

# RASWIN Module SRS Input + Safety PLC +Output\_Mapping

# Previous knowledge requirements

## SRS Module

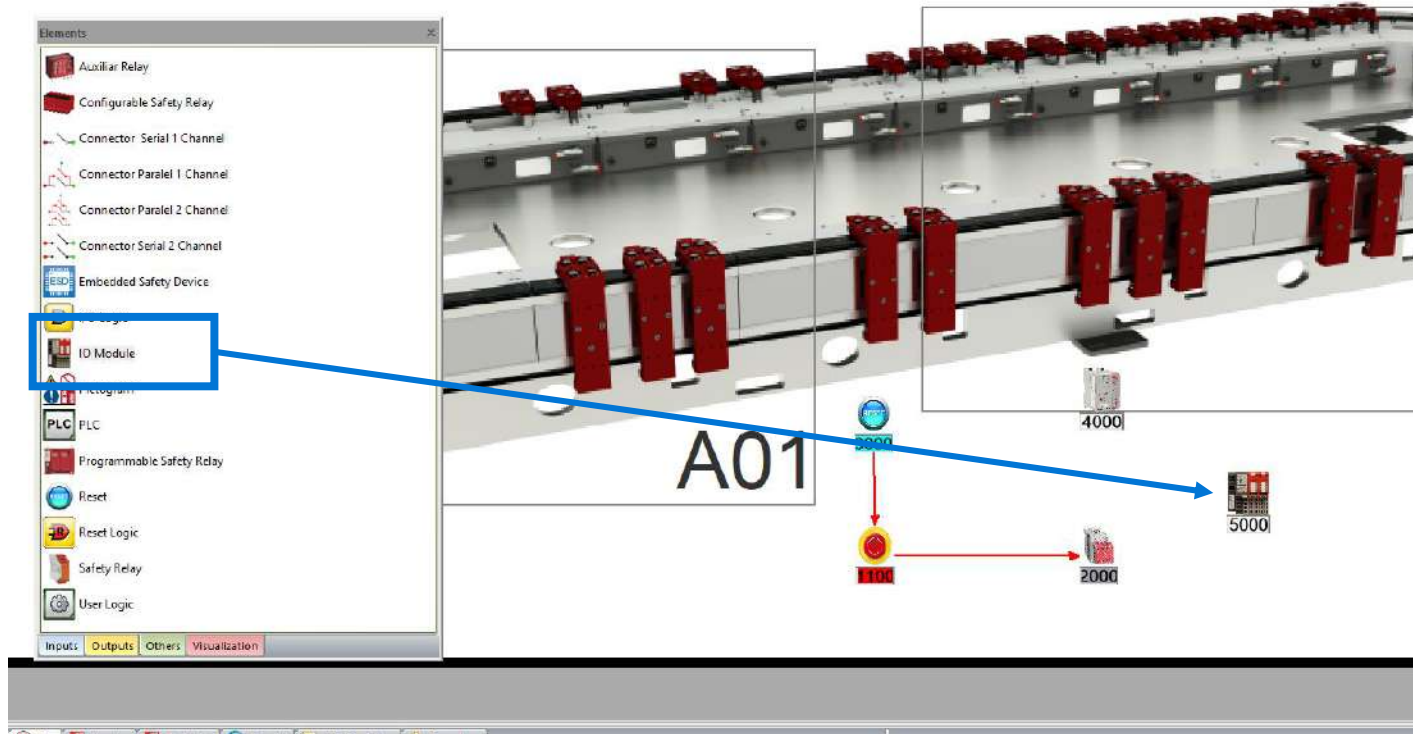
1\_SRS Input\_Output



Previous knowledge requirements

# How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



1. Select "Others" on the Element Pane.
2. 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

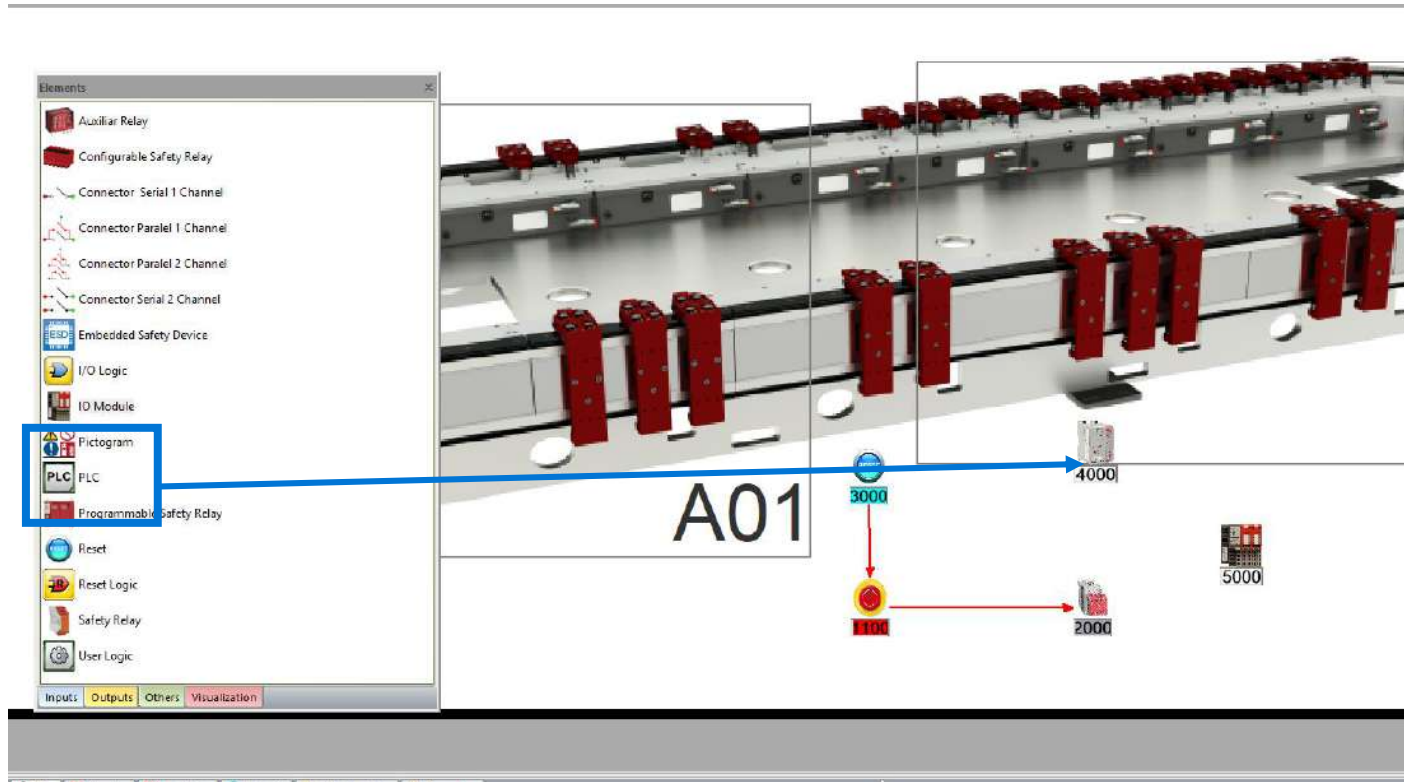
2. Click I/O Configuration. And write Num of inputs and outputs of the I/O Module

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

**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

**Input parameters:**

Parameter	Description

**Output parameters:**

Parameter	Description

Organizar Nueva carpeta

Nombre: Fecha de modifica... Tipo Tamaño

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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

