

Innovative switching and control

LOGO! 8 in details part 2 of 3
Usage at the device and handling of the software

LOGO! in detail slides overview

The LOGO! in detail slides are split up in three different parts

- LOGO! in detail part 1

Installation and overview of the function blocks

- **LOGO! in detail part 2**

Usage at the device and handling of the software

- LOGO! in detail part 3

Tasks and features

Operation on device

Have you designed a circuit? Do you want to enter it into LOGO! ?

How do you do this?

Connect LOGO! to the power supply and switch it on. The display now shows you this message.



Press **ESC** to get to the main menu.

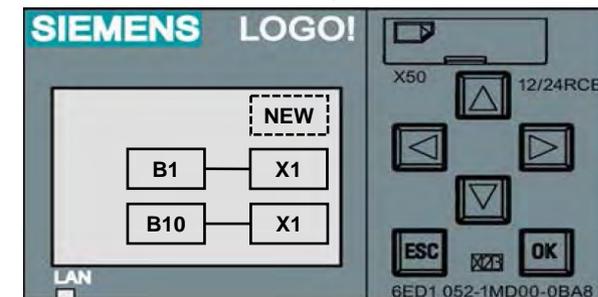
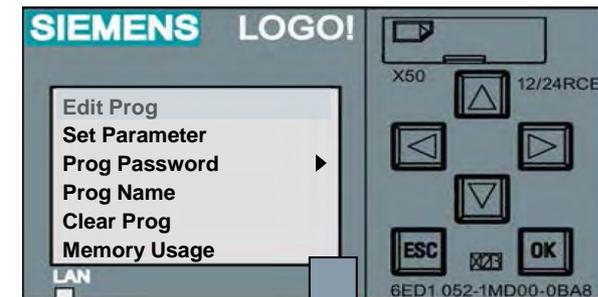
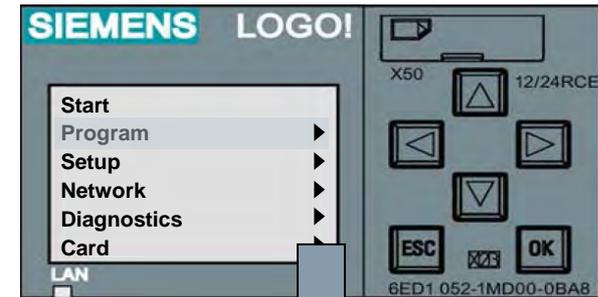


Main menu / programming menu

Press ▲▼ to move the up and down. The selected point of the menu is always tagged by a bar.
 Move it to "Program.." and confirm with **OK** .
 LOGO! opens the programming menu.

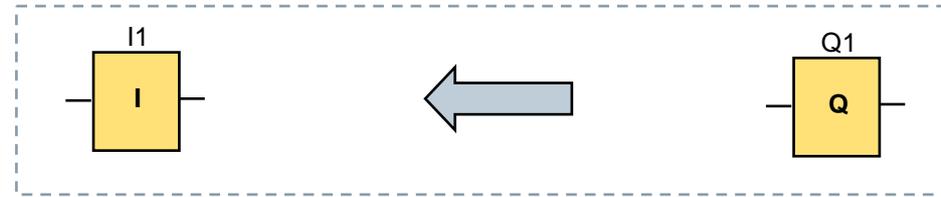
In the next sub-menu please chose Edit Prog by moving with ▲▼ and confirm with **OK** .
 You are now in programming menu.

Press ▲▼ to select all output, marker and open connectors.
 Go to NEW for more function blocks.

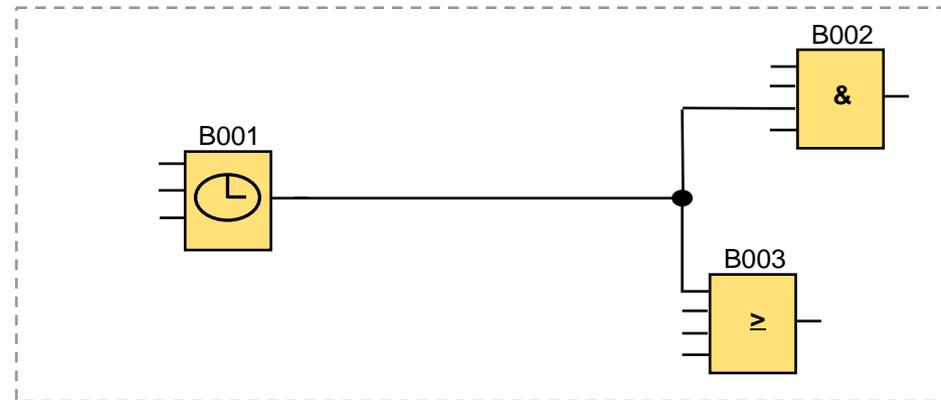


LOGO! - rules for operation

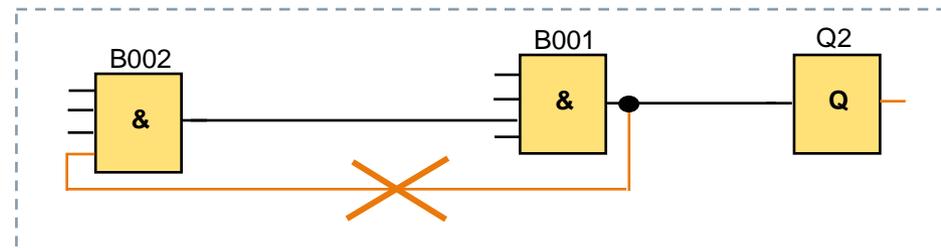
1. You have to create your circuit by working from the output to the input.



