



# 泓格科技股份有限公司

## Win-GRAF vs ISaGRAF



*Jul. 03, 2017*



# ISaGRAF



**Application Development Workbench**

**All of Standard IEC61131 Control Languages**

# O.S. Requirement of PC

**Win-GRAF**



**Windows XP/7/8/10  
(32-bit or 64-bit)**



**ISaGRAF**

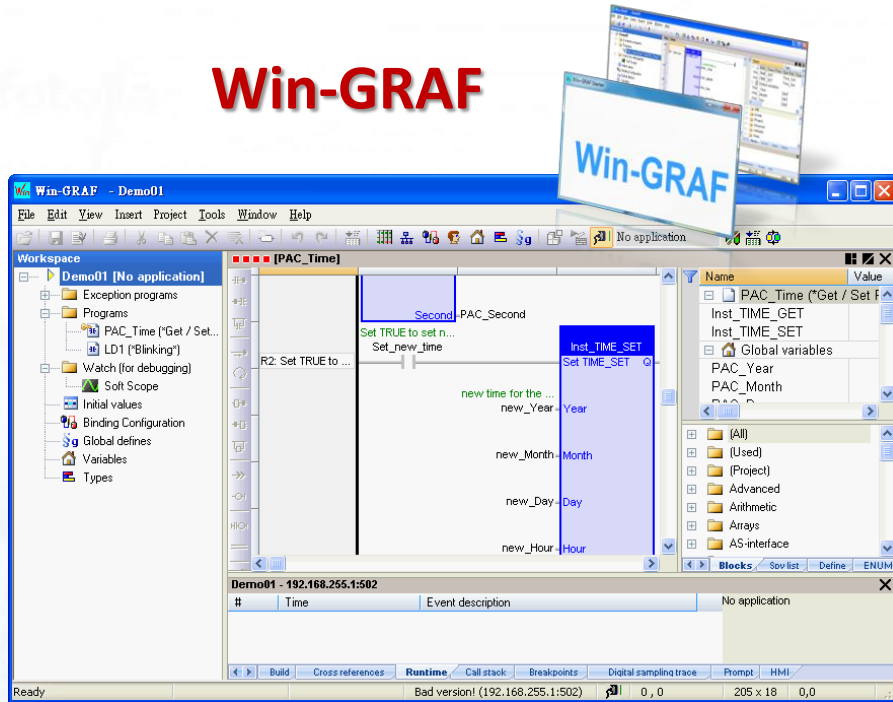


**Windows XP  
(Only 32-bit)**



# Development Software

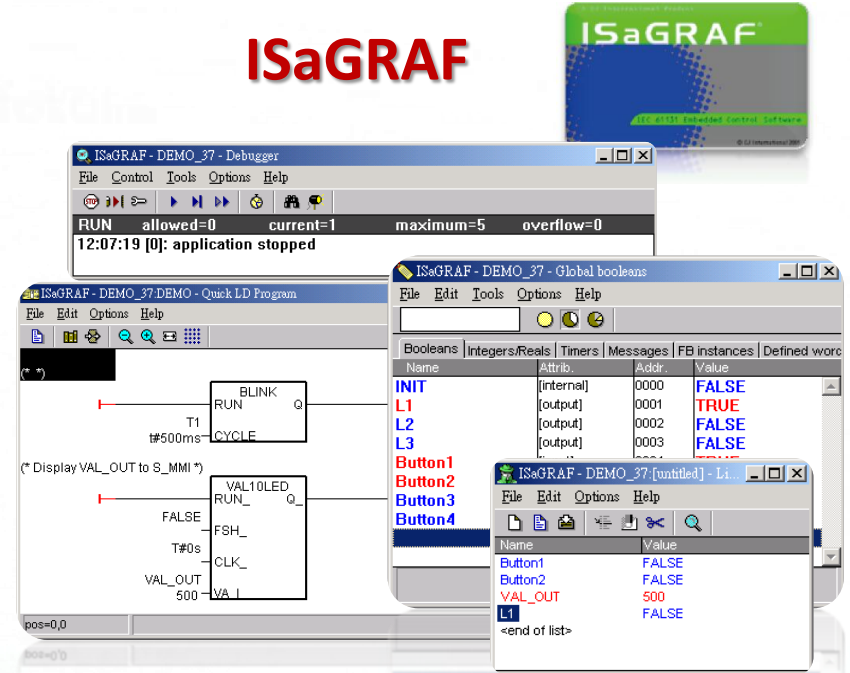
## Win-GRAF



### All-in-one Design Screen

It's much easier and clearer to view, debug and edit.

## ISaGRAF



### Multiple Design Screens

It's not convenient to view the code.



