

Panasonic

ideas for life

FPWIN PRO

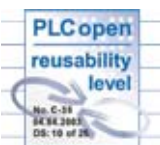
*PLC Programming Software:
One tool for all applications*



FPWIN Pro is the universal programming software for all Panasonic PLCs

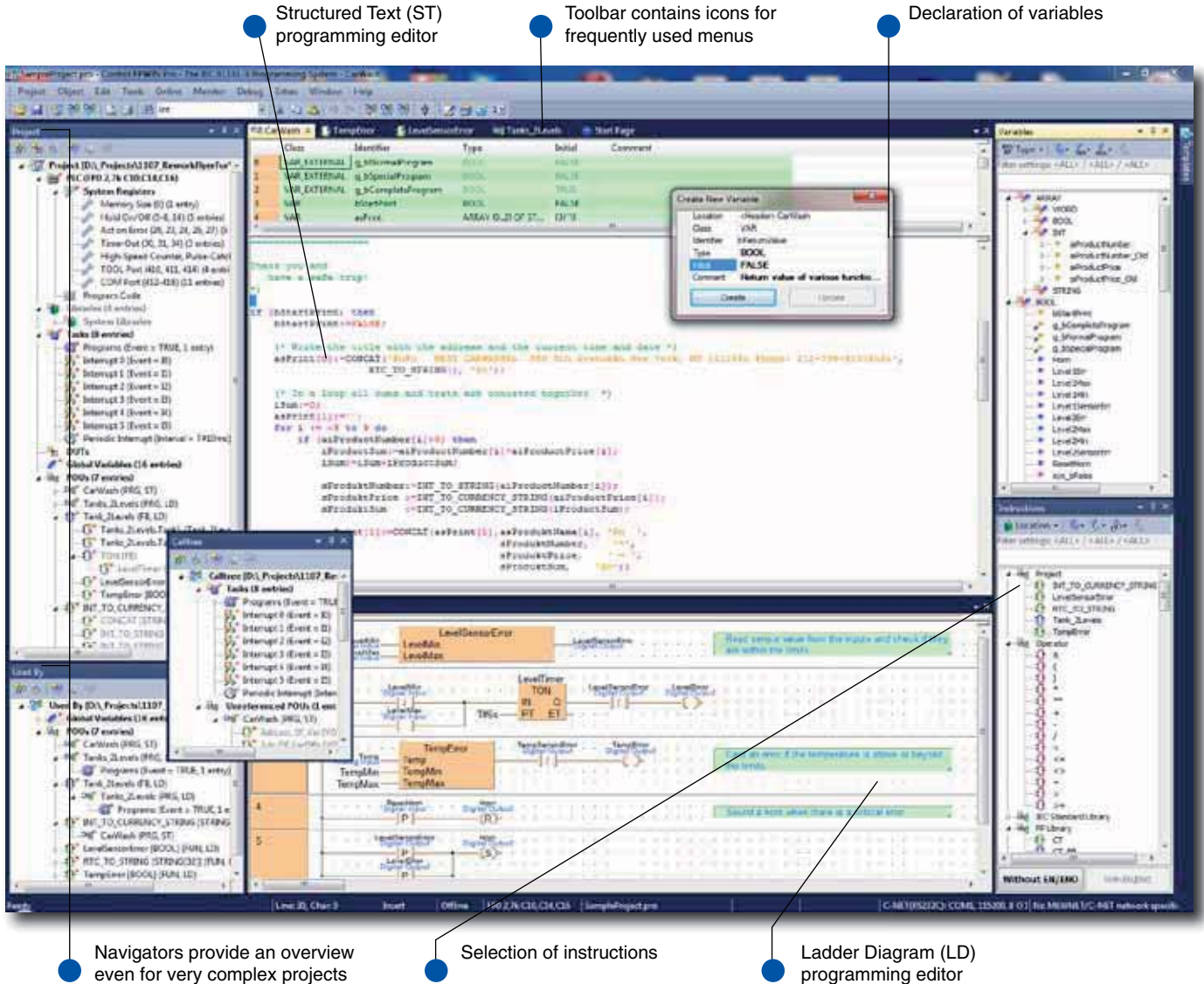
This new version is a result of experience gained over many years. We were one of the first PLC manufacturers to offer an IEC 61131-3 programming software, and we are a leading member of the international organisation PLCopen.

