



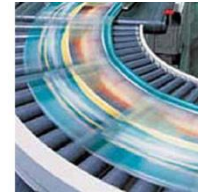
IL / FBD / LD



CoDeSys



We software Automation.



IL / FBD / LD

Working with the classic
languages of the IEC 61131-3 in
CoDeSys

Introduction

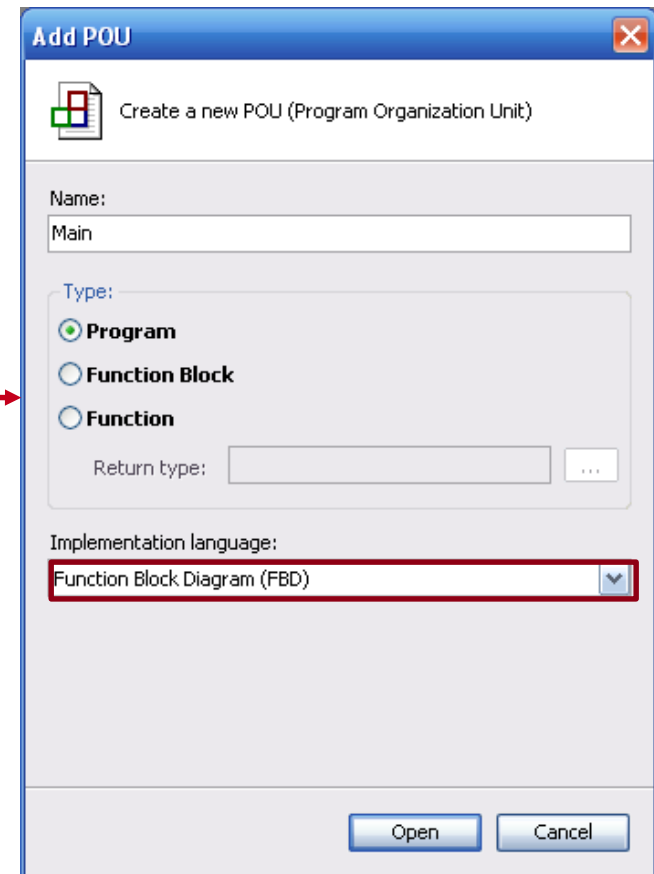
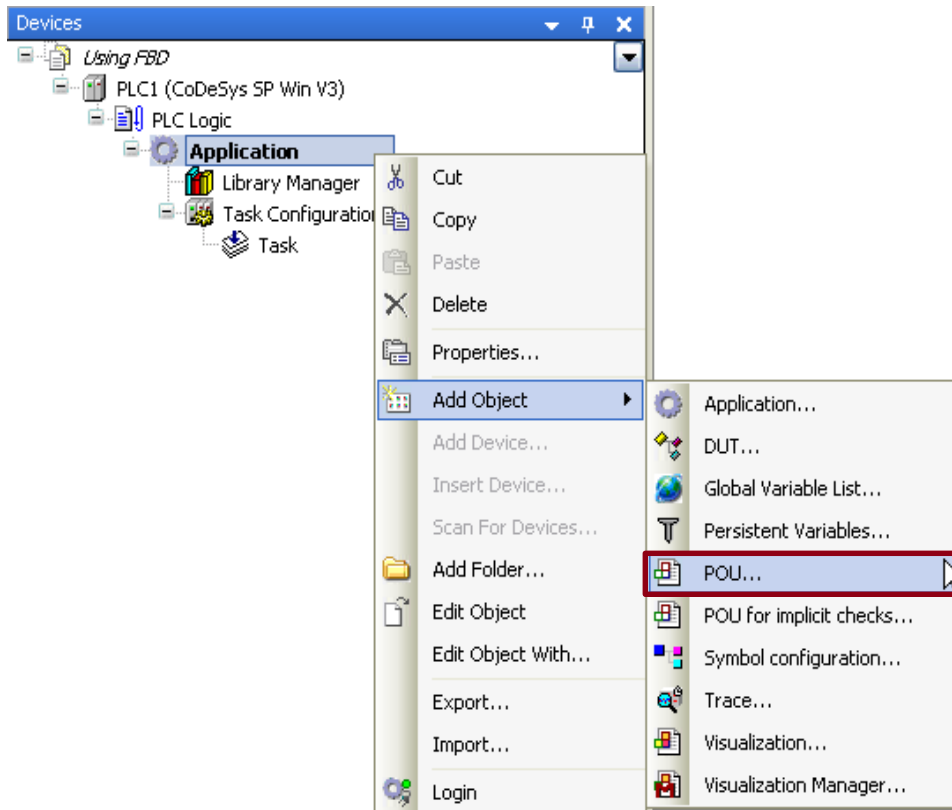
After this module you will be able to create POU's in IL, FBD and LD in CoDeSys.



