

RASWIN Module SRS

Input + IO Module+ Safety PLC + IO Module + Output

Previous knowledge requirements

SRS Module

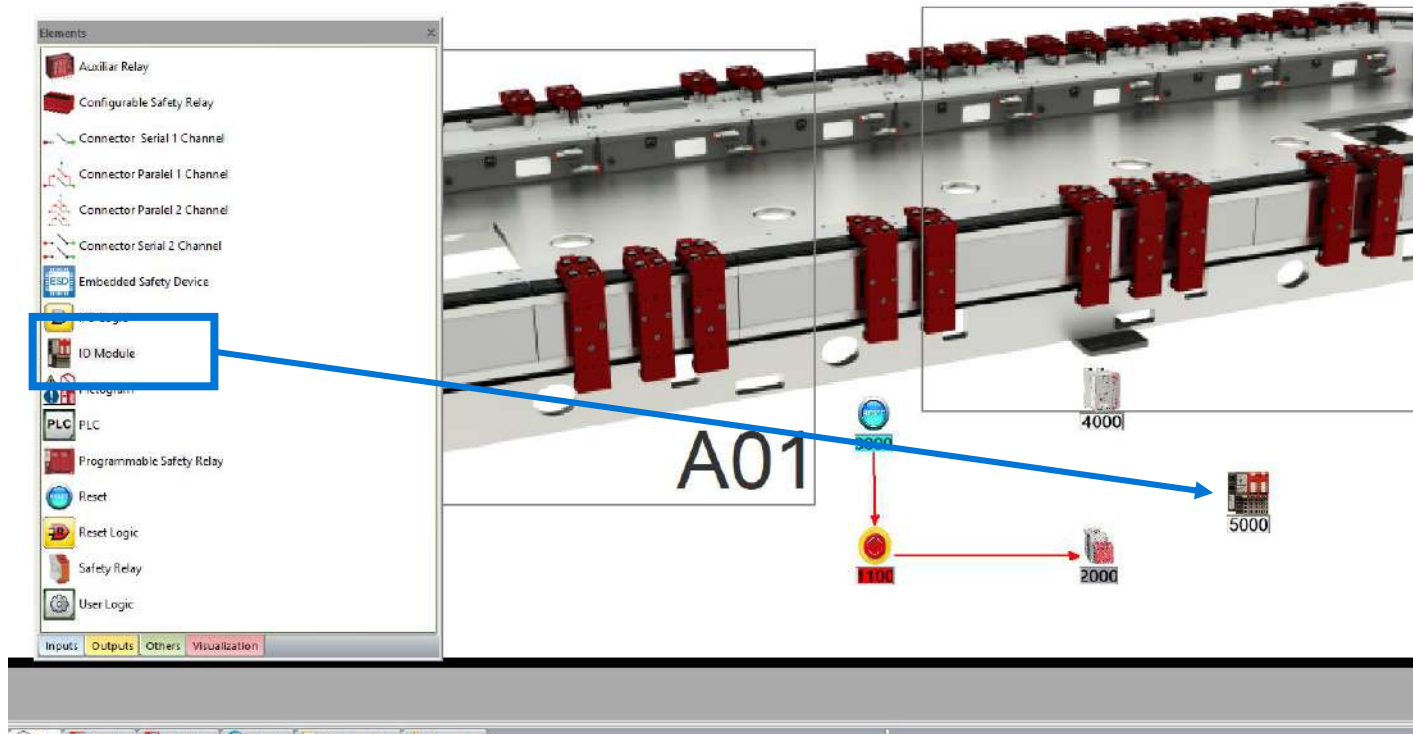
1_SRS Input_Output Power Point



Previous knowledge requirements

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



1. Select "Others" on the Element Pane.
2. I/O Module
3. Drag and drop

Step 1: Add a I/O Module

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

I/O Element information:

Matrix Code: 5000 5000 - 5999

User Code:

Description:

Manufacturer:

Reference: Accessories

Location:

Access Point: <Not assigned>

Label color:

PLC:

Module: Slot:

Num. Of Inputs: 0/1 Num. Of Outputs: 0/1

1. Complete the following information:

Description
Manufacturer
Reference
Location

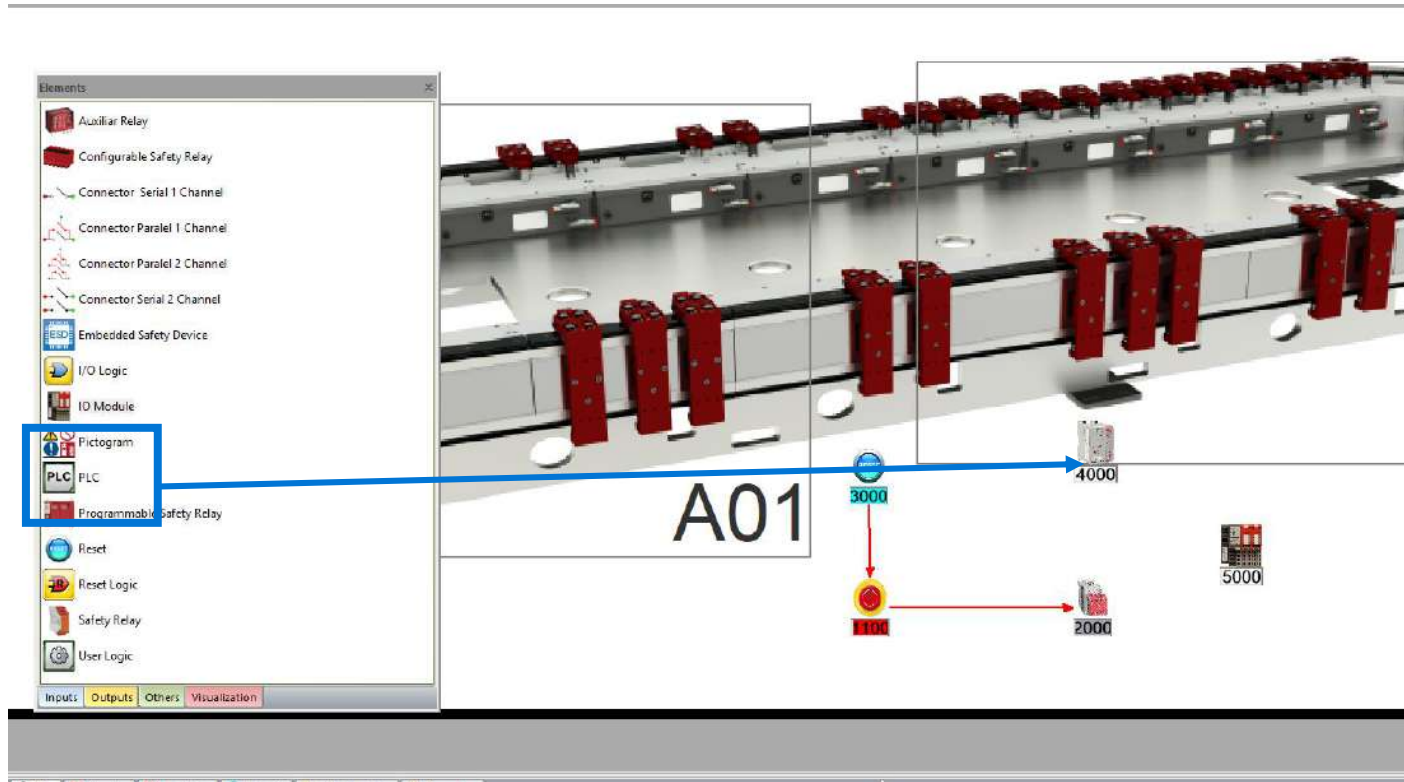
2. Click I/O Configuration. And write Num of inputs and outputs of the I/O Module

IO Configuration

Num. Of Inputs: 1 0/1 Num. Of Outputs: 1 0/1

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

Add Delete

Output parameters:

Parameter N°	Description

Add Delete From database

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

Database:

Manufacturer:

Input parameters:

Parameter	Description

Output parameters:

Parameter	Description

From database

Ok

Organizar - Nueva carpeta

Nombre	Fecha de modifica...	Tipo	Tamaño
PLCs	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