The world's first software with the Reusability Level ST Certificate



FPWIN Pro – the IEC 61131-3 programming system

FPWIN Pro is the Panasonic programming software developed according to the international standard IEC 61131-3 (for Windows® 2000/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.



Structured Text (ST) programming editor

Toolbar contains icons for frequently used menus

Declaration of variables

Navigators provide an overview even for very complex projects

Selection of instructions

Ladder Diagram (LD) programming editor

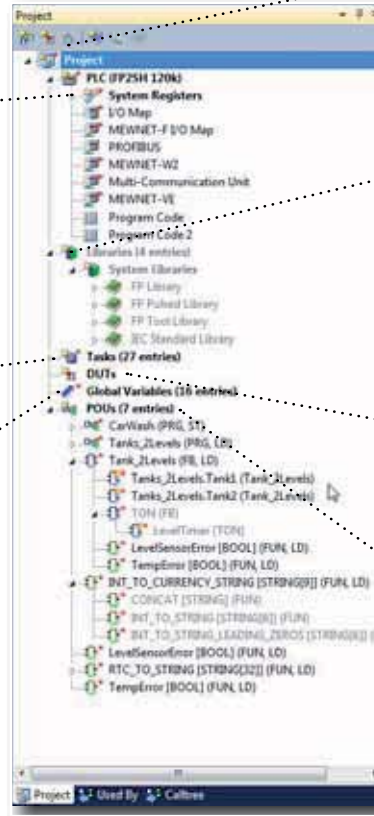
FPWIN Pro Highlights

- 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 printed 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

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 FPWIN Pro Navigator



• **Toolbar for main functions**

• **Libraries:**
Existing functions or function blocks can be stored in, linked and reused 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.

• **System registers:**
PLC hardware configuration can be adapted to the current project via the system registers.
Examples:
- Change available timer/counter
- Change number of hold and nonhold internal relays
- COM port settings

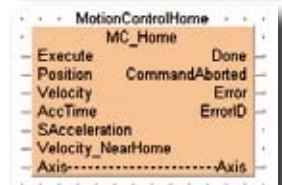
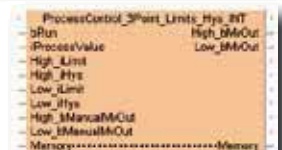
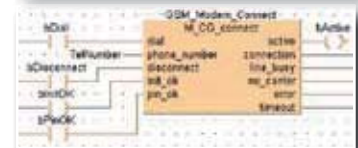
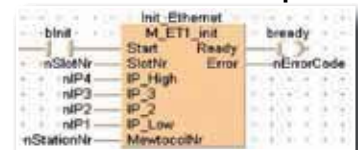
• **Taskpool:**
Program tasks and interrupt tasks can be enabled in the taskpool.

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

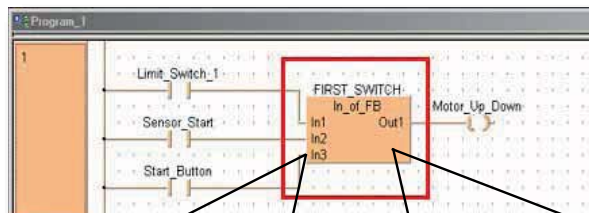
Reuse of functions and function blocks saves programming and debugging time.

In FPWIN Pro, Panasonic offers a unique concept for using function blocks and functions from libraries. 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 FB content

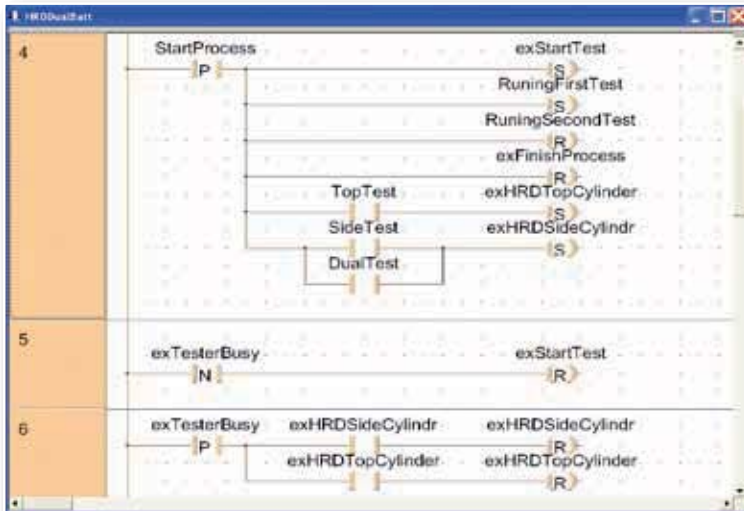
Class	Identifier	Type	Initial	Comment
VAR_INPUT	In1	BOOL	FALSE	
VAR_INPUT	In2	BOOL	FALSE	
VAR_OUTPUT	Out1	BOOL	FALSE	



