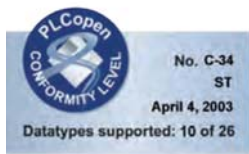
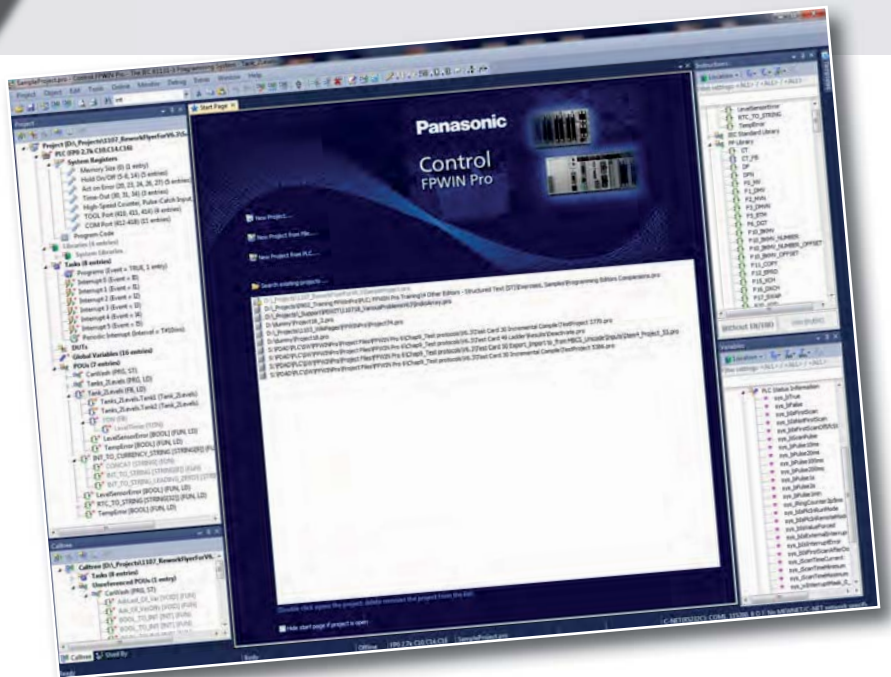


Panasonic
ideas for life

Control FPWIN Pro

PLC programming software:
one tool for all applications

Control FPWIN Pro is the universal software for all Panasonic PLCs



Control FPWIN Pro – the IEC 61131-3 programming system

Control FPWIN Pro is the Panasonic programming software developed according to the international standard IEC 61131-3 (for Windows® XP/Vista/Windows 7). This new version is a result of experience gained over many years. We were one of the first PLC manufacturers to offer an IEC 61131-3 programming software, and we are a leading member of the international organization PLCopen.

The screenshot displays the Control FPWIN Pro software interface with several callouts pointing to specific features:

- Structured Text (ST) programming editor:** Points to the main text editor window showing code for a car wash program.
- Toolbar contains icons for frequently used menus:** Points to the top toolbar of the application.
- Declaration of variables:** Points to the 'Global Variables' table at the top of the main editor.
- Navigation:** A callout points to the left-hand project tree and task list.
- Ladder Diagram (LD) programming editor:** Points to the bottom window showing a ladder logic diagram for a tank level control system.
- Selection of instructions:** Points to the 'Instructions' panel on the right side of the interface.

Class	Identifier	Type	Initial	Comment
3	bStartPrint	BOOL	FALSE	
4	asPrint	ARRAY [0..2] OF STRING[250]	[3(")]	
5	asProductName	ARRAY [-3..9] OF STRING[20]	[Normal Program, Special Program, Complete Program, Bounty Snickers, Milky Way, ...]	
6	aProductNumber	ARRAY [-3..9] OF INT	[3(0),3(2(0),3(0,2(0,1,0,2]	
7	aProductPrice	ARRAY [-3..9] OF INT	[700,950,1400,8(60),2(120)]	
8	aProductSum	INT	0	in Cent