PLC Connections

Filter by access point: <Show All>

1100-Central EStop

Ok

4. Click in outputs. Select Outputs and ok.

PLC Connections

Filter by access point: <Show All>

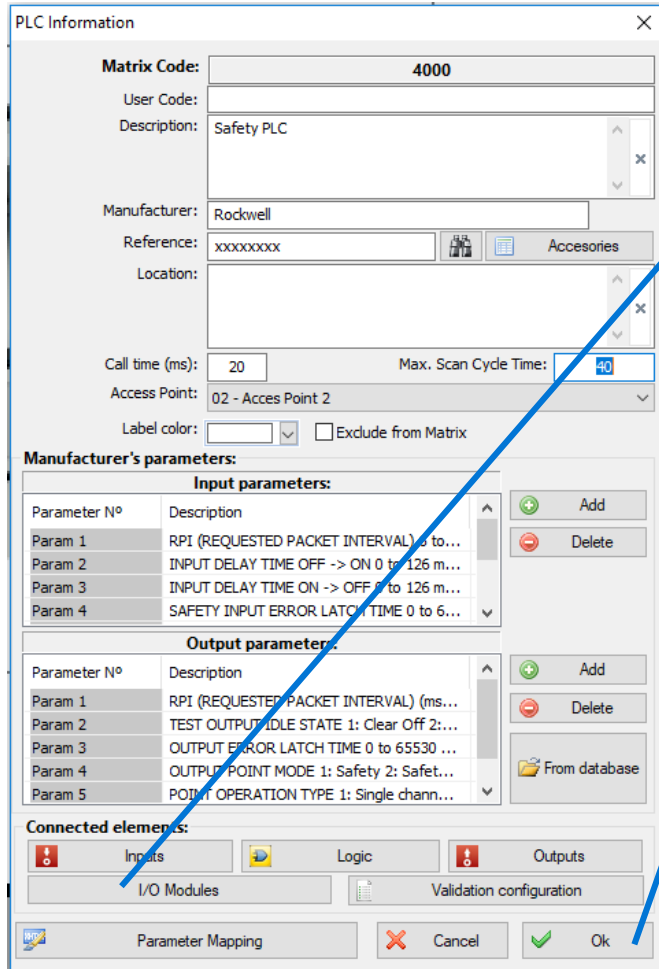
2000-Auxiliar contactor 1

Ok

Step 4: Fill Safety PLC information

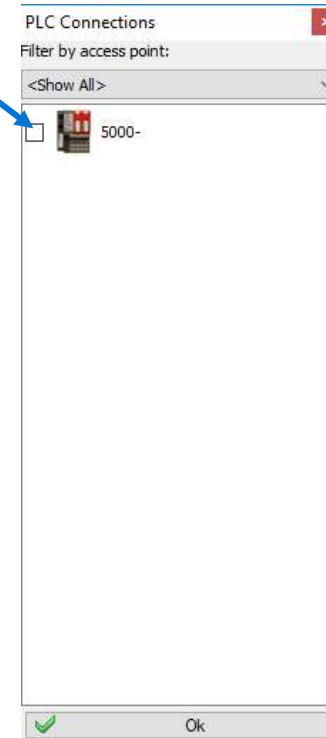
# How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