# Compilation

**Win-GRAF**

**ISaGRAF**



(100 programs or more)



Speed



**Fast**

About 1 - 5 minutes

**Slow**

About 15 minutes -  
2 or 3 hours.

# On Line Change



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



Application 1  
(A little modified)

Win-GRAF



ON LINE CHANGE

Application 1  
(Original)

Win-GRAF PAC





# PAC to PAC Data Exchange

## Win-GRAF



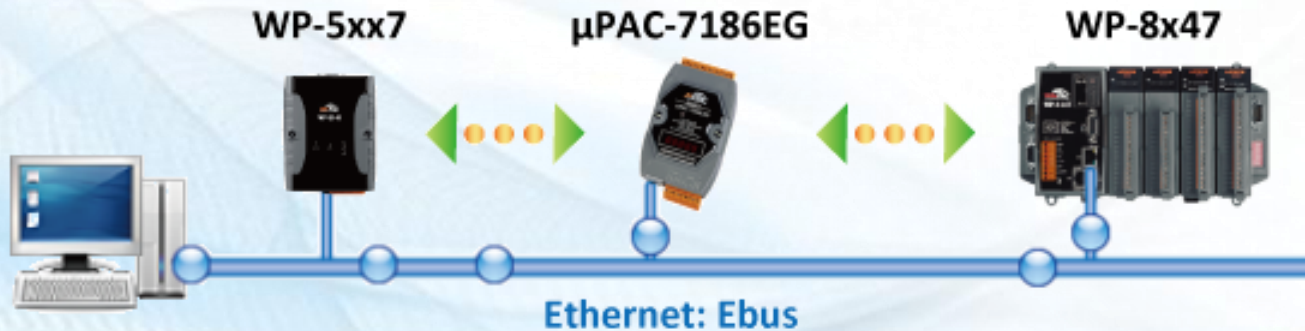
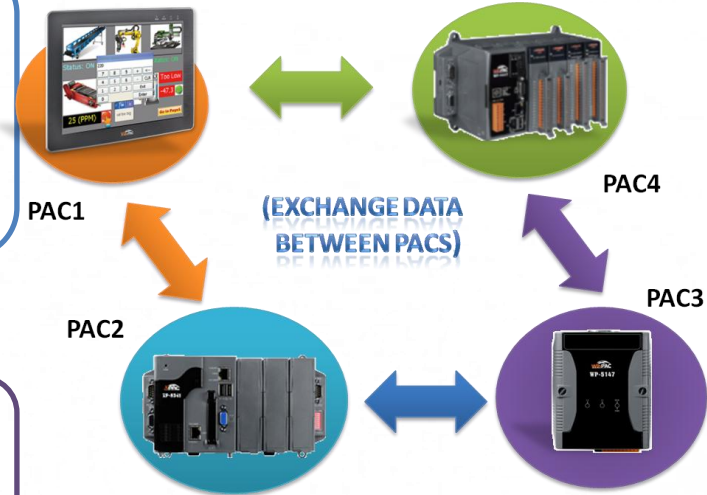
- Using **Data Binding** function, simple to use.
- Using Event-Trigger way (high efficiency).
- Data Exchange: About **8000** variables for a PAC.

## ISaGRAF



- It needs to edit code, not easy to use.
- Using **Ebus** (low efficiency).
- Data Exchange: About **1000** variables for a PAC.