FPWIN Pro – the IEC 61131-3 programming system

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.

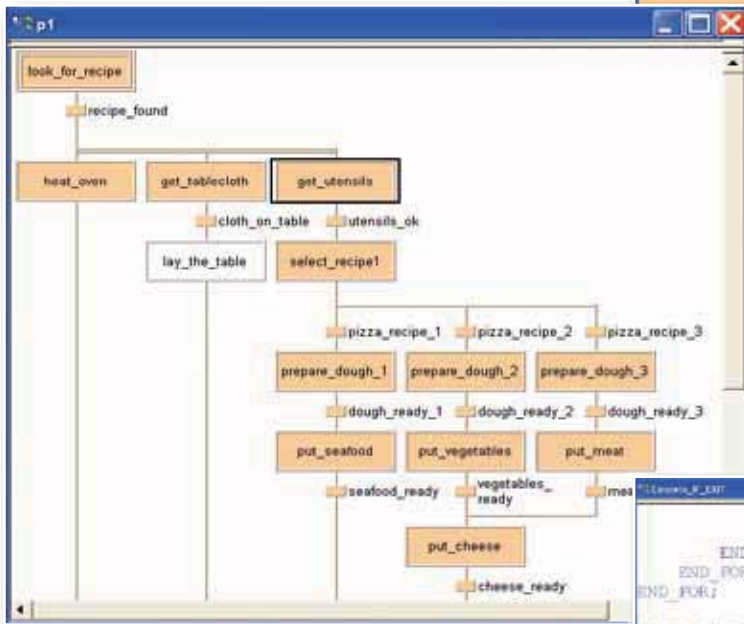
Ladder Diagram (LD)



Instruction List (IL)

```
LD      16#1B
ST      TempBuf[1]
LD      TRUE
F144_TRNS TempBuf[0],1
LD      WaitESC
ST      TimVar
JMP
-----
LD      16#2B2B
ST      TempBuf[1]
ST      TempBuf[2]
LD      TRUE
F144_TRNS TempBuf[0],3
LD      WaitCMD
ST      TimVar
JMP
-----
LD      TRUE
F95_ASC  'ATH &FEO', TempBuf[1]
LD      16#0D
ST      TempBuf[5]
LD      TRUE
F144_TRNS TempBuf[0],9
```

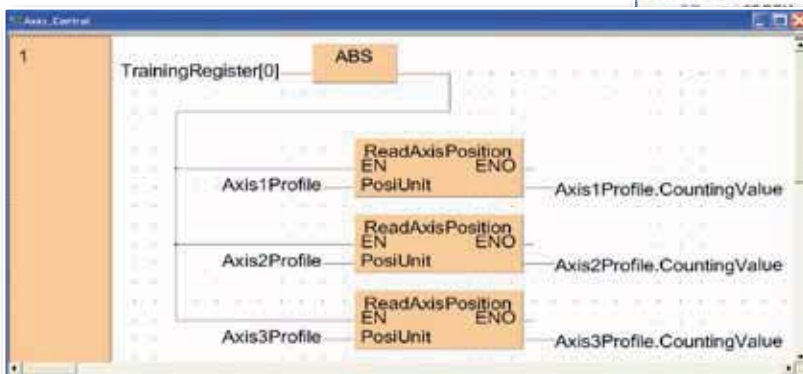
Sequential Function Chart (SFC)