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

4. Click OK

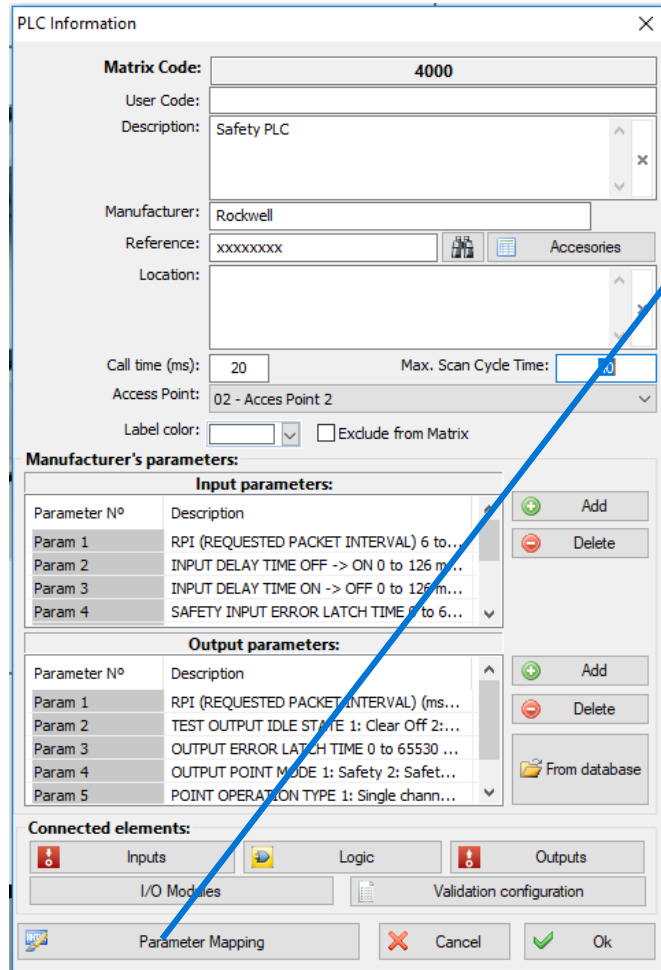


Step 4: Fill Safety PLC information

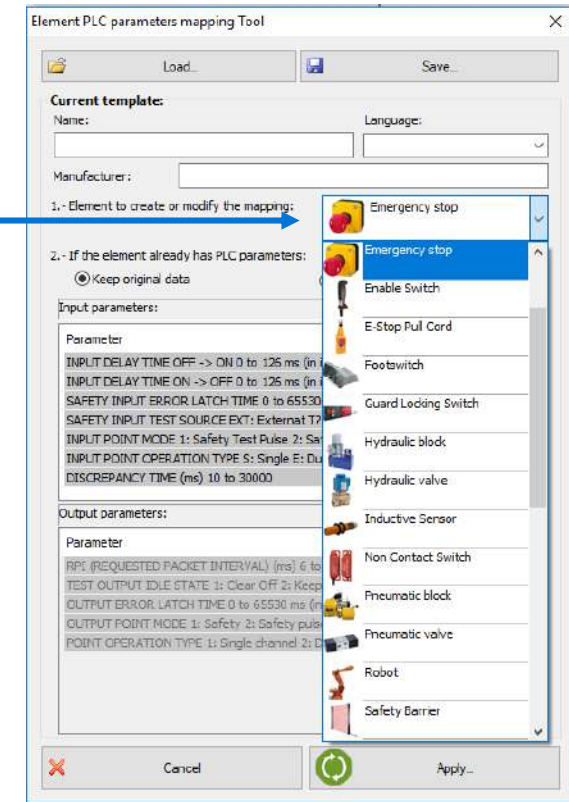
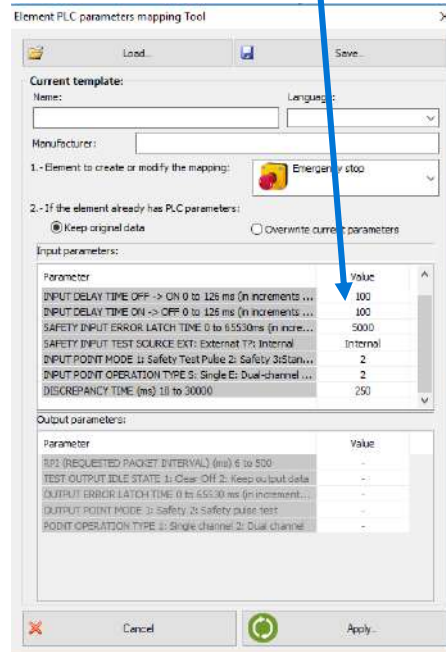


# How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



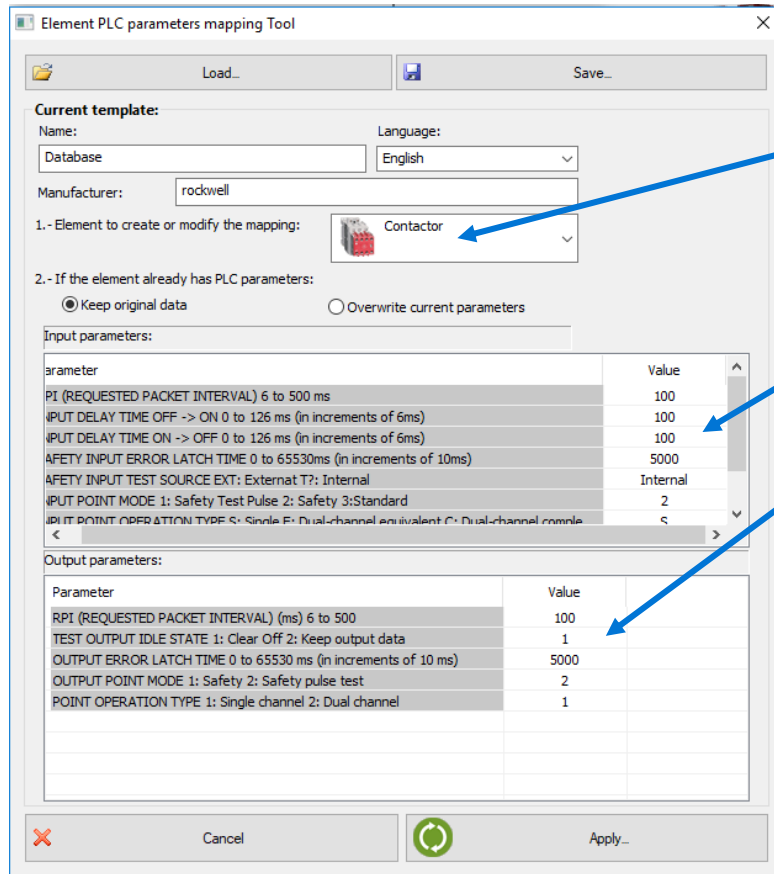
3. Click Parameter mapping, and select E-Stop
4. Fill the empty values.