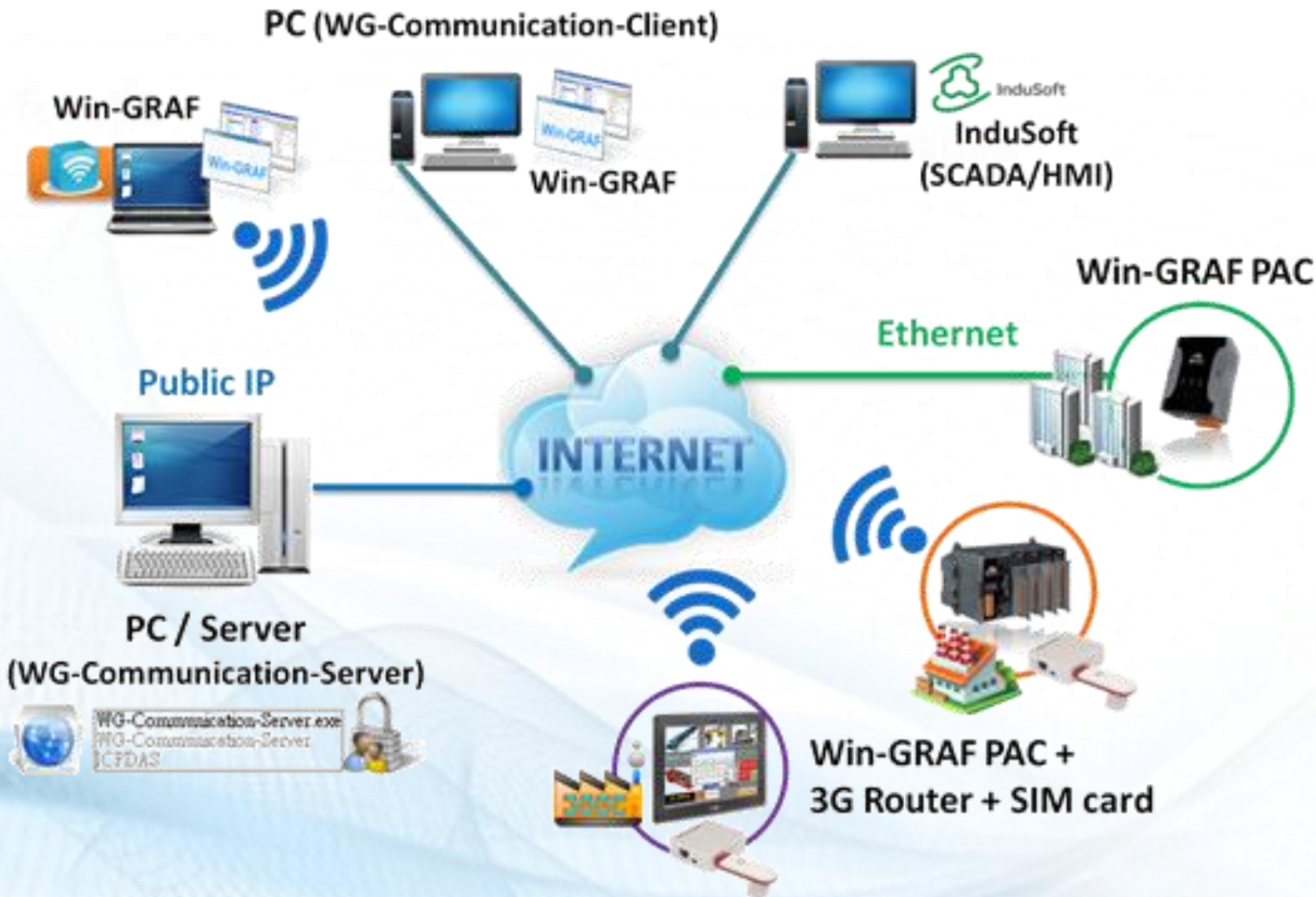
### Event triggered Data Binding







# Intelligent 3G Solution



**Win-GRAF**

Win-GRAF

**ISaGRAF**

ISaGRAF



# Redundant System



## Win-GRAF



- **One** public IP, easy for a SCADA/HMI to connect.
- To synchronize the backup data automatically.
- Plug and Play, easy to replace the PAC if needed.

## ISaGRAF



- **Two** public IPs, the SCADA/HMI needs to know which one is Active PAC.
- It needs to specify the synchronous data in the code.
- It needs install the application before using the serviced/spare PAC.

# Recipe Tables

**Win-GRAF**



**ISaGRAF**



**PC/Win-GRAF**

Name	Value	Name	Type
Water		Water	REAL
Butter		Butter	REAL
Milk		Milk	REAL
Salt		Salt	REAL
Orange_Juice		Orange_Juice	REAL
Apples		Apples	REAL