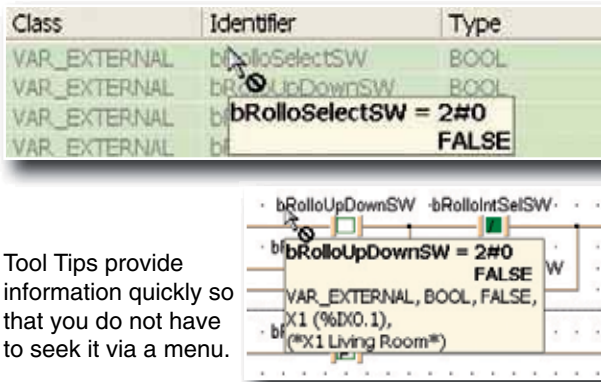
Structured Text (ST)

```
END_IF;
END_FOR;
END_IF;
END_FOR;
END_FOR;
(* CalculateCokeOrderOfFish *)
bFound:=FALSE;
FOR Color := 0 TO 119 DO
  color:=1-a(WHITE,Color) THEN
  FOR i:= 0 TO 119 DO
    BRITISH,Nation]=a(RED,Color] AND
    NORWEGIAN,Nation]=0 AND
    NORWEGIAN,Nation]=a(BLUE,Color]+1 OR
    BLUE,Color]=a(NORWEGIAN,Nation)+1;
  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)

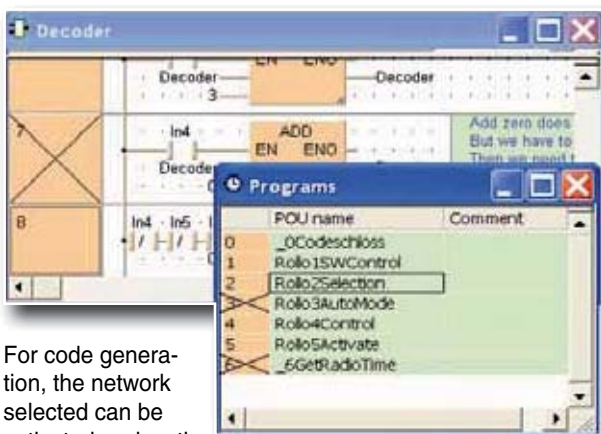


Useful tool tips



Tool Tips provide information quickly so that you do not have to seek it via a menu.

Deactivate / activate networks and program tasks



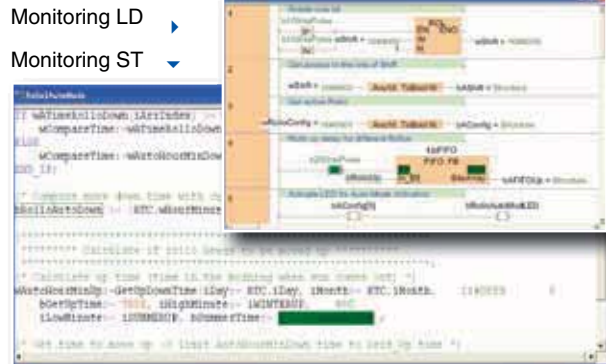
For code generation, the network selected can be activated or deactivated. The network's status is indicated in the network information area or network list by an „x“ (crossed out).

Easy configuration dialogs



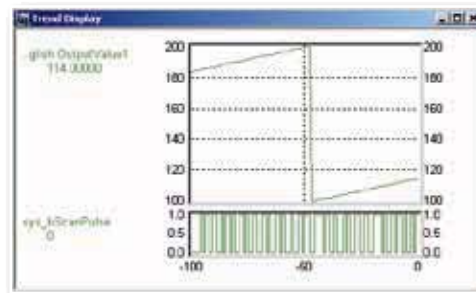
FPWIN Pro offers easy-to-use dialogs for easy configuration of the PLC, e.g. the screen display of the FP-e. You can check the result of the configuration directly with the display in the dialog.

Monitoring functions



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.

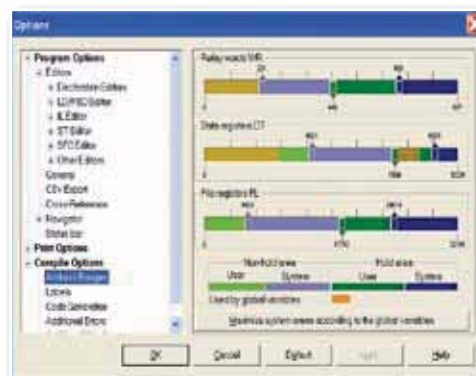
Monitoring Trends and Sampling Traces



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 FPWIN Pro memory areas by simply adjusting the sliders.

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. STRINGS for all PLCs
- Useful syntax coloring and color settings

Enhanced Multilanguage Support

Because FPWIN Pro version 6 is programmed with Unicode (UTF-16), 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		

* En cas d'erreur
* S'il n'y a pas d'erreur

* 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.

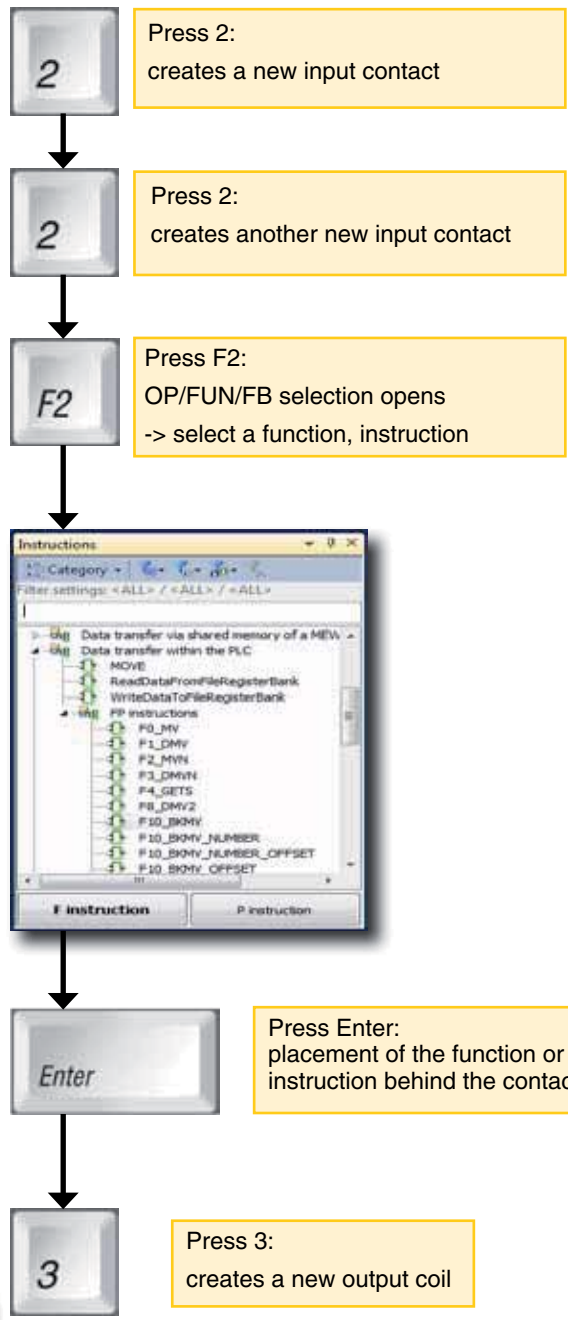