Step 4: Fill Safety PLC information

# How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output



5. Select contactor

6. Fill feedback and output parameter

# 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: 10

Access Point: 02 - Access Point 2

Label color: Exlude 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

5. Complete information

Name

Language

Manufacturer

6. Save template.

Element PLC parameters mapping Tool

Load... Save...

Current template:

Name: Database Language: English

Manufacturer: Rockwell

1.- Element to create or modify the mapping: Emergency stop

2.- If the element already has PLC parameters:

Keep original data  Overwrite current parameters

Input parameters:

Parameter	Value
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 of 10ms)	6000
SAFETY INPUT TEST SOURCE EXT: External T?: Internal	Internal
INPUT POINT MODE 1: Safety Test Pulse 2: Safety 3:Standard	2
INPUT POINT OPERATION TYPE S: Single E: Dual-channel equivalent C: Dual-channel comple...	E
DISCREPANCY TIME (ms) 10 to 30000	250

Output parameters:

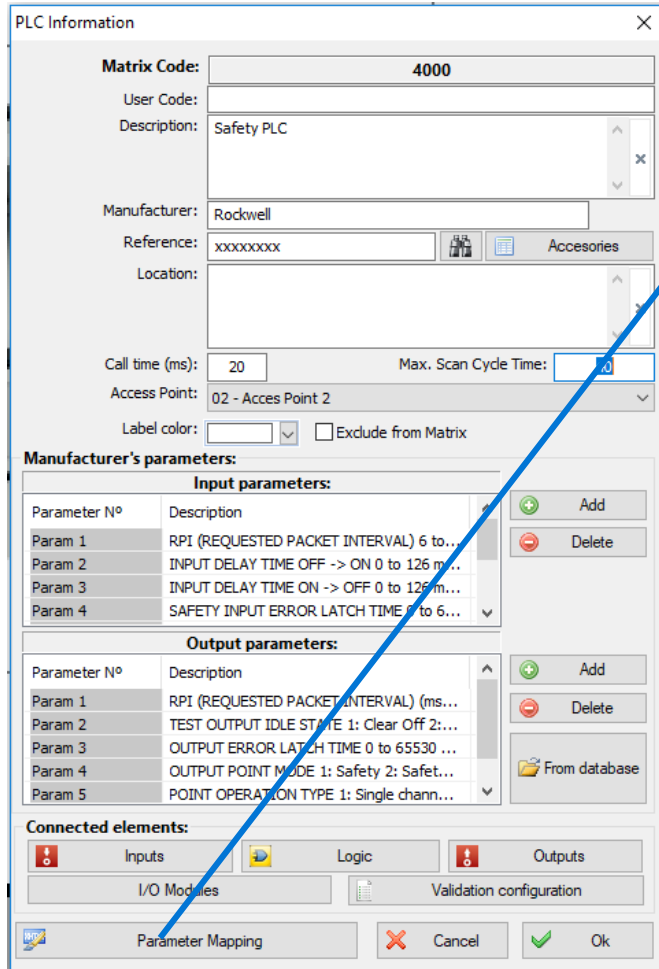
Parameter	Value
RPI (REQUESTED PACKET INTERVAL) (ms) 6 to 500	-
TEST OUTPUT IDLE STATE 1: Clear Off 2: Keep output data	-
OUTPUT ERROR LATCH TIME 0 to 65530 ms (in increment...	-
OUTPUT POINT MODE 1: Safety 2: Safety pulse test	-
POINT OPERATION TYPE 1: Single channel 2: Dual channel	-

Cancel Apply...