2. You can connect an output to several inputs.

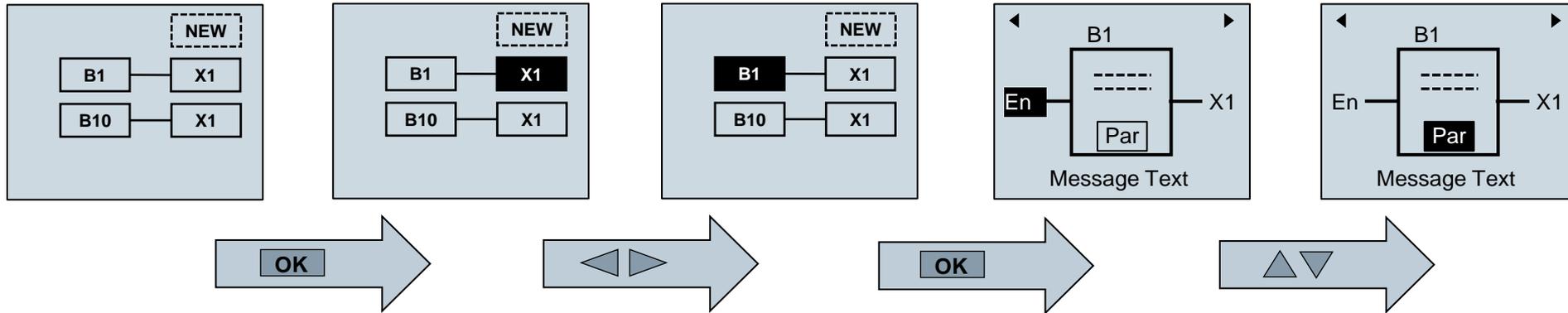


3. You can't connect an output to an upstream input within the same path (recursion).

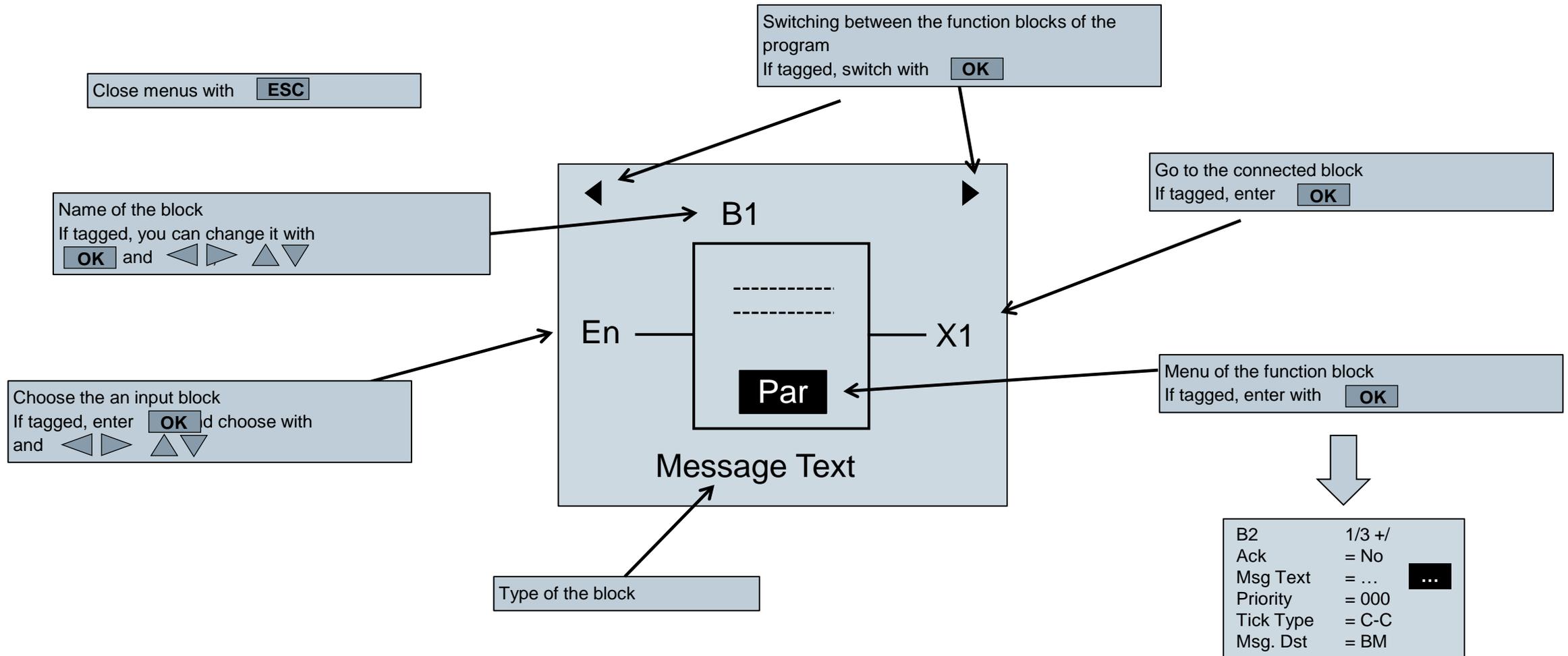


LOGO! - rules for operation

4. You can move with ◀▶ and ▲▼ . Use **OK** for editing the tagged item.



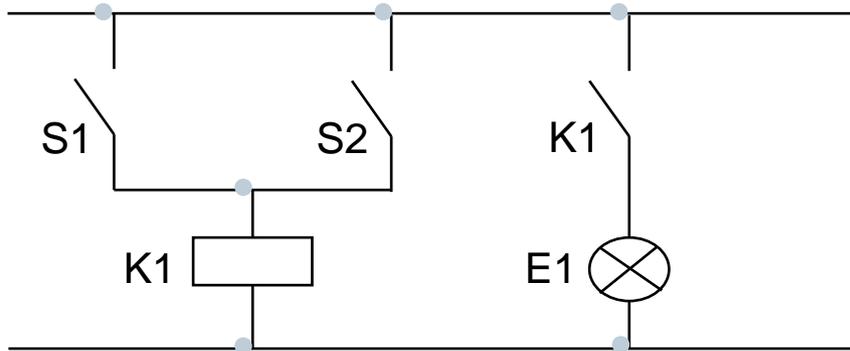
LOGO! - rules for operation



Your first LOGO! program

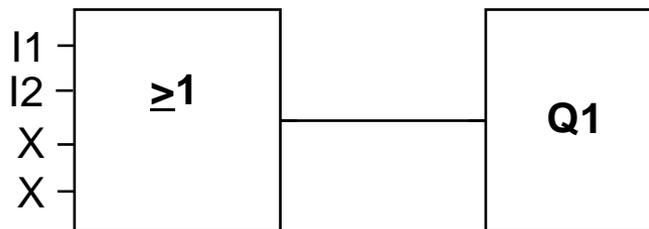
Let us now take a look at the following parallel circuit consisting of two switches.

Circuit diagram

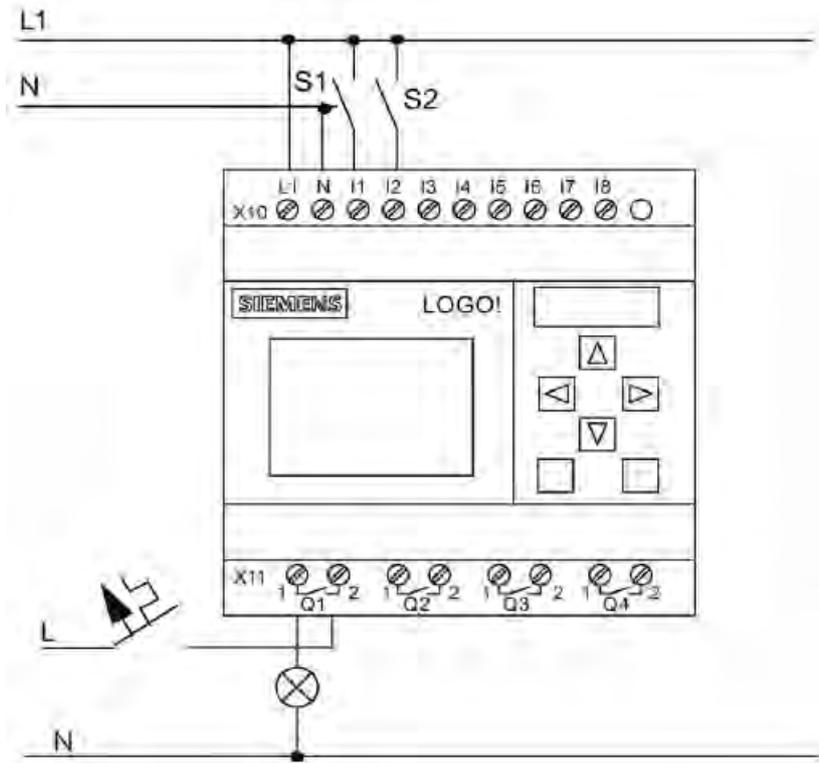


The load is switched on with S1 or S2.

Solution with LOGO!



LOGO! interprets the parallel circuit of S1 and S2 as an 'OR' logic, because S1 or S2 switches on the output.



S1 switches input I1, while S2 switches input I2. The load (E1) is connected to the relay Q1.

Let us now input the program (starting at the output and working towards the input). LOGO! initially shows the output Q1. You will see an underscore () below the Q in Q1. It is called a cursor. The cursor indicates your current position in the program.

