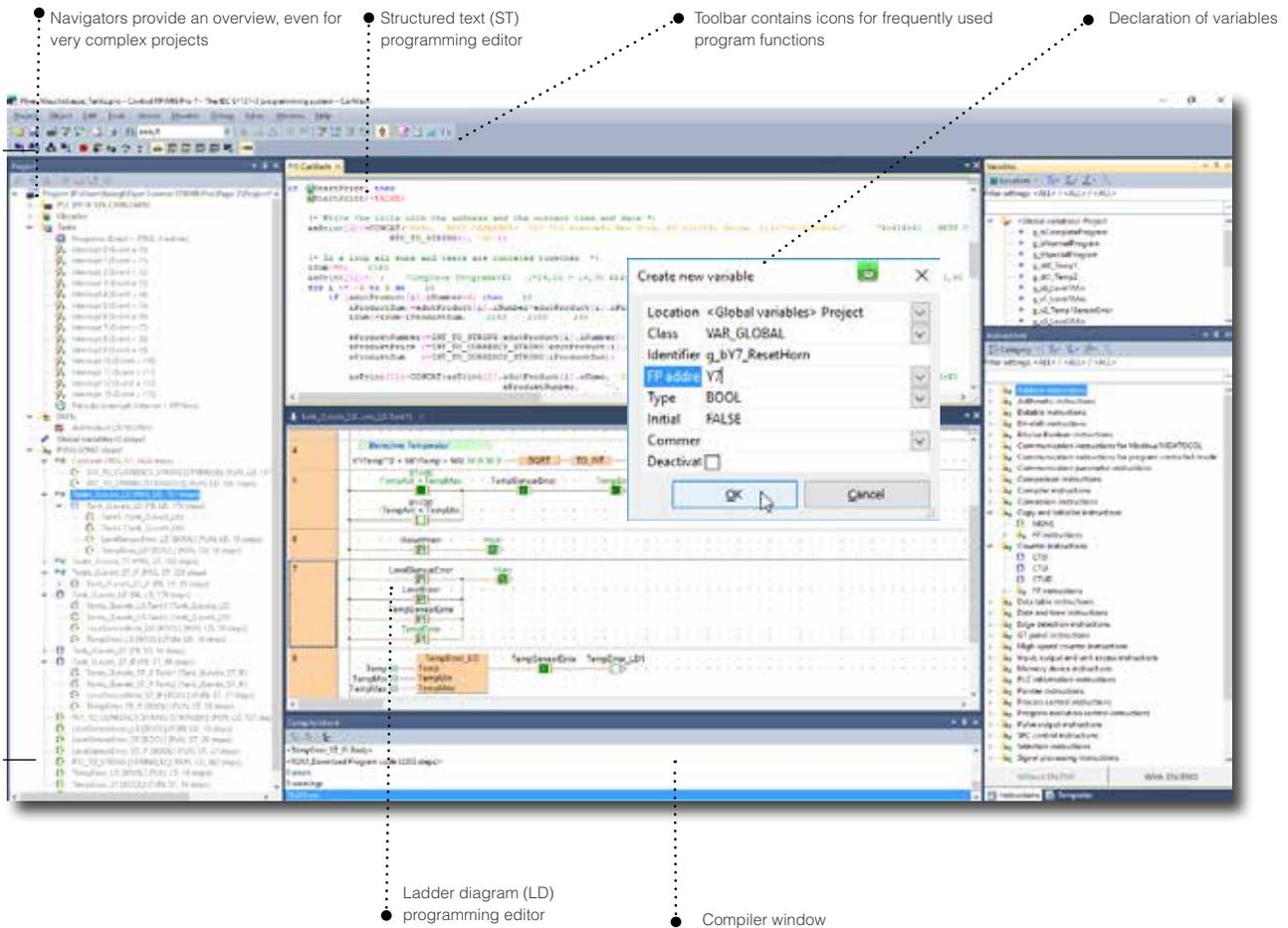# Panasonic

Control FPWIN Pro

PLC PROGRAMMING SOFTWARE

One tool for all programmable controllers from Panasonic

Control FPWIN Pro is the Panasonic programming software developed according to the international standard IEC 61131-3 and aimed at achieving compatibility and reusability. Control FPWIN Pro allows the migration of time-tested programs and software solutions so that programmers can switch for example to the new FP7 series and still use all their knowledge and know-how.

Navigators provide an overview, even for very complex projects

Structured text (ST) programming editor

Toolbar contains icons for frequently used program functions

Declaration of variables

Ladder diagram (LD) programming editor

Compiler window

Low engineering cost and short time to market

› Reuse of time-tested software parts and programming units
› Universal software for scalable and long-term available hardware platforms
› Simple licensing

Simple to learn – gets you there faster – little maintenance necessary

› Intuitive user interface thanks to clear navigator structure and simple project management
› 5 different programming languages, user interface in 8 languages
› Multi-language Unicode support
› Comprehensive remote diagnosis, programming, maintenance and control via Ethernet, USB, RS232C interface, or modem

The navigator

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.