Step 4: Fill Safety PLC information

# How to create a Safety Matrix in RASWin?

Architecture: Input + Safety PLC+ Output

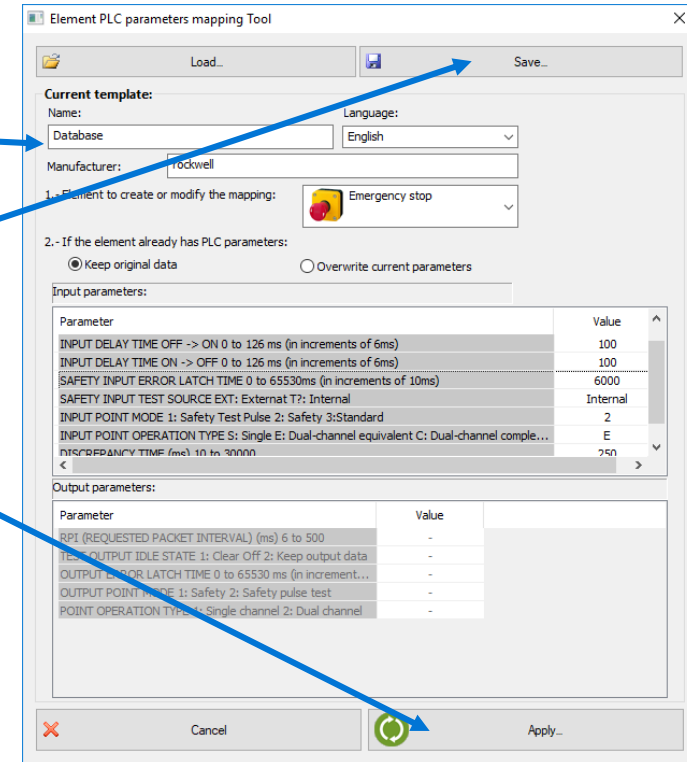


5. Complete information

Name  
Language  
Manufacturer

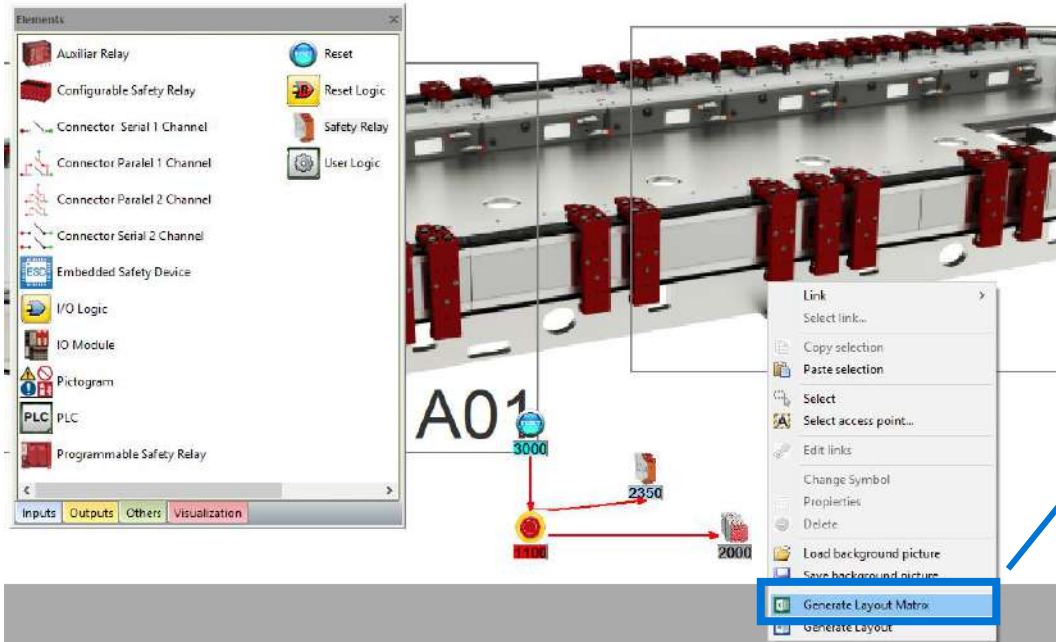
6. Save template.