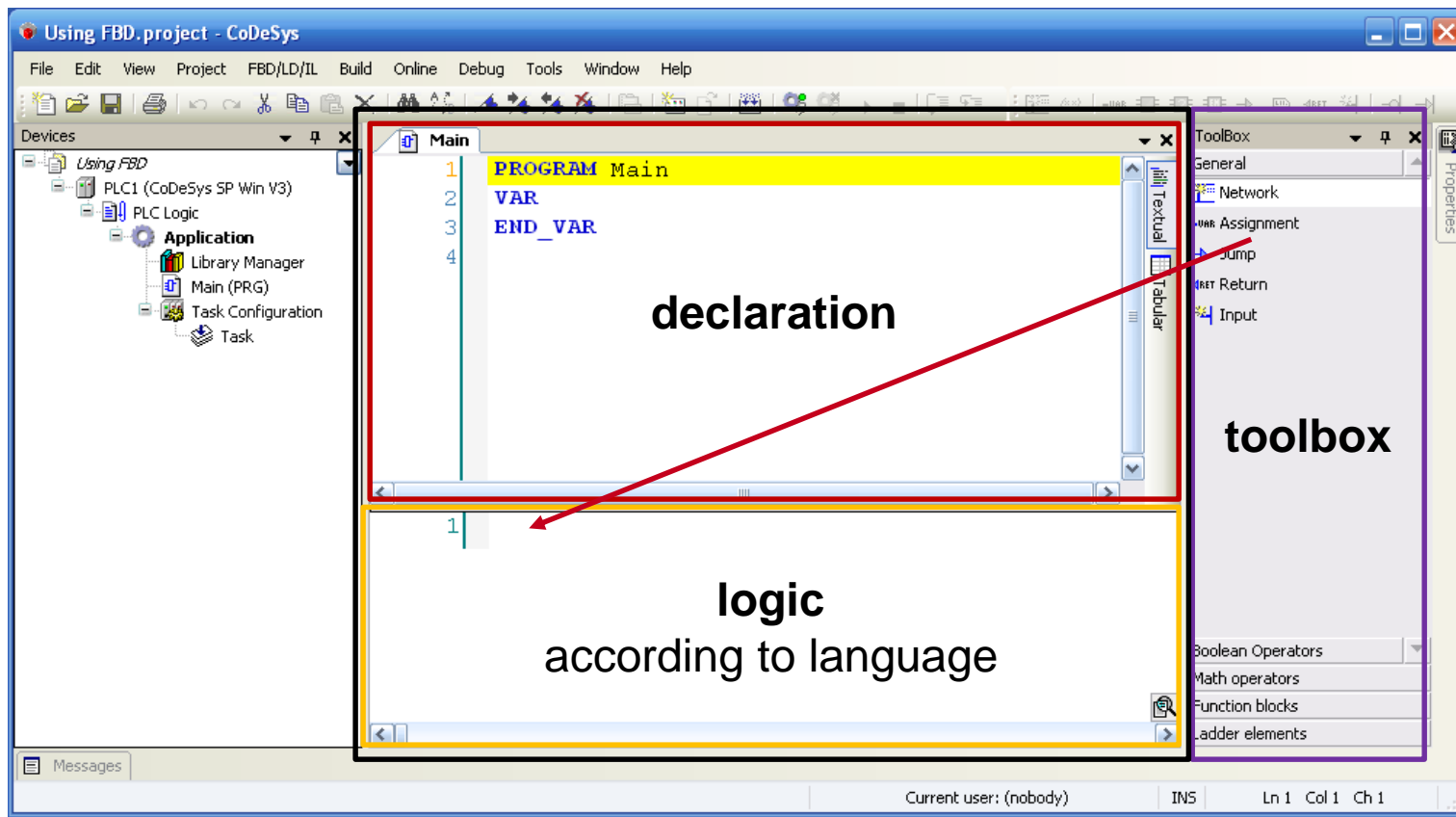
- general
 - editor
 - declaration
 - free text mode
 - tabular mode
 - instructions
 - toolbox
- overview classic languages



