEMENT DESCRIPTION	USER CODE	OUTPUT		RESET
			Access Point 2		
			Auxiliar contactor 1		
			2000	KA1	
1100	Central EStop	PBE-1	OFF		R3000

PLC:	
Max. Scan	40 ms
Cycle Time:	
Call time (ms):	20 ms

CODE	USER CODE	ACCESS POINT	INPUT ELEMENT DESCRIPTION	SAFETY INPUT ELEMENTS											RESET		DRAWING PAGES		
				ELEMENT				HARDWARE CONFIGURATION							COMPONENT REF. FOR FAULT	COMPONENT REF. FOR SIGNAL RESET	AUTOMATISM	ELECTRICAL	
				COMPONENT REFERENCE	INPUT	CH. NUMBER	LOCATION	MODULE	SLOT	RPI (REQUESTED PACKET INTERVAL) 6 to 500 ms	INPUT DELAY (ms) 0 to 126 increments of 1	INPUT DELAY TIME ON-> OFF 0 to 126 ms (in increments of 1)	SAFETY INPUT ERROR LATCH TIME 0 to 65530 ms (in increments of 1)	SAFETY INPUT TEST SOURCE EXT: External TT: Internal					INPUT POINT MODE 1: Safety Test Pulse 2: Safety 3: Standard
1100	PBE-1		Central EStop	XXX-XXXXX		Operator Station 2			100	100	100	6000	Internal	2	E	250	R3000		
R3000	R120		Estop Reset button	XXX-XXXXX		Operator Station 2													
F2000	KA1		Auxiliar contactor 1	XXX-XXXXX		Electric Case			100	100	100	5000	Internal	2	S	250			

PLC:	
Max. Scan	40 ms
Cycle Time:	
Call time (ms):	20 ms

CODE	USER CODE	ACCESS POINT	OUTPUT ELEMENTS DESCRIPTION	SAFETY OUTPUT COMPONENTS											FEEDBACK D.		CONTROLLED STOP TIME (ms):	DRAWING PAGES	
				ELEMENT				HARDWARE CONFIGURATION							FEEDBACK REFERENCES	DISCREPANCY TIME BETWEEN OUTPUT AND		AUTOMATISM	ELECTRICAL
				COMPONENT REFERENCE	OUTPUT	LOCATION	MODULE	SLOT	RPI (REQUESTED PACKET INTERVAL) 6 to 500 (ms)	TEST OUTPUT IDLE STATE 1: Clear OFF 2: Keep output data	OUTPUT ERROR LATCH TIME 0 to 65530 ms (in increments of 1)	OUTPUT POINT MODE 1: Safety 2: Safety pulse test	POINT OPERATION TYPE 1: Single channel 2: Dual channel						
2000	KA1		Auxiliar contactor 1	XXX-XXXXX		Electric Case			100	1	5000	2	1		0	0			

Input PLC configuration.


Output PLC configuration.

Previous Presentation

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RASWIN Module SRS
Input + Programable Safety Relay + Output

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Next Presentation

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RASWIN Module SRS
Input + IO Module+ Safety PLC + IO Module + Output

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