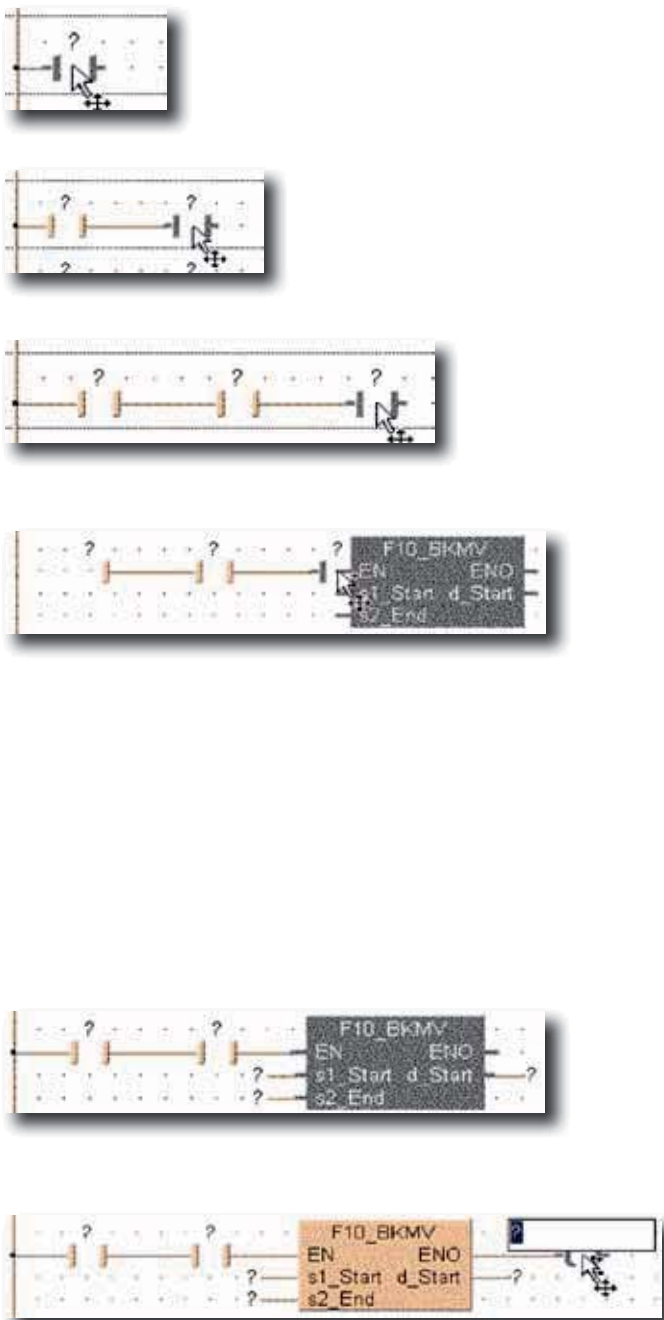
Keyboard-Control Mode

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.

Especially 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, selecting/inserting elements with auto-connect, drawing lines, moving/copying/modifying elements.

Programming example



With these features our graphical editor combine the flexibility of freely confirmable editors with the easy keyboard controlled input of rectangle-oriented editors.

Years of experience ensure competence and innovation

Our highly talented software development team keep our PLC software ahead of the competition. Whilst other companies may trumpet their compliance with ISO 9001, we use it as the standard in all phases of development, from architecture, requirements definition, specifications, design, implementation, testing and maintenance.



FREE DEMONSTRATION DISC

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

Ready-made Libraries	Order number:
Ethernet Library	NCL-ET1-LIB
Process and Temperature Control Library	NCL-PTC-LIB
Inverter Serial Communication Library	NCL-ISC-LIB
GSM Communication Library	NCL-CG-LIB
Modem Communication Library	NCL-CMEU-LIB
Motion Control Library	NCL-MC-LIB
Modbus Library, master and slave functionality	NCL-MODBUS-LIB
Control configurator MS open version	NCL-CCMS-LIB
Sun Position Library	NCL-SUN-LIB

Many other ready-made libraries including Master/Slave of Profibus/DeviceNet/CANopen function blocks can be downloaded from <http://www.panasonic-electric-works.com> (download area)

Panasonic Electric Works

Please contact our Global Sales Companies in:

Europe		
▶ Headquarters	Panasonic Electric Works Europe AG	Rudolf-Diesel-Ring 2, 83607 Holzkirchen, Tel. +49 (0) 8024 648-0, Fax +49 (0) 8024 648-111, www.panasonic-electric-works.com