Add POU and select preferred language

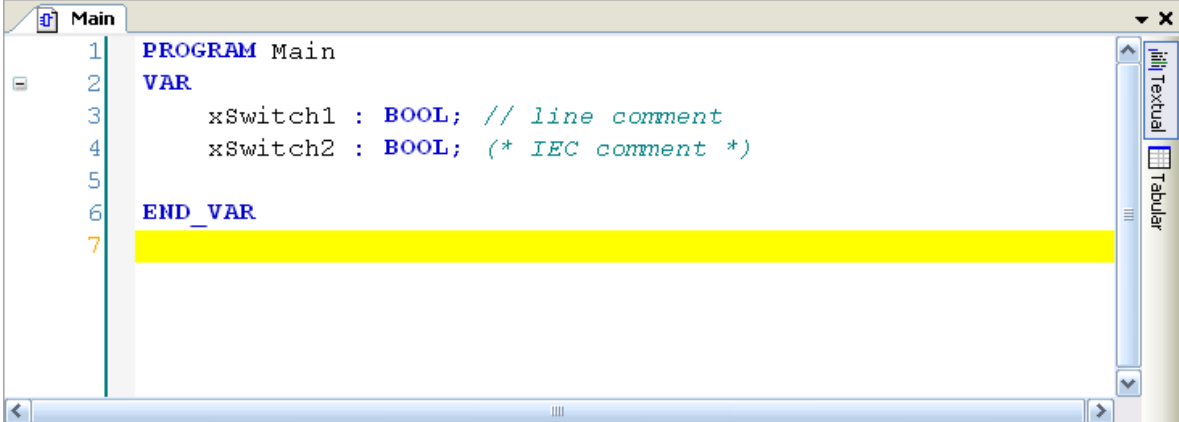


View



Declaration

- textual

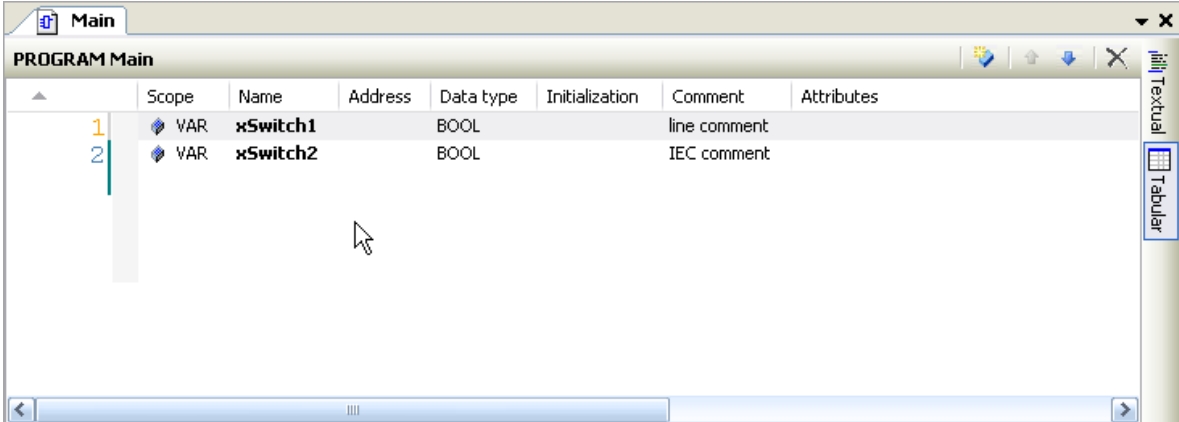


```

1  PROGRAM Main
2  VAR
3      xSwitch1 : BOOL; // line comment
4      xSwitch2 : BOOL; (* IEC comment *)
5
6  END_VAR
7