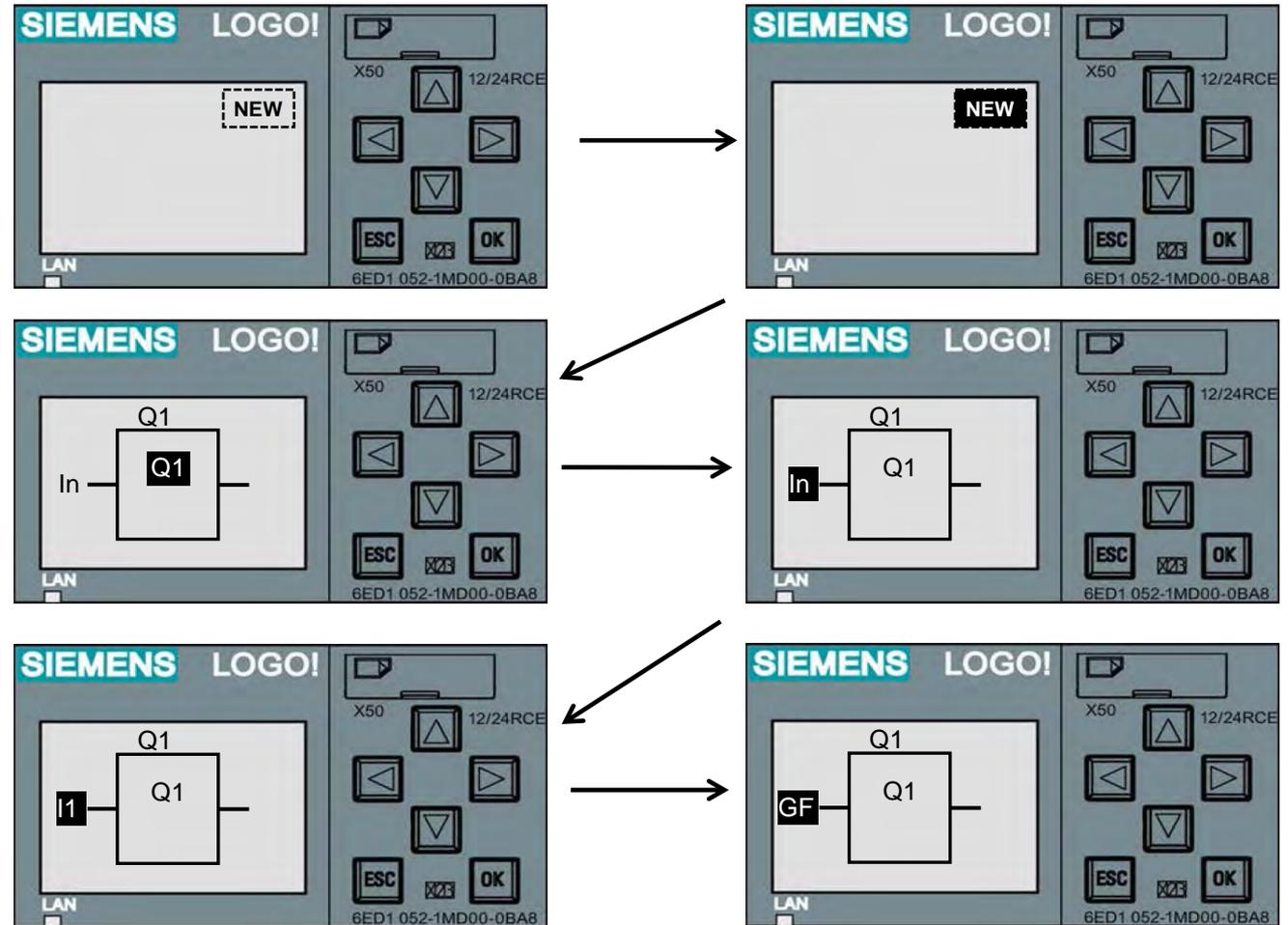
Program input

Now press the key **OK** .
NEW is selected now. Press **OK** again.

Use **◀ ▶** to go to the input.
 At this point you only enter the first block (the OR block).
 Press **OK** to select editing mode.

Selected between the following by pressing **▲ ▼** :

- Connectors → I, M, High, Low, C, F, S, Q
- Basic function (GF)
- Special function (SF)



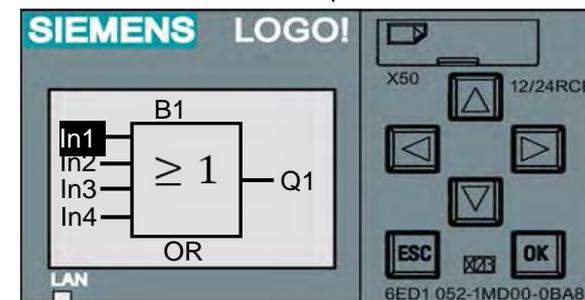
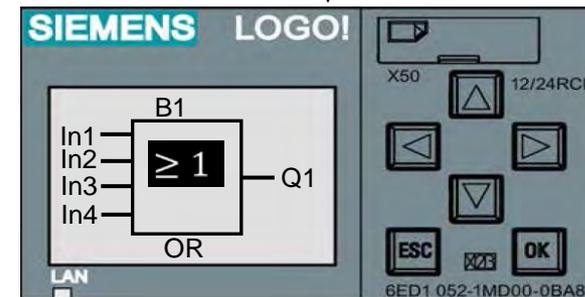
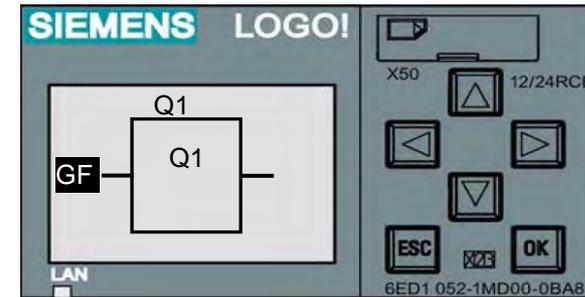
Program input

Select with (GF) the basic functions and confirm with **OK** .

The AND is the first block of the basic functions (GF) list.
You can choose between the following by pressing \blacktriangle \blacktriangledown :

- AND
- AND (edge)
- NAND
- NAND (edge)
- OR
- NOR
- XOR
- NOT

Select the OR block (≥ 1) and confirm with **OK** .

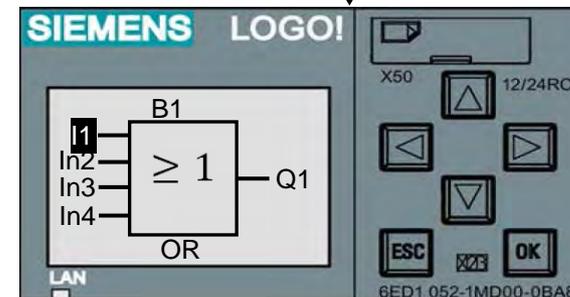
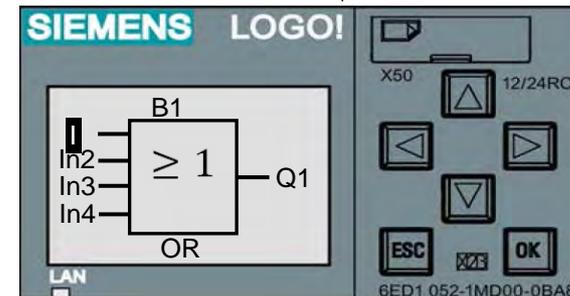
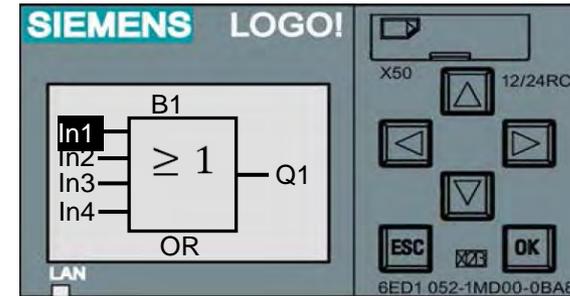


