Win-GRAF

Make Your Application Intelligent

Win-GRAF is a powerful SoftLogic development software and PLC-like SoftLogic package that supports IEC 61131-3 Standard Open PLC Languages running on Windows 7 and Windows 8. The Win-GRAF Runtime application can run on any ICP DAS PAC (Programmable Automation Controller) that supports the Win-GRAF, such as the WinPAC series WP-5238-CE7, WP-8xx8, WP-8xx8-CE7 and WP-9xx8-CE7, or the touch panel ViewPAC series VP-x2x8-CE7, or the advanced CPU XPAC series XP-8x38-CE6. Using the Win-GRAF software with ICP DAS Win-GRAF PACs, the control/ monitor systems can easily implement industrial level of data acquisition and logic control in various industry fields.
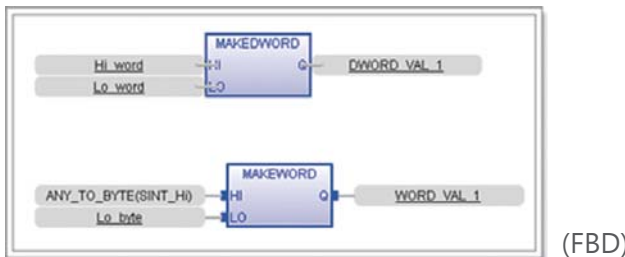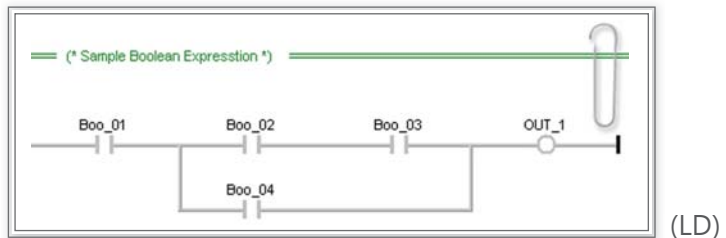
■ Applications:

- Data Acquisition System
- Factory Automation
- Building Automation
- Remote I/O system
- Wireless Monitor/Control System
- Motion Control System and so on

■ Win-GRAF Workbench Features

■ Support IEC 61131-3 Standard Open PLC Languages

1. Ladder Diagram (LD)
2. Function Block Diagram (FBD)
3. Sequential Function Chart (SFC)
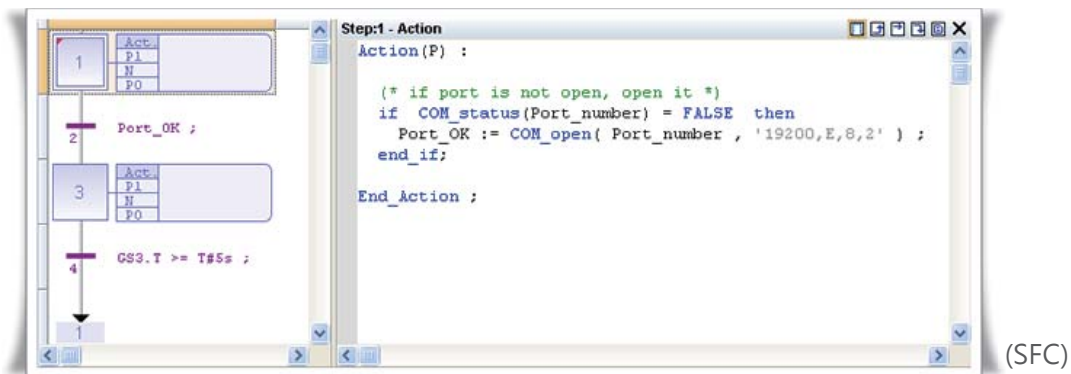4. Structured Text (ST)
5. Instruction List (IL)

(LD)

(FBD)

(ST)

(SFC)

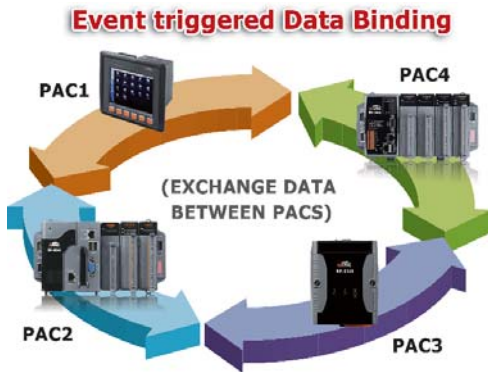## ■ Event Triggered Data Binding

A max. of 32 PACs can be used for data binding.