```

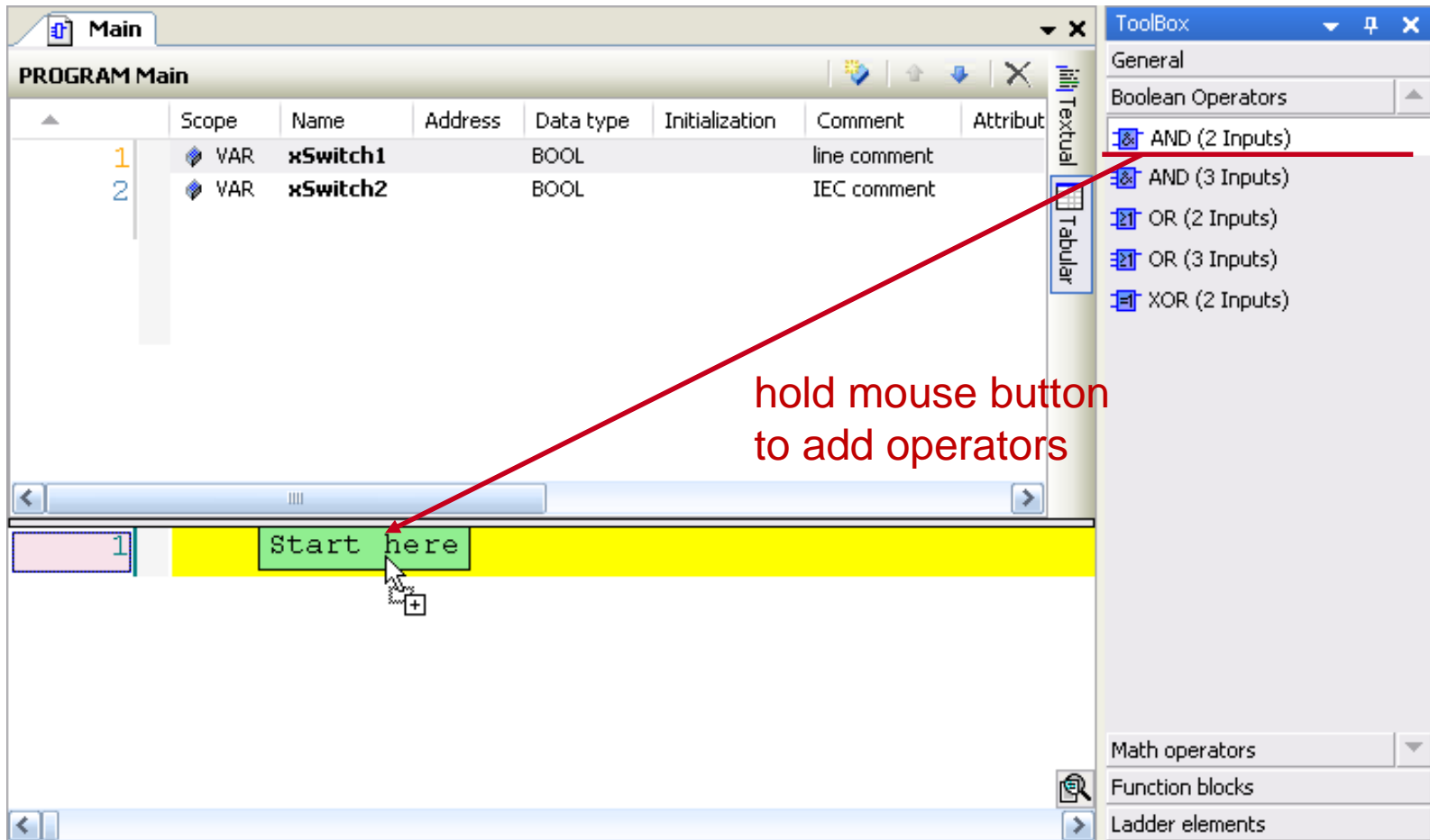
- tabular



	Scope	Name	Address	Data type	Initialization	Comment	Attributes
1	VAR	xSwitch1		BOOL		line comment	
2	VAR	xSwitch2		BOOL		IEC comment	



Use toolbox to add logic



PROGRAM Main

	Scope	Name	Address	Data type	Initialization	Comment	Attribut
1	VAR	xSwitch1		BOOL		line comment	
2	VAR	xSwitch2		BOOL		IEC comment	

ToolBox

General

Boolean Operators

- AND (2 Inputs)
- AND (3 Inputs)
- OR (2 Inputs)
- OR (3 Inputs)
- XOR (2 Inputs)