Program input

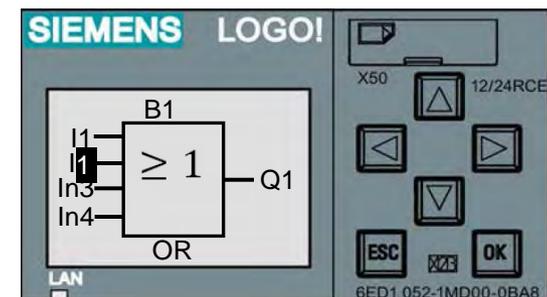
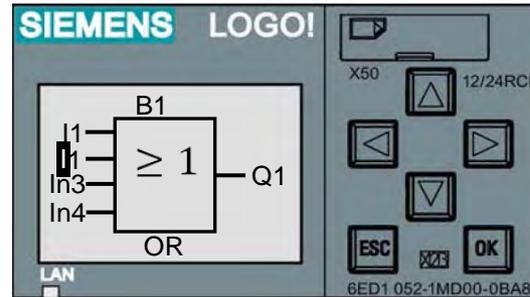
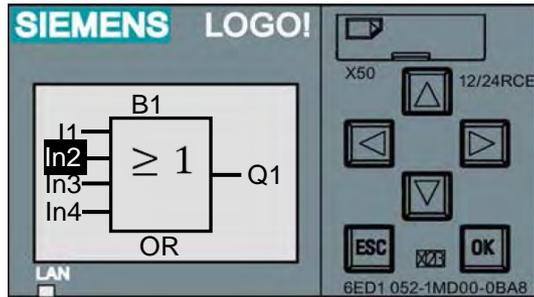
You have now entered the first block. Each new block is automatically assigned a block number (B1). Now you interconnect the block inputs (B1).
 Press **OK**
 You can choose between the following by pressing \triangle/∇ :

- I, M, High, Low, C, F, S, Q
- Basic functions (GF)
- Special functions (SF)

The first element of the list is input I1 Confirm with **OK** . For editing the next input use \triangle/∇ and press **OK** again.



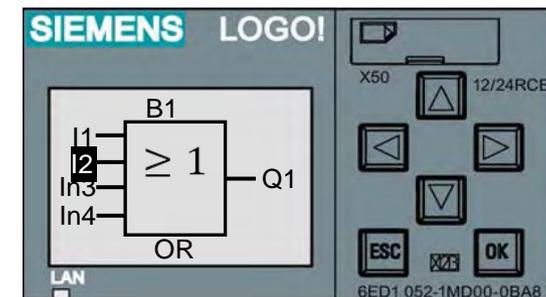
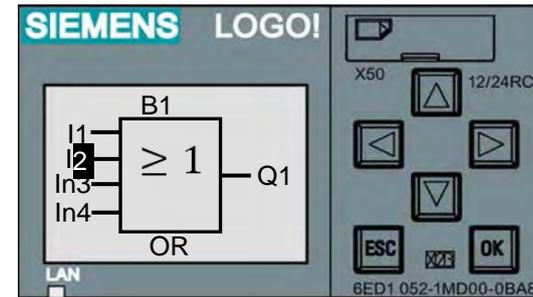
Program input



Now you connect input I2 to the input of the OR block.

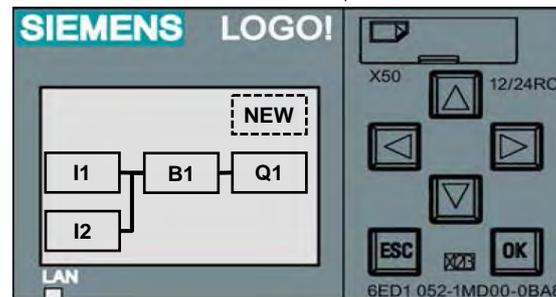
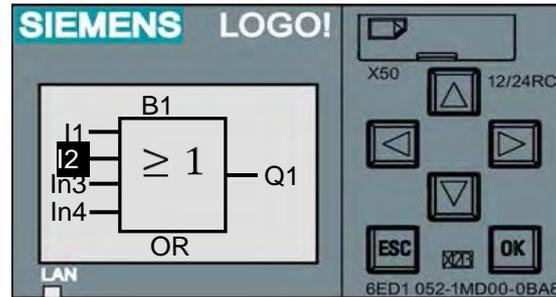
1. Go to In2: Press
2. Switch to editing mode: Press
3. The first element will be I1 again. Now you have to change the number separately from the element-type. Go to the Number: Press
4. Set the number 2: Press
5. Confirm I2 with

We do not need the last two inputs of the OR block for this program. You don't need to do something more.



Program start

Now all block inputs are connected. For LOGO! the program is complete. We now exit program input mode and return to the programming menu with pushing **ESC** twice. Confirm the changes with "Yes". To start the program, return to the main menu with **ESC**. Move the cursor to "Start": Press **▲▼**. To confirm press "Yes" with **OK**.



LOGO! in RUN mode

Selection of the starting screen after switching on the LOGO! (RUN mode) via LOGO! Soft Comfort possible.

File → Properties → Power On

Status of inputs

- Input I status is „1“
- Input I status is „0“

Status of outputs

- Output Q status is „1“
- Output Q status is „0“

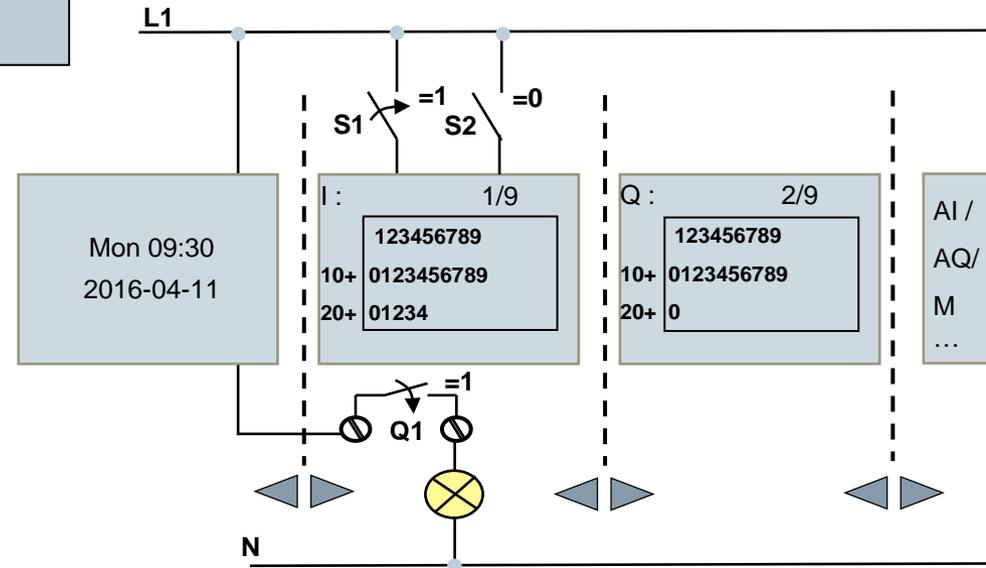
The window to the left displays time and date.

The window in the middle displays the inputs states (I1 to I9; I10 to I19; I20 to I24).

The window to the right displays outputs states (Q1 to Q9; Q10 to Q16).

Also the internal values of all analog inputs/outputs can be displayed.

Let us have a look at our example:



When switch S1 is closed, input I1 is supplied with voltage and the status at input I1 is “1”. LOGO! program calculates the status for the outputs. Output Q1 is “1”, in this case. When Q1 is “1”, LOGO! sets relay Q1, and the load connected to Q1 is supplied with voltage.