■ Recipe

Apply multi-recipes pre-defined in PC/Win-GRAF to PAC.
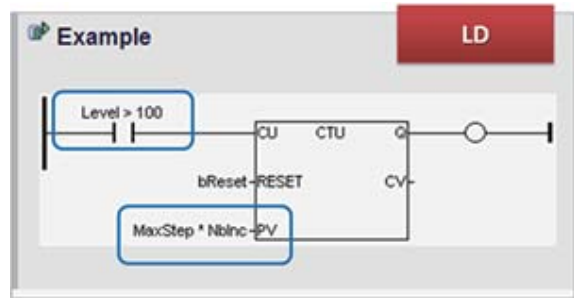
■ Spy List

Show several selected variables in one Spy List window.

■ Upload Source Code from the PAC to the PC

The user can set the password for the Win-GRAF project and download it with source code to the PAC. Then, you can upload it anytime if the project file on the PC is damaged.

■ Using ST Syntax in the FBD or LD Program
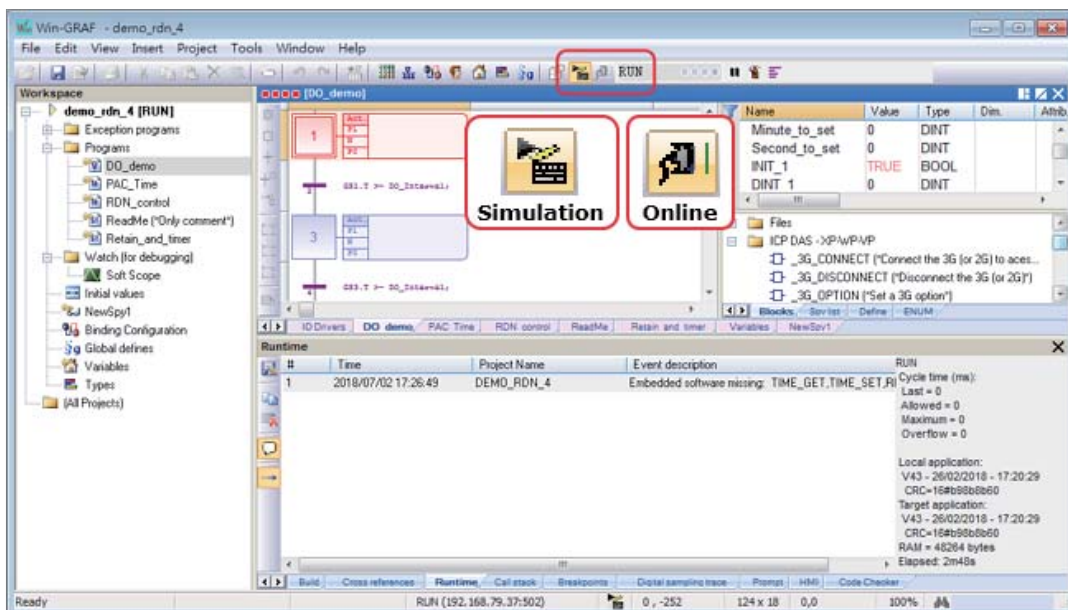

■ The "On Line Change" Function

Replace the current running project to a new modified one without stopping the project.