**WP-8xx8**



**Variables:**

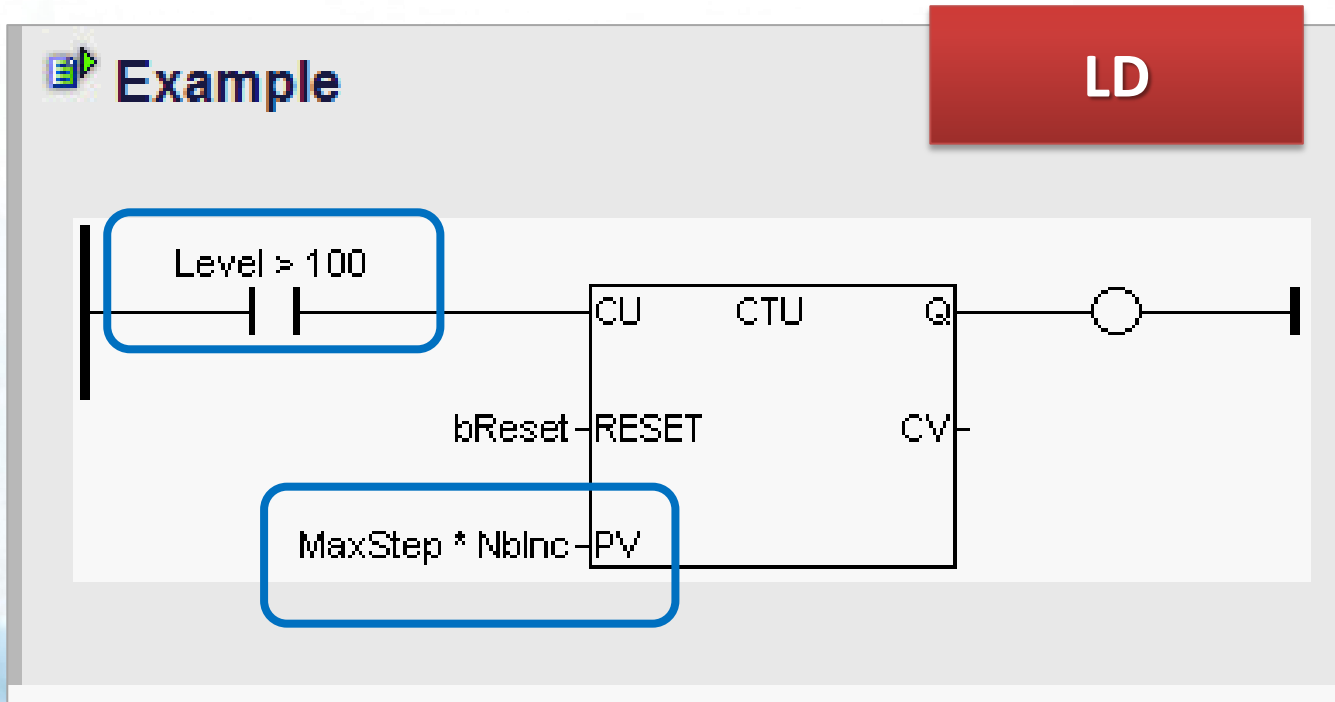
- Water
- Butter
- Milk
- Salt
- Orange Juice
- Apple



Recipe Value

# ST Syntax

Supports the use of ST Syntax in the Ladder or FBD program.

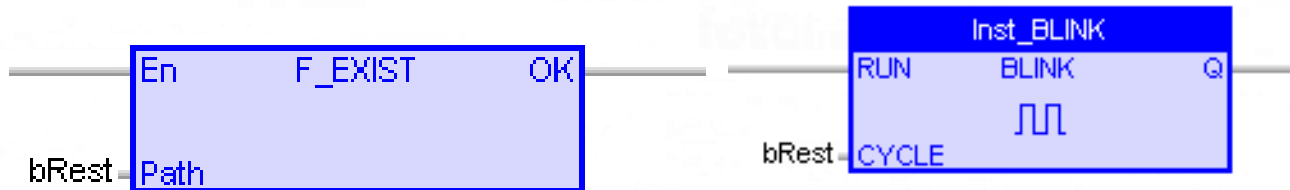


**ISaGRAF**



# Extensibility

## Function / Function Block



**Win-GRAF**



**Large numbers**  
(Extensibility: Good)

**ISaGRAF**



**Max. 255**  
(Extensibility: Limited)



# Number of I/O Tags

**Win-GRAF**



**Many  
(Within 10,000 Tags)**

**ISaGRAF**



**256 Tags**



**Recommend that don't handle large number of I/O tags in one PAC, distributed processing is a better way for high efficiency.**



# Extensible DCON Port (RS-485 Remote I/O)

RS-485 DCON Port: Used to connect I-7000 or an RU-87P8 plus I-87K I/O.



**Win-GRAF**

**Max. 16**

**Distributed Processing  
(High efficiency)**



**ISaGRAF**

**Only 1**

**Centralized Processing  
(Low efficiency)**



Options: [RS-232/422/485 Comm. Modules](#) ( Win-GRAF: I-81xxW ; ISaGRAF: I-81xx )



# Modbus Master & Slave Port

## Modbus TCP Slave Port



### Win-GRAF



### ISaGRAF



XP-8xx8-CE6, WP-9xx8-CE7  
VP-x208-CE7/x238-CE7  
WP-5xx8-CE7

64

XP-8xx7-CE6

64

WP-8xx8  
WP-8xx8-CE7

32

WP-5147, WP-8xx7  
VP-2xW7/4137

32

## Modbus RTU Slave Port

16 ~ 32

9

\*Options: [RS-232/422/485 Comm. Modules](#) ( Win-GRAF: I-81xxW ; ISaGRAF: I-81xx )

## Modbus RTU Master Port

36

12

# Modbus Protocol

**Win-GRAF**



**ISaGRAF**



Modbus **UDP** Protocol



Send String via  
Modbus Protocol







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Thank you!