Math operators

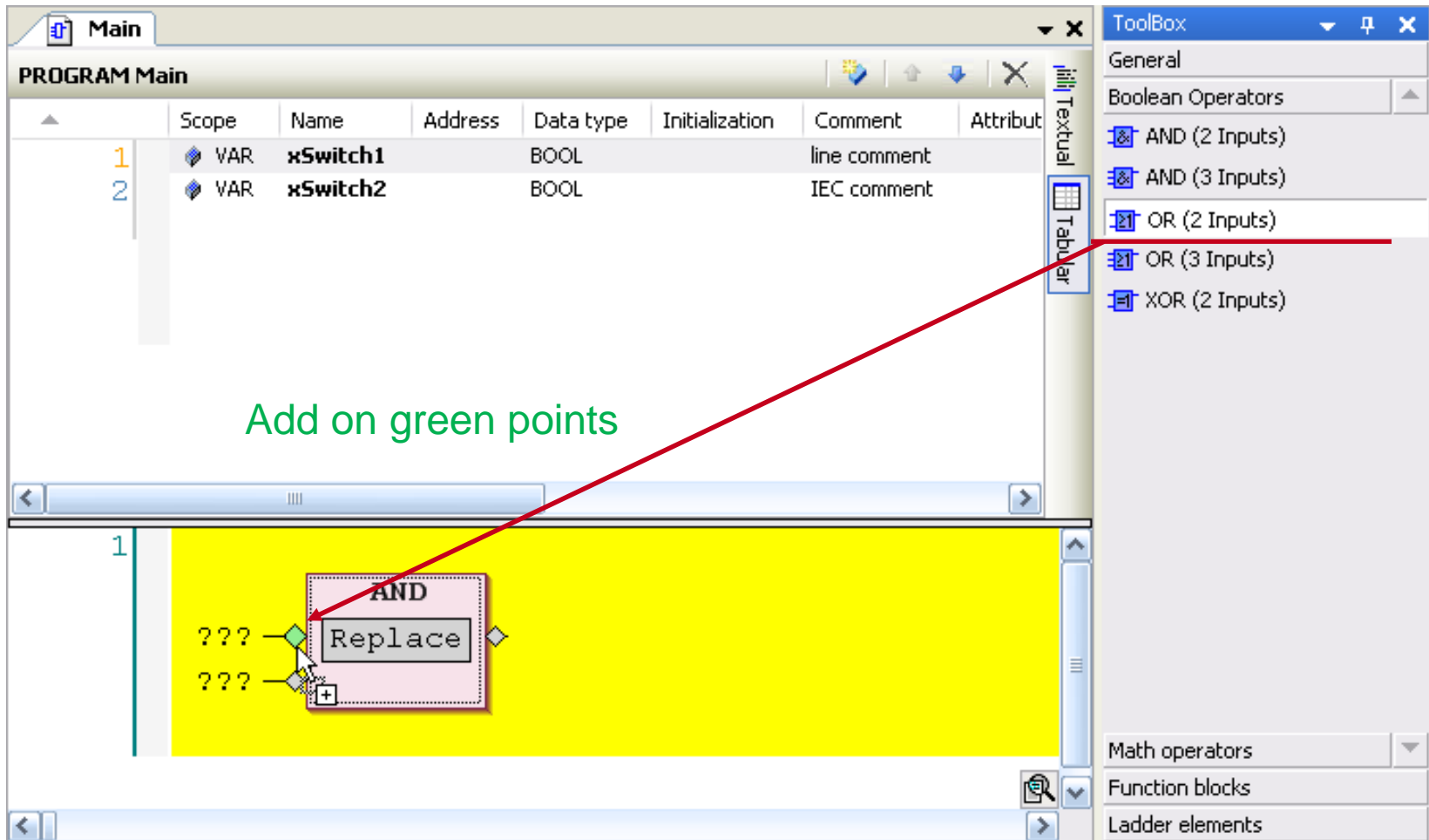
Function blocks

Ladder elements

hold mouse button to add operators



Use toolbox to add logic



PROGRAM Main

	Scope	Name	Address	Data type	Initialization	Comment	Attribut
1	VAR	xSwitch1		BOOL		line comment	
2	VAR	xSwitch2		BOOL		IEC comment	