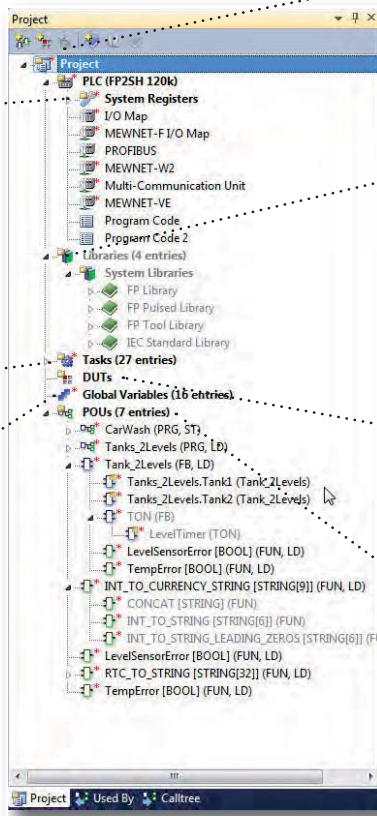
Control FPWIN Pro highlights

- One software for all FP-series PLCs
- 5 programming languages: IL (Instruction List), LD (Ladder Diagram), FBD (Function Block Diagram), SFC (Sequential Function Chart), ST (Structured Text)
- 8 languages available: English, German, French, Italian, Spanish, Japanese, Korean, Chinese
- Well-structured through program organization units, task and project management
- Remote programming, service, and diagnostics via modem or Ethernet
- Extensive comments and online documentation created hand in hand with the program
- Minimum program size through optimized compiler
- Powerful debugging and monitoring tools provide information on the current status of the PLC
- Comprehensive documentation and support for function blocks and libraries help to get your hardware running in record time while maintaining rigorous quality standards
- Reuse of functions and function blocks saves time

Control FPWIN Pro – clearly arranged project management

The clear graphic representation of the project hierarchy in the navigator provides an overview even for very complex projects. To access any object of the project, simply double click it.

The navigator



● **Toolbar for main functions**

● **Libraries:**
For storing, linking, and reusing functions and function blocks in the project

● **DUT (Data Unit Type):**
DUTs can be defined by the programmer for recipes, positioning application tables, etc.

● **POUs (Program Organization Units):**
Programs, functions and function blocks are organized in POU's.

● **System registers:**
PLC hardware configuration can be adapted to the current project via the system registers.
Examples:
– Change available numbers of timers/counters
– Change number of hold and non-hold internal relays
– COM port settings

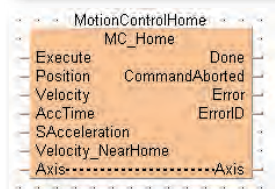
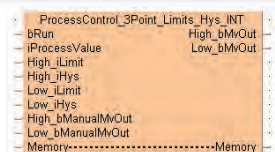
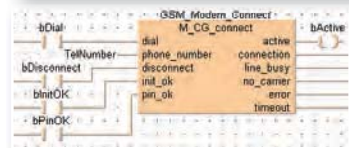
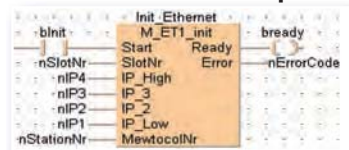
● **Task pool:**
Program tasks and interrupt tasks can be enabled in the task pool.

● **Global variables:**
Assignment and definition of global variables for the entire project.

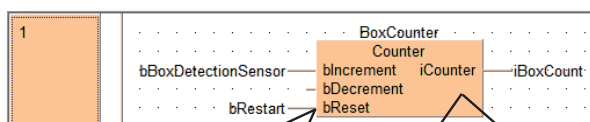
Reuse of functions and function blocks saves programming and debugging time

The programmer can make his own or use a variety of ready-made libraries for standard routines and special applications. These libraries drastically shorten the time needed to develop applications, and consequently save valuable human resource costs. All Panasonic libraries also include a complete online help file and programming examples.