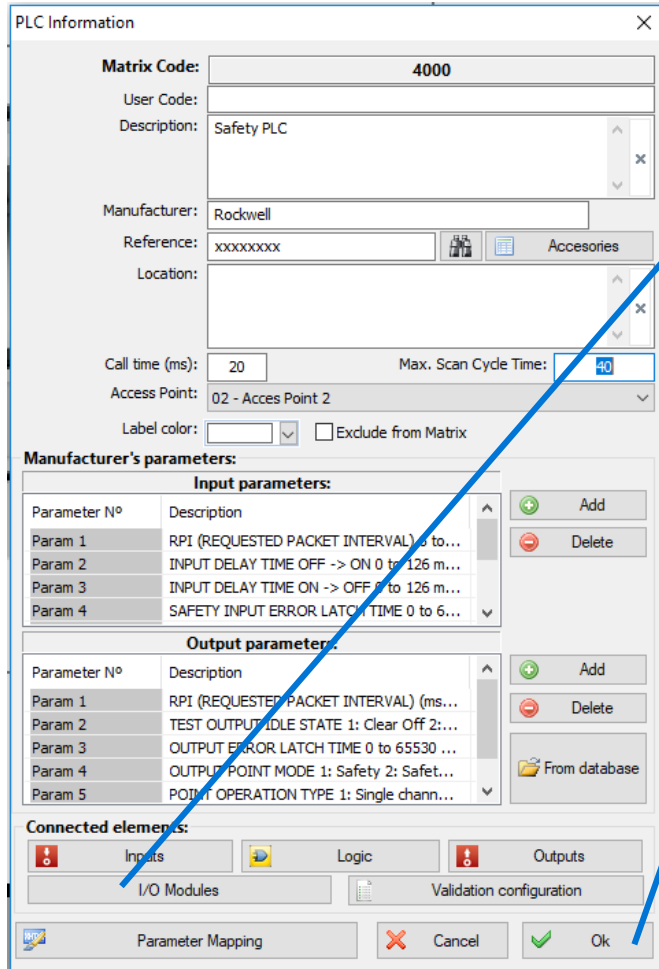
3. Click in inputs. Select Inputs controlled by PLC and OK

4. Click in outputs. Select Outputs and ok.

Step 4: Fill Safety PLC information

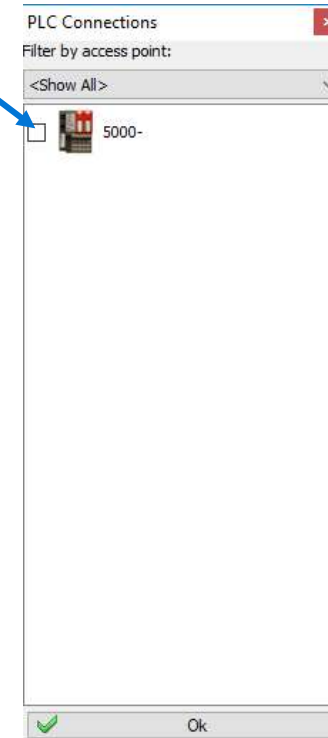
How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



3. Click I/O Modules. Select I/O modules controlled by PLC and OK

4. Click 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

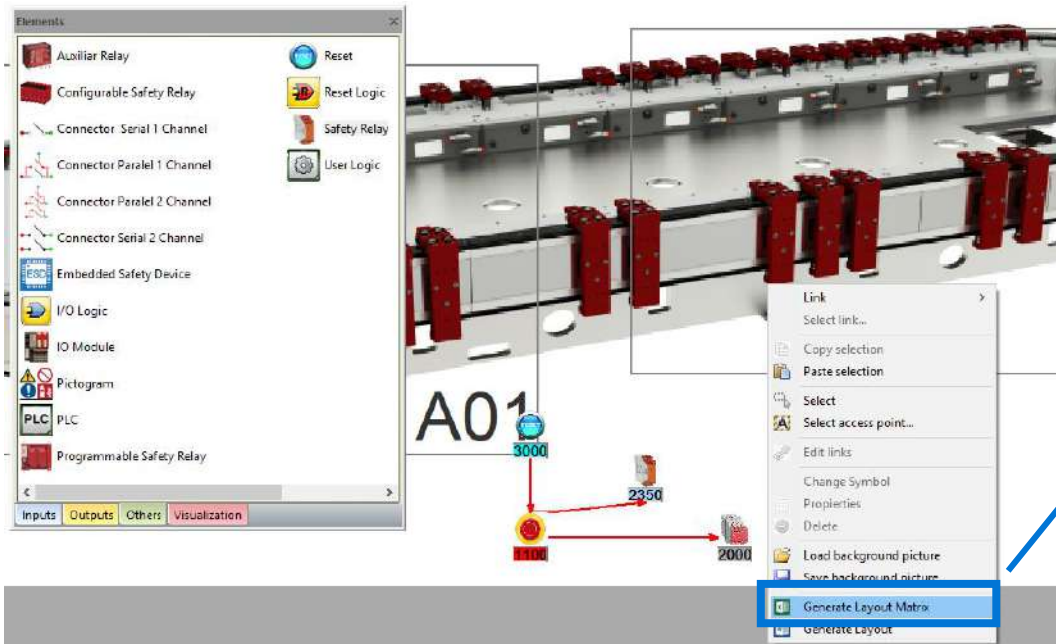
Copy from: Copy To:

Import info from other element

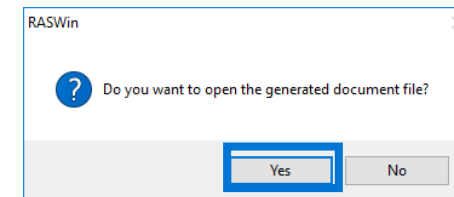
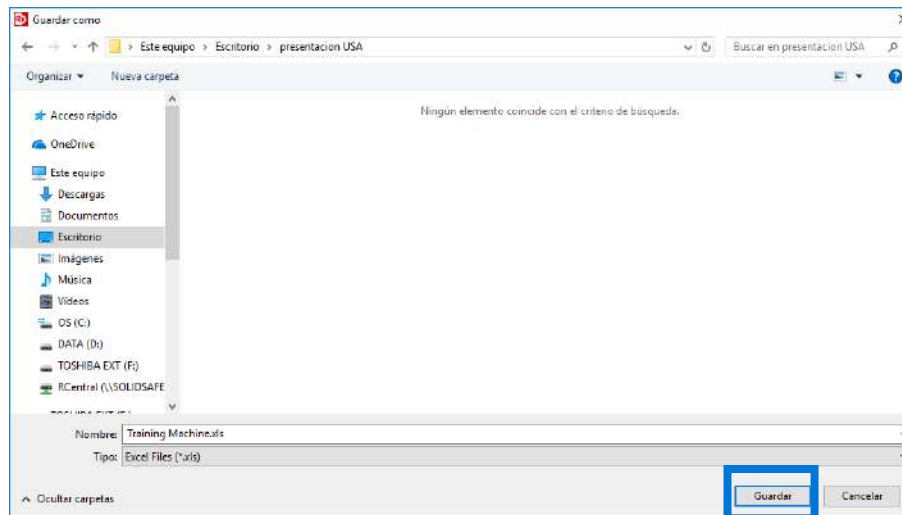
Export info to other element