LOGO! parameterization mode

Parameterization of functions:

When speaking of parameterization, we refer to the configuration of functions.

You can configure the parameters

- in programming mode

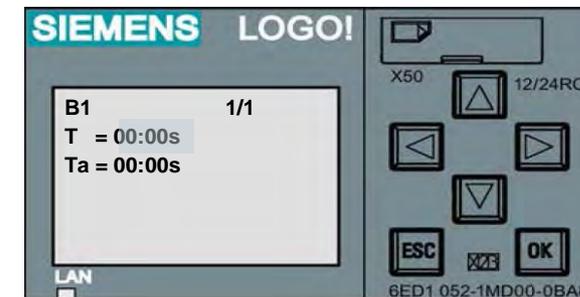
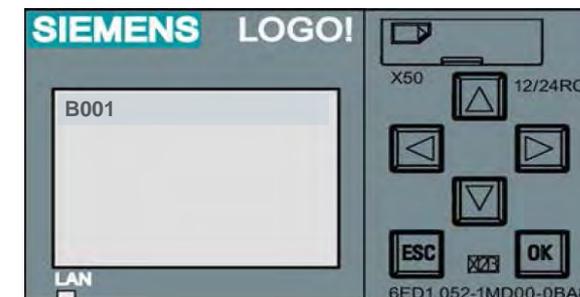
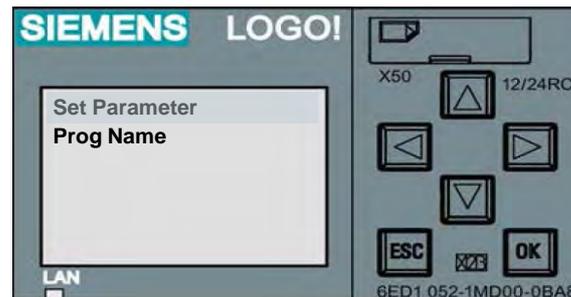
or

- in parameter assignment mode

You can configure:

- the delay times of timer functions
- the switching times of timer switch
- counter thresholds
- the monitoring interval for a hour counter
- on and off threshold for a trigger threshold
- and some other functions

To get to configuration mode press **ESC** in RUN mode, choose Program, set the cursor to *Set Parameter* and confirm with **OK**.



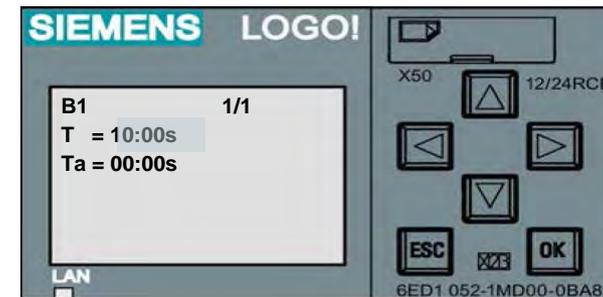
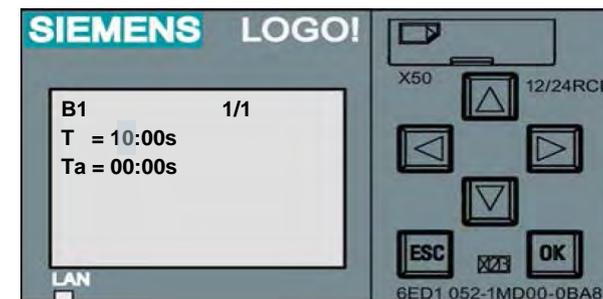
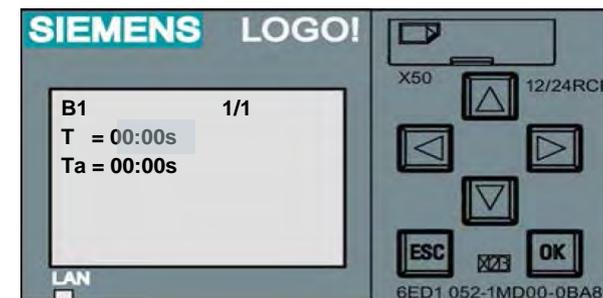
LOGO! parameterization mode

Block selection:

Choose in parameterization mode the desired block with \triangle ∇ .

If the desired block is chosen, press **OK**. The cursor jumps to the first parameter that can be modified. The value can be changed pressing the arrow keys \triangle ∇ .

If the desired value is configured, then press **OK**. The next blocks requiring modification, can be chosen with \triangle ∇ etc..



LOGO! parameterization mode

To return to in RUN mode press **ESC** till the required display appears .



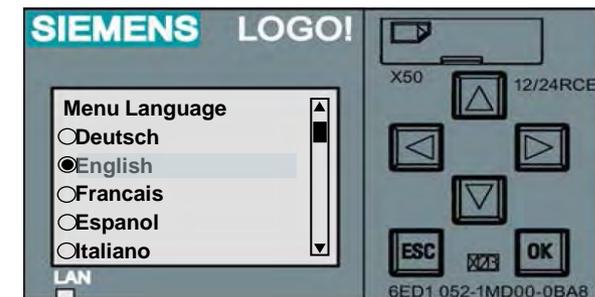
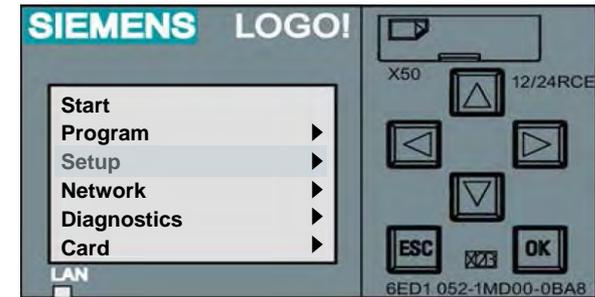
LOGO! ..0BA8 – Setting the language

In the LOGO! Menu you are able to change the menu language. The LOGO! has to be in STOP mode.

Available languages:

- EN – English
- IT – Italian
- NL – Dutch
- ES – Spanish
- FR – French
- CN – Chinese
- DE – German
- TR – Turkish
- RU – Russian
- JA – Japan

This setting can be separately done for LOGO! TD.



LOGO! ..0BA8 – Backlight function

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Backlight function for the basic modules:

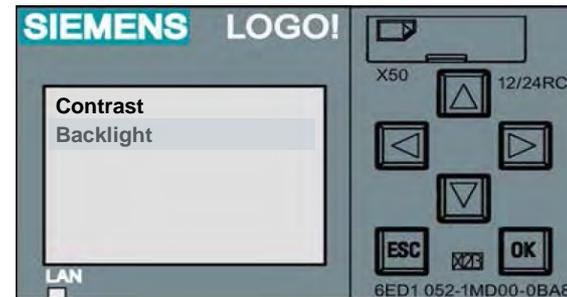
To activate the backlight of the LOGO! display permanently, follow these steps.

You can select between:

- **Default** (Backlight is ON for 20 sec. / ON/OFF controlled by user program)
- **Always On**

This setting can be separately done for LOGO! TDE.

If the flags 25, 26, 28 – 31 are used for controlling the backlight the general setting is invalid.



LOGO! TD parameterization mode

In the menu of LOGO! TDE nearly the same menu items are available as at the LOGO! on-board menu including the the possibility to edit the program.



The following table shows on which device which menu items are available ...