Function block examples



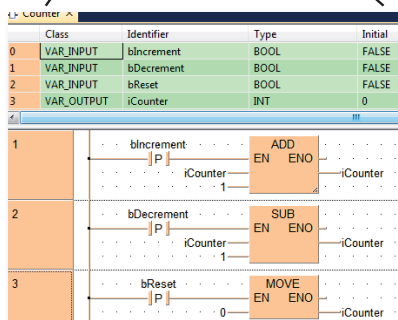
Function block programming



1. Define inputs and outputs

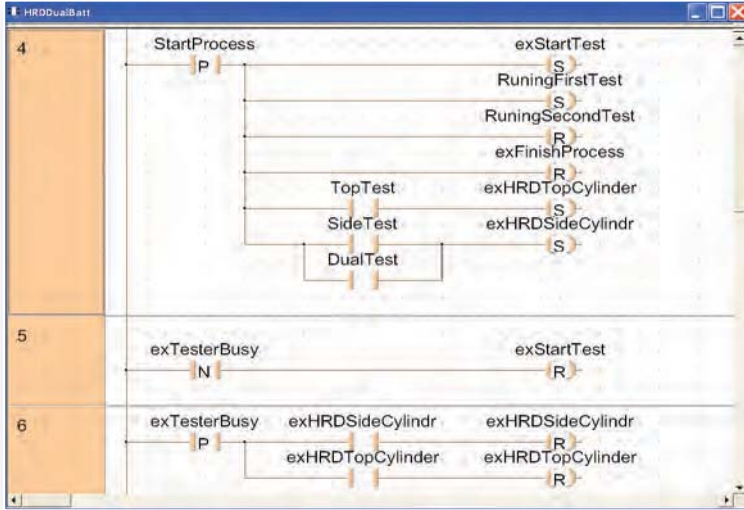
2. Program inside of function block

Class	Identifier	Type	Initial
0	VAR_INPUT	bIncrement	BOOL FALSE
1	VAR_INPUT	bDecrement	BOOL FALSE
2	VAR_INPUT	bReset	BOOL FALSE
3	VAR_OUTPUT	iCounter	INT 0



A flexible choice of editors decreases programming time considerably, allowing you to choose the programming language with which you are most familiar or that best suits your project's structure.

Ladder Diagram (LD)



Instruction List (IL)

```

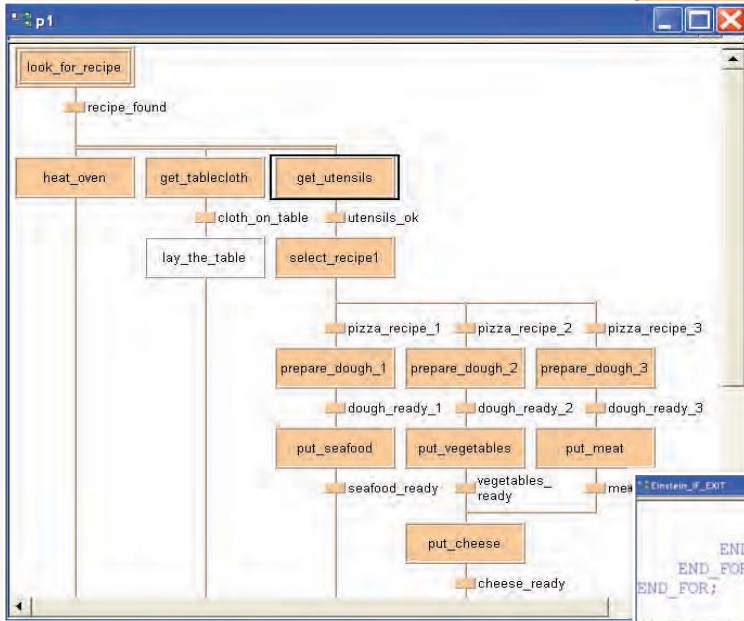
LD      16#1B
ST      TempBuf[1]
LD      TRUE
F144_TRNS TempBuf[0],1
LD      WaitESC
ST      TimVar
JMP     NxState

LD      16#2B2B
ST      TempBuf[1]
ST      TempBuf[2]
LD      TRUE
F144_TRNS TempBuf[0],3
LD      WaitCMD
ST      TimVar
JMP     NxState

LD      TRUE
F95_ASC  'ATH &FE0', TempBuf[1]
LD      16#0D
ST      TempBuf[5]
LD      TRUE
F144_TRNS TempBuf[0],9