■ Offline Simulation or Online Debugging/Control/Monitoring on the PC

(sidebar) Win-GRAF SoftLogic Development Software
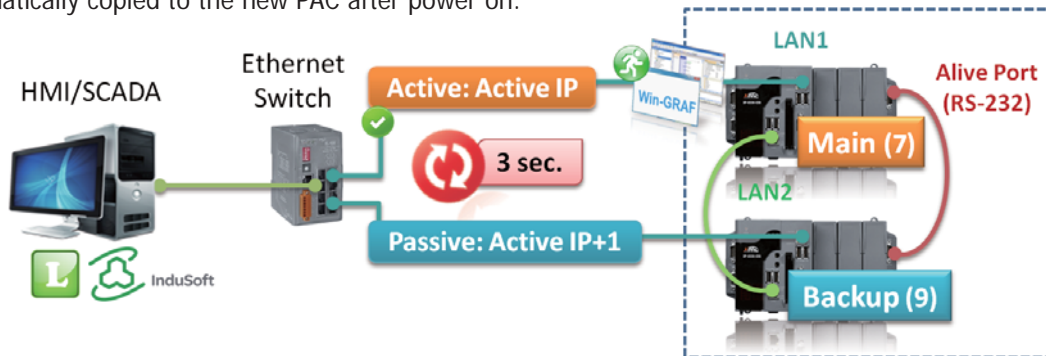
Win-GRAF PAC Features

Support eLogger HMI

- eLogger is a free charge and an easy-to-use HMI software platform developed by ICP DAS. It can be used to design the Local HMI and the Web Server HMI for remotely controlling the PAC through a web browser on your PC or cell phone.
- All Win-GRAF PAC support eLogger HMI.

Redundant Solution

- XP-8x38-CE6 support the Win-GRAF redundant system to achieve the more reliable engineering applications.
- When the running PAC crashes, the other PAC will take over after 3 seconds.
- The PAC can be automatically switched to the Active PAC or the Passive PAC. However, SCADA just need to connects to a single Active IP.
- If the PAC is damaged and need to replace a new one, the user simply set the rotary switch on the PAC (one is 7, one is 9), and connect three cables (LAN1, LAN2, and Alive port). The Win-GRAF project will be automatically copied to the new PAC after power on.

Modbus Master Protocol

- Multi-port Modbus RTU, ASCII Master, RS-232/485/422
- Modbus TCP Master (Multiple connections)
- Connect other Modbus PLC, Modbus Master, Modbus I/O and Modbus devices

Modbus Slave Protocol

- Multi-port Modbus RTU Slave, RS-232/485/422
- Modbus TCP Slave (Multiple connections)
- Connect PC/SCADA/HMI

Support DCON I/O

- Support RS-485 Port to connect the ICP DAS I-7000 I/O modules, and I-87K4/5/8/9 Expansion Unit plus I-87xxxW I/O boards, and RU-87P4/8 Expansion Unit plus I-87xxxW I/O boards.

Support a Variety of I/O Modules

- Support I-8xxxW and I-87xxxW I/O boards, such as: DI, DO, AI, AO, Relay, AC-IN, Thermistor, Thermo Couple, RTD, Strain Gauge, Encoder, PWM output, Counter, Frequency, etc.

Support Temperature/Humidity Modules

- DL-100T485 and DL-100TM485.

■ **Support File Access & Data Log**　　　　■ **Schedule-Control**

■ **Support Retain Variables**

- All Win-GRAF PACs support retain variables. Suitable to retain the data changed quickly and frequently.

■ **Protect Application by Own Algorithm**

- Win-GRAF PAC is equipped with a unique 64-bit hardware serial number. It can be used to generate a license key to protect the software against illegal copy.
- Protect the Win-GRAF application by user-defined algorithm. Even others copy the application to the same model PAC, as long as he cannot get the source code, can not run the application correctly.

■ **Support VS 2008 Development**

- The Win-GRAF PACs support to use VS 2008 (VB.net, C#) to develop user own HMI and data management programs, and can exchange variables with the Win-GRAF control programs.

Software	Win-GRAF	C++	VS 2008
Programming	Easy	Hard	Middle hard
SoftLogic	Yes	No	No
Debug	Easy	Hard	Middle hard
Data Management	Win-GRAF integrated with VS 2008 to achieve data management. Powerful, Middle hard	Powerful, Hard	Powerful, Middle hard
Communication	Built-in Modbus TCP, RTU, ASCII, DCON, Data Binding	Hard coding	Hard coding
Program I/O	Easy	Hard	Hard

■ **Ordering Information**

Win-GRAF Development Software		
Win-GRAF Workbench		**Win-GRAF Workbench Software (Large I/O Tags) with one USB Dongle**