Menu item	LOGO! Basic module	LOGO! TDE
In STOP mode		
Edit program	√	√
Card	√	-
Setup	√	√
LCD Contrast / Backlight	√	√
Menu language	√	√
2 or 4 AI used on basic module	√	-
Start / Stop	√	√
In RUN mode		
Set Param	√	√
Msg Config (e.g. Tick Time)	-	√

LOGO! program creation on a PC with LOGO! Soft Comfort V8.1

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Support for LOGO! TDE

- No separate software necessary

Modem wizard (only for LOGO! 6)

- for standard 11-bit analog modems

Windows Look and Feel

- e.g. context menu, toolbar

Create the control programs by „drag and drop“

- Control programs „drawing“ – directly on a PC in FBD or LAD

Testing of control programs

- Offline simulation with status for each function (color change)
- Online test with color change for each function and 30 actual values

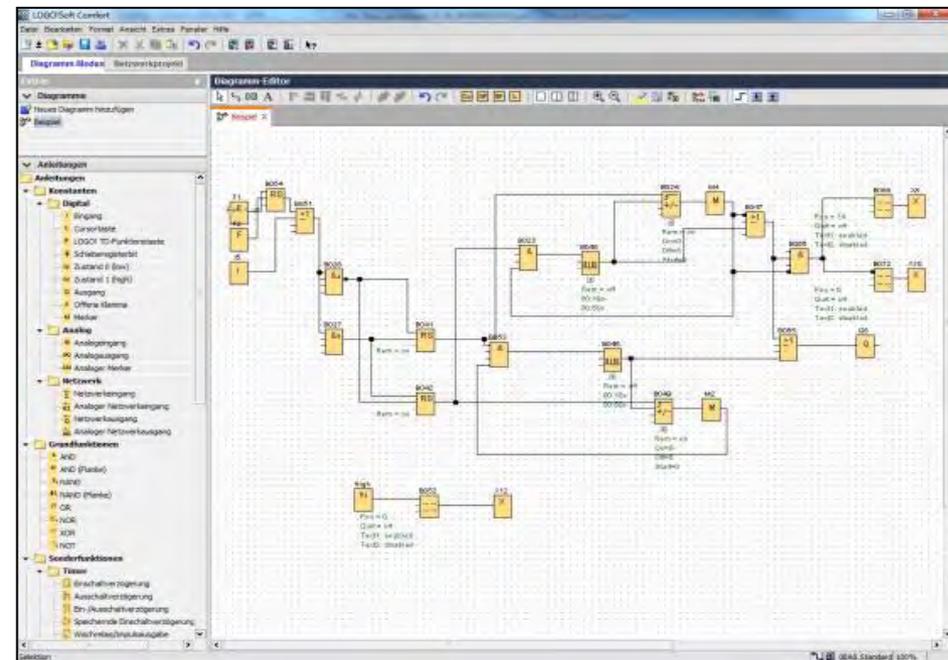
Professional print and documentation functions

Device selection

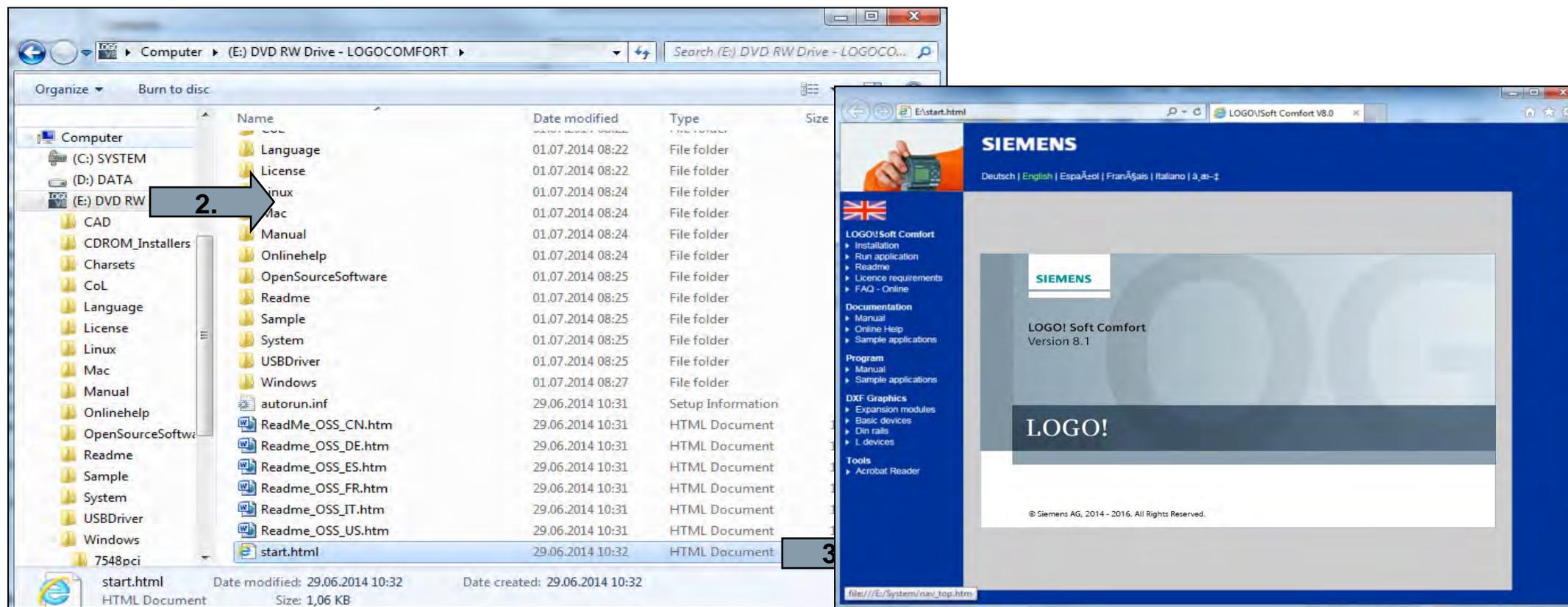
- 0BA0, 0BA1, 0BA2, 0BA3, 0BA4, 0BA5, 0BA6, 0BA7, 0BA8 with function check

Network mode

- Adding other devices, e.g. HMI, S7-devices
- Simple connecting of function blocks between LOGO! devices
- **Additionally on the CD ROM:**
- Manual and 28 complete example programs
- LOGO! Access Tool
- CAD drawing



Installing LOGO! Soft Comfort V8.1



1. Insert CD (LOGO! Soft Comfort V8.0) in CD-ROM drive
2. Display CD content with help of Explorer
3. Double click on start.html

Installing LOGO! Soft Comfort V8.1

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Deutsch | [English](#) | [Español](#) | [Français](#) | Italiano | [ä, æ-ï](#)

LOGO! Soft Comfort
▶ Installation
▶ Run application
▶ Readme
▶ Licence requirements
▶ FAQ - Online

Documentation
▶ Manual
▶ Online Help
▶ Sample applications

Program
▶ Manual
▶ Sample applications

DXF Graphics
▶ Expansion modules
▶ Basic devices
▶ Din rails
▶ L devices

Tools
▶ Acrobat Reader

Start.html functions

- Direct choice of 9 languages
- Software installation
- Direct start of software from CD-ROM
- Display manuals on CD-ROM
- Display online help
- Choice of example programs on CD-ROM
- Choice of CAD drawings on CD-ROM
- Installation of necessary tools such as Acrobat Reader or printer drivers

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file:///E:/System/nav_top.htm