```

Sequential Function Chart (SFC)



Structured Text (ST)

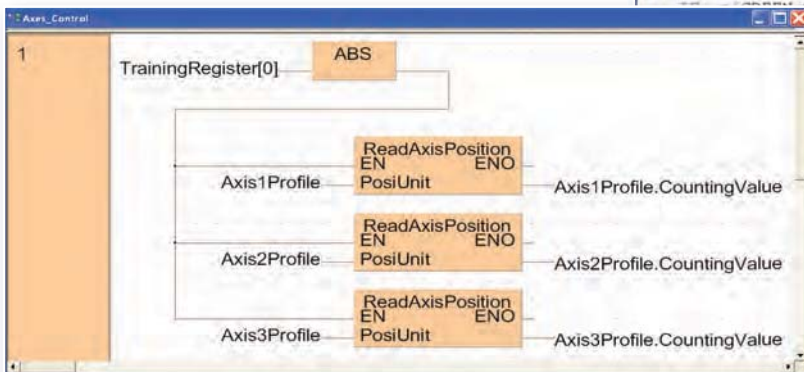
```

END IF;
END FOR;
END IF;
END FOR;
END FOR;
END FOR;

(* CalcPosOfOwnerOfFish *)
bFound:=FALSE;
FOR Color := 0 TO 119 DO
  a[Color]+1-a[WHITE,Color] THEN
  a := 0 TO 119 DO
    (BRITISH,Nation)=a[RED,Color] AND
    (NORWEGIAN,Nation)=0 AND
    a[NORWEGIAN,Nation]=a[BLUE,Color]+1 OR
    a[ELUE,Color]=a[NORWEGIAN,Nation]+1)
OR Drink := 0 TO 119 DO
  IF a[DANISH,Nation]=a[TEE,Drink] AND
  a[GREEN,Color]=a[COFFEE,Drink] AND
  a[MILK,Drink]=2
  THEN
    FOR Cigarette := 0 TO 119 DO

```

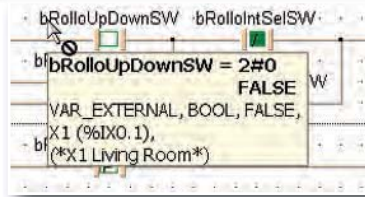
Function Block Diagram (FBD)



Control FPWIN Pro – handy tools simplify programming

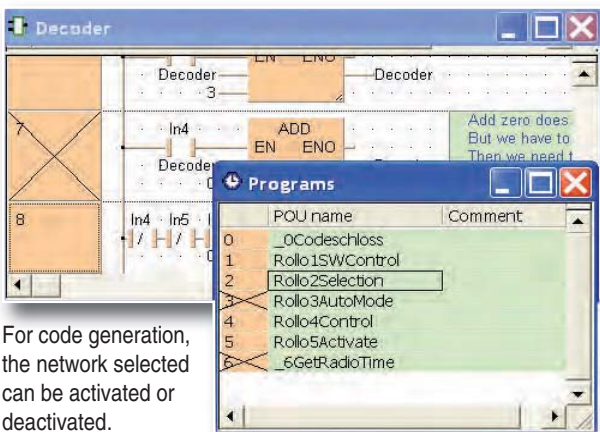
Useful tool tips

Class	Identifier	Type
VAR_EXTERNAL	bRolloSelectSW	BOOL
VAR_EXTERNAL	bRolloUpDownSW	BOOL
VAR_EXTERNAL	bRolloIntSelSW	BOOL
VAR_EXTERNAL	bRolloAutoDown	BOOL



Tool tips provide information quickly, e.g. current values, data types, comments or addresses.

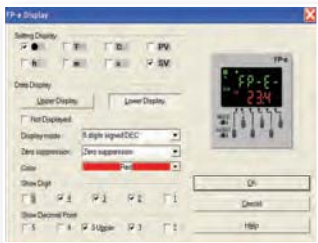
Deactivate / activate networks and program tasks



For code generation, the network selected can be activated or deactivated.

The network's status is indicated in the network information area or network list by an "x" (crossed out).