Add on green points

ToolBox

General

Boolean Operators

- AND (2 Inputs)
- AND (3 Inputs)
- OR (2 Inputs)
- OR (3 Inputs)
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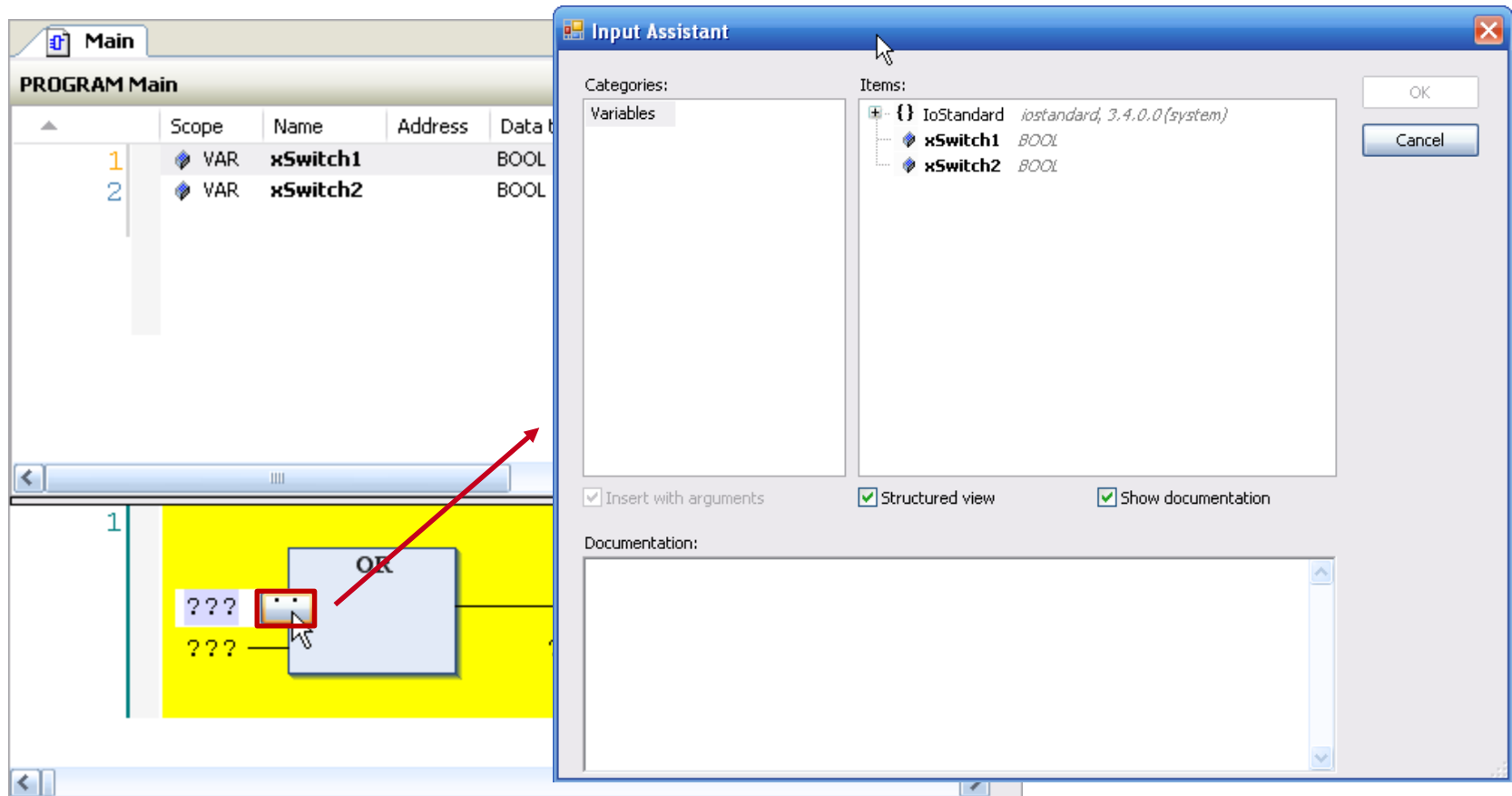
Math operators