7. Click Apply.

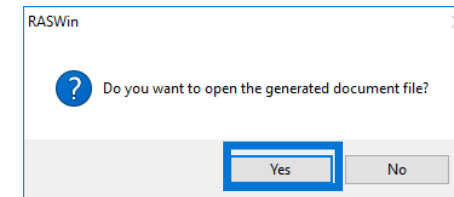
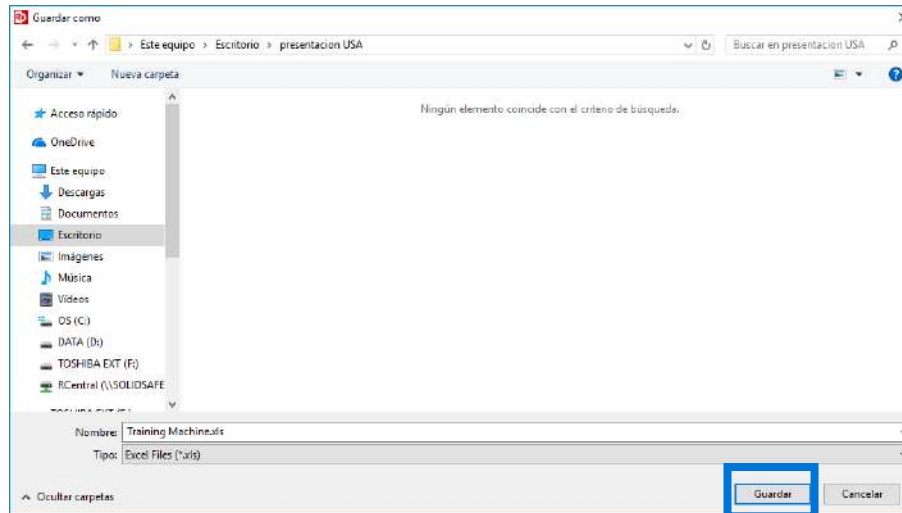