Easy configuration dialogs

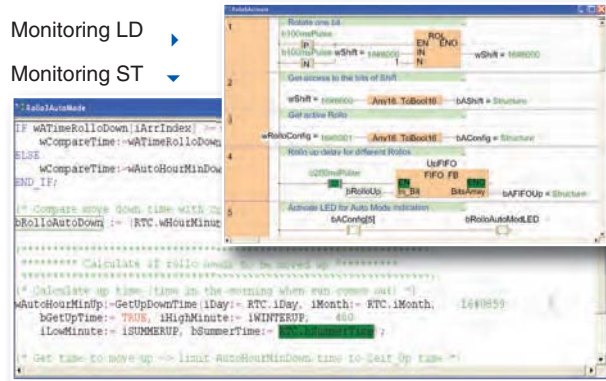


Control FPWIN Pro offers easy-to-use dialogs to comfortably configure the PLC, e.g. the screen display of the FP-e. You can check the result of the configuration directly with the display in the dialog.

Monitoring functions

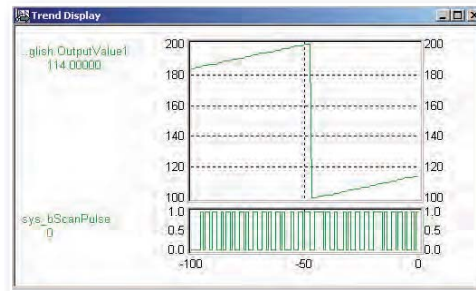
Monitoring LD

Monitoring ST



When you have opened a POU body on your screen, the variables in the corresponding POU can be monitored in online mode at the same time.

Monitoring trends and sampling traces



Contact conditions and/or variable values can be displayed on a time axis. Up to 16 contacts or variables may be displayed in a window.

Additional monitoring trends with the FP Data Analyzer!

Powerful compiler options



You can specify the memory areas by simply adjusting the sliders.

Control FPWIN Pro offers a wealth of additional advanced functions that will help you save costs and increase productivity from the initial project planning to everyday operation:

- Print preview of your entire project
- Sophisticated online help
- Upload of complete projects from the PLC, including comments
- Recipe editor
- Complex data types, e.g. STRING or DATE, for all PLCs
- Useful syntax coloring and other color settings

Enhanced multilanguage support

Because Control FPWIN Pro is programmed with Unicode, you can define the names of variables, functions, function blocks, comments and programs in any language, anywhere in the world. In addition, all umlauts, accents and other language-specific characters are displayed correctly. No special setting is required in Windows; just use the keyboard customary for your language.

	Class	Identifier	Type	Initial	Comment
0	VAR	機器有効化	BOOL	FALSE	
1	VAR	機器1	機器		機器
2	VAR	開始1	BOOL	FALSE	開始
3	VAR	停止1	BOOL	FALSE	停止
4	VAR	最大1	REAL	100.0	最大

スタートボタンを押すとストップボタンを押すまで機器は動作する。

	Class	Identifier	Type	Initial	Comment
0	VAR	MachineActivée	BOOL	FALSE	
1	VAR	Démarrer1	BOOL	FALSE	Start
2	VAR	Arrêter1	BOOL	FALSE	Stop
3	VAR	ValeurMinimum1	REAL	100.0	Minimum value
4	VAR	ValeurMaximum1	REAL	200.0	Maximum value

* Après activation et s'il n'y a pas d'erreur, la machine peut passer en mode RUN en activant démarrer1 et arrêtée en activant Arrêter1.
 * En mode RUN, la machine fonctionne entre les valeurs minimum et maximum.

	Class	Identifier	Type	Initial	Comment
0	VAR	EnableMachine	BOOL	FALSE	
1	VAR	Start1	BOOL	FALSE	Start
2	VAR	Stop1	BOOL	FALSE	Stop
3	VAR	MinimumValue1	REAL	100.0	Minimum value
4	VAR	MaximumValue1	REAL	200.0	Maximum value
5	VAR	IsRunning1	BOOL	FALSE	Is running
6	VAR	OutputValue1	REAL	0.0	Output value
7	VAR	Alarm1	BOOL	FALSE	Alarm
8	VAR	Error1	BOOL	FALSE	Error
9	VAR	ResetAlarm	BOOL	FALSE	Reset the alarm
10	VAR	Machine1	Machine1		

* After enabling and if there is no error the machine can be set to run mode by setting Start1 and can be stopped by setting Stop1.
 * In run mode the machine works between the minimum and the maximum values.