Function blocks

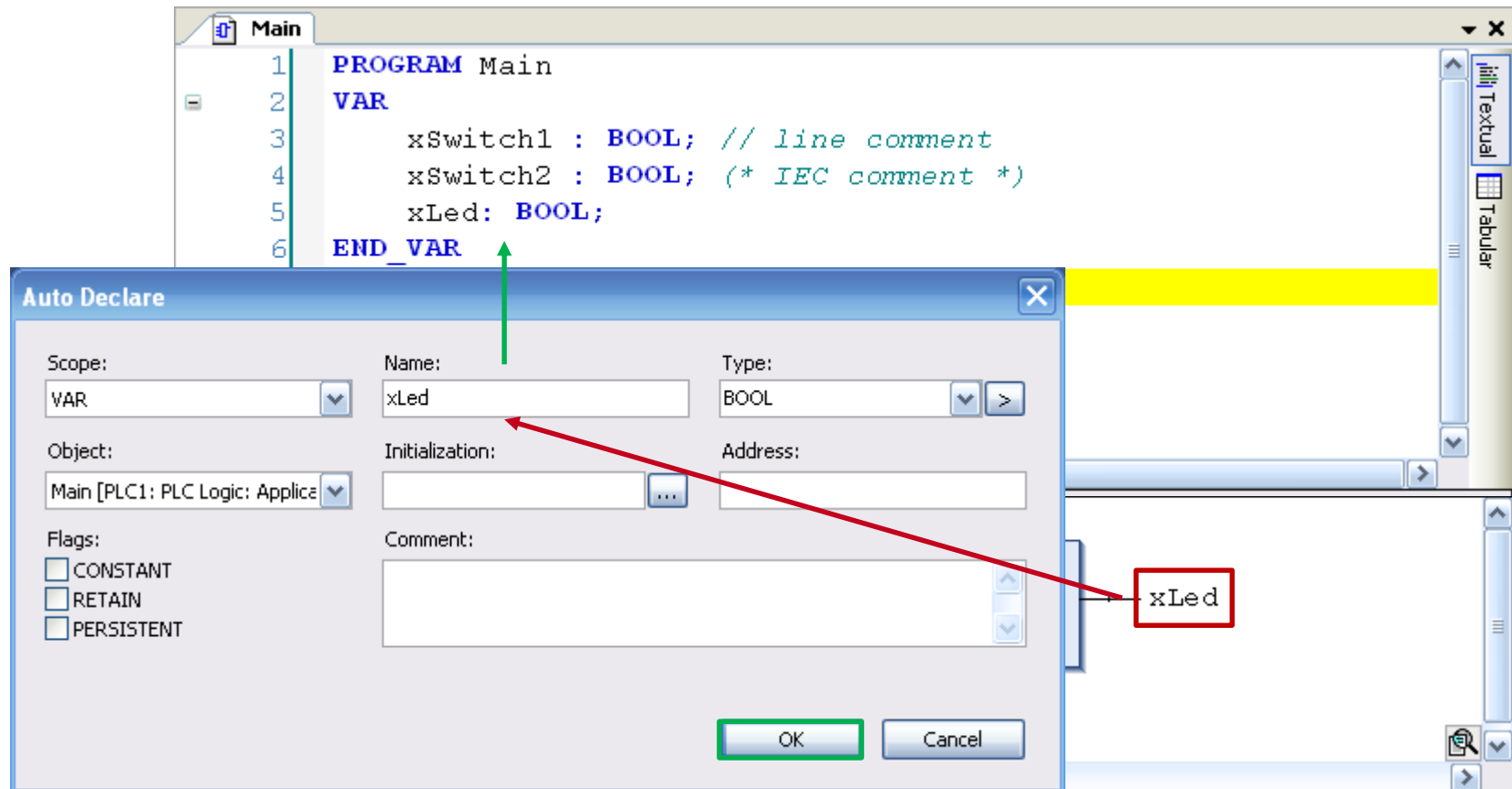
Ladder elements



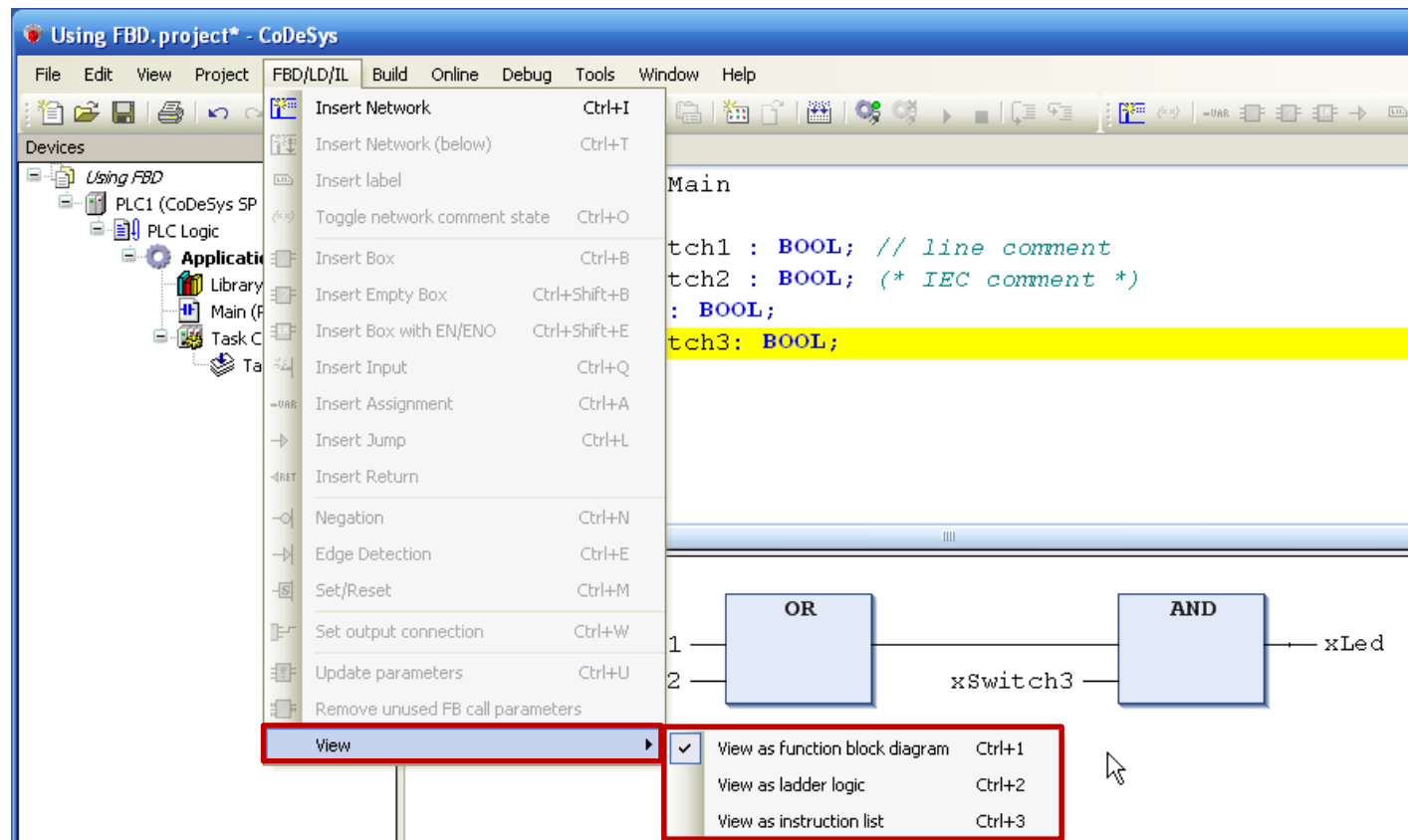
Use input assistant to assign variables



Use auto declare to add new variables

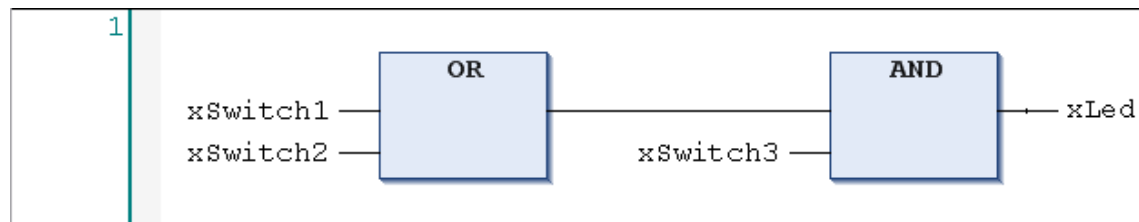


Switch language between IL, FBD and LD

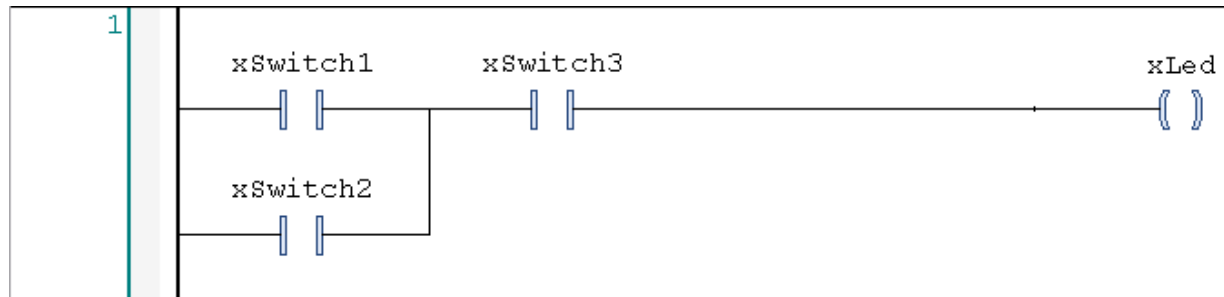


Overview classic languages

View as function block diagram Ctrl+1



View as ladder logic Ctrl+2



View as instruction list Ctrl+3

1	LD	xSwitch1
	OR	xSwitch2
	AND	xSwitch3
	ST	xLed



Summary

- In IL, FBD and LD variables are declared in the same way.
 - You can choose between the textual and the tabular mode.
 - What is more, you can type in unknown variable names and the auto declare assistant is opened automatically.
- Depending on the selected language the toolbox will offer different elements
 - Green markers indicate where an element can be inserted
- In classic languages it is very easy to change the POU view