How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

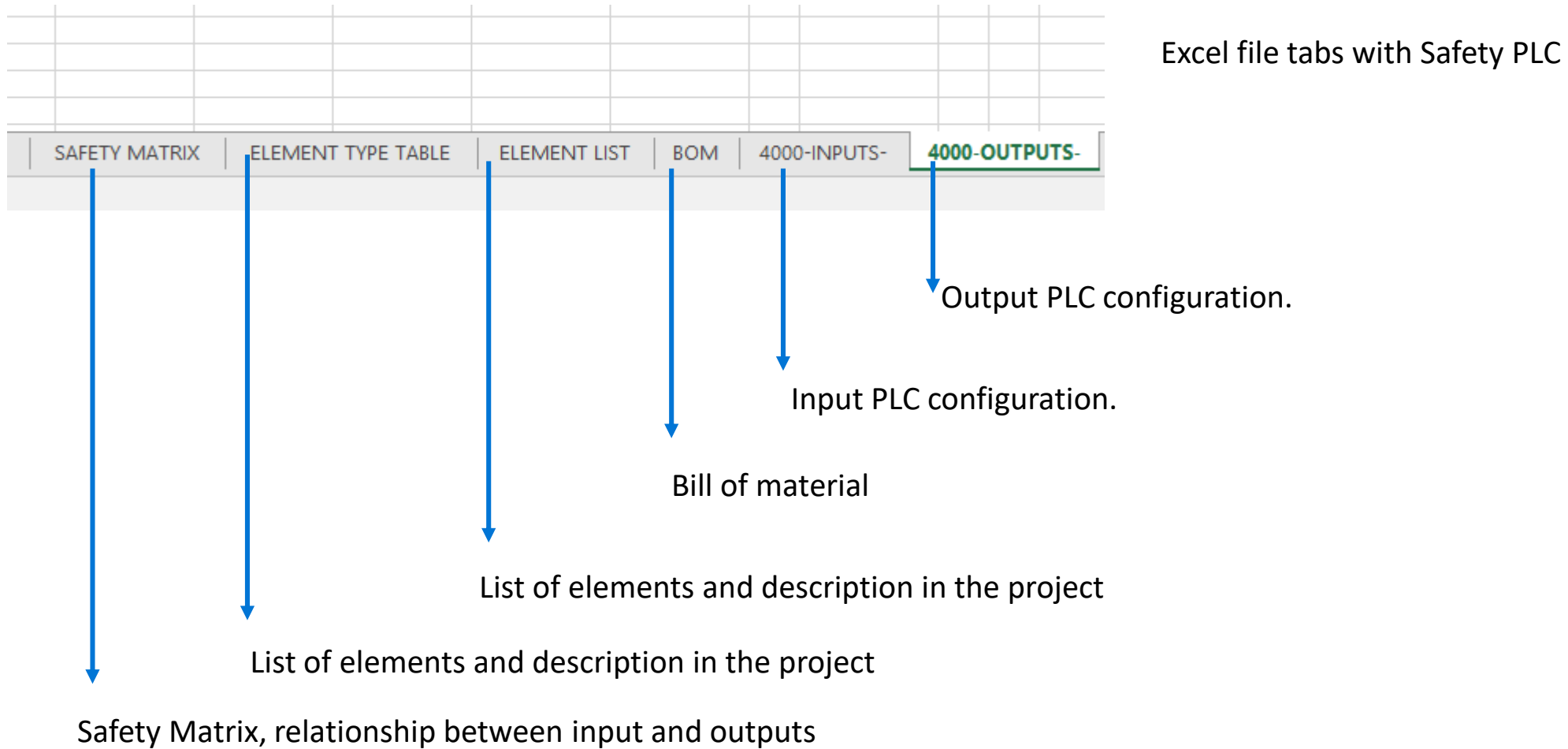


1. Right click anywhere on the layout.
2. Select *“Generate Layout Matrix”*.
3. Save the Matrix.
4. And click *“Yes”*, to open the Safety Matrix.



How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



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

SAFETY INPUT ELEMENTS																					
CODE	USER CODE	ACCESS POINT	INPUT ELEMENT DESCRIPTION	ELEMENT				HARDWARE CONFIGURATION							RESET		DRAWING PAGES				
				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	INPUT POINT OPERATION TYPE 1: Single channel 2: Dual channel	DISCREPANCY TIME (ms) 10 to 30000	COMPONENT REF. FOR FAULT	COMPONENT REF. FOR SIGNAL RESET	AUTOMATISM	ELECTRICAL
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

SAFETY OUTPUT COMPONENTS																				
CODE	USER CODE	ACCESS POINT	OUTPUT ELEMENTS DESCRIPTION	ELEMENT				HARDWARE CONFIGURATION							FEEDBACK D.		CONTROLLED STOP TIME (ms):	DRAWING PAGES		
				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	FEEDBACK REFERENCES	DISCREPANCY TIME BETWEEN OUTPUT AND	AUTOMATISM		ELECTRICAL		
2000	KA1		Auxiliar contactor 1	XXX-XXXXX			Electric Case			100		1	5000	2	1		0	0		

Input PLC configuration.

Output PLC configuration.

Previous Presentation

RASWIN Module SRS
Input + Safety PLC + Output

[SOLIDSsafe]



Next Presentation

RASWIN Module SRS
Input + Safety PLC +Output_Mapping

[SOLIDSsafe]