Toolbar for main functions.

System registers●

PLC hardware configuration can be adapted to the current project via the system registers. Examples:

> Change available number of timers/ counters
> Change number of hold and non-hold internal flags
> COM port settings

Libraries:

For storing, linking, and reusing functions and function blocks in the project

Task pool:

Program tasks and interrupt tasks can be enabled in the task pool.

DUT (Data Unit Type):

DUTs can be defined by the programmer for recipes, positioning application tables, etc.

Program Organization Units (POUs): Programs, functions and function blocks are organized in POUs.

Global variables:

Assignment and definition of global variables for the entire project.

Higher efficiency thanks to reuse of functions and function blocks

Reusing functions and function blocks saves programming and debugging time. We offer ready-made libraries for all PLCs including online help and programming examples for standard routines and special applications.

Examples of function blocks:

Function block programming

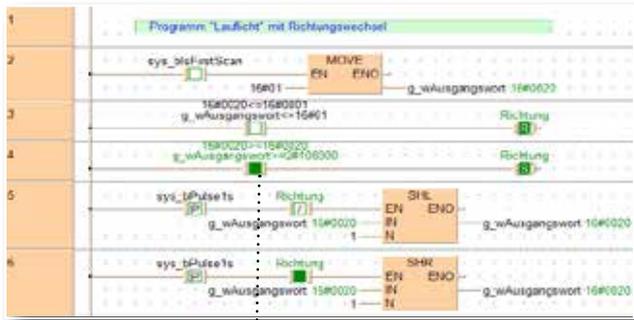1. Define inputs and outputs

2. Program inside of function block

Free download of comprehensive and powerful libraries

Over the years, Panasonic has developed a large collection of function blocks and libraries in a worldwide cooperation. The continually expanded collection is available to customers for free. Some examples from our library portfolio:

> Motion control libraries for different servo drives
> Communication libraries for multiple data transfer protocols
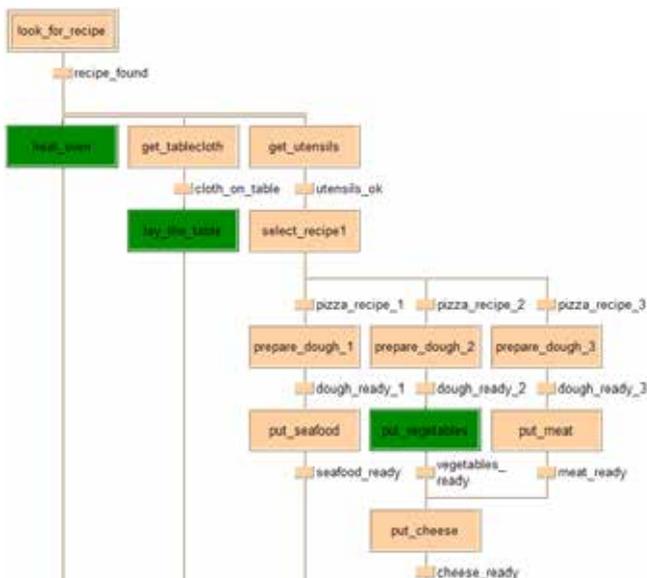> Libraries for configuring masters and slaves for many fieldbus systems

Please visit our download center on our website www.panasonic-electric-works.com. There you can find an overview over all available libraries.

Ladder diagram (LD)

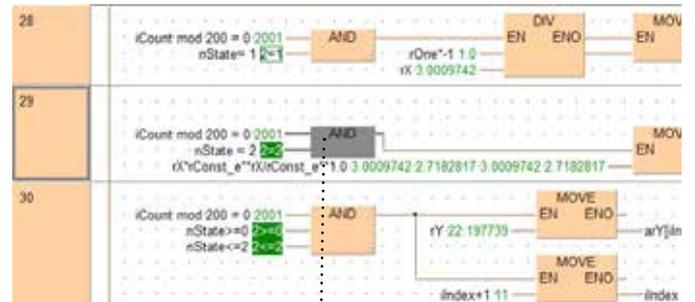Contact with comparison expression

Structured text (ST)

Sequential function chart (SFC)

Function block diagram (FBD)

Mathematical expression at the input

Comprehensive help system

A flexible choice of editors (instruction list IL, function block diagram FBD, ladder diagram LD, sequential function chart SFC, structured text ST) 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.
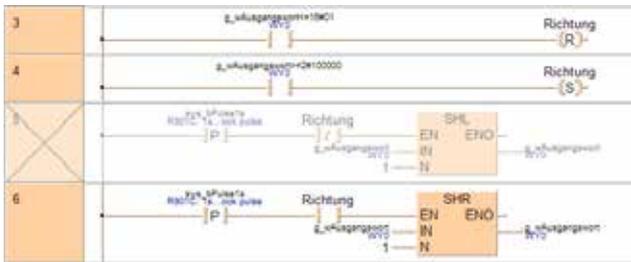

Useful tool tips

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

Deactivate / activate networks, variables, and program tasks

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

Deactivated networks are crossed out in the network information area or network list.