Installing LOGO! Soft Comfort V8.1

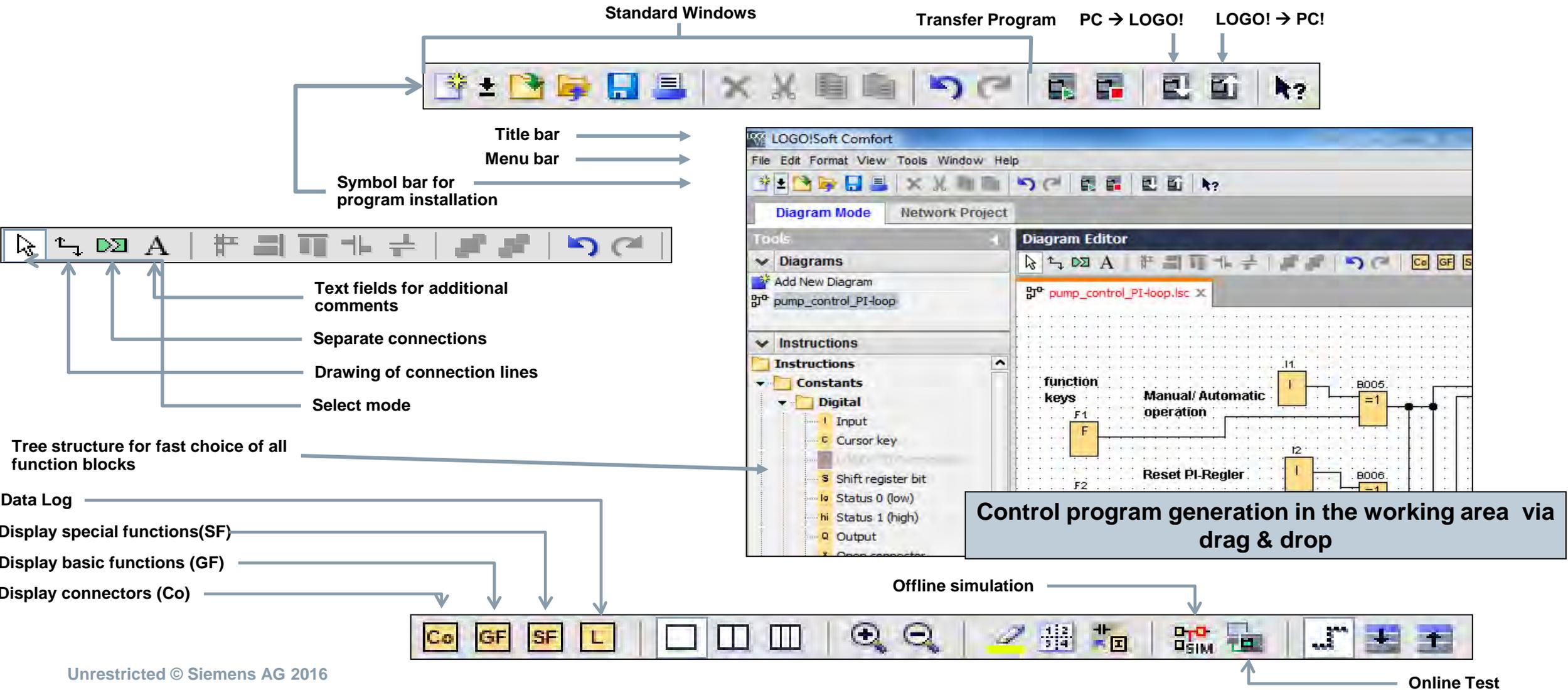
The USB cable driver for the LOGO! USB programming cable is also included on the CD-ROM. During the installation process you will be asked if you want to install the driver.

HINT: Follow the correct order!

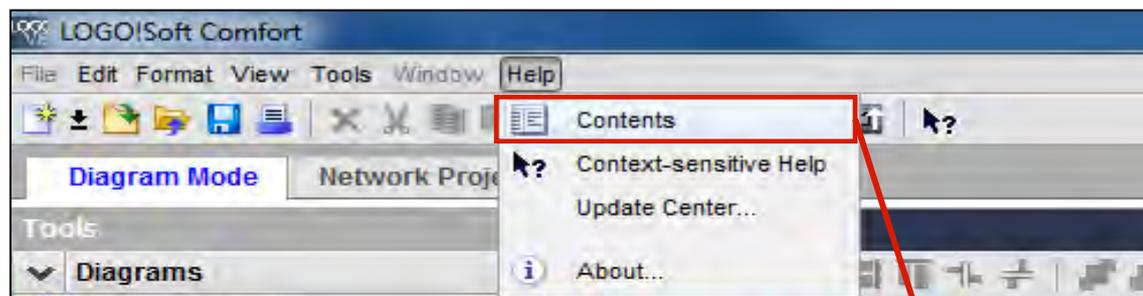
1. Install the driver (administrator privileges are required!)
2. Then plug in the LOGO! USB programming cable



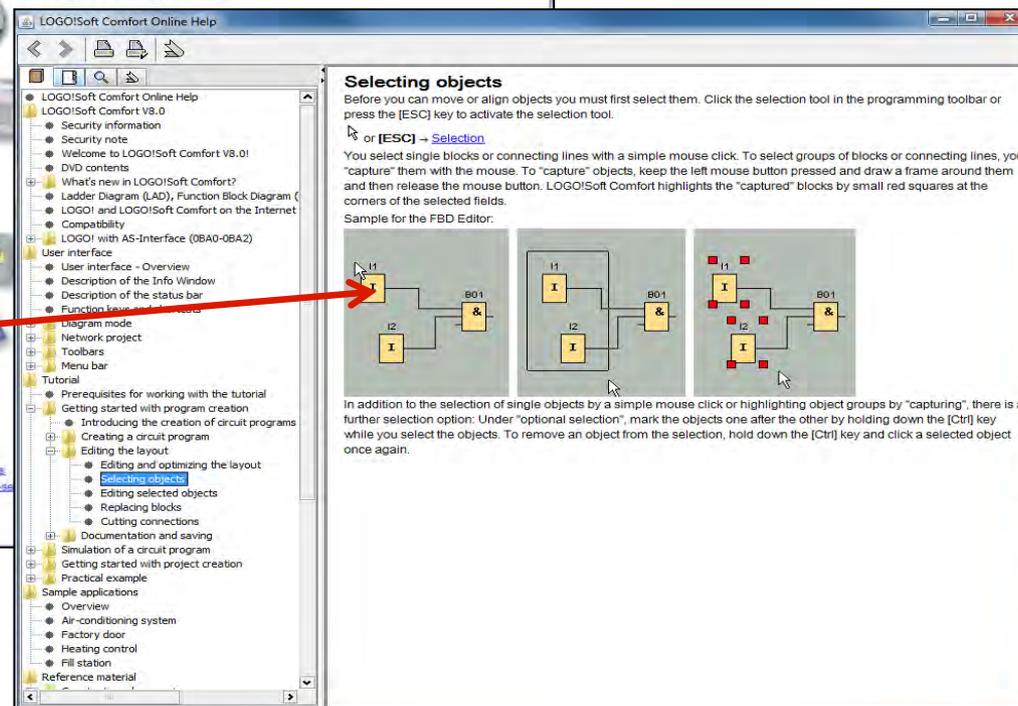
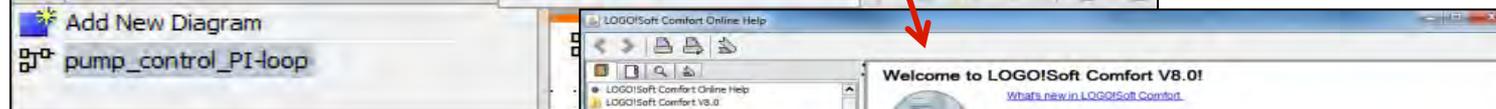
LOGO! Soft Comfort V8.1: Overview