▶ Austria	Panasonic Electric Works Austria GmbH	Josef Madersperger Str. 2, 2362 Biedermannsdorf, Tel. +43 (0) 2236-26846, Fax +43 (0) 2236-46133 www.panasonic-electric-works.at
	PEW Electronic Materials Europe GmbH	Ennschafenstraße 30, 4470 Enns, Tel. +43 (0) 7223 883, Fax +43 (0) 7223 88333, www.panasonic-electronic-materials.com
▶ Benelux	Panasonic Electric Works Sales Western Europe B.V.	De Rijn 4, (Postbus 211), 5684 PJ Best, (5680 AE Best), Netherlands, Tel. +31 (0) 499 372727, Fax +31 (0) 499 372185, www.panasonic-electric-works.nl
▶ Czech Republic	Panasonic Electric Works Czech s.r.o.	Sales Office Brno, Administrative centre PLATINIUM, Veverí 111, 616 00 Brno, Tel. (+420-) 374 799 990, Fax (+420-) 374 799 999, www.panasonic-electric-works.cz
▶ France	Panasonic Electric Works Sales Western Europe B.V.	Succursale française, 10, rue des petits ruisseaux, 91370 Verrières Le Buisson, Tél. +33 (0) 1 6013 5757, Fax +33 (0) 1 6013 5758, www.panasonic-electric-works.fr
▶ Germany	Panasonic Electric Works Europe AG	Rudolf-Diesel-Ring 2, 83607 Holzkirchen, Tel. +49 (0) 8024 648-0, Fax +49 (0) 8024 648-111, www.panasonic-electric-works.de
▶ Hungary	Panasonic Electric Works Europe AG	Magyarországi Közvetlen Kereskedelmi Képviselet, 1117 Budapest, Neumann János u. 1., Tel. +36 1 999 89 26 www.panasonic-electric-works.hu
▶ Ireland	Panasonic Electric Works UK Ltd.	Irish Branch Office, Dublin, Tel. +353 (0) 14600969, Fax +353 (0) 14601131, www.panasonic-electric-works.co.uk
▶ Italy	Panasonic Electric Works Italia srl	Via del Commercio 3-5 (Z.I. Ferlina), 37012 Bussolengo (VR), Tel. +39 (0) 456752711, Fax +39 (0) 456700444, www.panasonic-electric-works.it
▶ Nordic Countries	Panasonic Electric Works Nordic AB	Knarrarnäsgatan 15, 164 40 Kista, Sweden, Tel. +46 859476680, Fax +46 859476690, www.panasonic-electric-works.se