* If there is an error than the machine is stopped and an alarm is set.
 * If there is no error the alarm can be reset.

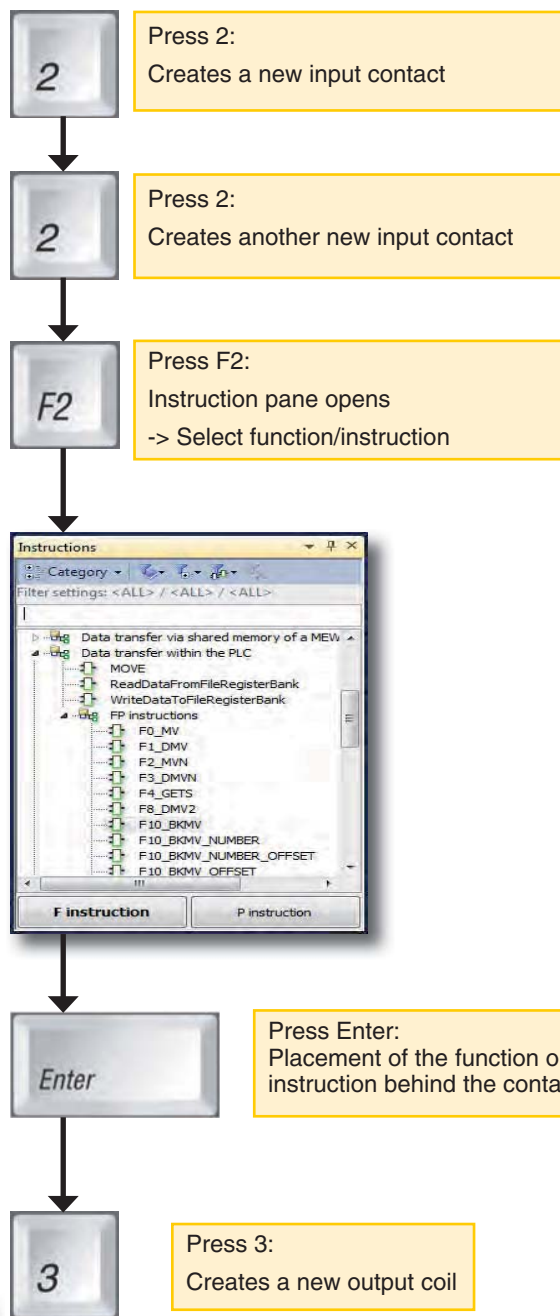
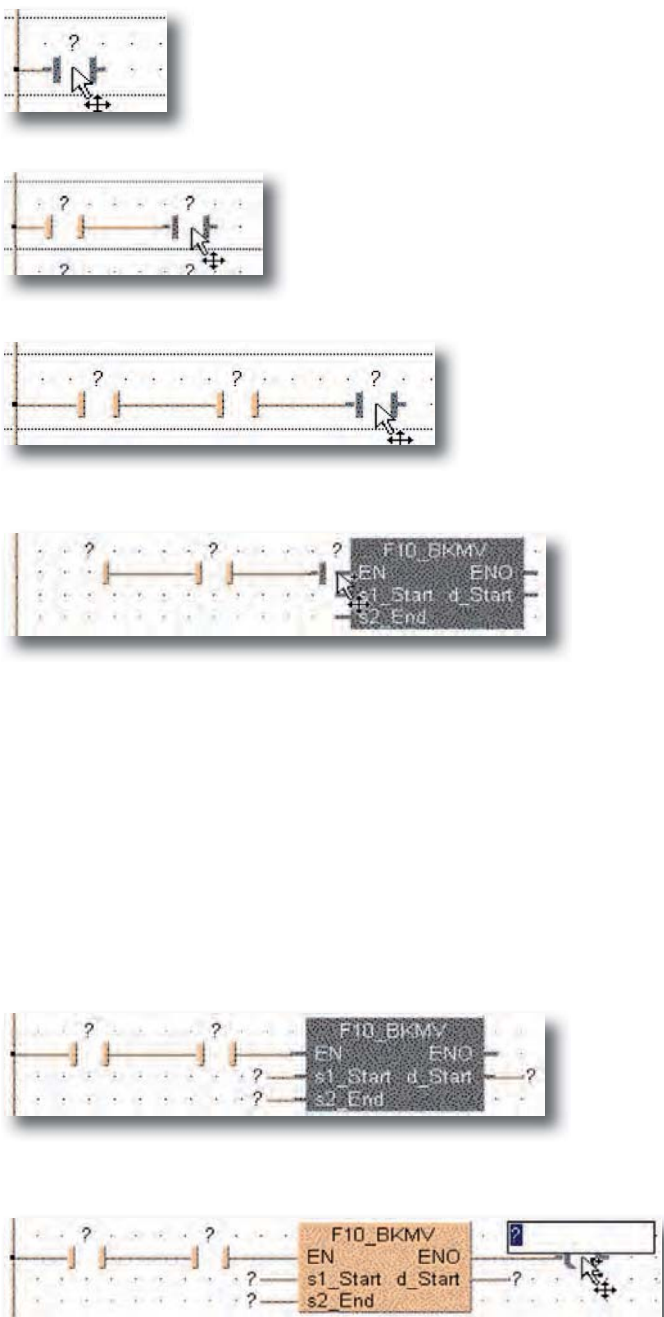
Keyboard-control mode