# How to create a Safety Matrix in RASWin?

## Architecture: Input + Safety PLC+ Output

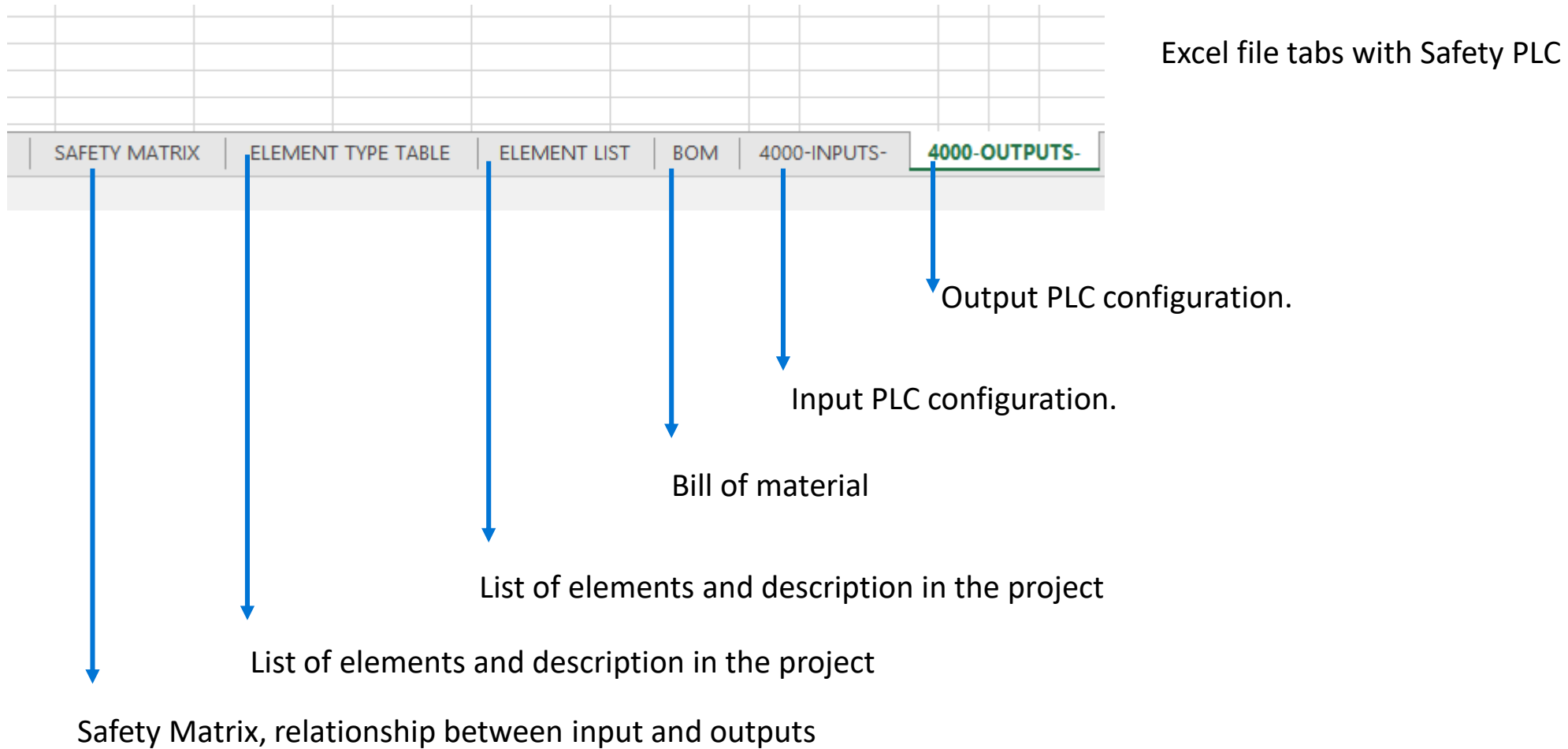


1. Right click anywhere on the layout.
2. Select “*Generate Layout Matrix*”.
3. Save the Matrix.
4. And click “Yes”, to open the Safety Matrix.



# 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

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) 6 to 500	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 + IO Module+ Safety PLC + IO Module + Output

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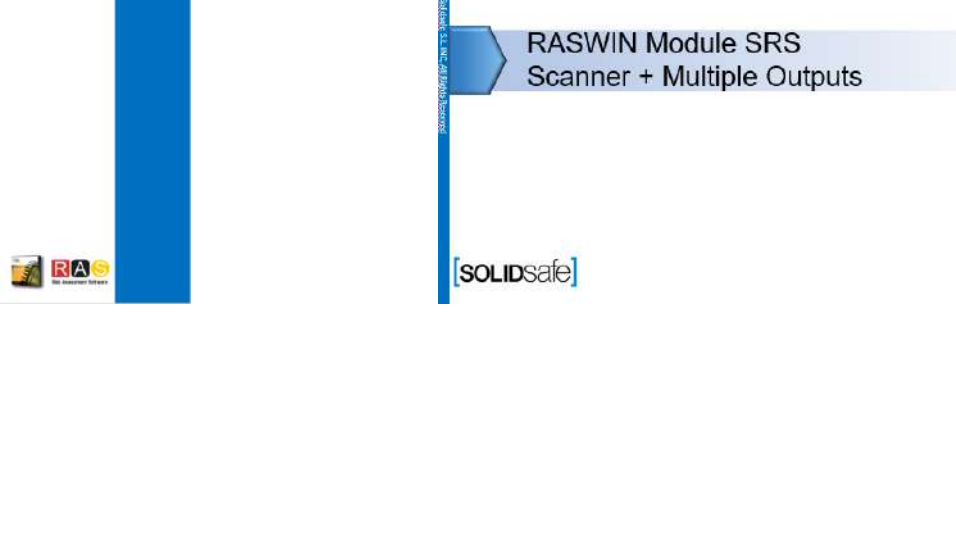
The image shows a presentation slide for the RASWIN Module SRS. It features a blue header with the text 'Previous Presentation'. The main content is a light blue arrow pointing right, containing the text 'RASWIN Module SRS' and 'Input + IO Module+ Safety PLC + IO Module + Output'. At the bottom left is the 'SOLIDSsafe' logo, and at the bottom right is the 'RAS Risk Assessment Software' logo.

## Next Presentation

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RASWIN Module SRS  
Scanner + Multiple Outputs

[SOLIDSsafe]



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