Help functions – Online help

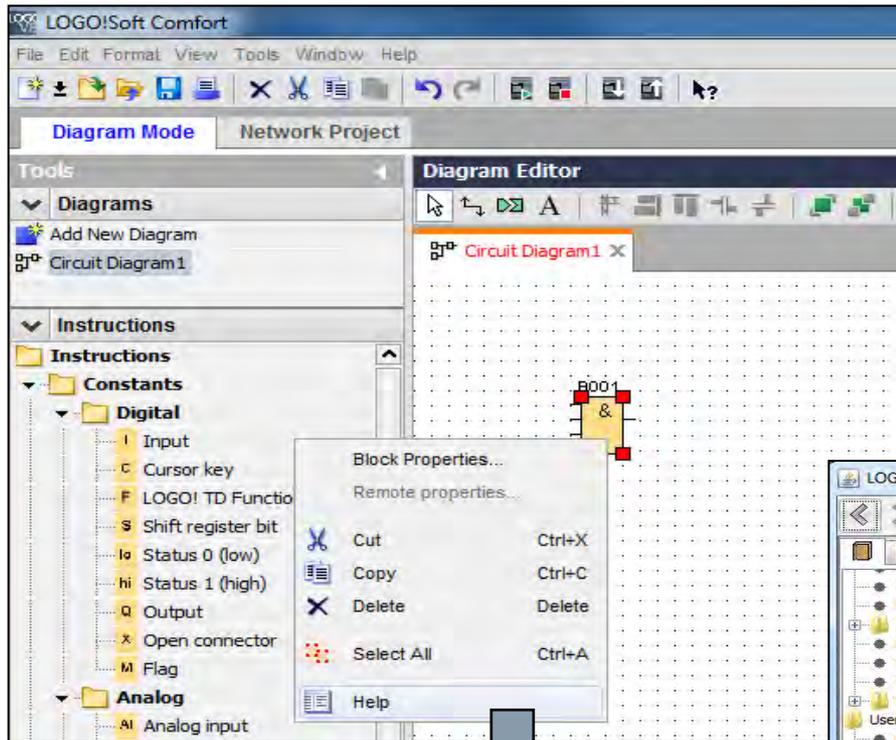


The general help can be activated via the menu item *Help -> Content*. You can find further information sorted by functional groups in the contents.

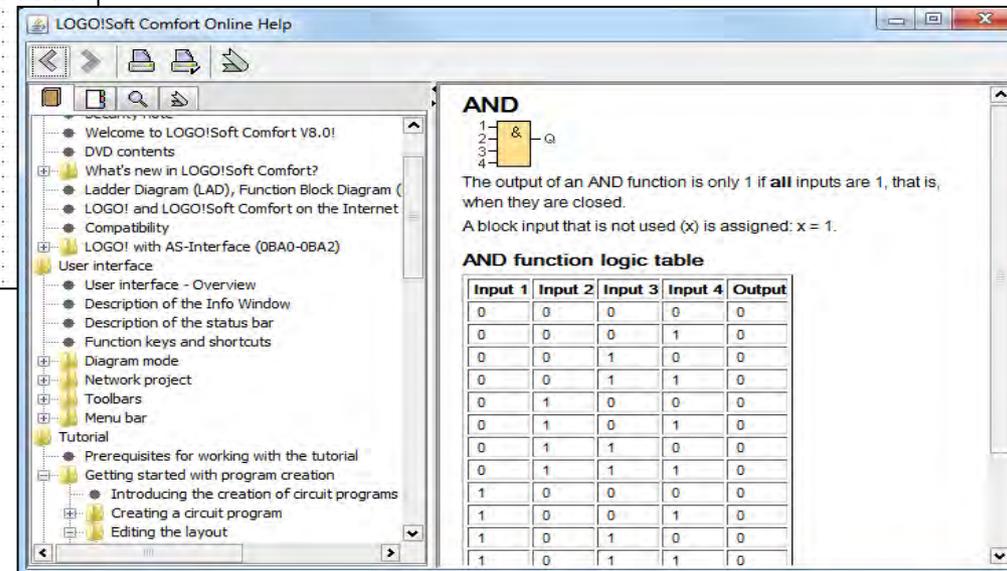


With a mouse click on the desired topic you get detailed information about the corresponding functional group.

Help functions – direct help



Direct help can be selected via the context menu (right mouse key) of each function.



Help functions – direct help

Direct choice

The direct help will also be activated via the menu item *Help -> Context-sensitive Help*. Via mouse pointer you can now select objects, you would like to have help text with.

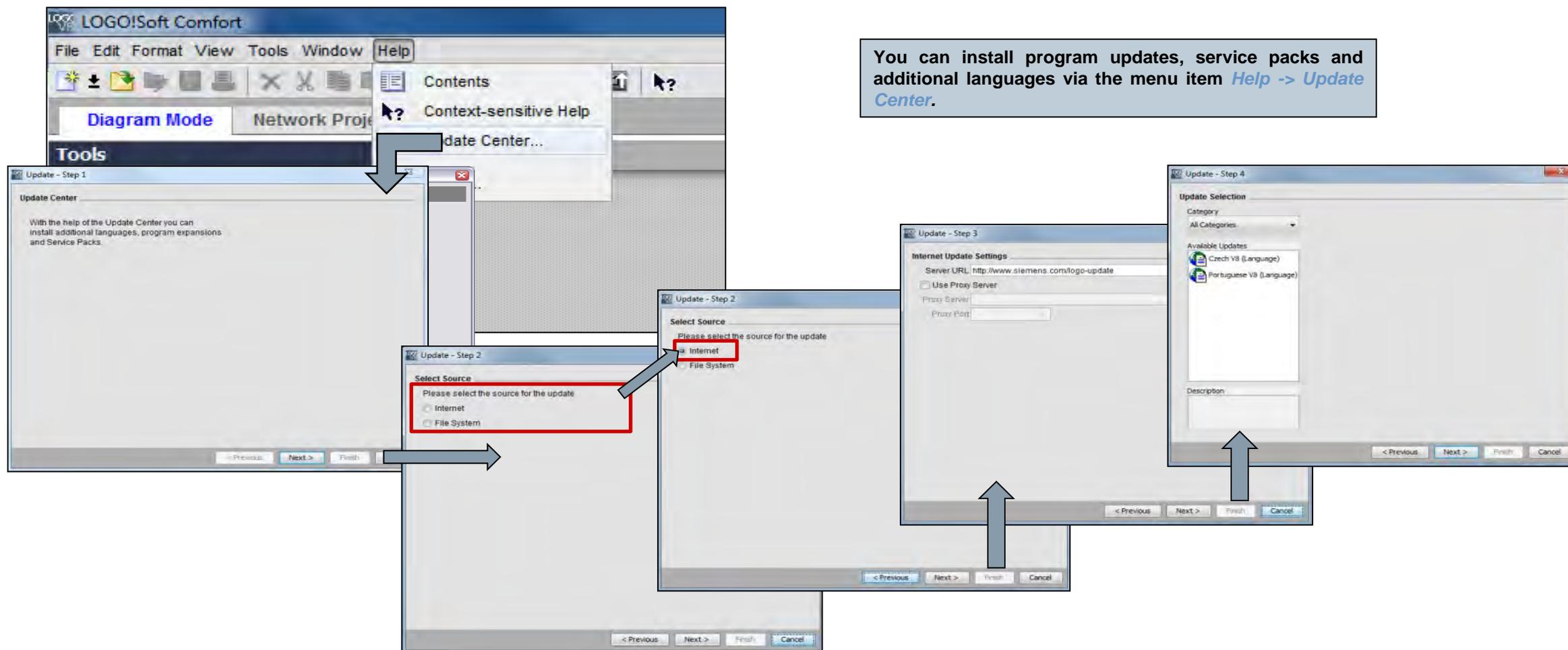
AND

The output of an AND function is only 1 if **all** inputs are 1, that is, when they are closed.
A block input that is not used (x) is assigned: x = 1.

AND function logic table

Input 1	Input 2	Input 3	Input 4	Output
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	0

Help functions – Update Center



Thank you for your attention!



DF FA S MP PLC 1

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[siemens.com/answers](https://www.siemens.com/answers)