With the improved keyboard-control possibilities and a variety of additional shortcuts, users enjoy increased flexibility in all situations. They can mix working with the keyboard or the mouse at any time without needing to enter and exit a special keyboard-control mode.

For editors like Ladder Diagram (LD) and Function Block Diagram (FBD), the implementation of intelligent shortcuts and intelligent lines (auto-connect) accelerates programming, which is especially appealing for experienced FPWIN GR programmers.

Using the sophisticated shortcuts, the keyboard can carry out the following functions: all general mouse actions, menu selection, toolbar selection, navigation, inserting elements with auto-connect, drawing lines, moving/copying/modifying elements.

Programming example



With these features, our graphical user interface combines the flexibility of freely configurable editors with the easy keyboard-controlled input of FPWIN GR.

Years of experience ensure competence and innovation

We are certified according to ISO 9001, which dictates our processes for all phases of development, from architecture, requirements definition, specifications, design, implementation, testing and maintenance. As a leading member of PLCopen, an organization which is continually working to improve IEC 61131-3, it goes without saying that our programming system is fully compliant with this standard.



FREE DEMONSTRATION DISC

Just send us an e-mail for a free demo: info.peweu@eu.panasonic.com

Product	Order number
Control FPWIN Pro 6 full version (supports all FP-series PLCs)	FPWINPRO6-FULL
Control FPWIN Pro 6 small version (supports FP-e, FP0, FP0R, FPΣ (Sigma), FP-X)	FPWINPRO6-SMALL
Control FPWIN Pro 6 version-up full (upgrades the full version from Ver. 3 or higher to Ver. 6)	FPWINPROF6-UPGRADE
Control FPWIN Pro 6 version-up small (upgrades the small version from Ver. 3 or higher to Ver. 6)	FPWINPROS6-UPGRADE

User libraries	Order number
PTC library (process and temperature control), incl. English and German help	NCLPTCLIBDM
Modbus library for FPΣ-SDU, FP2/FP2SH, incl. English, German and Italian help	NCL-MODBUS-LIBD
Modem communication library for dial-up and leased-line communication (analog, GSM), incl. German help	MODEM3-LIB
GSM/SMS library for communication via SMS, incl. English and German help	NCLCCMSLIB
GPRS library for GPRS communication, incl. English and German help	TB-GPRS
3964R library for 3964R/RK512 procedure, incl. English and German help	TB-3964R
Sun position library (free of charge)	NCL-SUN-LIB
Look for more ready-made libraries under www.panasonic-electric-works.com .	

Panasonic Electric Works

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