It is also possible to activate or deactivate complete parts of the program or individual variables.

Data monitor

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.

FPTimeChart

Powerful compiler options
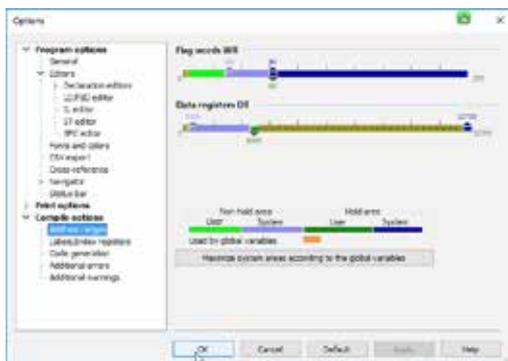
You can specify the memory areas by simply adjusting the sliders.

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

Multi-language Unicode support

Because Control FPWIN Pro supports Unicode, comments, names of variables, functions, function blocks, and programs can be entered in any language. Umlauts and special characters containing accents or other diacritical marks are displayed correctly. No need to change any settings in Windows. Just use your normal keyboard.

Conditional compilation

With conditional compilation, users can define conditions when to execute preprocessing instructions or translate certain parts of the program. This is the purpose of the preprocessing instruction #if, which works like the if statements in C.

The #if instruction is particularly helpful during debugging as it allows the user to exclude whole parts of the program from the compilation.

Thanks to the conditional compilation it is possible to create programs with the new features in Control FPWIN Pro 7 that are still compatible with older PLC versions that do not support the new features.

Some of the typical usages of conditional compilation are:

› outputting a compiler error for certain PLC types
› code generation that depends on the existence of a system variable
› code generation if a system instruction is supported, which depends on the activation of a certain pulse output channel

Programming example: outputting a compiler error for certain PLC types

```
(* Check the current plc type and output a compiler error *)
#if ((SYS_CURRENT_PLC AND (SYS_FP2 OR SYS_FP2SH))<>0) #then
    OutputCompilerError('Wrong PLC type FP2, FP2SH');
#end_if;
```

Software support

As expected, the latest version of the software includes even more command to help you efficiently program your PLC.

Among the innovations contained in the new version are many features that have been implemented for the FP7:

› Clock/calendar function can now be configured in the software
› Full support of IEC standard with POUs, data types, and instructions, etc.
› New family of overloaded and type-safe instructions usable for 32-bit type PLCs (FP7) and 16-bit type PLCs
› SD card instructions

Additional instructions for simplifying work with analog values, e.g.:

› Scaling
› Averaging
› Assigning addresses for expansion units

› Arrays of data unit types
› Activation and deactivation of variables
› Expressions usable as inputs
› Conditional compilation
› Contacts with comparison expressions

Together with the FP7, the new functions have simplified data handling even more. Data can be transmitted via Ethernet communication or stored on SD cards. Special logging and trace instructions help with data and process monitoring.
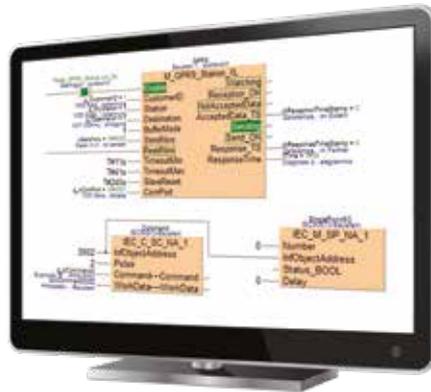
Years of experience ensure competence and innovation

For us, consistent quality management for all phases of development from design to implementation, and maintenance has the highest priority. This is why our processes are certified according to ISO 90001. It goes without saying that our programming system is fully compliant with the IEC 61131-3 standard.

Control FPWIN Pro 7, a structured, easy-to-use software with a simple software licensing system.

› FP OPC Server
  The standard interface for data exchange between the PLCs of the FP series
› FP Data Analyzer
  The software for reading and displaying PLC data
› PCWAY
  Microsoft Excel add-in for data monitoring, logging and visualization
› Control FP Connect
  The ActiveX control for integrating Panasonic PLCs into applications
› Control Configurator MS
  Software tool for quick setup of GSM alarm message systems
› FP Web Designer
  Editor for creating websites and for visualizing process data collected by FP Web-Server
› FPGT Loader
  The software for easy upload of complete programs to touch panels or FP series PLCs

Product	Order number
Control FPWIN Pro programming software, version 7, version for all FP series PLCs	FPWINPRO7S
Control FPWIN Pro upgrade to version 7	FPWINPRO7S-UPGRADE

Programmers benefit from an extensive set of function blocks and user libraries, which have been developed on a worldwide level over many years and which can be downloaded for free.

Visit us on www.panasonic-electric-works.com.
Here, you find our comprehensive user libraries and a free demo version of Control FPWIN Pro 7 (10,000 steps).

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