▶ Poland	Panasonic Electric Works Polska sp. z o.o	Jungmansgatan 12, 21119 Malmö, Tel. +46 40 697 7000, Fax +46 40 697 7099, www.panasonic-fire-security.com
▶ Portugal	Panasonic Electric Works España S.A.	ul. Wotoska 9A, 02-583 Warszawa, Tel. +48 (0) 22 338-11-33, Fax +48 (0) 22 338-12-00, www.panasonic-electric-works.pl
▶ Spain	Panasonic Electric Works España S.A.	Portuguese Branch Office, Avda Adelino Amaro da Costa 728 R/C J, 2750-277 Cascais, Tel. +351 214812520, Fax +351 214812529
▶ Switzerland	Panasonic Electric Works Schweiz AG	Barajas Park, San Severo 20, 28042 Madrid, Tel. +34 913293875, Fax +34 913292976, www.panasonic-electric-works.es
▶ United Kingdom	Panasonic Electric Works UK Ltd.	Grundstrasse 8, 6343 Rotkreuz, Tel. +41 (0) 41 7997050, Fax +41 (0) 41 7997055, www.panasonic-electric-works.ch
		Sunrise Parkway, Linford Wood, Milton Keynes, MK14 6 LF, Tel. +44 (0) 1908 231555, Fax +44 (0) 1908 231599, www.panasonic-electric-works.co.uk
North & South America		
▶ USA	PEW Corporation of America	629 Central Avenue, New Providence, N.J. 07974, Tel. 1-908-464-3550, Fax 1-908-464-8513, www.pewa.panasonic.com
Asia Pacific/China/Japan		
▶ China	Panasonic Electric Works (China) Co., Ltd.	Level 2, Tower W3, The Towers Oriental Plaza, No. 2, East Chang An Ave., Dong Cheng District, Beijing 100738, Tel. (010) 5925-5988, Fax (010) 5925-5973
▶ Hong Kong	Panasonic Electric Works (Hong Kong) Co., Ltd.	RM1205-9, 12/F, Tower 2, The Gateway, 25 Canton Road, Tsimshatsui, Kowloon, Hong Kong, Tel. (0852) 2956-3118, Fax (0852) 2956-0398
▶ Japan	Panasonic Electric Works Co., Ltd.	1048 Kadoma, Kadoma-shi, Osaka 571-8686, Japan, Tel. (06) 6908-1050, Fax (06) 6908-5781, http://panasonic-electric-works.net
▶ Singapore	Panasonic Electric Works Asia Pacific Pte. Ltd.	101 Thomson Road, #25-03/05, United Square, Singapore 307591, Tel. (06255) 5473, Fax (06253) 5689

Panasonic®